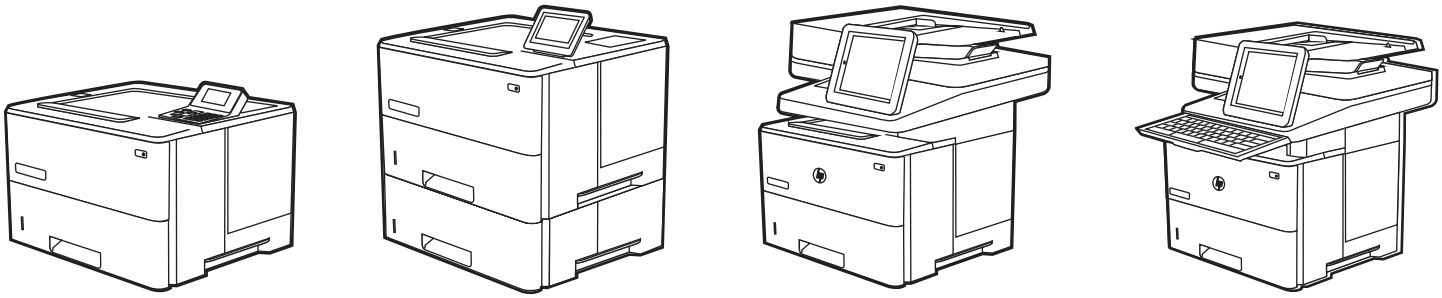
HP LaserJet Pro M501
HP LaserJet Enterprise M506, M507
HP LaserJet Enterprise MFP M527, M528
HP LaserJet Managed E50145, MFP E52645
HP LaserJet Managed E50045, MFP E52545

Repair Manual



www.hp.com/videos/LaserJet
www.hp.com/support/ljM501
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HP LaserJet M501, M506, M507, E50045, E50145, MFP M527, M528, E52545, E52645 - Repair Manual

SUMMARY

This guide provides troubleshooting and repair information.

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Conventions used in this guide

Learn about the conventions used in this publication.

TIP: Tips provide helpful hints or shortcuts.

NOTE: Notes provide important information to explain a concept or to complete a task.

CAUTION: Cautions indicate procedures that you should follow to avoid losing data or damaging the product.

WARNING! Warnings alert you to specific procedures that you should follow to avoid personal injury, catastrophic loss of data, or extensive damage to the product.

Safety precautions

Follow these safety protocols when handling or repairing the printer.

Product safety classification: This is a Safety Class I product, which means it has a protective earth terminal. This terminal must be connected to earth ground.

IMPORTANT: Before operation or repair, check the product and review this manual for safety warnings and instructions. Safety warnings for specific procedures are located at appropriate places in the manual.

WARNING: Hazardous voltages exist within the product.

NOTE: HP recommends that only qualified personnel trained in working with high voltage power equipment should service this unit.

Follow these precautions always:

NOTE: If you do not want to disassemble and repair the printer yourself, contact your local HP Service Representative for service, see Contact HP Support on page viii section.

Warnings and Cautions

To ensure the proper use of the printer and to prevent the printer from being damaged, follow the warning and caution symbols marked in this guide. See Conventions used in this guide on page iii.

Electrical precautions

- **Power cord instructions**
  - Make sure your power source is adequate for the product voltage rating. The voltage rating is on the product label.

    Typically, the product uses either 110-127 Vac or 220-240 Vac and 50/60 Hz. Depending on a product, the voltage usage might change (100-127 Vac, for example). It is recommended to refer your product manual for the specified voltage.
  - Connect the power cord between the product and a grounded AC outlet.

    CAUTION: To prevent damage to the product, use only the power cord that is provided with the product.

    Do not damage, cut, or repair the power cord. A damaged power cord can cause fire or electric shock. Replace a damaged power cord with an HP-approved power cord.
  - Unplug the power cord when disassembling or assembling the printer.

The printer utilizes a power switch (button) that is turned "ON" or "OFF". Be aware that electricity may flow on the primary side of the printer even when the printer is "OFF".

- Power off the printer and unplug the power cord and fax cord (if available) from the electrical outlet in any of the following cases:
  - When removing product enclosure or covers from the printer or when accessing internal parts of a printer.
  - If there is smoke or an unusual smell coming from the printer.
  - A piece of metal or a liquid (not part of cleaning and maintenance routines) touches internal parts of the printer.
  - During an electrical storm (with thunder and/or lightning).
  - During an electrical power failure.

Electrostatic Discharge (ESD) precautions

Electrostatic discharge (ESD) can damage electronic components inside your printer.

Use these guidelines to protect sensitive parts against damage from electrostatic discharge.

- Touch a metal object that is not painted and is grounded.
- Leave electronic parts such as a memory chip in the bag it was shipped in until you are ready to perform the installation.
- ESD wrist straps can also be used to help release excess electrostatic charge.

- **CAUTION:**

  Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing printer parts.

  Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly.

- Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

Handling toner

HP recommends that you wear gloves when handling toner cartridges and toner system components.

Do not expose toner or toner cartridge to fire or any heat source.

Keep imaging unit and/or toner cartridge away from children. The toner powder contained in the imaging unit and toner cartridge may be harmful, and if swallowed, you should contact a doctor.

Lifting equipment

Follow the recommendations for lifting or moving your printer.

The printed inbox guides and support documentation available on support.hp.com for your printer model will provide the lifting requirements to avoid injury and to safely move the printer.

NOTE: Do not attempt to lift heavy equipment without assistance.

Safety measures during disassembling or reassembling

IMPORTANT: Before disassembling or reassembling a printer, be sure to unplug its power cord from the electrical outlet.

NOTE: Assembly is the reverse of disassembly unless otherwise specified.

- During disassembly, reassembly, or transportation of a printer, remove the toner cartridge as necessary.
- Only fuses with the required rated current, voltage, and specified type (normal blow, time delay, etc.) should be used.

  Do not use repaired fuses or short-circuited fuse holders. Doing so, could cause a shock or fire hazard.
- Capacitors inside this product may hold a hazardous charge even if the product has been disconnected from its power source.
- Do not disable safety functions (Interlocks or safety circuits). Safety will not be assured leading to a safety hazard and potential injury.
- Note the length, diameters, and locations of screws as you remove them. When reassembling the printer, be sure to use them in their original locations.
- As a best practice safety rule, do not run the printer with any parts removed.

Ingestion hazards

This product may contain a button cell or coin battery that is not intended to be replaced.

- A swallowed button cell or coin battery can cause internal chemical burns in as little as two (2) hours.

  Death or serious injury can occur if ingested.
- Keep new and used batteries out of reach of children. Used batteries may cause severe injury or death.

  Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. Call a local poison control center for treatment information.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do not dispose of batteries in household trash or incinerate.

Laser radiation hazards

The printer is certified as a Class 1 laser product.

WARNING: Using controls, adjusting or performing procedures other than those specified in the user guide could result in exposure to hazardous radiation. Do not disassemble the laser/scanner unit as the laser beam can injure your eyes. An invisible laser beam is emitted within the laser/scanner unit.

Mechanical hazards

The printer has moving parts that could cause injury. To avoid personal injury, take the following precautions when working close to the printer.

- Keep your clothes and body away from the printer's moving parts.
  - Avoid wearing dangling jewelry or other hanging objects around the printer as it might be caught by moving parts and lead to injury.
  - Keep long hair tied up and away from the paper feed mechanism.
  - Ensure the sleeves or gloves do not get caught in the printer's moving parts.
- Avoid standing close to the fans as it could cause injury and could also affect print quality (by obstructing the air flow).
- Do not touch gears or moving rolls during printing.
- Do not operate the printer when having enclosure covers removed or interlock switches bypassed.
- The product may have internal sharp edges.

  Make sure the wiring does not come into contact with sharp edges, burrs, or other pointed parts. Current can leak, leading to a risk of electrical shock or fire hazard.
- During and after repair, check internal electrical wiring for squeezing, sheaths and any damage.
- – Make sure that all screws, components, wiring, connectors and so forth that were removed, have been reinstalled in the original location.
  - Do not allow any metal parts such as clips, staples and screws to fall into the printer. This could potentially short internal circuits and cause an electrical shock hazard.
  - Do not allow liquids (except those used in HP cleaning kits) to touch the internal parts of the printer. Doing so may cause fire, electric shock, or other serious hazards.

Thermal hazards

Caution: Inspection before repair for fuser

The area around the fuser unit may be hot. Wait for a few minutes until the fuser assembly cools down.

Contact HP Support

HP offers phone support to assist you for printer issues. Ensure to read the following information before contacting HP Support.

Before contacting HP Support

Before contacting support, consider checking the resources available on HP Customer Support.

1. Go to HP Customer Support (https://support.hp.com) to locate your product support page.
2. Review the documents for troubleshooting before contacting HP.

Information required when contacting HP Support

If you call an HP support representative for assistance, ensure you have the following information for HP support to answer your questions quickly:

- **Product model**: Note the printer model, product number, and serial number you are using. The product number and the serial number are typically found on the label at the back of the product.
- **Error code**: If there is an error code or message displaying on the printer control panel, note the error code and message.
- **Computer (operating system)**: Provide the name of the computer/computer operating system you are using.
- Any **special equipment or software** you are using (for example, spoolers, networks, switch-boxes, modems or special software drivers).
  - The type of interface used on your product (USB or network).
  - The software and driver name and firmware version number that you are currently using.
- **Printer service information**: You can obtain the printer service information from the Embedded Web Server (EWS). If you need to send this information by email, download it as a file from your browser, and send the file.

NOTE: Depending on your printer firmware version, the menu items in the EWS might vary.

1. Open a Web browser on your computer, and then enter the IP address of your printer to access the Embedded Web Server.
2. Click **Support** > **Service support** > **Service information** > **Display**.

Phone support

HP phone support is available on the HP support website. For assistance, go to one of the following websites:

- https://support.hp.com/contact or
- https://support.hp.com/contact/help/printer or
- https://www.hp.com/us-en/contact-hp/contact.html.

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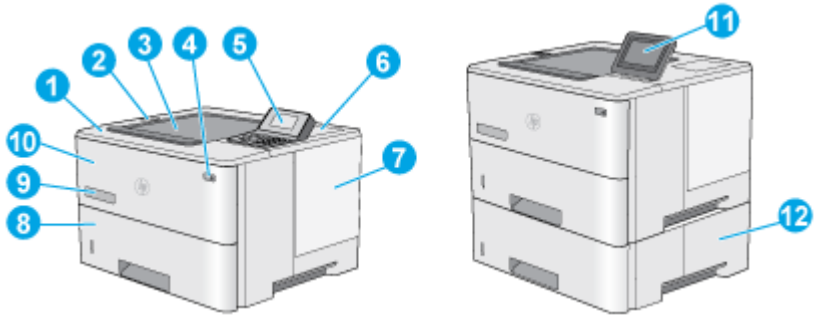
1 Assembly locations

Learn about major printer assembly locations.

Printer front view (SFP)

Use the diagram to locate important components on the printer.

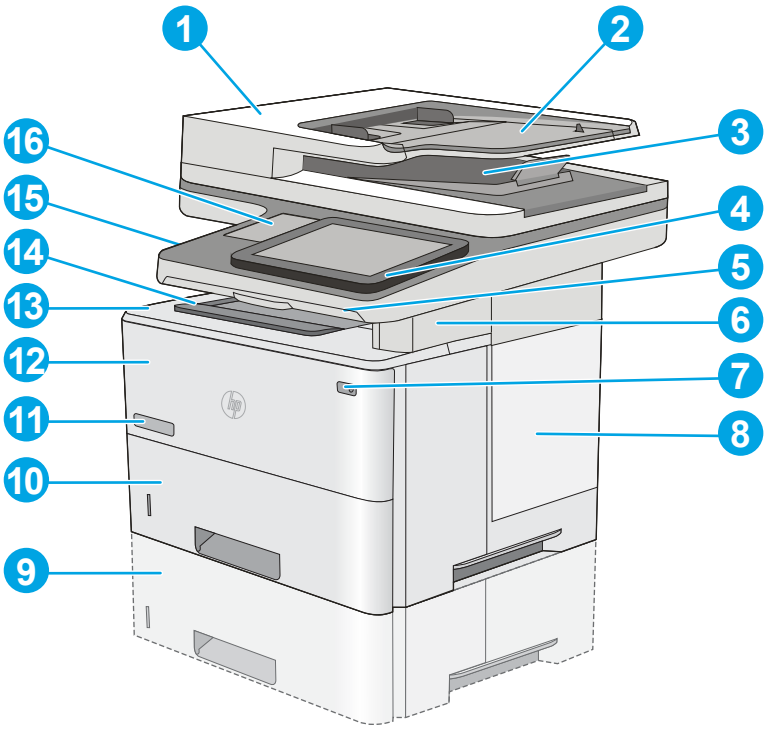


1	Top cover (access to the toner cartridge)
2	Easy-access USB port Insert a USB flash drive for printing without a computer or to update the printer firmware. NOTE: An administrator must enable this port before use.
3	Output bin
4	On/off button
5	2.7-in QVGA LCD color display with 24-key pad (n and dn models)
6	Hardware integration pocket for connecting accessory and third-party devices NOTE: **M506/E50045/M527/E52545 only**: To use the hardware integration pocket (HIP), install the HP internal USB ports accessory (B5L28A). The USB port inside the HIP is not functional otherwise.
7	Formatter cover
8	Tray 2
9	Model name
10	Tray 1
11	Control panel with color touchscreen display (x models only)

12	1 x 550-sheet paper feeder, Tray 3 (included with the x model, optional for the other models) NOTE: Each printer model accepts up to three optional 1 x 550-sheet feeders (Trays 3, 4, and 5). Tray 3 is included with the x model.

Printer front view (MFP)

Locate features on the front of the printer.

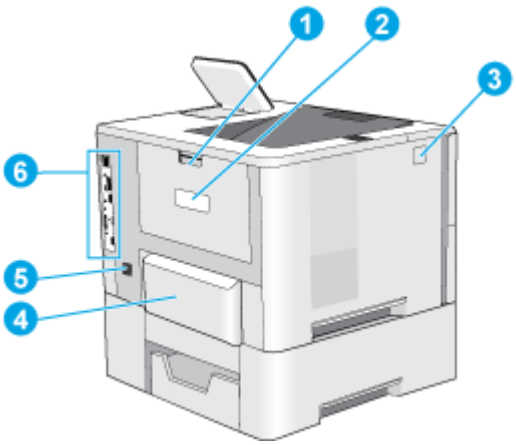


1	Document-feeder cover (access for clearing jams)
2	Document-feeder input tray
3	Document-feeder output bin NOTE: When feeding long paper through the document feeder, extend the paper stop at the right side of the output bin.
4	Control panel with color touchscreen display (tilts up for easier viewing)
5	Physical keyboard (c and z models only). Pull the keyboard straight out to use it.
6	Convenience stapler (c, f, and z models only)
7	On/off button
8	Formatter cover
9	Optional 1 x 550-sheet paper feeder (Tray 3) NOTE: Each printer model accepts up to three optional 1 x 550-sheet feeders (Trays 3, 4, and 5).
10	Tray 2
11	Model name

12	Tray 1
13	Top cover (access to the toner cartridge) NOTE: The release button for the top cover is on the left side of the printer.
14	Standard output bin
15	Easy-access USB port (on the left side of the control panel support) Insert a USB flash drive for printing or scanning without a computer or to update the printer firmware. NOTE: An administrator must enable this port before use.
16	Hardware integration pocket (for connecting accessory and third-party devices) NOTE: **M506/E50045/M527/E52545 only**: To use the hardware integration pocket (HIP), install the HP internal USB ports accessory (B5L28A). The USB port inside the HIP is not functional otherwise.

Printer back view (SFP)

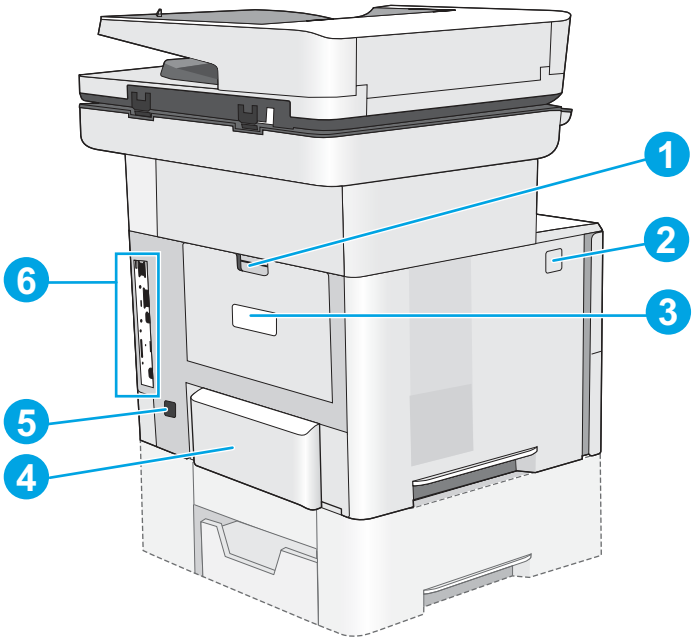
Use the diagram to locate important components on the printer.



1	Rear door (access for clearing jams)
2	Serial number and product number label
3	Top-cover-release button
4	Dust cover for Tray 2 (flips up when legal-size paper is loaded)
5	Power connection
6	Formatter (contains the interface ports)

Printer back view (MFP)

Locate features on the back of the printer.



1	Rear door (access for clearing jams)
2	Top-cover-release button
3	Serial number and product number label
4	Dust cover for Tray 2 (flips up when legal-size paper is loaded)
5	Power connection
6	Formatter (contains the interface ports)

2 Printer specifications

Review the following specifications for the printers.

Printer dimensions

Review the dimensions for the printers.

HP LaserJet Pro M501 dimensions

Review the following dimensions for the M501 printer.

NOTE: An optional 550-sheet paper feeder is available for this printer. The M501 printer supports one paper feeder.

Figure 2-1 Dimensions for the base printer

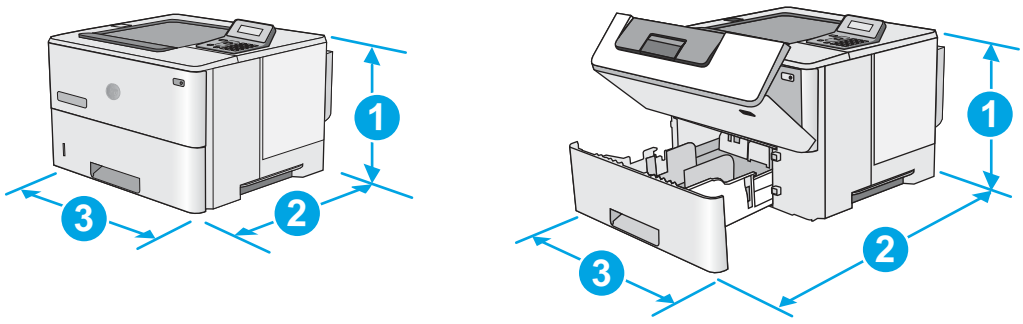


Table 2-1 Dimensions for the base printer

Measurement	Printer fully closed	Printer fully opened
1. Height	289 mm (11.4 in)	289 mm (11.4 in)
2. Depth	Tray 2 dust cover closed: 376 mm (14.8 in) Tray 2 dust cover open: 444 mm (17.5 in)	569 mm (22.4 in)
3. Width	410 mm (16.1 in)	410 mm (16.1 in)

Table 2-1 Dimensions for the base printer (continued)

Measurement	Printer fully closed	Printer fully opened
Weight	11.6 kg (25.6 lb)	

Figure 2-2 Dimensions for the printer with the 1 x 550-sheet paper feeder

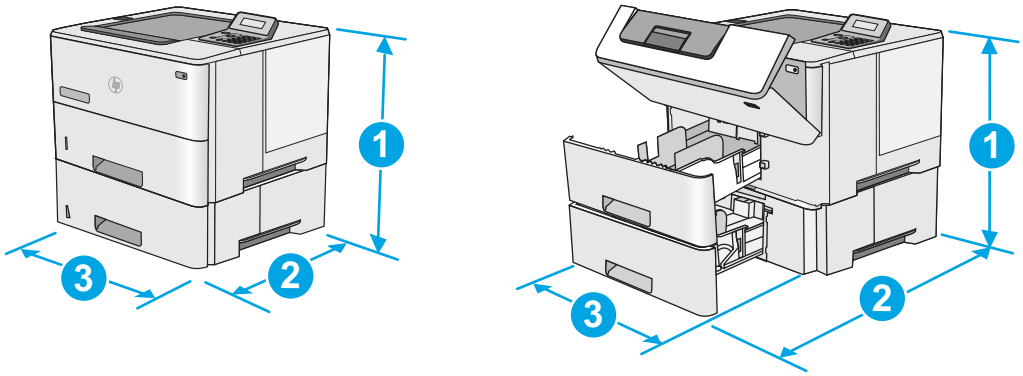


Table 2-2 Dimensions for the printer with the 1 x 550-sheet paper feeder

Measurement	Printer and accessories fully closed	Printer and accessories fully opened[1]
1. Height	419 mm (16.5 in)	419 mm (16.5 in)
2. Depth	Tray 2 dust cover closed: 376 mm (14.8 in) Tray 2 dust cover open: 444 mm (17.5 in)	569 mm (22.4 in)
3. Width	410 mm (16.1 in)	410 mm (16.1 in)
Weight	15.4 kg (34 lb)	

[1] These values are subject to change. For current information, go to http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.

Figure 2-3 Dimensions for the 1 x 550-sheet paper feeder

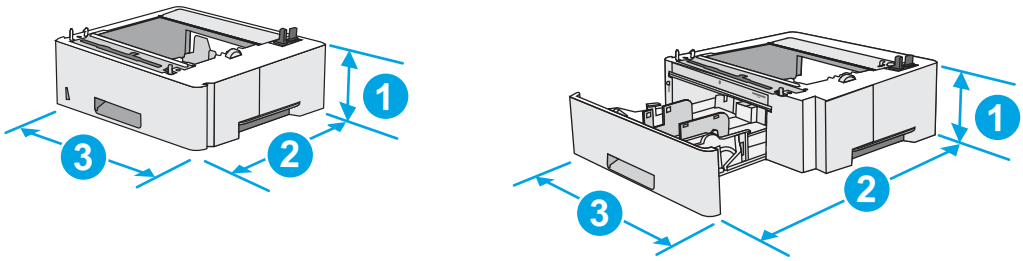


Table 2-3 Dimensions for the 1 x 550-sheet paper feeder

Measurement	Value
1. Height	130 mm (5.1 in)

Table 2-3 Dimensions for the 1 x 550-sheet paper feeder (continued)

Measurement	Value
2. Depth	Tray closed: 376 mm (14.8 in) Tray opened: 569 mm (22.4 in)
3. Width	410 mm (16.1 in)
Weight	3.8 kg (8.4 lb)

HP LaserJet Enterprise M506/E50045/M507/E50145 dimensions

Review the following dimensions for the M506/E50045/M507/E50145 printer.

NOTE: An optional 550-sheet paper feeder is available for this printer. The M506/M507/E50145 printer supports up to three of these paper feeders at a time.

Figure 2-4 M506/M507 dimensions for the n and dn models; E50045/E50145 dimensions for the dn model

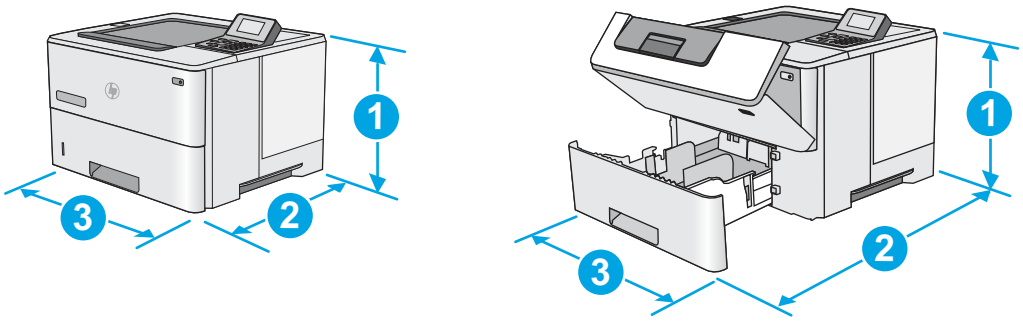


Table 2-4 M506/M507 dimensions for the n and dn models; E50045/E50145 dimensions for the dn model

Measurement	Printer fully closed	Printer fully opened
1. Height	296 mm (11.7 in)	296 mm (11.7 in)
2. Depth	Tray 2 dust cover closed: 376 mm (14.8 in) Tray 2 dust cover open: 444 mm (17.5 in)	569 mm (22.4 in)
3. Width	410 mm (16.1 in)	410 mm (16.1 in)
Weight	12 kg (26.5 lb)	

Figure 2-5 M506/M507 dimensions for the x model

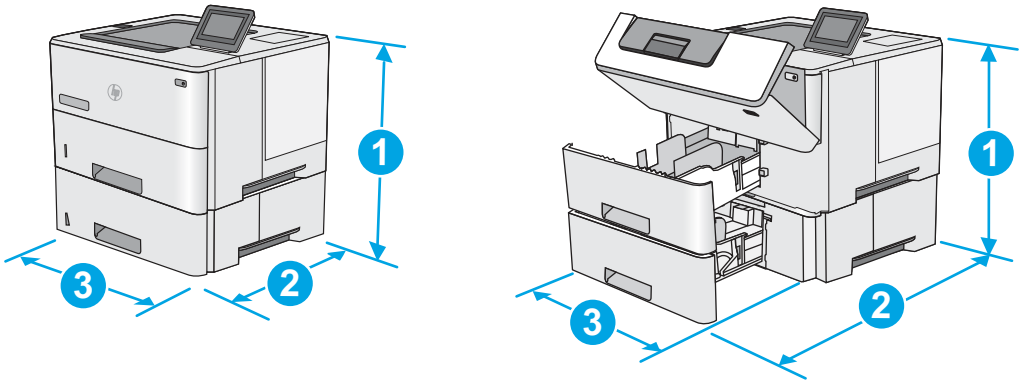


Table 2-5 M506/M507 dimensions for the x model

Measurement	Printer fully closed	Printer fully opened
1. Height	415 mm (16.3 in)	487 mm (19.2 in)
2. Depth	Tray 2 dust cover closed: 376 mm (14.8 in) Tray 2 dust cover open: 444 mm (17.5 in)	569 mm (22.4 in)
3. Width	410 mm (16.1 in)	410 mm (16.1 in)
Weight	13.4 kg (29.5 lb)	

Figure 2-6 Dimensions for the 1 x 550-sheet paper feeder

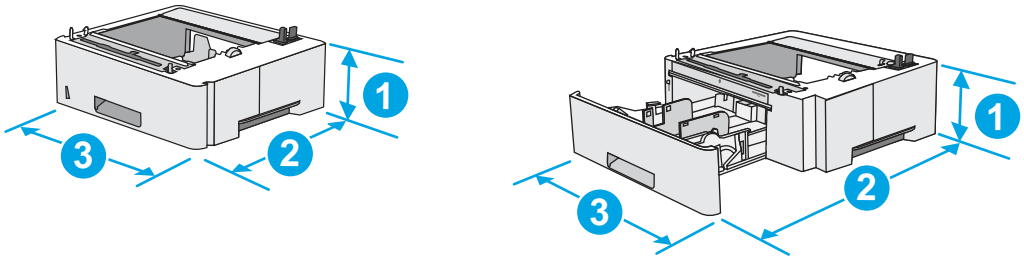


Table 2-6 Dimensions for the 1 x 550-sheet paper feeder

Measurement	Value
1. Height	130 mm (5.1 in)
2. Depth	Tray closed: 376 mm (14.8 in) Tray opened: 569 mm (22.4 in)
3. Width	410 mm (16.1 in)
Weight	1.4 kg (3 lb)

Figure 2-7 Dimensions for the cabinet/stand

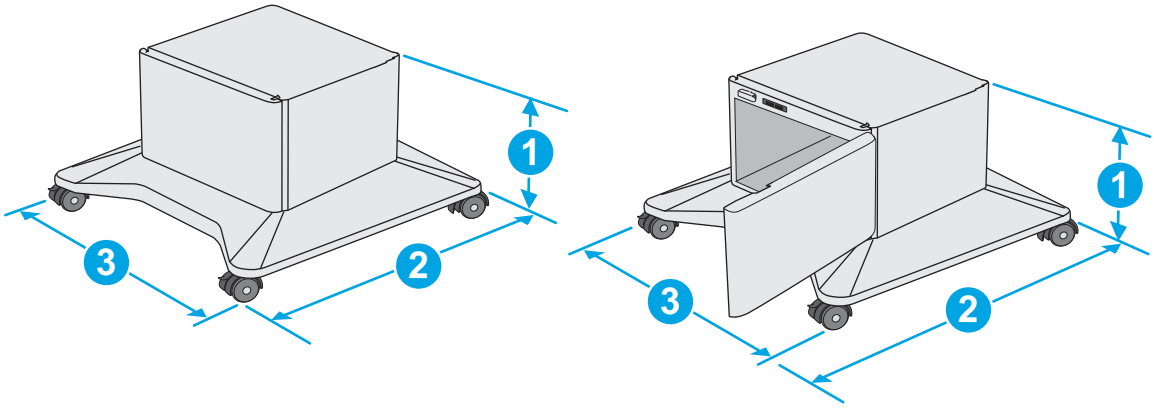


Table 2-7 Dimensions for the cabinet/stand

Measurement	Value
1. Height	381 mm (15.0 in)
2. Depth	Door closed: 632 mm (24.9 in)
	Door opened and rear castors rotated: 865 mm (34.0 in)
3. Width	Door closed: 600 mm (23.6 in)
	Door opened and rear castors rotated: 630 mm (24.8 in)
Weight	9.0 kg (20 lb)

Figure 2-8 M506/E50045/M507/E50145 dimensions for the printer with three 1 x 550-sheet paper feeders and the cabinet/stand

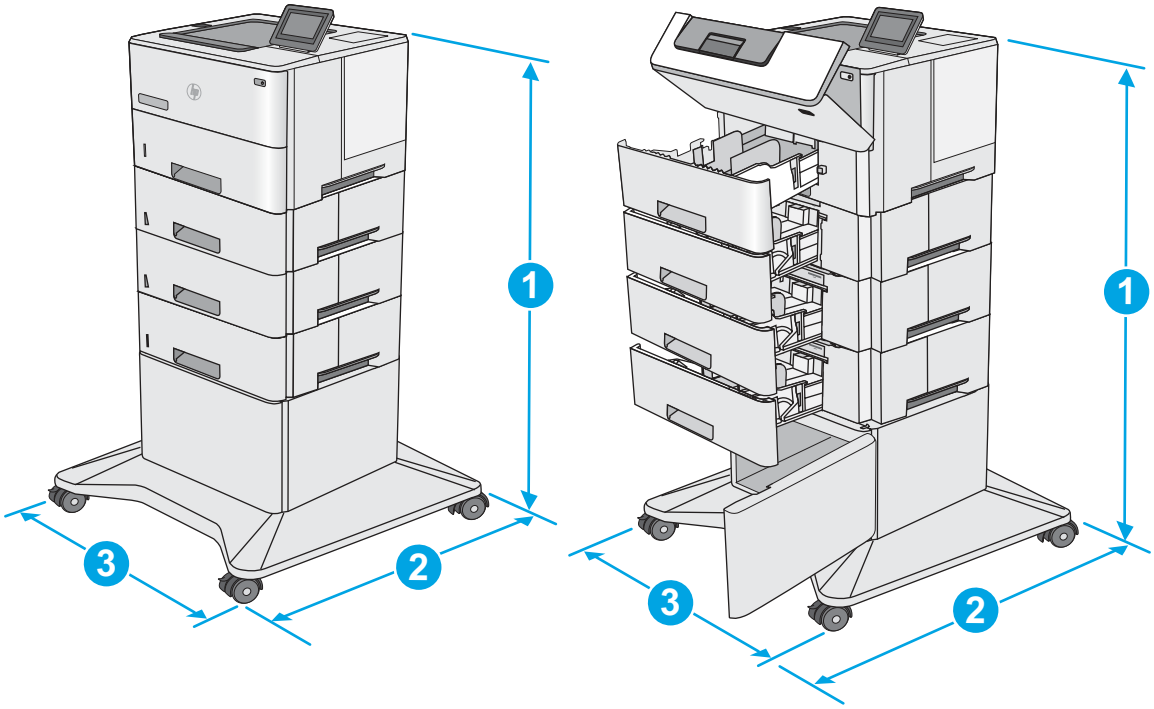


Table 2-8 M506/E50045/M507/E50145 dimensions for the printer with three 1 x 550-sheet paper feeders and the cabinet/stand

Measurement	Printer and accessories fully closed	Printer and accessories fully opened[1]
1. Height	1067 mm (42.0 in)	1067 mm (42.0 in)
2. Depth	632 mm (24.9 in)	865 mm (34.0 in)
3. Width	600 mm (23.6 in)	630 mm (24.8 in)
Weight	25.2 kg (55.5 lb)	

[1] Do not extend more than one paper tray at a time.

HP LaserJet Enterprise MFP M527/E52545/M528/E52645 dimensions

Review the following dimensions for the M527/E52545/M528/E52645 printer.

NOTE: An optional 550-sheet paper feeder is available for this printer. The M527/E52545/M528/E52645 printer supports up to three of these paper feeders at a time.

Figure 2-9 M527/M528 dimensions for the dn, f, c, and z models; E52545/E52645 dimensions for the dn and c models

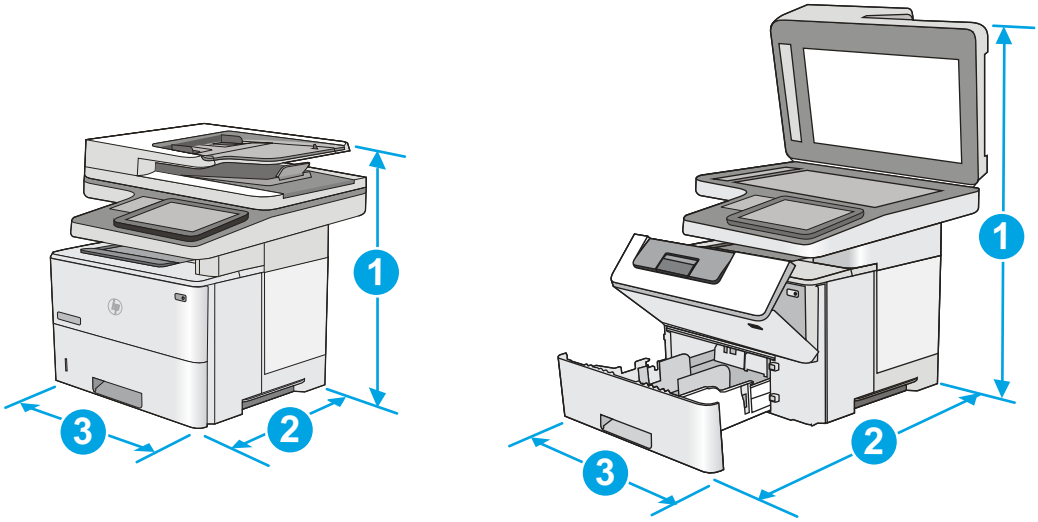


Table 2-9 M527/M528 dimensions for the dn, f, c, and z models; E52545/E52645 dimensions for the dn and c models

Measurement	Printer fully closed	Printer fully opened
1. Height	497 mm (19.6 in)	750 mm (29.5 in)
2. Depth	Tray 2 dust cover closed: 496 mm (19.5 in) Tray 2 dust cover open: 559 mm (22.0 in)	674 mm (26.5 in)
3. Width	482 mm (19.0 in)	482 mm (19.0 in)
Weight	23 kg (50.8 lb)	

Figure 2-10 Dimensions for the 1 x 550-sheet paper feeder

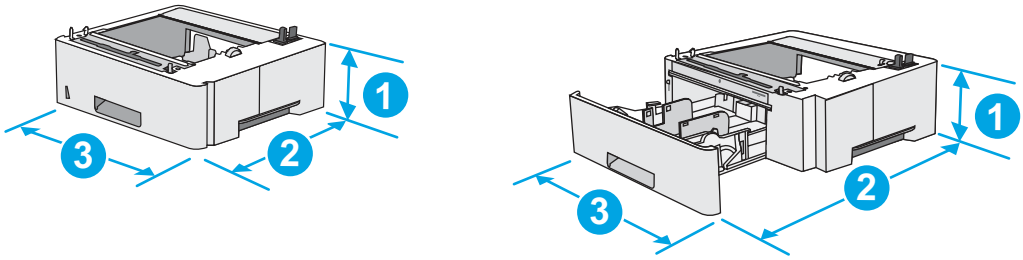


Table 2-10 Dimensions for the 1 x 550-sheet paper feeder

Measurement	Value
1. Height	130 mm (5.1 in)
2. Depth	Tray closed: 376 mm (14.8 in) Tray opened: 569 mm (22.4 in)
3. Width	410 mm (16.1 in)
Weight	1.4 kg (3 lb)

Figure 2-11 Dimensions for the cabinet/stand

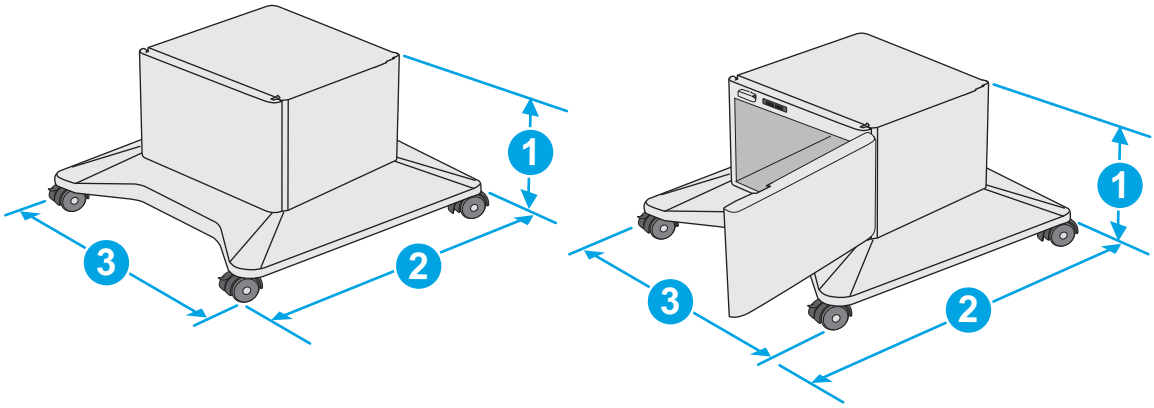


Table 2-11 Dimensions for the cabinet/stand

Measurement	Value
1. Height	381 mm (15.0 in)
2. Depth	Door closed: 632 mm (24.9 in) Door opened and rear castors rotated: 865 mm (34.0 in)
3. Width	Door closed: 600 mm (23.6 in) Door opened and rear castors rotated: 630 mm (24.8 in)
Weight	9.0 kg (20 lb)

Figure 2-12 M527/E52545/M528/E52645 dimensions for the printer with three 1 x 550-sheet paper feeders and the cabinet/stand

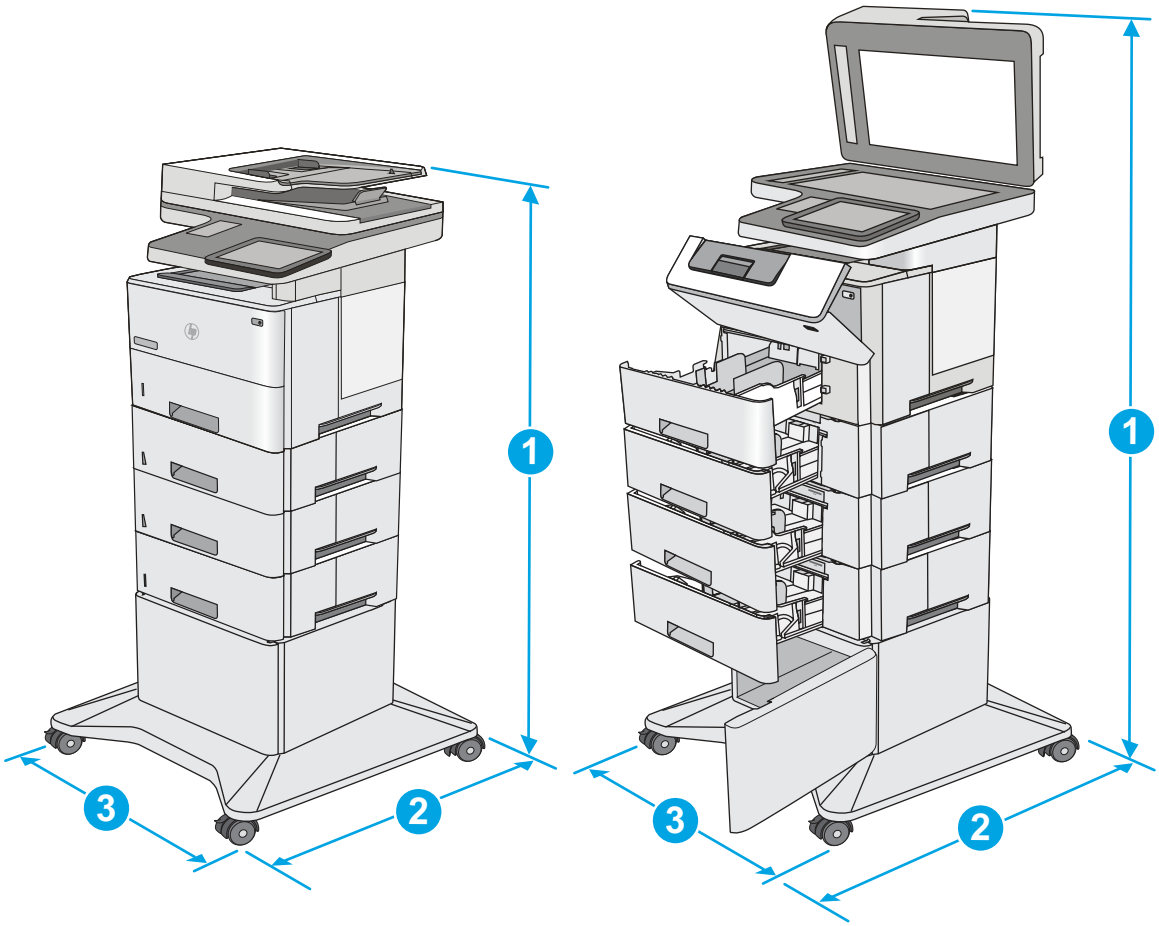


Table 2-12 M527/E52545/M528/E52645 dimensions for the printer with three 1 x 550-sheet paper feeders and the cabinet/stand

Measurement	Printer and accessories fully closed	Printer and accessories fully opened[1]
1. Height	1268 mm (49.9 in)	1521 mm (59.9 in)
2. Depth	632 mm (24.9 in)	865 mm (34.0 in)
3. Width	600 mm (23.6 in)	630 mm (24.8 in)
Weight	36.2 kg (79.8 lb)	

[1] Do not extend more than one paper tray at a time.

Printer space requirements

HP recommends that the following distances be added to the printer dimensions provided in this chapter to make sure there is sufficient space to open doors and covers, and to provide proper ventilation.

See "HP LaserJet Enterprise M506/M507/E50145 dimensions" or "HP LaserJet Enterprise MFP M527/M528/E52645 dimensions" in the Troubleshooting Manual.

- From the left-side or right-side of the printer to an obstruction, add:

- 430 mm (17 in)

- From the front-side of the printer to an obstruction, add:
  - 610 mm (24 in)
- From the back-side of the printer to an obstruction, add:
  - 460 mm (18 in)

Power consumption, electrical specifications, and acoustic emissions

Review the following information about power consumption, electrical specifications, and acoustic emissions.

See http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp for current information.

⚠ **CAUTION:** Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the printer warranty.

Operating-environment range

Review the operating-environment range.

Table 2-13 Operating-environment specifications[1]

Environment	Recommended	Allowed
Temperature	17° to 25°C (62.6° to 77°F)	15° to 30°C (59° to 86°F)
Relative humidity	30% to 70% relative humidity (RH)	10% to 80% RH

[1] These values are subject to change. For current information, go to http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.

3 Solve problems

Review the following information about solving printer problems.

Solve problems checklist (M501)

Review the following information about the solve problems checklist for the M501 model.

Use the solve problems checklist (M501)

If the printer is not correctly functioning, complete the steps (in the order given) in the following checklist. If the printer fails a checklist step, follow the corresponding troubleshooting suggestions for that step. If a checklist step resolves the problem, skip the remaining checklist items.

1. Make sure that the printer is set up correctly.
    a. Press the power button to turn on the printer or to deactivate the Auto-Off mode.
    b. Check the power-cable connections.
    c. Make sure that the line voltage is correct for the printer power configuration. See the label that is on the printer for voltage requirements. If you are using a power strip and its voltage is not within specifications, plug the printer directly into the wall. If it is already plugged into the wall, try a different outlet.
2. Check the cable connections.
    a. Check the cable connection between the printer and the computer. Make sure that the connection is secure.
    b. Make sure that the cable itself is not faulty, by using a different cable if possible.
    c. Check the network connection: Make sure that the network light is lit. The network light is next to the network port on the back of the printer.

        If the printer remains unable to connect to the network, uninstall and then reinstall the printer. If the error persists, contact a network administrator.
3. Check to see if any messages appear on the control panel.
4. Make sure that the paper you are using meets specifications.
5. Make sure that the paper is loaded correctly in the input tray.
6. Make sure that the printer software is installed correctly.

7. Verify that you have installed the printer driver for this printer, and that you are selecting this printer from the list of available printers.
8. Print a configuration page.
    a. On the printer control panel, press the OK button.
    b. Open the Reports menu.
    c. Select Configuration Report.
9. After printing the configuration page, check the following:
    a. If the page does not print, verify that the input tray contains paper and that the paper is properly loaded.
    b. Make sure that each toner cartridge is installed correctly.
    c. If the page jams in the printer, clear the jam.
    d. If the print quality is unacceptable, complete the following steps:
        - Verify that the print settings are correct for the paper you are using.
        - Solve print-quality problems.
10. Print a small document from a different program that has printed in the past. If this solution works, then the problem is with the program you are using. If this solution does not work (the document does not print), complete these steps:
    a. Try printing the job from another computer that has the printer software installed.
    b. Check the cable connection. Direct the printer to the correct port, or reinstall the software, selecting the connection type you are using.

Print the menu map (M501)

To more easily navigate individual settings, print a report of the complete printer menus.

1. On the printer control panel, press the OK button.
2. Open the Reports menu.
3. Select Menu Structure.

Print the service page (includes the event log) (M501)

Printing the service page provides a list of printer settings that might be helpful in the troubleshooting process, as well as the event log, which stores the last 10 error events that the printer experienced.

1. On the printer control panel, press the OK button.
2. Open the Reports menu.
3. Select the Service Page option to print the report.

The event log is located in the lower right-hand corner of the service page.

Solve problems checklist (all except M501)

Review the following information about the solve problems checklist for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 models.

Use the solve problems checklist

If the printer is not correctly functioning, complete the steps (in the order given) in the following checklist. If the printer fails a checklist step, follow the corresponding troubleshooting suggestions for that step. If a checklist step resolves the problem, skip the remaining checklist items.

1. If the control panel is blank or black, check the following before proceeding:

   - Check to make sure that the printer is not in Sleep mode (tap the touchscreen control panel or press a button on the LCD control panel).
   - Check the power cable.
   - Check that the power is turned on.
   - Make sure that the line voltage is correct for the printer power configuration. (See the label that is on the back of the printer for voltage requirements.) If a power strip is in use, and its voltage is not within specifications, connect the printer directly into the electrical outlet. If it is already connected into the outlet, try a different outlet.

   If the control panel is not responding to touch (M506x/M507x, E50045/E50145, and M527/E52545/M528/E52645 models), or if it appears black or blank, try the following:

   NOTE: The following conditions indicate that the printer has frozen while in Sleep mode. Opening a door, tapping the control panel (touchscreen control panels), or pressing a control panel button (LCD control panels) causes the printer to wake up from Sleep mode.

   a. Turn the printer power off, and then on again.

   b. b. Verify that the control panel is correctly functioning by accessing the control panel diagnostics. See the Control-panel checks section in the printer *Troubleshooting Manual*.

      TIP: The LED on the formatter will blink if the control panel is not detected or the cables are not properly seated.

      If the control panel does not respond to the diagnostic button, try the following:

      - Try printing from a host computer. Does the printer print a test page?
      - Is the printer HP Embedded Web Server (EWS) accessible?
      - Turn the power off.
      - Reseat the cable connections on the bottom of the control-panel assembly and the control panel connectors at the formatter.
      - Turn the printer power on, and then check for functionality of the control panel by tapping the touchscreen or pressing a button on the LCD control panel.

   c. Try upgrading the firmware. If the firmware upgrade fails to resolve the problem, and the printer still freezes while in Sleep mode, elevate the case after collecting the following info:

   d. If the error persists, replace the control panel assembly.

2. The control panel should indicate a Ready, Paused, or Sleep mode on status. If an error message displays, resolve the error.
   - Try using the Power-on checks section in the printer *Troubleshooting Manual* to solve the problem.
3. For network connection errors, check the cables.
   a. Check the network cable connections between the printer and the computer or network port. Make sure that the connections are secure.

   NOTE: The network LEDs should be illuminated and flashing.

   b. Make sure that the cables are not faulty by trying different cables, if possible.
   c. Check the network connection. Verify that the port is active.
4. Print a configuration page. If the printer is connected to a network, an HP Jetdirect page also prints.
   a. For a printer with a touchscreen control panel, from the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or touch the Reports button (FutureSmart 4).
   b. Open the following menus:
      - Reports (FutureSmart 3)
      - Configuration/Status Pages
      - Configuration Page
   c. Touch Configuration Page to select it.

   TIP: Multiple report pages can be selected, and then printed together.

   d. Touch the Print button to print the pages.
   a. For a LCD control panel, from the Home screen on the printer control panel, use the down arrow ▼ to scroll to Administration, and then press the OK button (FutureSmart 3); or use the arrow keys to navigate to the Reports, and then press the OK button (FutureSmart 4).
   b. If necessary, use the down arrow ▼ button to scroll to Reports, and then press the OK button (FutureSmart 3).
   c. If necessary, use the down arrow ▼ button to scroll to Configuration/Status Pages, and then press the OK button.
   d. Use the down arrow ▼ button to scroll to Configuration page, and then press the OK button to select it.
   e. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the pages.

   TIP: Multiple report pages can be selected, and then printed together.

- If the pages do not print, check that at least one tray contains paper.

TIP: Make sure that the selected paper size and type meet HP specifications. Also open the **Trays** menu on the printer control panel and verify that the tray is configured correctly for the paper type and size.

- If the page jams in the printer, follow the instructions on the control panel to clear the jam.
- If the page does not print correctly, the problem is with the printer hardware.
- If the page prints correctly, the printer hardware is working. The problem is with the host computer, with the print driver, or with the program.

5. Print a supplies status page and then check that the maintenance items below are not at their end-of-life.

TIP: If a maintenance item needs to be replaced, order the part number provided below.

a. For a printer with a touchscreen control panel, from the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or touch the Reports button (FutureSmart 4).

b. Open the following menus:

   - Reports (FutureSmart 3)
   - Configuration/Status Pages
   - Supplies Status Page

c. Touch the Print button to print the page, and then check the maintenance items (listed below in this step).

TIP: Multiple report pages can be selected, and then printed together.

a. For printers with LCD control panels, from the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button (FutureSmart 3); or use the arrow keys to navigate to the Reports, and then press the OK button (FutureSmart 4).

b. If necessary, use the down arrow ▼ button to scroll to Reports, and then press the OK button (FutureSmart 3).

c. If necessary, use the down arrow ▼ button to scroll to Configuration/Status Pages, and then press the OK button.

d. Use the down arrow ▼ button to scroll to Supplies Status Page, and then press the OK button to select it.

e. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the page, and then check the maintenance items (listed below in this step).

TIP: Multiple report pages can be selected, and then printed together.

NOTE: HP long-life consumables and maintenance kit life specifications are estimations. Actual individual life/yield during normal use varies depending on usage, environment, media, and other factors. Estimated life is not an implied guarantee or warrantable.

- Fixing assembly (fuser); estimated life: 150,000 pages
  - RM2-5679-000 (110V)

    (M501/M506/E50045/M527/E52545)
  - RM2-2585-000CN (110V)

    (M507/E50145/M528/E52645)
  - RM2-5692-000 (220V)

    (M501/M506/E50045/M527/E52545)
  - RM2-2586-000CN (220V)

    (M507/E50145/M528/E52645)
- Document feeder maintenance kit; estimated life: 150,000 pages
  - B5L52-67903

6. Verify that the correct print driver for this printer is installed. Check the program to make sure that the print driver for this printer is used. The print driver is on the CD that came with the printer, or can be downloaded from this Web site: http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.
7. Print a short document from a different program that has worked in the past. If this solution works, the problem is with the program. If this solution does not work (the document does not print), complete these steps:
   a. Try printing the job from another computer that has the printer software installed.
   b. If the printer is connected to the network, connect the printer directly to a host computer with a USB cable. Redirect the printer to the correct port, or reinstall the software (make sure to select the new connection type).

Print the Settings menu map

To more easily navigate individual settings, print a report of the complete Settings menu (FutureSmart 4), or the complete Administration menu (FutureSmart 3).

Print the settings menu map from a touchscreen control panel

Use the following procedure to print the menu map from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or touch the Reports button (FutureSmart 4).
2. Open the following menus:
   - Reports (FutureSmart 3)
   - Configuration/Status Pages

3. Select the Administration Menu Map option (FutureSmart 3) or the Settings Menu Map option (FutureSmart 4).
4. Touch the Print button to print the report.

TIP: Multiple report pages can be selected, and then printed together.

Print the settings menu map from a LCD control panel

Use the following procedure to print the menu map from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Open the following menus:
   - Reports
   - Configuration/Status Pages
3. Use the down arrow ▼ button to scroll to Administration Menu Map, and then press the OK button to select it.
4. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the pages.

TIP: Multiple report pages can be selected, and then printed together.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Reports, and then select OK.
2. Select Configuration/Status Pages.
3. Select Settings Menu Map, and then select OK.
4. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

TIP: Multiple report pages can be selected, and then printed together.

Print current settings pages

Printing the current settings page provides a map of the user configurable settings that might be helpful in the troubleshooting process.

Print the current settings page from a touchscreen control panel

Use the following procedure to print the current settings page from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or touch the Reports button (FutureSmart 4).
2. Open the following menus:
   - Reports (FutureSmart 3)

- Configuration/Status Pages

3. Select the Current Settings Page option.
4. Touch the Print button to print the report.

TIP: Multiple report pages can be selected, and then printed together.

Print the current settings page from a LCD control panel

Use the following procedure to print the current settings page from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Open the following menus:
   - Reports
   - Configuration/Status Pages
3. Use the down arrow ▼ button to scroll to Current Settings Page, and then press the OK button to select it.
4. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the pages.

TIP: Multiple report pages can be selected, and then printed together.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Reports, and then select OK.
2. Select Configuration/Status Pages.
3. Select Current Settings Page, and then select OK.
4. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

TIP: Multiple report pages can be selected, and then printed together.

Pre-boot menu options

The Pre-boot menus are available prior to the printer initializing.

CAUTION: The Format Disk option (printers with a hard-disk drive only) performs a disk initialization for the entire disk. The operating system, firmware files, and third party files (among other files) will be completely lost. HP does not recommend this action.

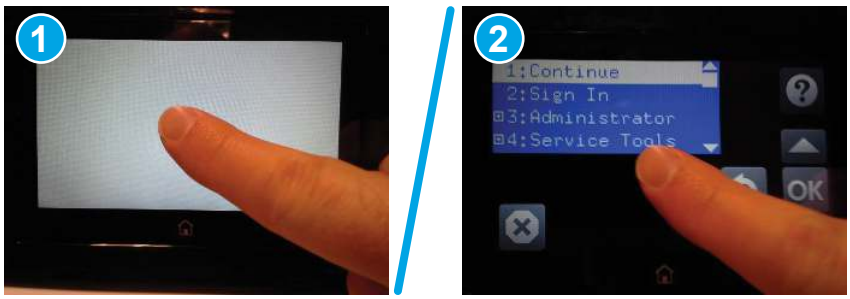
TIP: The Pre-boot menu can be remotely accessed by using a telnet network protocol to establish an administration connection to the printer. See the Remote Admin (all except M501) topic in the *Troubleshooting Manual*.

Open the Pre-boot menu from a touchscreen control panel

Use the following procedure to open the Pre-boot menu from a touchscreen control panel.

1. Touch the middle of the control-panel display when you see the 1/8 under the logo.

Figure 3-1 Open the Pre-boot menu



2. On the Pre-boot menu screen, use the following buttons to navigate the tests.

Figure 3-2 Pre-boot menu

Button	Description
	Use this button to see more information about a selected item.
	Use this button to scroll up through menu items.
	Use this button to select a highlighted menu item.

Button	Description
	Use this button to scroll down through menu items.
	Use this button to go back to the previous menu.
	Not used.
	Use this button to exit a diagnostic test.

3. Use the arrow buttons on the touchscreen to navigate the Pre-boot menu.
4. Touch the OK button to select a menu item.

Open the Pre-boot menu from a LCD control panel

Use the following procedure to open the Pre-boot menu from a LCD control panel.

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the arrow buttons on the control panel to navigate the Pre-boot menu.
3. Press the OK button to select a menu item.

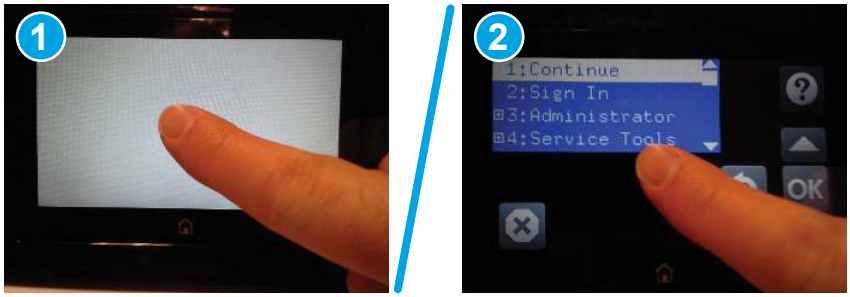
Cold reset using the Pre-boot menu from a touchscreen control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from a touchscreen control panel.

⚠ CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo.

Figure 3-3 Open the Pre-boot menu



2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then touch the OK button.

3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then touch the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then touch the OK button to select it.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

Cold reset using the Pre-boot menu from a LCD control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from a LCD control panel.

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then press the OK button.
3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then press the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then press the OK button to select it.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

NOTE: Some of the pre-boot options in the following tables are not supported by the current version of the printer firmware and are included for information only. Future versions of firmware will support these options.

Table 3-1 Pre-boot menu options (1 of 7)

Menu option	First level	Second level	Third level	Description
Continue				Selecting the Continue item exits the Pre-boot menu and continues the normal boot process. If a selection is not made in the initial menu within 30 seconds, the printer returns to a normal boot (the same as selecting Continue). If the user navigates to another menu, the timeout does not apply.
Sign In				Enter the administrator PIN or service PIN if one is required to open the Pre-boot menu.
Administrator				This item navigates to the Administrator submenus. If authentication is required (and the user is not already signed in) the Sign In prompt displays. The user is required to sign in.

Table 3-1 Pre-boot menu options (1 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Download	Network USB USB Thumbdrive		This item initiates a Pre-boot firmware download process. A USB Thumbdrive option will work on all FutureSmart printers. USB or Network connections are not currently supported.
Administrator	Format Disk			This item reinitializes the disk and cleans all disk partitions. **CAUTION:** Selecting the Format Disk item removes **all** data. A delete confirmation prompt is **not** provided. The system is **not** bootable after this action and a **99.09.67** error displays on the control panel. A firmware download must be performed to return the system to a bootable state.
Administrator	Partial Clean			This item reinitializes the disk (removing all data except the firmware repository where the master firmware bundle is downloaded and saved). **CAUTION:** Selecting the Partial Clean item removes **all** data except the firmware repository. A delete confirmation prompt is **not** provided. **CAUTION:** This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost). This allows a user to reformat the disk by removing the firmware image from the active directory without having to download new firmware code (printer remains bootable).
Administrator	Change Password			Select this item to set or change the administrator password.
Administrator	Clear Password			Select the Clear Password item to remove a password from the Administrator menu. Before the password is actually cleared, a message will be shown asking to confirm that the password should be cleared. Press the OK button to confirm the action. When the confirmation prompt displays, press the OK button to clear the password.

Table 3-2 Pre-boot menu options (2 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Manage Disk	Clear disk		Select the Clear disk item to enable using an external device for job storage. Job storage is normally enabled only for the Boot device. This will be grayed out unless the **99.09.68** error is displayed.

Table 3-2 Pre-boot menu options (2 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Manage Disk	Lock Disk		Select the Lock Disk item to lock (mate) a new secure disk to this printer. The secure disk already locked to this printer will remain accessible to this printer. Use this function to have more than one encrypted disk accessible by the printer when using them interchangeably. The data stored on the secure disk locked to this printer always remains accessible to this printer.
Administrator	Manage Disk	Leave Unlocked		Select the Leave Unlocked item to use a new secure disk in an unlocked mode for a single service event. The secure disk that is already locked to this printer will remain accessible to this printer and uses the old disk's encryption password with the new disk. The secure disk that is already locked to this printer remains accessible to this printer.
Administrator	Manage Disk	Clear Disk Pwd		Select the Clear Disk Pwd item to continue using the non-secure disk and clear the password associated with the yet-to-be installed secure disk. CAUTION: Data on the missing secure disk will be permanently inaccessible.
Administrator	Manage Disk	Retain Password		Select the Retain Password item to use the non-secure disk for this session only, and then search for the missing secure disk in future sessions.
Administrator	Manage Disk	Boot Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. NOTE: The system will be unusable until the system files are reinstalled. The ATA secure-erase command is a one-pass overwrite, which erases the entire disk including firmware. The disk remains an encrypted disk.
Administrator	Manage Disk	Boot Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all data on the disk and unlock the disk to allow a user to gain access to it from any printer. NOTE: The system will be unusable until the system files are reinstalled. It erases the encryption key. The encryption key is erased, so the disk becomes a non-encrypted disk.
Administrator	Manage Disk	Boot Device	Get Status	This item provides disk status information if any is available.

Table 3-3 Pre-boot menu options (3 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Manage Disk (continued)	Internal Device		Select the Internal Device item to erase the internal device or get a status about the internal device.

Table 3-3 Pre-boot menu options (3 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Manage Disk	Internal Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. NOTE: The system will be unusable until the system files are reinstalled. The ATA secure-erase command erases the entire disk, including firmware. The disk remains an encrypted disk.
Administrator	Manage Disk	Internal Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all of the data on disk and unlock the disk to allow the user to gain access to it from any printer. NOTE: The system will be unusable until the system files are reinstalled. The HP High Performance Secure Hard Disk is erased.
Administrator	Manage Disk	Internal Device	Get Status	This item provides disk status information if any is available.
Administrator	Manage Disk	External Device		Select the External Device item to erase the external device or get status about the external device.
Administrator	Manage Disk	External Device	Secure Erase	Select the Secure Erase item to erase all of the data on the disk and unlock it if required. This might take a long time. NOTE: The system will be unusable until the system files are reinstalled. The ATA secure-erase command erases the entire disk, including firmware. The disk remains an encrypted disk.
Administrator	Manage Disk	External Device	Erase/ Unlock	Select the Erase/Unlock item to cryptographically erase all of the data on disk and unlock the disk to allow a user to gain access to it from any printer. NOTE: The system will be unusable until the system files are reinstalled. The encryption key is erased, so the disk becomes a non-encrypted disk.
Administrator	Manage Disk	External Device	Get Status	This item provides disk status information if any is available.

Table 3-4 Pre-boot menu options (4 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Configure LAN NOTE: This configuration is only active when the Pre-boot menu is open.	IP Mode [DHCP]		The network can be configured to obtain the network settings from a DHCP server or as static. Use this item for automatic IP address acquisition from the DHCP server.

Table 3-4 Pre-boot menu options (4 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]		Use this item to manually assign the network addresses.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	IP Address	Use this item to manually enter the IP addresses.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Subnet Mask	Use this item to manually enter the subnet mask.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Default Gateway	Use this item to manually enter the default gateway.
Administrator	Configure LAN **NOTE:** This configuration is only active when the Pre-boot menu is open.	IP Mode [STATIC]	Save	Select the Save item to save the manual settings.

Table 3-5 Pre-boot menu options (5 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Startup Options			Select the Startup Options item to specify options that can be set for the next time the printer is turned on and initializes to the **Ready** state.
Administrator	Startup Options	Show Revision		**Not currently functional**: Select the Show Revision item to allow the printer to initialize and show the firmware version when the printer reaches the **Ready** state. Once the printer power is turned on the next time, the Show Revision item is unchecked so that the firmware revision is not shown.
Administrator	Startup Options	Cold Reset		Select the Cold Reset item to clear the IP address and all customer settings. (This item also returns all settings to factory defaults.) **NOTE:** Items in the Service menu are not reset.

Table 3-5 Pre-boot menu options (5 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Startup Options	Skip Disk Load		Select the Skip Disk Load item to disable installed third-party applications.
Administrator	Startup Options	Skip Cal		Select the Skip Cal item to skip the printer calibration for the very next power-initialization cycle only.
Administrator	Startup Options	Lock Service		**CAUTION:** Select the Lock Service item to lock the Service menu access (both in the Pre-boot menu and the Device Maintenance menu). Service personnel must have the administrator remove the Lock Service setting before they can open the Service menu.
Administrator	Startup Options	Skip FSCK		Select the Skip FSCK item to disable Chkdisk/ScanVolume during startup.
Administrator	Startup Options	First Power		**Not currently functional**: This item allows the printer to initialize as if it is the first time it has been turned on. For example, the user is prompted to configure first-time settings like date/time, language, and other settings. Select this item so that it is enabled for the next time the printer power is turned on. When the printer power is turned on the next time, this item is unchecked so that the pre-configured settings are used during configuration, and the first-time setting prompt is not used.
Administrator	Startup Options	Embedded Jetdirect Off		Select the Embedded Jetdirect Off item to disable the embedded HP Jetdirect. By default this item is unchecked so that HP Jetdirect is always enabled.
Administrator	Startup Options	WiFi Accessory		Select the WiFi Accessory item to enable the wireless accessory.

Table 3-6 Pre-boot menu options (6 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Diagnostics			Diagnostic items are useful to diagnose hardware components and their interface connections. Use these items to troubleshoot specific hardware components, and the interface between them and other components.
Administrator	Diagnostics	Memory	Do Not Run	Use the Do Not Run item to exclude the Memory diagnostic when executing multiple diagnostics.
Administrator	Diagnostics		Short	Use the Short item to select a brief memory test. **NOTE:** This test requires about four minutes to execute.

Table 3-6 Pre-boot menu options (6 of 7) (continued)

Menu option	First level	Second level	Third level	Description
Administrator	Diagnostics		Long	Use the Long item to select an extended memory test. **NOTE:** This test requires about twenty minutes to execute.
Administrator	Diagnostics	Disk	Do Not Run	Use the Do Not Run item to exclude the Disk diagnostic when executing multiple diagnostics.
Administrator	Diagnostics		Short	Use the Short item to select a brief firmware self-test. **NOTE:** This test requires about two or three minutes to execute.
Administrator	Diagnostics		Long	Use the Long item to select an extended firmware self-test. **NOTE:** This test requires about sixty minutes to execute.
Administrator	Diagnostics		Optimized	Use the Optimized item to select a test that checks the active sectors on the disk. **NOTE:** This test requires about thirty minutes to execute.
Administrator	Diagnostics		Raw	Use the Raw item to select a test that checks every sector on the disk. **NOTE:** This test requires about fifty minutes to execute.
Administrator	Diagnostics		Smart	Use the Smart item to select a very brief test that checks the drive self-monitoring analysis and reporting technology (SMART) status—the drive detects and reports reliability indicators to help anticipate disk failures (SMART status).
Administrator	Diagnostics	CPB		Use the CPB item to verify the integrity of the copy processor board (CPB) and the formatter PCA connections.
Administrator	Diagnostics	Interconnect		Use the Interconnect item to verify the integrity of the interconnect PCA (ICB) and its connections.
Administrator	Diagnostics	Run Selected		Select the Run Selected item to execute a selected test. **NOTE:** If more than one test is selected, they are executed in sequence.

Table 3-7 Pre-boot menu options (7 of 7)

Menu option	First level	Second level	Third level	Description
Administrator (continued)	Remote Admin	Start Telnet		The Remote Admin item allows a service technician to access to the printer Pre-boot menu remotely, and to navigate the menu selections from a remote location. IMPORTANT: A Remote Admin connection must be initiated by a person that is physically present at the printer. This person will also need to provide a randomly generated PIN to the remote service technician. NOTE: For more information about using the Remote Admin function, see "Remote Admin (M506/M507/E50145, M527/M528/E52645)" in the Troubleshooting Manual.
Administrator	Remote Admin	Stop Telnet		
Administrator	Remote Admin	Refresh IP		
Administrator	System Triage	Copy Logs		If the device will not boot to the **Ready** state, or the diagnostic log feature found in the Troubleshooting menu is not accessible, then use the System Triage item to copy the diagnostic logs to a USB flash drive at the next printer start up. The files can then be sent to HP to help diagnose the problem.
Administrator	Change Svc PWD			Use this item to change the Service menu personal identification number (PIN).
Administrator	Reset Svc PWD			If the Service menu personal identification number (PIN) has been changed. Use this item to reset it to the original PIN.
Service Tools	Reset Password			Use this item to reset the Pre-boot administrator password.
Service Tools	Subsystems			For manufacturing use only. Do not change these values.
Developer Tools	Netexec			

Remote Admin (all except M501)

This section describes the following Remote Admin items.

The Remote Admin feature allows remote access the printer Pre-boot menu (BIOS environment). The printer functions as a telnet server which uses the telnet networking protocol to transmit text data. Any computer (with telnet installed and enabled) can function as the telnet client to remotely display and interact with the Pre-boot menu.

IMPORTANT: While the Remote Admin function allows remote access the Pre-boot menu, for security reasons the Remote Admin connection must be initiated by a person that is physically present at the printer.

Required software and network connection

Before using the Remote Admin feature, make sure that the telnet network protocol is installed and enabled on the remote telnet client computer.

NOTE: This section describes enabling and configuring the telnet feature for computers using a Windows® operating system.

HP recommends that the telnet client computer be a Windows-based system; however, there are other operating systems that support the telnet network protocol. For information about enabling and configuring the telnet network protocol for other operating systems, see the owner's manual for that operating system.

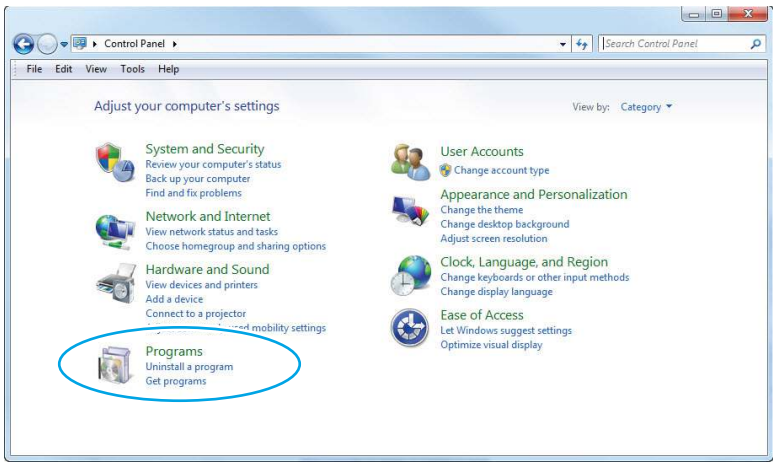
Enable the Windows telnet client

All computers using the Windows operating system have the telnet client installed, however, the telnet client function might not be enabled by default.

NOTE: The figures and menus in this section are for the Windows 7 Enterprise® operating system. Screens and menu selections might vary slightly for other operating systems.

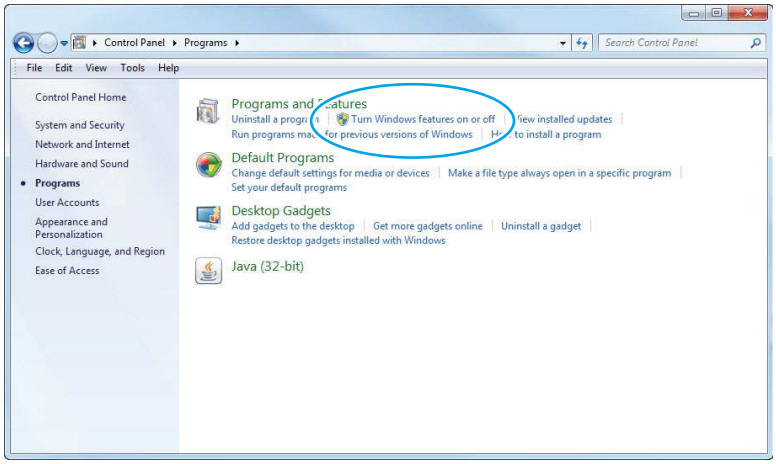
1. Use the **Start** menu to open the **Control Panel**, and then click the **Programs** item to select it.

Figure 3-4 Open the Control Panel



2. Click the **Turn Windows features on or off** item to select it.

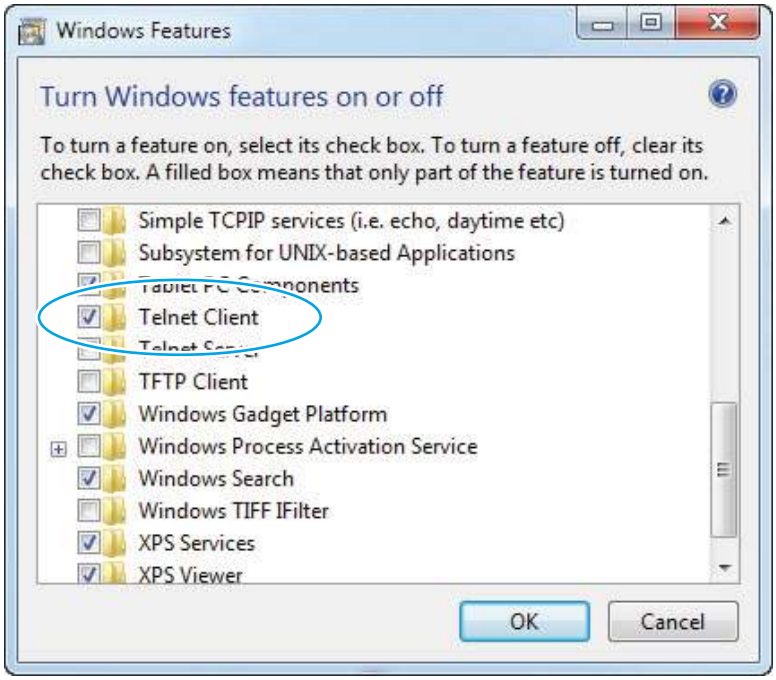
Figure 3-5 Turn Windows features on or off



3. In the **Windows Features** box, scroll down to **Telnet Client**. If the check box is not checked, click the box to select it, and then click the **OK** button.

TIP: If the check box is already checked then the telnet client function is already enabled. Click the **Cancel** button.

Figure 3-6 **Enable the telnet client feature**



Network connection

The remote telnet client computer must have direct network access to the printer for the Remote Admin function to operate. This means that the telnet client computer must be on the same network as the printer.

The Remote Admin function cannot be accessed through a network firewall or other remote access network security programs.

If a private network is not accessible, ask the network administrator to set up a virtual private network (VPN) connection to the network.

Connect a remote connection

Use the following procedures to connect a remote connection.

Start the telnet server function at the printer

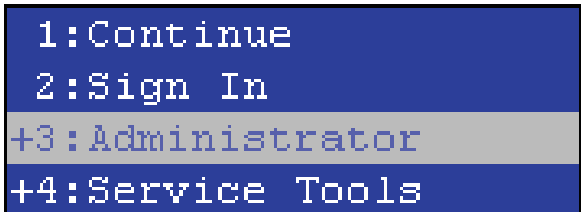
For security reasons the Remote Admin feature must be initiated by a person that is physically present at the printer. The following steps must be performed by a person that is physically present at the printer.

NOTE: This person might need to sign in with an administrator or service password depending on how the printer is configured.

1. Turn the printer on.
2. The HP logo displays on the printer control panel. When a 1/8 with an underscore displays, touch the middle of the screen to open the Pre-boot menu.

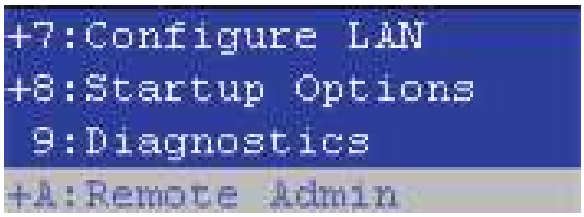
3. Use the arrow buttons on the touchscreen to scroll down and highlight the +3:Administrator item, and then touch the OK button to select it.

Figure 3-7 Select the +3:Administrator item



4. Use the arrow buttons on the touchscreen to scroll down and highlight the +A:Remote Admin item, and then touch the OK button to select it.

Figure 3-8 Select the +A:Remote Admin item



5. Use the arrow buttons on the touchscreen to scroll down and highlight the 1:Start Telnet item, and then touch the OK button to select it.

Figure 3-9 Select the 1:Start Telnet item

6. Do one of the following

- If a connecting message displays briefly, go to 7.

  Figure 3-10 Telnet connecting message

- If an error message displays, use the steps below to identify the problem.

Figure 3-11 Telnet error message

a. The printer network cable is not correctly connected.

b. The BIOS LAN settings are incorrect.

   – The printer should be configured to use a static IP address, but is configured to use DHCP instead.

   – The printer is configured to use a static IP address, but the IP address is incorrect.

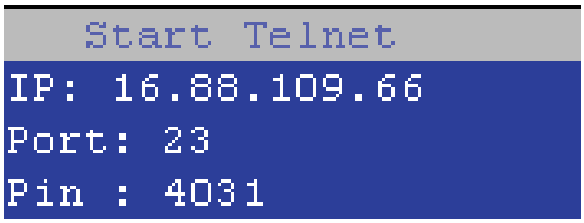
c. The printer is correctly configured to use DHCP, but the DHCP server is not turned on or is malfunctioning.

7. When the printer telnet server function is initialized, the following screen appears. Use the information on this screen to connect the remote telnet client computer to the printer.

NOTE: The printer is now ready to receive remote telnet client commands.

- **IP**: The static or dynamically allocated IP address for the printer.
- **Port**: The standard telnet port (23).
- **Pin**: A randomly generated 4-digit personal identification number (PIN).

Figure 3-12 Telnet server function initialized

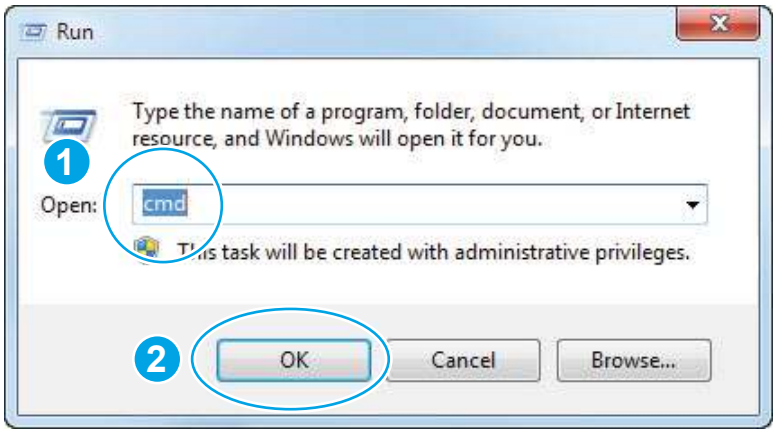


Start the telnet client function at the remote computer

The following steps establish a Remote Admin connection from a remote computer to the printer.

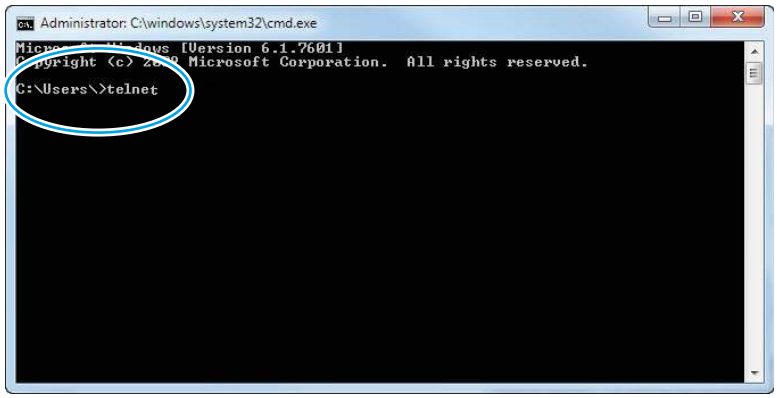
1. From the **Start** menu click **Run** to open a dialog box, type `cmd` in the **Open** field, and then click the **OK** button to open a Windows command window.

Figure 3-13 Open a command window



2. From any displayed directory, type `telnet` at the prompt, and then press the **Enter** key.

Figure 3-14 Start a telnet session

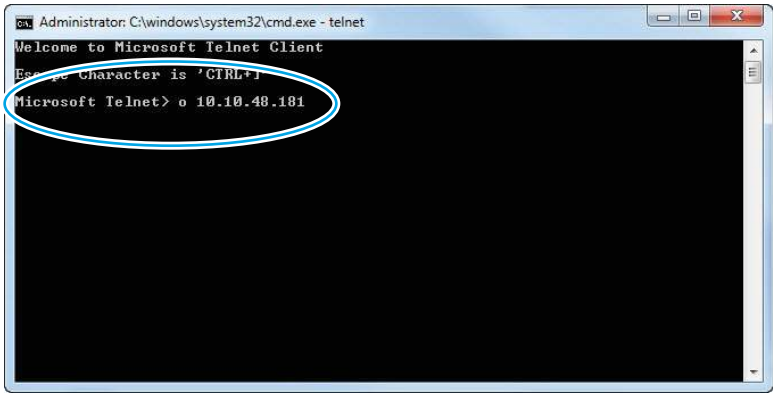


3. Type `o <IP ADDRESS>` at the telnet prompt, and then press the **Enter** key.

NOTE: For `<IP ADDRESS>`, substitute the IP address that was displayed in step 7 in "Start the telnet server function at the printer" in the *Troubleshooting Manual*.

TIP: If the telnet connection fails to establish a connection, the printer is probably behind a firewall or on a different network that the remote telnet client computer. See "Network connection" in the *Troubleshooting Manual*.

Figure 3-15 Establish a telnet connection



4. Type the PIN that was displayed in step 7 in "Start the telnet server function at the printer" in the Troubleshooting Manual at the prompt, and then press the **Enter** key.

IMPORTANT: Make sure to type the PIN correctly. After five incorrect PIN entries, the printer terminates the Remote Admin connection. The Remote Admin feature must be re-initiated at the printer. See "Start the telnet server function at the printer" in the *Troubleshooting Manual*.

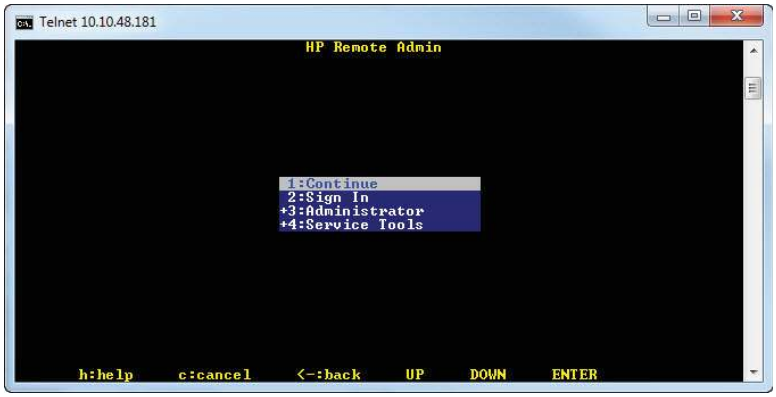
Figure 3-16 Enter the PIN

5. The following screen displays when the correct PIN is entered and the Remote Admin connection is successful. For information about the Pre-boot menu and options, see "Pre-boot menu options" in the *Troubleshooting Manual*.

NOTE: Because a Remote Admin connection is an unsecure telnet network protocol connection, the following Pre-boot menu items are disabled for the remote telnet client computer.

- The **+3:Administrator** menu **4:Change Password** item.
- The **+3:Administrator** menu **5:Clear Password** item.
- The **+3:Administrator** menu **6:Disk Manage** item.

Figure 3-17 Remote Admin window



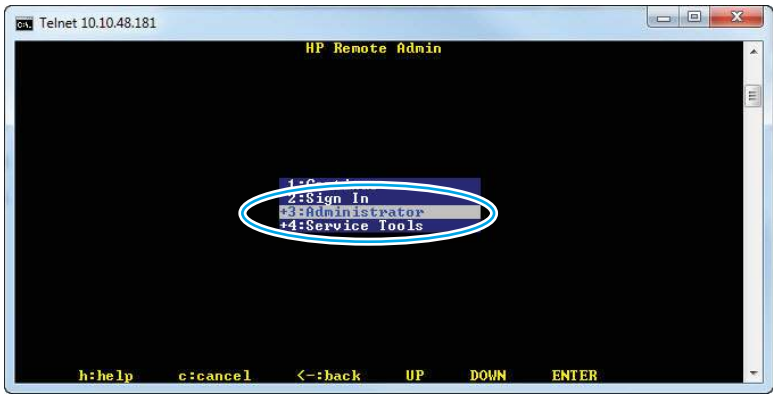
Disconnect a remote connection

The Remote Admin connection can be terminated from the printer control panel or the remote telnet client computer.

NOTE: The following procedure describes terminating a Remote Admin connection from the remote telnet client computer.

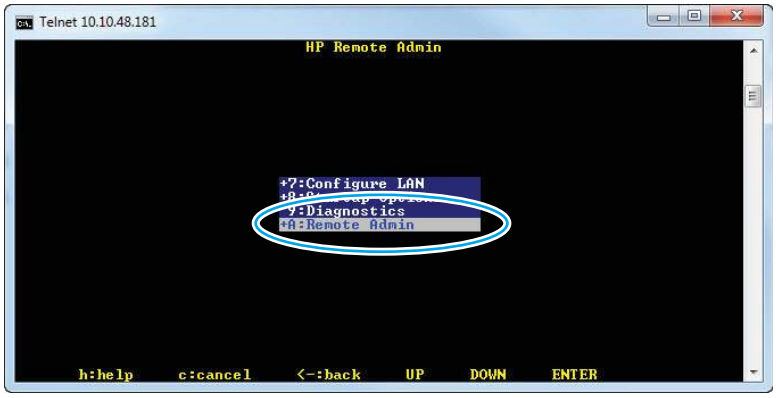
1. From the Pre-boot main menu, use the arrow buttons on the keyboard to scroll down to the **+3:Administrator** item, and then press the **Enter** key.

Figure 3-18 Access the administrator menu



2. Use the arrow buttons on the keyboard to scroll down to the **+A:Remote Admin** item, and then press the **Enter** key.

Figure 3-19 **Access the remote admin menu**



3. Use the arrow buttons on the keyboard to scroll down to the **2:Stop Telnet** item, and then press the **Enter** key. The Remote Admin connection between the printer and the remote telnet client computer terminates.

IMPORTANT: The printer remains in the Pre-boot menu. Have the person that is physically present at the printer do the following:

- Touch the Home button to return to the main Pre-boot menu and highlight the **1:Continue** item, and then touch the OK button. The printer will continue to initialize.

Figure 3-20 **Terminate the telnet connection**

Print the event log

Printing the event log might be helpful in the troubleshooting process.

For more information, see the interpret control-panel messages and event log entries topics in the printer *Troubleshooting Manual*.

Print the event log from the Administration menu (FutureSmart 3) or Support Tools menu (FutureSmart 4) from a touchscreen control panel

Use the following procedure to print the event log from the Administration menu from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Event Log
3. The event log displays on the screen. To print it, touch the Print button.

Print the event log from the Administration menu (FutureSmart 3) or Support Tools menu (FutureSmart 4) from a LCD control panel

Use the following procedure to print the event log from the Administration menu (FutureSmart 3) or the Support Tools menu (FutureSmart 4) from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. If necessary, use the down arrow ▼ button to scroll to Print Event Log, and then press the OK button to print the page.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Select Troubleshooting, and then select OK.
3. Select Event Log.
4. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

TIP: Multiple report pages can be selected, and then printed together.

Print the event log from the Service menu from a touchscreen control panel

Use the following procedure to print the event log from the Service menu from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or touch the Support Tools button (FutureSmart 4).
2. Open the Service menu.
3. On the sign-in screen, select the Service Access Code option from the drop-down list.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)
   - 11052715 (M527/E52545/M528/E52645)

5. Touch the Print Event Log item.

Print the event log from the Service menu from a LCD control panel

Use the following procedure to print the event log from the Service menu from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Device Maintenance, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Service, and then press the OK button.
3. On the sign-in screen, use the down arrow ▼ button to scroll to Service Access Code option and then press the OK button.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)
   - 11052715 (M527/E52545/M528/E52645)
5. If necessary, use the down arrow ▼ button to scroll to Print Event Log, and then press the OK button to print the page.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Select Service, and then select OK.
3. On the sign-in screen, select Service Access Code from the drop-down list.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)
   - 11052715 (M527/E52545/M528/E52645)
5. Select Event Log.
6. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

Clear the event log from a touchscreen control panel

Use the following procedure to clear the event log from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or touch the Support Tools button (FutureSmart 4).
2. Open the Service menu.
3. On the sign-in screen, select the Service Access Code option from the drop-down list.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)

- 11052715 (M527/E52545/M528/E52645)

5. Select the Clear Event Log item, and then touch the OK button.

Clear the event log from a LCD control panel

Use the following procedure to clear the event log from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Device Maintenance, and then press the OK button.
2. Use the down arrow▼ button to scroll to Service, and then press the OK button.
3. On the sign-in screen, use the down arrow ▼ button to scroll to Service Access Code option and then press the OK button.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)
   - 11052715 (M527/E52545/M528/E52645)
5. If necessary, use the down arrow ▼ button to scroll to Clear Event Log, and then press the OK button.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Select Service, and then select OK.
3. On the sign-in screen, select Service Access Code from the drop-down list.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045/M507/E50145)
   - 11052715 (M527/E52545/M528/E52645)
5. Select Event Log.
6. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the trash can icon . Select OK to clear the event log.

Troubleshooting process

Review the following information about the troubleshooting process.

Determine the problem source

When the printer malfunctions or encounters an unexpected situation, the printer control panel alerts the user to the situation.

This section contains a pre-troubleshooting checklist and a troubleshooting flow chart to filter out many possible causes of the problem.

- Use the pre-troubleshooting check list to gather information about the problem from the customer.
- Use the troubleshooting flowchart to pinpoint the root cause of hardware malfunctions. The flowchart guides you to the section of this chapter that contains steps for correcting the malfunction.

Before beginning any troubleshooting procedure, check the following issues:

- Are supply items within their rated life?
- Does the configuration page reveal any configuration errors?

NOTE: The customer is responsible for checking supplies and for using supplies that are in good condition.

Pre-troubleshooting checklist

The following table includes basic questions to ask the customer to quickly help define the problem(s).

Table 3-8 Pre-troubleshooting checklist

General topic	Questions
Environment	• Is the printer installed on a solid, level surface (+/- 1°)? • Is the power-supply voltage within ± 10 volts of the specified power source? • Is the power-supply plug inserted in the printer and the wall outlet (not a surge protector)? • Is the operating environment within the specified parameters? • Is the printer exposed to ammonia gas, such as that produced by diazo copiers or office cleaning materials? NOTE: Diazo copiers produce ammonia gas as part of the copying processes. Ammonia gas (from cleaning supplies or a diazo copier) can have an adverse effect on some printer components (for example, the toner cartridge or cartridges OPC). • Is the printer exposed to direct sunlight? • Is the printer exposed to an air conditioning or heating vent that can cause temperature fluctuations?
Media	• Does the customer use only supported media? • Is the media in good condition (no curls, folds, or distortion)? • Is the media stored correctly and within environmental limits?
Input trays	• Is the amount of media in the tray within specifications? • Is the media correctly placed in the tray? • Are the paper guides aligned with the stack (no gaps in the stack or excessive pressure causing the stack to bow)? • Is the tray (or trays) correctly installed in the printer?
Toner cartridge	• Is the toner cartridge (or cartridges) installed correctly?

Table 3-8 **Pre-troubleshooting checklist (continued)**

General topic	Questions
Transfer unit and fuser	• Are the transfer unit and fuser installed correctly? NOTE: For printers with an intermediate transfer belt (ITB), is the ITB installed correctly and fully seated. If a replacement ITB was installed, was all of the packing materials removed?
Covers	• Is the toner cartridge door closed?
Condensation	• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe affected parts dry or leave the printer on for 10 to 20 minutes. • Was a toner cartridge (or cartridges) opened soon after being moved from a cold to a warm room? If so, allow the toner cartridge (or cartridges) to sit at room temperature for 1 to 2 hours.
Miscellaneous	• Check for and remove any non-HP components (toner cartridges, memory modules, and EIO cards) from the printer. • Remove the printer from the network and ensure that the failure is associated with the printer before beginning troubleshooting. • For any color print-quality issues (color printers only), calibrate the printer, and then print a diagnostics page to verify print quality.

Troubleshooting flowchart

This flowchart highlights the general processes to follow to quickly isolate and solve printer hardware problems.

Each row depicts a major troubleshooting step. Follow a “yes” answer to a question to proceed to the next major step. A “no” answer indicates that more testing is needed. Go to the appropriate section in this chapter, and follow the instructions there. After completing the instructions, go to the next major step in this troubleshooting flowchart.

Table 3-9 **Troubleshooting flowchart**

Step	Question		Action
1 **Power on**	Is the printer on and does a readable message display?		
	Yes ↓	No →	Follow the power-on troubleshooting checks. See "Power subsystem" in the *Troubleshooting Manual*. After the control panel display is functional, see step 2.
2 **Control panel messages**	Does the message **Ready** display on the control panel?		
	Yes ↓	No →	After the errors have been corrected, go to step 3.

Table 3-9 Troubleshooting flowchart (continued)

Step	Question		Action
3 **Event log**	Open the Troubleshooting menu and print an event log to see the history of errors with this printer. Does the event log print?		
	Yes ↓	No →	If the event log does not print, check for error messages. If paper jams inside the printer, see the jams section of the printer service manual. If error messages display on the control panel when trying to print an event log, see the control panel message section of the printer troubleshooting service manual. After successfully printing and evaluating the event log, see step 4.
4 **Information pages**	Open the Reports menu and print the configuration pages to verify that all the accessories are installed. Are all the accessories installed?		
	Yes ↓	No →	If accessories that are installed are not listed on the configuration page, remove the accessory and reinstall it. After evaluating the configuration pages, see step 5.
5 **Print quality**	Does the print quality meet the customer's requirements?		
	Yes ↓	No →	Compare the images with the sample defects in the image defect tables. See the images defects table in the printer repair service manual. After the print quality is acceptable, see step 6.
6 **Interface**	Can the customer print successfully from the host computer?		
	Yes. This is the end of the troubleshooting process.	No →	Verify that all I/O cables are connected correctly and that a valid IP address is listed on the HP Jetdirect configuration page. If error messages display on the control panel when trying to print an event log, see the control-panel message section of the printer troubleshooting service manual. When the customer can print from the host computer, this is the end of the troubleshooting process.

Power subsystem

Review the following information about the power subsystem.

Power-on checks

The basic printer functions should start up when the printer is connected into an electrical outlet and the power switch is pushed to the *on* position. If the printer does not start, use the information in this section to isolate and solve the problem.

If the control panel display remains blank, random patterns display, or asterisks remain on the control panel display, perform power-on checks to find the cause of the problem.

NOTE: For touchscreen control panel models, also try the control panel checks in the printer troubleshooting manual.

Power-on troubleshooting overview

During normal operation, cooling fans begins to spin briefly after the printer power is turned on. Place a hand over the vents in the right- and left-side covers. Lean close to the printer to hear the fans operating. If the fan are operating, the dc side of the power supply is functioning.

If the fans are operating correctly, the next troubleshooting step is to isolate print engine, formatter, and control panel problems. Perform an engine test. If the formatter is damaged, it might interfere with the engine test. If the engine-test page does not print, try removing the formatter, and then performing the engine test again. If the engine test is then successful, the problem is almost certainly with the formatter, the control panel, or the cable that connects them.

NOTE: Depressing, and holding down, the test-page switch causes the printer to continually print test pages. Releasing the switch stops the test page continuous printing.

Troubleshooting power on problems

Use the following procedure to troubleshoot power on problems.

1. Verify that power is available to the printer. If the printer is plugged into a surge protector or uninterruptible power supply (UPS), remove it, and then plug the printer directly into a known operating wall receptacle (make sure that the wall receptacle provides the correct voltage and current for the printer).

   Unplug any other devices on the same circuit that the printer is using.

2. Try another known operating wall receptacle and a different power cord.

3. Listen for startup noises (for example, fans or motors) and look for illuminated lights on the control panel and formatter LEDs.

   NOTE: Operational fans, motors, and control-panel lights indicate the following:

   - AC power is present at the printer.
   - The power supply is providing either or both 24 Vdc and 5 Vdc voltages.
   - The DC controller microprocessor is functioning.

4. Check the following:

a. Turn the printer on, and then listen for startup noises. If normal startup noises are heard, go to step c below.

b. If normal startup noises are not heard, turn the printer off, and then remove any installed accessories (for example, envelope feeders, paper feeders, or output accessories).

   Turn the printer on, and then listen for startup noises. If normal startup noises are heard, the problem might be with one of the accessories.

c. Turn the printer off and then remove the power connector from the formatter. Turn the printer on, and then use a small pointed object (like a paper clip) to depress the test-page switch located on the rear side of the printer (near the formatter).

NOTE: The test page can only use Tray 2 as the paper source, so make sure that paper is loaded in Tray 2.

d. If the engine test page prints, the print engine is operating normally. Replace the formatter.

NOTE: **M506/E50045/M507/E50145 (all) and M527dn/E52545dn/M528dn/E52645dn models only:** If the engine test page does not print, turn the printer off, remove the embedded MultiMedia Card (eMMC), and then try the engine test again. If the page prints, the problem might be the eMMC.

e. If after replacing the formatter normal startup noises are still not heard, replace the DC controller.

NOTE: If the error persists after replacing these assemblies, escalate the problem to the Global Business Unit (GBU).

Troubleshooting a blank control panel

A blank control panel display can be caused by one or more of the following:

1. Verify that power is available to the printer. If the printer is plugged into a surge protector or uninterruptible power supply (UPS), remove it, and then plug the printer directly into a known operating wall receptacle (make sure that the wall receptacle provides the correct voltage and current for the printer).

2. Make sure that the power switch is in the *on* position.
3. Make sure that the fans run briefly, which indicates that the power supply is operational.
4. Make sure that the control-panel display wire harness is connected.
5. Make sure that the formatter connectors are fully seated. Make sure the power switch is in the on position, and then verify that the heartbeat LED is blinking and that the connectivity LED is illuminated.
6. Remove any external solutions, and then try to turn the printer on again.
7. If the control panel display is blank, but the cooling fans run briefly after the printer power is turned on, try printing an engine-test page to determine whether the problem is with the control panel display, formatter, or other printer assemblies.
    a. Remove the formatter.
    b. Use a small pointed object to depress the test-page switch located on the rear of the printer.

    NOTE: The test page can only use Tray 2 as the paper source, so make sure that paper is loaded in Tray 2.

    c. If the engine test page prints, the print engine is operating normally (a failed engine test print page does not necessarily indicate that the print engine or DC controller is defective).
    d. Use the control panel diagnostics to test the control panel. See the control panel checks section in the printer troubleshooting manual. If the error persists, proceed to 8.
8. If the print engine appears to be correctly operating (the engine test page successfully printed) and the control panel is still blank, replace the power supply.
9. If after replacing the power supply normal startup noises and lights are still not present, replace the DC controller.

NOTE: If the error persists after replacing these assemblies, escalate the problem to the Global Business Unit (GBU).

Control panel checks (M501)

The printer includes diagnostic tests for the control panel. This mode allows for troubleshooting issues with the LEDs (2-line control panels), display, and the buttons.

1. Open the secondary service menu.
   a. From the printer control panel, press the setup button to open the main menu.
   b. Press and the down arrow button, and then quickly press the Cancel button.
   c. Press the setup button. The message **2ndary Service** appears on the control-panel display.
   d. Press the OK button to open the **2ndary Service** menu.

   NOTE: Use the arrow buttons to scroll though the **2ndary Service** menu.

2. Select one of the following tests:
   - LED test: Test the LED lights on 2-line control panels. The touchscreen control panels do not have any LEDs.
   - Display Test: Test the control panel display.
   - Button Test: Test the control panel buttons.

Control panel checks (all except M501)

Review the following information about control panel checks.

NOTE: The printer includes a diagnostic test mode for the touchscreen control panels. Diagnostic tests are not available for the LCD control panel.

Control panel diagnostics (M506x/M507x and M527/E52545/M528/E52645)

Review the following information about the control panel diagnostics.

Touchscreen diagnostic mode (M506x, M527/E52545/M528/E52645)

Use the diagnostics in this section to test the control panel hardware and embedded firmware.

These tests are useful for checking control panel functionality independent of the printer control panel system diagnostics. To test the control panel using the system diagnostics, see "Control panel system diagnostics (M506x/M507x, M527/E52545/M528/E52645)" in the *Troubleshooting Manual*.

1. **M506x only**: Locate the diagnostic-tests access button on the back of the control panel.

Figure 3-21 Diagnostic-tests access button (M506x)

2. **M506x only**: Press the diagnostics-access button. Repeatedly pressing the button cycles through the available diagnostics.

NOTE: A pen, pencil, or other small blunt object is needed to press the button.

TIP: When pressed, the button illuminates green.

Figure 3-22 Press the diagnostics-access button (M506x)

3. **M527/E52545/M528/E52645 only**: Locate the diagnostic-tests access button on the back of the control panel.

Figure 3-23 **Diagnostic-tests access button (M527/E52545/M528/E52645)**

4. **M527/E52545/M528/E52645 only**: Press the diagnostics-access button. Repeatedly pressing the button cycles through the available diagnostics.

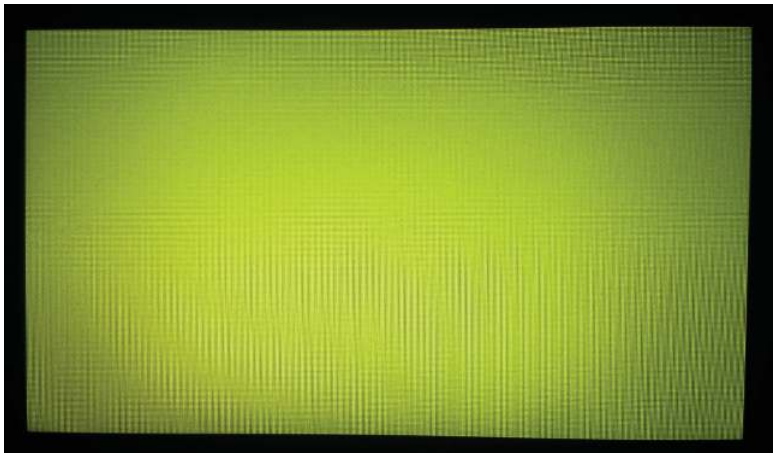
Figure 3-24 **Press the diagnostics-access button (M527/E52545/M528/E52645)**

5. A yellow screen appears (after the first press of the button) indicating that the control panel firmware is version A (a magenta screen indicates version B firmware).

NOTE: If a different color appears on the screen, contact your global business unit (GBU) to determine the firmware version.

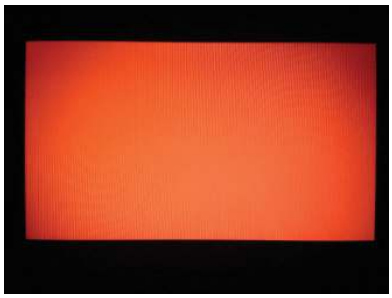
TIP: After 4 seconds of inactivity, the diagnostic mode times out and is exited.

Figure 3-25 Control panel version A yellow screen

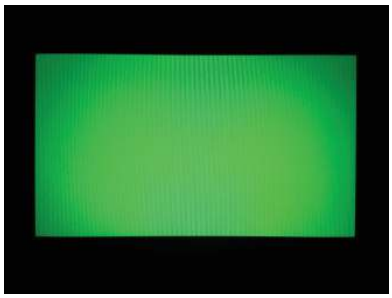


6. Touch the screen to cycle the screen through the following:

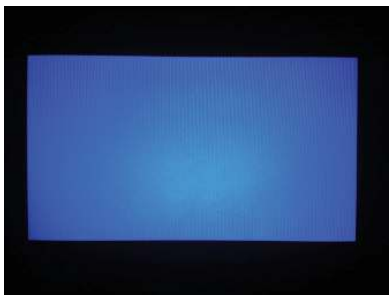
   - A red screen.

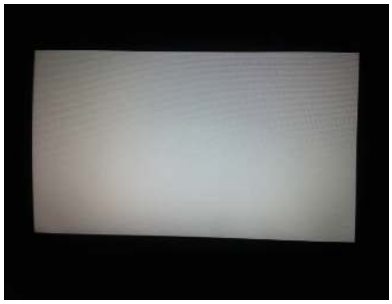
   - A green screen.

   - A blue screen.

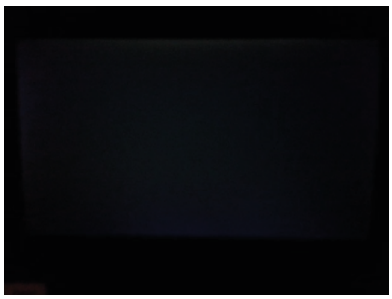
     

   - Five brightness levels of a white screen.



- A final black screen.

TIP: When the final black screen displays, press the Home button to cycle through the diagnostic screens and test its functionality.



7. Pressing the diagnostic-tests button with the black screen displayed exits the diagnostic mode.

Figure 3-26 **Exit the diagnostic mode**

Touchscreen diagnostic mode (M507x and E50145dn)

Use the diagnostics in this section to test the control panel hardware and embedded firmware.

These tests are useful for checking control panel functionality independent of the printer control panel system diagnostics. To test the control panel using the system diagnostics, see "Control panel system diagnostics (M506x/M507x, M527/M528/E52645)" in the Troubleshooting Manual.

1. **M507x and E50145dn only:** Locate the diagnostic-tests access button on the back of the control panel.

Figure 3-27 Diagnostic-tests access button (M507x and E50145dn)

2. Press the diagnostics-access button to enter the diagnostic mode.

NOTE: A pen, pencil, or other small blunt object is needed to press the button.

TIP: When pressed, the button illuminates green.

Figure 3-28 Press the diagnostics-access button (M507x and E50145dn)

Repeatedly pressing the button cycles through different brightness levels on the touchscreen control panel.

3. To exit the diagnostic mode, wait approximately five seconds. The diagnostic mode automatically ends, and the touchscreen control panel returns to normal mode.

Control panel system diagnostics (M506x/M507x, M527/E52545/M528/E52645)

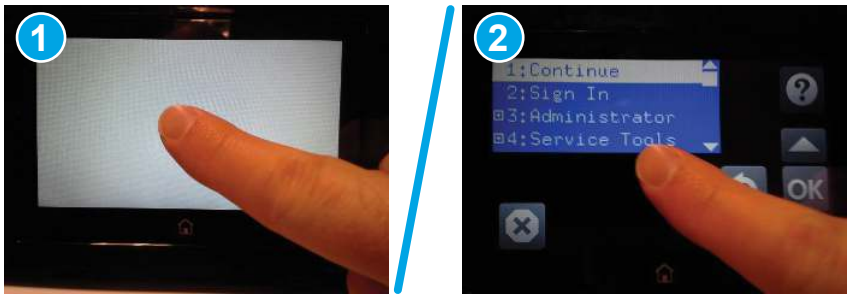
Use the diagnostics in this section to test the control panel hardware and display using the printer firmware system diagnostics.

Open the control panel system diagnostic tests

Use the following procedure to open the control panel system diagnostics tests from a touchscreen control panel.

1. Turn the printer power off, and then on again.
2. Touch the middle of the control panel display when you see the 1/8 under the logo.

Figure 3-29 Open the Pre-boot menu



3. On the Pre-boot menu screen, use the following buttons to navigate the tests.

Figure 3-30 Pre-boot menu

Table 3-10 Pre-boot menu button descriptions

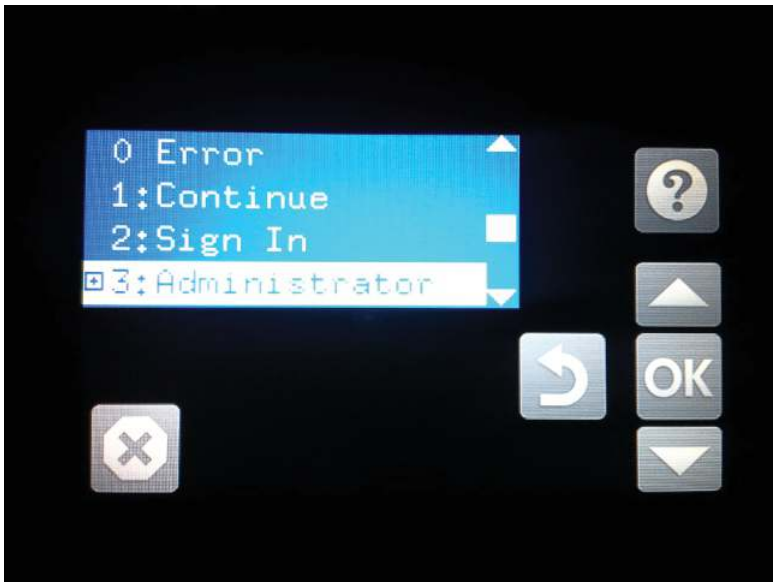
Button	Description
	Use this button to see more information about a selected item.

Table 3-10 Pre-boot menu button descriptions (continued)

Button	Description
	Use this button to scroll up through menu items.
	Use this button to select a highlighted menu item.
	Use this button to scroll down through menu items.
	Use this button to go back to the previous menu.
	Not used.
	Use this button to exit a diagnostic test.

4. Use the down arrow ▼ button to scroll to +3 Administration, and then press the OK button to select it.

Figure 3-31 Access the administration menu



5. Use the down arrow ▼ button to scroll to +E CP Diagnostics, and then press the OK button to select it.

NOTE: An administrator password might be required to continue.

Figure 3-32 Access the diagnostics menu

Screen test

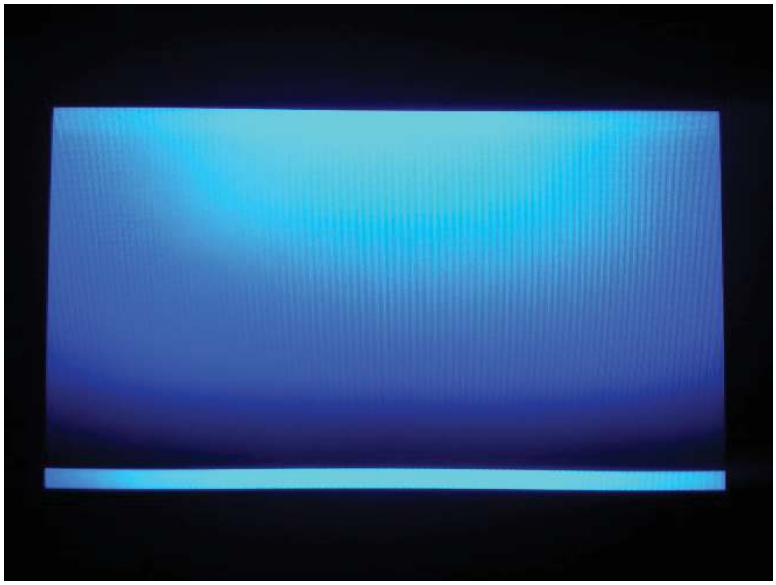
Use the following procedure to perform a screen test.

1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the Troubleshooting Manual.
2. With 1 Screen Test highlighted, press the OK button to select it.

Figure 3-33 Open the screen test

The blue vertical gradient screen appears.

Figure 3-34 Blue vertical gradient screen



3. Touch the touchscreen to scroll though the remaining touchscreen test screens.

NOTE: Touch the Home button to exit the test.

Table 3-11 Touchscreen test screens

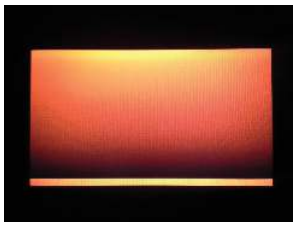
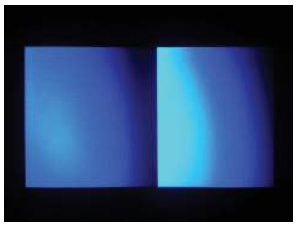
Screen	Description
	Green vertical gradient
	Red vertical gradient
	Blue horizontal gradient

Table 3-11 Touchscreen test screens (continued)

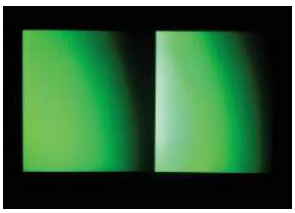
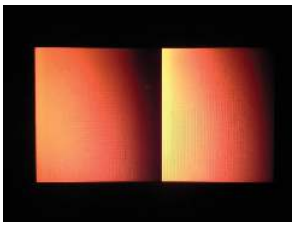
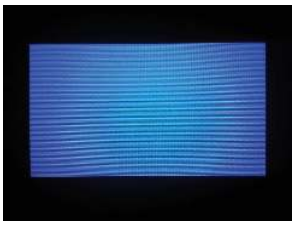
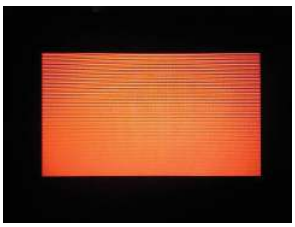
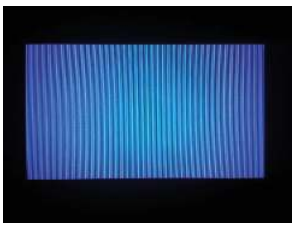
Screen	Description
	Green horizontal gradient
	Red horizontal gradient
	Blue with black horizontal interlaced
	Green with black horizontal interlaced
	Red with black horizontal interlaced
	Blue with black vertical interlaced

Table 3-11 Touchscreen test screens (continued)

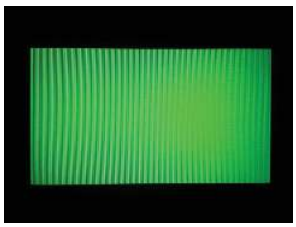
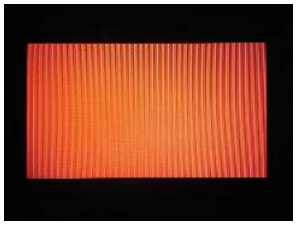
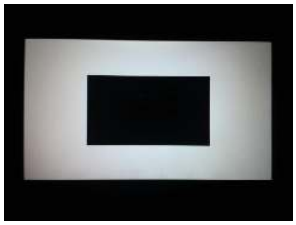
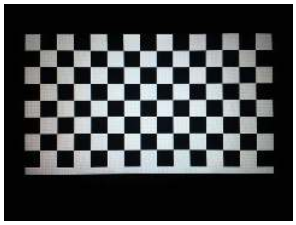
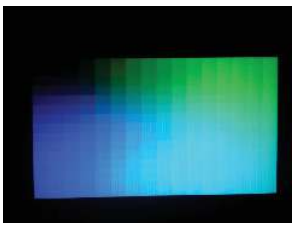
Screen	Description
	Green with black vertical interlaced
	Red with black vertical interlaced
	Black with white center
	White with black center
	Checkerboard
	Multicolor stripes

Table 3-11 Touchscreen test screens (continued)

Screen	Description
	Blue green grid meshing

Touch test

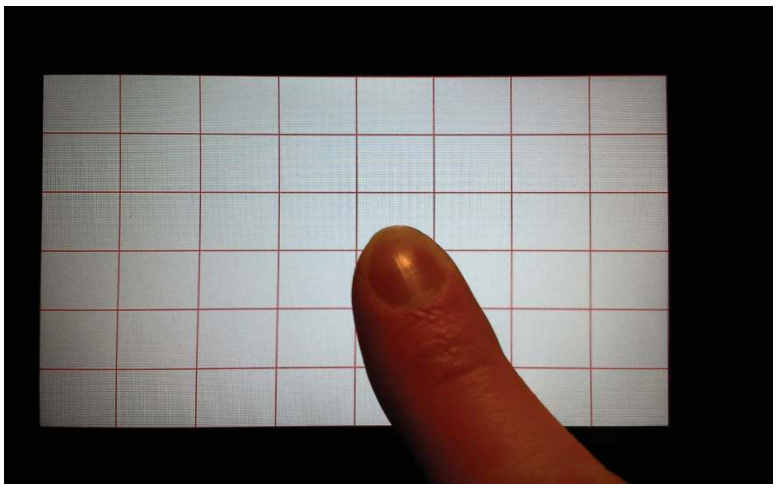
Use the following procedure to perform a touch test.

1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the Troubleshooting Manual.
2. Use the down arrow ▼ button to scroll to 2 Touch Test, and then press the OK button to select it.

Figure 3-35 Open the touch test

3. Use your finger to touch the white grid on the display.

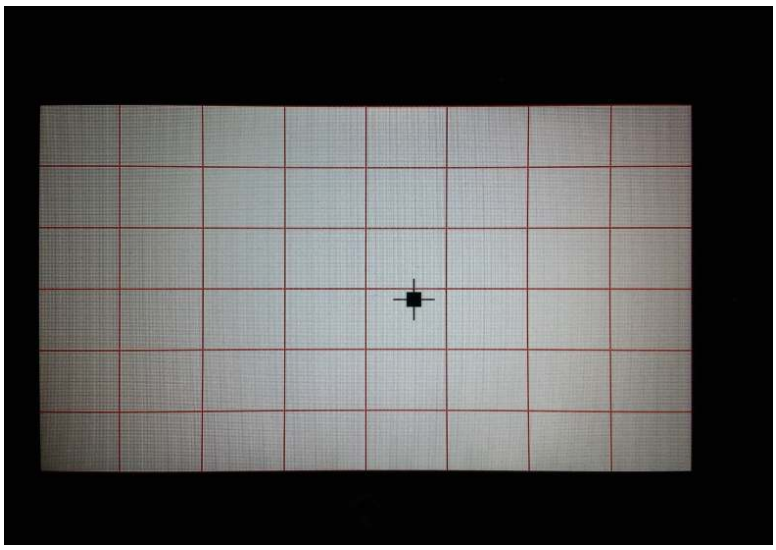
Figure 3-36 Touch the white grid



A mark appears on the grid where it was touched.

NOTE: Touch the Home button to exit the test.

Figure 3-37 Verify the mark



SoftKey test

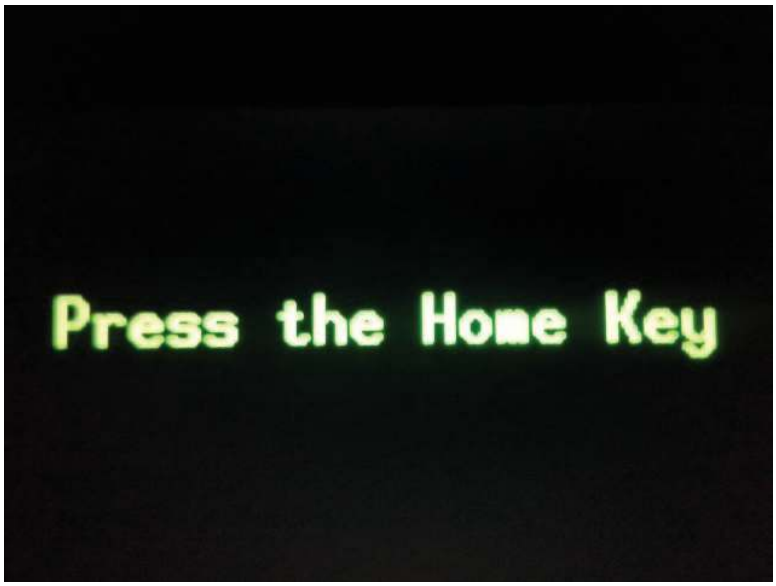
Use the following procedure to perform a SoftKey test.

1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the Troubleshooting Manual.
2. Use the down arrow ▼ button to scroll to 3 SoftKey Test, and then press the OK button to select it.

Figure 3-38 Open the softkey test

3. When prompted, touch the Home button.

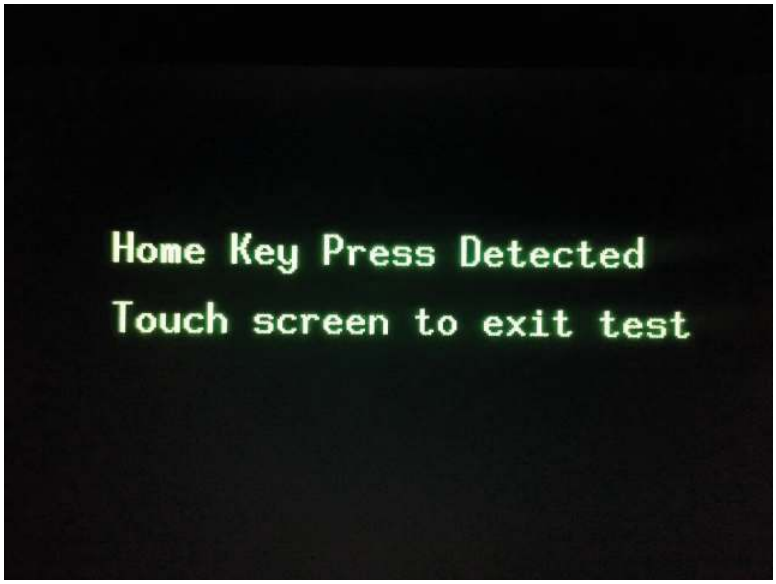
Figure 3-39 Touch the Home button



If the test is successful, the following screen appears on the display.

NOTE: Touch the screen to exit the test.

Figure 3-40 Successful test



Backlight test

Use the following procedure to perform a backlight test.

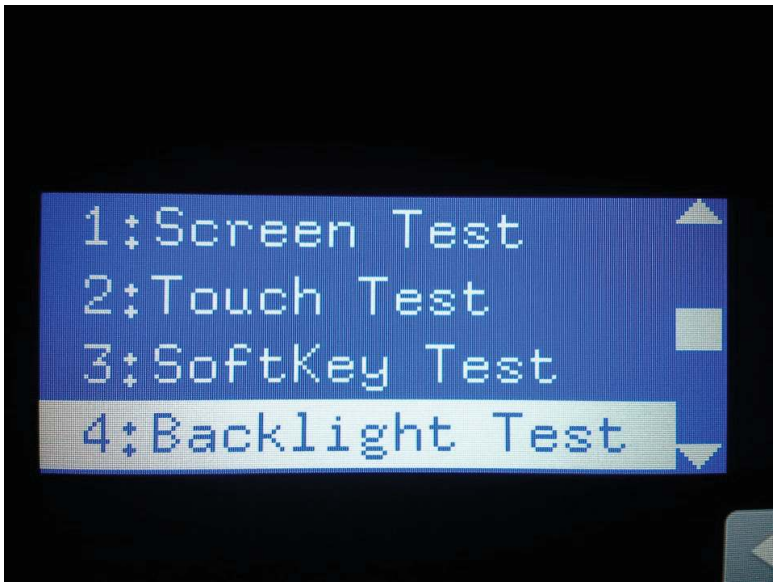
1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the Troubleshooting Manual.

2. Use the down arrow ▼ button to scroll to 4 Backlight Test, and then press the OK button to select it.

   After selecting the 4 Backlight Test, the screen automatically dims, and then returns to full brightness.

NOTE: Touch any key to exit the test.

Figure 3-41 Open the backlight test



Sound test

Use the following procedure to perform a sound test.

1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the Troubleshooting Manual.
2. Use the down arrow ▼ button to scroll to 5 Sound Test, and then press the OK button to select it.

   After selecting the 5 Sound Test, the printer emits a series of audible tones.

NOTE: Touch any key to exit the test.

Figure 3-42 Open the sound test

Keyboard test (M527c/z, E52545c, M528c/z, E52645c only)

Use the following procedure to perform a keyboard test on M527c/z, E52545c, M528c/z, and E52645c printers only.

IMPORTANT: The control panel system diagnostic tests include a 6 Keyboard Test item. This test is **not** valid for the M506x, M507x, M527dn/f, E52545dn, M528dn/f, or E52645dn printers even though this option is present in the control panel system diagnostic tests menu.

If the 6 Keyboard Test is opened on the M506x, M507x, M527dn/f, E52545dn, M528dn/f, or E52645dn printers, the printer power must be turned off to exit the test.

HP does not recommend turning the printer power off during the control panel system diagnostic tests.

1. Open the control panel system diagnostic tests. See the control panel system diagnostics test section in the Troubleshooting Manual.

2. Use the down arrow ▼ button to scroll to 6 Keyboard Test, and then press the OK button to select it.

Figure 3-43 Do not open the keyboard test except for M527c/z, E52545c, M528c/z, or E52645c printers

3. When prompted, touch the H key on the keyboard or the Home button to exit the test.

Version

Use the following procedure to view the control panel version information.

1. Open the control panel system diagnostic tests. See "Open the control panel systems diagnostic tests" in the *Troubleshooting Manual*.
2. Use the down arrow ▼ button to scroll to 7 Version, and then press the OK button to select it.

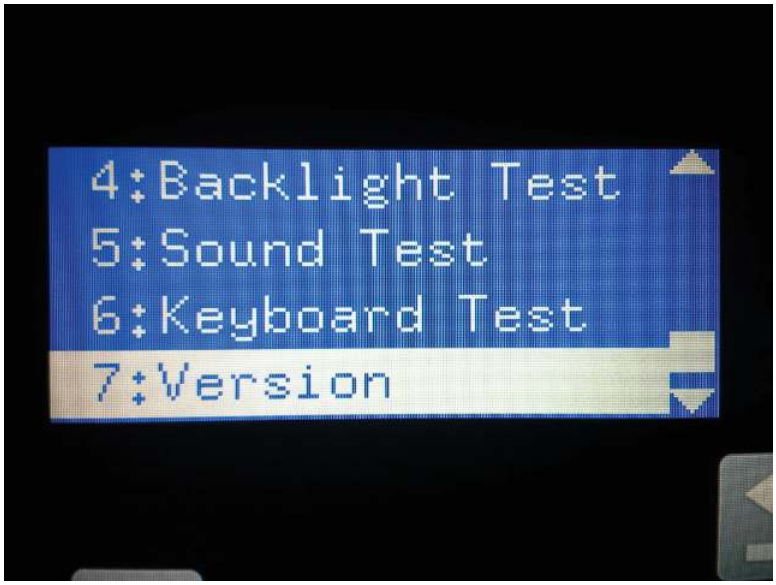
NOTE: Touch any key to exit the test.

Select 7 Version to view the following types of information:

NOTE: The following types of information are for the control panel only, not the printer.

- Panel ID
- Hardware (version)
- Firmware (version)
- KB Hw (version)
- KB Firm (version)
- LCD Vendor
- Touch Controller Version

Figure 3-44 Open the version information



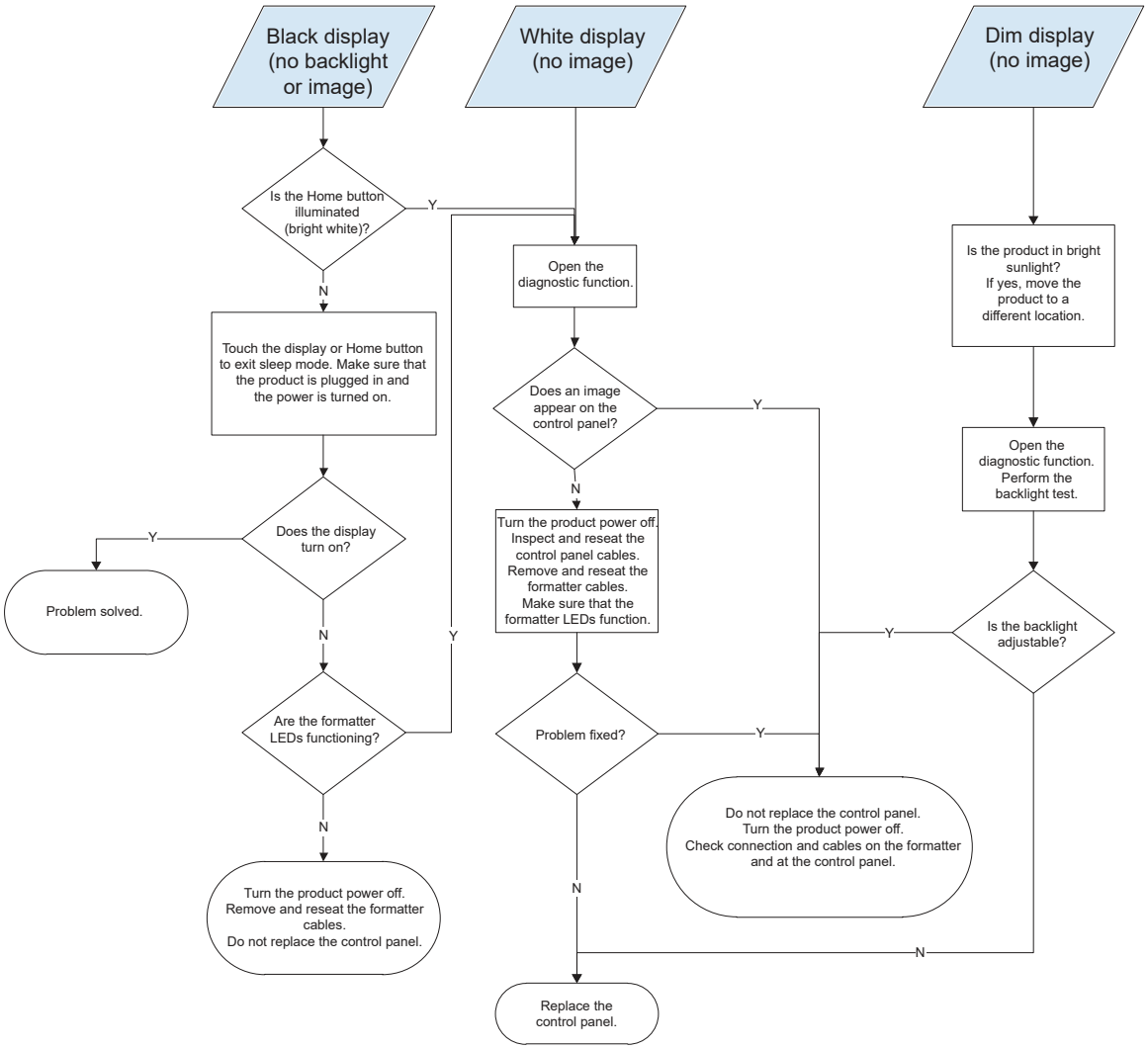
Control panel diagnostic flowcharts (M506x/M507x, M527/E52545/M528/E52645)

Use the flowcharts in this section to troubleshoot the following control panel problems.

Touchscreen black, white, or dim (no image)

To open the diagnostic function, press the button on the back of the control panel.

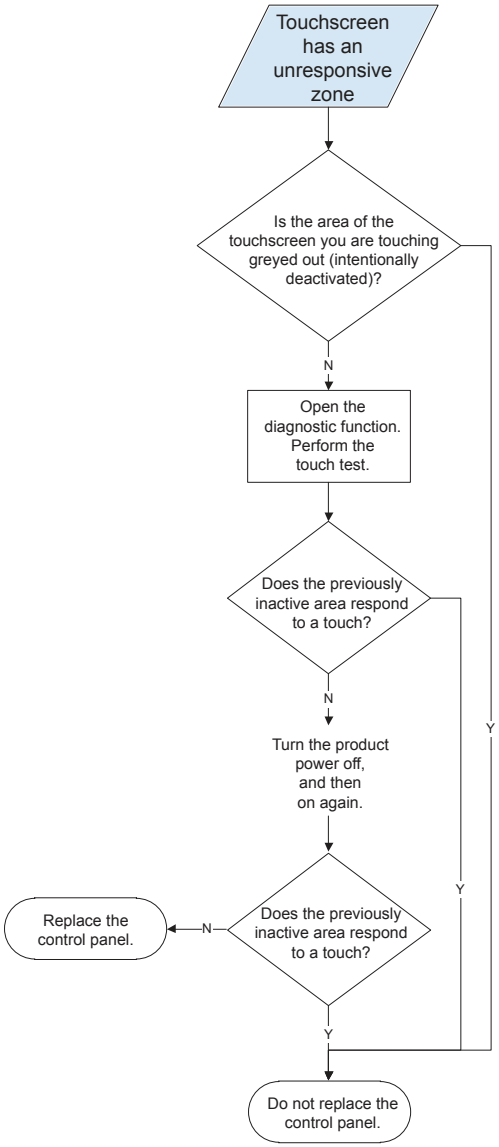
Figure 3-45 Touchscreen blank, white, or dim (no image)



Touchscreen has an unresponsive zone

To open the diagnostic function, press the button on the back of the control panel.

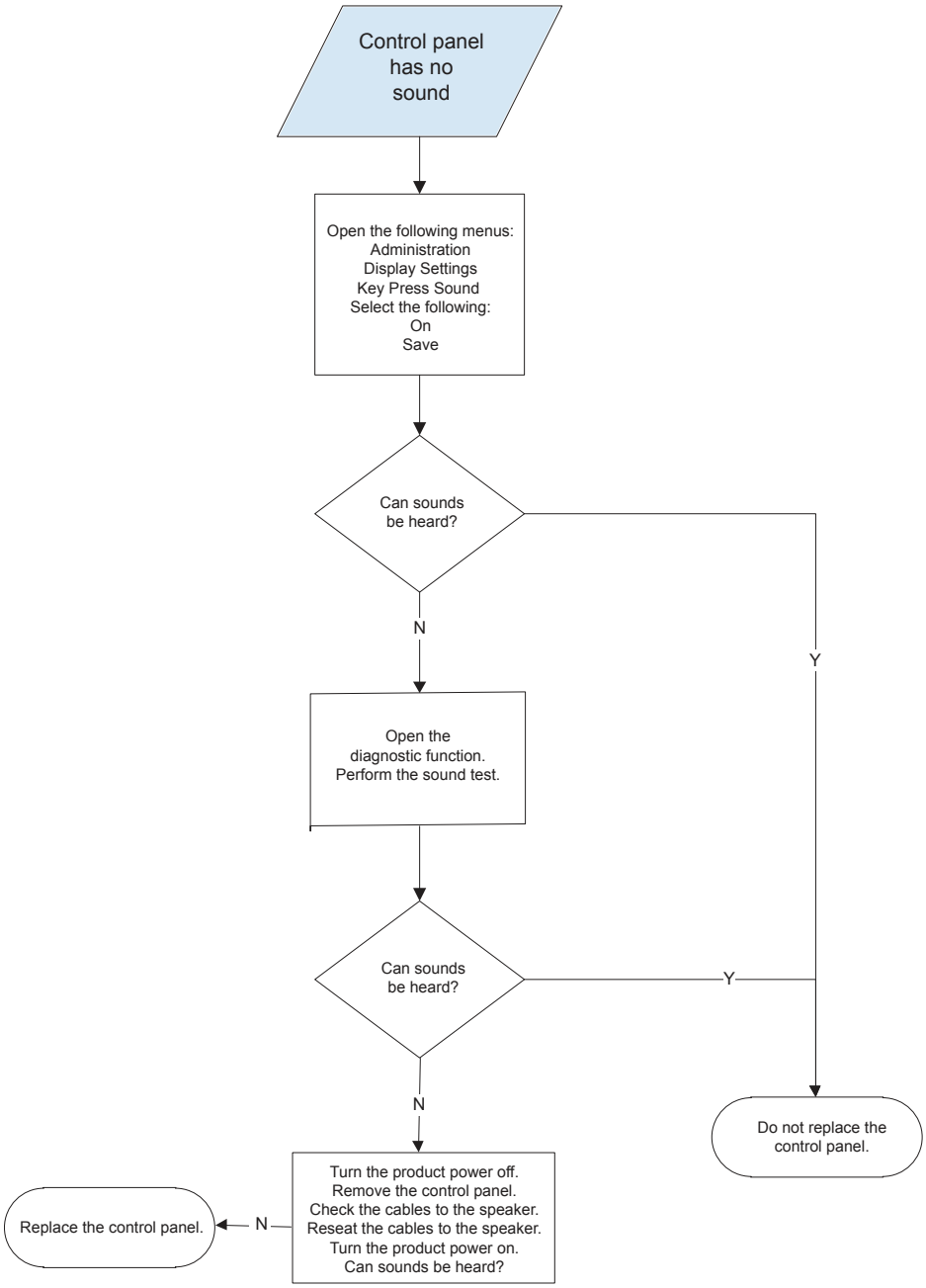
Figure 3-46 Touchscreen has an unresponsive zone



No control panel sound

To open the diagnostic function, press the button on the back of the control panel.

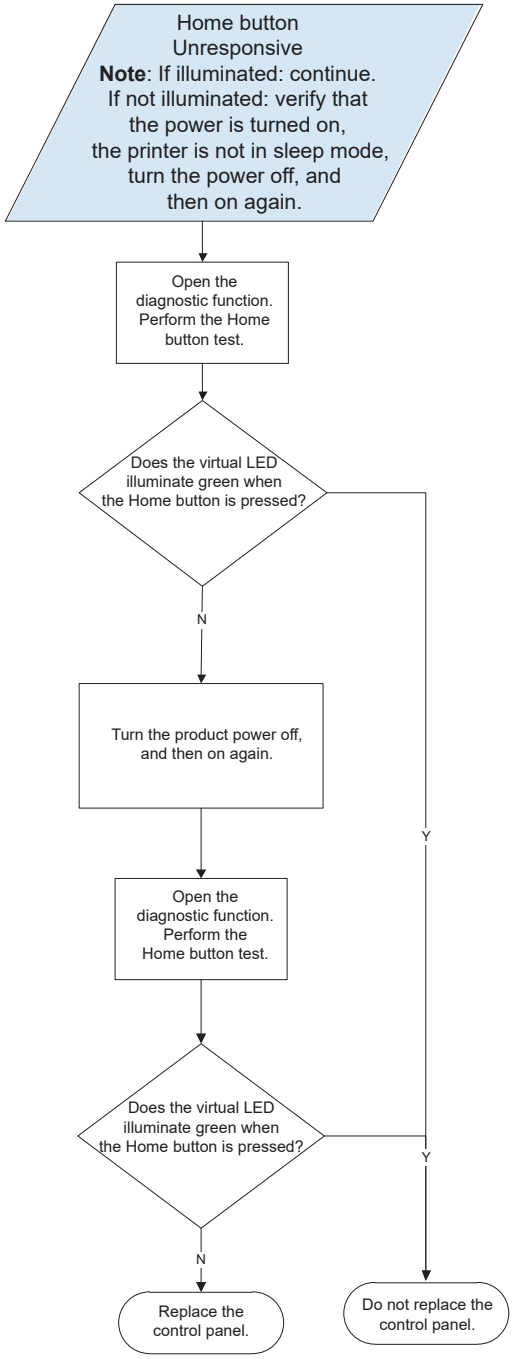
Figure 3-47 No control panel sound



Home button is unresponsive

To open the diagnostic function, press the button on the back of the control panel.

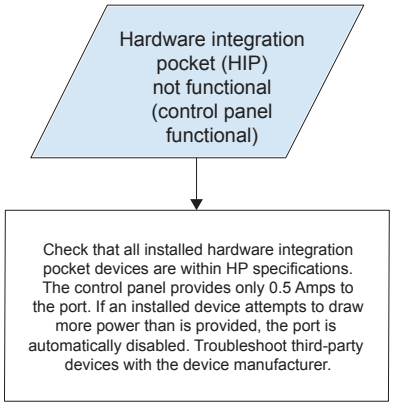
Figure 3-48 **Home button is unresponsive**



Hardware integration pocket (HIP) is not functioning (control panel functional)

Review the following information when the HIP is not functioning, but the control panel is functional.

Figure 3-49 Hardware integration pocket (HIP) is not functioning (control panel functional)



Tools for troubleshooting

This section describes tools that can help to solve printer problems.

Individual component diagnostics

Review the following information about individual component diagnostics.

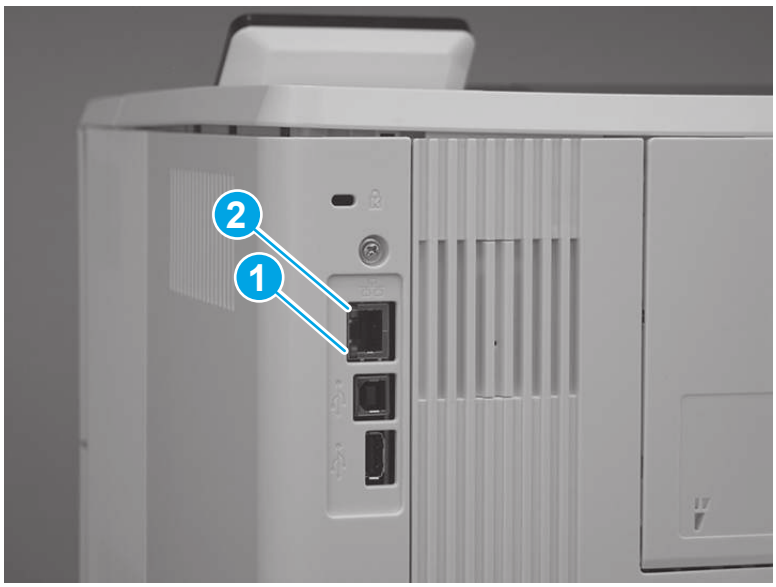
LED diagnostics (M501)

LED, engine, and individual diagnostics can identify and troubleshoot printer problems.

Network port LEDs (M501)

The formatter has two network port LEDs. When the printer is connected to a properly working network through a network cable, the amber LED indicates network activity, and the green LED indicates the link status.

Figure 3-50 Formatter network port LEDs



1	Link status LED (green)

2	Network activity LED (amber)

A blinking amber LED indicates network traffic. If the green LED is off, a link has failed. For link failures, check all of the network cable connections. In addition, you can try to manually configure the network card link speed setting by using the printer control panel.

1. On the printer control panel, press the OK button.
2. Open the following menus:
   - Network Setup
   - Link Speed
3. Select the appropriate link speed.

M501 control panel LEDs

The state of the Ready light and Attention light on the printer signal the printer status. The following table outlines the possible control panel light states.

Printer state	Ready light state	Attention light state
Initializing	Blinking	Blinking
Ready	On	Off
Receiving data/processing job or cancelling job	Blinking	Off
Error message	Off	Blinking
Fatal error (49 or 79 error)[1]	On	On

[1] The printer restarts after one of these errors occurs.

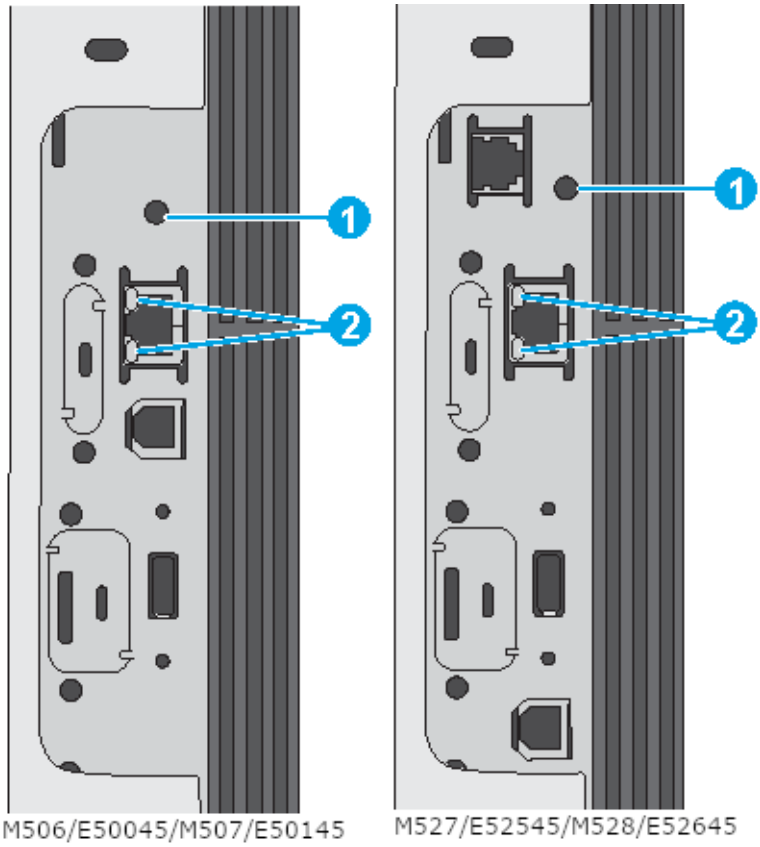
LED diagnostics (all except M501)

LED, engine, and individual diagnostics can identify and troubleshoot printer problems.

Understand lights on the formatter

Three LEDs on the formatter indicate that the printer is functioning correctly.

Figure 3-51 Formatter LED lights



1	Heartbeat LED
2	HP Jetdirect LEDs

Heartbeat LED

The heartbeat LED indicates that the formatter is functioning correctly.

While the printer is initializing after it is turned on, the LED blinks rapidly, and then turns off. When the printer has finished the initialization sequence, the heartbeat LED pulses on and off.

The following list describes the heartbeat LED operation while the printer is executing the firmware boot process.

NOTE: When the initialization process completes, the heartbeat LED should be illuminated solid green.

If after initialization, the heartbeat LED is not solid green, see Table 3-12 Heartbeat LED, printer operational (all except M501) on page 75.

- Green
  - Blinking: The printer is correctly functioning.
  - Solid: The FW has not yet booted.
- Amber

  - Blinking: The control panel is not detected.
  - Solid: The FFC between the formatter and DC controller is not connected or is damaged.
- Red
  - Solid: Valid SPI code; there is a problem releasing ASIC and running the BIOS

    Solid: BIOS initiates PROSAC to change the LED from red to green.

    Solid: PROSAC is not running (No ROM or SPI code).
  - Blinking: Valid SPI code not found.
- Off: No 5V or 3.3V PROSAC power.

The following table describes the heartbeat LED operation when the printer completes the firmware boot process and is in the **Ready** state.

Table 3-12 Heartbeat LED, printer operational (all except M501)

LED color	Description
Green	• Normal operation – Formatter is operating normally – Firmware is operating normally – Control panel is connected
Yellow	• Formatter cannot connect to the control panel – Check control panel connections – Verify control panel functionality
Red	• Formatter error or failure – Serial peripheral interface (SPI) flash memory boot error – Power on self-test (formatter) failed – Diagnostic (formatter) failed
Off	**TIP:** The heartbeat LED is off if the power cable is disconnected, the printer power switch is in the off position, or the printer is in Sleep Mode. • Firmware or system freeze – Check control panel for an error message – Control panel failure **NOTE:** This condition is not usually caused by a formatter failure. Turn the power off, and then on again. If the error persists, perform a firmware upgrade.

HP Jetdirect LEDs

The embedded HP Jetdirect print server has two LEDs. The yellow LED indicates network activity, and the green LED indicates the link status. A blinking yellow LED indicates network traffic. If the green LED is off, a link has failed.

For link failures, check all the network cable connections. In addition, try to manually configure the link settings on the embedded print server by using the printer control-panel menus.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Settings button (FutureSmart 4).
2. Open the following menus:
   - Network Settings (FutureSmart 3) or Networking (FutureSmart 4).
   - Embedded Jetdirect Menu
   - Link Speed
3. Select the appropriate link speed, and then touch the OK button.

Engine diagnostics

The printer contains extensive internal engine diagnostics that help in troubleshooting print quality, paper path, noise, assembly, and timing issues.

Engine test button

To verify that the printer engine is functioning, print an engine test page.

Use a small pointed object to depress the test-page switch located on the rear side of the printer. The test page should have a series of lines that are parallel to the short end of the page. The test page can use only Tray 2 as the paper source, so make sure that paper is loaded in Tray 2.

NOTE: Depressing and holding down the test-page switch causes the printer to continually print test pages. Releasing the switch stops the test page continuous printing.

Figure 3-52 **Engine test button**

Defeating interlocks

Different tests can be used to isolate different types of issues. For assembly or noise isolation, run the diagnostic test when the toner cartridge door or rear door is open.

Defeating the door interlocks allows observation of the paper pick operation (and view the page enter registration).

⚠ **WARNING!** Be careful when performing printer diagnostics to avoid risk of injury. Only trained service personnel should open and run the diagnostics with a door open. Never touch any of the power supplies when the printer is turned on.

Defeat the rear door interlock

Use the following procedure to defeat the rear door interlock.

1. Open the rear door.
2. Insert a folded piece of paper into the slot.

TIP: Fold a stiff piece of paper, for example a business card or index card, into two 10 mm (.375 in) strips, and insert the strips into the slot for the cartridge door logic switches.

Figure 3-53 **Defeat the rear door interlock**

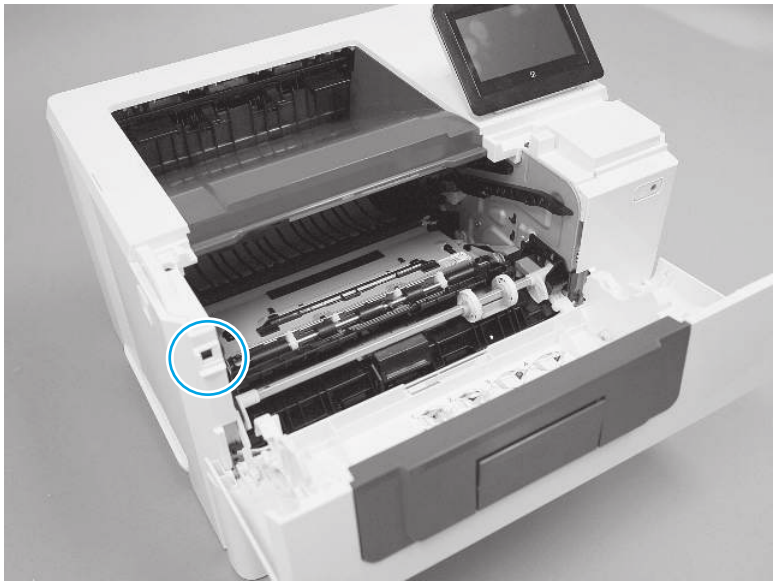
Defeat the toner cartridge door interlock

Use the following procedure to defeat the toner cartridge door interlock.

1. Open the toner cartridge door.
2. Insert a folded piece of paper into the slot.

TIP: Fold a stiff piece of paper, for example a business card or index card, into two 10 mm (.375 in) strips, and insert the strips into the slot for the cartridge door logic switches.

Figure 3-54 Defeat the toner cartridge door interlock



Disable cartridge check (all except M501)

Use this diagnostic test to print internal pages or send an external job to the printer when the toner cartridge is removed or exchanged. Supply errors are ignored while the printer is in this mode.

When the printer is in this mode, access the troubleshooting menus and print internal pages (the print quality pages will be the most useful). This test can be used to isolate problems, such as noise, and to isolate print-quality problems that are related to the toner cartridge.

NOTE: Do not remove or exchange the toner cartridge until after beginning the disable cartridge check diagnostic.

Disable cartridge check from a touchscreen control panel

Use the following procedure to disable cartridge check from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Disable Cartridge Check

Disable cartridge check from a LCD control panel

Use the following procedure to disable cartridge check from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.

3. Use the down arrow ▼ button to scroll to Diagnostics, and then press the OK button.
4. Use the down arrow ▼ button to scroll to Disable Cartridge Check, and then press the OK button to select it.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Disable Cartridge Check, and then press the OK button to select it.

Paper path and sensor diagnostic tests (all except M501)

Review the following information about the paper path and sensor diagnostics test for the M506/M507/E50145 and M527/M528/E52645 printers.

Paper path test (all except M501)

This diagnostic test generates one or more test pages. Use these pages to isolate the cause of jams.

To isolate a problem, specify which input tray to use, specify whether to use the duplex path (duplex models only), and specify the number of copies to print. Multiple copies can be printed to help isolate intermittent problems. The following options become available after beginning the diagnostic feature:

- Print Test Page: Run the paper-path test from the default settings: Tray 2, no duplex, and one copy. To specify other settings, scroll down the menu, and select the setting, and then scroll back up and select Print Test Page to start the test.
- Source Tray: Select Tray 1, Tray 2, or the optional tray.
- Test Duplex Path: Enable or disable two-sided printing from designated optional tray (depending on how many optional accessories are installed.
- Number of Copies: Set the numbers of copies to be printed; the choices are 1, 10, 50, 100, or 500.

Access the paper path test from a touchscreen control panel

Use the following procedure to access the paper path test from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Paper Path Test
3. Select the paper path test options for the test.

Access the paper path test from a LCD control panel

Use the following procedure to access the paper path test from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Use the down arrow ▼ button to scroll to Paper Path Test, and then press the OK button.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Paper Path Test, and then press the OK button.

Paper path sensors test (all except M501)

This test displays the status of each paper path sensor and allows viewing of sensor status while printing internal pages.

Access the paper path sensors test from a touchscreen control panel

Use the following procedure to access the paper path sensors test from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Paper Path Sensors
3. Touch Start to run the test.

Access the paper path sensors test from a LCD control panel

Use the following procedure to access the paper path sensors test from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.

4. Use the down arrow ▼ button to scroll to Paper Path Sensors, and then press the OK button.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Paper Path Sensors, and then press the OK button.

NOTE: The menu list of sensors and switches for the Paper path sensors test, Manual Sensor Test, and the Tray/Bin Manual Sensor Test varies depending on which optional accessories are installed.

The tables in this section describe the sensor tests available with an optional 1x550-sheet paper feeder installed.

For trays other than Tray 1 or Tray 2, the tray number associated with a sensor or switch depends on the number of accessories installed.

Table 3-13 Paper path sensors diagnostic tests (all except M501)

Sensor name	Sensor/Switch number	Replacement part number	Descriptions
Tray 3 feed sensor[1]	PS8008	F2A68-67909	Optional paper feeder
Prefeed sensor	PS102	NA	Not replaceable[2]
Top-of-Page (TOP) sensor	PS215	NA	Not replaceable[2]
Paper width 3 sensor	NA	NA	Not replaceable[2]
Paper width 2 sensor	NA	NA	Not replaceable[2]
Paper width 1 sensor	NA	NA	Not replaceable[2]
Fuser output sensor	PS2	RM2-5679-000CN (110 V) RM2-5692-000CN (220 V) (M501/M506/E50045/M527/E52545)	Fuser
Fuser output sensor	PS2	RM2-2585-000CN (110 V) RM2-2586-000CN (220 V) (M507/E50145/M528/E52645)	Fuser
Duplexer refeed sensor **NOTE:** Duplex models only.	PS502	NA	Not replaceable[2]

Table 3-13 Paper path sensors diagnostic tests (all except M501) (continued)

Sensor name	Sensor/Switch number	Replacement part number	Descriptions
Output bin full sensor	PS4	NA	Not replaceable[2]

[1] Only appears if optional accessories are installed.
[2] Require whole unit replacement.

Manual sensor tests (all except M501)

The table in this section lists the sensors and switches available in the Manual Sensor Test.

Access the manual sensor test from a touchscreen control panel

The Manual Sensor Test screen shows the sensor number, sensor name (M506x/M507x and M527/E52545/M528/E52645 only), sensor state (active or inactive), and the number of times the sensor has been toggled (activated).

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Manual Sensor Test
3. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, opening the front door increments the SW501 Cartridge doorToggled item count two times—once when the door is opened, and once when the door is closed.

Access the manual sensor test from a LCD control panel

Use the following procedure to access the manual sensor test from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.

4. Use the down arrow ▼ button to scroll to Manual Sensor Test, and then press the OK button.
5. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

TIP: Press the return arrow ⮌ button to reset the sensor or press the Cancel button to exit the test.

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, opening the cartridge door increments the SW501 Front door opening/closing Toggled item count two times—once when the door is opened, and once when the door is closed.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Manual Sensor Test, and then press the OK button.
6. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

TIP: Press the return arrow ⮌ button to reset the sensor or press the Cancel ✕ button to exit the test.

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, opening the front door increments the SW3 Front door opening/closing Toggled item count two times—once when the door is opened, and once when the door is closed.

NOTE: The following table describes the sensor tests available with an optional 1x550-sheet paper feeder installed.

For trays other than Tray 1 or Tray 2, the tray number associated with a sensor or switch depends on the number and type of accessories installed.

Table 3-14 Manual sensor diagnostic tests (all except M501)

Sensor or switch	Replacement Part number	Description
SW501 Cartridge door sensor	RK2-0534-000CN	Microswitch (SW2)
PS8008 Tray 3 feed sensor[1]	F2A68-67909	550-sheet paper feeder
PS102 Prefeed sensor	NA	Not replaceable[2]
PS215 Top-of-Page (TOP) sensor	NA	Not replaceable[2]
Paper width 3 sensor	NA	Not replaceable[2]
Paper width 2 sensor	NA	Not replaceable[2]
Paper width 1 sensor	NA	Not replaceable[2]
PS2 Fuser output sensor	RM2-5679-000CN (110 V) RM2-5692-000CN (220 V) (M501/M506/E50045/M527/E52545)	Fuser
PS2 Fuser output sensor	RM2-2585-000CN (110 V) RM2-2586-000CN (220 V) (M507/E50145/M528/E52645)	Fuser
PS502 Duplexer refeed sensor **NOTE:** Duplex models only.	NA	Not replaceable[2]
PS4 Output bin full sensor	NA	Not replaceable[2]

[1] Only appears if optional accessories are installed.
[2] Requires whole unit replacement.

Tray/bin manual sensor test (all except M501)

The table in this section lists the sensors and switches available in the Tray/Bin Manual Sensor Test.

Access the tray/bin manual sensor test from a touchscreen control panel

The Tray/Bin Manual Sensor Test screen shows the sensor number, sensor name (M506x/M507x and M527/E52545/M528/E52645 only), sensor state (active or inactive), and the number of times the sensor has been toggled (activated).

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Tray/Bin Manual Sensor Test

3. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, raising, and then releasing, the output bin full flag increments the PS4 Output bin full Toggled item count two times—once when the flag is raise, and once when it is released.

Access the tray/bin manual sensor test from a LCD control panel

Use the following procedure to access the tray/bin manual sensor test from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Use the down arrow ▼ button to scroll to Tray/Bin manual Sensor Test, and then press the OK button.
5. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

TIP: Press the return arrow ⮌ button to reset the sensor or press the Cancel button to exit the test.

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name (M506x/M507x and M527/E52545/M528/E52645 only) illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, raising, and then releasing, the output bin full flag increments the PS4 Output bin full Toggled item count two times—once when the flag is raise, and once when it is released.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.

3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Tray/Bin manual Sensor Test, and then press the OK button.
6. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).

TIP: Press the return arrow ⮌ button to reset the sensor or press the Cancel ✕ button to exit the test.

NOTE: Only the M506x/M507x and M527/E52545/M528/E52645 control panel displays the State and Toggle descriptor.

- The State virtual LED next to the sensor number and sensor name illuminates green when the sensor is active.
- The Toggle virtual LED next to the sensor number and sensor name illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

  For example, opening the front door increments the SW3 Front door opening/closing Toggled item count two times—once when the door is opened, and once when the door is closed.

NOTE: The following table describes the sensor tests available with an optional 1x550-sheet paper feeder installed.

For trays other than Tray 1 or Tray 2, the tray number associated with a sensor or switch depends on the number and type of accessories installed.

Table 3-15 Tray/bin manual sensors (all except M501)

Sensor or switch name	Replacement part number	Descriptions
PS205 Tray 1 paper sensor	F2A68-67914	Cartridge door assembly
PS3 Tray 2 paper sensor	NA	Not replaceable[1]
PS451 Tray 3 paper sensor[2]	F2A68-67909	Optional paper feeder
PS8008 Tray 3 paper feed sensor[2]	F2A68-67909	Optional paper feeder
PS1603 Tray 3 feed sensor[2]	F2G68-67901	Optional paper feeder
PS4 Output bin full sensor	NA	Not replaceable[1]

1 Requires whole unit replacement.
2 Only appears if optional accessories are installed.

Print/stop test (all except M501)

Use this diagnostic test to isolate the cause of problems such as image-formation defects and jams within the engine.

During this test, stop the paper anywhere along the printer paper path. The test can be programmed to stop printing internal pages or an external print job when the paper reaches a certain position. The test can also be programmed to stop from 0 to 60,000 ms. If the timer is set to a value that is greater than the job-print time, the printer can recover in one of two ways.

- After the print job is completed press OK button to return to the Troubleshooting menu before the timer times out.
- After the timer times out, touch the Stop button. Activate the door switch to restart the engine and return it to a normal state.

Access the print/stop test from a touchscreen control panel

Use the following procedure to access the print/stop test from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Print/Stop Test
3. Enter a range, and then touch the OK button.

Access the print/stop test from a LCD control panel

Use the following procedure to access the print/stop test from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Test, and then press the OK button.
4. Use the down arrow ▼ button to scroll to Print/Stop Test, and then press the OK button.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Print/Stop Test, and then press the OK button.

Common print stop test timing millisecond (ms) stops

Review the following information about common print stop test timing stops.

- **600 ms**: The page has passed the registration area and the leading edge is just short of entering the fuser. The image can be seen on the paper but has not fused. If the defect is visible then the cause might be the drum, transfer roller, or a roller prior to, or in, the registration area.

- **1200 ms**: The leading edge is about 18mm (0.71 in) into the top output bin. The image has gone through the fuser. If the defect was not visible prior to the fuser, and is visible after the fuser, then the fuser it is the likely cause of the print quality defect. Inspect the fuser for damage, debris, or labels stuck to the fuser. Replace the fuser. Discuss media specifications and proper care of the fuser with the customer.

Component tests (all except M501)

Use the procedure below to test various printer mechanical and electromechanical assemblies.

Individual component diagnostics (special-mode test; all except M501)

This test activates individual parts independently to isolate problems.

NOTE: The following table describes the sensor tests available with an optional 1x550-sheet paper feeder installed.

For trays other than Tray 1 or Tray 2, the tray number associated with a sensor or switch depends on the number and type of accessories installed.

Each component test can be performed once or repeatedly. If the Repeat option is enabled from the drop-down menu, the test cycles the component on and off. This process continues for two minutes, and then the test terminates.

NOTE: The cartridge door interlocks must be defeated to run the component tests. A control panel display prompt appears to indicate removing the toner cartridge, during certain tests.

Access the individual component diagnostics from a touchscreen control panel

Use the following procedure to access the individual component diagnostics from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Component Test
3. Select the component test options for the test.

Access the individual component diagnostics from a LCD control panel

Use the following procedure to access the individual component diagnostics from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Test, and then press the OK button.
4. Use the down arrow ▼ button to scroll to Component Test, and then press the OK button.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Diagnostic Tests, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Component Test, and then press the OK button.
6. Select the component and desired options.
7. Select Start to start the test.
8. Select Stop to stop the test.

NOTE: The following table describes the sensor tests available with an optional 1x550-sheet paper feeder installed.

For trays other than Tray 1 or Tray 2, the tray number associated with a sensor or switch depends on the number and type of accessories installed.

Table 3-16 Component test details (all except M501)

Component test	Item tested	Comments
Fuser motor	M1	Activates the specified motor.
Pickup motor	M2	Activates the specified motor.
Tray 1 Pickup Solenoid	SL2	Activates the specified solenoid.
Tray 2 Pickup Solenoid	SL1	Activates the specified solenoid.
Tray 3 Pickup Solenoid[1]		Activates the specified solenoid.
Duplex switchback solenoid **NOTE:** Duplex models only.	SL3	Activates the specified solenoid.
Optional Clutch Drive		Activates the specified clutch/drive.
Repick Clutch **NOTE:** Duplex models only.	CL1	Activates the specified clutch.
Laser Scanner Motor	M3	Activates the specified motor.
Repeat	NA	Choose Off to execute the test once. Choose On to execute the test continuously.

[1] Only appears if an optional 550-sheet paper feeder accessory is installed.

Scanner tests (M527/E52545/M528/E52645)

Use these diagnostic tests to manually test the document feeder and scanner sensors.

Scanner tests (M527/E52545/M528/E52645)

This section lists the sensors available in the Scanner Tests.

Document feeder and image scanner sensor replacement parts

If a document feeder or image scanner sensor fails, replace the following assemblies.

- Document feeder sensors
  - Document feeder whole unit kit Enterprise printers; 5851-6568

    NOTE: Includes the white backing kit.
  - Document feeder whole unit kit Work Flow printers; 5851-6569

    NOTE: Includes the white backing kit.
  - Scanner sub assembly (SSA) kit; F2A76-67909

    NOTE: Includes the white backing kit.

Use the scanner tests

The Scanner Tests screen shows the sensor name, sensor state (active or inactive), and the number of times the sensor has been toggled (activated).

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Diagnostic Tests
   - Scanner Tests
   - Sensors
3. Touch the sensor name on the Scanner Tests screen to display a sensor location graphic on the control panel display.
4. Activate the desired sensor, and then check the control panel display to verify the sensor state (active or inactive).
   - The State virtual LED next to the sensor number and sensor name illuminates green when the sensor is active.
   - The Toggle virtual LED next to the sensor number and sensor name illuminates green after the sensor is activated and increments by one each time the sensor is interrupted (activated or deactivated).

     For example, opening the flatbed cover increments the Flatbed cover Toggle item count two times—once when the door is opened, and once when the door is closed.

Scanner tests sensors

- ADF paper present
- ADF Y (length)
- ADF jam cover

- ADF paper path deskew
- ADF paper path pick success
- Paper path sensor 1 (unreachable)
- Paper path sensor 2 (unreachable)
- Flatbed Y (length)
- Flatbed cover

Diagrams

Use the diagrams in this section to identify printer components.

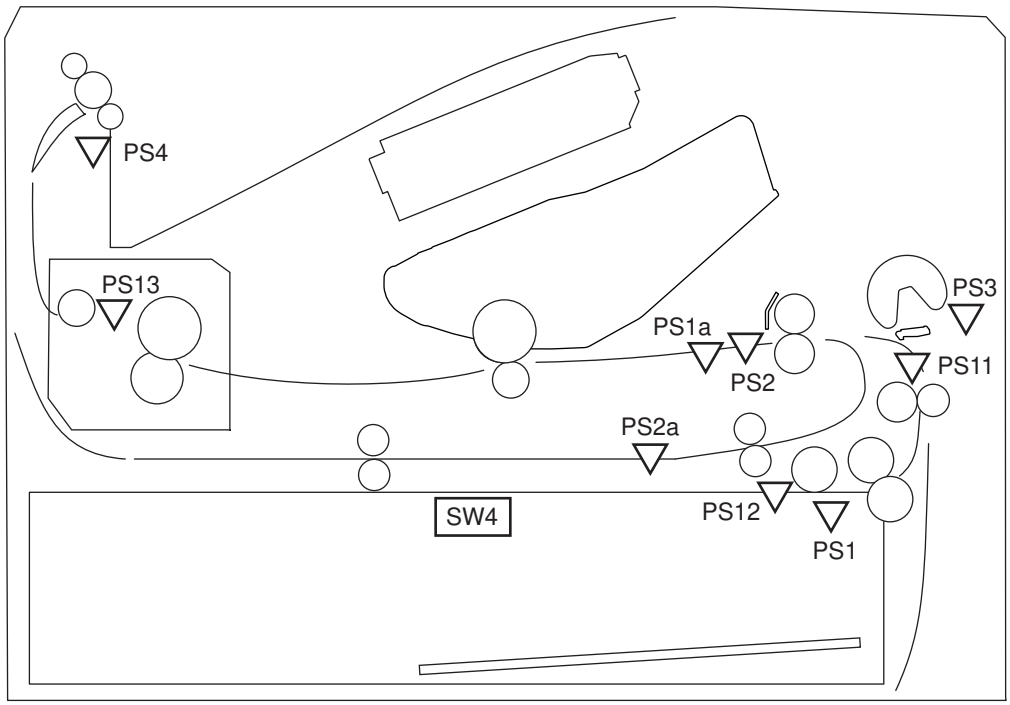
Diagrams: Block diagrams

Use the diagrams in this section to identify printer sensors, switches, and assemblies.

Sensors and switches

Review the following information about the sensors and switches.

Figure 3-55 Printer base, sensors and switches block diagram

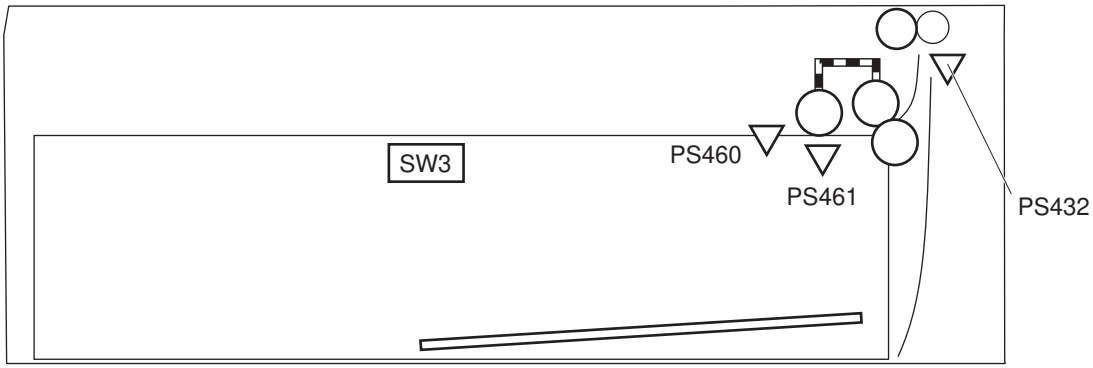


Sensor	Description	Sensor	Description
SR1a	Media width sensor	SR4	Output bin media-full sensor
SR2b	Duplex feed sensor[1]	SR11	Registration sensor
SR1	Cassette media out sensor	SR12	Prefeed sensor
SR2	Top-of-Page (TOP) sensor	SR13	Fuser output sensor

Sensor	Description	Sensor	Description
SR3	Tray 1 (multipurpose tray) media out and registration sensor	SW4	Cassette detection switch

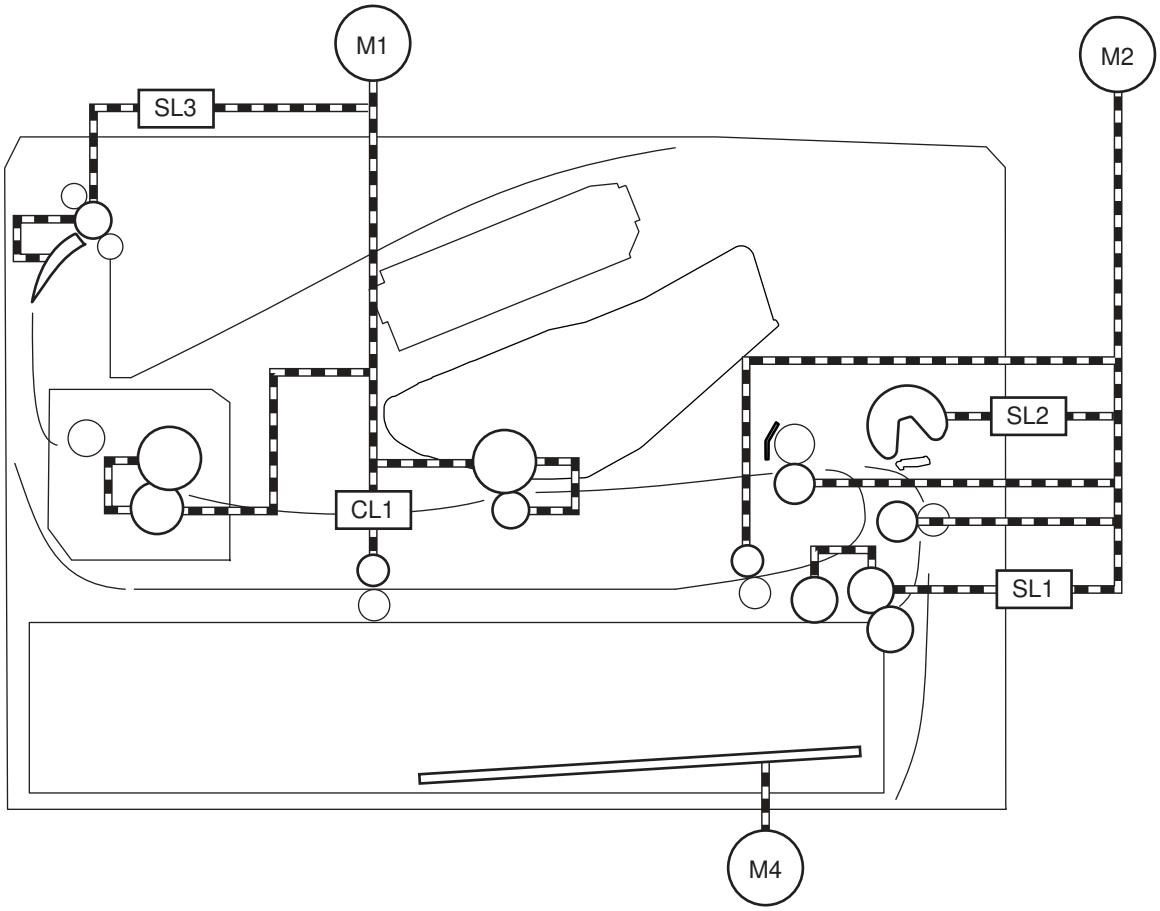
[1] Duplex models only.

Figure 3-56 1x550-sheet paper feeder, sensors and switches block diagram



Sensor	Description
PS460	Media surface sensor
PS461	Cassette media out sensor
PS432	Feed sensor
SW3	Cassette detection switch

Figure 3-57 Printer base, motors, clutches, and solenoids block diagram

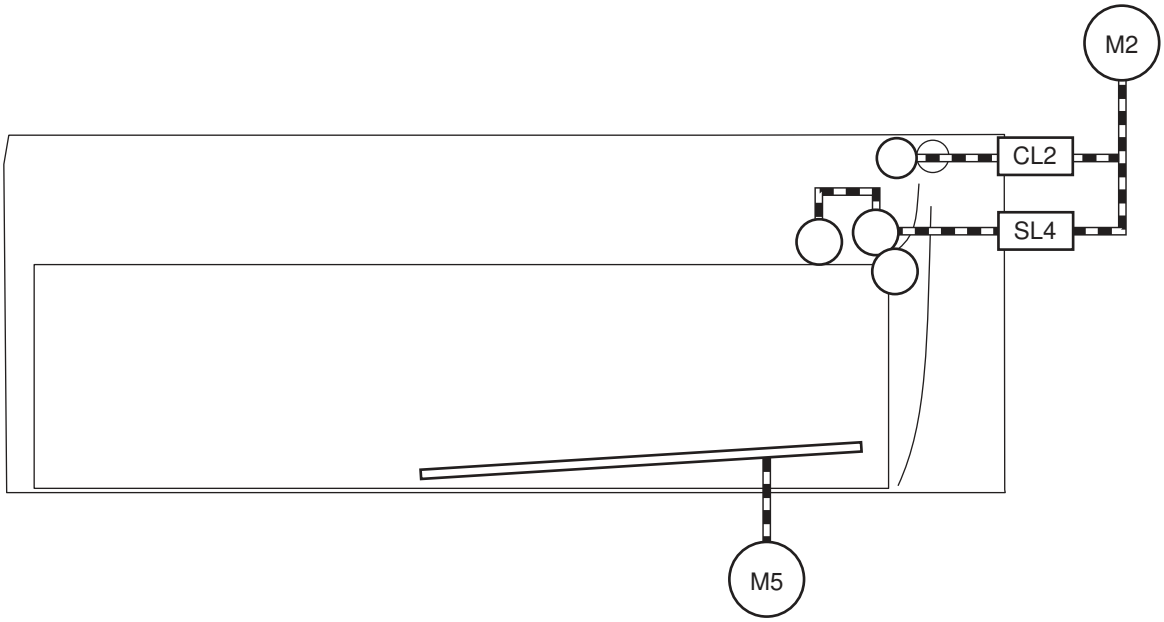


Item	Description
M1	Fuser motor
M2	Pickup motor
M4	Lifter motor
SL1	Cassette pickup solenoid
SL2	Tray 1 (MP) pickup solenoid
SL3	Duplex switchback solenoid[1]

Item	Description
CL1	Duplex re-pickup clutch[1]

[1] Duplex models only.

Figure 3-58 1x550-sheet paper feeder, motors, clutches, and solenoids block diagram

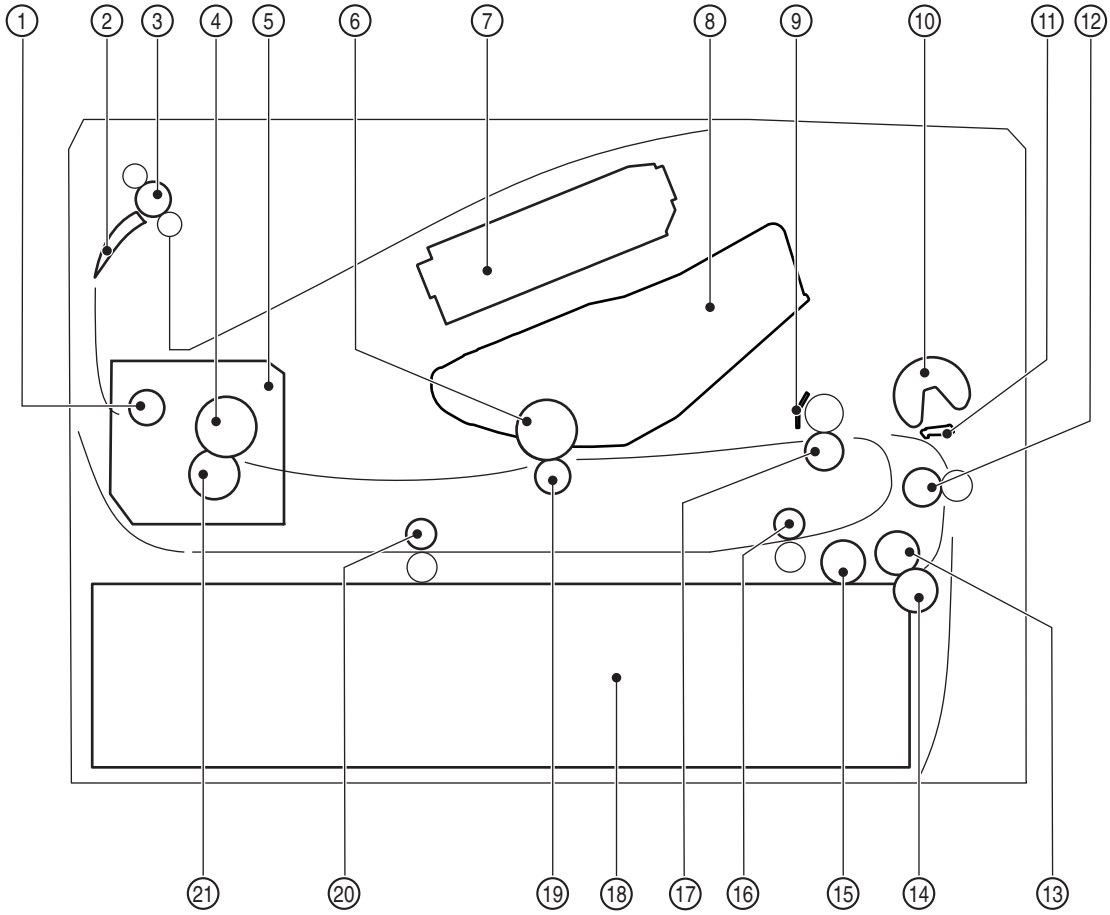


M2	Fuser motor (located in the printer)
M5	Lifter motor
CL2	Feed clutch
SL4	Cassette pickup solenoid

Cross section diagrams

Review the following information about the cross section diagrams.

Figure 3-59 Printer base, cross section diagram

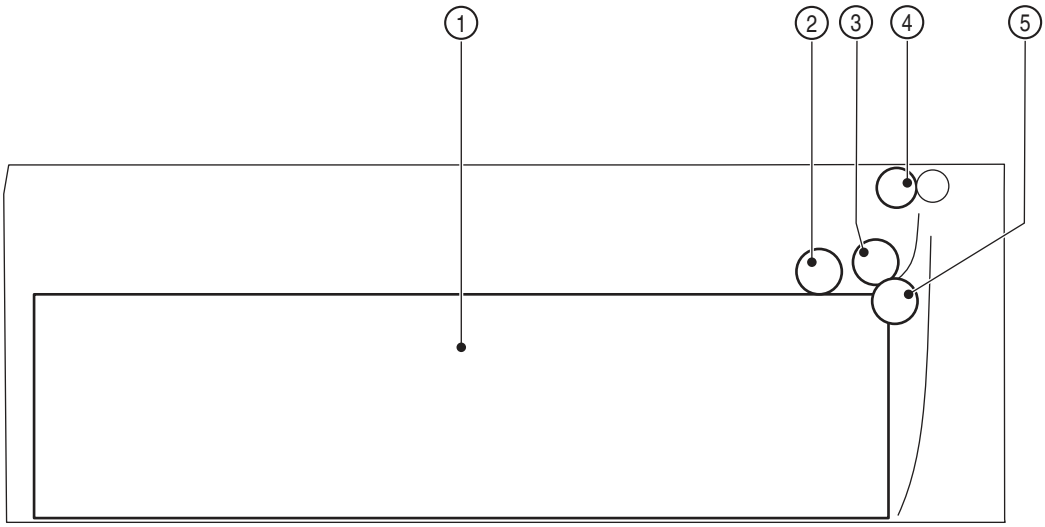


Item	Description	Item	Description
1	Fuser output roller	12	Feed roller
2	Duplex flapper[1]	13	Tray 2 feed roller
3	Output roller	14	Tray 2 separation roller
4	Fuser film	15	Tray 2 pickup roller
5	Fuser	16	Duplex re-pickup roller[1]
6	Photosensitive drum	17	Registration roller
7	Laser/scanner assembly	18	Cassette
8	Toner cartridge	19	Transfer roller
9	Registration shutter	20	Duplex feed roller[1]
10	Tray 1 (MP) tray pickup roller	21	Pressure roller

Item	Description	Item	Description
11	Tray 1 (MP) tray separation pad		

[1] Duplex models only.

Figure 3-60 1x550-sheet paper feeder, cross section diagram



Item	Description
1	Cassette
2	Cassette pickup roller
3	Cassette feed roller
4	Feed roller
5	Cassette separation roller

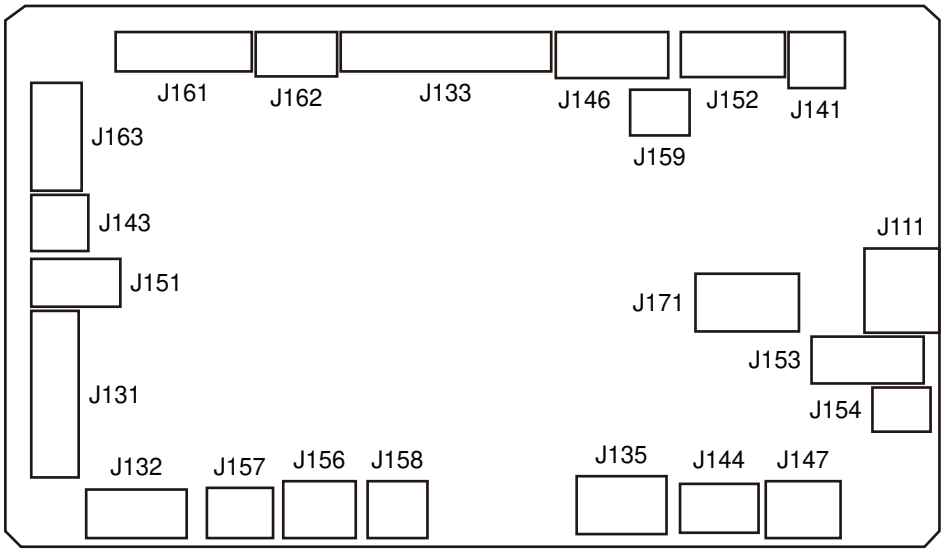
Diagrams: Printed circuit assembly (PCA) connector locations

Use the diagrams in this section to identify printer PCA connector locations.

DC controller connections

Each of the connections on the DC controller PCA is indicated in the following figure.

Figure 3-61 DC controller PCA connectors



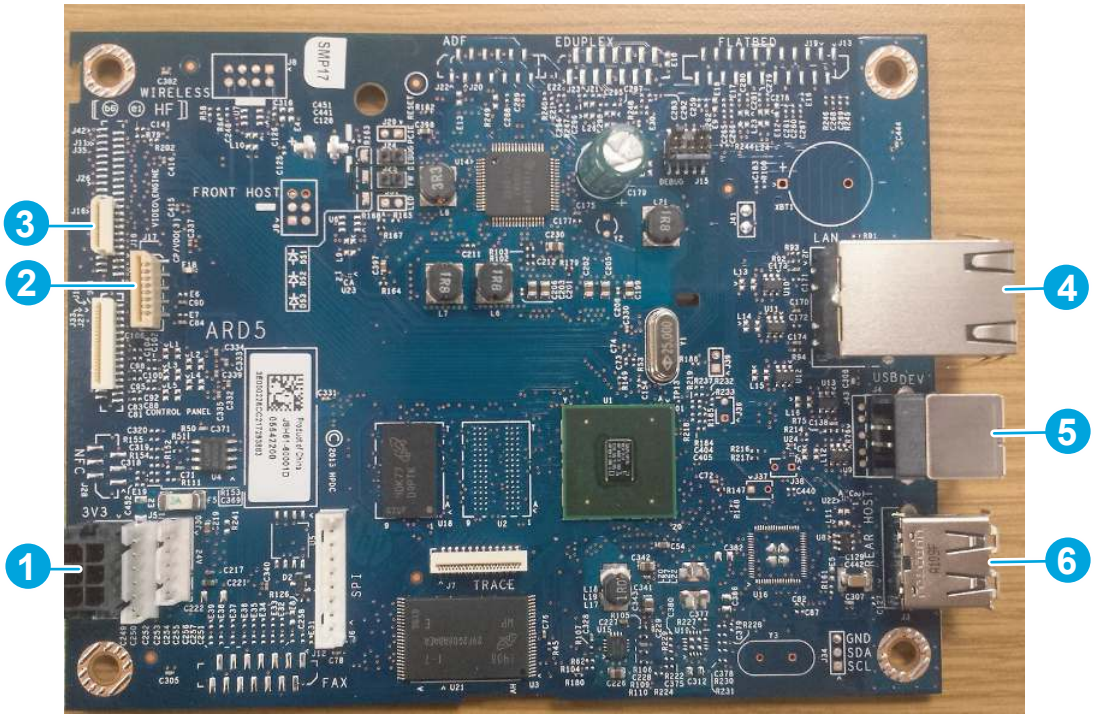
Item	Description	Item	Description
J111	Not used	J152	Output bin media-full sensor (PS4) Fuser output sensor (PS13) Thermistor (YH401)
J131	Low-voltage power supply (LVPS) Power LED	J153	Paper feeder
J132	Fuser power supply (FPS)	J154	Duplex re-pickup clutch (CL1)[1]
J133	High-voltage power supply (HVPS)	J156	Media surface sensor (PS12)
J135	Low-voltage power supply (LVPS)	J157	Registration sensor (PS11)
J141	Duplex switchback solenoid (SL3)[1]	J158	Cassette detection switch (SW4)
J143	Tray 1 (MP) tray pickup solenoid (SL2)	J159	Rear door switch (SW5)
J144	Lifter motor Cassette pickup solenoid (SL1)	J161	Laser/scanner assembly
J146	Fuser motor (M1)	J162	Laser/scanner motor
J147	Sub fan (FM2)	J163	Formatter
J151	Media width sensor (PS1a) Duplex feed sensor (PS2b)[1] Top-of-Page (TOP) sensor (PS2)	J171	Pickup motor (M2)

[1] Duplex models only.

Formatter PCA (M501)

Review the following information about the formatter PCA for the M501 printer.

Figure 3-62 Formatter PCA M501

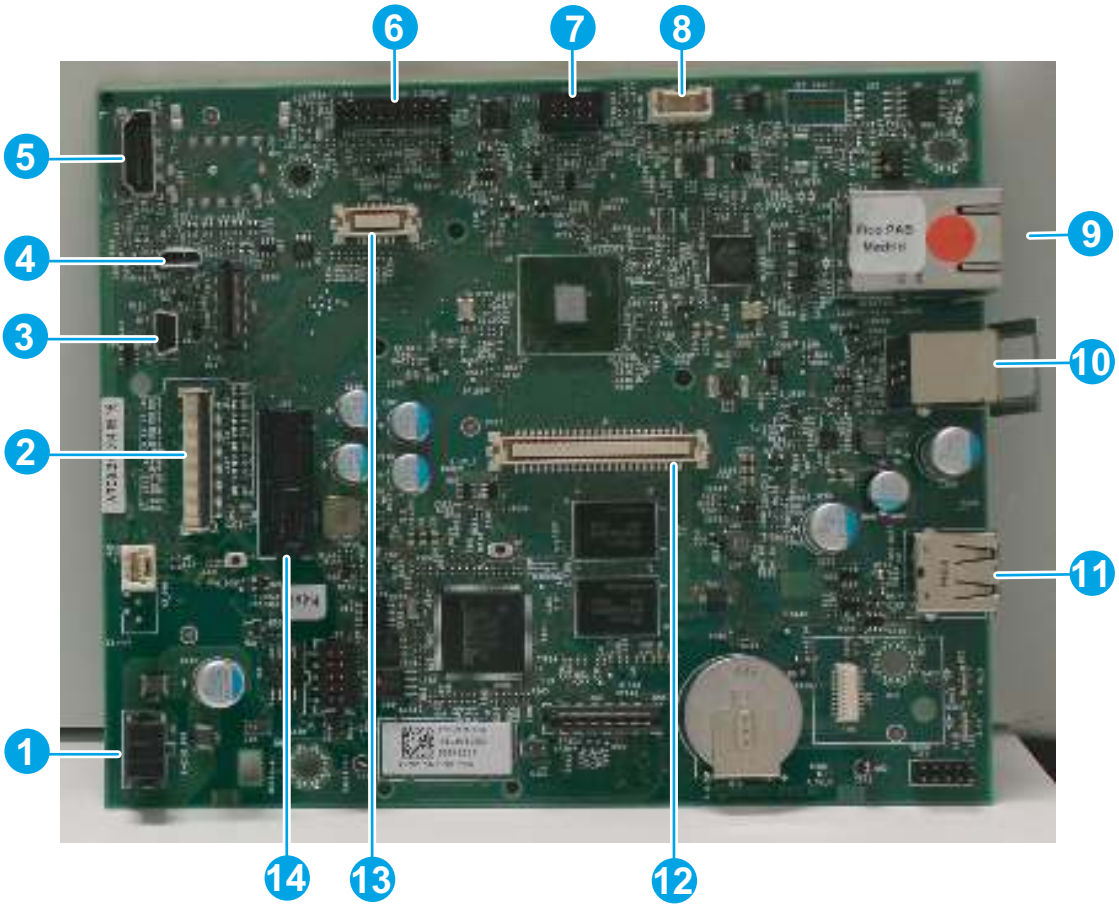


Item	Description	Item	Description
1	Control panel	4	Local area network (LAN)
2	Engine	5	USB device
3	Power supply	6	USB host

Formatter PCA (M506/E50045/M507/E50145)

Review the following information about the formatter PCA for the M506/E50045/M507/E50145 printers.

Figure 3-63 Formatter PCA (M506/E50045/M507/E50145)

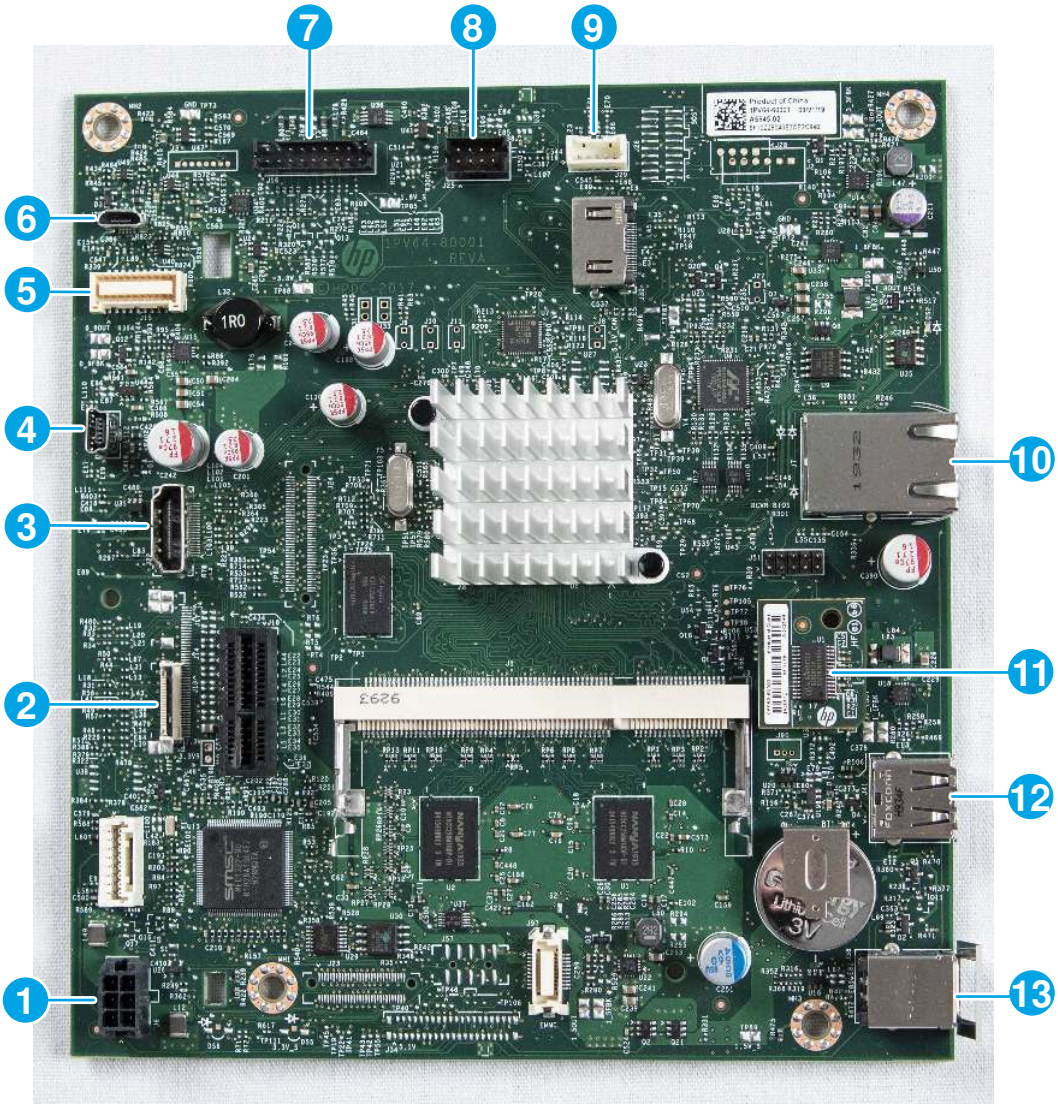


Item	Description	Item	Description
1	Power	8	IOD
2	Engine I/F	9	Local area network (LAN)
3	Hardware integration pocket (HIP)	10	USB device
4	Easy-access USB	11	USB host
5	Control panel HDMI	12	Dual in-line memory module (DIMM)
6	Control panel sideband	13	embedded MultiMedia Card (eMMC)
7	Wireless	14	Hard-disk drive (HDD) riser

Formatter PCA (M527/E52545/M528/E52645)

Review the following information about the formatter PCA for the M527/E52545/M528/E52645 printers.

Figure 3-64 Formatter PCA M527/E52545/M528/E52645

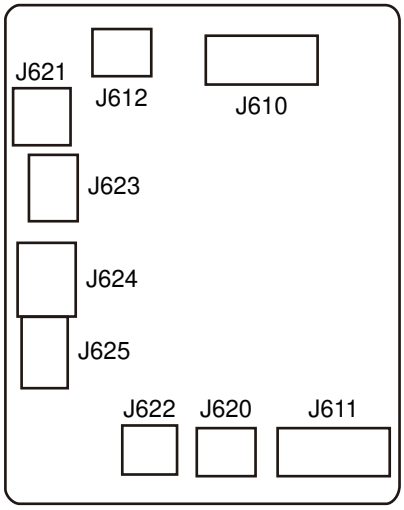


Item	Description	Item	Description
1	Power	8	Control panel HDMI
2	Engine and video	9	Island of Data (IOD)
3	Scanner HDMI	10	Local area network (LAN)
4	Hardware integration pocket (HIP)	11	Trusted Platform Module (TPM)
5	embedded MultiMedia Card (eMMC)	12	USB host
6	Walk up USB	13	USB device
7	Control panel side		

1x550-sheet paper feeder controller PCA connections

Each of the connections on the 1x550-sheet paper feeder controller PCA is indicated in the following figure.

Figure 3-65 1x550-sheet paper feeder controller PCA connectors

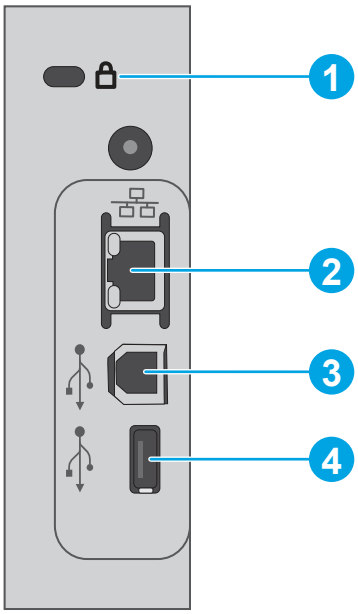


Item	Description	Item	Description
J610	Printer	J622	Lifter motor (M5)
J611	Paper feeder	J623	Media surface sensor (PS460)
J612	Cassette detection switch (SW3)	J624	Feed sensor (PS432)
J620	Lifter motor (M5)	J625	Cassette media out sensor (PS461)
J621	Cassette pickup solenoid (SL4)		

Diagrams: External plug and port locations

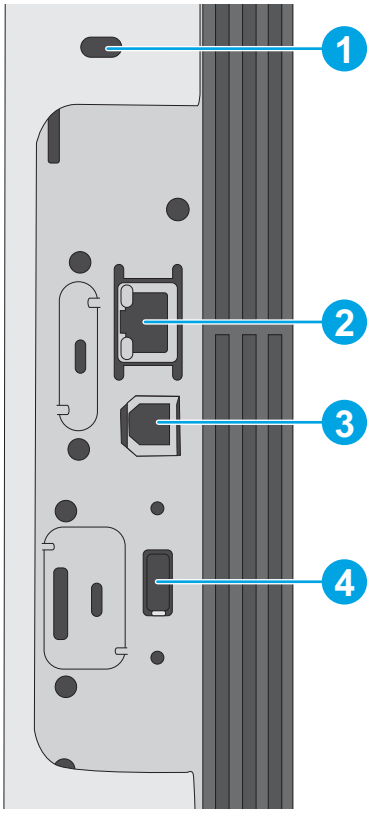
Use the following figure to locate and identify the printer external port locations.

Figure 3-66 External plug and port locations (M501)



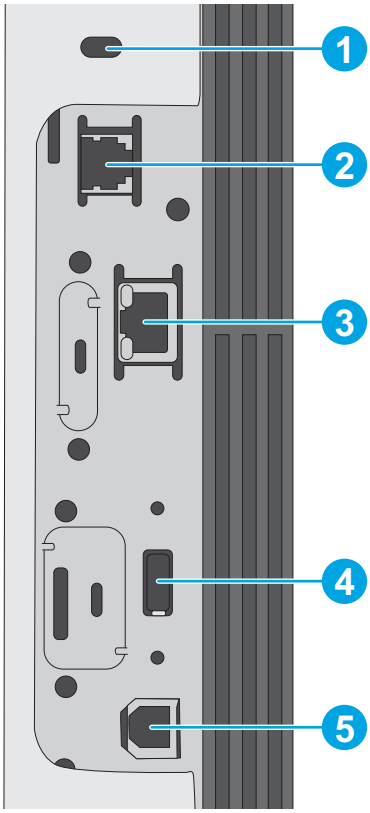
Item	Description
1	Slot for a cable-type security lock
2	Local area network (LAN) Ethernet (RJ-45) network port
3	Hi-Speed USB 2.0 printing port
4	USB port for job storage feature (requires a 16 GB or larger USB flash drive)

Figure 3-67 External plug and port locations (M506/E50045/M507/E50145)



Item	Description
1	Slot for a cable-type security lock
2	Local area network (LAN) Ethernet (RJ-45) network port
3	Hi-Speed USB 2.0 printing port
4	USB port for connecting external USB devices (this port might be covered) NOTE: For easy-access USB printing, use the USB port on the top cover.

Figure 3-68 External plug and port locations (M527/E52545/M528/E52645)



Item	Description
1	Slot for a cable-type security lock
2	Fax port (f and z models only)
3	Local area network (LAN) Ethernet (RJ-45) network port
4	USB port for connecting external USB devices (this port might be covered) NOTE: For easy-access USB printing, use the USB port on the top cover.
5	Hi-Speed USB 2.0 printing port

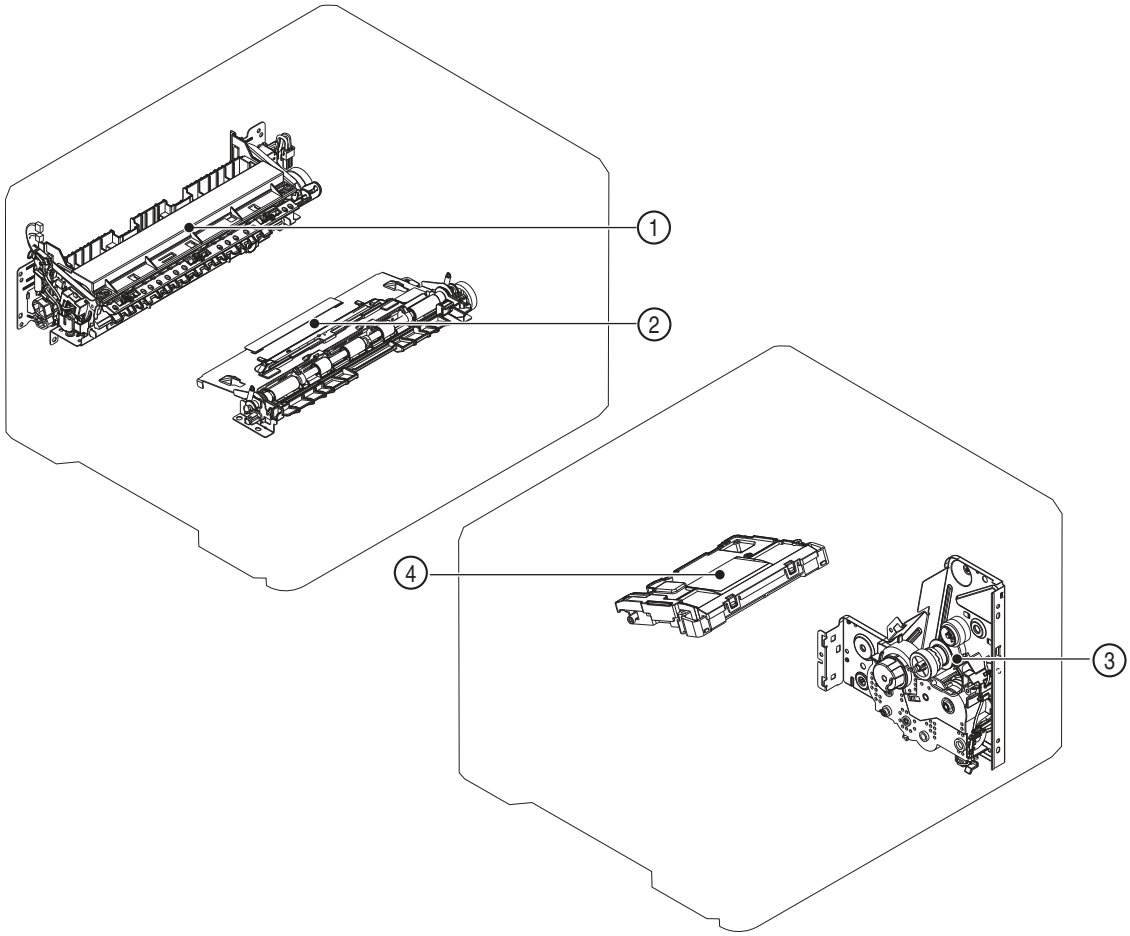
Diagrams: Locations of major assemblies

Use the figures in this section to identify and locate major components and assemblies in the printer.

Main assemblies (printer base)

Review the following information about the main assemblies (printer base).

Figure 3-69 Main assemblies

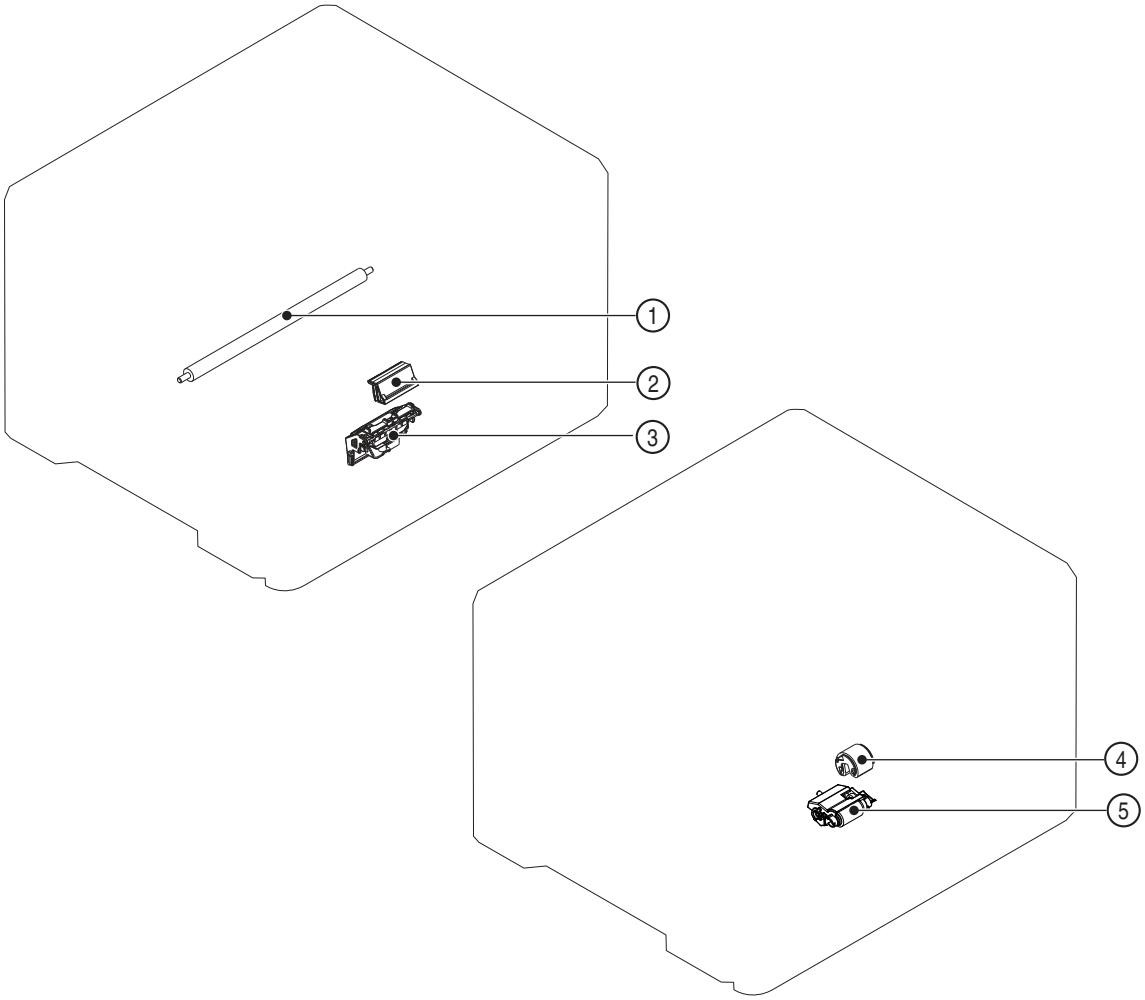


Item	Description
1	Fuser
2	Registration assembly
3	Feed drive assembly
4	Laser/scanner assembly

Rollers and pads (printer base)

Review the following information about the rollers and pads (printer base).

Figure 3-70 Rollers and pads (printer base)

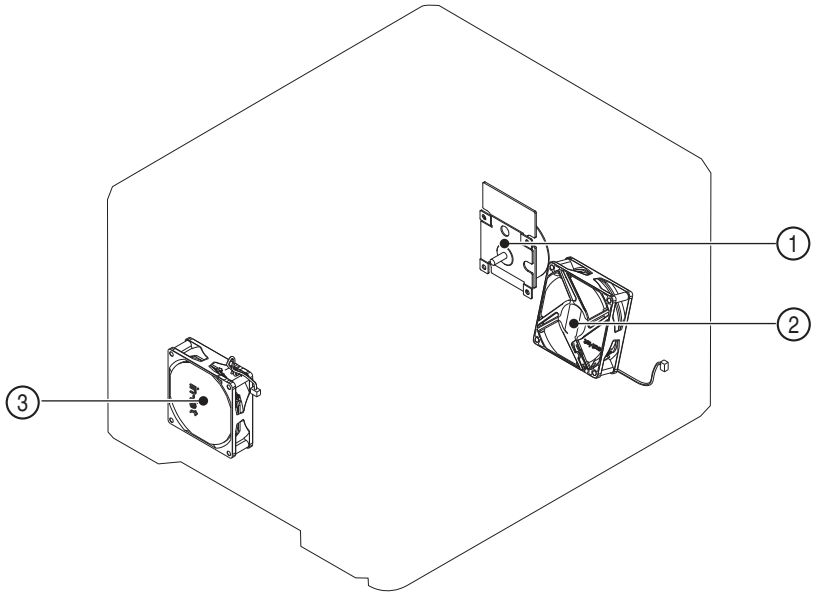


Item	Description
1	Transfer roller
2	Tray 1 separation pad assembly
3	Tray 2 separation roller assembly
4	Tray 1 pickup roller
5	Tray 2 pickup roller assembly

Motor and fans

Review the following information about the motor and fans.

Figure 3-71 Motor and fans

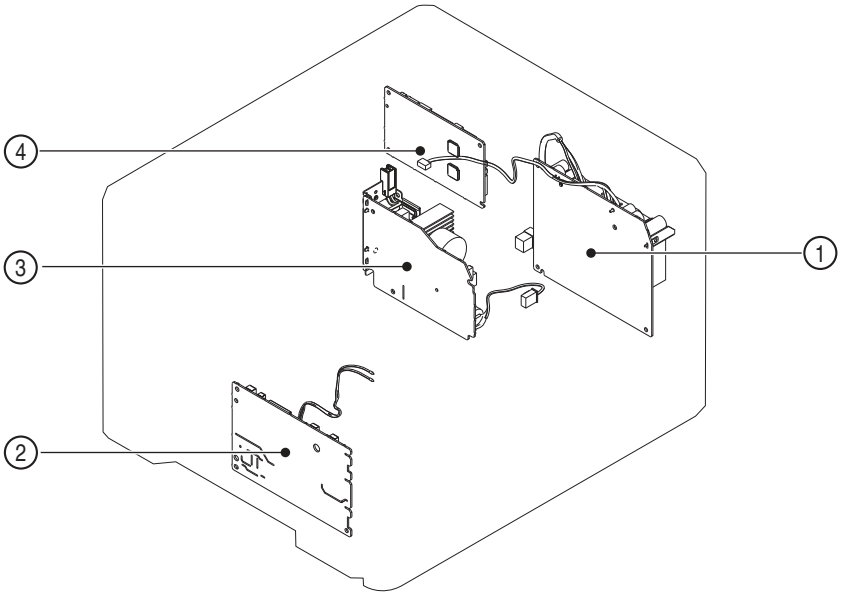


Item	Description
1	Fuser motor (M1)
2	Sub fan (FM2)
3	Main fan (FM1)

Printed circuit assemblies (PCAs; printer base)

Review the following information about the PCAs (printer base).

Figure 3-72 PCAs (printer base)



Item	Description
1	Low-voltage power supply (LVPS)
2	High-voltage power supply (HVPS)
3	Fuser power supply (FPS)
4	DC controller PCA

Internal test and information pages

Review the following information about the internal test and information pages.

Print a configuration page

Use the following procedures to print a configuration page.

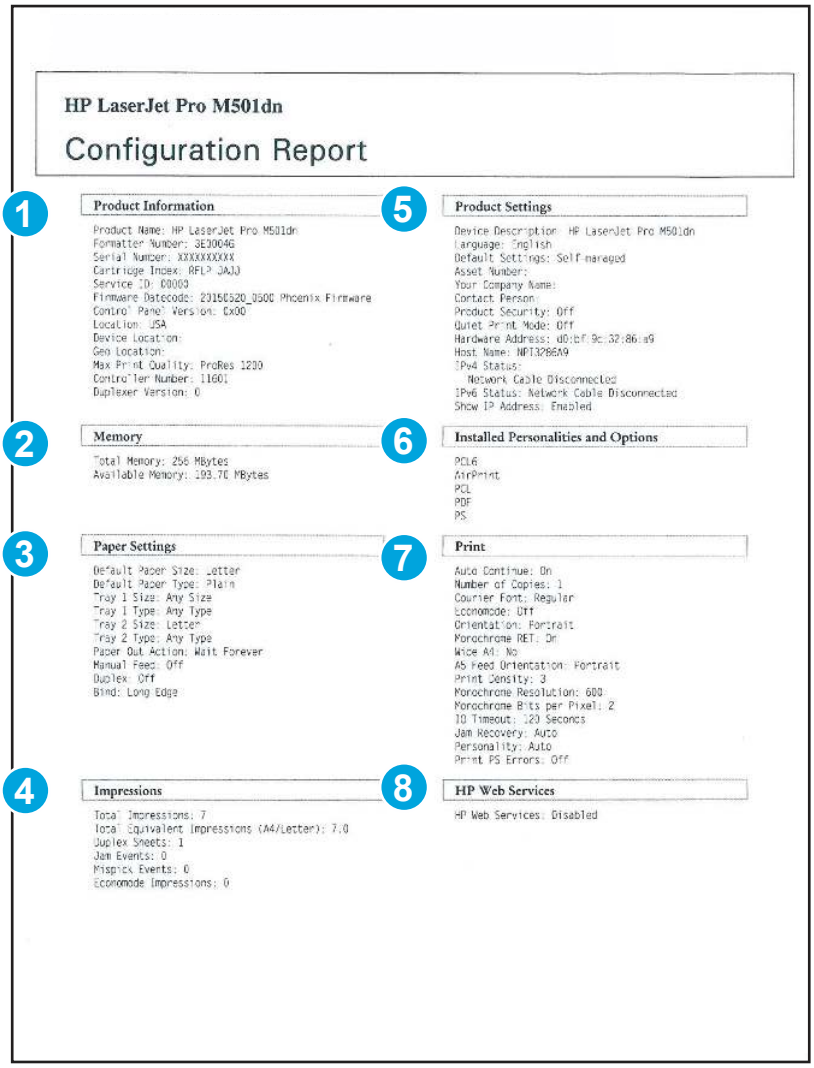
NOTE: Depending on the model, up to three pages print when printing a configuration page. In addition to the main configuration page, the HP embedded Jetdirect configuration and the wireless pages print.

Print the configuration page from a LCD control panel (M501)

Use the following procedure to print the configuration page from a LCD control panel on an M501 printer.

1. On the printer control panel, press the OK button.
2. Open the Reports menu.
3. Select Configuration Report.

Figure 3-73 Configuration report (M501)



Item	Description	Item	Description
1	Product information	5	Product settings
2	Memory	6	Installed personalities and options
3	Paper settings	7	Print
4	Impressions	8	HP Web services

Print the configuration page from a LCD control panel (M506/E50045/M507/E50145)

Use the following procedure to print the configuration page from a LCD control panel on an M506/E50045/M507/E50145 printer.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.

2. Open the following menus:
   - Reports
   - Configuration/Status Pages
3. Use the down arrow ▼ button to scroll to Configuration Page, and then press the OK button to select it.
4. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the pages.

FutureSmart 4

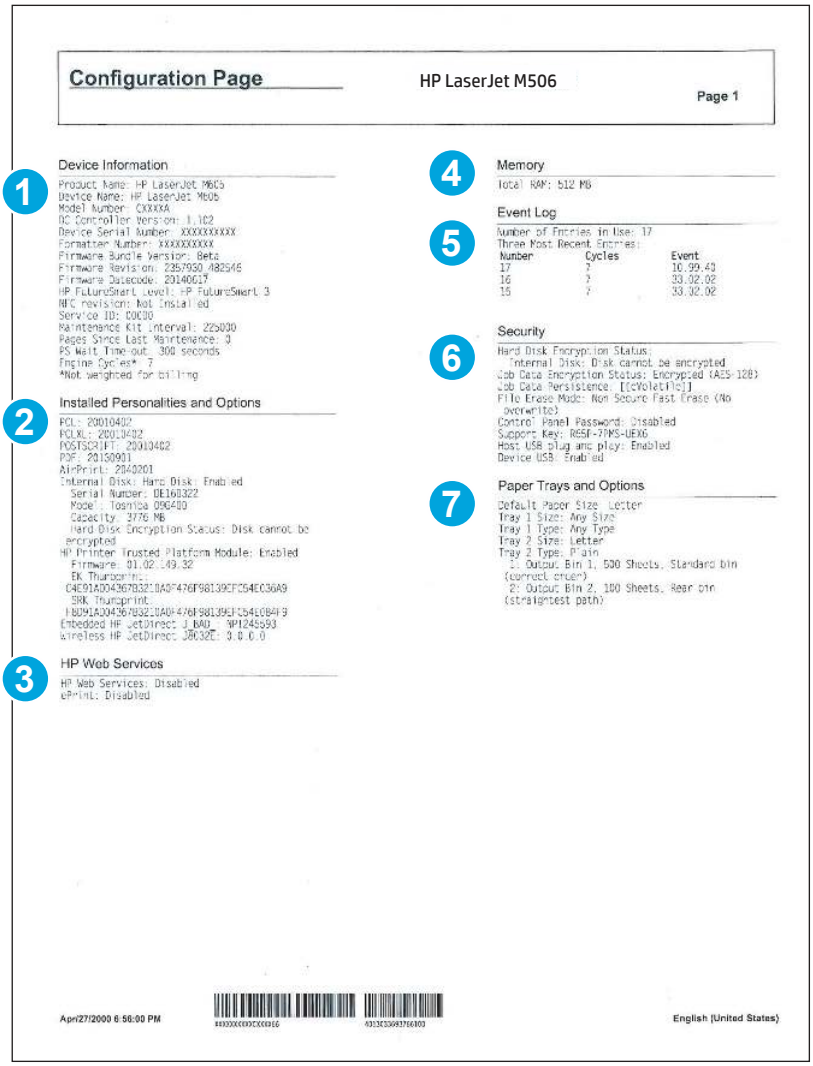
1. From the Home screen on the printer control panel, use the arrow keys to navigate to Reports, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Configuration/Status Pages, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Configuration Page, and then press the OK button.
4. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

Print the configuration page from a touchscreen control panel (M527/E52545/M528/E52645)

Use the following procedure to print the configuration page from a touchscreen control panel on an M527/E52545/M528/E52645 printer.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Reports button (FutureSmart 4).
2. Open the following menus:
   - Reports (FutureSmart 3)
   - Configuration/Status Pages
3. Touch Configuration Page to select it.
4. Touch the Print button to print the pages.

Figure 3-74 Configuration page (all except M501)



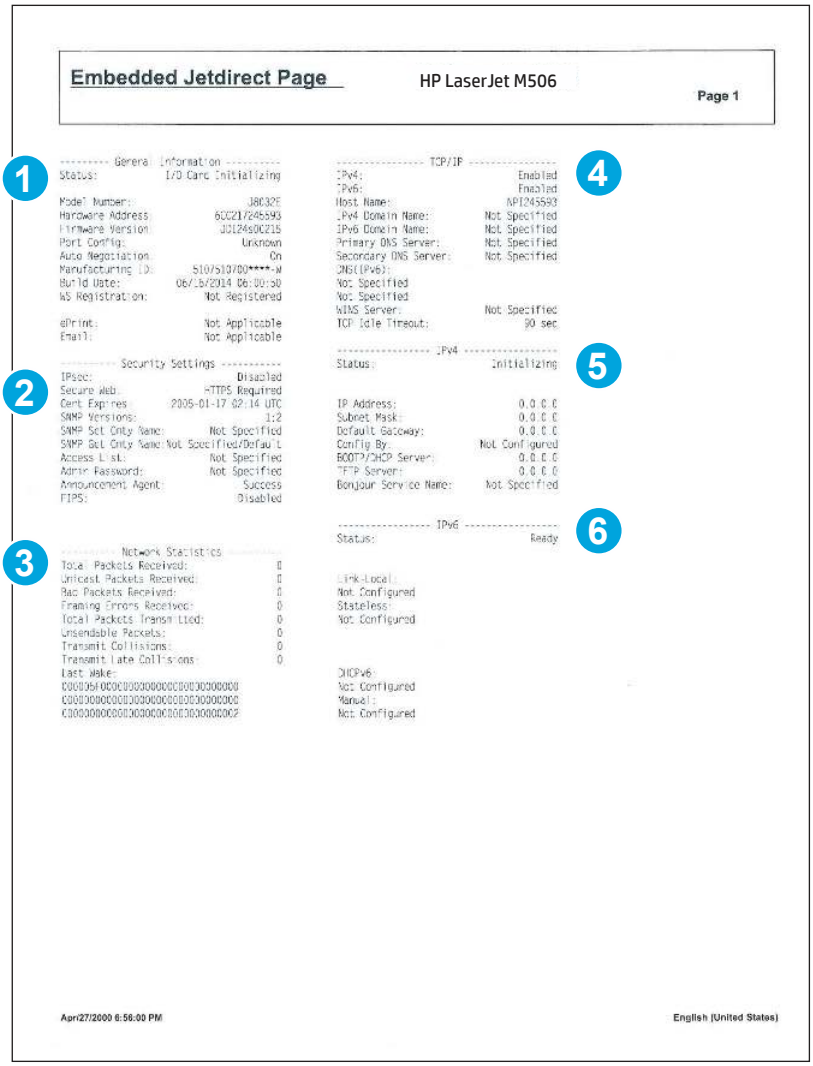
Item	Description	Item	Description
1	Device information	5	Event log
2	Installed personalities and options	6	Security
3	HP Web services	7	Paper trays and options
4	Memory		

HP embedded Jetdirect page (all except M501)

The second configuration page is the HP embedded Jetdirect page, which contains the following information:

Always make sure the status line under the general information line indicates "**HP embedded Jetdirect page.**"

Figure 3-75 HP embedded Jetdirect page (all except M501)



Item	Description
1	**General Information** indicates the printer status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
4	**Security Settings** information
3	**Network Statistics** indicates the total packets received, unicast packets received, bad packets received, framing errors received, total packets transmitted, unsendable packets, transmit collisions, and transmit late collisions.
4	**TCP/IP** information, including the IP address
5	**IPv4** information
6	**IPv6** information

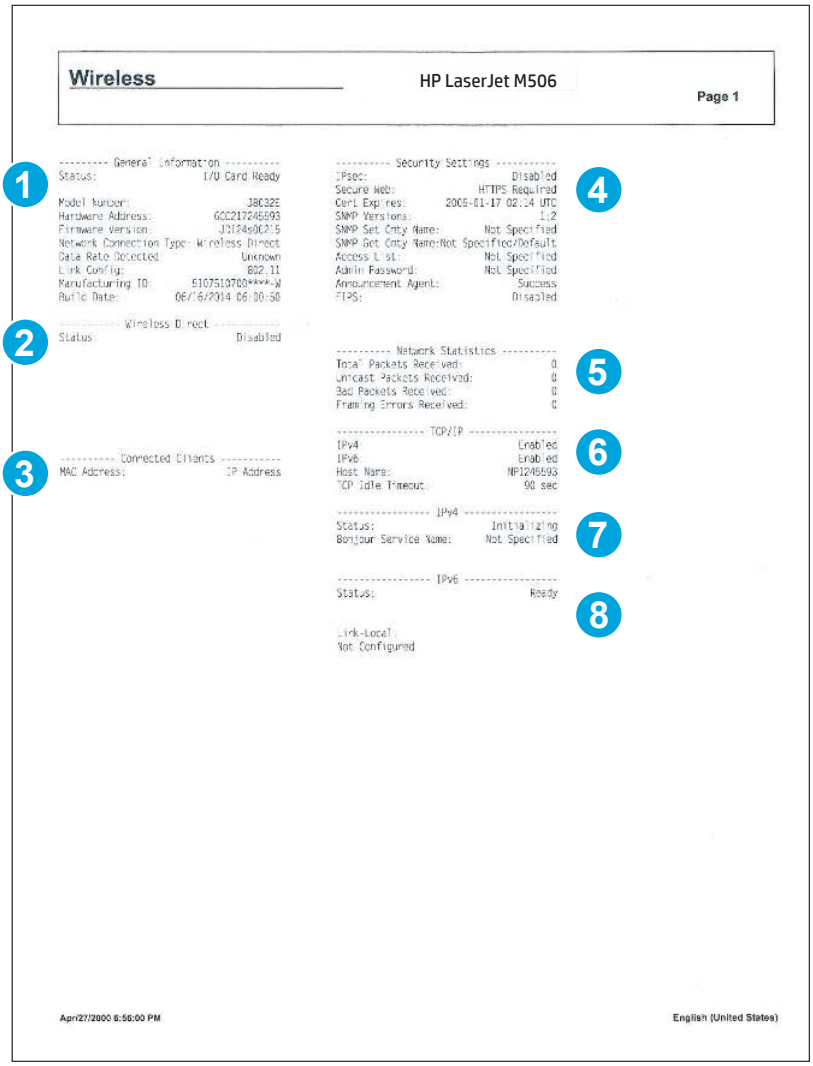
Wireless page (all except M501)

The third configuration page is the wireless page, which contains the following information:

NOTE: Wireless models only.

Always make sure the status line under the general information line indicates "**I/O Card Ready**."

Figure 3-76 Wireless page (all except M501)



Item	Description
1	**General Information** indicates the printer status, model number, hardware firmware version, port select, port configuration, auto negotiation, manufacturing identification, and manufactured date.
2	**Wireless Direct** indicates the wireless function status.
3	**Connected Clients** indicates the MAC or IP address of connected clients.
4	**Security Settings** information
5	**Network Statistics** indicates the total packets received, unicast packets received, bad packets received, framing errors received, total packets transmitted, unsendable packets, transmit collisions, and transmit late collisions.
6	**TCP/IP** information, including the IP address.
7	**IPv4** information.
8	**IPv6** information.

Finding important information on the configuration pages

Certain information, such as the firmware date codes, the IP address, and the email gateways, is especially helpful while servicing the printer. This information is on the various configuration pages.

Table 3-17 Important information on the configuration pages

Type of information	Specific information	Configuration page
Firmware date codes When performing a remote firmware upgrade procedure, all of these firmware components are upgraded.	DC controller (all except M501) **NOTE:** For the M501 printer, the DC controller version is listed as the controller number under product information on the configuration page.	Look on the main configuration page, under "Device Information."
Firmware date codes When performing a remote firmware upgrade procedure, all of these firmware components are upgraded.	Firmware datecode **NOTE:** For the M501 printer, open the main menus, select the **Service** menu, and then select **Firmware Datecode**.	Look on the main configuration page, under "Product Information" (M501) or "Device Information" (all except M501).
Firmware date codes When performing a remote firmware upgrade procedure, all of these firmware components are upgraded.	HP embedded Jetdirect firmware version (all except M501)	Look on the HP embedded Jetdirect page, under "General Information."
Accessories and internal storage All optional devices that are installed on the printer should be listed on the main configuration page. In addition, separate pages print for the optional paper handling devices and the fax accessory (all except M501). These pages list more-detailed information for those devices.	Embedded HP Jetdirect (all except M501)	Look on the main configuration page, under "Installed Personalities and Options." Shows model and ID.
Accessories and internal storage All optional devices that are installed on the printer should be listed on the main configuration page. In addition, separate pages print for the optional paper handling devices and the fax accessory (all except M501). These pages list more-detailed information for those devices.	Total RAM	Look on the main configuration page, under "Memory."
Additional 550-sheet feeders	Additional 550-sheet feeders	Look on the main configuration page, under "Paper Trays and Options" (all except M501).
Engine cycles and event logs Total page counts and maintenance kit counts are important for ongoing printer maintenance. The configuration page lists only the three most recent errors. To see a list of the 50 most recent errors, print an event log from the Diagnostics menu.	Engine cycles	Look on the main configuration page, under Impressions" (M501) or "Device Information" (all except M501).
Event-log information (all except M501)	Event-log information	Look on the main configuration page, under "Event Log."

Table 3-17 **Important information on the configuration pages (continued)**

Type of information	Specific information	Configuration page
Error report information (M501)	Error-log information	Open the **2ndary Service** menu, select **Service Reports**, and then select **Error Report**. Press the OK button to print the report. **NOTE:** This report can also be printed using the HP Embedded Web Server (EWS).

Print a fuser test page (all except M501)

Use the fuser test page to evaluate problems with fuser print quality.

Print a fuser test page from a touchscreen control panel

Use the following procedure to print a fuser test page from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Troubleshooting
   - Print Quality Pages
   - Fuser Test Page
3. Touch the Print button.

Print a fuser test page from a LCD control panel

Use the following procedure to print a fuser test page from a LCD control panel.

FutureSmart 3

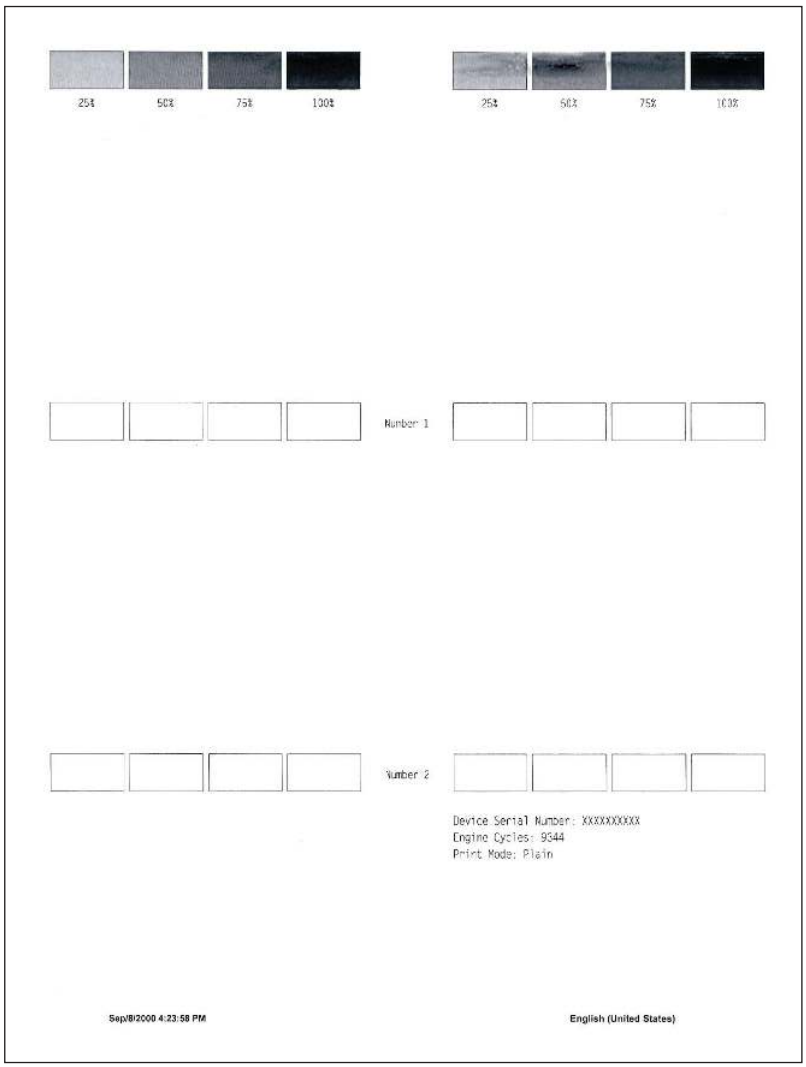
1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Troubleshooting, and then press the OK button.
3. If necessary, use the down arrow ▼ button to scroll to Print Quality Pages, and then press the OK button to start the calibration process.
4. If necessary, use the down arrow ▼ button to scroll to Fuser Test Page, and then press the OK button to print the page.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Navigate to Maintenance, and then select OK.
3. Navigate to Troubleshooting, and then select OK.
4. Use the down arrow ▼ button to scroll to Print Quality Pages, and then press the OK button.

5. Use the down arrow ▼ button to scroll to Fuser Test Page, and then press the OK button.
6. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow ▶ to highlight the print icon . Select OK to print the pages.

Figure 3-77 Fuser test page (all except M501)



Advanced configuration with HP Embedded Web Server (EWS) and HP Device Toolbox (Windows) (M501)

Use the HP Embedded Web Server to manage printing functions from your computer instead of the printer control panel.

- View printer status information
- Determine the remaining life for all supplies and order new ones
- View and change tray configurations (paper types and sizes)
- View and print internal pages
- View and change network configuration

The HP Embedded Web Server works when the printer is connected to an IP-based network. The HP Embedded Web Server does not support IPX-based printer connections. You do not have to have Internet access to open and use the HP Embedded Web Server.

When the printer is connected to the network, the HP Embedded Web Server is automatically available.

NOTE: HP Device Toolbox is available only if you performed a full installation when you installed the printer. Depending on how the printer is connected, some features might not be available.

NOTE: The HP Embedded Web Server is not accessible beyond the network firewall.

Open the HP Embedded Web Server (EWS) from the Start menu

Use the following procedure to open the HP Embedded Web Server (EWS) from the Start menu.

1. Click the **Start** button, and then click the **Programs** item.
2. Click your HP printer group, and then click the **HP Device Toolbox** item.

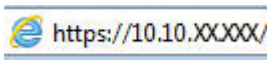
Open the HP Embedded Web Server (EWS) from a Web browser

Use the following procedure to open the HP Embedded Web Server (EWS) from a Web browser.

1. **2-line control panels**: On the printer control panel, press the OK button. Open the **Network Setup** menu, and then select **Show IP Address** to display the IP address or host name.

   Touchscreen control panels: From the Home screen on the printer control panel, touch the Connection Information button, and then touch the Network Connected button or the Network Wi-Fi ON button to display the IP address or host name.

2. Open a Web browser, and in the address line, type the IP address or host name exactly as it displays on the printer control panel. Press the Enter key on the computer keyboard. The EWS opens.

NOTE: If the Web browser displays a **There is a problem with this website's security certificate** message when attempting to open the EWS, click **Continue to this website (not recommended)**.

Choosing **Continue to this website (not recommended)** will not harm the computer while navigating within the EWS for the HP printer.

Tab or section	Description
Home tab Provides printer, status, and configuration information.	• **Device Status**: Shows the printer status and shows the approximate percent life remaining of HP supplies. • **Supplies Status**: Shows the approximate percent life remaining of HP supplies. Actual supply life remaining can vary. Consider having a replacement supply available to install when print quality is no longer acceptable. The supply does not need to be replaced unless the print quality is no longer acceptable. • **Device Configuration**: Shows the information found on the printer configuration page. • **Network Summary**: Shows the information found on the printer network configuration page. • **Reports**: Print the configuration and supplies status pages that the printer generates. • **Event Log**: Shows a list of all printer events and errors.
System tab Provides the ability to configure the printer from your computer.	• **Device Information**: Provides basic printer and company information. • **Paper Setup**: Change the default paper-handling settings for the printer. • **Print Quality**: Change the default print-quality settings for the printer. • **EcoSMART Console**: Change the default times for entering Sleep mode or Auto Power Down mode. Configure which events cause the printer to wake. • **Paper Types**: Configure print modes that correspond to the paper types that the printer accepts. • **System Setup**: Change the system defaults for the printer. • **Service**: Perform the cleaning procedure on the printer. • **Save and Restore**: Save the current settings for the printer to a file on the computer. Use this file to load the same settings onto another printer or to restore these settings to this printer at a later time. • **Administration**: Set or change the printer password. Enable or disable printer features. NOTE: The **System** tab can be password-protected. If this printer is on a network, always consult with the administrator before changing settings on this tab.
Print tab Provides the ability to change default print settings from your computer.	• **Printing**: Change the default print settings, such as number of copies and paper orientation. These are the same options that are available on the control panel. • **PCL5c**: View and change the PCL5c settings. • **PostScript**: Turn off or on the **Print PS Errors** feature.
Fax tab (Fax models only)	• **Receive Options**: Configure how the printer handles incoming faxes. • **Phone Book**: Add or delete entries in the fax phone book. • **Junk Fax List**: Set fax numbers to block from sending faxes to the printer. • **Fax Activity Log**: Review recent fax activity for the printer.

Tab or section	Description
Scan tab (MFP models only)	Configure the Scan to Network Folder and Scan to E-mail features. • **Network Folder Setup**: Configure folders on the network to which the printer can save a scanned file. • **Scan to E-mail Setup**: Begin the process to set up the Scan to E-mail feature. • **Outgoing E-mail Profiles**: Set an email address that will appear as the "from" address for all emails sent from the printer. Configure the SMTP Server information. • **E-mail Address Book**: Add or delete entries in the email address book. • **E-mail Options**: Configure a default subject line and body text. Configure default scan settings for emails.
Networking tab (Network-connected printers only) Provides the ability to change network settings from your computer.	Network administrators can use this tab to control network-related settings for the printer when it is connected to an IP-based network. It also allows the network administrator to set up Wireless Direct functionality. This tab does not appear if the printer is directly connected to a computer.
HP Web Services tab	Use this tab to set up and use various Web tools with the printer.

Control panel menus (M501)

Review the following information about the control panel menus.

Setup menu

To open this menu, either press the OK button (2-line control panels) or touch the Setup button (touchscreen control panels). The following sub menus are available:

HP Web Services menu (M501)

Review the following information about the HP Web Services menu for the M501 printer.

Table 3-18 HP Web Services menu (M501)

Menu item	Description
Enable Web Services	Use Enable Web Services to set up Web Services on the printer. **NOTE:** You must be connected to a network to enable HP Web Services.
Proxy Settings	The Proxy Settings sub-menu includes the following: • Proxy Server • Proxy Port • Username • Password

Reports menu (M501)

Review the following information about the Reports menu for the M501 printer.

Table 3-19 Reports menu (M501)

Menu item	Description
Demo Page	Prints a page that demonstrates print quality.
Menu Structure	Prints a control-panel menu layout map.
Configuration Report	Prints a list of the printer settings.
Supplies Status	Prints the toner cartridge status. Includes the following information: • Approximate pages remaining • Supply level • Serial number • Number of pages printed • First install date • Last used date
Network Summary	Displays status for: • Network hardware configuration • Enabled features • TCP/IP and SNMP information • Network statistics
Usage Page	Displays the number of pages printed by the printer. (Specific items reported are model dependent.)
PCL Font List	Prints a list of all installed PCL 5 fonts.
PS Font List	Prints a list of all installed PS fonts.
PCL6 Font List	Prints a list of all installed PCL 6 fonts.
Service Page	Prints the service page. The service page includes information about supported paper types, and other settings that are not included on the configuration page. It also includes the event log.
Print Quality Page	Prints a page that helps solve problems with print quality.
Default Info Page	Prints a page that shows the default settings for the LaserJet Update feature.

System Setup menu (M501)

In the following table, items that have an asterisk (*) indicate the factory default setting.

Table 3-20 System Setup menu (M501)

Menu item	Sub-menu item	Sub-menu item	Description
Language	(List of available control-panel display languages.)		Sets the language in which the control panel displays messages and printer reports.

Table 3-20 System Setup menu (M501) (continued)

Menu item	Sub-menu item	Sub-menu item	Description
Paper Setup	Default Paper Size	Letter A4 Legal	Sets the size for printing internal reports or any print job that does not specify a size. **NOTE:** The default setting is determined by the choice of location during the initial printer setup.
	Default Paper Type	Lists available paper types.	Sets the type for printing internal reports or any print job that does not specify a type.
	Tray 1	Paper Type Paper Size	Configures the size and type for the tray.
	Tray 2	Paper Type Paper Size	Configures the size and type for the tray.
	Tray 3	Paper Type Paper Size	Configures the size and type for the tray.
	Paper Out Action	Wait forever* Cancel Override	Determines how the printer reacts when a print job requires a paper size or type that is unavailable or when the tray is empty. • Wait forever: The printer waits until you load the correct paper. • Override: Print on a different size paper after a specified delay. • Cancel: Automatically cancel the print job after a specified delay. • If you select either the Override or Cancel item, the control panel prompts you for the number of seconds to delay.
Print Quality	Adjust Alignment	Print Test Page	Shifts the margin alignment to center the image on the page from top to bottom, and left to right. You can also align the image that is printed on the front with the image that is printed on the back. Allows for one-sided and two-sided printing alignment. Print Test Page: Prints a test page that shows the current registration settings.

Table 3-20 System Setup menu (M501) (continued)

Menu item	Sub-menu item	Sub-menu item	Description
Print Quality (continued)	Adjust Alignment (continued)	Adjust Tray 1	• X1 Shift: Registration of the image on the paper from side to side, as the paper lies in the tray. For duplex models, this side is the second side (back) of the paper. • X2 Shift: Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only on duplex models. **NOTE:** Set X1 Shift first. • Y Shift: Registration of the image on the paper from top to bottom as the paper lies in the tray.
		Adjust Tray 2	• X1 Shift: Registration of the image on the paper from side to side, as the paper lies in the tray. For duplex models, this side is the second side (back) of the paper. • X2 Shift: Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only on duplex models. **NOTE:** Set X1 Shift first. • Y Shift: Registration of the image on the paper from top to bottom as the paper lies in the tray.

Table 3-20 System Setup menu (M501) (continued)

Menu item	Sub-menu item	Sub-menu item	Description
Energy Settings	Sleep/Auto Off After	5 minutes*	Specifies the amount of idle time before the printer enters sleep mode.
		1 Minute	
		1 Hour	
		30 Minutes	
		15 Minutes	
	Shut Down After	Never	Set the amount of elapsed time before the printer turns itself off.
		30 Minutes	
		1 Hour	
		2 Hours	
		4 Hours	
		8 Hours	
		24 Hours	
	Delay Shut Down	No Delay	Select whether or not the printer delays shutting down after the user presses the power button. No Delay: The printer shuts down immediately. When Ports Are Active: The printer waits until there is no I/O port activity before shutting down.
		When Ports Are Active	

Table 3-20 System Setup menu (M501) (continued)

Menu item	Sub-menu item	Sub-menu item	Description
Supply Settings	Black Cartridge	Very Low Setting	Stop: The printer stops printing until you replace the print cartridge. Prompt*: The printer stops printing and prompts you to replace the print cartridge. You can acknowledge the prompt and continue printing. Continue: The printer alerts you that the print cartridge is very low, but it continues printing.
		Low Threshold	Enter a percentage for the low threshold setting.
	Store Usage Data		Select where to store the printer's usage data, either on the supplies or not on the supplies.
	Cartridge Policy	Off Authorized HP	Use the Cartridge Policy feature to allow only genuine HP cartridges to be used with this printer. When someone attempts to install a cartridge that is not a genuine HP cartridge, the printer control panel displays a message informing that the cartridge is unauthorized, and it displays information explaining how to proceed.
	Cartridge Protection	Protect Cartridges	Use the Cartridge Protection feature to permanently associate toner cartridges with a specific printer so they cannot be used in other printers. When someone attempts to transfer a protected cartridge from the original printer into another printer, that printer will not print. The printer control panel displays a message informing that the cartridge is protected, and it displays information explaining how to proceed. After selecting Protect Cartridges, when the printer prompts to confirm, select Continue to enable the feature. **NOTE:** After enabling cartridge protection for the printer, all subsequent toner cartridges installed in the printer are automatically and *permanently* protected. To avoid protecting a new cartridge, disable the feature before installing the new cartridge. To disable the feature, select Cancel rather than Continue in this step.

Table 3-20 System Setup menu (M501) (continued)

Menu item	Sub-menu item	Sub-menu item	Description
Administration	Product Security	On Off	Set the printer-security feature. If you select the On setting, you must set a password.
	Manage Stored Jobs	Quick Copy	The number of copies sent are printed immediately, and then that number of copies is printed anytime the stored job is retrieved. • Job type: temporary • Job deleted after printing: no • PIN protection: no
		Proof and Hold	The first copy is printed immediately. Additional copies are printed by using the printer control panel. For example, ten copies are sent to the printer. One copy prints immediately. Nine copies are printed anytime the stored job is retrieved. The job is deleted after all copies are printed. • Job type: temporary • Job deleted after printing: yes • PIN protection: no
		Personal Job	The job is stored in the printer memory until it is printed, and then the job is automatically deleted. • Job type: temporary • Job deleted after printing: yes • PIN protection: yes (optional)
		Stored Job	The job is stored in the printer memory until it is printed, and then the job is manually deleted, or deleted after a predetermined retention time period. • Job type: standard • Job deleted after printing: no • PIN protection: yes (optional)
Inactivity Timer			Set the amount of time that passes before a given menu or item will close due to printer inactivity.
Courier Font	Regular* Dark		Set Courier font values.

Service menu (M501)

In the following table, items that have an asterisk (*) indicate the factory default setting.

Table 3-21 Service menu (M501)

Menu item	Sub-menu item	Sub-menu item	Description
Cleaning Page			Cleans the printer when specks or other marks appear on printed output. The cleaning process removes dust and excess toner from the paper path. When selected, the printer prompts you to load plain Letter or A4 paper in Tray 1. Touch the OK button to begin the cleaning process. Wait until the process completes. Discard the page that prints.
USB Speed	High*		Sets the USB speed for the USB connection to the computer. For the printer to actually operate at high speed, it must have high speed enabled and be connected to an EHCI host controller that is also operating at high speed. This menu item does not reflect the current operating speed of the printer.
	Full		
Less Paper Curl	On		When printed pages are consistently curled, this option sets the printer to a mode that reduces curl.
	Off*		
Archive Print	On		When printing pages that will be stored for a long time, this option sets the printer to a mode that reduces toner smearing and dusting.
	Off*		
Firmware Datecode			Displays the current firmware datecode.
Restore Defaults			Sets all settings to the factory default values.
Signature Check	Cancel if Invalid*		Validates HP firmware downloads.
	Prompt if Invalid		
LaserJet Update	Check for Updates Now	Install Now	Check for printer firmware updates.
		Remind Me Later	
		Skip this Update	
	Manage Updates	Allow Downgrade	Manage how the printer handles firmware updates.
		Check Automatically	
		Prompt Before Install	
		Allow Updates	
SMTP Comm. Report			The SMTP Communication Report contains the SMTP communication to and from the printer from the last Scan to E-mail job.

Network Setup menu (M501)

In the following table, items that have an asterisk (*) indicate the factory default setting.

Table 3-22 Network Setup menu (M501)

Menu item	Sub-menu item	Description
Google Cloud Print	Print Claim Sheet	Press OK to send printer capabilities and model number to Google and print a sheet of registration instructions from Google.
	Proxy Settings	Enter proxy information. Proxy Server Proxy Port Username Password
IPv4 Config Method	DHCP BOOTP Auto IP Manual	The printer automatically configures all the TCP/IP settings via DHCP, BootP or AutoIP. Manual: You can manually configure the IP address, subnet mask, and default gateway. The control panel prompts you to specify values for each address section. As each address is completed, the printer prompts for address confirmation before moving to the next one. After all three addresses are set, the network reinitializes.
Auto Crossover	On Off	This item is used when you are connecting the printer directly to a personal computer using an Ethernet cable (you might have to set this to On or Off depending on the computer being used).
Network Services	IPv4 IPv6	Enable or disable the IPv4 and IPv6 protocols. By default, each protocol is enabled.
Link Speed	Automatic* 10T Full 10T Half 100TX Full 100TX Half 1000T Full	Sets the link speed manually if needed. After setting the link speed, the printer automatically restarts.
Security	Product Security	Enable printer security. If turned on, the printer prompts you to set a password. After it is set, the password will be needed to change printer settings.
	HTTPS Enforcement	An encrypted communication and secure identification of a network web server. Only enabled if the printer is password protected.
	Firewall	Enable, disable, or reset the printer firewall.
	Access Control List	Enable, disable, or reset the network access control list.
	Reset All Security	Reset the security settings to the factory-set default values.
Restore Defaults		Resets all network configurations to their factory defaults.

Quick Forms menu (M501)

Review the following information about the Quick Forms menu for the M501 printer.

Table 3-23 Quick Forms menu

Menu item	Sub-menu item	Description
Notebook Paper	Narrow Rule	Prints pages that have preprinted lines.
	Wide Rule	
	Child Rule	
Graph Paper	1/8 inch	Prints pages that have preprinted graph lines.
	5 mm	
Checklist	1-Column	Prints pages that have preprinted lines with check boxes.
	2-Column	
Music Paper	Portrait	Prints pages that have preprinted lines for writing music.
	Landscape	

Function specific menus (M501)

Review the following information about the function specific menus for the M501 printer.

Apps (M501)

Use the Apps menu to install HP Web Services applications.

Jobs (M501)

Use the Jobs menu to manage stored jobs. Requires a USB 2.0 storage device with at least 16 GB free space to be installed in the rear host USB port.

Supplies Status (M501)

Use the Supplies Status menu to print a supplies status page. Press Report.

Control panel menus (all except M501)

Review the following information about the control panel menus.

Reports menu

Review the following information about the Reports menu.

To display: At the printer control panel, select the Reports menu.

NOTE: For the M506x/M507x and M527/E52545/M528/E52645 models, use the Print button to print the report.

For all other models, use the up arrow ▲ button or down arrow ▼ button to highlight the report, and then press the OK button. Then use the up arrow ▲ button to highlight Print, and then press the OK button to print the report.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-24 Reports menu

First level	Second level	Values	Description
Configuration/Status Pages	Settings Menu Map	Cancel View Print	Shows a map of the entire control panel system and the selected values for each setting.
Configuration/Status Pages	Current Settings Page	Cancel View Print	Shows a summary of the current settings for the printer. This might be helpful if you plan to make changes and need a record of the present configuration.
Configuration/Status Pages	Configuration Page	Cancel View Print	Shows the printer settings and installed accessories.
Configuration/Status Pages	How to Connect Page	Cancel View Print	Shows the network information typically needed to connect the printer to a network.
Configuration/Status Pages	Supplies Status Page	Cancel View Print	Shows the approximate remaining life for the supplies; reports statistics on total number of pages and jobs processed, serial number, page counts, and maintenance information. HP provides approximations of the remaining life for the supplies as a customer convenience. The actual remaining supply levels might be different than the approximations provided.
Configuration/Status Pages	Usage Page	Cancel View Print	Shows a count of all paper sizes that have passed through the printer; lists whether they were simplex or duplex, and reports the page count.
Configuration/Status Pages	File Directory Page	Cancel View Print	Shows the file name and folder name for files that are stored in the printer memory.
Configuration/Status Pages	Web Services Status Page	Cancel View Print	Shows the detected Web Services for the printer.
Fax Reports Fax models only	Fax Activity Log	Cancel View Print	Contains a list of the faxes that have been sent from or received by this printer.

Table 3-24 Reports menu (continued)

First level	Second level	Values	Description
Fax Reports Fax models only	Billing Codes Report	Cancel View Print	Provides a list of billing codes that have been used for outgoing faxes. This report shows how many sent faxes were billed to each code.
Fax Reports Fax models only	Blocked Fax List	Cancel View Print	A list of phone numbers that are blocked from sending faxes to this printer.
Fax Reports Fax models only	Speed Dial List	Cancel View Print	Shows the speed dials that have been set up for this printer.
Fax Reports Fax models only	Fax Call Report	Cancel View Print	A detailed report of the last fax operation, either sent or received.
Other Pages	PCL Font List	Cancel Print	Prints the available PCL fonts.
Other Pages	PS Font List	Cancel Print	Prints the available PS fonts.

Settings menu

You can perform basic printer setup by using the Settings menu. Use the HP Embedded Web Server for more advanced printer setup. To open the HP Embedded Web Server, enter the printer IP address or host name in the address bar of a Web browser.

NOTE: Where applicable, the M527/E52545/M528/E52645 printer displays a View button.

General menu (all except M501)

Review the following information about the Settings menu.

To display: At the printer control panel, select the Settings menu, and then select the General menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645)

First level	Second level	Third level	Fourth level	Values	Description
Date/Time Settings	Date/Time Format	Date Format		DD/MMM/YYYY MMM/DD/YYYY YYYY/MMM/DD	Use the Date/Time Settings menu to specify the date and time and to configure date/time settings.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Date/Time Settings	Date/Time Format	Time Format		12 hour (AM/PM) 24 hours	Select the format that the printer uses to show the date and time, for example 12-hour format or 24-hour format.
Date/Time Settings	Date/Time	Time Zone		Select the time zone from a list.	
Date/Time Settings	Date/Time	Date		Select the date from a pop-up calendar.	
Date/Time Settings	Date/Time	Time		Select the time from a pop-up keypad.	
Date/Time Settings	Date/Time	Adjust for Daylight Savings		Checkbox	If you are in an area that uses daylight savings time, select the Adjust for Daylight Savings box.
Energy Settings M527/E52545/ M528/E52645 printer	Sleep Schedule	A list of scheduled events displays.		+ (Add) Edit Delete	Use to configure the printer to automatically wake up or go to sleep at specific times on specific days. Using this feature saves energy. **NOTE:** You must configure the date and time settings before you can use this feature.
Energy Settings M527/E52545/ M528/E52645 printer	Sleep Schedule	A list of scheduled events displays.	Event Type	Wake Sleep	Select whether to add or edit a Wake event or a Sleep event, and then select the time and the days for the wake or sleep event.
Energy Settings M527/E52545/ M528/E52645 printer	Sleep Schedule	A list of scheduled events displays.	Event Time		
Energy Settings M527/E52545/ M528/E52645 printer	Sleep Schedule	A list of scheduled events displays.	Event Days	Select days of the week from a list.	

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Energy Settings M527/E52545/ M528/E52645 printer	Sleep Timer Settings	Sleep Mode/Auto Off After		Range: 1 to 120 minutes Default = 60 minutes	Set the number of minutes after which the printer enters Sleep or Auto Off mode. Use the arrow buttons on the control panel to increase or decrease the number of minutes.
Energy Settings M527/E52545/ M528/E52645 printer	Wake/Auto On to These Events			All Events* Network port Power button only	
Energy Settings M506/E50045/ M507/E50145 printer	Sleep Timer Settings	Sleep/Auto Off Timer		Enabled* Disabled	Enable or disable the printer sleep or auto off function.
Energy Settings M506/E50045/ M507/E50145 printer	Sleep Timer Settings	Sleep Mode/Auto Off After		Range: 1 to 120 minutes Default = 60 minutes	Set the number of minutes after which the printer enters Sleep or Auto Off mode. Use the arrow buttons on the control panel to increase or decrease the number of minutes.
Display Settings	Display Brightness	A sliding bar displays with the indicator set in the middle. Use the arrow keys to select the desired brightness and then select Done.			Use to specify the intensity of the LCD control panel display.
Display Settings	System Sound			On* Off	Use to enable or disable sounds on the printer.
Display Settings	Language Settings	Language		Select from a list of languages that the printer supports.	Use to select a different language for control panel messages and specify the default keyboard layout. When you select a new language, the keyboard layout automatically changes to match the factory default for the selected language.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Display Settings		Keyboard Layout		Each language has a default keyboard layout. To change it, select from a list of layouts.	Select the default keyboard layout that matches the language you want to use.
Display Settings	Information Screen			Show connection information* Hide connection information	Use this menu item to display or hide connection information on the Home screen.
Display Settings	Inactivity Timeout			Range: 10-300 seconds Default = 60 seconds	Specifies the amount of time that elapses between any activity on the control panel and when the printer resets to the default settings. When the timeout expires, the control panel display returns to the Home menu, and any user signed in to the printer is signed out.
Display Settings	Clearable Warnings			Display during job* Display until cleared	Use this feature to set the period that a clearable warning displays on the control panel. If the On setting is selected, clearable warnings appear until the Clearable Warnings button is pressed. If the Job setting is selected, clearable warnings stay on the display during the job that generated the warning and disappear from the display when the next job starts.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Display Settings	Continuable Events			Auto-continue (10 seconds)* Touch OK to continue	Use this option to configure the printer behavior when the printer encounters certain errors. If the Auto-continue (10 seconds) option is selected, the job will continue after 10 seconds. If the Touch OK to continue option is selected, the job will stop and require the user to touch the OK button before continuing.
Enable Device USB				Enabled Disabled*	Enables the printer to open a file from a USB drive.
Quiet Mode				Off* On Automatic transition Range: 10-300 pages Default = 10 pages	Quiet Mode slows the printer down to reduce the noise the printer makes when printing. Automatic transition allows you to set a predetermined job size of 10 to 999 pages, and print jobs will print in Quiet Mode for all print jobs up to the predetermined page size.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Jam Recovery				Automatic* Off On	This printer provides a jam recovery feature that reprints jammed pages. Select one of the following options: Automatic: The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting. Off: The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal. **NOTE:** When using this option, if the printer runs out of paper and the job is being printed on both sides, some pages can be lost. On: The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed. This might cause overall performance to suffer.
Auto Recovery				Enabled Disabled*	If Auto Recovery is enabled and an unrecoverable error occurs in the device firmware, the device automatically turns off and turns back on to recover from the error.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Enable Auto Send				Disabled* Enabled	Browse to the HP Embedded Web Server AutoSend configuration page for advanced set up and the HP online Privacy Statement Information. Use the Enable Auto Send menu to enable or disable the AutoSend feature. The AutoSend feature enables your product to periodically send product configuration information including serial number, event logs, page usage counts and supplies status information to HP web addresses (URLs), or email addresses. Information sent to HP is used to improve products and services, and to monitor the product if you have a relationship with HP that provides you services such as proactive cartridge replacement, pay-per-page contracts, support agreements, or usage tracking.
Hold Off Print Job				Enabled* Disabled	Enable this feature if you want to prevent print jobs from starting while a user is initiating a copy job from the control panel. Held print jobs start printing after the copy job is finished, provided that no other copy job is in the print queue.

Table 3-25 General menu (M506/E50045/M507/E50145, M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Reset Factory Settings				Address Book (M527/E52545/M528/E52645 only) Copy (M527/E52545/M528/E52645 only) Digital Send (M527/E52545/M528/E52645 only) E-mail (M527/E52545/M528/E52645 only) Fax (M527/E52545/M528/E52645 only) General (M527/E52545/M528/E52645 only) Print (M527/E52545/M528/E52645 only) Security (M527/E52545/M528/E52645 only) Cancel (M506/E50045/M507/E50145 only) Reset (M506/E50045/M507/E50145 only)	Use to restore all printer settings to their factory defaults.

Print menu (M506/E50045/M507/E50145) and Copy/Print menu (M527/E52545/M528/E52645)

Review the following information about the Print menu for the M506/E50045/M507/E50145) and the Copy/Print menu for the M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Settings menu, and then select the Print menu (M506/E50045/M507/E50145) or the Copy/Print menu (M527/E52545/M528/E52645).

In the following table, asterisks (*) indicate the factory default setting.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/M528/E52645 only	Image preview			Make optional Require preview Disable preview	Use this menu to configure how Copy behaves.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Copies			1-9999 Default = 1	Configure the default options for copy jobs. If the user does not specify the job options when creating the job, the default options are used.
Copy Settings M527/E52545/ M528/E52645 only	Sides	Original Sides		1-sided 2-sided Flip pages up	Use to indicate whether the original document is printed on one or both sides. For example, select Original Sides 1-sided and Output Sides 2-sided when the original is printed on one side, but you want to make two-sided copies. Select Flip pages up to print the pages with long edge of the in the landscape orientation.
Copy Settings M527/E52545/ M528/E52645 only	Sides	Output Sides		1-sided 2-sided Flip pages up	Use to indicate whether the copies should be printed on one or both sides. For example, select Original Sides 1-sided and Output Sides 2-sided when the original is printed on one side, but you want to make two-sided copies. Select Flip pages up to print the pages with long edge of the in the landscape orientation.
Copy Settings M527/E52545/ M528/E52645 only	Watermark	Watermark Type		None* Text	Use to set a text watermark.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Watermark	Watermark Text		Draft Confidential Secret Top Secret Urgent	Select a predefined text watermark.
Copy Settings M527/E52545/ M528/E52645 only	Watermark	Text Font		Letter Gothic* Antique Olive New Century Schoolbook Roman Garamond Antiqua	Select the font of the text watermark.
Copy Settings M527/E52545/ M528/E52645 only	Watermark	Text Size		30 point 40 point* 60 point	Select the font point size of the text watermark.
Copy Settings M527/E52545/ M528/E52645 only	Watermark	Darkness		1 - (Lighter) 2 3* 4 5 - (Darker)	Select the darkness of the text watermark.
Copy Settings M527/E52545/ M528/E52645 only	Stamps	Stamp Content		User-defined value None* IP address User name Product information Page number Date and time	Use to set a stamp in any or all the following locations in the document: • Top Left • Top Center • Top Right • Bottom Left • Bottom Center • Bottom Right
Copy Settings M527/E52545/ M528/E52645 only	Stamps	Text Font		Letter Gothic* Antique Olive New Century Schoolbook Roman Garamond Antiqua	Select the font of the stamp.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Stamps	Text Size		8 point 12 point* 20 point	Select the font point size of the stamp.
Copy Settings M527/E52545/ M528/E52645 only	Stamps	White background		Disabled* Enabled	Select the check box to enable a white background for the stamp.
Copy Settings M527/E52545/ M528/E52645 only	Scan Mode			Standard document* Prompt for additional pages Book 2-sided ID	Use to indicate the type of original document to be scanned. Select Prompt for additional pages to copy or scan an original document that has more pages than the document feeder can accommodate at one time, or to scan originals of different sizes that cannot be scanned together, and then combine these separate scan jobs into a single job.
Copy Settings M527/E52545/ M528/E52645 only	Reduce/Enlarge			Automatic* Include margins Manual Default=100	Scale the size of the document up or down. To reduce the image, select a scaling percentage that is less than 100. To enlarge the image, select a scaling percentage that is greater than 100. When Include margins is enabled, the printer reduces the image slightly to fit the entire scanned image within the printable area on the page.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Original Size			Automatically detect* Letter (8.5x11) Mixed Letter/Legal Legal (8.5x14) Executive (7.25x10.5) Statement (5.5x8.5) Oficio (8.5x13) 4x6 5x7 5x8 A4 (210x297 mm) A5 (148x210 mm) A6 (105x148 mm) RA4 (215x305 mm) B5 (182x257 mm) B6 (128x182 mm) 10x15cm 16K (195x270 mm) 16K (184x260 mm) 16K (197x273 mm) DPostcard JIS (148x200 mm) Oficio (216x340 mm)	Specify the size of the original document.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Paper Selection		Paper Size	Match original size* Letter (8.5x11) Legal (8.5x14) Executive (7.25x10.5) Statement (5.5x8.5) Oficio (8.5x13) 3x5 4x6 5x7 5x8 A4 (210x297 mm) A5 (148x210 mm) A6 (105x148 mm) RA4 (215x305 mm) B5 (182x257 mm) B6 (128x182 mm) 10x15cm 16K (195x270 mm) 16K (184x260 mm) 16K (197x273 mm) Postcard JIS (100x148 mm) DPostcard JIS (148x200 mm) Envelope #9 Envelope #10 Envelope Monarch Envelope #10 Envelope B5 Envelope C5 Envelope C6 Envelope DL Custom Oficio (216x340 mm)	Select the size of paper to use when printing or making copies.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Paper Selection		Paper Type	Any Type Plain* Light 60-74g Intermediate 85-95g Mid-Weight 96-110g Heavy 111-130g Extra Heavy 131-175g Cardstock 176-220g Mono Transparency Labels Letterhead Envelope Preprinted Prepunched Colored Bond Recycled Rough HP EcoFFICIENT Light Bond	Select the type of paper to use when printing or making copies.
Copy Settings M527/E52545/ M528/E52645 only	Paper Selection		Paper Tray	Automatically detect* Manually Feed Tray 1 Tray 2	Select which tray to use when printing or making copies.
Copy Settings M527/E52545/ M528/E52645 only	Booklet	Booklet Format		Enabled Disabled*	Select to have Booklet Format off or on.
Copy Settings M527/E52545/ M528/E52645 only	Booklet	Booklet Format	Borders on each page	Enabled Disabled*	Select to have borders printed on the page.
Copy Settings M527/E52545/ M528/E52645 only	Content Orientation			Portrait* Landscape	Specify the way the content of the original document is placed on the page.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Pages per Sheet			One* Two Four	Select how many pages to print on one sheet.
Copy Settings M527/E52545/ M528/E52645 only	Page Order			Right, then down Down, then right	Select to print the pages in rows or columns.
Copy Settings M527/E52545/ M528/E52645 only	Add page borders			Enabled Disabled*	Select the Add page borders checkbox to add borders to the pages.
Copy Settings M527/E52545/ M528/E52645 only	Image Adjustment	Darkness		1 - (Lighter) 2 3 4 5* 6 7 8 9 - (Darker)	Adjust to increase or decrease the amount of white and black in the colors.
Copy Settings M527/E52545/ M528/E52645 only	Image Adjustment	Contrast		1 - (Less) 2 3 4 5* 6 7 8 9 - (More)	Adjust to increase or decrease the difference between the lightest and darkest color on the page.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Image Adjustment	Background Cleanup		1 - (Normal) 2 3* 4 5* 6 7 8 9 - (Cleaner)	Adjust if you are having trouble copying a faint image.
Copy Settings M527/E52545/ M528/E52645 only	Image Adjustment	Sharpness		1 - (Less) 2 3* 4 5 - (More)	Adjust to sharpen or soften the image.
Copy Settings M527/E52545/ M528/E52645 only	Optimize Text/ Picture			Text Mixed* Printed picture Photograph	Select to optimize for the output of a particular type of content.
Copy Settings M527/E52545/ M528/E52645 only	Edge-to-Edge			Normal (recommended) Edge-to-Edge output	When the Edge-to-Edge feature is enabled, the product minimizes margins and prints as close to the edge of the paper as possible.
Copy Settings M527/E52545/ M528/E52645 only	Erase Edges	Use inches		Enabled* Disabled	Use the Erase Edges feature to remove blemishes, such as dark borders or staple marks, by cleaning theedges of the scanned image. Disabling Use inches changes the measurements to millimeters.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Copy Settings M527/E52545/ M528/E52645 only	Erase Edges	Front Side		Specify a different width for each edge Apply same width to all edges* All edges value Default = 0.00	Sets the width of the edge to clean.
Copy Settings M527/E52545/ M528/E52645 only	Erase Edges	Back Side		Specify a different width for each edge Apply same width to all edges Mirror front side*	Sets the width of the edge to clean.
Copy Settings M527/E52545/ M528/E52645 only	Collate			Collate on* Collate off	When Collate on is selected, each set of copied pages are assembled in the same order as the original document.
Copy Settings M527/E52545/ M528/E52645 only	Multi-feed Detection			Disabled Enabled*	Use this feature to detect when multiple pages are fed simultaneously into the ADF (automatic document feeder) or sheet-feed scanner.
Copy Settings M527/E52545/ M528/E52645 only					
Enable Print from USB Drive				Enabled Disabled*	Enables the printer to open a file from a USB drive.
Manage Stored Jobs	Job Sort Order			Job Name* Date*	This option allows you list the jobs either alphabetically or chronologically.
Manage Stored Jobs	Retain Temporary Jobs			Do not retain Personal jobs only All temporary jobs	Sets which temporary jobs will be retained in the event of a printer reboot.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Stored Jobs	Temporary Job Storage Limit			1-300 Default = 32	Configure global settings for jobs that are stored in the printer memory. The Temporary Job Storage Limit feature specifies the number of temporary jobs that can be stored on the printer. The maximum allowed value is 300.
Manage Stored Jobs	Temporary Job Storage Retention			Off 30 minutes 1 hour 4 hours 1 day 1 week 4 weeks 3 days	Configure global settings for temporary jobs that are stored in the printer memory. The Temporary Stored Job Retention feature specifies the amount of time temporary jobs can be stored on the printer.
Manage Stored Jobs	Standard Stored Job Retention			Off 30 minutes 1 hour 4 hours 1 day 1 week 4 weeks 3 days	Configure global settings for jobs that are stored in the printer memory. The Standard Stored Job Retention feature specifies the amount of time jobs can be stored on the printer.
Default Print Options	Number of Copies			Range: 1-32000 Default = 1	Sets the default number of copies for a copy job. This default applies when the Copy function or the Quick Copy function is initiated from the printer Home screen.
Default Print Options	Paper Selection	Paper size Paper type Paper tray		Select from a list of sizes that the printer supports.	Configures the default paper size, type and tray used for print jobs.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Default Print Options	Default Custom Paper Size	X Dimension		Range: 3.00-8.50 inches Default = 8.5 inches	Configures the default paper size that is used when the user selects **Custom** as the paper size for a print job.
Default Print Options	Default Custom Paper Size	Y Dimension		Range: 5.00-14.00 inches Default = 14 inches	Configures the default paper size that is used when the user selects **Custom** as the paper size for a print job.
Default Print Options	Default Custom Paper Size	Use Inches		Enabled* Disabled	
Default Print Options	Output Sides			1-sided* 2-sided	Use to indicate whether the original document is printed on one or both sides.
Default Print Options	Edge-to-Edge			Normal (recommended)* Edge-to-Edge output	Use to avoid shadows that can appear along the edges of copies when the original document is printed close to the edges.
Default Print Options	Resolution			FastRes 1200* ProRes 1200	Use to select the level of desired print quality.
Default Print Options	Resolution	Economode		Enabled Disabled*	Text is printed using less toner. This setting is useful when you are printing drafts. You can turn on this option independently of other print quality settings.
PCL and Postscript Settings	Courier Font			Regular* Dark	Select which version of the Courier font you want to use. The factory default setting is Regular, which uses an average stroke width. The Dark setting can be used if a heavier Courier font is needed.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	Wide A4			Enabled Disabled*	Changes the printable area of A4-size paper. If you enable this option, eighty 10-pitch characters can be printed on a single line of A4 paper.
PCL and Postscript Settings	Print PS Errors			Enabled Disabled*	Use this feature to select whether a PostScript (PS) error page is printed when the printer encounters a PS error.
PCL and Postscript Settings	Print PDF Errors			Enabled Disabled*	Selects whether a PDF error page is printed when the printer encounters a PDF error.
PCL and Postscript Settings	Personality			Automatic* PCL PS PDF	Configures the default print language or personality for the printer. Normally you should not change the printer language. If you change the setting to a specific printer language, the printer does not automatically switch from one language to another unless specific software commands are sent to it.
PCL and Postscript Settings	PCL	Font Settings	Font Source	Internal Disk resident*	Selects the font source for the user-soft default font. The list of available options varies depending on the installed printer options.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	PCL	Font Settings	Font Number	Range: 0-110 Default = 0	Specifies the font number for the user-soft default font using the source that is specified in the Font Source menu. The printer assigns a number to each font and lists it on the PCL font list. The font number displays in the Font # column of the printout.
PCL and Postscript Settings	PCL	Font Settings	Font Pitch	Range: 0.44-99.99 Default = 10	If the Font Source option and the Font Number setting indicate a contour font, then use this feature to select a default pitch (for a fixed-spaced font).
PCL and Postscript Settings	PCL	PCL Settings	Form Length	Range: 5-128 lines Default = 60	Controls the PCL print-command options. PCL is a set of printer commands that HP developed to provide access to printer features. Use the Form Length feature to select the user soft -default vertical form length.
PCL and Postscript Settings	PCL	PCL Settings	Orientation	Portrait* Landscape	Select the orientation that is most often used for copy or scan originals. Select the Portrait option if the short edge is at the top or select the Landscape option if the long edge is at the top.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
PCL and Postscript Settings	PCL	PCL Settings	Symbol Set	Select from a list of symbol sets.	Select any one of several available symbol sets from the control panel. A symbol set is a unique grouping of all the characters in a font. The factory default value for this option is PC-8. Either PC-8 or PC-850 are recommended for line-draw characters.
PCL and Postscript Settings	PCL	PCL Settings	Append CR to LF	Enabled Disabled*	When enabled, this option appends a carriage return to each line feed encountered in backwards-compatible PCL jobs.
PCL and Postscript Settings	PCL	PCL Settings	Suppress Blank Pages	Enabled Disabled*	This option is for users who are generating their own PCL, which could include extra form feeds that would cause blank pages to be printed. When the On option is selected, form feeds are ignored if the page is blank.
PCL and Postscript Settings	PCL	PCL Settings	Media Source Mapping	Standard* Classic	Use to select and maintain input trays by number when you are not using the printer driver, or when the software program has no option for tray selection. The following options are available: Standard: Tray numbering is based on newer HP LaserJet models. Classic: Tray numbering is based on HP LaserJet 4 and older models.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	General	Toner Density		A sliding bar appears with the indicator set in the middle between Less and More.	Lighten or darken the print on the page by changing the toner density setting.
Print Quality	General	REt		Disabled Enabled*	Use this setting to enable or disable Resolution Enhancement technology (REt), which produces smoother angles, curves, and edges.
Print Quality	Image Registration	Tray	Tray 1 Tray 2 Tray 3 Tray 4 Tray 5 Depends upon the number of trays installed		Specify tray to be adjusted

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Image Registration	Front-side Horizontal Shift Front-side Vertical Shift Back-side Horizontal Shift Back-side Vertical Shift		-5.00 mm to 5.00 mm	Shift the margin alignment to center the image on the page from top to bottom and from left to right. You can also align the image on the front with the image printed on the back. The direction that is perpendicular to the way the paper passes through the printer is referred to as X. This is also known as the scan direction. X1 is the scan direction for a single-sided page or for the second side of a two-sided page. X2 is the scan direction for the first side of a two-sided page. The direction that the paper feeds through the printer is referred to as Y. Y1 is the feed direction for a single-sided page or for the second side of a two-sided page. Y2 is the feed direction for the first side of a two-sided page. Use the Adjust Tray <X> menu to adjust the registration settings for each tray. Before adjusting these values, print a registration test page. It provides alignment guides in the X and Y directions so you can determine which adjustments are necessary. You can adjust values for X1 Shift, X2 Shift, Y1 Shift, and Y2 Shift.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Image Registration	Print Test Page			Use the Print Test Page option to print a page to test the image registration. It provides alignment guides in the X and Y directions so you can determine which adjustments are necessary.
Print Quality	Auto Sense Behavior	Tray 1		Sense every page Sense first page Sense transparency only	
Print Quality	Auto Sense Behavior	All Other Trays		Sense first page Sense transparency only	
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Print mode	Select from a list of paper types Reset Paper Types	Changing the Print mode setting is usually the first first thing to try to resolve print-quality problems. Problems can include toner not sticking well to the page, a faint image of the page repeated on the same or following page, incorrect gloss level, and so on.
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Resistance mode	Normal* Up 1 Up 2	Use this setting to correct print quality problems in low-humidity environments and highly resistive paper. Use the Up options to solve print quality problems that are related to faded images or scattered toner on certain paper types. The Up options raise the secondary transfer bias.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Adjust Paper types	Select from a list of paper types that the printer supports. The available options are the same for each paper type.	Paper curl mode	Normal* Reduced	Use this setting to reduce paper curl in print jobs.
Print Quality	Optimize	Line Detail		Normal* Off Alternate	Use this setting if you have scattered lines in printed pages.
Print Quality	Optimize	Moisture Control		Normal* Alternate	
Print Quality	Optimize	Envelope control		Normal Reduced Temp	
Print Quality	Optimize	Tray 1		Normal Alternate	
Print Quality	Optimize	Background		Normal Alternate	
Print Quality	Optimize	Uniformity Control		Normal Alternate 1 Alternate 2 Alternate 3	
Print Quality	Optimize	Cac03		Off On	
Print Quality	Optimize	Best Normal		Off On	
Print Quality	Optimize	Tracking Control		Off On	
Print Quality	Optimize	Registration		Normal Alternate	
Print Quality	Optimize	Transfer Control		Normal Alternate 1	
Print Quality	Optimize	Moisture Control		Normal Alternate	
Print Quality	Optimize	Reset Optimize		Reset	

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Print Quality	Edge Control			Off Light Normal* Maximum	
Manage Trays	Use Requested Tray			Exclusively* When available	Controls how the printer handles jobs that have specified a specific input tray. Two options are available: Exclusively: The printer never selects a different tray when the user has indicated that a specific tray should be used, even if that tray is empty. When available: The printer pulls from another tray if the specified tray is empty, even though the specific tray was indicated for the job.
Manage Trays	Manually Feed Prompt			Always prompt* Prompt on mismatch	Indicate whether a prompt should appear when the type or size for a job does not match the specified tray and the printer pulls from the multipurpose tray instead. Two options are available: Always: A prompt always displays before using the multipurpose tray. Prompt on mismatch: A prompt displays only if the size or type do not match or the tray is empty.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Size/Type Prompt			Display* Do not display	Controls whether the tray configuration message displays whenever a tray is closed. Two options are available: Display: Shows the tray configuration message when a tray is closed. The user is able to configure the tray settings directly from this message. Do not display: Prevents the tray configuration message from automatically appearing.
Manage Trays	Use Another Tray			Allow* Do not allow	Use to turn on or off the control panel prompt to select another tray when the specified tray is empty. Two options are available: Allow: When this option is selected the user is prompted to either add paper to the selected tray or to choose a different tray. This is the factory default. Do not allow: When this option is selected, the user is not given the option of selecting a different tray. The printer prompts the user to add paper to the tray that was initially selected.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Alternative Letterhead Mode			Off* On	Use to load letterhead or preprinted paper into the tray the same way for all print jobs, whether you are printing to one side of the sheet or to both sides of the sheet. When this option is selected, load the paper as you would for printing on both sides. See the user documentation that came with the printer for instructions about loading letterhead for printing on both sides. When this option is selected, the printer speed slows to the speed required for printing on both sides.
Manage Trays	Duplex Blank Pages			Automatic* Always	Controls how the printer handles two-sided jobs (duplexing). Two options are available: Automatic: Choose this option to skip printing blank sides during a two-sided print job. The printer can print jobs faster when blank sides are skipped. Always: Choose this option to print all sides of a two-sided job, even if one side is blank. This might be preferable for certain jobs that use paper types such as letterhead or prepunched paper.

Table 3-26 Print menu (M506/E50045/M507/E50145) or Copy/Print menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth Level	Values	Description
Manage Trays	Override A4/ Letter			Yes* No	Prints on letter-size paper when an A4 job is sent but no A4-size paper is loaded in the printer (or to print on A4 paper when a letter-size job is sent but no letter-size paper is loaded). This option will also override A3 with ledger-size paper and ledger with A3-size paper.

Scan/Digital Send Settings menu (M527/E52545/M528/E52645)

Review the following information about the Scan/Digital Send Settings menu for M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Settings menu, and then select the Scan/Digital Send Settings menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645)

First level	Second level	Third level	Fourth level	Values	Description
Scan to Email Settings Scan to Network Folder Settings Scan to USB Drive Settings **NOTE:** The same options are available for each of these features, except where noted.	E-mail Setup **NOTE:** Email Settings only	E-mail Setup Wizard			Use to configure settings that apply to sending documents through email or saving documents to a folder on the network or on a USB multi-drive. The E-mail Setup Wizard feature configures the printer to send scanned images as email attachments. To open the printer HP Embedded Web Server and set up the email notification server, enter the printer IP address into a Web browser.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
	Default Job Options	Image Preview		Make optional* Require preview Disable preview	Defines the default job options for each function. If you do not specify the job options when creating the job, the default options are used. For complete setup, go to the HP Embedded Web Server by typing the IP address of the printer into a Web browser. Use the Image Preview feature to scan a document and display a preview before completing the job. Select whether this feature is available on the printer. Make optional: The feature is optional, depending on the user who is signed in. Require preview Previews are required for all users. Disable preview: Previews are disabled for all users.
		Default File Name		[Untitled]*	The printer is shipped with a factory default file name of [Untitled] for any scanned files that are sent or saved. Use this feature to specify a different default file name. If you are saving a file to a network folder or USB storage device and a file with the default file name already exists, a number is appended to the file name, for example, [Untitled]001.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Document File Type		Select from a list of file types.	PDF provides the best overall image and text quality. JPEG is a good choice for most graphics. Most computers have a browser that can view .JPEG files. This file type produces one file per page. TIFF is a standard file format that many graphics programs support. This file type produces one file per page. MTIFF: stands for multi-page TIFF. This file type saves multiple scanned pages in a single file. XPS (XML Paper Specification) creates an XAML file that preserves the original formatting of the document and supports color graphics and embedded fonts. PDF/A (Archivable): provides archivable text and image quality. **NOTE:** OCR file types are not supported on this printer unless attached to DSS.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Optimize Text/ Picture		Mixed* Text Printed picture Photograph	Use to optimize the output for a particular type of content. You can optimize the output for text, printed pictures, or a mixture. Mixed: Use to optimize the setting for text and for pictures. Text: Use to optimize the text portion of the copy when text and/or pictures are on the original. Printed picture: Use for line drawings and preprinted images, such as magazine clippings or pages from books. Photograph: Best suited for making copies of printed pictures.
		Quality and File Size		High (large file) Medium* Low (small file)	Use to select the quality for the output. Higher-quality images require a larger file size than lower-quality images. Larger files take more time to send, and some recipients might have trouble receiving larger files.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Original Sides		1-sided 2-sided	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document.
			Orientation	Automatically detect Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait orientation means the short edge of the page is along the top. Landscape orientation means the long edge of the page is along the top. In the Orientation area, select whether the original document has a portrait or landscape orientation.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Resolution		600 dpi 400 dpi 300 dpi 200 dpi 150 dpi* 75 dpi	Sets the resolution for sent documents. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller. Some file types, for example a file that will be processed with OCR, require a specific resolution. When these file types are selected, the Resolution setting might automatically change to a valid value.
		Content Orientation	Orientation	Auto Detect Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait orientation means the short edge of the page is along the top. Landscape orientation means the long edge of the page is along the top. In the Orientation area, select whether the original document has a portrait or landscape orientation.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Color/Black		Automatically detect color or black* Automatically detect color or gray Color Black Black/Gray	Use to enable or disable color scanning. Automatically detect color or black: When pages without color are detected, the printer creates an image of the page in 1-bit black if other settings allow. If the other settings don't allow (File Type, for example), the image is in grayscale. Automatically detect color or gray: When pages without color are detected, the printer creates an image of the page in grayscale. Select this option for the best image quality for non-color pages. Color: Scans documents in color. Black/Gray: Scans documents in grayscale. Black: Scans documents in black and white with a compressed file size.
		Original Size		Select from a list of supported sizes.	Use to describe the page size of the original document.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Notification		Do not notify* Notify when job completes Notify only if job fails	Configure to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only.
				Print E-mail	Notify only if job fails: Select to receive notification only if the job is not sent successfully. Print: Select to print the notification at this printer.
			Include Thumbnail		**NOTE:** When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
			Notification E-mail address		E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then type the email address for the notification.
		Image Adjustment	Darkness		Use to improve the overall quality of the copy. Adjust the Darkness setting to increase or decrease the amount of white and black in the colors.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
			Contrast		Adjust the Contrast setting to increase or decrease the difference between the lightest and darkest color on the page.
			Background Cleanup		Adjust the Background Cleanup setting if you are having trouble copying a faint image.
			Sharpness		Adjust the Sharpness setting to clarify or soften the image. For example, increasing the sharpness could make text appear crisper, but decreasing it could make photographs appear smoother.
			Automatic Tone		
			Default		Select this to make the selected Image Adjustment setting the default value.
		Cropping Options		Do not crop* Crop to content Crop to paper	Use this menu item to automatically crop the scan for digital sending. Use the Crop to content option to scan the smallest possible area that has detectable content.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
		Erase Edges		Use Inches Back side erase Front side erase	Use this menu item to remove blemishes, such as dark borders or staple marks, by cleaning the specified edges of the scanned image. In each of the text boxes enter the measurements, in millimeters or inches, for how much of the top edge, bottom edge, left edge, and right edge to clean.
		Multi-feed Detection		On* Off	This setting stops the scanning process if it detects multiple-page feeds through the document feeder.
		Blank Page Suppression		Disabled* Enabled	Use to prevent blank pages in the original document from being included in the output document.
Digital Send Service Setup	Allow Usage of Digital Sending Software (DSS) Server			Enabled* Disabled	Configure how the printer interacts with the HP Digital Sending Software (DSS) server. HP DSS handles digital sending tasks, such as faxing, emailing, and sending scanned documents to a network folder or USB storage device. Use the Allow Usage of Digital Sending Software (DSS) Server option to configure the printer to use HP DSS.

Table 3-27 Scan/Digital Send Settings menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
	Allow Transfer to New Digital Sending Software (DSS) Server			Enabled* Disabled	Use the Allow Transfer to New Digital Sending Software (DSS) Server option to specify whether DSS management of a printer is transferable to a different DSS.

Fax menu (M527/E52545/M528/E52645)

Review the following information about the Fax menu for the M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Settings menu, and then select the Fax menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-28 Fax menu (M527/E52545/M528/E52645)

First level	Second level	Third level	Fourth level	Values	Description
Internal Fax Modem Setup					Configure settings for sending faxes from the printer. Use the Internal Fax Modem Setup feature to set up options for faxing. **NOTE:** To set up LAN fax or Internet fax, use the HP Embedded Web Server. To open the HP Embedded Web Server, type the printer network address into a Web browser. To configure the fax features, select the **Fax** tab.
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Fax Dial Volume	Off Low* High	These settings control how the fax modem dials the outgoing fax number when faxes are sent.
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Dialing Mode	Tone* Pulse	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial Interval	1 - 5 Minutes Default = 5 minutes	

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Fax Send Speed	Fast* Medium Slow	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Dialing Prefix		
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Detect Dial Tone		
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on Error	Range: 0 - 9 Default = 2	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on No Answer	Range: 0 - 2 Default = 0	
Fax Send Settings	Fax Send Setup	Fax Dialing Settings	Redial on Busy	Range: 0 - 9 Default = 3	
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Fax Number Confirmation	Enabled Disabled*	If this feature is enabled, you must enter the fax number twice.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	PC Fax Send	Enabled* Disabled	Enables users who have the correct driver installed to send faxes through the printer from their computers.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	JBIG Compression	Enabled* Disabled	The JBIG compression reduces fax-transmission time, which can result in lower phone charges. However, using JBIG compression sometimes causes compatibility problems with older fax machines. If this occurs, turn off the JBIG compression.
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Error Correction Mode	Enabled* Disabled	When error-correction mode is enabled and an error occurs during fax transmission, the printer sends or receives the error portion again.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Fax Send Setup	General Fax Send Settings	Fax Header	Prepend* Overlay	Use to prepend or overlay the fax header page.
Fax Send Settings	Fax Send Setup	Billing Codes	Enable Billing Codes	Off On*	When billing codes are enabled, a prompt displays that asks the user to enter the billing code for an outgoing fax. This prompt does not appear if the Allow users to edit billing codes check box is not checked. You can also use the billing codes report in the Reports menu to view the list of the billing codes that have been used for faxes that have been sent from the printer. The list is grouped by billing code and also shows fax details. This feature can be used for billing or usage tracking.
Fax Send Settings	Fax Send Setup	Billing Codes	Default Billing Code		Specify a default billing code for faxing. If you specify a default billing code, this code displays in the Billing Code field when the user sends an outgoing fax. If this field is blank, no default billing code is provided for the user.
Fax Send Settings	Fax Send Setup	Billing Codes	Minimum Length	Range: 1 - 16 Default = 1	Specify the required length of the billing code. Billing codes can be between 1 and 16 characters long.
Fax Send Settings	Fax Send Setup	Billing Codes	Allow users to edit billing codes	Off On*	

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Image Preview		Make optional* Require preview Disable preview	Use the Image Preview feature to scan a document and display a preview before completing the job. Select whether this feature is available on the printer. Make optional: The feature is optional, depending on the user who is signed in. Require preview Previews are required for all users. Disable preview: Previews are disabled for all users.
Fax Send Settings	Default Job Options	Resolution		Standard (100 x 200dpi)* Fine (200 x 200dpi) Superfine (300 x 300dpi)	Select the resolution for outgoing faxes. If you increase the resolution, faxes might be clearer but they could transmit more slowly. Some file types, for example a file that will be processed with OCR, require a specific resolution. When these file types are selected, the Resolution setting might be automatically changed to a valid value.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Original Sides		1-sided* 2-sided Pages flip up	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document. If the Pages flip up option is selected, the back side of the page is printed upside-down. This option is for print jobs that are bound along the top edge.
Fax Send Settings	Default Job Options	Original Sides	Orientation	Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait: This setting means the short edge of the page is along the top. Landscape: This setting means the long edge of the page is along the top.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Notification		Do not notify* Notify when job completes Notify only if job fails	Use to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only. Notify only if job fails: Select to receive notification only if the job is not sent successfully.
Fax Send Settings	Default Job Options	Notification		Print E-mail	Print: Select to print the notification at this printer. E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then enter the email address for the notification.
Fax Send Settings	Default Job Options	Notification	Include Thumbnail		When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
Fax Send Settings	Default Job Options	Notification	Notification E-mail address		Provide the email address that will receive notifications.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Content Orientation	Orientation	Portrait* Landscape	For some features to work correctly, you must specify the way the content of the original document is placed on the page. Portrait: This setting means the short edge of the page is along the top. Landscape: This setting means the long edge of the page is along the top.
Fax Send Settings	Default Job Options	Original Size		Select from a list of sizes that the printer supports.	Use to describe the page size of the original document.
Fax Send Settings	Default Job Options	Image Adjustment	Darkness		Use to improve the overall quality of the copy. Adjust the Darkness setting to increase or decrease the amount of white and black in the colors.
Fax Send Settings	Default Job Options	Image Adjustment	Contrast		Adjust the Contrast setting to increase or decrease the difference between the lightest and darkest color on the page.
Fax Send Settings	Default Job Options	Image Adjustment	Background Cleanup		Adjust the Background Cleanup setting if you are having trouble copying a faint image.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Image Adjustment	Sharpness		Adjust the Sharpness setting to clarify or soften the image. For example, increasing the sharpness could make text appear crisper, but decreasing it could make photographs appear smoother.
Fax Send Settings	Default Job Options	Image Adjustment	Automatic Tone		The printer automatically adjusts the Darkness, Contrast, and Background Cleanup settings to the most appropriate for the scanned document.
Fax Send Settings	Default Job Options	Optimize Text/ Picture	Manually adjust*	Optimize For Text Printed picture Photograph	Optimizes the output for a particular type of content. You can optimize the output for text, printed pictures, or a mixture. Manually adjust: Use to manually optimize the setting for text or for pictures. Text: Use to optimize the text portion of the copy where text and/or pictures are on the original. Printed picture: Use for line drawings and preprinted images, such as magazine clippings or pages from books. Photograph: Best suited for making copies of printed pictures.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Send Settings	Default Job Options	Multi-feed Detection		Disabled Enabled*	This setting stops the scanning process if it detects multiple-page feeds through the document feeder.
Fax Send Settings	Default Job Options	Blank Page Suppression		Disabled* Enabled	Prevents blank pages in the original document from being included in the output document.
Fax Receive Settings	Fax Receive Setup	Ringer Volume		Off Low* High	Use to configure settings for receiving faxes.
Fax Receive Settings	Fax Receive Setup	Rings To Answer		Range: 1-6 Default = 1	
Fax Receive Settings	Fax Receive Setup	Fax Send Speed		Fast* Medium Slow	
Fax Receive Settings	Fax Receive Setup	Ring Interval		Range: 220-600 ms Default = 600 ms	
Fax Receive Settings	Fax Receive Setup	Ring Frequency		Range: 1-200 Default = 68hz	
Fax Receive Settings	Fax Printing Schedule			Always store faxes Always print faxes* Use schedule	If you have concerns about the security of private faxes, use this feature to store faxes rather than having them automatically print. Select Incoming Fax Options, and then you can choose to always store faxes, always print them, or you can set up a schedule for each day of the week.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Fax Printing Schedule	Schedule Touch this to set up a fax printing schedule if you selected the Use Fax Printing Schedule option.	Add Edit Delete	Print incoming faxes Store incoming faxes Time Event Days	If you are using a fax printing schedule, use this menu to configure when to print faxes.
Fax Receive Settings	Blocked Fax Numbers	Fax Number to Block			The blocked fax list can contain up to 30 numbers. When the printer receives a call from one of the blocked fax numbers, it deletes the incoming fax. It also logs the blocked fax in the activity log along with job-accounting information. Add blocked numbers: Enter a fax number into the Fax Number to Block field, and then touch the arrow button to add a new number to the blocked fax list. To remove blocked numbers: Select a number and touch the Delete button to delete it from the blocked fax list. To clear all blocked numbers: Touch the Delete All button to clear all of the numbers from the blocked fax list. You can also use the Blocked Fax List report in the Information menu to view the list of the fax numbers that have been blocked on this printer.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Default Job Options	Notification		Do not notify* Notify when job completes Notify only if job fails	Configure to receive notification about the status of a sent document. Do not notify: Turns off this feature. Notify when job completes: Select to receive notification for this job only. Notify only if job fails: Select to receive notification only if the job is not sent successfully.
Fax Receive Settings	Default Job Options			Print E-mail*	E-mail: Select to receive the notification in an email. Touch the text box following Email Address, and then enter the email address for the notification.
Fax Receive Settings	Default Job Options		Include Thumbnail		**NOTE:** When sending an analog fax, select Include Thumbnail to receive a thumbnail image of the first page of the fax in your notification.
Fax Receive Settings	Default Job Options		Notification E-mail address		
Fax Receive Settings	Default Job Options	Stamp Received Faxes		Enabled Disabled*	Use this option to add the date, time, sender's phone number, and page number to each page of the faxes that this printer receives.

Table 3-28 Fax menu (M527/E52545/M528/E52645) (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Receive Settings	Default Job Options	Fit to Page		Enabled* Disabled	Use to shrink faxes that are larger than Letter-size or A4-size so that they can fit onto a Letter-size or A4-size page. If this feature set to Disabled, faxes larger than Letter or A4 will flow across multiple pages.
Fax Receive Settings	Default Job Options	Paper Selection		Automatic* Select from a list of the trays.	
Fax Receive Settings	Default Job Options	Output sides		1-sided* 2-sided Pages flip up	Use to describe the layout for each side of the original document. First select whether the original document is printed on one side or both sides. Then touch the Orientation setting to indicate whether the original has portrait or landscape orientation. If it is printed on both sides, also select the 2-sided format that matches the original document.
Fax Forwarding	Enable Fax Forwarding			Disabled* Enabled	Use to forward received faxes to another fax machine.
Fax Forwarding	Type of Fax Job to Forward			All faxes Sent faxes Received faxes	
Fax Forwarding	Fax Forwarding Number				Enter the fax fowarding number.
Clear Fax Activity Log				Cancel Clear	Clears all events from the Fax Activity Log list.

Manage Supplies menu

Review the following information about the Manage Supplies menu.

To display: At the printer control panel, select the Settings menu, and then select the Manage Supplies menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-29 Manage Supplies menu

First level	Second level	Third level	Fourth level	Values	Description
Low Warning Thresholds	Black Cartridge			1-100% Default = 4%	Set the estimated percentage at which the printer notifies you when a toner cartridge is very low.
Low Warning Thresholds	Document Feeder Kit M527/E52545/ M528/E52645 only			1-100% Default = 10%	Set the estimated percentage at which the printer notifies you when the document feeder kit is very low.
Low Warning Thresholds	Maintenance Kit M506/E50045/ M507/E50145 only			1-100% Default = 10%	Set the estimated percentage at which the printer notifies you when the maintenance kit is very low.
Low Warning Threshold Message				On* Off	Displays a message on the control panel when a cartridge is very low.
Low Behavior				Continue* Stop	Use one of these options to specify the action for the device to take when a supply reaches a low condition. Stop: Stops the current print job. Continue: Completes the current print job.

Table 3-29 Manage Supplies menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Very Low Behavior	Black Cartridge			Stop Continue* Prompt to continue	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.
Very Low Behavior	Document Feeder Kit M527/E52545/ M528/E52645 only			Stop Continue Prompt to continue*	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.
Very Low Behavior	Maintenance Kit M506/E50045/ M507/E50145 only			Stop Continue Prompt to continue*	Use one or more of these options to specify the action for the device to take when a supply reaches a very low condition. Stop: Stops the current print job. Continue: Completes the current print job. Prompt to continue: Allows the user to decide whether or not to finish printing.

Table 3-29 Manage Supplies menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Store Usage Data				On supplies* Not on supplies	Store Usage Data provides a way to suppress the toner cartridges from storing most of the information gathered exclusively for the purpose of understanding the usage of the printer. Select the On supplies setting to store the data on the toner cartridge memory chip. Select the Not on supplies setting to suppress the information from being stored on the memory chip.
Cartridge Protection				Off* Protect cartridges	Select to permanently protect cartridges so that they can be used only in this product or fleet of products.
Cartridge Policy				Off* Authorized HP	Set Authorized HP to allow only genuine HP cartridges to be used in this printer.
Reset Supplies	Document Feeder Kit (M527/E52545/ M528/E52645 only) Maintenance Kit (M506/E50045/ M507/E50145 only)			Reset Cancel	Select this option if you have installed a new document feeder kit (M527/E52545/ M528/E52645) or maintenance kit (M506/E50045/ M507/E50145).

Networking menu

Review the following information about the Networking menu.

To display: At the printer control panel, select the Settings menu, and then select the Networking menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-30 Networking menu

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	Information	Print Security Report		Yes No*	Yes: Prints a page that contains the current security settings on the HP Jetdirect print server. No: A security settings page is not printed.
Ethernet	TCP/IP	Host Name		Use the arrow buttons to edit the host name. **NPIXXXXXX***	An alphanumeric string, up to 32 characters, used to identify the printer. This name is listed on the HP Jetdirect configuration page. The default host name is NPIxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV4 Settings	Config Method	Bootp DHCP* Auto IP Manual	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server. Bootp (Bootstrap Protocol): Use for automatic configuration from a BootP server. DHCP (Dynamic Host Configuration Protocol): Use for automatic configuration from a DHCPv4 server. If selected and a DHCP lease exists, the DHCP Release menu and the DHCP Renew menu are available to set DHCP lease options. Auto IP: Use for automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically. If you set this option to the Manual setting, use the Manual Settings menu to configure TCP/IPv4 parameters.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV4 Settings	Default IP	Auto IP* Legacy	Specify the IP address to default to when the print server is unable to obtain an IP address from the network during a forced TCP/IP reconfiguration (for example, when manually configured to use BootP or DHCP). **NOTE:** This feature assigns a static IP address that might interfere with a managed network. Auto IP: A link-local IP address 169.254.x.x is set. Legacy: The address 192.0.0.192 is set, consistent with older HP Jetdirect printers.
Ethernet	TCP/IP	IPV4 Settings	DHCP Release	Yes No*	
Ethernet	TCP/IP	IPV4 Settings	DHCP Renew	Yes No*	
Ethernet	TCP/IP	IPV4 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Ethernet	TCP/IP	IPV4 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.
Ethernet	TCP/IP	IPV6 Settings	Enable	Off On*	Use this item to enable or disable IPv6 operation on the print server. Off: IPv6 is disabled. On: IPv6 is enabled.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	IPV6 Settings	Address	Manual Settings Enable Address	Use this item to enable and manually configure a TCP/IPv6 address.
Ethernet	TCP/IP	IPV6 Settings	DHCPV6 Policy	Router Specified Router Unavailable* Always	Router Specified: The stateful auto-configuration method to be used by the print server is determined by a router. The router specifies whether the print server obtains its address, its configuration information, or both from a DHCPv6 server. Router Unavailable: If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server. Always: Whether a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.
Ethernet	TCP/IP	IPV6 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Ethernet	TCP/IP	IPV6 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Ethernet	TCP/IP	Proxy Server		Select from a provided list.	Specifies the proxy server to be used by embedded applications in the printer. A proxy server is typically used by network clients for Internet access. It caches Web pages, and provides a degree of Internet security for those clients. To specify a proxy server, enter its IPv4 address or fully-qualified domain name. The name can be up to 255 octets. For some networks, you might need to contact your Internet Service Provider (ISP) for the proxy server address.
Ethernet	TCP/IP	Proxy Port		Range: 1-65535 Default = 00080	Enter the port number used by the proxy server for client support. The port number identifies the port reserved for proxy activity on your network, and can be a value from 0 to 65535.
Ethernet	TCP/IP	Idle Timeout		Range: 1-3600 Default = 0270	The time period, in seconds, after which an idle TCP print data connection is closed (default is 270 seconds, 0 disables the timeout).
Wi-Fi Direct	Status			On* Off	
Wi-Fi Direct	Wi-Fi Direct Name			**DIRECT-xx-HP [printer model]*** **xx** represents two unique characters to help identify the printer.	Displays the Wi-Fi Direct printer name.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wi-Fi Direct	Channel			1 2* 3 4 5 6 7 8 9 10 11 36 40 44 48 149 153 157 161 165	Displays the available channels.
Wi-Fi Direct	Connection Method			Automatic* Manual	Automatic: A mobile device can automatically connect to the printer and print a document. Manual: You must acknowledge the connection by touching the printer display when prompted or by entering a PIN code, provided by the printer, into the mobile device.
Wi-Fi Direct	Wi-Fi Direct Password			12345678*	Displays the Wi-Fi Direct password for the printer.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	Information	Print Security Report		Yes No*	Yes: Prints a page that contains the current security settings on the HP Jetdirect print server. No: A security settings page is not printed.
Wireless	Wireless Station	Status			
Wireless	Wireless Station	SSID			
Wireless	Wireless Station	Authentication			
Wireless	Wireless Station	Reset 802.11			
Wireless	Wireless Station	Wi-Fi Protected Setup			
Wireless	TCP/IP	Host Name		**NPIXXXXXX*** Edit the host name as needed.	An alphanumeric string, up to 32 characters, used to identify the printer. This name is listed on the HP Jetdirect configuration page. The default host name is NPIxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	TCP/IP	IPV4 Settings	Config Method	Bootp DHCP* Auto IP Manual	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server. Bootp (Bootstrap Protocol): Use for automatic configuration from a BootP server. DHCP (Dynamic Host Configuration Protocol): Use for automatic configuration from a DHCPv4 server. If selected and a DHCP lease exists, the DHCP Release menu and the DHCP Renew menu are available to set DHCP lease options. Auto IP: Use for automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically. If you set this option to the Manual setting, use the Manual Settings menu to configure TCP/IPv4 parameters.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	TCP/IP	IPV4 Settings	Default IP	Auto IP* Legacy	Specify the IP address to default to when the print server is unable to obtain an IP address from the network during a forced TCP/IP reconfiguration (for example, when manually configured to use BootP or DHCP). **NOTE:** This feature assigns a static IP address that might interfere with a managed network. Auto IP: A link-local IP address 169.254.x.x is set. Legacy: The address 192.0.0.192 is set, consistent with older HP Jetdirect printers.
Wireless	TCP/IP	IPV4 Settings	DHCP Release	Yes No*	
Wireless	TCP/IP	IPV4 Settings	DHCP Renew	Yes No*	
Wireless	TCP/IP	IPV4 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Wireless	TCP/IP	IPV4 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.
Wireless	TCP/IP	IPV6 Settings	Enable	Off On*	Use this item to enable or disable IPv6 operation on the print server. Off: IPv6 is disabled. On: IPv6 is enabled.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	TCP/IP	IPV6 Settings	Address	Manual Settings Enable Address	Use this item to enable and manually configure a TCP/IPv6 address.
Wireless	TCP/IP	IPV6 Settings	DHCPV6 Policy	Router Specified Router Unavailable* Always	Router Specified: The stateful auto-configuration method to be used by the print server is determined by a router. The router specifies whether the print server obtains its address, its configuration information, or both from a DHCPv6 server. Router Unavailable: If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server. Always: Whether a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.
Wireless	TCP/IP	IPV6 Settings	Primary DNS	Range: 0-255 Default = xxx.xxx.xx.xx	Specify the IP address (n.n.n.n) of a Primary Domain Name System (DNS) Server.
Wireless	TCP/IP	IPV6 Settings	Secondary DNS	Range: 0-255 Default = 0.0.0.0	Specify the IP address (n.n.n.n) of a Secondary DNS Server.

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	TCP/IP	Proxy Server		Select from a provided list.	Specifies the proxy server to be used by embedded applications in the printer. A proxy server is typically used by network clients for Internet access. It caches Web pages, and provides a degree of Internet security for those clients. To specify a proxy server, enter its IPv4 address or fully-qualified domain name. The name can be up to 255 octets. For some networks, you might need to contact your Internet Service Provider (ISP) for the proxy server address.
Wireless	TCP/IP	Proxy Port		Range: 1-65535 Default = 80	Enter the port number used by the proxy server for client support. The port number identifies the port reserved for proxy activity on your network, and can be a value from 0 to 65535.
Wireless	TCP/IP	Idle Timeout		Range: 1-3600 Default = 270	The time period, in seconds, after which an idle TCP print data connection is closed (default is 270 seconds, 0 disables the timeout).
Wireless	Security	Secure Web		HTTPS Required* HTTPS Optional	
Wireless	Security	IPSEC		Keep Disable*	
Wireless	Security	802.1X		Reset Keep*	

Table 3-30 Networking menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Wireless	Security	Announcement Agent		Enable* Disable	
Wireless	Security	Reset Security		Yes No*	
I/O Timeout				Range: 5 - 300 sec Default = 10	Use to set the I/O timeout period in seconds. I/O timeout refers to the elapsed time before a print job fails. If the stream of data that the printer receives for a print job gets interrupted, this setting indicates how long the printer will wait before it reports that the job has failed.

Support Tools menu

The menus under the Support Tools menu contain the options for maintaining the printer and troubleshooting printer problems. Learn about these menus and settings.

Maintenance menu (all except M501)

Review the following information about the Maintenance menu for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 printers.

Backup/Restore menu (all except M501)

Review the following information about the Backup/Restore menu for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the Backup/Restore menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-31 Backup/Restore menu (all except M501)

First level	Second level	Third level	Values	Description
Back up Data	Enable Scheduled Backups	Backup Time	Enter a time	
		Days Between Backups	Enter the number of days	
	Back up Now			
	Export Last Backup			

Table 3-31 Backup/Restore menu (all except M501) (continued)

First level	Second level	Third level	Values	Description
Restore Data			Insert a USB drive that contains the backup file.	

Calibration/Cleaning menu (all except M501)

Review the following information about the Calibration/Cleaning menu for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the Calibration/Cleaning menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-32 Calibration/Cleaning menu (all except M501)

First level	Values	Description
Cleaning Page	Automatic Cleaning Interval Off* 1000 pages 2000 pages 5000 pages 10000 pages 20000 pages	Use this menu to configure the settings for the product to automatically print a cleaning page. Select Off to disable automatic cleaning. Select a cleaning interval to set the number of pages to be printed before an automatic cleaning page is printed. Touch Print to manually print a cleaning page. **NOTE:** Cleaning pages print on the default paper size configured for the printer.
Calibrate Scanner (M527/E52545/M528/E52645 only)	Done Start	Touch Start to calibrate the device scanner. Messages on the control panel display will lead you through the calibration process.
Clean Document Feeder Rollers (M527/E52545/M528/E52645 only)	Set cleaning reminder interval Range: 0 – 100% Default = 10% Done Clean Now	Configure cleaning settings for the document feeder rollers.

USB Firmware Upgrade menu (all except M501)

Review the following information about the USB Firmware Upgrade menu for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Support Tools menu, select the Maintenance menu, and then select the USB Firmware Upgrade menu.

Insert a USB storage device with a firmware upgrade bundle into the USB port, and follow the on-screen instructions.

Service menu (all except M501)

Review the following information about the Service menu for the M506/E50045/M507/E50145 and M527/E52545/M528/E52645 printers.

To display: At the printer control panel, select the Support Tools menu, and then select the Service menu.

The Service menu is locked and requires a PIN for access. This menu is intended for use by authorized service personnel. See the Service mode function section in the printer troubleshooting manual.

Troubleshooting menu

Review the following information about the Troubleshooting menu.

To display: At the printer control panel, select the Support Tools menu, and then select the Troubleshooting menu.

In the following table, asterisks (*) indicate the factory default setting.

Table 3-33 Troubleshooting menu

First level	Second level	Third level	Fourth level	Values	Description
Reports	Configuration/ Status Pages			Settings Menu Map Current Settings Page Configuration Page Supplies Status Page Usage Page Paper Path Page File Directory Page Web Services Status Page PCL Font List PS Font List Event Log Warning Log Page T.30 Protocol Trace PQ Troubleshooting Pages Paper Path Test	Select the desired report and then select the print icon to print the page.

Table 3-33 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Reports	Fax Reports			Fax Activity Log Billing Codes Report Blocked Fax List Fax Call Report	Select the desired report and then select the print icon to print the page.
Reports	Other Pages			PCL Font List PS Font List	Select the desired report and then select the print icon to print the page.
Fax Tools	Fax T.30 Trace Report			Never automatically print* Print after every fax Print only after fax send jobs Print only after received faxes Print only after fax send errors Print only after fax receive errors Print after any fax error	Use to print or configure the fax T.30 trace report. T.30 is the standard that specifies handshaking, protocols, and error correction between fax machines.
Fax Tools (Fax models only)	Fax V.34			Enable* Disable	Use to disable V.34 modulations if several fax failures have occurred or if phone line conditions require it.
Fax Tools (Fax models only)	JBIG Compression			On Off*	
Fax Tools (Fax models only)	Fax Speaker Mode			Normal* Diagnostic	Used by a technician to evaluate and diagnose fax issues by listening to the sounds of fax modulations

Table 3-33 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Fax Tools (Fax models only)	Fax Service Log			Print	The standard fax log includes basic information such as the time and whether the fax was successful. The detailed fax log shows the intermediate results of the redial process not shown in the standard fax log.
Print Quality Pages	PQ Troubleshooting Pages			Print	Use to print pages that help you resolve problems with print quality.
Event Log					Prints the 50 most recent events in the Event Log. For each event, the printed log shows the error number, page count, error code, and description or personality.
Paper Path Page				Print	Shows how many pages were printed from each tray.
Diagnostic Tests	Disable Cartridge Check			Continue	Use this diagnostic test to print internal pages or send an external job to the printer when the toner cartridge is removed or exchanged. Supply errors are ignored while the printer is in this mode.
Diagnostic Tests	Paper Path Test	Source Tray		Select from a list of the available trays.	Generates a test page for testing paper handling features. You can define the path that is used for the test in order to test specific paper paths

Table 3-33 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Diagnostic Tests	Paper Path Test	Number of Copies		Range: 1-500 Default = 1	Sets the default number of copies for a copy job. This default applies when the Copy or Quick Copy function is initiated from the printer Home screen. The factory default setting is 1.
Diagnostic Tests	Paper Path Test	Test Duplex Path (Duplex models only)		Enable Disable*	Prints on both sides of the paper.
Diagnostic Tests	Print/Stop Test				Specify the length of time in milliseconds (0-60,000).
Diagnostic Tests	Paper Path Sensor Test			Select from a list of the printer sensors.	Initiates a test of the paper path sensors.
Diagnostic Tests	Manual Sensor Test			Select from a list of available components Reset	Test the printer sensors and switches for correct operation. Each sensor is displayed on the control-panel screen, along with its status. Manually trip each sensor and watch for it to change on the screen. Press the Stop button to abort the test.
Diagnostic Tests	Tray/Bin Manual Sensor Test			Select from a list of available components Reset	Test the printer sensors and switches for correct operation. Each sensor is displayed on the control-panel screen, along with its status. Manually trip each sensor and watch for it to change on the screen. Press the Stop button to abort the test.

Table 3-33 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Diagnostic Tests	Component Test			Select from a list of available components.	Use to exercise individual parts independently to isolate noise, leaking, or other issues. To start the test, select one of the components. The test will run the number of times specified by the Repeat option. You might be prompted to remove parts from the printer during the test. Press the Stop button to abort the test.
Diagnostic Tests	Continuous Scan (M527/E52545/ M528/E52645 only)			2-sided	
Diagnostic Tests	Scanner Tests (M527/E52545/ M528/E52645 only)			Sensors	
Generate Debug Data				Start	
Retrieve Diagnostic Data				Create device data file Create zipped debug information file Include crash dump files Clean up debug information Send to E-mail Export to USB	Create files that contain information about the printer that can help identify the cause of problems.

Table 3-33 Troubleshooting menu (continued)

First level	Second level	Third level	Fourth level	Values	Description
Retrieve Fax Diagnostic Data				Create device data file Create zipped debug information file Include crash dump files Clean up debug information Send to E-mail Export to USB	Create files that contain information about the printer that can help identify the cause of problems.

Control panel messages document (CPMD)

Learn about the printer control panel messages document (CPMD).

NOTE: A complete CPMD is not included in this service manual.

You can use the error code look-up tool from product home page.

Error codes (types and structure)

Error codes and control-panel messages display on the printer control panel to indicate the current printer status or situations that might require action. Error codes are numerical, or alphanumerical, and have a set structure with six characters (example: 13.WX.YZ).

- The first two characters are numeric and represent the system component that is causing the error. For example, in error code `10.22.15`, **10** = **Supplies** for HP LaserJets.
- The remaining four characters (W, X, Y, and Z values) further define the error.

HP LaserJet and HP PageWide Enterprise error codes are documented in the control panel message document (CPMD) for each printer.

The CPMD is a comprehensive list of error codes, diagnostic and troubleshooting steps to clear or resolve the error, and other helpful information such as service mode pins and part numbers.

The CPMD is continually updated and republished with the latest information for the following error codes.

Table 3-34 ERROR CODES: The first two characters

Error code	System Component	System Error Description
10.WX.YZ	Supplies (LaserJet)	Supply error or supply memory error.
11.WX.YZ	Real-time clock	Internal error with the clock on the formatter.
13.WX.YZ	Jam (LaserJet)	Paper jam or open door jam error.
15.WX.YZ	Jam (PageWide)	Paper jam or open door jam error.
17.WX.YZ	Supplies (PageWide)	Supply error or supply memory error.

Table 3-34 ERROR CODES: The first two characters (continued)

Error code	System Component	System Error Description
20.WX.YZ	Printer memory	Insufficient memory or buffering error.
21.WX.YZ	Page	Page complexity causing a decompression error when trying to process job.
30.WX.YZ	Scanner	Flatbed scanner error occurring inside the unit.
31.WX.YZ	Document feeder	Document feeder, scanner, or jam error.
32.WX.YZ	Backup, restore, or reset	Backup, restore, or reset notification or error.
33.WX.YZ	Security	Backup, Disk, EFI BIOS, Firmware integrity (SureStart), or Trusted Platform Module (TPM) notification or error.
40.WX.YZ	Input/Output (I/O)	Partition manager, secure erase, or USB accessory error.
41.WX.YZ	Fuser, Laser scanner, or Paper path	Miscellaneous error including general and misprint or mismatch errors typically involving (but not limited to) the fuser, the laser scanner, or the paper path.
42.WX.YZ	Firmware	Firmware failure involving the Event Log, Shell, System Manager, or other component.
44.WX.YZ	Firmware	Firmware failure involving a digital sending component.
45.WX.YZ	OXPd/Web Kit (PageWide)	Informational notifications involving the OXPd Web Kit (communications log).
46.WX.YZ	Engine (LaserJet)	Engine communication error.
47.WX.YZ	Firmware	Job parser or printer calibration error.
48.WX.YZ	Firmware	PJA job accounting, job management, or job pipeline error.
49.WX.YZ	Firmware	Firmware communication error.
50.WX.YZ	Fuser (LaserJet)	Fuser error.
51.WX.YZ	Laser scanner (LaserJet)	Laser scanner beam error.
52.WX.YZ	Laser scanner (LaserJet)	Laser scanner startup error.
54.WX.YZ	Sensor	Sensor error (not jam related).
55.WX.YZ	DC controller (LaserJet)	DC controller communication error.
56.WX.YZ	Paper handling (LaserJet)	Paper input/output or accessory error.
57.WX.YZ	Fan	Fan error.
58.WX.YZ	Sensor	Engine sensor failure.
59.WX.YZ	Motor (LaserJet)	Motor error.
60.WX.YZ	Tray motor error (LaserJet)	Tray lifting or pick up error.
61.WX.YZ	Engine (PageWide)	Print engine error with the 8-bit data package.
62.WX.YZ	System (LaserJet) Print bar (PageWide)	LaserJet internal system error. PageWide print system error.

Table 3-34 ERROR CODES: The first two characters (continued)

Error code	System Component	System Error Description
63.WX.YZ	Engine (LaserJet)	General engine error (electrical, communication, etc.).
65.WX.YZ	Connector	Output accessory connection error.
66.WX.YZ	Output accessory	Output accessory error.
67.WX.YZ	Input accessory	Input accessory connection error
69.WX.YZ	Duplexer	Duplexer error.
70.WX.YZ	DC controller (LaserJet)	DC controller firmware error.
76.WX.YZ	DC controller (LaserJet)	Power supply fluctuations causes formatter and DC controller communication issue and results them not to be in synchronization.
80.WX.YZ	Managed device	Embedded Jetdirect error.
81.WX.YZ	Near Field Communication (NFC)	Wireless, Bluetooth or internal EIO error.
82.WX.YZ	Memory (hard disk, EMMC, etc.)	Disk hardware error.
90.WX.YZ	Internal diagnostics	Internal test of systems (i.e. disk, CPB, display) or interconnection error.
98.WX.YZ	Hard disk	Hard disk partition error.
99.WX.YZ	Firmware installer	Remote Firmware Upgrade (RFU), firmware install (engine or accessory), or disk error.

Resolving mono print quality problems

Use the information below to troubleshoot print-quality and image-quality problems on mono (black and white) HP LaserJet Enterprise printers.

Introduction

Use the information below to troubleshoot print-quality problems, including issues with image quality.

The troubleshooting steps can help resolve the following defects:

- Blank pages
- Black pages
- Curled paper
- Dark or light bands
- Dark or light streaks
- Fuzzy print
- Gray background or dark print
- Light print
- Loose toner

- Missing toner
- Scattered dots of toner
- Skewed images
- Smears
- Streaks

Troubleshoot print quality

To resolve print-quality issues, try these steps in the order presented.

To troubleshoot specific image defects, see Troubleshoot image defects.

Print from a different software program

Try printing from a different software program.

If the page prints correctly, the problem is with the software program from which you were printing.

Check the paper-type setting for the print job

Check the paper type setting when printing from a software program and the printed pages have smears, fuzzy or dark print, curled paper, scattered dots of toner, loose toner, or small areas of missing toner.

Check the paper type setting on the control panel

Check the paper type setting on the printer control panel, and change the setting as needed.

1. Open and close the paper tray.
2. Follow the control panel prompts to confirm or modify the paper type and size settings for the tray.
3. Make sure the paper loaded meets specifications.
4. Adjust the humidity and resistance setting on the control panel to match the environment.
    a. Open the following menus:
        i. Settings
        ii. Copy/Print
        iii. Print quality
        iv. Adjust paper type
    b. Select the paper type that matches the type loaded in the tray.
    c. Use the arrows to increase or decrease the humidity and resistance setting.
5. Make sure the driver settings match the control panel settings.

NOTE: The print driver settings will override any control panel settings.

Check the paper type setting (Windows)

Check the paper type setting for Windows, and change the setting as needed.

NOTE: The print driver settings will override any control panel settings.

1. From the software program, select the **Print** option.
2. Select the printer, and then click the **Properties** or **Preferences** button.
3. Click the **Paper/Quality** tab.
4. From the **Paper Type** drop-down list, click the **More...** option.
5. Expand the list of **Type is:** options.
6. Expand the category of paper types that best describes your paper.
7. Select the option for the type of paper you are using, and click the **OK** button.
8. Click the **OK** button to close the **Document Properties** dialog box. In the **Print** dialog box, click the **OK** button to print the job.

Check the paper type setting (macOS)

Check the paper type setting for macOS, and change the setting as needed.

1. Click the **File** menu, and then click the **Print** option.
2. In the **Printer** menu, select the printer.
3. Click **Show Details** or **Copies & Pages**.
4. Open the menus drop-down list, and then click the **Paper/Quality** menu.
5. Select a type from the **Media Type** drop-down list.
6. Click the **Print** button.

Check toner-cartridge status

Follow these steps to check the estimated life remaining in the toner cartridges and if applicable, the status of other replaceable maintenance parts.

Step one: Print the Supplies Status Page

The supplies status page indicates the cartridge status.

1. From the Home screen on the printer control panel, select the Reports menu.
2. Select the Configuration/Status Pages menu.
3. Select Supplies Status Page, and then select Print to print the page.

Step two: Check supplies status

Check the supplies status report as follows.

1. Look at the supplies status report to check the percent of life remaining for the toner cartridges and, if applicable, the status of other replaceable maintenance parts.

   Print quality problems can occur when using a toner cartridge that is at its estimated end of life. The supplies status page indicates when a supply level is very low. After an HP supply has reached the very low threshold, HP's premium protection warranty on that supply has ended.

The toner cartridge does not need to be replaced now unless the print quality is no longer acceptable. Consider having a replacement available to install when print quality is no longer acceptable.

If you determine that you need to replace a toner cartridge or other replaceable maintenance parts, the supplies status page lists the genuine HP part numbers.

2. Check to see if you are using a genuine HP cartridge.

   A genuine HP toner cartridge has the word "HP" on it, or has the HP logo on it. For more information on identifying HP cartridges go to www.hp.com/go/learnaboutsupplies.

Print a cleaning page

During the printing process paper, toner, and dust particles can accumulate inside the printer and can cause print-quality issues such as toner specks or spatter, smears, streaks, lines, or repeating marks.

Follow these steps to clean the printer paper path:

1. From the Home screen on the printer control panel, select the Support Tools menu.
2. Select the following menus:
   a. Maintenance
   b. Calibration/Cleaning
   c. Cleaning Page
3. Select Print to print the page.

   A **Cleaning...** message displays on the printer control panel. The cleaning process takes a few minutes to complete. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

Visually inspect the toner cartridge or cartridges

Follow these steps to inspect each toner cartridge:

1. Remove the toner cartridge from the printer, and verify that the sealing tape has been removed.
2. Check the memory chip for damage.
3. Examine the surface of the green imaging drum.

   ⚠ CAUTION: Do not touch the imaging drum. Fingerprints on the imaging drum can cause print-quality problems.

4. If you see any scratches, fingerprints, or other damage on the imaging drum, replace the toner cartridge.
5. Reinstall the toner cartridge and print a few pages to see if the problem has resolved.

Check paper and the printing environment

Use the following information to check the paper selection and the printing environment.

Step one: Use paper that meets HP specifications

Some print-quality problems arise from using paper that does not meet HP specifications.

- Always use a paper type and weight that this printer supports.
- Use paper that is of good quality and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, staples, and curled or bent edges.
- Use paper that has not been previously printed on.
- Use paper that does not contain metallic material, such as glitter.
- Use paper that is designed for use in laser printers. Do not use paper that is designed only for use in Inkjet printers.
- Use paper that is not too rough. Using smoother paper generally results in better print quality.

Step two: Check the environment

The environment can directly affect print quality and is a common cause of print-quality or paper-feeding issues. Try the following solutions:

- Move the printer away from drafty locations, such as open windows or doors, or air-conditioning vents.
- Make sure the printer is not exposed to temperatures or humidity outside of printer specifications.
- Do not place the printer in a confined space, such as a cabinet.
- Place the printer on a sturdy, level surface.
- Remove anything that is blocking the vents on the printer. The printer requires good air flow on all sides, including the top.
- Protect the printer from airborne debris, dust, steam, grease, or other elements that can leave residue inside the printer.

Step three: Set the individual tray alignment

Follow these steps when text or images are not centered or aligned correctly on the printed page when printing from specific trays.

1. From the Home screen on the printer control panel, select the Settings menu.
2. Select the following menus:
   a. Copy/Print or Print
   b. Print Quality
   c. Image Registration
3. Select Tray, and then select the tray to adjust.
4. Select Print Test Page, and then follow the instructions on the printed pages.
5. Select Print Test Page again to verify the results, and then make further adjustments if necessary.
6. Select Done to save the new settings.

Try a different print driver

Try a different print driver when printing from a software program and the printed pages have unexpected lines in graphics, missing text, missing graphics, incorrect formatting, or substituted fonts.

Download a different print driver from the HP support Web site: http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.

Troubleshoot image defects

Review examples of image defects and steps to resolve these defects.

Table 3-35 Image defects table quick reference

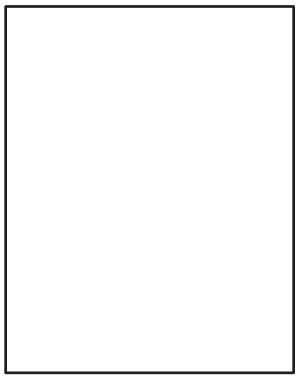
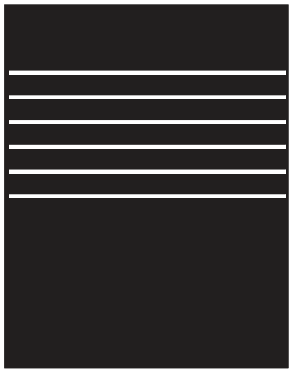
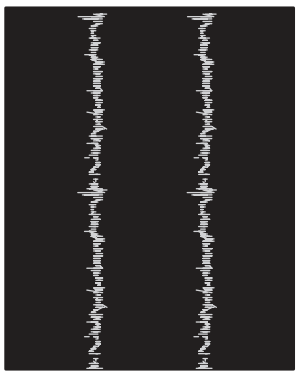
Sample	Description	Possible solutions
Table 3-42 Light print on page 214	Table 3-40 Gray background or dark print on page 213	Table 3-38 Blank page — No print on page 212 
Table 3-37 Black page on page 211	Table 3-36 Banding defects on page 211 	Table 3-44 Streak defects on page 215 

Table 3-35 Image defects table quick reference (continued)

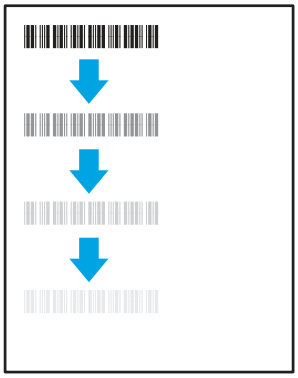
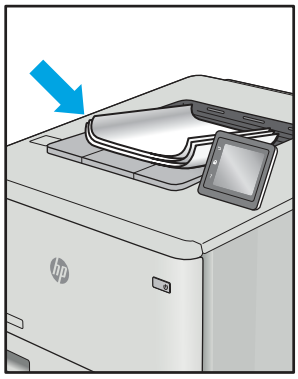
Sample	Description	Possible solutions
Table 3-39 Fixing/fuser defects on page 212	Table 3-41 Image placement defects on page 213	Table 3-43 Output defects on page 214
		

Image defects, no matter the cause, can often be resolved using the same steps. Use the following steps as a starting point for solving image defect issues.

1. Reprint the document. Print quality defects can be intermittent in nature or can go away completely with continued printing.
2. Check the condition of the cartridge or cartridges. If a cartridge is in a **Very Low** state (it has passed the rated life), replace the cartridge.
3. Make sure that the driver and tray print mode settings match the media that is loaded in the tray. Try using a different ream of media or a different tray. Try using a different print mode.
4. Make sure that the printer is within the supported operating temperature/humidity range.
5. Make sure that the paper type, size, and weight are supported by the printer. See support.hp.com for a list of the supported paper sizes and types for the printer.

NOTE: The term “fusing” refers to the part of the printing process where toner is affixed to paper.

The following examples depict letter-size paper that has passed through the printer short edge first.

Table 3-36 Banding defects

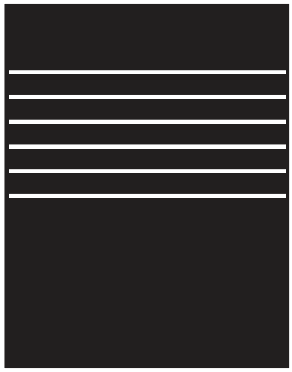
Sample	Description	Possible solutions
	Dark or light lines which repeat down the length of the page, and are wide-pitch and/or impulse bands. They might be sharp or soft in nature. The defect displays only in areas of fill, not in text or sections with no printed content.	1. Reprint the document. 2. Try printing from another tray. 3. Replace the cartridge. 4. Use a different paper type. 5. **Enterprise models only:** From the Home screen on the printer control panel, go to the Adjust Paper Types menu, and then choose a print mode that is designed for a slightly heavier media than what you are using. This slows the print speed and might improve the print quality. 6. If the issue persists, go to support.hp.com.

Table 3-37 Black page

Sample	Description	Possible solutions
	The entire printed page is black.	1. Visually inspect the cartridge to check for damage. 2. Make sure that the cartridge is installed correctly. 3. Replace the cartridge. 4. If the issue persists, go to support.hp.com.

Table 3-38 Blank page – No print

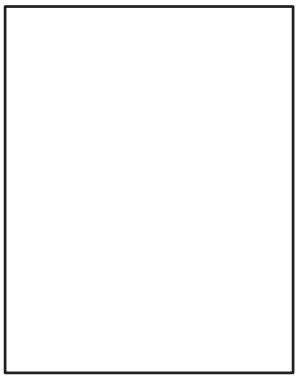
Sample	Description	Possible solutions
	The page is completely blank and contains no printed content.	1. Make sure that the cartridges are genuine HP cartridges. 2. Make sure that the cartridge is installed correctly. 3. Print with a different cartridge. 4. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a lighter paper type. 5. If the issue persists, go to support.hp.com.

Table 3-39 Fixing/fuser defects

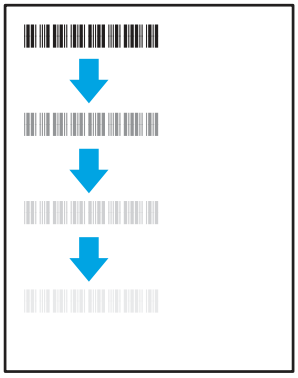
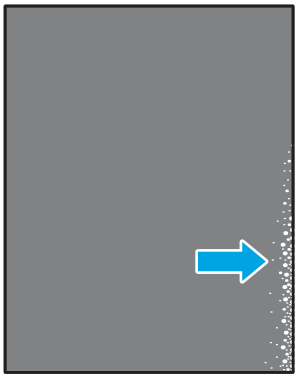
Sample	Description	Possible solutions
	Slight shadows or offsets of the image are repeated down the page. The repeated image might fade with each recurrence.	1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a lighter weight paper type. 3. If the issue persists, go to support.hp.com.
	Toner rubs off along either edge of the page. This defect is more common at the edges of high-coverage jobs, and on light media types, but can occur anywhere on the page.	1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a heavier paper type. 3. **Enterprise models only:** From the printer control panel, go to the Edge-to-Edge menu and then select Normal. Reprint the document. 4. **Enterprise models only:** From the printer control panel, select Auto Include Margins and then reprint the document. 5. If the issue persists, go to support.hp.com.

Table 3-40 Gray background or dark print

Sample	Description	Possible solutions
	The image or text is darker than expected and/or the background is gray.	1. Make sure that the paper in the trays has not already been run through the printer. 2. Use a different paper type. 3. Reprint the document. 4. **Mono models only:** From the Home screen on the printer control panel, go to the Adjust Toner Density menu, and then adjust the toner density to a lower level. 5. Make sure that the printer is within the supported operating temperature and humidity range. 6. Replace the cartridge. 7. If the issue persists, go to support.hp.com.

Table 3-41 Image placement defects

Sample	Description	Possible solutions
	The image is not centered, or is skewed on the page. The defect occurs when the paper is not positioned properly as it is pulled from the tray and moves through the paper path.	1. Reprint the document. 2. Remove the paper and then reload the tray. Make sure that all the paper edges are even on all sides. 3. Make sure that the top of the paper stack is below the tray-full indicator. Do not overfill the tray. 4. Make sure that the paper guides are adjusted to the correct size for the paper. Do not adjust the paper guides tightly against the paper stack. Adjust them to the indentations or markings in the tray. 5. If the issue persists, go to support.hp.com.

Table 3-42 **Light print**

Sample	Description	Possible solutions
	The printed content is light or faded on the entire page.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. **Mono models only:** Make sure that the EconoMode setting is disabled, both at the printer control panel and in the print driver. 4. Make sure that the cartridge is installed correctly. 5. Print a Supplies Status Page and check the life and usage of the cartridge. 6. Replace the cartridge. 7. If the issue persists, go to support.hp.com.

Table 3-43 **Output defects**

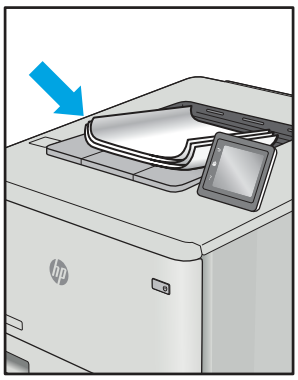
Sample	Description	Possible solutions
	Printed pages have curled edges. The curled edge can be along the short or long side of the paper. Two types of curl are possible: • **Positive curl:** The paper curls toward the printed side. The defect occurs in dry environments or when printing high-coverage pages. • **Negative curl:** The paper curls away from the printed side. The defect occurs in high-humidity environments or when printing low-coverage pages.	1. Reprint the document. 2. **Positive curl:** From the printer control panel, select a heavier paper type. The heavier paper type creates a higher temperature for printing. **Negative curl:** From the printer control panel, select a lighter paper type. The lighter paper type creates a lower temperature for printing. Try storing the paper in a dry environment prior to use, or use freshly opened paper. 3. Print in duplex mode. 4. If the issue persists, go to support.hp.com.

Table 3-43 Output defects (continued)

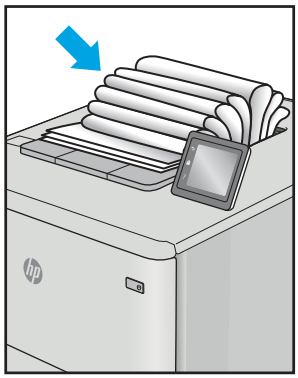
Sample	Description	Possible solutions
	The paper does not stack well in the output tray. The stack might be uneven, skewed, or the pages might be pushed out of the tray and onto the floor. Any of the following conditions can cause this defect: • Extreme paper curl • The paper in the tray is wrinkled or deformed • The paper is a non-standard paper type, such as envelopes • The output tray is too full	1. Reprint the document. 2. Extend the output bin extension. 3. If the defect is caused by extreme paper curl, refer to the troubleshooting steps for "Output curl." 4. Use a different paper type. 5. Use freshly opened paper. 6. Remove the paper from the output tray before the tray gets too full. 7. If the issue persists, go to support.hp.com.

Table 3-44 Streak defects

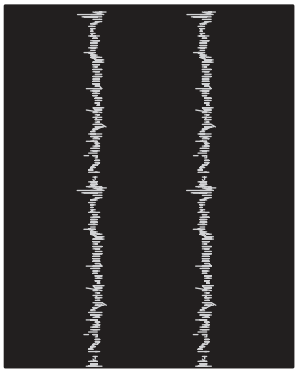
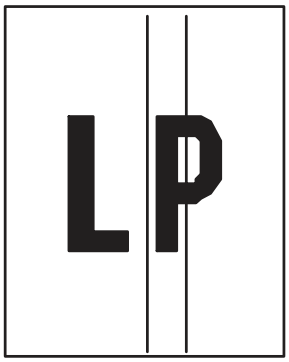
Sample	Description	Possible solutions
	Light vertical streaks that usually span the length of the page. The defect displays only in areas of fill, not in text or sections with no printed content.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. If the issue persists, go to support.hp.com. **NOTE:** Both light and dark vertical streaks can occur when the printing environment is outside the specified range for temperature or humidity. Refer to your printer's environmental specifications for allowable temperature and humidity levels.

Table 3-44 Streak defects (continued)

Sample	Description	Possible solutions
	Dark vertical lines which occur down the length of the page. The defect might occur anywhere on the page, in areas of fill or in sections with no printed content.	1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. Reinsert the toner cartridges into the printer and close the cover. For a graphical representation of this procedure, see *Replace the toner cartridges*. 3. Print a cleaning page. 4. Check the toner level in the cartridge. 5. If the issue persists, go to support.hp.com.

Print quality troubleshooting guide

Review the following information about print quality troubleshooting.

Image defects table

Image defects, no matter what their cause, can often be resolved using the same steps. Use the following steps as a starting point for solving image defect issues.

1. Reprint the document. Print quality defects can be intermittent in nature or can go away completely with continued printing.
2. Check the condition of your cartridge(s). If it is in a **Very Low** state (it has passed the rated life), replace your cartridge(s).
3. Check that the driver/tray print mode settings match the media that is loaded in a given tray. Try using a different ream of media or a different tray. Try using a different print mode.
4. Verify that your printer is in within its supported operating temperature/humidity range.
5. Verify the paper type, size and weight are supported by the printer. See the printer support page at www.hp.com/support for a list of the supported paper sizes and types for your printer.

NOTE: The term “fusing” refers to the part of the printing process where toner is affixed to paper.

The following examples depict letter-size paper that has passed through the printer short-edge first.

Table 3-45 Image defect examples

Description	Sample	Possible solutions
Banding		

Table 3-45 Image defect examples (continued)

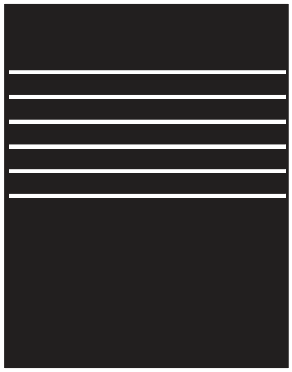
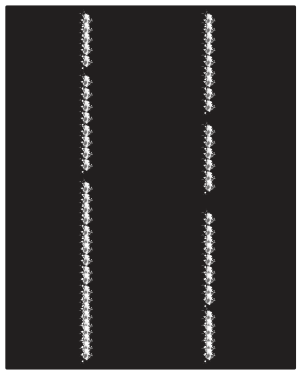
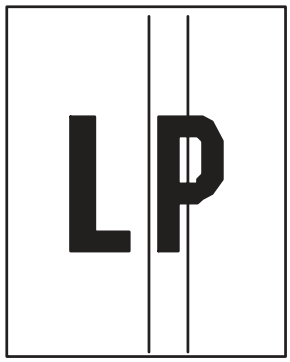
Description	Sample	Possible solutions
Repetitive wide-pitch banding and impulse bands: Dark or light lines which repeat down the length of the page. They might be sharp or soft in nature. The defect displays only in areas of fill, not in text or sections with no printed content.		1. Reprint the document. 2. Try printing from another tray. 3. Replace the cartridge. 4. Use a different paper type. 5. **Enterprise models only:** From the Home screen on the printer control panel, go to the Adjust Paper Types menu, and then choose a print mode that is designed for a slightly heavier media than what you are using. This slows the print speed and might improve the print quality. 6. If the problem persists, go to www.hp.com/support.
Streaks		
Light vertical streaks: Light streaks that usually span the length of the page. The defect displays only in areas of fill, not in text or sections with no printed content.		1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. 3. If the problem persists, go to www.hp.com/support. NOTE: Both light and dark vertical streaks can occur when the printing environment is outside the specified range for temperature or humidity. Refer to your printer's environmental specifications for allowable temperature and humidity levels.
Dark vertical streaks and ITB cleaning streaks (color models only): Dark lines which occur down the length of the page. The defect might occur anywhere on the page, in areas of fill or in sections with no printed content.		1. Reprint the document. 2. Remove the cartridge, and then shake it to redistribute the toner. 3. Print a cleaning page. 4. Check the toner level in the toner cartridge(s). 5. If the problem persists, go to www.hp.com/support.
Fixing/fuser		

Table 3-45 Image defect examples (continued)

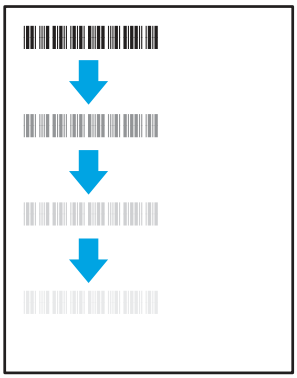
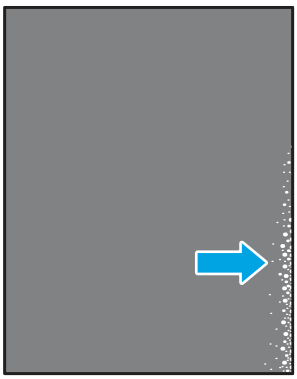
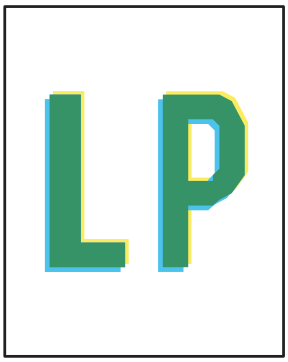
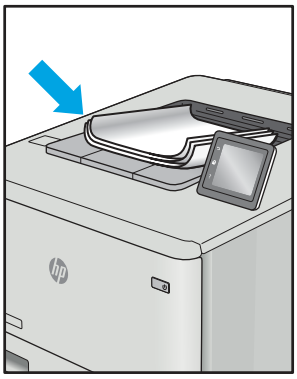
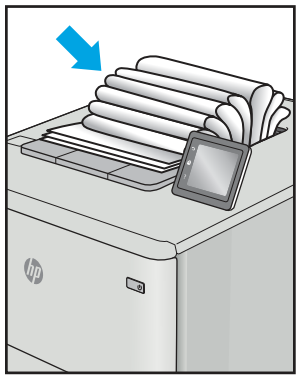
Description	Sample	Possible solutions
Hot fuser offset (shadow): Slight shadows, or offsets, of the image repeated down the page. The repeated image might fade with each recurrence.		1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a lighter paper type. 3. If the problem persists, go to www.hp.com/support.
Poor fusing: Toner rubs off along either edge of page. This defect is more common at the edges of high-coverage jobs and on light media types but can occur anywhere on the page.		1. Reprint the document. 2. Check the paper type in the paper tray and adjust the printer settings to match. If necessary, select a heavier paper type. 3. **Enterprise models only:** From the printer control panel, go to the Edge-to-Edge menu and then select Normal. Reprint the document. 4. **Enterprise models only:** From the printer control panel, select Auto Include Margins and then reprint the document. 5. If the problem persists, go to www.hp.com/support.
Image placement		
Margins and skew The image is not centered, or is skewed on the page. The defect occurs when the paper is not positioned properly as it is pulled from the tray and moves through the paper path.		1. Reprint the document. 2. Remove the paper and then reload the tray. Make sure that all the paper edges are even on all sides. 3. Make sure that the top of the paper stack is below the tray full indicator. Do not overfill the tray. 4. Make sure that the paper guides are adjusted to the correct size for the paper. Do not adjust the paper guides tightly against the paper stack. Adjust them to the indentations or markings in the tray. 5. If the problem persists, go to www.hp.com/support.
Color plane registrations		

Table 3-45 Image defect examples (continued)

Description	Sample	Possible solutions
Color plane registrations (color models only) One or more color of the planes is not aligned with the other color planes. The primary error will typically occur with yellow.		1. Reprint the document. 2. From the printer control panel, calibrate the printer. 3. If a cartridge has reached a **Very Low** state or the printed output is severely faded, replace the cartridge. 4. From the printer control panel use the Restore Calibration feature to reset the printer's calibration settings to the factory defaults. 5. If the problem persists, go to www.hp.com/support.
Output		
Output curl Printed paper has curled edges. The curled edge can be along the short or long side of the paper. Two types of curl are possible: • **Positive curl:** The paper curls toward the printed side. The defect occurs in dry environments or when printing high coverage pages. • **Negative curl:** The paper curls away from the printed side. The defect occurs in high-humidity environments or when printing low coverage pages.		1. Reprint the document. 2. **Positive curl:** From the printer control panel, select a heavier paper type. The heavier paper type creates a higher temperature for printing. **Negative curl:** From the printer control panel, select a lighter paper type. The lighter paper type creates a lower temperature for printing. Try storing the paper in a dry environment prior or use freshly opened paper. 3. Print in duplex mode. 4. If the problem persists, go to www.hp.com/support.
Output stacking The paper does not stack well in the output tray. The stack might be uneven, skewed, or the pages might be pushed out of the tray and onto the floor. Any of the following conditions can cause this defect: • Extreme paper curl • The paper in the tray is wrinkled or deformed • The paper is a non-standard paper type, such as envelopes • The output tray is too full		1. Reprint the document. 2. Flip out the output bin extension. 3. If the defect is caused by extreme paper curl, complete the troubleshooting steps for Output curl. 4. Use a different paper type. 5. Use freshly opened paper. 6. Remove the paper from the output tray before the tray gets too full. 7. If the problem persists, go to www.hp.com/support.

Product specific image defects

Review the following information about product specific image defects.

Repetitive image defect ruler

Review the following information about a repetitive image defect ruler.

When troubleshooting the source of some print image defects, one solution is to identify if it is a repetitive defect (does the print quality defect appear multiple times on the printed page?). If this is the case, use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. For more information, see Use a ruler to measure between repetitive defects on page 221.

Use a ruler to measure occurrences of repetitive image defects to help solve image-quality problems. Place the ruler next to the first occurrence of the defect on the page. Find the distance between identical defects and use the table below to identify the component that is causing the defect.

IMPORTANT: Do not use solvents or oils to clean rollers. Instead, rub the roller with a lint-free cloth. If dirt is difficult to remove, rub the roller with a lint-free cloth that has been dampened with water.

NOTE: Defects on the tray pickup rollers or the Tray 1 pickup roller do not cause a repetitive defect. Defects on these rollers cause a defect to appear only on the leading edge of the image.

TIP: To make a printer specific repetitive defect ruler, use a metric ruler to transfer the measurements in Table 3-46 Repetitive defects on page 220 to a transparency or the edge of a piece of paper—clearly label each ruler mark with the associated defective assembly.

Table 3-46 Repetitive defects

Assembly	Distance between defects
Developer roller (toner cartridge)[1]	27.8 mm (1.09 in)
Charge roller (toner cartridge)[1]	28.3 mm (1.11 in)
Face down roller	36.9 mm (1.45 in)
Transfer roller	39 mm (1.53 in)
Duplex feed roller	40.3 mm (1.58 in)
Registration roller	43.3 mm (1.70 in)
Middle feed roller (cassette)	
Middle feed roller (optional input feeder)	
Switchback roller	43.4 mm (1.70 in)
Feed roller cassette)	47.4 mm (1.87 in)
Feed roller (optional input feeder)	
Pick roller (cassette)	49.7 mm (1.95 in)
Pickup roller (optional input feeder)	
Pressure roller[2] (fuser)	63.5 mm (2.50 in)
Photosensitive drum[1] (OPC drum; toner cartridge)	75.4 mm (2.96 in)
Fuser sleeve[2] (fuser)	

Table 3-46 Repetitive defects (continued)

Assembly	Distance between defects
Pick roller (Tray 1)	78.7 mm (3.09 in)

[1] The primary charging roller and photosensitive drum cannot be cleaned because they are internal assemblies in the toner cartridge. If one of these assemblies is causing the defect, replace the toner cartridge.

[2] The primary fuser sleeve unit or pressure roller cannot be cleaned because they are internal assemblies in the fuser. If one of these assemblies is causing the defect, replace the fuser.

Use a ruler to measure between repetitive defects

The figures in this section show color repetitive defect pages. However, the process for measuring repetitive defects is valid for mono pages.

1. Identify a repetitive defect on the page.

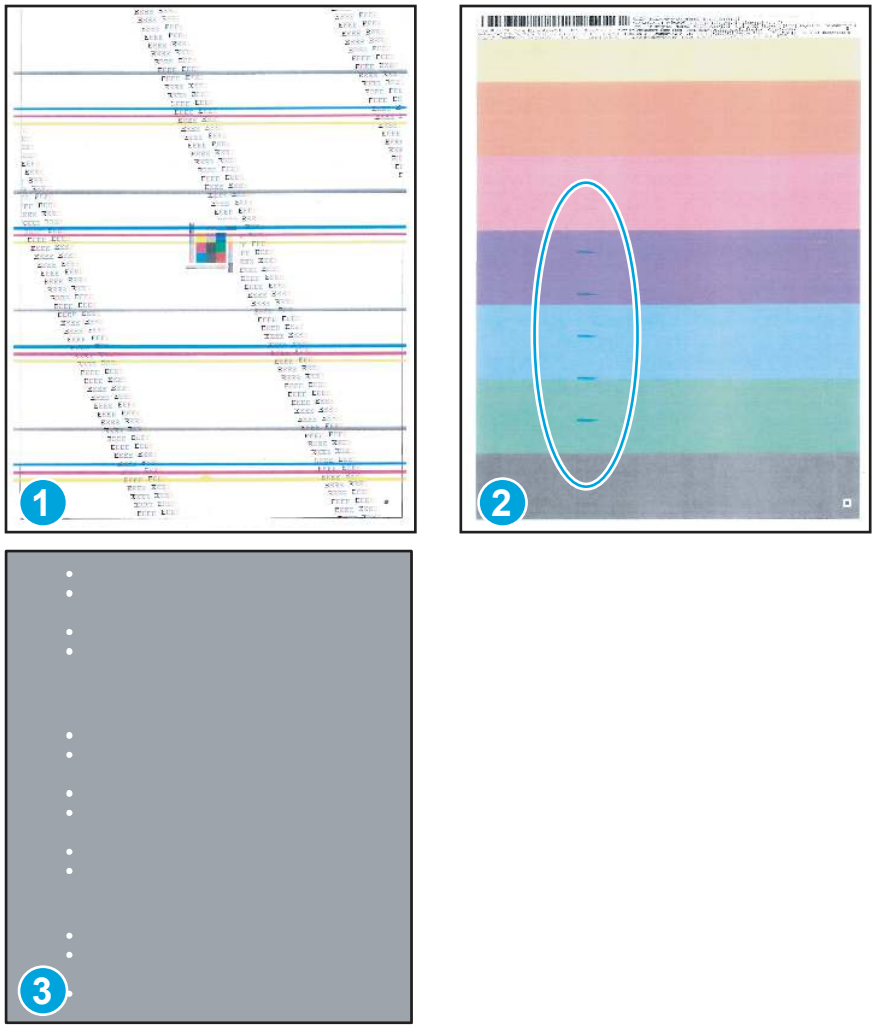
TIP: Print a cleaning page to see if that resolves the defect.

NOTE: Some printers allow loading Letter and A4 media in short-edge-first or long-edge-first orientation in the paper trays. When measuring repetitive defects, make sure to place the ruler at the leading edge of the page. This is the edge of the page that feeds into the printer first.

The example pages below show the following types of repetitive defects.

- Lines (callout 1)
- Smudges (callout 2)
- Dots or spots (callout 3)

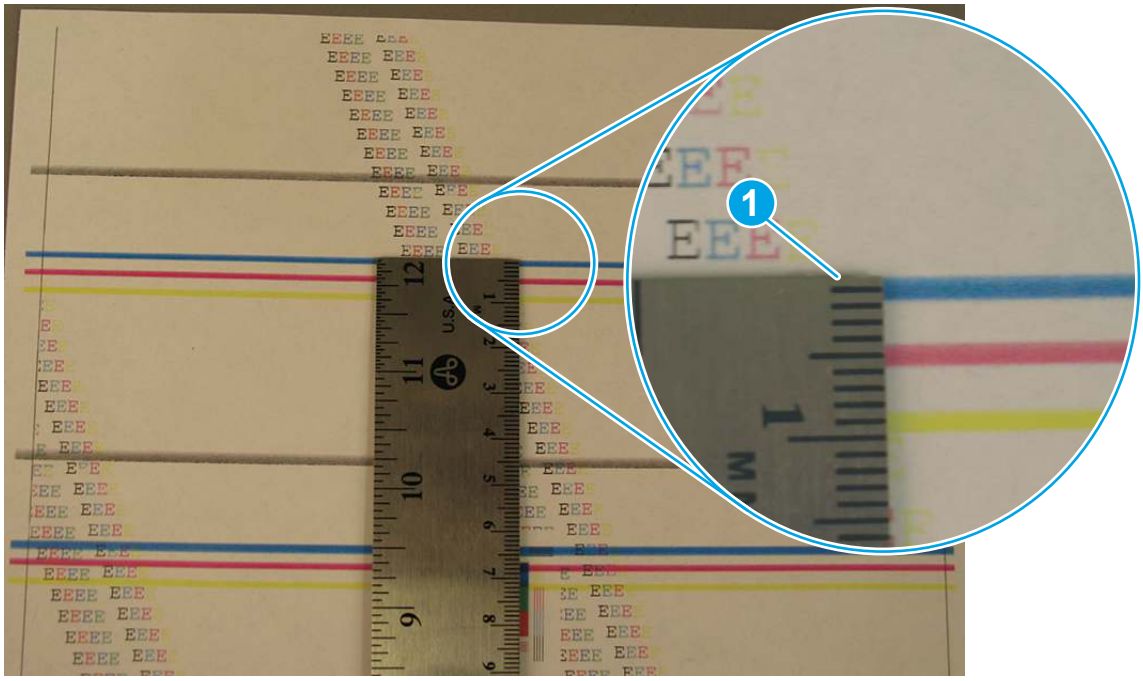
Figure 3-78 Examples of repetitive defects



NOTE: These are examples only, other types of repetitive defects might appear on a page.

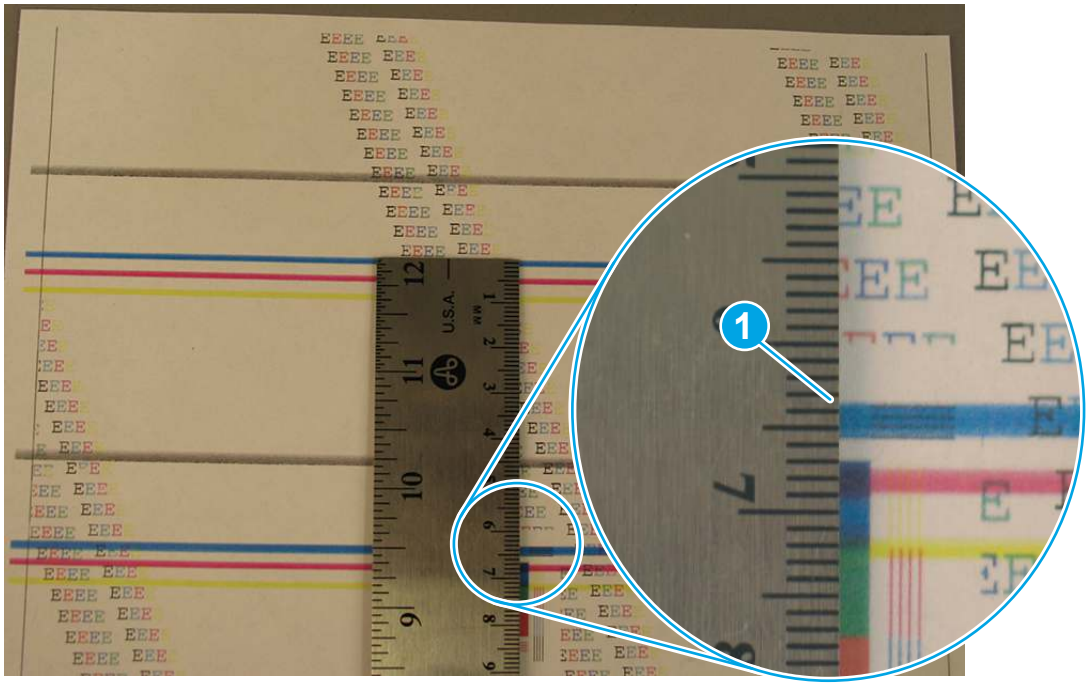
2. Position a metric ruler on the page with the “zero” ruler mark at one occurrence of the defect (callout 1).

Figure 3-79 Place the ruler on the page



3. Locate the next occurrence of the defect (callout 1).

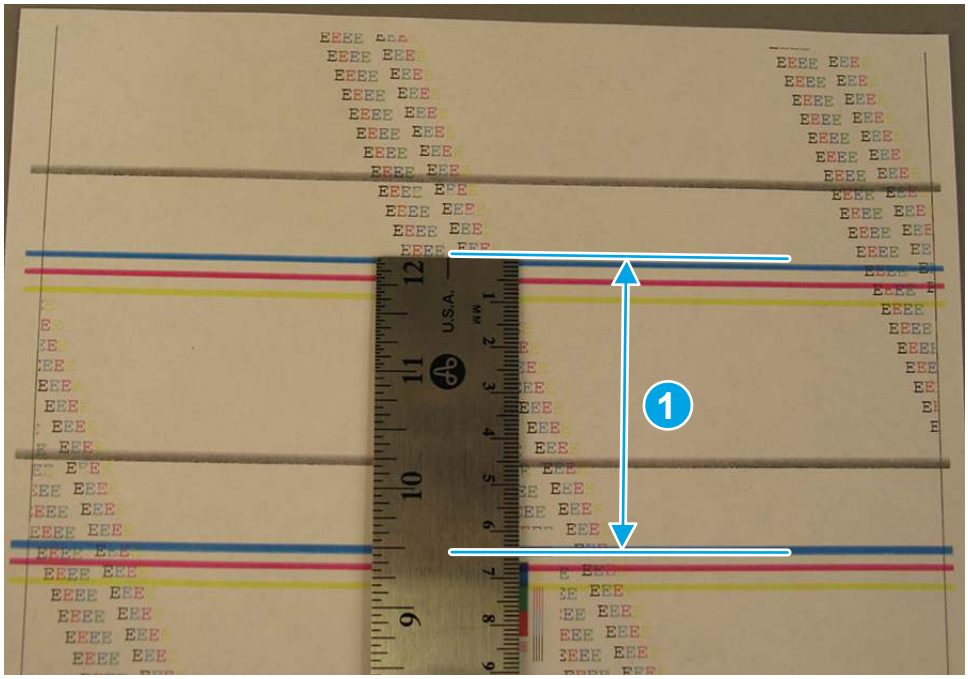
Figure 3-80 Locate the next repetitive defect



4. Measure the distance (in millimeters) between the two occurrences (callout 1), and then use the Repetitive defects table to determine the defective assembly.

TIP: Always measure from and to the same point on the defects. For example, if the ruler is “zeroed” at the top edge of a defect, measure to the top edge of the next occurrence of that defect.

Figure 3-81 Determine the defective assembly



Print-quality troubleshooting

Review the folloiwng information about print-quality troubleshooting.

NOTE: The image defects described in this section are printer-specific image defects.

Image defect events

Review the following information about image defect events.

NOTE: The image defects described in this section are defects that occurred during development and that could not be fully eliminated. Customers might observe these defects.

Graininess

Review the following information about graininess image defect events.

Graininess/fixing mottle

Review the following information about the graininess/fixing mottle image defect event.

Figure 3-82 Graininess/fixing mottle

Description of the defect

This defect is large areas of fill that appear blotchy, grainy, non-uniform, or mottled (marked with spots or smears of color).

The graininess/fixing mottle defect is caused by how the toner (dot) is pressed or melted and the severity of the defect depends on the paper roughness. This leads to the density variance or uneven gloss. Graininess/fixing mottle is caused by inconsistently melted toner.

Conditions that can cause the defect

The defect appears in large areas of fill and is more severe in low temperature and humidity environments.

Solutions for the defect

Use the following steps to solve the defect.

- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Setup

     – System Setup

     – Paper Setup

     – Tray <X>

     NOTE: Select the tray you want to configure.

- Paper Type

2. Select Intermediate 85-95g.

- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray
   - Modify
2. Select Intermediate 85-95g.

- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray <X>

   NOTE: Select the tray you want to configure.

   - Type
2. Select Intermediate 85-95g.

- Try using a smoother paper.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Toner cartridge
- Fuser

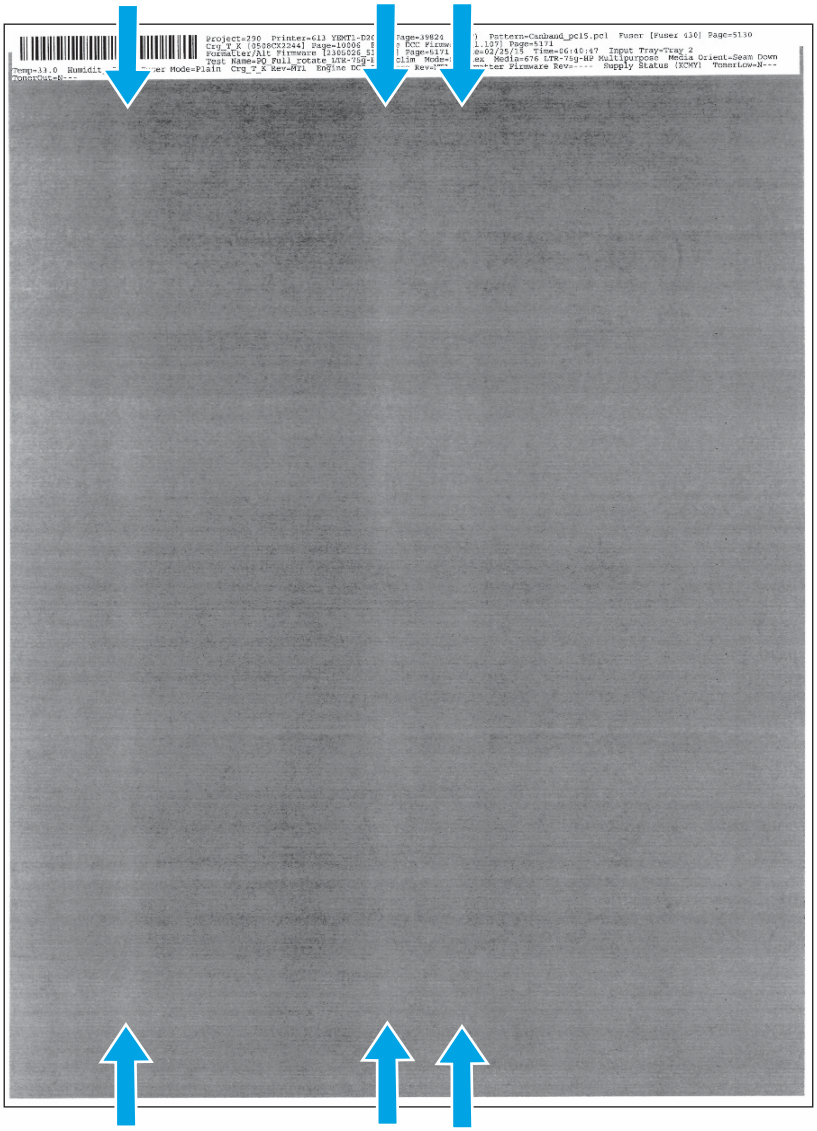
Streaks

Review the following information about streak image defect events.

Vertical streaks - high temperature/humidity

Review the following information about the vertical streaks - high temperature/humidity image defect event.

Figure 3-83 Vertical streaks - high temperature/humidity



Description of the defect

Light streaks can appear and they usually span the length of the page.

This problem is caused by toner clumping at the developer blade which reduces the amount of toner available for transfer at that page location. There is a stirring shaft inside the toner cartridge to reduce the severity of this defect. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

This defect primarily occurs in high temperature and high humidity environments.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.

- If the defect does not improve within two to three print jobs, remove the toner cartridge and gently rock it back and forth from side to side (this distributes the toner evenly in the toner cartridge).
- If the toner cartridge has reached the **Very Low** state, replace it.
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

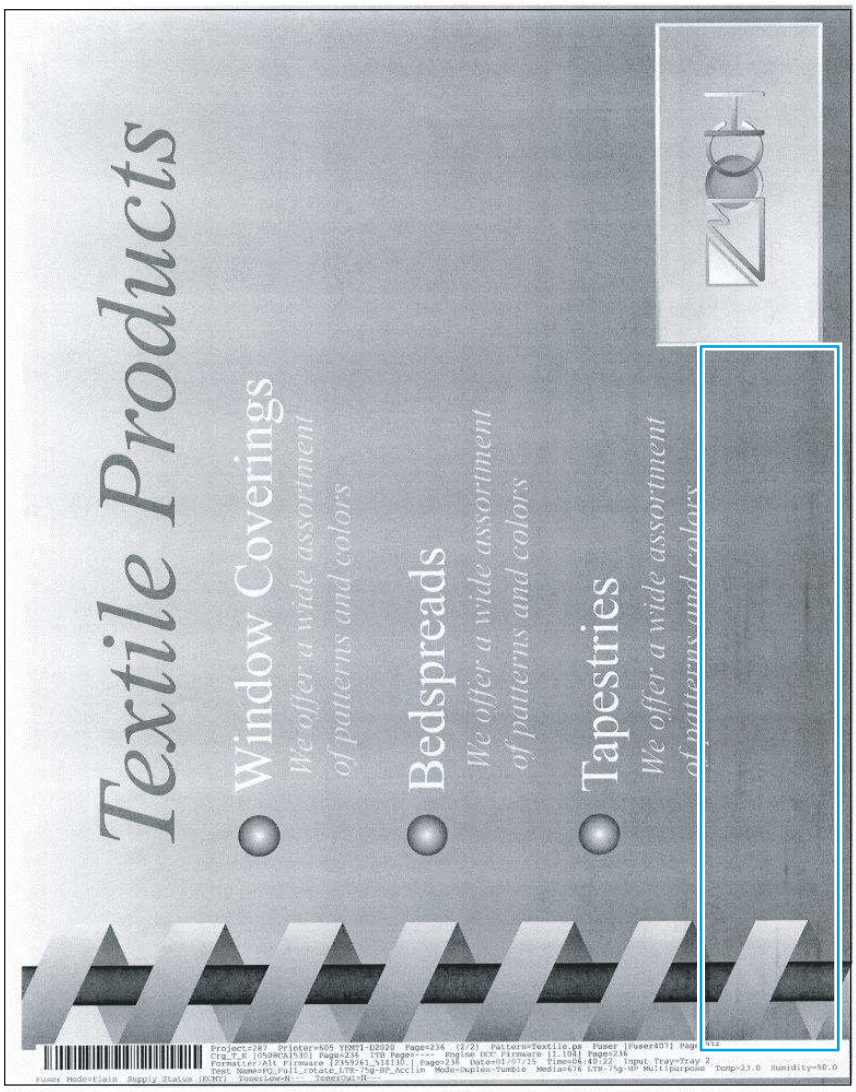
Banding

Review the following information about banding image defect events.

Dark streaks (early in toner cartridge life)

Review the following information about the dark streaks early in toner cartridge life image defect event.

Figure 3-84 Dark streaks (early in toner cartridge life)



Description of the defect

Smeared dark streaks come and go down the page, and are more common at the right and left edges of the page.

This issue is caused by grease from toner cartridge stirring system contaminating the supply hopper which then causes the toner to cluster and results in dark streaks on the page. Countermeasures include optimizing grease: amount, position, and stickiness. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

This defect occurs when using a new toner cartridge and usually decreases over toner cartridge life.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect does not improve within two to three print jobs, remove the toner cartridge and gently rock it back and forth from side to side (this distributes the toner evenly in the toner cartridge).
- If the defect persists, replace the toner cartridge.

Parts related to the defect

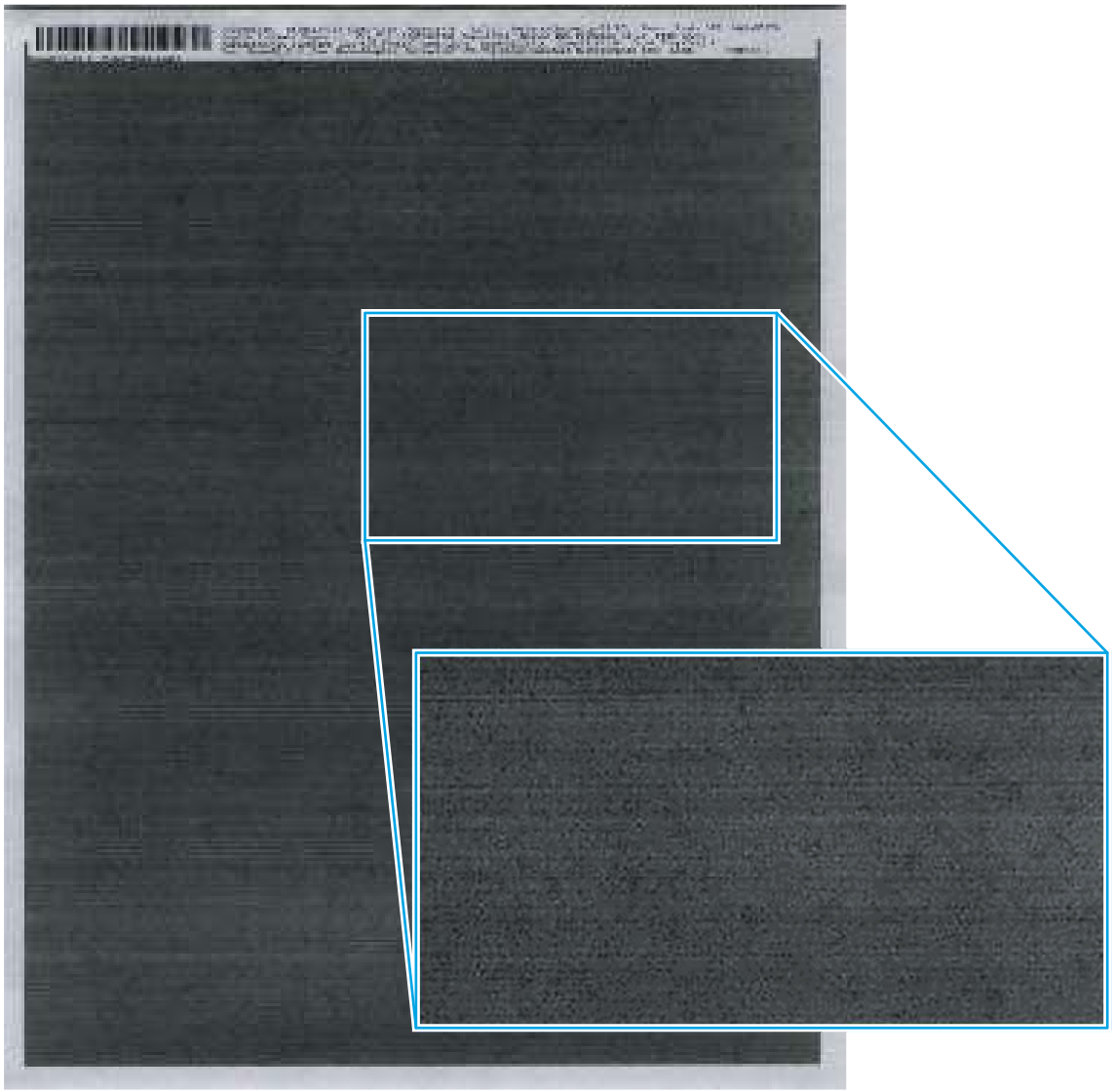
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

Fine-pitch banding

Review the following information about the fine-pitch banding image defect event.

Figure 3-85 Fine-pitch banding



Description of the defect

This defect appears as alternating light and dark (evenly spaced) repetitive horizontal lines.

The 0.93 mm (0.03 in) fine-pitch banding is caused by the main drive motor gear tooth engagement. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

The alignment of the motor gear and drum drive gear is the important factor for this banding and specifically the accuracy of the motor installed surface and accuracy of the bearing shaft position at the both sides of the drum drive gear shaft.

Solutions for the defect

Use the following steps to solve the defect.

- Try using a smoother paper.

- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Setup

     – System Setup

     – Paper Setup

     – Tray <X>

     NOTE: Select the tray you want to configure.

     – Paper Type

  2. Select Intermediate 85–95g.

- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Trays

     – Tray

     – Modify

     – Next

  2. Select Intermediate 85–95g.

- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Trays

     – Tray <X>

     NOTE: Select the tray you want to configure.

     – Type

  2. Select Intermediate 85–95g.

Parts related to the defect

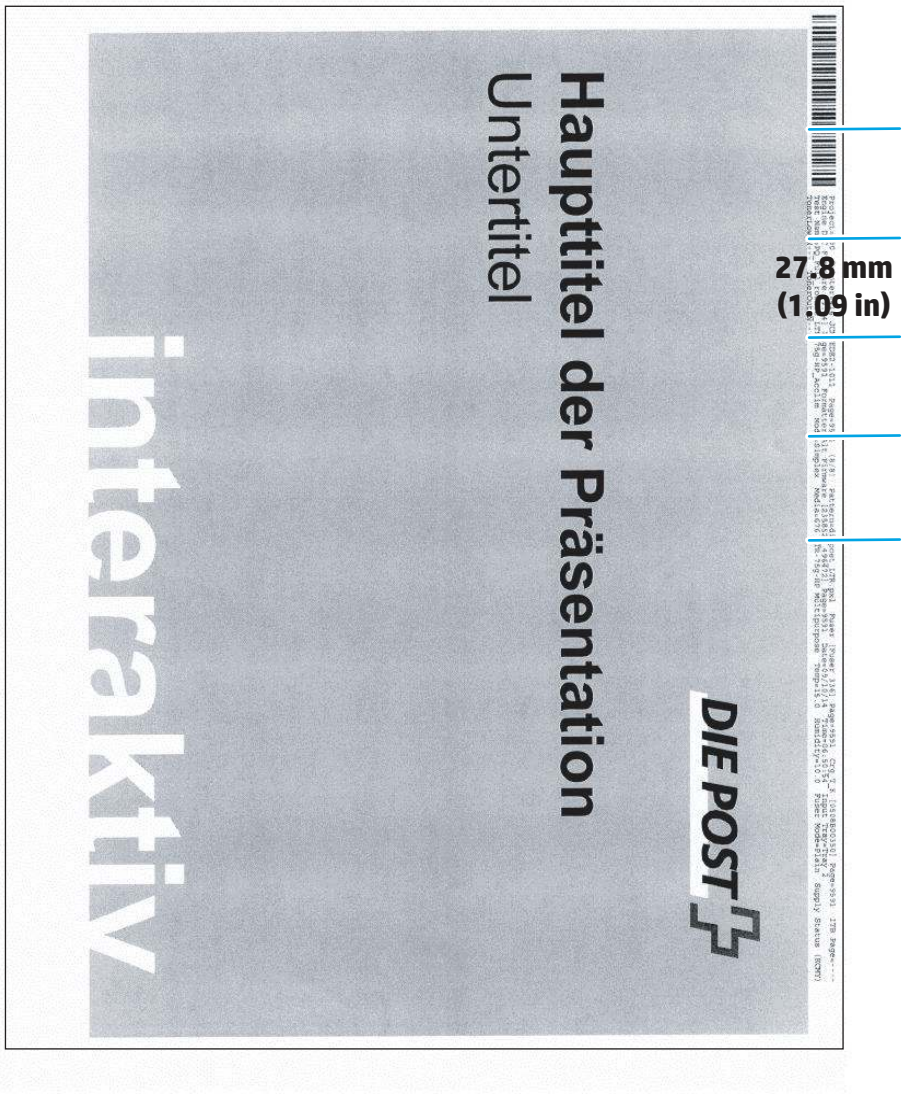
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge
- Printer engine (whole unit replacement)

Wide-pitch banding 27.8 mm (1.09 in)

Review the following information about the wide-pitch banding (27.8 mm (1.09 in)) image defect event.

Figure 3-86 Wide-pitch banding



Description of the defect

This defect appears as soft, gradual bands can be seen over a constant density area.

It appears as slight gradients which repeat at approximately a 27.8 mm (1.09 in) pitch. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

This defect is a density variation which appears on the PQ due to the gap variation between the OPC and the developer sleeve. This gap varies due to the accuracy of the OPC, developer sleeve, and the spacer placed between the OPC and the developer sleeve.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect persists, replace the toner cartridge.

Parts related to the defect

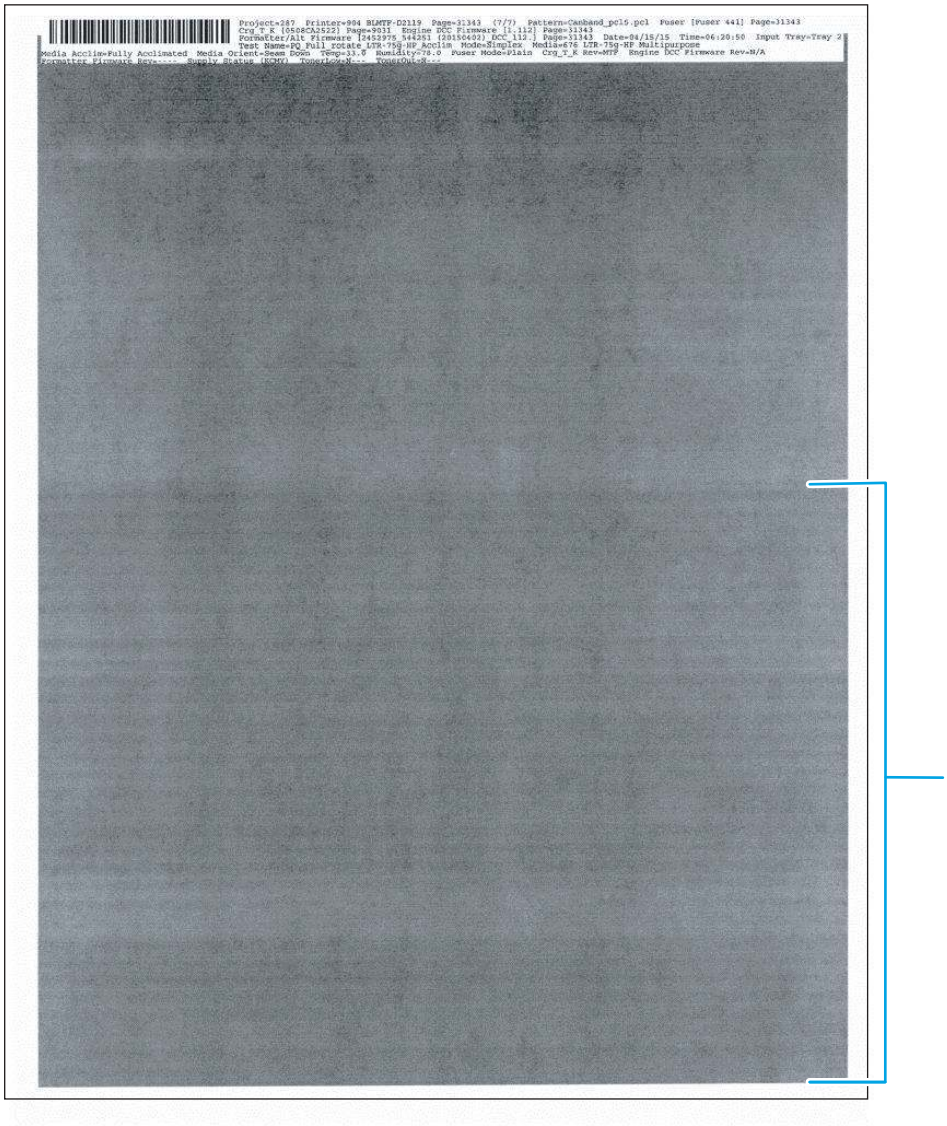
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

AC banding 4.6 mm (0.18 in)

Revew the following information about the AC banding (4.6 mm (0.18 in)) image defect event.

Figure 3-87 **AC banding**



Description of the defect

This defect appears as alternating light and dark bands that repeat at 4.6 mm (0.18 in) pitch might be visible starting midway down the page in high-temperature and high-humidity environments.

This defect is caused by the transfer current getting pulled into the fusing area through the paper from the fuser heater voltage supply. The transfer banding occurs at the power supply voltage frequency. A capacitor was added to the transfer front guide to improve the level as a countermeasure during development.

Conditions that can cause the defect

This defect usually occurs when printing in **Plain** print mode in high-humidity environments on fully acclimated (low resistivity) paper, which makes the transfer current flow to the fusing area more easily.

The defect occurs more often with 220V units, which have higher impressed voltage to the fuser heater. This defect appears in areas of fill, not in text.

Solutions for the defect

Use the following steps to solve the defect.

- Try printing the job on a newly opened supply of paper.
- Cool the printer environment, and then resend the print job.
- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Setup
     - System Setup
     - Paper Setup
     - Tray <X>

     NOTE: Select the tray you want to configure.

     - Paper Type
  2. Select Intermediate 85-95g.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray
     - Modify
     - Next
  2. Select Intermediate 85-95g.
- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray <X>

     NOTE: Select the tray you want to configure.

– Type

2. Select Intermediate 85-95g.

Parts related to the defect

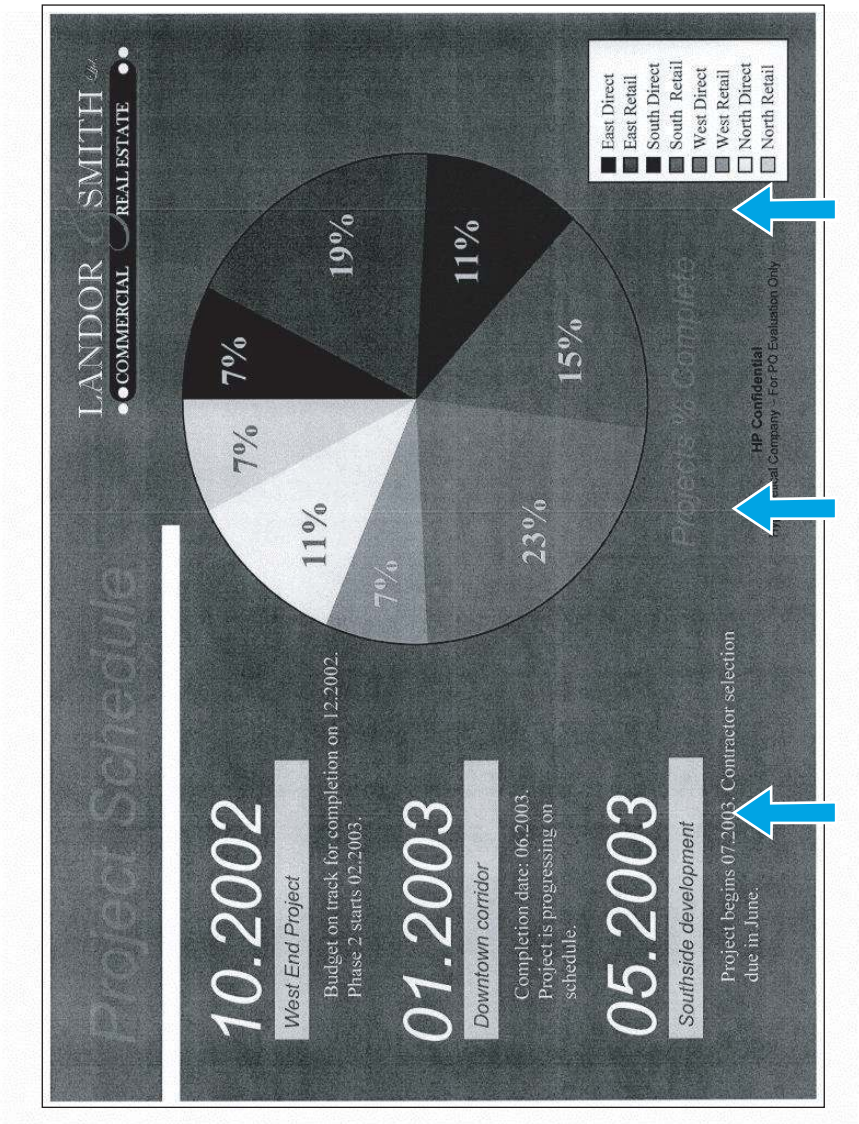
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Fuser

OPC sharp bands at 75mm (2.95 in) pitch (version 1)

Review the following information about the OPC sharp bands at 75mm (2.95 in) pitch (version 1) image defect event.

Figure 3-88 OPC sharp bands (version 1)



Description of the defect

This defect appears as sharp bands which repeat at a 75mm (2.95 in) pitch down the page as a light/dark line.

Waste products (for example, toner or paper) accumulate at the contact position between the C-blade and the OPC. When the OPC stops, the waste material can form a light attachment to the OPC. When the OPC begins to turn again, the material removal can affect the OPC charge for several rotations. This defect appears in areas of fill, not in text.

NOTE: This defect is also called C-blade blur and is common to many color and mono products. This defect looks similar to OPC sharp bands version 2, but appears to be light/dark.

Conditions that can cause the defect

This defect might occur any time the toner cartridge is idle for long periods of time.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. The defect should fade with subsequent printed pages.
- If the defect persists, replace the toner cartridge

Parts related to the defect

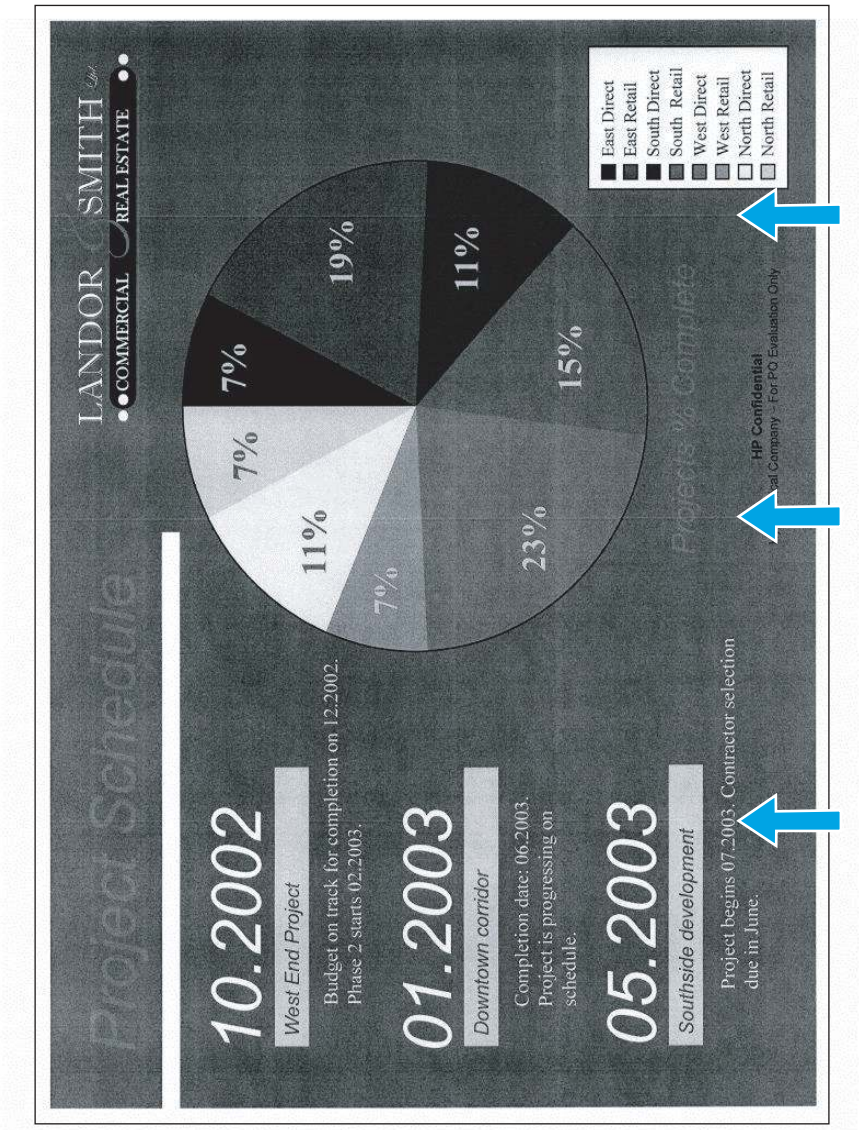
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

OPC sharp bands at 75 mm (2.95 in) pitch (version 2)

Review the following information about the OPC sharp bands at 75mm (2.95 in) pitch (version 2) image defect event.

Figure 3-89 OPC sharp bands (version 2)



Description of the defect

This defect appears as sharp bands which repeat at a 75 mm (2.95 in) pitch down the page as a dark line.

The OPC drum is rubbed by the cleaning blade or charge roller due to vibration or impact. The rubbing effects the OPC charge but the defect fades with usage and time. This defect appears in areas of fill, not in text.

NOTE: This defect looks similar to OPC sharp bands version 1, but appears to be dark.

Conditions that can cause the defect

This defect can occur at the beginning of toner cartridge use, or if the cartridge is subject to vibration (for example, transportation).

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. The defect should fade with subsequent printed pages.
- If the defect persists, replace the toner cartridge

Parts related to the defect

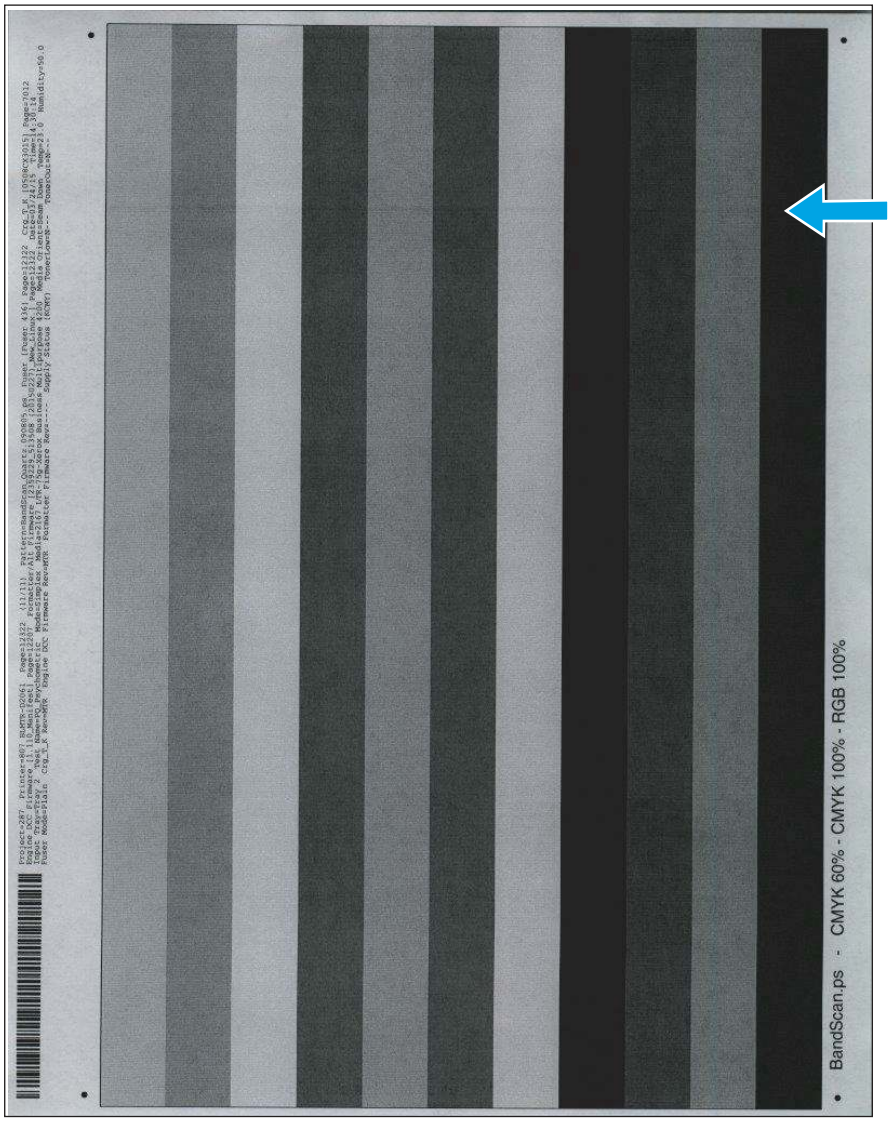
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

Impulse band 49-50 mm (1.92-1.96 in) from the leading edge

Review the following information about the impulse band 49-50 mm (1.92-1.96 in) from the leading edge image defect event.

Figure 3-90 Impulse band (leading edge)



Description of the defect

This defect appears as a dark and usually sharp band and occurs 49-50 mm (1.92-1.96 in) from the leading edge of the page.

This impulse band is caused by the trailing edge of the previous page touching the OPC as it leaves the transfer area, which causes a memory charge disturbance. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

This defect only occurs during continuous printing, on the second and subsequent pages of a job.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. Impulse bands can be variable.
- **M501**: If the defect appears during continuous printing, from the printer control panel enable the Less Paper Curl print mode.

NOTE: This mode adds a rotation of the OPC drum to the inter-page gap timing that conditions the drum and minimizes the defect.

1. Open the following menus:
   - Setup
   - Service
   - Less Paper Curl
2. Select On.

- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode to Paper Curl Mode.

NOTE: This mode adds a rotation of the OPC drum to the inter-page gap timing that conditions the drum and minimizes the defect.

1. Open the following menus:
   - Administration
   - General Settings
   - Print Quality
   - Adjust Paper Types
2. Select Paper Curl Mode.

- **M507/E50145 and M528/E52645**: change the print mode to Paper Curl Mode.

NOTE: This mode adds a rotation of the OPC drum to the inter-page gap timing that conditions the drum and minimizes the defect.

1. Open the following menus:
   - Settings
   - Copy/Print
   - Print Quality

– Adjust Paper Types

2. Select the appropriate paper type for the paper used.
3. Select Paper Curl Mode.

Parts related to the defect

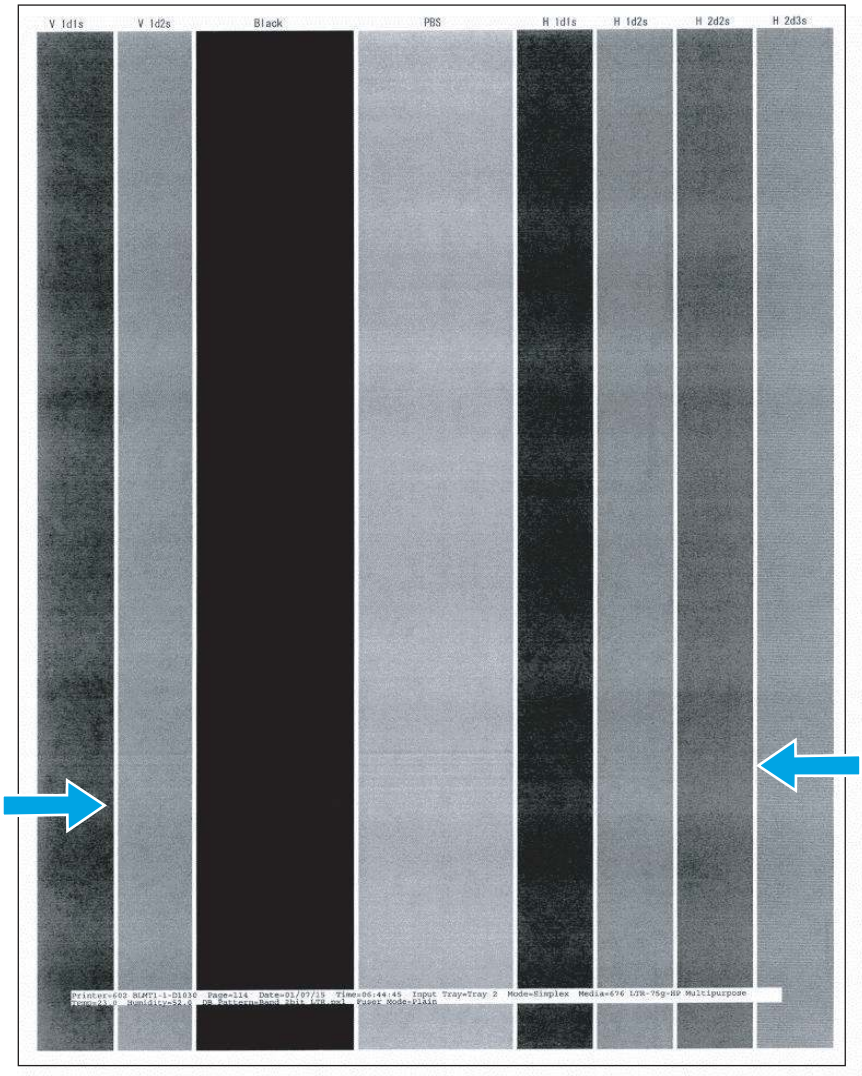
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Toner cartridge

Impulse band 75-82 mm (2.95-3.22 in) from the trailing edge

Review the following information about the impulse band 75-82 mm (2.95-3.22 in) from the trailing edge image defect event.

Figure 3-91 Impulse band (trailing edge)



Description of the defect

This defect appears as a dark band and occurs 75-82 mm (2.95-3.22 in) from the trailing edge of the page.

This impulse band is a development blur which occurs when the paper trailing edge goes through the registration roller. This defect appears in areas of fill, not in text.

Conditions that can cause the defect

During the print job, the transfer top guide might be vibrating.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. Impulse bands can be variable.
- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Setup
     - System Setup
     - Paper Setup
     - Tray <X>

       NOTE: Select the tray you want to configure.
     - Paper Type
  2. Select Intermediate 85-95g.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray
     - Modify
     - Next
  2. Select Intermediate 85-95g.
- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays

- Tray <X>

  NOTE: Select the tray you want to configure.

- Type

2. Select Intermediate 85-95g.

Parts related to the defect

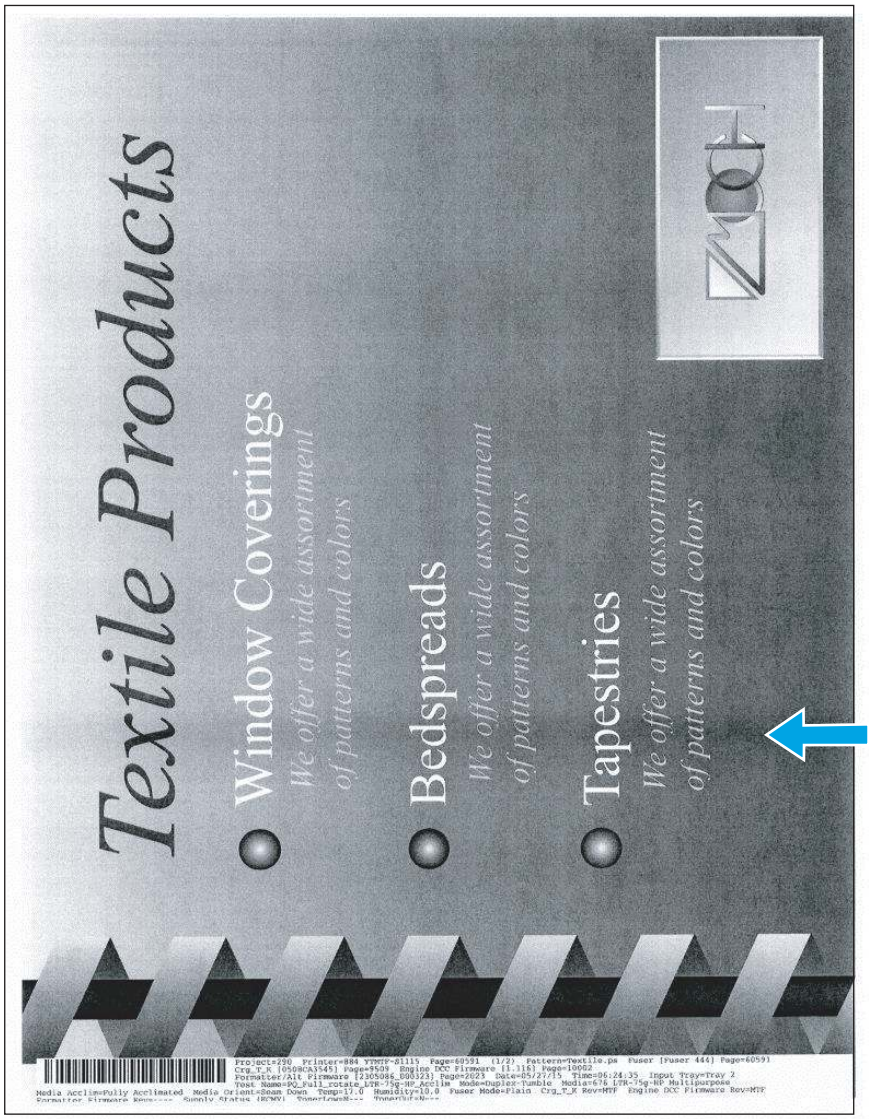
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Registration assembly

Impulse band 102 mm (4.01 in) from the trailing edge

Review the following information about the impulse band 102 mm (4.01 in) from the trailing edge image defect event.

Figure 3-92 Impulse band (trailing edge)



Description of the defect

This defect appears as a soft dark band and occurs 102 mm (4.01 in) from the trailing edge of the page.

The cause of this defect is poor sliding performance of the transfer bearing (TR bearing) and transfer roller shaft.

Conditions that can cause the defect

This defect is more likely to occur in low temperature/low humidity environments and at cold start conditions.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. Impulse bands can be variable.
- Try using a different media type.

- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Setup

     – System Setup

     – Paper Setup

     – Tray <X>

     NOTE: Select the tray you want to configure.

     – Paper Type

  2. Select Intermediate 85–95g.

- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Trays

     – Tray

     – Modify

     – Next

  2. Select Intermediate 85–95g.

- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

     – Trays

     – Tray <X>

     NOTE: Select the tray you want to configure.

     – Type

  2. Select Intermediate 85–95g.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Transfer roller

Image defect (developmental) events

Review the following information about image defect (developmental) events.

NOTE: The image defects described in this section are defects that occurred during printer development, and HP implemented a solution to eliminate them. Customers should not observe these defects. These defects are included for the unlikely event that they reoccur.

Cleaning defect events

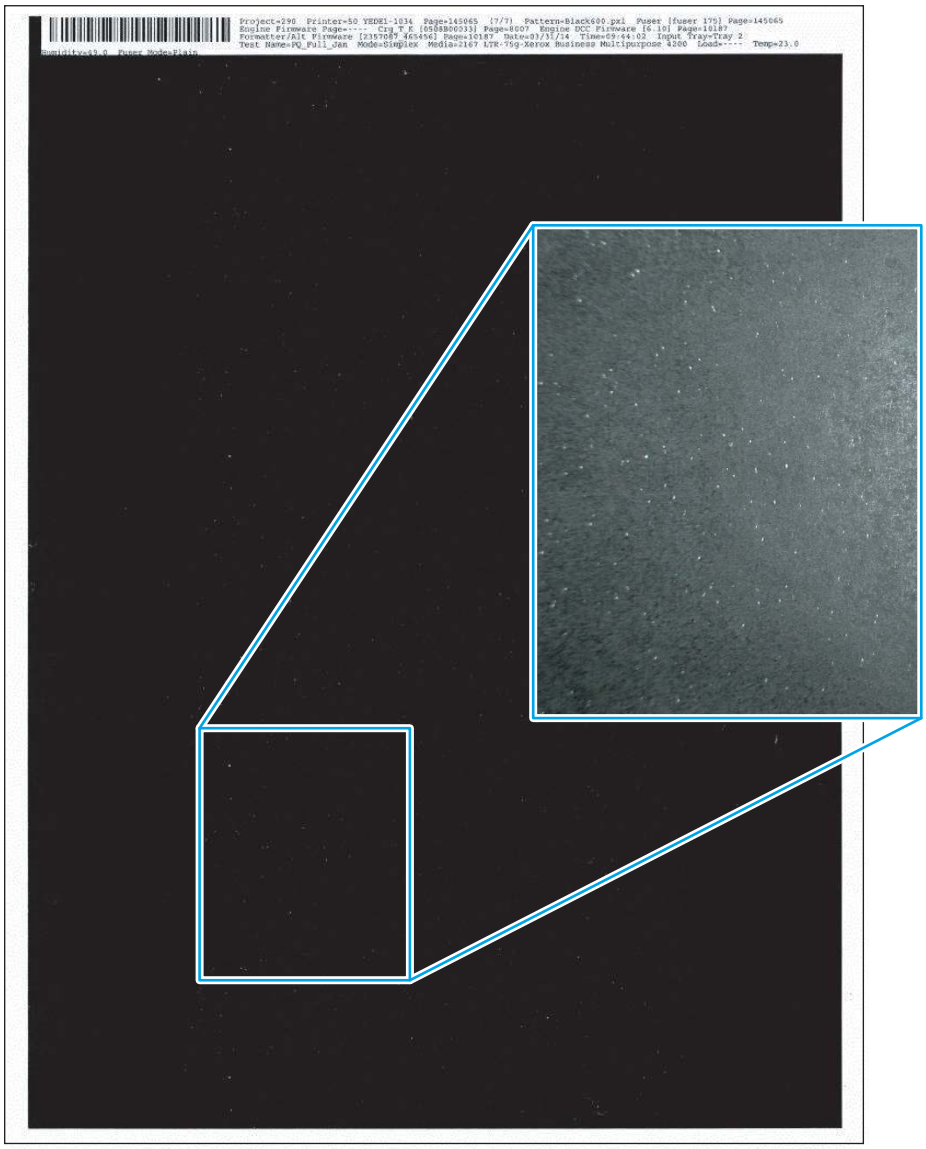
Review the following information about cleaning image defect (developmental) events.

Rain-toner attached to the OPC

Review the following information about the rain-toner attached to the OPC cleaning defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-93 Rain-toner attached to the OPC



Description of the defect

This defect appears as very small white voids which appear in solid black areas. This issue occurs when toner attached to the OPC cannot be removed by the cleaning blade. This defect appears in areas of solid fill, not in text.

Conditions that can cause the defect

This defect is likely to occur in the later stages of toner cartridge life.

Solutions for the defect

Use the following step to solve the defect.

- Verify that the toner is within the expected life. If not, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

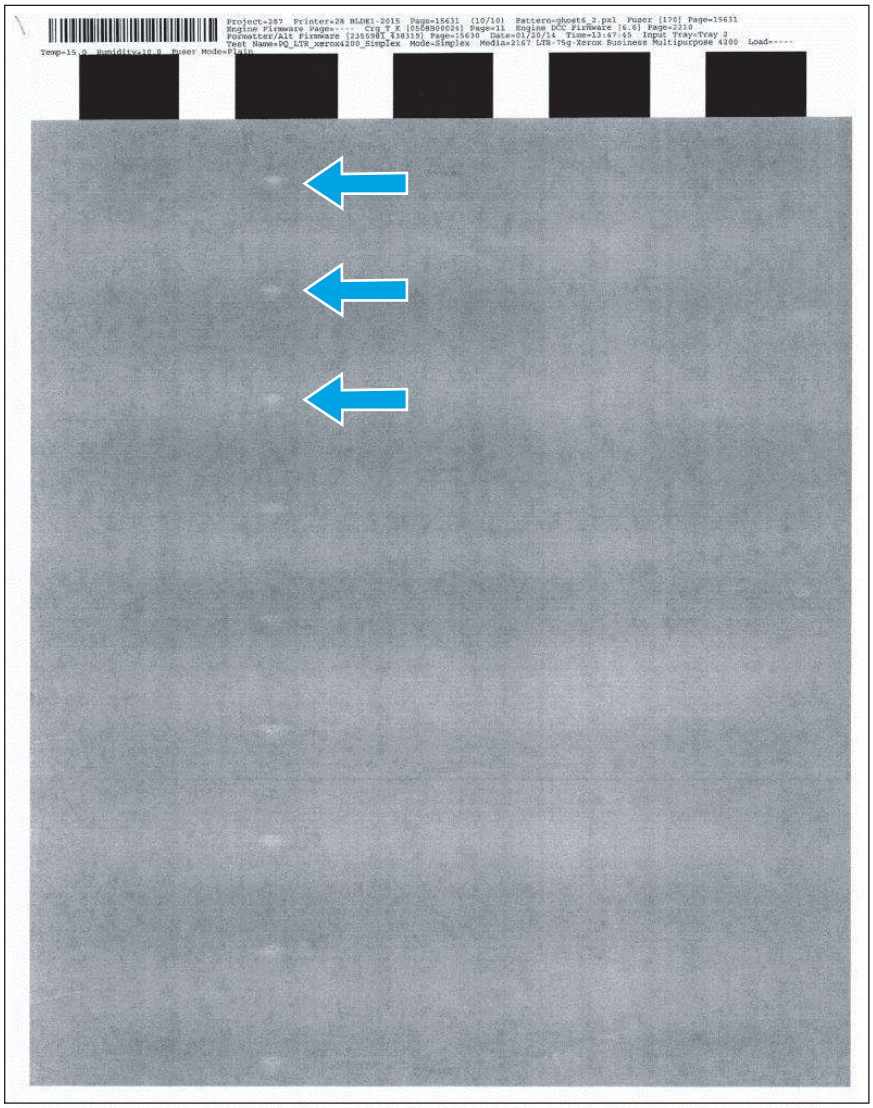
- Toner cartridge

Developer defect repeats at 27.8 mm (1.09 in) pitch

Review the following information about the developer defect repeats at 27.8 mm (1.09 in) pitch cleaning defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-94 Developer defect



Description of the defect

This defect appears as a soft white spot which repeats at 27.8 mm (1.09 in) (developer roller) pitch. This defect appears in areas of solid fill, not in text.

Conditions that can cause the defect

This defect is caused by a cartridge cleaning performance issue caused by contamination.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job (the defect should fade with subsequent printed pages).
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

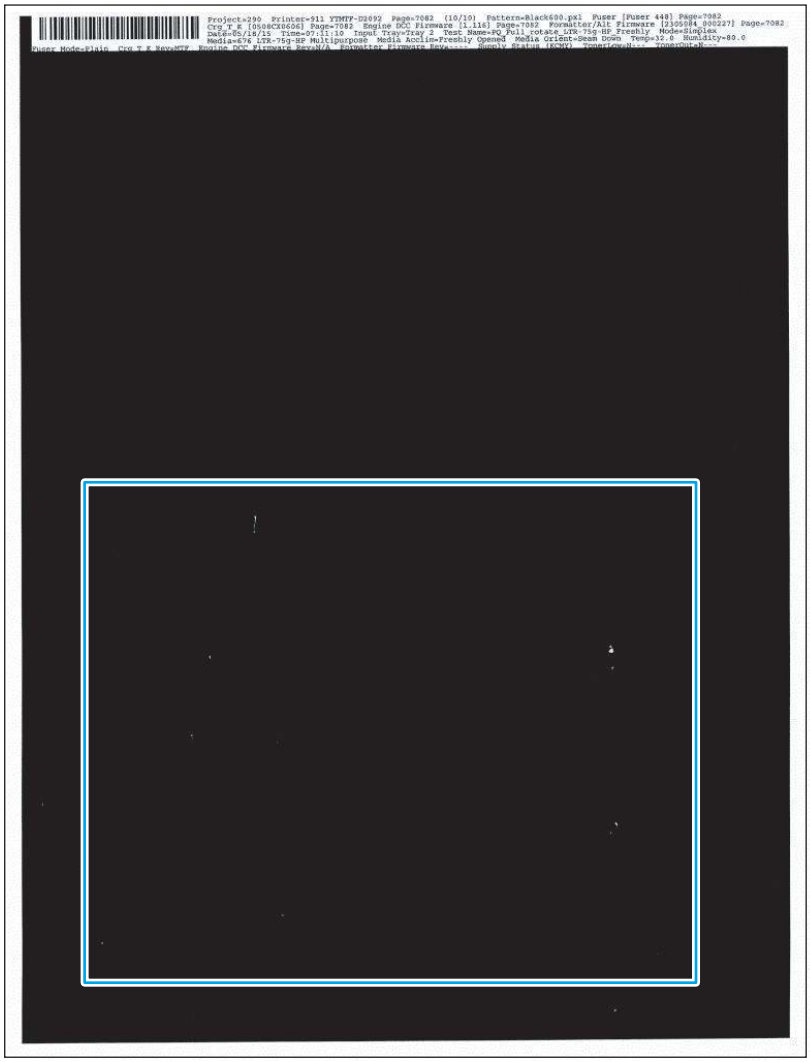
- Toner cartridge

Random missing toner

Review the following information about the random missing toner cleaning defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-95 Random missing toner



Description of the defect

This defect appears as white spots which appear in solid black areas (sometimes with a tail). This defect appears in areas of solid fill, not in text.

Conditions that can cause the defect

This defect is caused by contaminants attaching to the OPC. If the contaminant is large, the size of missing toner will be large.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. This defect is highly variable.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

Part/assembly defect events

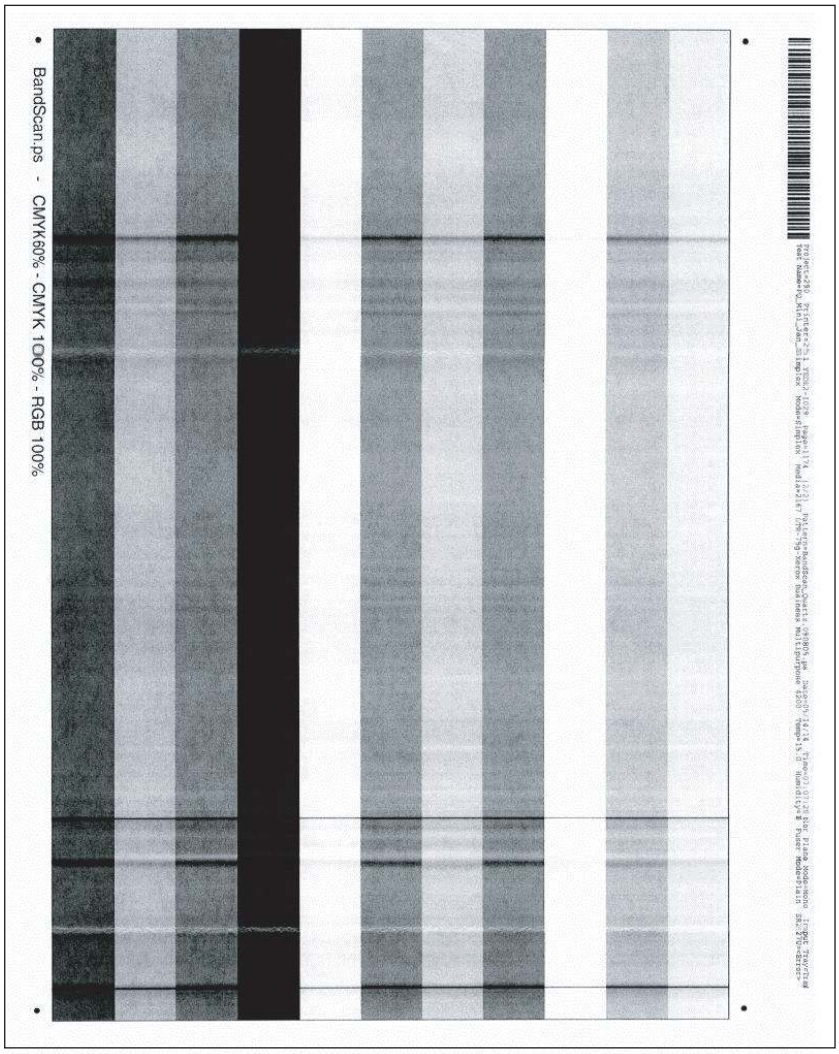
Review the following information about part/assembly image defect (developmental) events.

OPC gear slip

Review the following information about the OPC gear slip part/assembly defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-96 OPC gear slip



Description of the defect

This defect appears as severe banding. This defect is caused by OPC gear slip (a failed connection between the OPC gear and the drum).

Conditions that can cause the defect

This defect is not dependent on environmental conditions.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

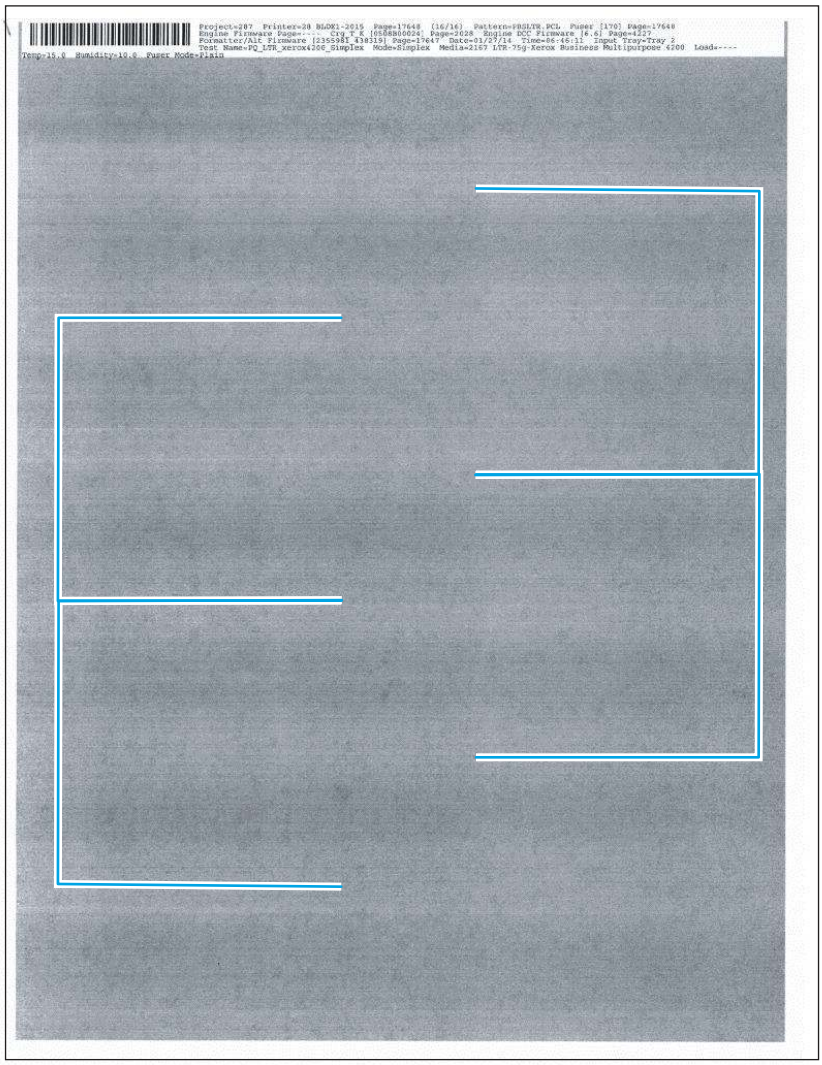
- Toner cartridge

OPC wide-pitch banding

Review the following information about the OPC wide-pitch banding part/assembly defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-97 OPC wide-pitch banding



Description of the defect

This defect appears as overlapping sets of wide-pitch bands (repeating at 75 mm (2.95 in)).

Conditions that can cause the defect

This defect is caused by OPC deformation during the assembly process.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job (the defect should fade with subsequent printed pages).

- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

Transfer bias defect events

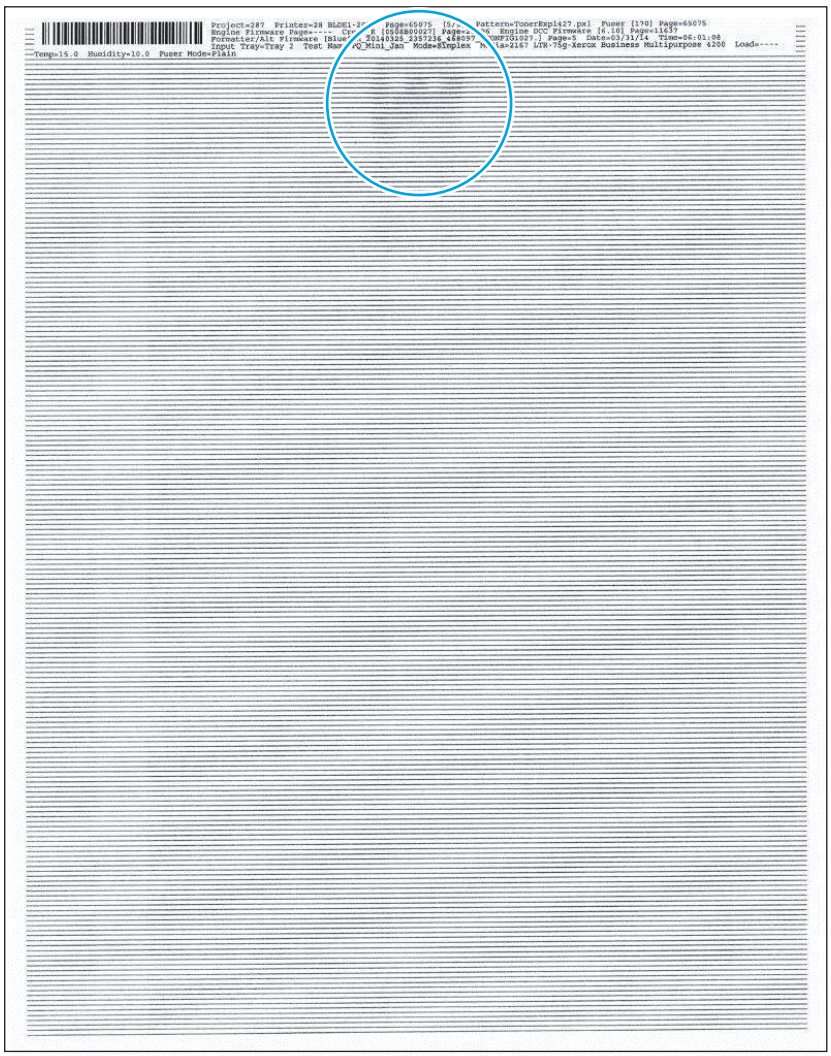
Review the following information about the transfer bias image defect (developmental) events.

Leading edge - mid-page toner scatter

Review the following information about the leading edge - mid-page toner scatter transfer bias defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-98 Leading edge - mid-page toner scatter



Description of the defect

This defect appears as a non-uniform or smear that might appear in the middle of the page at the top of a page. This occurs when the toner scatters at transfer in the area where the media rubs the pick roller and the middle roller. This defect is more likely to occur when media with high resistivity is used. The static charge eliminator (metal brush) on the transfer guide keeps this defect from occurring.

Conditions that can cause the defect

This defect might occur in low temperature/low humidity environments and in cold start conditions.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job (the defect should fade with subsequent printed pages as the printer warms up).
- Try using a different media type.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

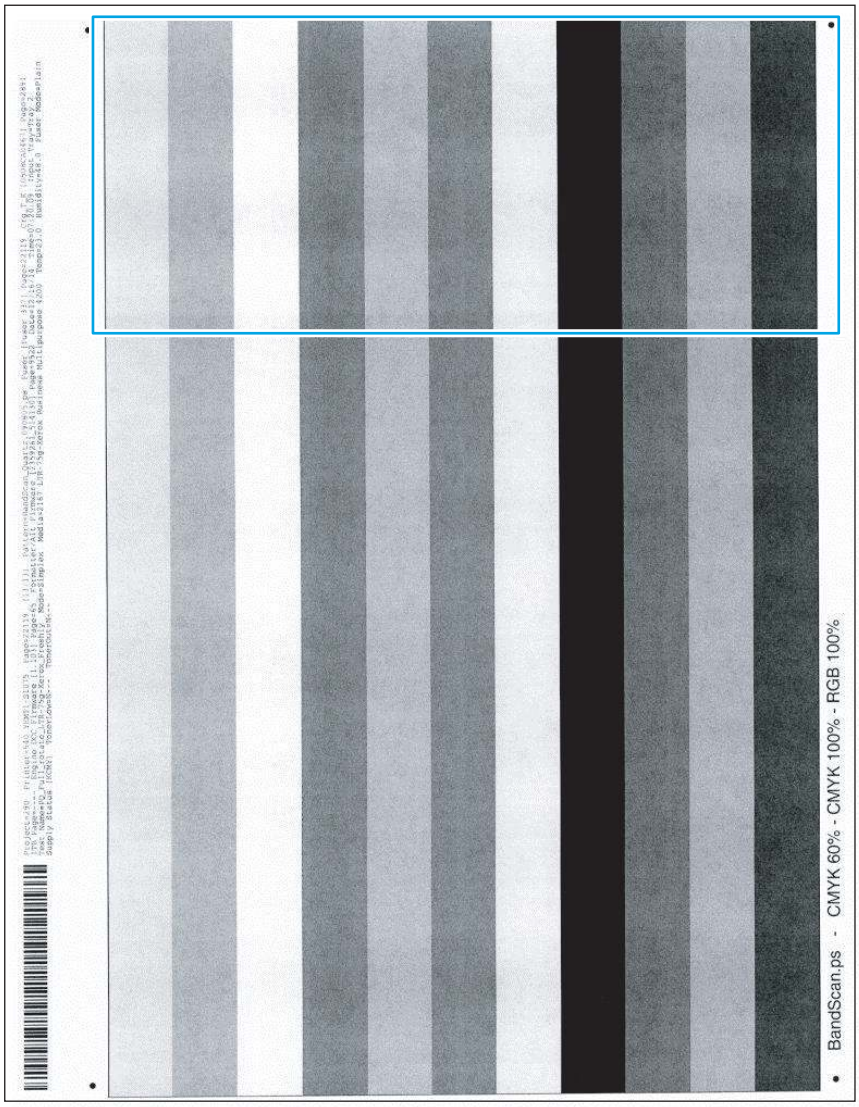
- Media
- Printer engine (whole unit replacement)

Density change at 75 mm (2.95 in) from the leading edge

Review the following information about the density change at 75 mm (2.95 in) from the leading edge transfer bias defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-99 Density change



Description of the defect

This defect appears as a light image in the first 75 mm (2.95 in) of the page. This defect is created by a charge ghost due to the lack of charge current.

Conditions that can cause the defect

This defect happens when there is high print coverage across the longitudinal direction and charging is not able to reach the target potential due to the lack of current that charges OPC in the area and the density becomes high at the next OPC rotation. This shows up in areas of fill, not in text.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

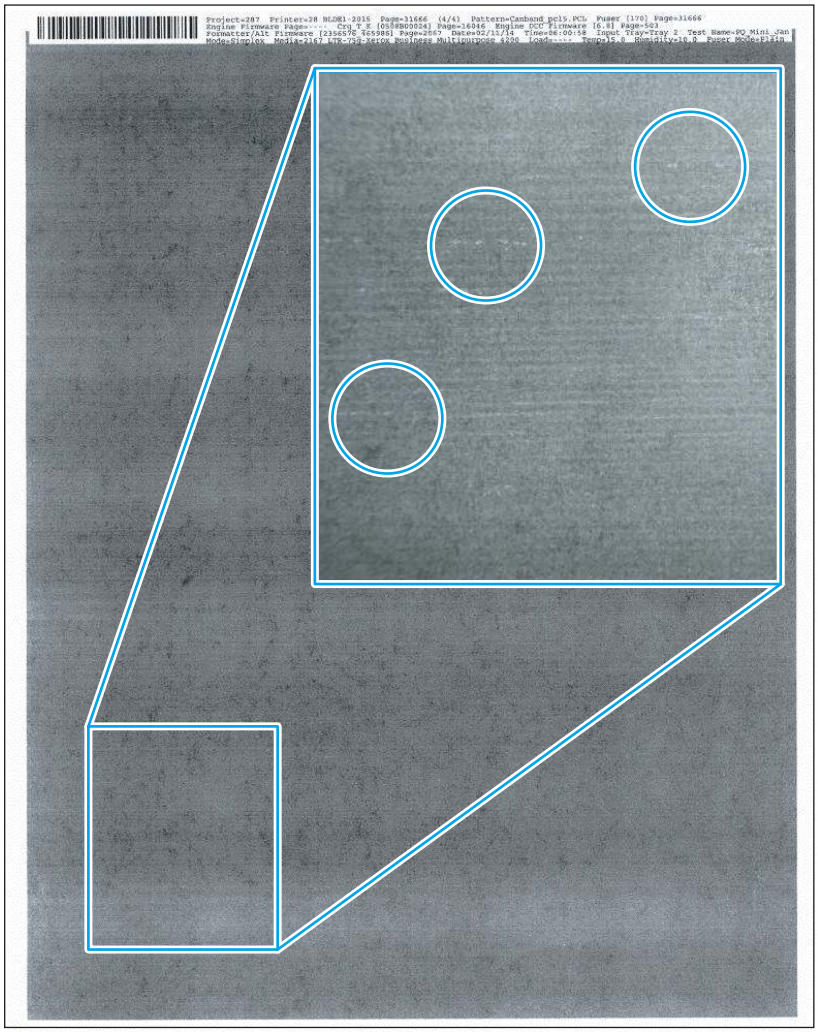
- No parts are related to this defect.

Transfer issue - random voids

Review the following information about the transfer issue - random voids transfer bias defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-100 Transfer issue - random voids



Description of the defect

This defect appears as very small sections of missing toner in random locations on the page. The transfer bias was too strong and caused the missing toner.

Conditions that can cause the defect

This defect is not dependent on environmental conditions.

Solutions for the defect

Use the following steps to solve the defect.

- **All except M501**: If the defect is persistent, reprint your document with a lower transfer bias setting.
  1. Open the following menus:
     - Administration
     - General Settings
     - Print Quality
     - Adjust Paper Types
  2. Select Resistance Mode.
- **M507/E50145 and M528/E52645**: If the defect is persistent, reprint your document with a lower transfer bias setting.
  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality
     - Adjust Paper Types
  2. Select the appropriate paper type for the paper used.
  3. Select Resistance Mode.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- No parts are related to this defect.

Toner leak defect events

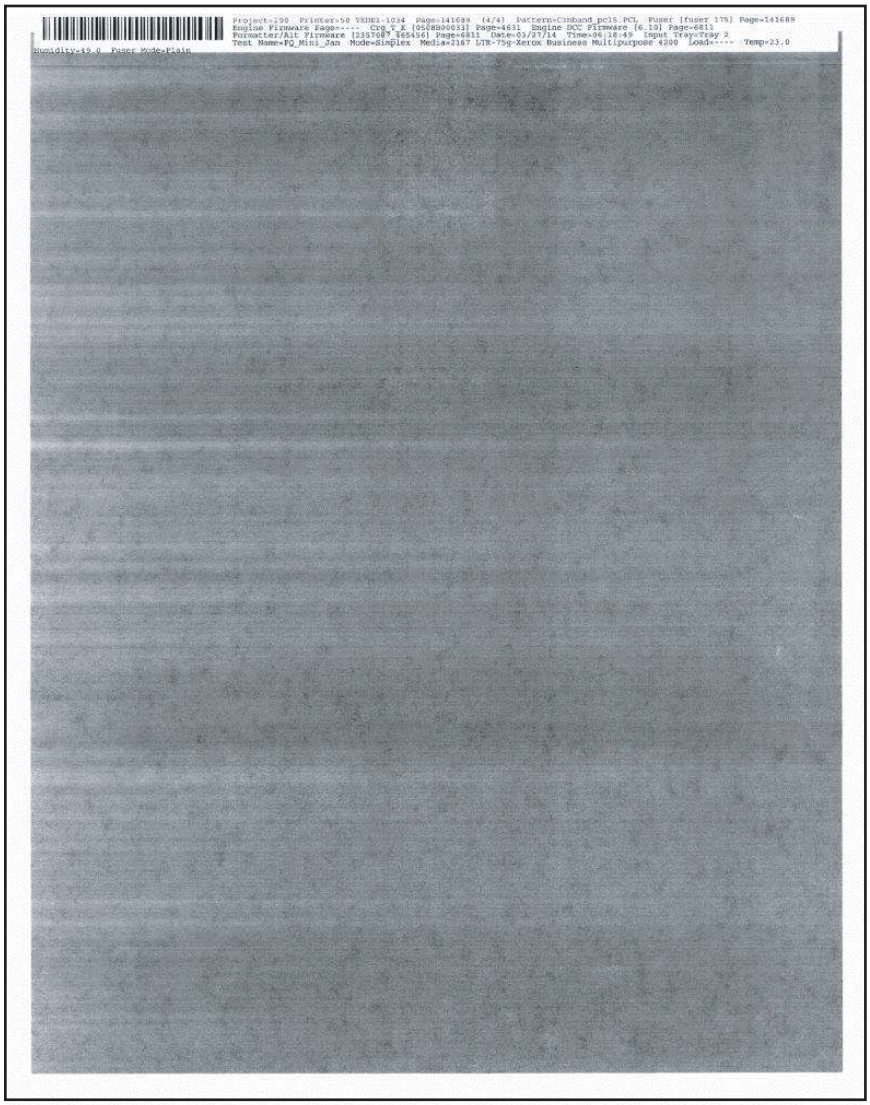
Review the following information about the toner leak image defect (developmental) events.

Right to left fade and banding

Review the following information about the right to left fade and banding toner leak defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-101 Right to left fade and banding



Description of the defect

This defect appears as fading and banding at an edge and occurs when the cartridge seals leak allowing toner into the gap between the OPC drum and the SD roller/sleeve. This appears in areas of fill, not in text

Conditions that can cause the defect

This defect is likely to occur in the later stages of toner cartridge life.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- Verify that the toner is within the expected life, if not replace the toner cartridge.
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

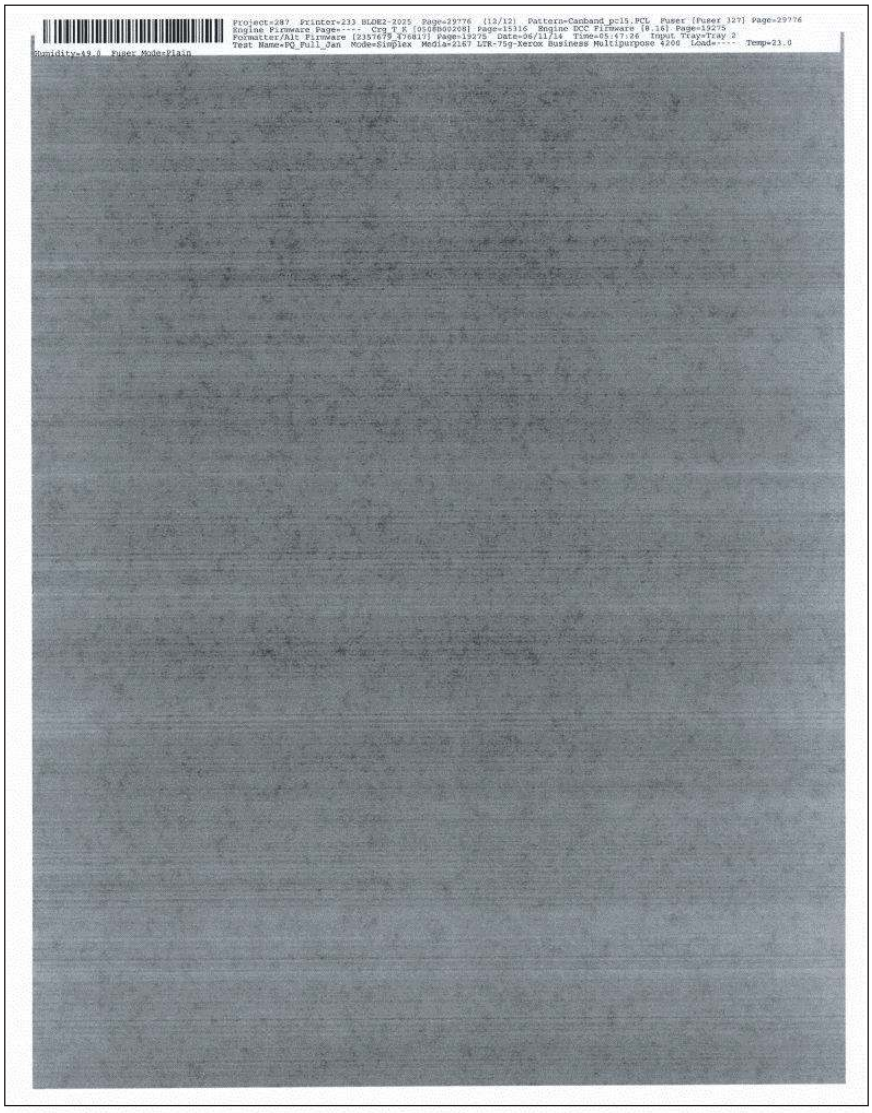
- Toner cartridge

Cartridge fine pitch (1.5 mm (0.05 in)) banding

Review the following information about the cartridge fine pitch (1.5 mm (0.05 in)) banding toner leak defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-102 Cartridge fine pitch banding



Description of the defect

This defect appears as alternating light and dark, evenly spaced, repetitive horizontal lines at a 1.5 mm (0.05 in) pitch. This defect is caused by toner leaking in the drive gear area of the toner cartridge. This appears in areas of fill, not in text.

Conditions that can cause the defect

This defect is likely to occur in the later stages of toner cartridge life.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- Verify that the toner is within the expected life, if not replace the toner cartridge.
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

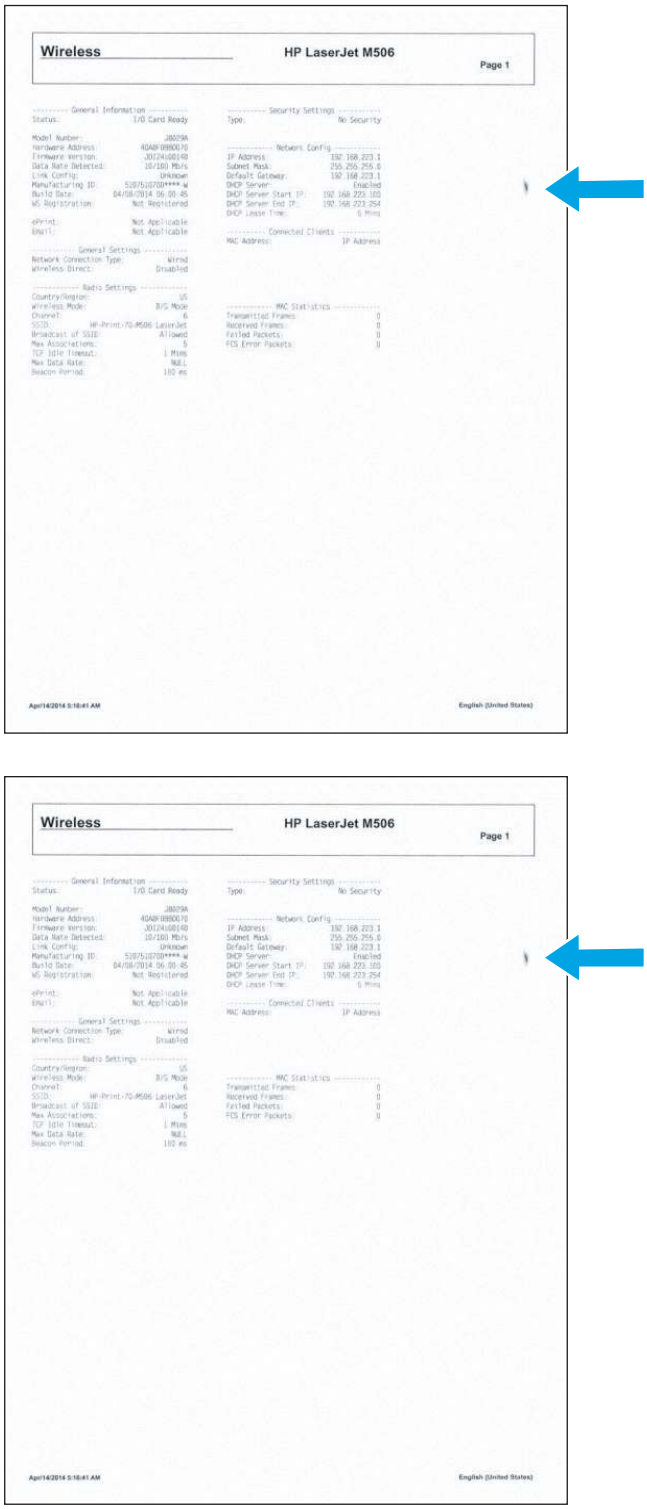
- Toner cartridge

382 mm (15.03 in) + IPG repeating defect

Review the following information about the 382 mm (15.03 in) + IPG repeating toner leak defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-103 IPG repeating defect



Description of the defect

This defect appears as a dark crescent moon shape defect and it appears in non-print areas of the page. The defect occurs when the toner is thrown outside the toner cartridge at the stirring pitch due to the waviness of the blow out seal. The waviness creates a gap between sleeve and blow out seal. The

cause of the blow out seal waviness is that the edge of blow out seal contacts with the edge of the sleeve/drum spacer.

Conditions that can cause the defect

This defect is not dependent on environmental conditions.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect does not improve within two to three print jobs, remove the toner cartridge and gently rock it back and forth from side to side (this distributes the toner evenly in the toner cartridge).
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Toner cartridge

Paper path impulse defect events

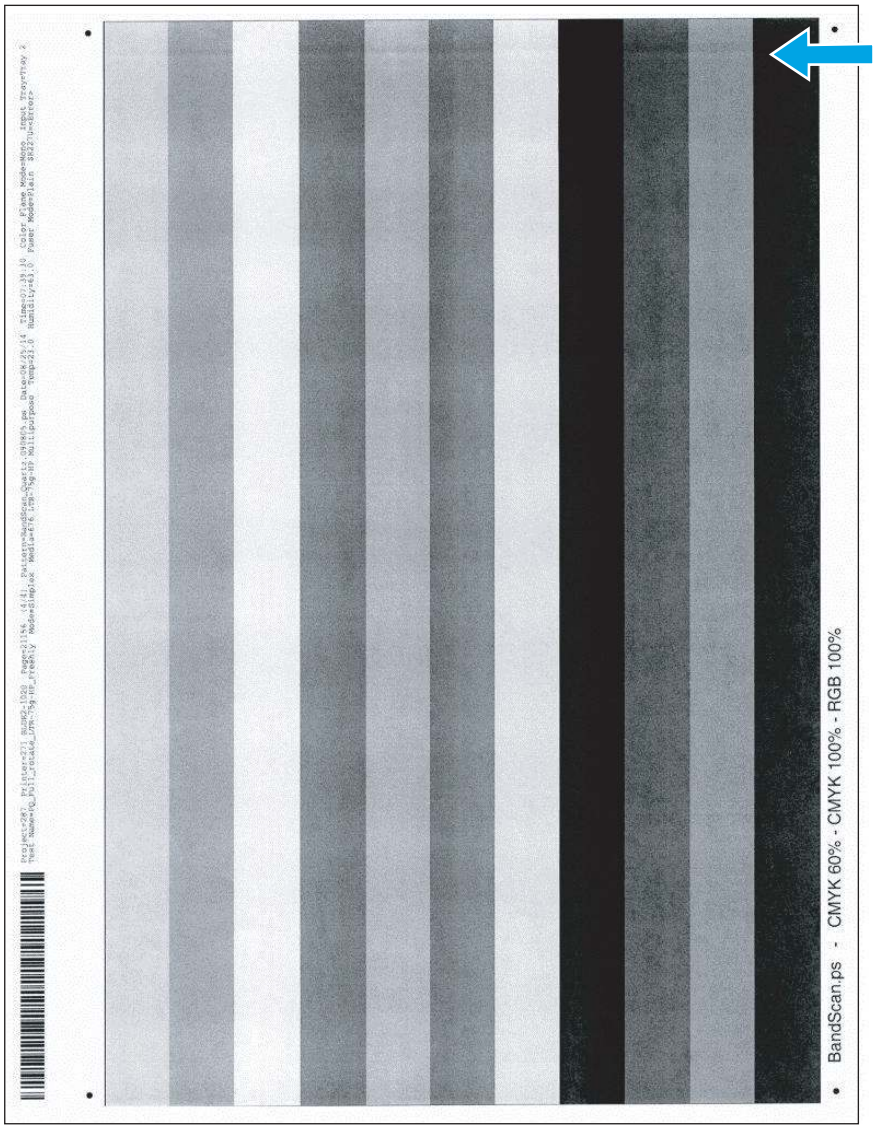
Review the following information about paper path impulse image defect (developmental) events.

Impulse band 15 mm (0.59 in) from the leading edge

Review the following information about the impulse band 15 mm (0.59 in) from the leading edge paper path impulse defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-104 Impulse band leading edge



Description of the defect

This defect appears as a dark and usually sharp band occurs 15 mm (0.59 in) from the leading edge of the page. This band shows up in areas of fill, not in text.

Conditions that can cause the defect

The defect occurs when the paper leading edge goes into the transfer area.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. Impulse bands can be variable.
- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

- Setup
- System Setup
- Paper Setup
- Tray <X>

NOTE: Select the tray you want to configure.

- Paper Type

2. Select Intermediate 85-95g.

- Try using a different media type.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray
   - Modify
   - Next
2. Select Intermediate 85-95g.

- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray <X>

NOTE: Select the tray you want to configure.

   - Type
2. Select Intermediate 85-95g.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

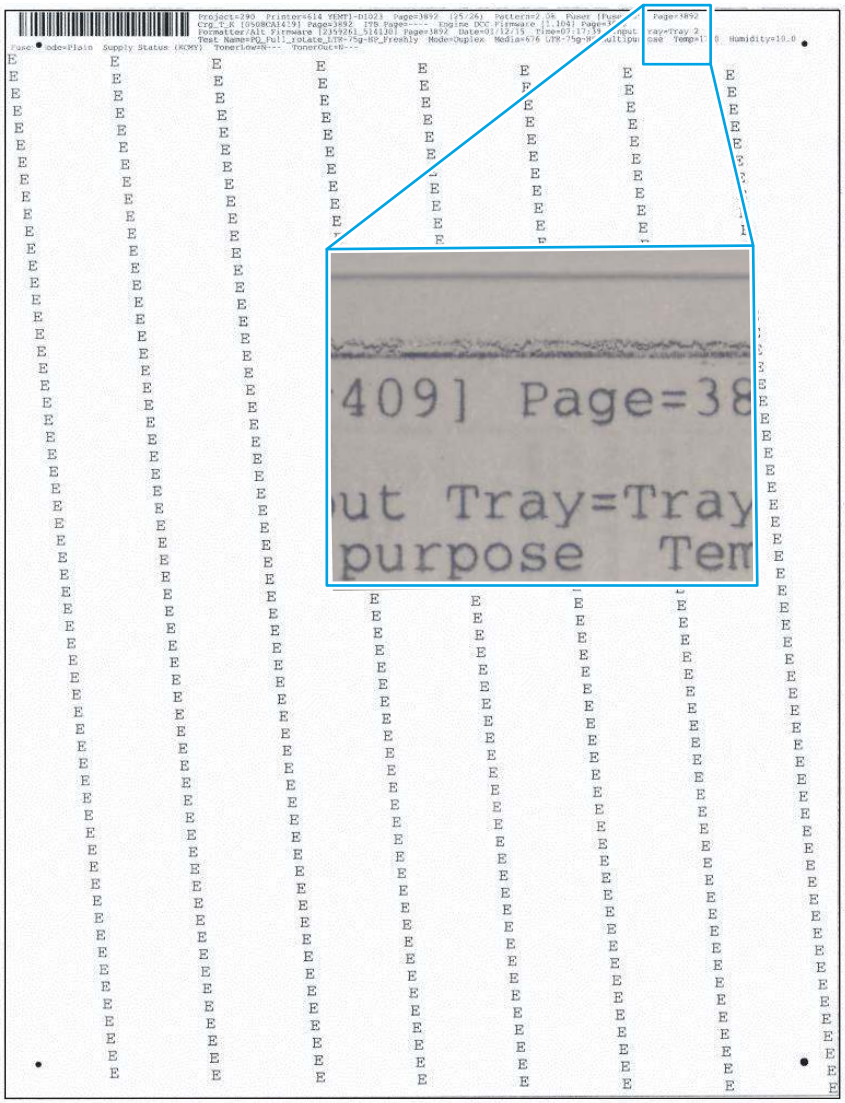
- Media
- Registration assembly

Toner in the leading edge margin (fuser slap)

Review the following information about the toner in the leading edge margin (fuser slap) paper path impulse defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-105 Toner in the leading edge margin (fuser slap)



Description of the defect

This defect appears as scattered toner which occurs at the leading edge of the page. This defect occurs when the page enters the fuser and the page touches the fuser film which rubs the image on the page.

Conditions that can cause the defect

This defect is not dependent on environmental conditions, but is more likely to occur on pages with small top margins or when using curled media.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. This defect can be variable.

- Try using a different media type.
- **M501**: From the printer control panel, increase the leading edge margin.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Setup
     - System Setup
     - Print Quality
     - Adjust Alignment
     - Adjust Tray <X>

     NOTE: Select the tray you want to configure.
  2. Adjust the Y Shift setting.

  NOTE: Adjust the "Y" value in .25 mm increments.
- **M506/E50045 and M527/E52545**: From the printer control panel, increase the leading edge margin.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Administration
     - General Settings
     - Print Quality
     - Image Registration
     - Adjust Tray <X>

     NOTE: Select the tray you want to configure.
  2. Adjust the Y1 Shift (simplex pages) and/or Y2 Shift (duplex pages) settings.

  NOTE: Adjust the "Y" values in .25 mm increments.
- **M507/E50145 and M528/E52645**: From the printer control panel, increase the leading edge margin.

  Before beginning, use the Print Test Page option to print a registration test page.

  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality

– Image Registration

2. Select the tray you want to configure.
3. Adjust the Front-side Vertical Shift (simplex pages) and/or Back-side Vertical Shift (duplex pages).

NOTE: Adjust the Vertical Shift values in .25 mm increments.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

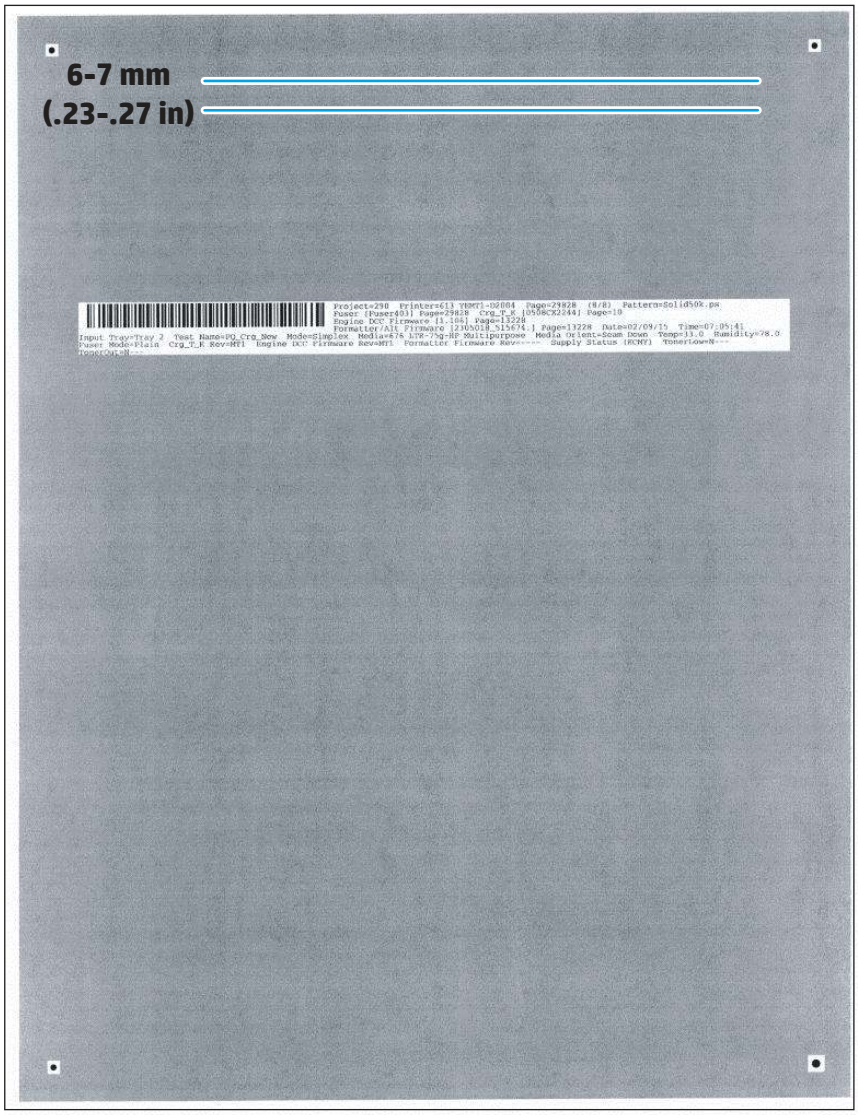
- Media
- Fuser

6-7 mm (0.23-0.27 in) wide-pitch banding

Review the following information about the 6-7 mm (0.23-0.27 in) wide-pitch banding paper path impulse defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-106 Wide-pitch banding



Description of the defect

This defect appears as soft bands that repeat at 6-7 mm (0.23-0.27 in).

This banding occurs when the transfer top guide vibrates, which is conveyed to the page as well as the page at the transfer area, causing the uneven density. The left and right edges of the back side of transfer top guide contact with the positioning guide at the transfer frame by the spring at the right edge of the pivot shaft. Since the spring is used only at the right edge, the left side of the alignment feature receives smaller pressing force. When the pressing force is small, the sheet metal vibrates easily. This band shows up in areas of fill, not in text.

Conditions that can cause the defect

During the print job, the transfer top guide might be vibrating.

Solutions for the defect

Use the following steps to solve the defect.

- Try using a different media type.
- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Setup
     - System Setup
     - Paper Setup
     - Tray <X>

     NOTE: Select the tray you want to configure.
     - Paper Type
  2. Select Intermediate 85-95g.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray
     - Modify
     - Next
  2. Select Intermediate 85-95g.
- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray <X>

     NOTE: Select the tray you want to configure.
     - Type
  2. Select Intermediate 85-95g.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Transfer assembly

Fuser/fixing defect events

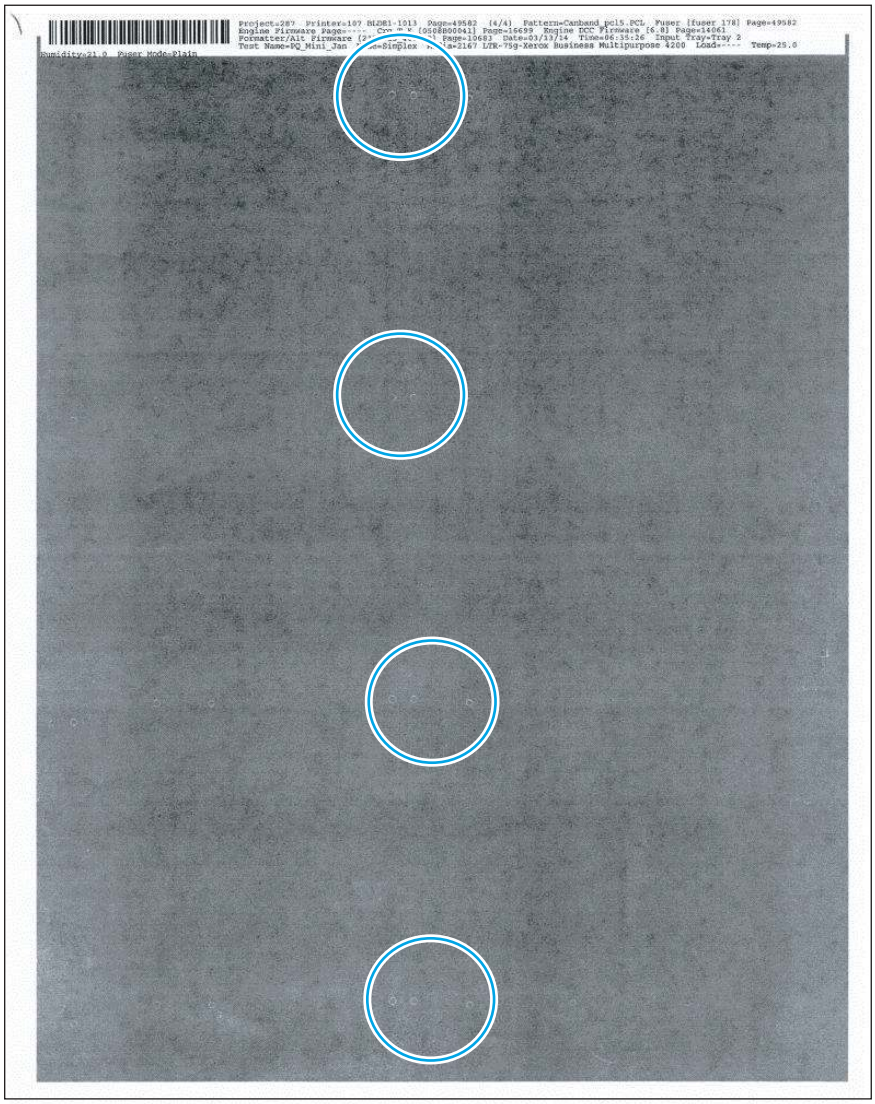
Review the following information about the fuser/fixing image defect (developmental) events.

Fuser blisters

Review the following information about the fuser blisters fuser/fixing defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

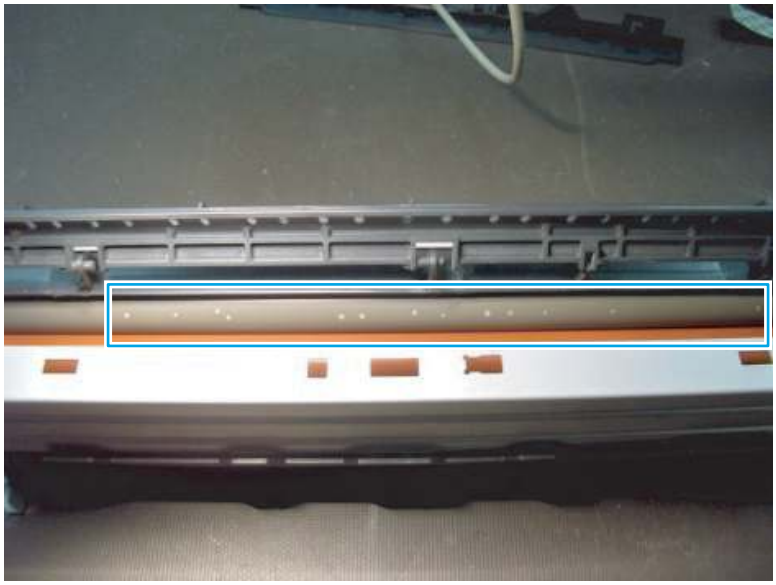
Figure 3-107 Fuser blisters



Description of the defect

This defect appears as repeating print defects visible in the image at the fuser pitch of 75.4 mm (2.96 in). These defects were caused by contamination between the films on the fuser.

Figure 3-108 Contaminated fuser film



Conditions that can cause the defect

A defect similar in appearance could occur if a page with sharp objects (for example, staples) is put through the printer.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect persists, replace the fuser.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

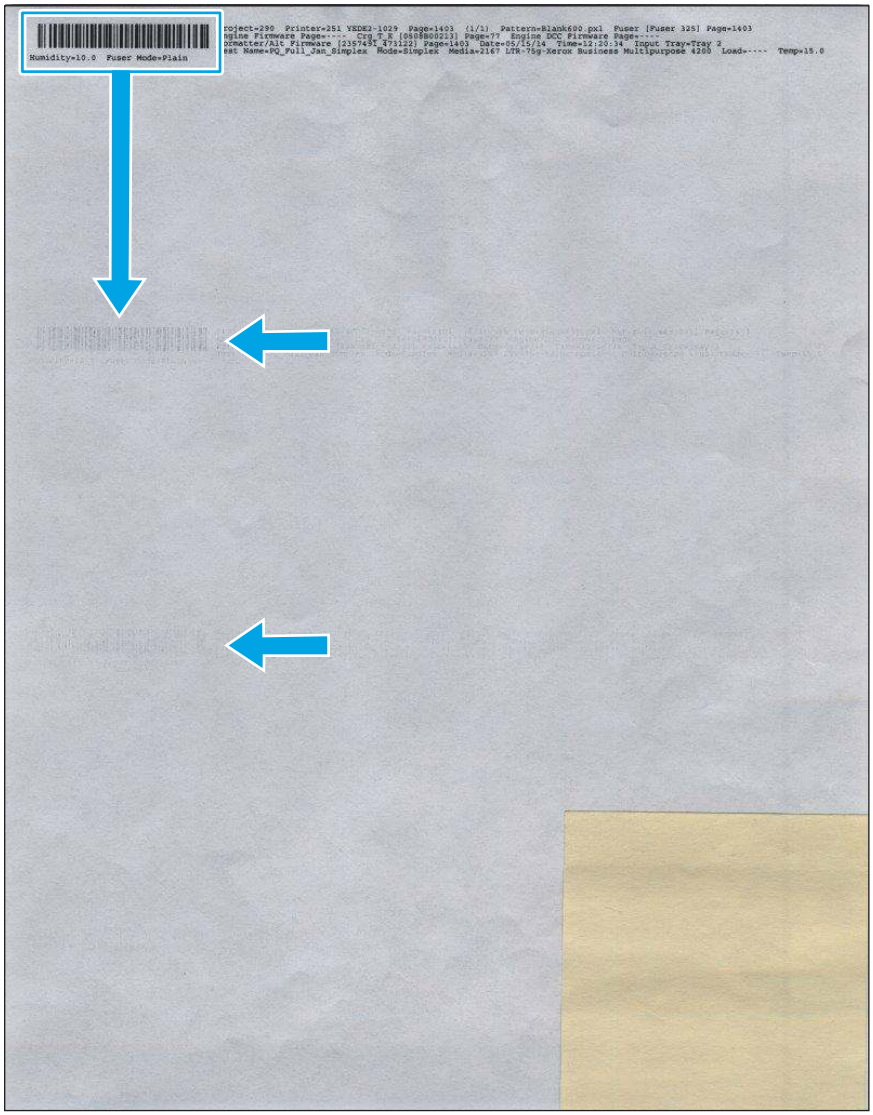
- Fuser

Hot fuser offset

Review the following information about the hot fuser offset fuser/fixing defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-109 Hot fuser offset



Description of the defect

This defect appears as slight offset of the image that repeats down the page spaced approximately 75.0 mm (2.95 in) apart. This defect occured when the fuser thermistor detection temperature did not follow the target temperature.

Conditions that can cause the defect

This defect is likely to occur in the later stages of fuser life.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job and use a lighter fuser mode.
- If the defect persists, replace the fuser.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

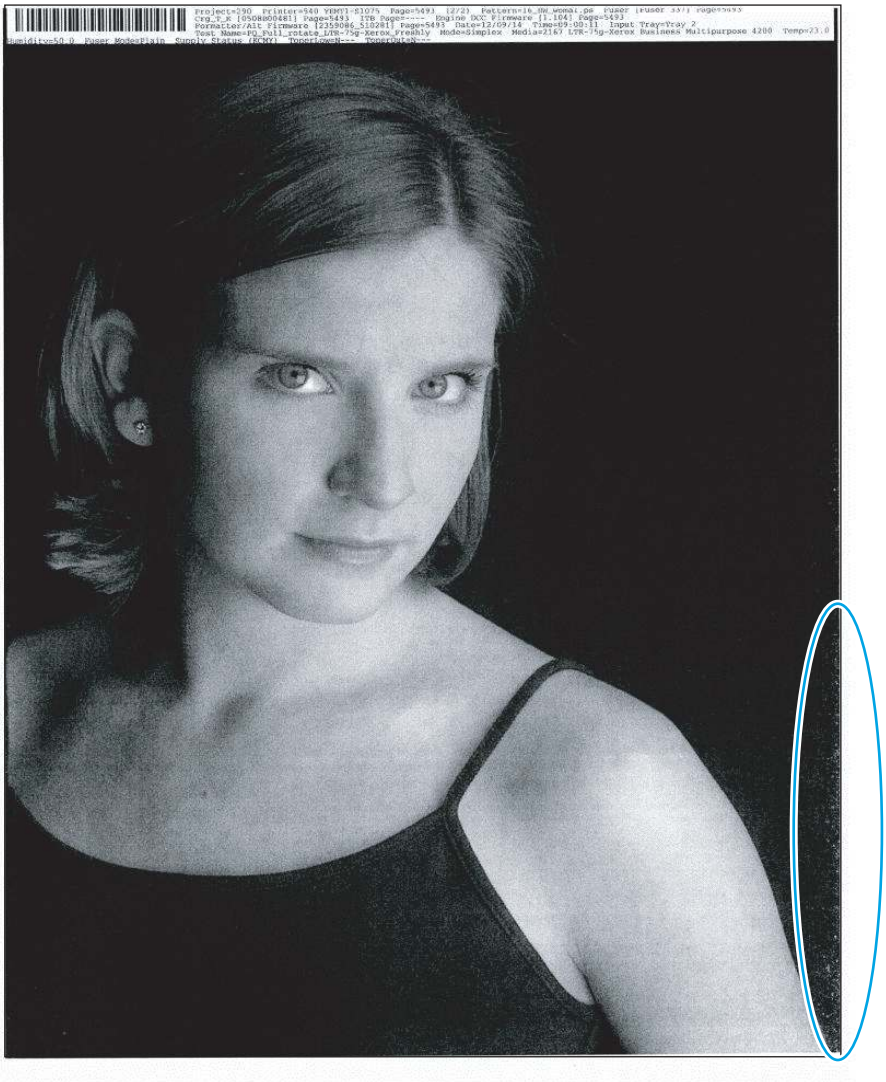
- Fuser

Poor edge fixing - within the image assurance area

Review the following information about the poor edge fixing - within the image assurance area fuser/ fixing defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-110 Poor edge fixing - within the image assurance area



Description of the defect

This defect appears as missing toner inside the 6 mm (0.23 in) image assurance area. Toner rubs off the page. The fuser temperature is too cold.

NOTE: The image assurance area is 5 mm (0.19 in) from the top and bottom edge of the page and 5 mm (0.19 in) from the edge on each side of the page.

Conditions that can cause the defect

This defect is not dependent on environmental conditions, but is more common at the edges of high-coverage print jobs.

Solutions for the defect

Use the following steps to solve the defect.

- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Setup
     - System Setup
     - Paper Setup
     - Tray <X>

       NOTE: Select the tray you want to configure.
     - Paper Type
  2. Select Intermediate 85–95g.
- **M506/M507/E50145 and M527/M528/E52645**: Confirm that the correct print mode is selected for the media being used. Use a print mode for a heavier media type.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray
     - Modify
     - Next
  2. Select Intermediate 85–95g.
- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).
  1. Open the following menus:
     - Trays
     - Tray <X>

       NOTE: Select the tray you want to configure.

– Type

2. Select Intermediate 85-95g.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

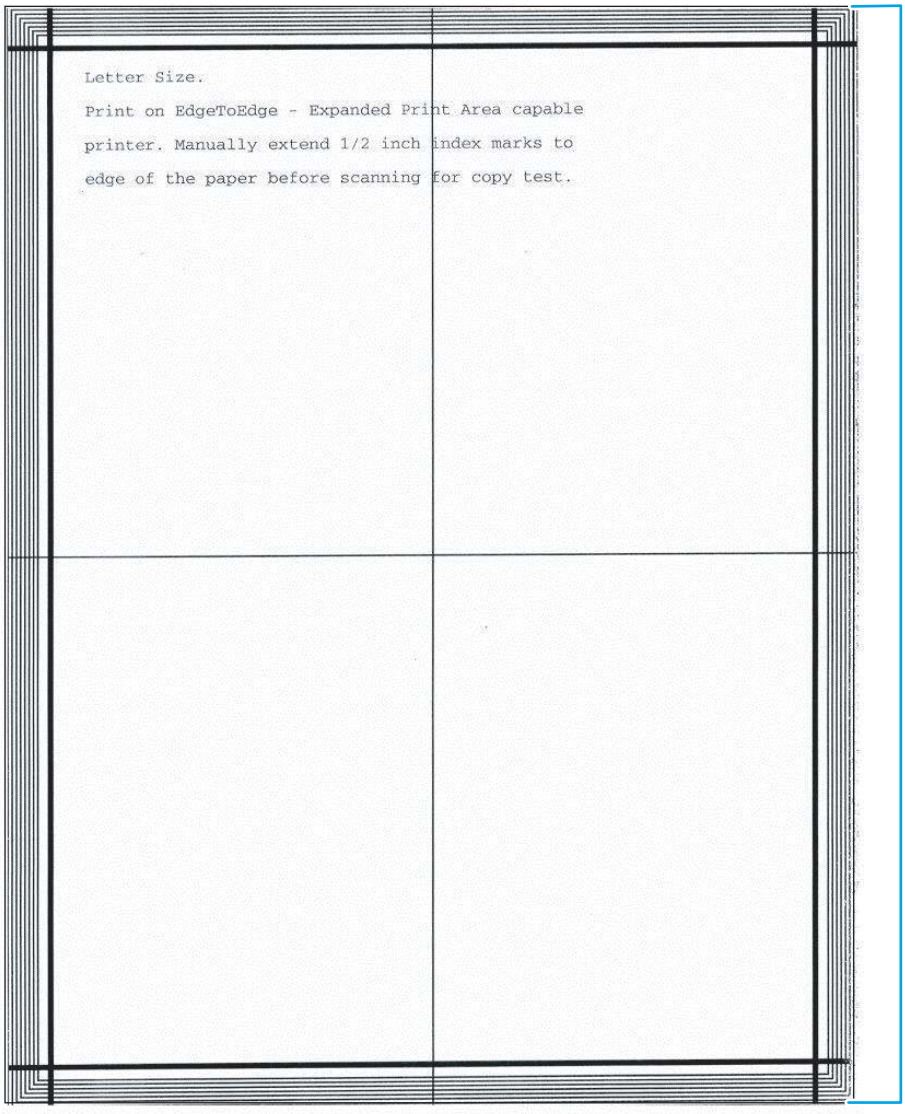
- Fuser

Poor edge fixing - outside the image assurance area

Review the following information about the poor edge fixing - outside the image assurance area fuser/fixing defect event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-111 Poor edge fixing - outside the image assurance area



Description of the defect

This defect appears as missing toner outside the 6 mm (0.23 in) image assurance area. Toner rubs off the page. Poor edge fixing might occur when the printer is using Edge to Edge print mode and the image extends past the 5 mm (0.19 in) image assurance area.

NOTE: The image assurance area is 5 mm (0.19 in) from the top and bottom edge of the page and 5 mm (0.19 in) from the edge on each side of the page.

Conditions that can cause the defect

This defect is not dependent on environmental conditions, but is more common at the edges of high-coverage print jobs.

Solutions for the defect

Use the following steps to solve the defect.

- **M506/E50045 and M527/E52545**: Resend the print job with Edge to Edge mode set to Normal. From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:
     - Administration
     - Default print options
     - Edge to Edge
  2. Select Normal.

- **M507/E50145 and M528/E52645**: Resend the print job with Edge to Edge mode set to Normal.

  1. Open the following menus:
     - Settings
     - Copy/Print
     - Default Print Options
     - Edge-to-Edge
  2. Select Normal.

- **M501**: Resend the print job with increased side margins. From the printer control panel, adjust the page margins.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Setup
     - System Setup
     - Print Quality
     - Adjust Alignment

- Adjust Tray <X>

NOTE: Select the tray you want to configure.

2. Adjust the X1 Shift and X2 Shift settings.

NOTE: Adjust the “X” values in .25 mm increments.

- **M506/E50045 and M527/E52545**: Resend the print job with increased side margins. From the printer control panel, adjust the page margins.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the horizontal and vertical directions.

  1. Open the following menus:
     - Administration
     - General Settings
     - Print Quality
     - Image Registration
     - Adjust Tray <X>

     NOTE: Select the tray you want to configure.

  2. Adjust the X1 Shift (simplex pages) and/or X2 Shift (duplex pages).

  NOTE: Adjust the “X” values in .25 mm increments.

- **M507/E50145 and M528/E52645**: Resend the print job with increased side margins. From the printer control panel, adjust the page margins.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the horizontal and vertical directions.

  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality
     - Image Registration
  2. Select the tray you want to configure.
  3. Adjust the Front-side Horizontal Shift (simplex pages) and/or Back-side Horizontal Shift (duplex pages).

  NOTE: Adjust the Horizontal Shift values in .25 mm increments.

- **M501**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

  1. Open the following menus:

- Setup
- System Setup
- Paper Setup
- Tray <X>

NOTE: Select the tray you want to configure.

- Paper Type

2. Select Intermediate 85-95g

- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray
   - Modify
   - Next
2. Select Intermediate 85-95g.

- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode from plain to intermediate (this slows the print speed).

1. Open the following menus:
   - Trays
   - Tray <X>

   NOTE: Select the tray you want to configure.

   - Type
2. Select Intermediate 85-95g.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Fuser

Miscellaneous defect events

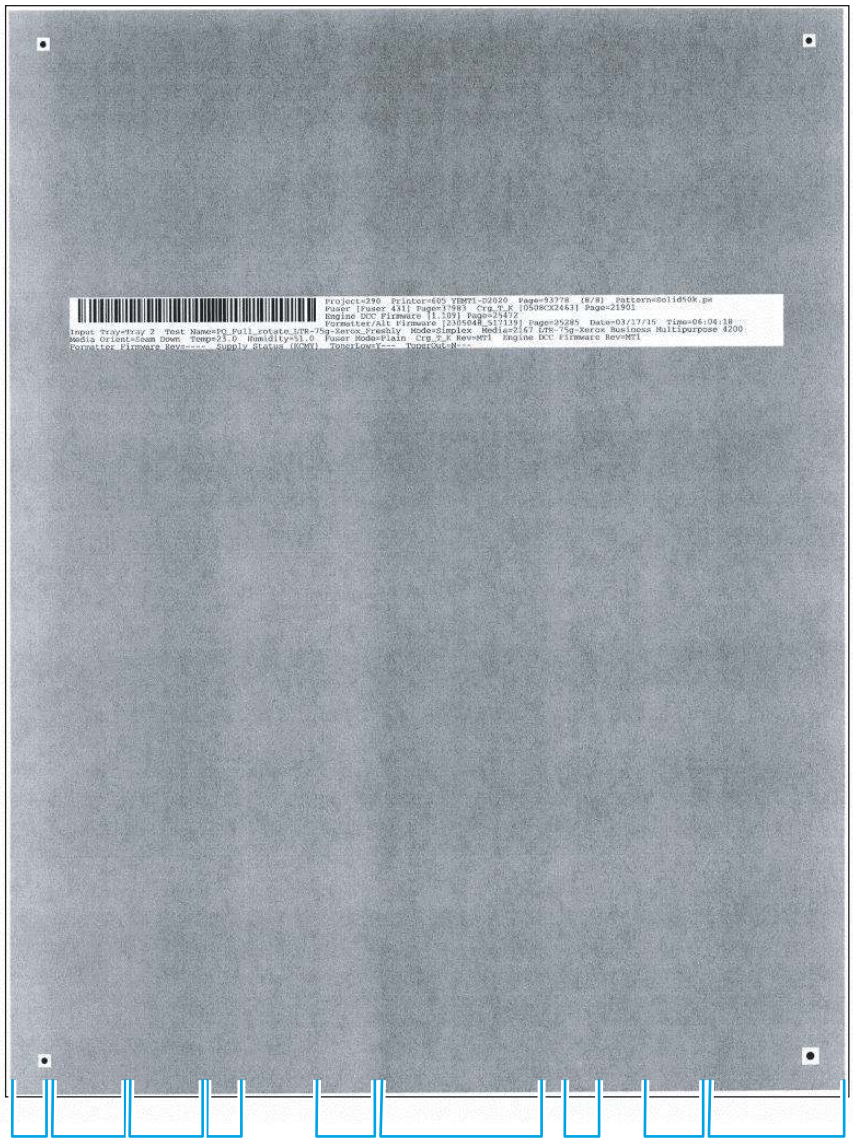
Review the following information about miscellaneous image defect (developmental) events.

Uneven density - across the page

Review the following information about the uneven density - across the page image defect (developmental) event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-112 Uneven Density - across the page



Description of the defect

This defect appears as areas of varying (light/dark) density across the page. This is caused by variation in the position of the stirring system at initial cartridge assembly resulting in toner material attached to the D-blade. Uneven attachment of toner component to D-blade is caused by uneven toner coating on the sleeve during initial sequence. This banding shows up in areas of fill, not in text.

Conditions that can cause the defect

This defect is likely to occur in the later stages of toner cartridge life.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job.
- If the defect does not improve within two to three print jobs, remove the toner cartridge and gently rock it back and forth from side to side (this distributes the toner evenly in the toner cartridge).
- If the defect persists, replace the toner cartridge.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

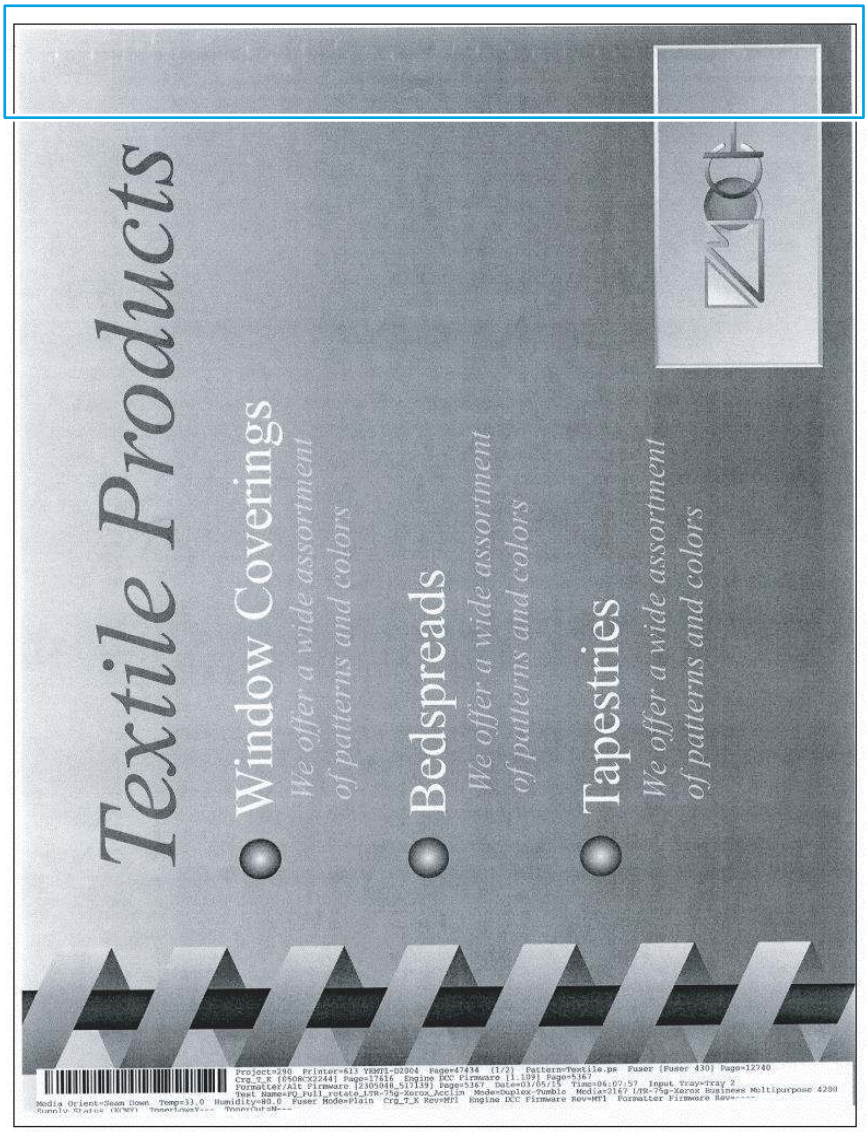
- Toner cartridge

Water drop (condensation)

Review the following information about the water drop (condensation) image defect (developmental) event.

NOTE: This defect occurred at some point during printer development. HP has implemented a solution to the problem. This defect is included in the image defects section for the unlikely event that it reoccurs.

Figure 3-113 Water drop (condensation)



Description of the defect

This defect appears as short, soft, light streaks at the top of a page. Condensation collects on the fuser exit guide ribs and transfers to the trailing (unprinted side) of the first pass page of a duplex job. When the duplexed page is printed, the condensation affects the transfer of the toner and causes the defect.

Conditions that can cause the defect

This defect might occur in low temperature high humidity environments and in cold start conditions.

Solutions for the defect

Use the following steps to solve the defect.

- Resend the print job. This defect can be variable.
- **M506/E50045 and M527/E52545**: If the defect does not improve within two to three print jobs, change the print mode Moisture Control from Normal to Alternate.

1. Open the following menus:
   - Administration
   - General Settings
   - Print Quality
   - Optimize
   - Moisture Control
2. Select Alternate.

- **M507/E50145 and M528/E52645**: If the defect does not improve within two to three print jobs, change the print mode Moisture Control from Normal to Alternate.

  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality
     - Optimize
     - Moisture Control
  2. Select Alternate.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Fuser

Other events

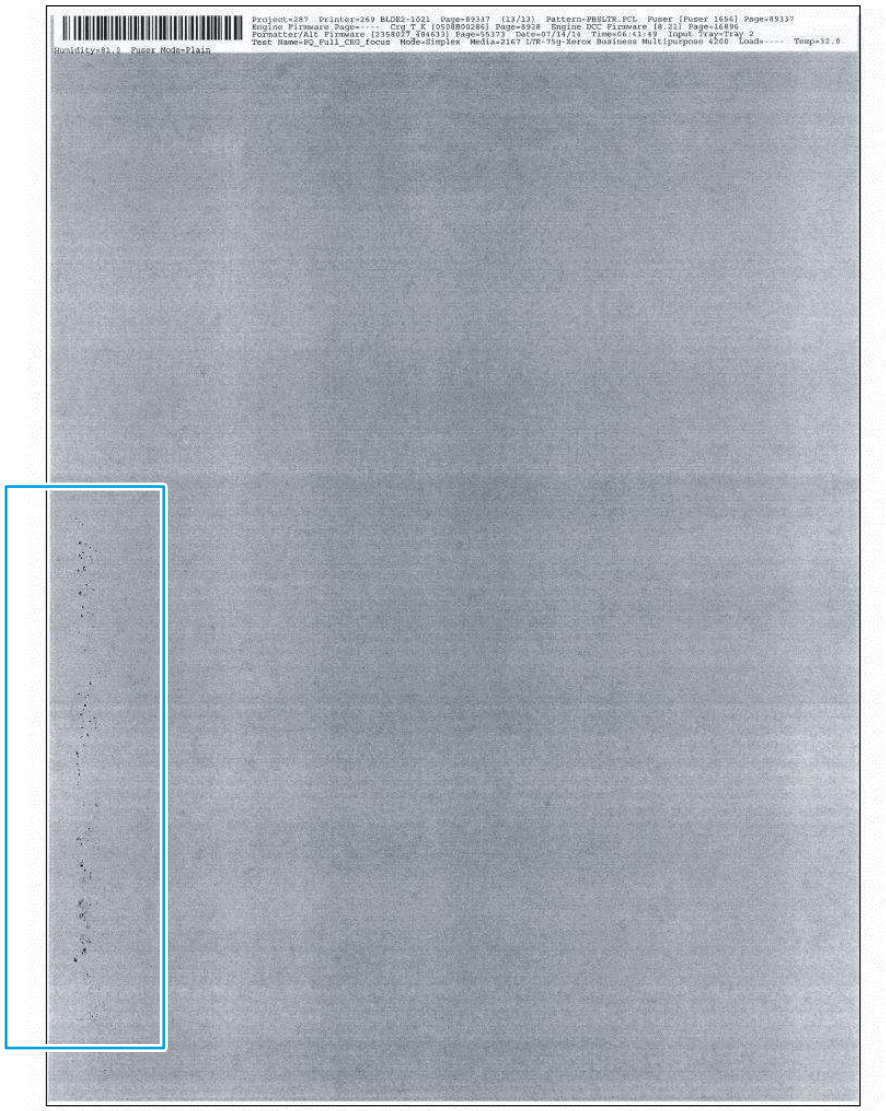
Review the following information about other print-quality events.

NOTE: The examples in this section describe other printer events that can occur. Customers might observe these problems.

Fuser contamination

Review the following information about the fuser contamination event.

Figure 3-114 Fuser contamination



Description of the defect

This defect appears as dark globs of toner observed on the front or back of the page. Toner builds up on the fuser sleeve and pressure roller and comes off on subsequent pages. This defect can be either repeating at 75 mm (2.95 in) or does not repeat.

Conditions that can cause the defect

This defect might occur in the following conditions:

- Inappropriate media type print mode is selected (fuser too cold)
- Fuser jams were observed on the previous jobs
- Narrow media was printed for extended periods of time

Solutions for the defect

Use the following steps to solve the defect.

- **M501**: From the printer control panel, process a cleaning page to remove the contamination in the fuser.

NOTE: If a repeating defect does not disappear after processing multiple cleaning pages, a permanent defect might be present on the fuser sleeve.

  - Open the following menus:
    - Setup
    - Service
    - Cleaning Page

    NOTE: Touch the OK button to begin the cleaning process. Wait until the process completes. Discard the page that prints.

- **M506/E50045 and M527/E52545**: From the printer control panel, process a cleaning page to remove the contamination in the fuser.

NOTE: If a repeating defect does not disappear after processing multiple cleaning pages, a permanent defect might be present on the fuser sleeve.

1. Open the following menus:
   - Device Maintenance
   - Calibration/Cleaning
   - Cleaning Page
2. Select Print.

NOTE: The process takes up to 1.5 minutes.

- **M507/E50145 and M528/E52645**: From the printer control panel, process a cleaning page to remove the contamination in the fuser.

NOTE: If a repeating defect does not disappear after processing multiple cleaning pages, a permanent defect might be present on the fuser sleeve.

1. Open the following menus:
   - Support Tools
   - Maintenance
   - Calibration/Cleaning
   - Cleaning Page
2. Select Print.

NOTE: The process takes up to 1.5 minutes.

Parts related to the defect

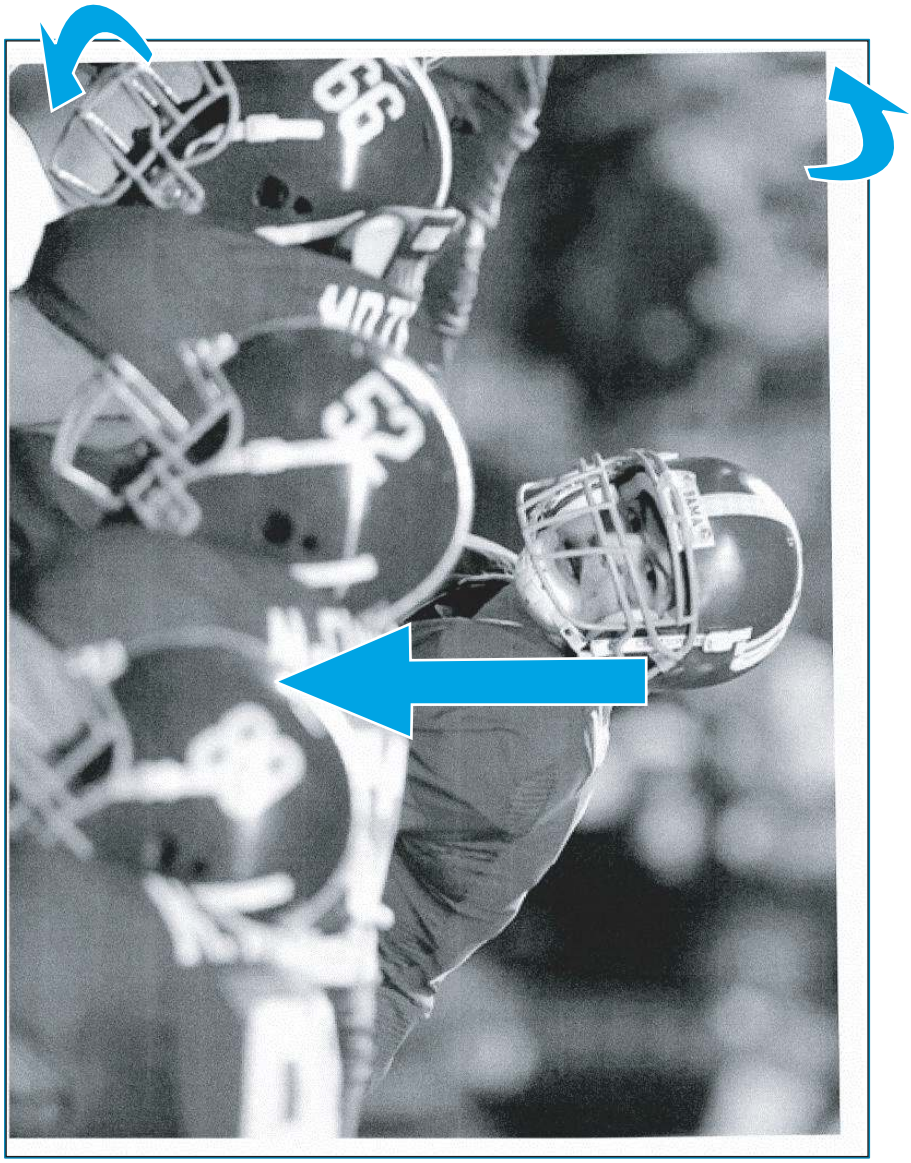
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Fuser

Image placement - margins and skew

Review the following information about the image placement - margins and skew event.

Figure 3-115 **Image placement - margins and skew**



Description of the defect

This defect appears as image that is not centered or skewed on the page. The media is not positioned properly as it is pulled from the tray and goes through the paper path.

Conditions that can cause the defect

This defect might occur if the IPA is off in any environment and from any tray.

Solutions for the defect

Use the following steps to solve the defect.

- Before loading paper in the tray, hold the stack of paper, and then tap the bottom edge on a flat surface so that the stack is even on all sides.
- Make sure that the paper guides are adjusted to the correct size for the selected paper and do not overfill the tray. Verify that the top of the stack is below the tray full indicator.
- Do not adjust the paper guides tightly against the paper stack. Adjust them to the indentations or markings in the tray.
- **M501**: Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Setup
     - System Setup
     - Print Quality
     - Adjust Alignment
     - Adjust Tray <X>

     NOTE: Select the tray you want to configure.
  2. Adjust the appropriate margin settings.

  NOTE: Adjust the “X” and “Y” values in .25 mm increments.

     - X1 Shift

     NOTE: Registration of the image on the paper from side to side, as the paper lies in the tray. For duplex models, this side is the second side (back) of the paper.

     - X2 Shift

     NOTE: Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only on duplex models.

     - Y Shift

     NOTE: Registration of the image on the paper from top to bottom as the paper lies in the tray.

- **M506/E50045 and M527/E52545**: For image placement defects do the following. Resend the print job. If the error persists, change the image placement settings for the tray that the defect occurs. From the printer control panel, process a cleaning page to remove the contamination in the fuser.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Administration
     - General Settings

- Print Quality
- Registration
- Adjust Tray <X>

NOTE: Select the tray you want to configure.

2. Adjust the appropriate margin settings.

NOTE: Adjust the “X” and “Y” values in .25 mm increments.

- X1 (horizontal; simplex)
- X2 (vertical; simplex)
- Y1 (horizontal; duplex)
- Y2 (vertical; duplex)

- **M507/E50145 and M528/E52645**: For image placement defects do the following. Resend the print job. If the error persists, change the image placement settings for the tray that the defect occurs. From the printer control panel, process a cleaning page to remove the contamination in the fuser.

  Before beginning, use the Print Test Page option to print a registration test page. This page provides alignment guides in the X and Y directions.

  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality
     - Image Registration
  2. Select the tray you want to configure.
  3. Adjust the appropriate margin settings. Front-side settings are for simplex pages, and back-side settings are for duplex pages.

  NOTE: Adjust the Vertical and Horizontal Shift values in .25 mm increments.

Parts related to the defect

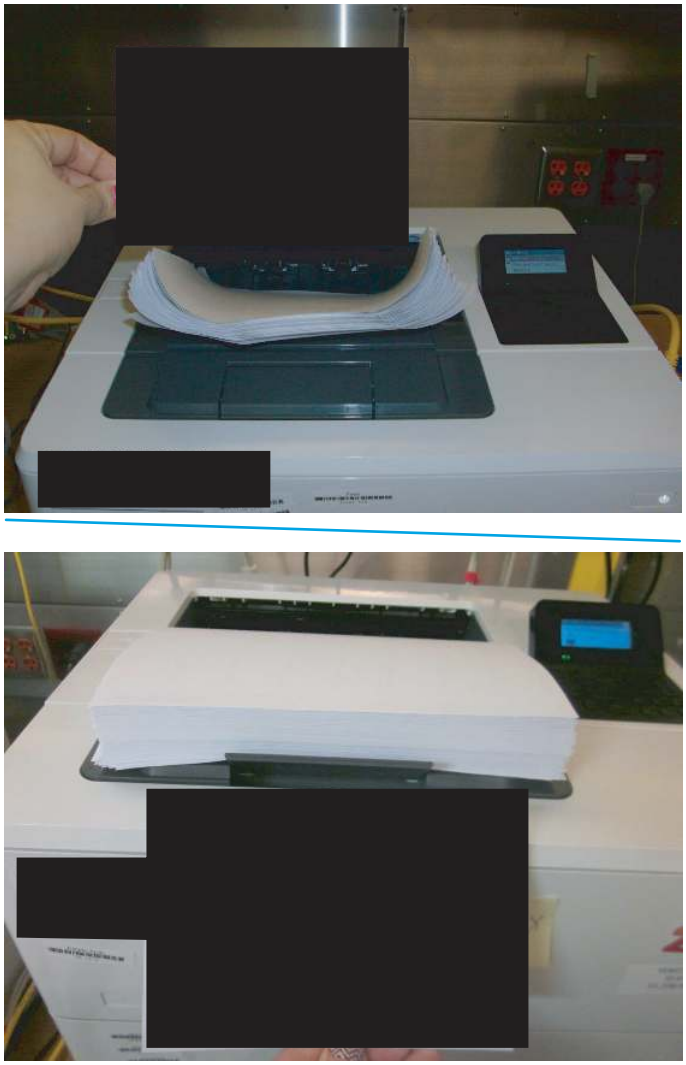
The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Tray guides
- Registration assembly
- Feed rollers

Output curl

Review the following information about the output curl event.

Figure 3-116 Output curl



Description of the defect

This defect appears as printed pages are curled. Two types of curl are possible:

- Positive curl: paper curls toward the printed side
- Negative curl: paper curls away from printed side

This defect is caused by uneven drying conditions for the two sides of the paper and fuser location close to the paper output.

Conditions that can cause the defect

Positive curl occurs in dry environments or when printing high coverage pages.

Negative curl occurs in high humidity environments when printing low coverage pages.

Solutions for the defect

Use the following steps to solve the defect.

General curl defect solutions

- Resend the print job. Use the duplex option in the printer driver.
- Do not adjust the paper guides tightly against the paper stack. Adjust them to the indentations or markings in the tray.
- **M501**: From the printer control panel, enable the Paper Curl print mode option.
  1. Open the following menus:
     - Setup
     - Service
     - Less Paper Curl
  2. Select On.
- **M506/E50045 and M527/E52545**: From the printer control panel, change the print mode Paper Curl from Normal to Reduced.
  1. Open the following menus:
     - Administration
     - General Settings
     - Print Quality
     - Optimize
     - Paper Curl
  2. Select Reduced.
- **M507/E50145 and M528/E52645**: From the printer control panel, change the print mode Paper Curl from Normal to Reduced.
  1. Open the following menus:
     - Settings
     - Copy/Print
     - Print Quality
     - Adjust Paper Types
  2. Select the appropriate paper type for the paper used.
  3. Select Paper Curl Mode.
  4. Select Reduced.

Specific curl defect solutions

- Positive curl: Use a higher temperature media type (heavier weight) mode which will increase the negative curl tendency reducing the positive curl. Also, more fusing could be selected in the extended print modes for the selected paper type.

- Negative curl: Use a lower temperature media type (lighter weight) mode or select a reduced paper curl or lower fusing temperature setting in extended print modes. If possible, try storing media in a dry environment prior to printing or use freshly opened paper (non-acclimated).

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Fuser

Sticky output

Review the following information about the sticky output event.

Figure 3-117 **Sticky output**

Description of the defect

This defect appears as output pages that stick together when printing heavy coverage images in duplex mode. When printing large jobs the output stack retains enough heat that the toner on the top page does not cool sufficiently and can be tacky in heavy coverage areas. When the next page is output if there is heavy coverage that lands on the top page in the stack, the toner-to-toner contact might stick.

Conditions that can cause the defect

This defect might occur in the following conditions:

- Large jobs greater than 25 pages (50 Images)
- Plain fuser mode
- Back-to-back images with heavy (greater than 80% density) coverage
- More severe on smooth heavy media

Solutions for the defect

Use the following steps to solve the defect.

- Confirm that the correct print mode is selected for the paper being used.
- Flex the output stack before separating pages.
- Print smaller jobs and remove the output before sending the next job.
- Use the Intermediate Fuser mode which slows the printing and allows more time for cooling.
- Try printing in Quiet mode which lowers the fuser temperature and slows the output.

  M501: From the printer control panel, enable the Quiet Print Mode option.

  1. Open the following menus:
     - Setup
     - System Setup
     - Quiet Print Mode
  2. Select On.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Fuser

Output stacking

Review the following information about the output stacking event.

Figure 3-118 Output stacking

Description of the defect

This defect appears as output pages that do not stack properly in the output bin. The stack may be uneven or skewed or pages could be pushed out of the tray and onto the floor.

Conditions that can cause the defect

Poor stacking can occur when there is significant paper curl present, if the paper being used is wrinkled or deformed, if using non-standard media types such as envelopes, or if the output bin gets too full. Causes for this defect vary depending on the type of media being used. If paper curl is present, the cause can be attributed to uneven drying of the media in the fuser.

Solutions for the defect

Use the following steps to solve the defect.

- Use the output bin extension.
- If applicable, use the solutions in "Output curl" in the *Troubleshooting Manual*.
- Use different paper that meets HP specifications for this printer.

- Use freshly opened paper (non-acclimated).
- Remove paper from the output tray before the stack becomes too large.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Fuser

Paper handling - misprints

Review the following information about the paper handling - misprints event.

Description of the defect

This defect appears as media in the paper path that does not behave as the printer user expects. The control panel displays a **41.XX.XX** error. A sensor is triggered at an unexpected timing and displays an error message.

Conditions that can cause the defect

Misprints occur in any environment.

Solutions for the defect

Use the following steps to solve the defect.

- Make sure that the size of the paper loaded in a specified tray matches the control panel setting.
- Make sure that the paper guides in the tray are adjusted correctly for the size of paper and the rear door is fully closed.
- Make sure that the input tray and output bin are not overfilled.
- Try using a new supply of paper or a different type of paper.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Tray guides
- Registration assembly
- Feed rollers

Paper handling - multifeeds

Review the following information about the paper handling - multifeeds event.

Description of the defect

This defect appears as one (or many) pages feed through the paper path together. Sheets of paper stick together (physically or statically) and the separation pressure from the pick roller is unable to separate the sheets.

Conditions that can cause the defect

The multifeed defect can occur in any environment, but occurs more frequently in HH and NN (as opposed to LL), on glossy media (as opposed to plain media) and with freshly opened (as opposed to fully acclimated) paper.

Solutions for the defect

Use the following steps to solve the defect.

- Make sure that the input tray is not overfilled.
- Make sure that the paper guides in the tray are adjusted correctly for the size of paper.
- Remove the stack of paper from the tray, flex it, rotate it 180 degrees and then flip it over. Insert the media in a new orientation.
- Load a smaller stack of media in the input tray.
- Fan the media.
- Try a new supply of paper or a different type of paper.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Tray guides
- Registration assembly
- Feed rollers

Paper handling - jams

Review the following information about the paper handling - jams event.

Description of the defect

This defect appears as media stuck in the paper path. The control panel displays a **13.XX.XX** error. Media does not enter, pass through, or exit the paper path correctly.

Conditions that can cause the defect

Jams occur in any environment.

Solutions for the defect

Use the following steps to solve the defect.

- Clear the jam (input tray, rear door, bottom duplex tray, or output bin).
- Make sure that the paper guides in the tray are adjusted correctly for the size of paper and the rear door is fully closed.
- Make sure that the input tray and output bin are not overfilled.
- Load a smaller stack of media in the input tray.
- Try a new supply of paper or a different type of paper.

Parts related to the defect

The following item(s) might need to be repaired or replaced to prevent this defect form occurring.

- Media
- Tray guides
- Registration assembly
- Feed rollers

Clean the printer

Review the following information about cleaning the printer.

NOTE: To clean the printer exterior, use a soft, water-moistened cloth.

Clean the paper path

Over time, particles of toner and paper accumulate inside the printer. This can cause print-quality problems during printing. Cleaning the paper path eliminates or reduces these problems.

Clean the paper path and toner-cartridge areas every time that the toner cartridge is changed or whenever print-quality problems occur. As much as possible, keep the printer free from dust and debris.

Print a cleaning page

Use the following procedures to print a cleaning page.

Print the cleaning page from a LCD control panel (M501)

Use the following procedure to print the cleaning page from a LCD control panel on an M501 printer.

1. From the printer control panel, press the OK button.
2. Open the **Service** menu.
3. Use the arrow keys to select the **Cleaning mode** option, and then press the OK button.

   The printer prints the first side and then prompts you to remove the page from the output bin and reload it in Tray 1, keeping the same orientation. Wait until the process is complete. Discard the page that prints.

Print the cleaning page from a LCD control panel (M506/E50045/M507/E50145)

Use the following procedure to print the cleaning page from a LCD control panel on an M506/E50045/M507/E50145 printer.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Device Maintenance, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Calibration/Cleaning, and then press the OK button.
3. If necessary, use the down arrow ▼ button to scroll to Cleaning, and then press the OK button to print the page.

4. Follow the instruction on the printed cleaning page to finish the cleaning page process.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Maintenance, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Calibration/Cleaning, and then press the OK button.
4. Select Continue to enter *Maintenance Mode*.
5. Use the down arrow ▼ button to scroll to Cleaning page, and then press the OK button to print the page.
6. Follow the instruction on the printed cleaning page to finish the cleaning page process.
7. A **Cleaning...** message displays on the printer control panel. The cleaning process takes a few minutes to complete. Do not turn the printer off until the cleaning process has finished. When it is finished, discard the printed page.

Print the cleaning page from a touchscreen control panel (M527/E52545/M528/E52645)

Use the following procedure to print the cleaning page from a touchscreen control panel (M527/E52545/M528/E52645).

1. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Maintenance (FutureSmart 4)
   - Calibration/Cleaning
3. Touch Cleaning Page, and then press the OK button (FutureSmart 3) or the Print button (FutureSmart 4) to print the page.
4. The cleaning process can take several minutes. When it is finished, discard the printed page.

Enable and configure auto cleaning (M527/E52545/M528/E52645)

Use the procedure in this section to enable and configure the automatic cleaning function from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the following menus:
   - Maintenance (FutureSmart 4)
   - Calibration/Cleaning
   - Auto Cleaning (FutureSmart 3) or Cleaning Page (FutureSmart 4).
3. **FutureSmart 3:** Select the Enable item, and then touch the Save button.

4. **FutureSmart 4:** Under Automatic Cleaning Interval, select the desired page interval when the printer should automatically print a cleaning page, and then touch the Done button.

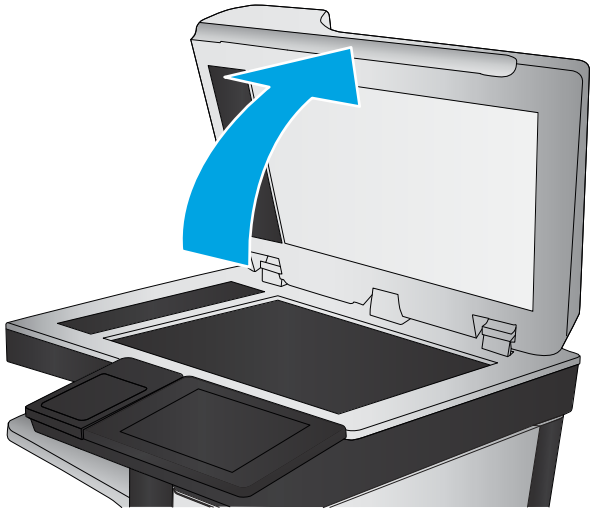
Check the scanner glass for dirt and smudges (M527/E52545/M528/E52645)

Over time, specks of debris might collect on the scanner glass and white plastic backing, which can affect performance.

Use the following procedure to clean the scanner if the printed pages have streaks, unwanted lines, black dots, poor print quality, or unclear text.

1. . Press the power button to turn the printer off, and then disconnect the power cable from the electrical outlet.

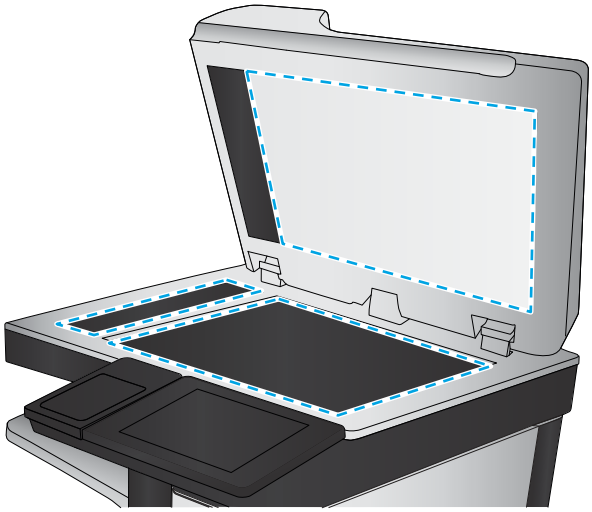
2. . Open the scanner lid.



3. . Clean the scanner glass, the document feeder strips, and the white plastic backing with a soft cloth or sponge that has been moistened with nonabrasive glass cleaner.

⚠ CAUTION: Do not use abrasives, acetone, benzene, ammonia, ethyl alcohol, or carbon tetrachloride on any part of the printer; these can damage the printer. Do not place liquids directly on the glass or platen. They might seep and damage the printer.

NOTE: If you are having trouble with streaks on copies when you are using the document feeder, be sure to clean the small strip of glass on the left side of the scanner.



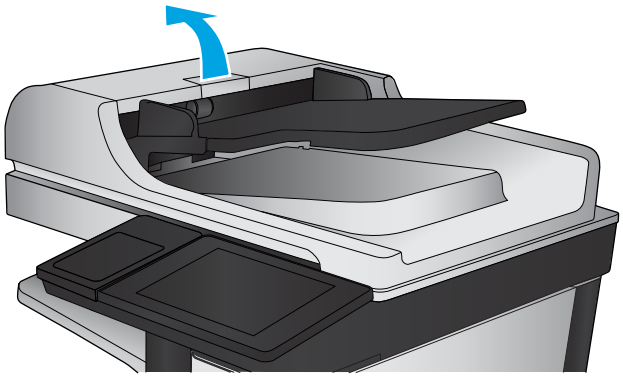
4. . Dry the glass and white plastic parts with a chamois or a cellulose sponge to prevent spotting.

5. . Connect the power cable to an outlet, and then press the power button to turn the printer on.

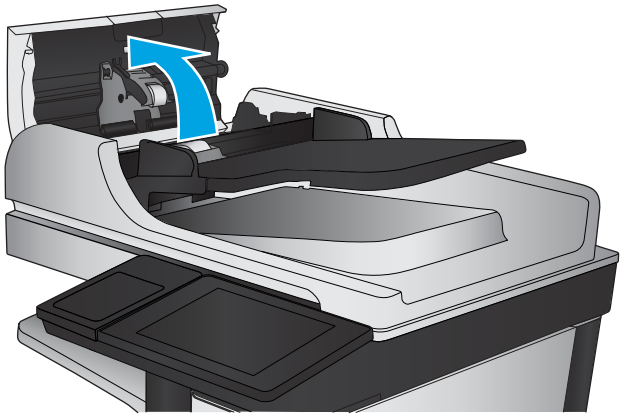
Clean the pickup rollers and separation pad in the document feeder (M527/E52545/M528/E52645)

Use the following procedure to clean the pickup rollers and separation pad in the document feeder for the M527/E52545/M528/E52645 printer.

1. . Lift the document-feeder latch.

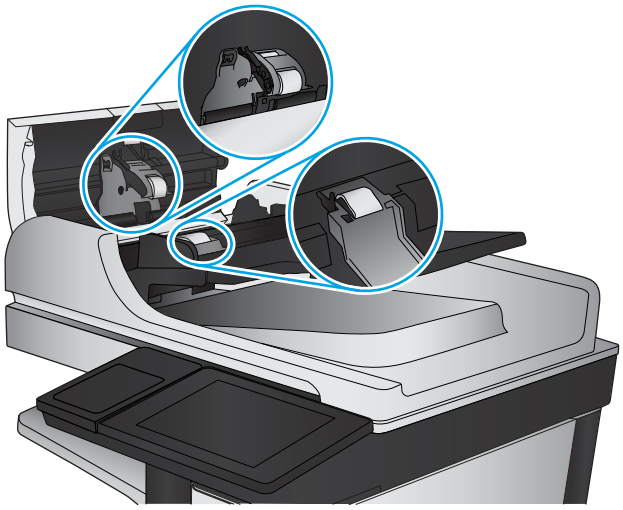


2. . Open the document-feeder cover.



3. . Remove any visible lint or dust from each of the feed rollers and the separation pad using compressed air or a clean lint-free cloth moistened with warm water.

NOTE: Lift up the roller assembly to access and clean the second roller.



4. . Close the document-feeder cover.

If the error persists, install a document feeder maintenance kit (B5L52-67903).

Clean the Tray 1 roller and separation pad

Use the following procedure to clean the Tray 1 roller and separation pad.

NOTE: The figures in this section show the M506x. However, the procedure is correct for all M506/E50045/M507/E50145 models and the M501 and M527/E52545/M528/E52645 printers.

Step 1: Remove the roller

Use the following procedure to remove the roller.

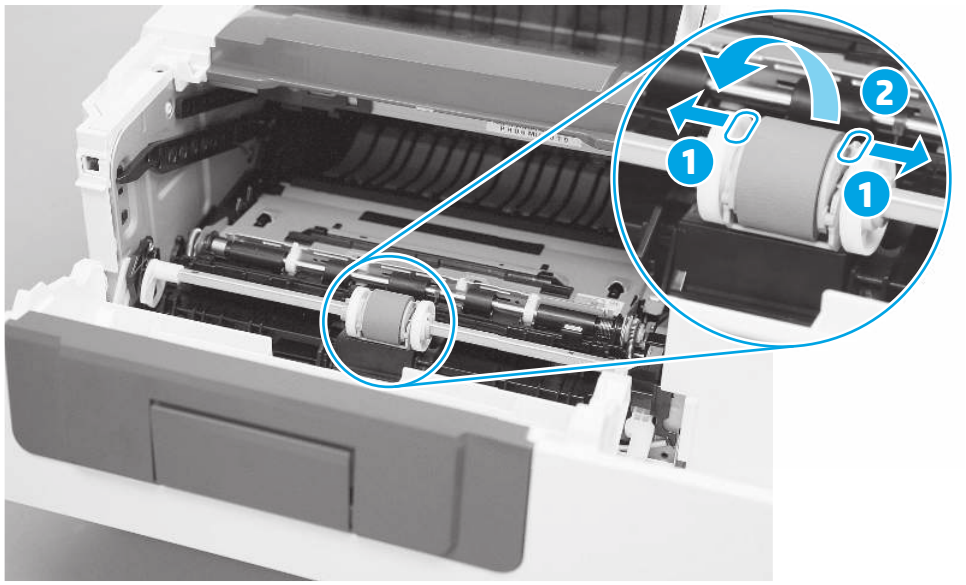
1. Open the toner-cartridge door.

Figure 3-119 **Open the toner-cartridge door**

2. Release two tabs between the roller collar and roller (callout 1), and then rotate the top of the roller out and away from the printer (callout 2).

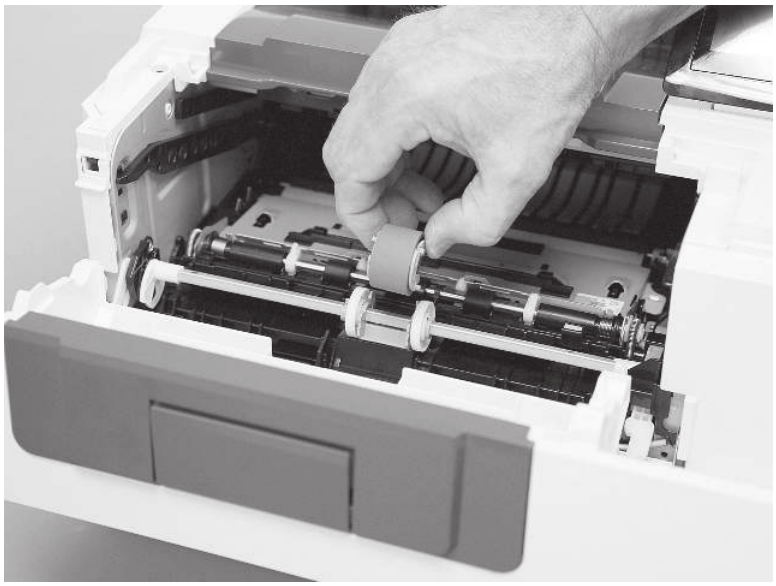
TIP: Pushing down on the top of the roller might make it easier to release the tabs.

Figure 3-120 **Release two tabs**



3. Remove the roller.

Figure 3-121 Remove the roller



Step 2: Remove the separation pad assembly

Use the following procedure to remove the separation pad assembly.

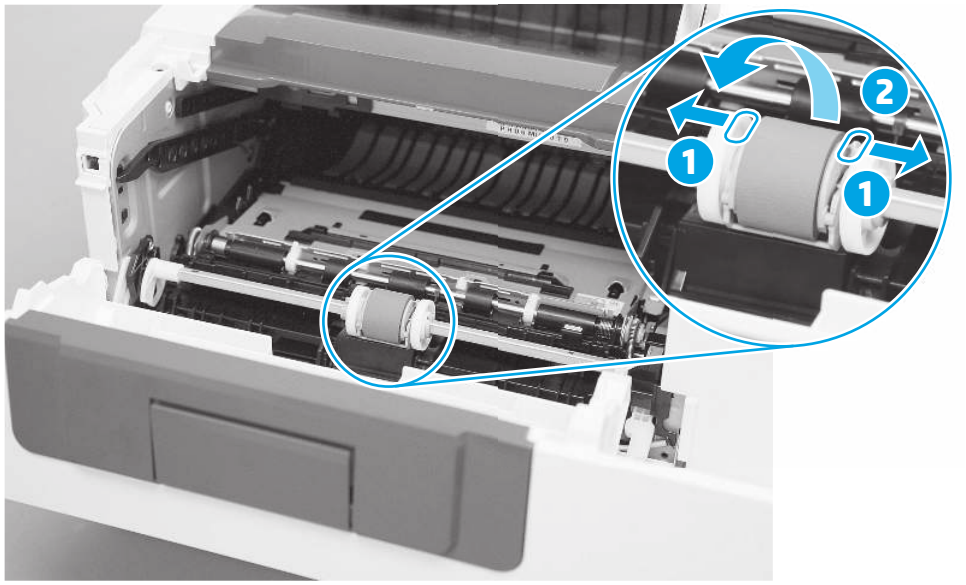
1. Open the toner-cartridge door.

Figure 3-122 Open the toner-cartridge door

2. Release two tabs between the roller collar and roller (callout 1), and then rotate the top of the roller out and away from the printer (callout 2).

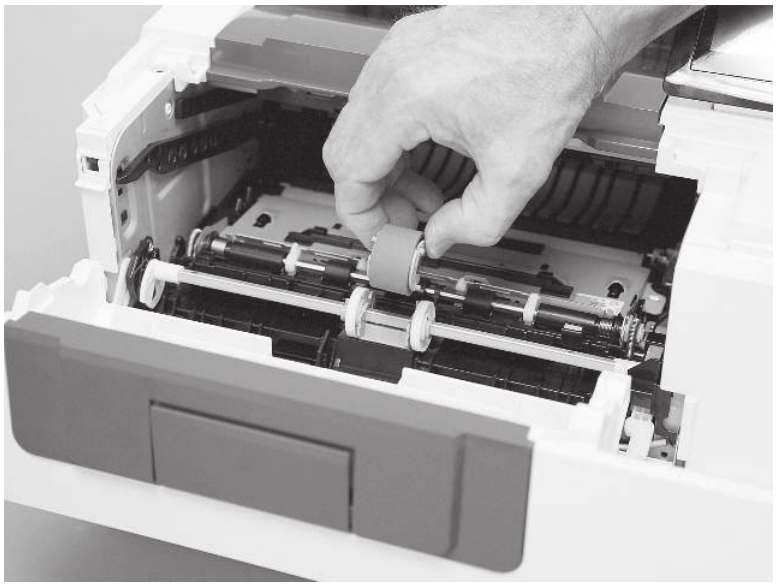
TIP: Pushing down on the top of the roller might make it easier to release the tabs.

Figure 3-123 Release two tabs



3. Remove the roller.

Figure 3-124 Remove the roller



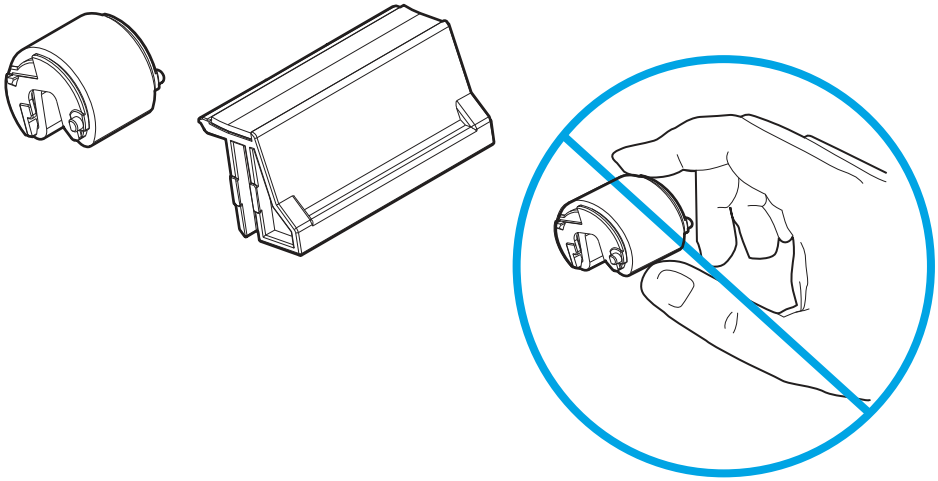
Step 3: Clean the Tray 1 roller and separation pad

Use the following procedure to clean the Tray 1 roller and separation pad.

- Use a damp, lint-free cloth to gently clean the rollers.

⚠ CAUTION: When handling the roller and pad, avoid touching the spongy surfaces. Skin oils and fingerprints on a roller surface can cause print-quality problems.

Figure 3-125 **Clean the rollers and pad**



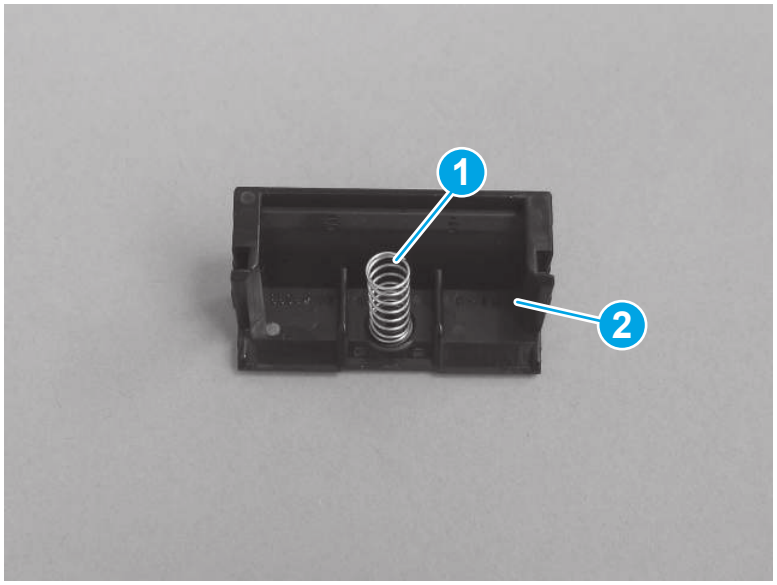
Step 4: Install the separation pad assembly

Use the following procedure to install the separation pad assembly.

⚠ CAUTION: Do not touch the black rubber portion of the pad assembly. Skin oils on the pad can cause paper handling problems. HP recommends washing your hands before handling the assembly.

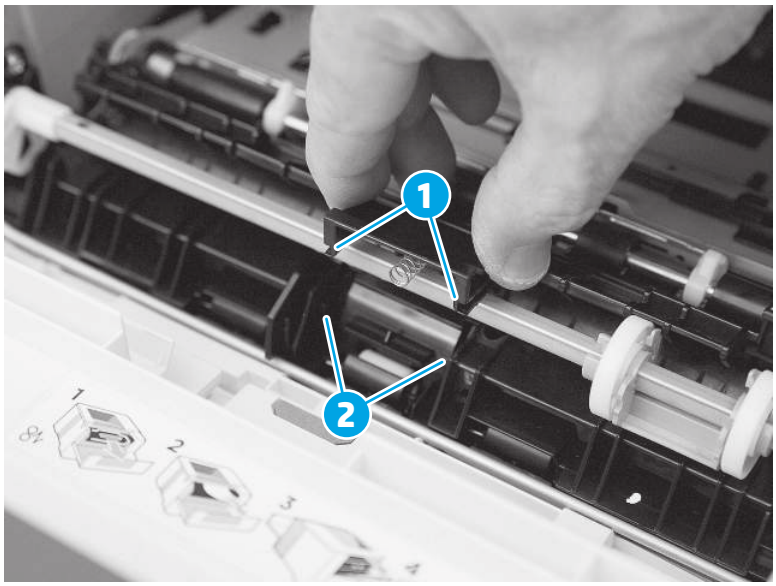
1. Install the spring (callout 1) from the discarded separation pad assembly (or use the one supplied in this kit) on to the replacement assembly (callout 2).

Figure 3-126 **Install the spring**



2. Align the slots in the assembly (callout 1) with the rails on the holder (callout 2).

Figure 3-127 **Align the assembly with the holder**



3. Install the pad assembly into the holder.

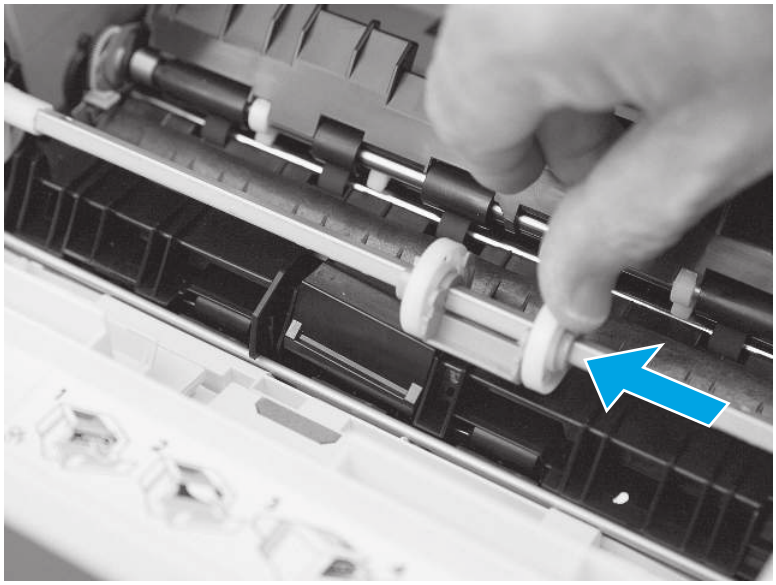
Reinstallation tip: The separation pad should freely move up and down on the spring when correctly installed. If the pad does not freely move, remove it, check the spring, and then reinstall it.

Figure 3-128 **Install the pad assembly**

4. Slide the roller carriage back to the center of the shaft (the locking tab snaps into place).

NOTE: Slightly depress the separation pad so that the roller carriage can slide over it.

Figure 3-129 Slide the roller carriage to the left



Step 5: Install the roller

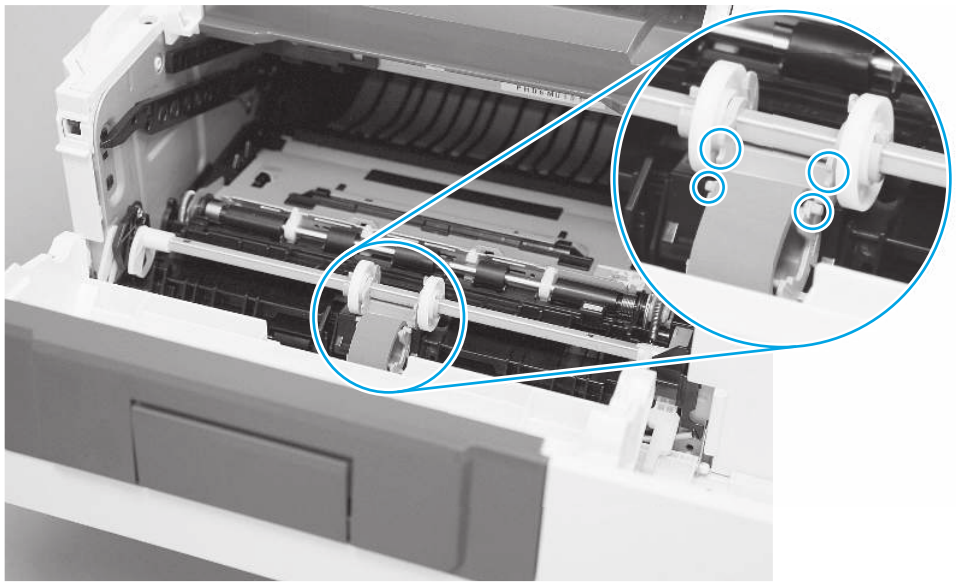
Use the following procedure to install the roller.

⚠ CAUTION: Do not touch the gray spongy portion of the replacement roller. Skin oils on the roller can cause paper handling problems. HP recommends washing your hands before handling the assembly.

1. Place the pins on the under-side of the pickup roller in the slots on the holder, and then rotate the top of the roller up and toward the printer.

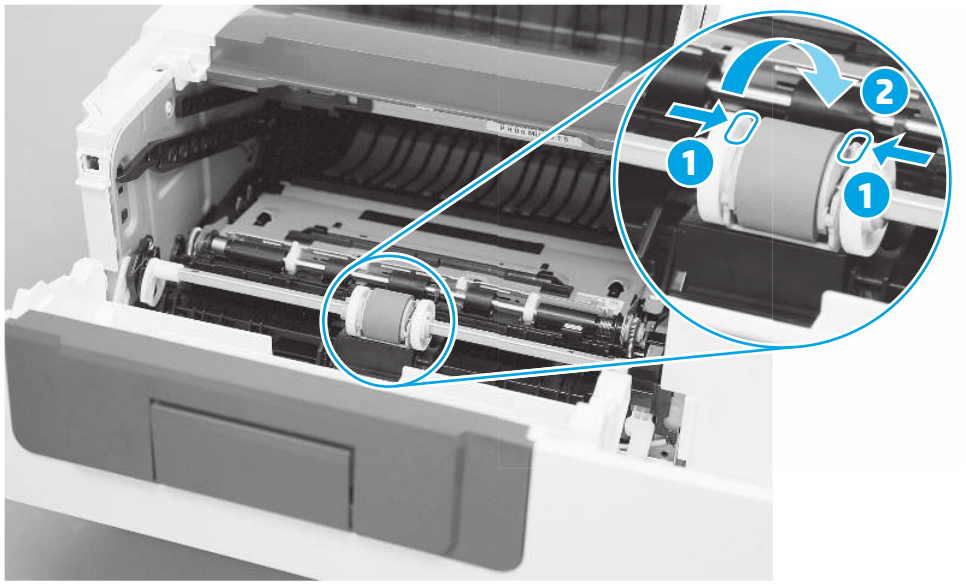
NOTE: In this step, you start with the roller upside down, and then rotate it up and into its final installed position.

Figure 3-130 Install the roller



2. Continue to rotate the top of the roller toward the printer until two tabs snap into place.

Figure 3-131 **Engage two tabs**



3. Close the toner-cartridge door.

NOTE: If the toner cartridge was removed, do not forget to reinstall it.

Figure 3-132 **Close the toner-cartridge door**

Clean the Tray 2-X rollers

Use the following procedures to clean the Tray 2-X rollers.

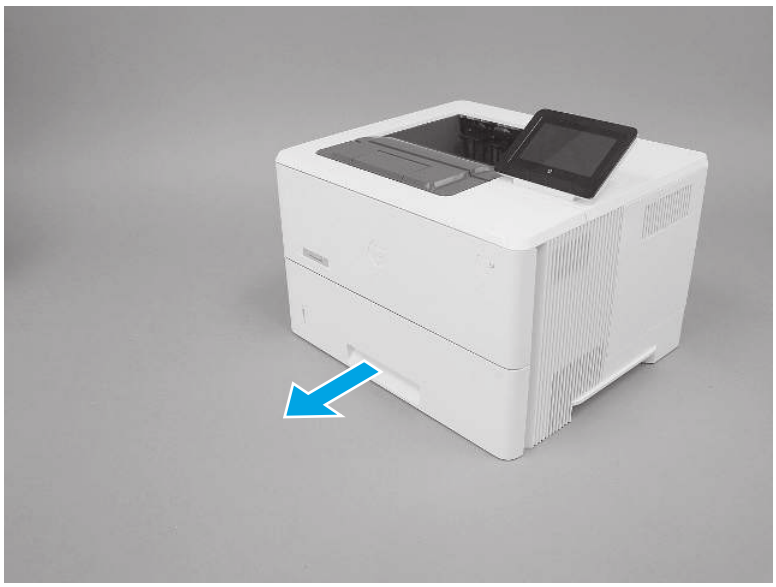
NOTE: The figures in this section show the M506x and M527. However, the procedure is correct for all M506/E50045/M507/E50145 models, and the M501 and the M527/E52545/M528/E52645 printers.

Step 1: Remove the tray

Use the following procedure to remove the tray.

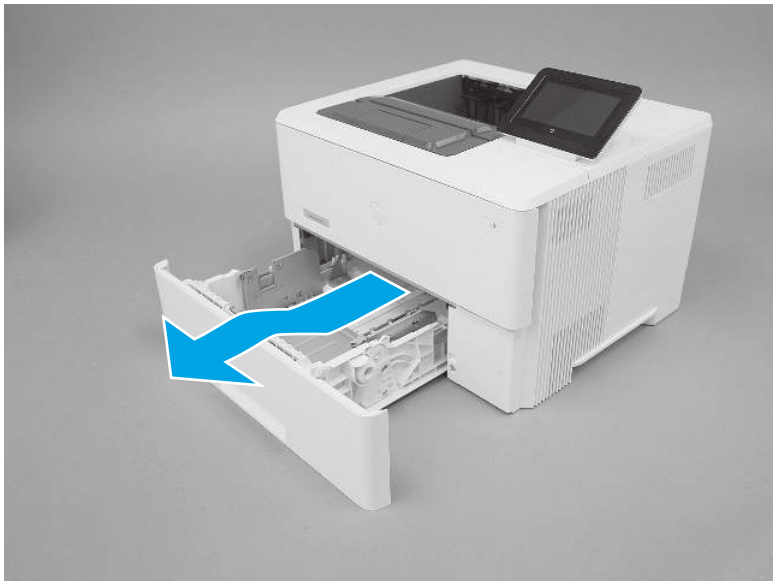
1. Pull the tray straight out of the printer until it stops.

Figure 3-133 **Pull the tray out until it stops**



2. Lift the front of the tray, and then pull it out of the printer to remove it.

Figure 3-134 **Release and remove the tray**



Step 2: Remove the roller assembly

Use the following procedure to remove the roller assembly.

⚠ CAUTION: When handling the roller assembly, do not touch the gray spongy portion of the rollers. Skin oils on the rollers can cause paper handling problems. HP recommends washing your hands before handling the assembly.

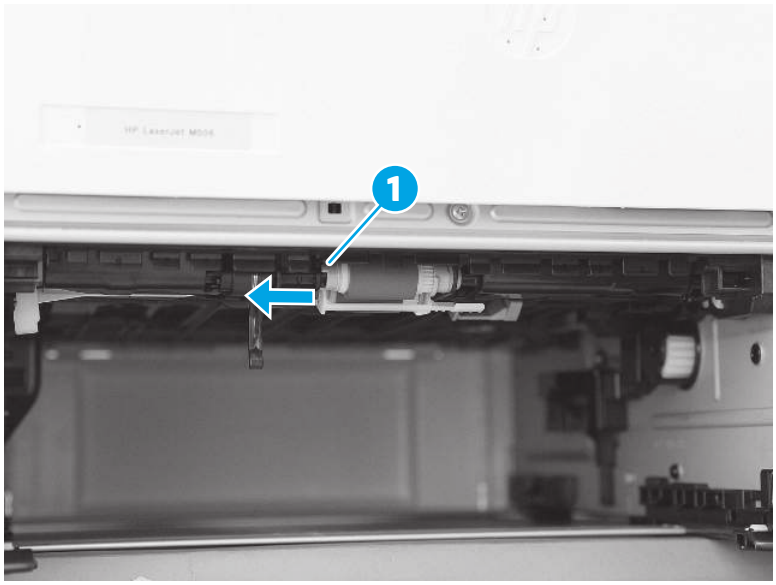
NOTE: The figures in this section show the M506 and M527 Tray 2. However, the procedure is correct for replacing the Tray 2 pickup and feed roller and separation roller assemblies in the M501, as well as the optional Tray 3, Tray 4, and Tray 5 accessories.

1. Look up into the tray cavity to locate the roller assembly.

Figure 3-135 Locate the roller assembly

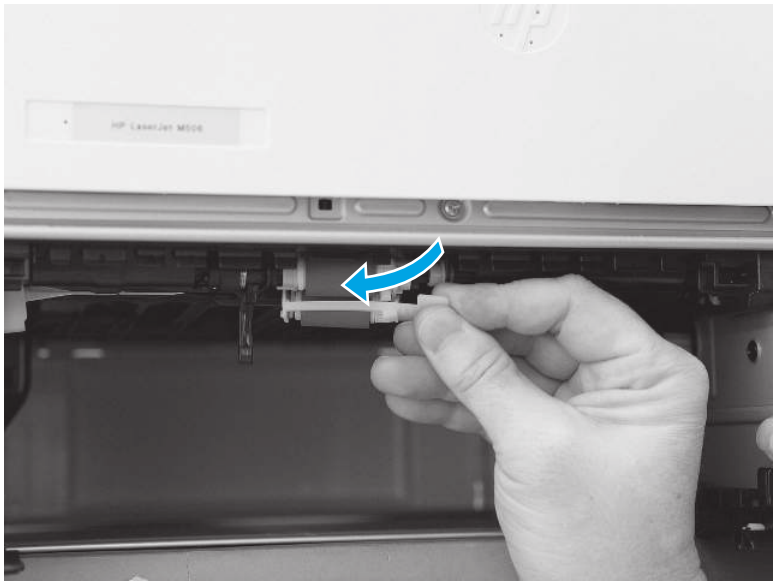
2. Grasp the white tab on the roller holder (callout 1), and then slide the roller assembly to the left to compress the spring loaded shaft (callout 2).

Figure 3-136 Compress the spring-loaded shaft



3. With the spring loaded shaft depressed, rotate the right side of the roller assembly down and towards you to release it.

Figure 3-137 **Remove the roller assembly**



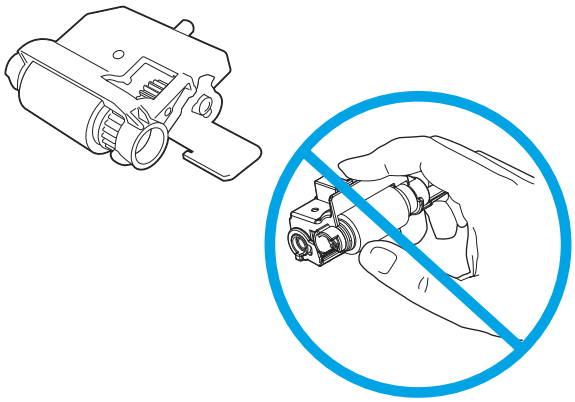
Step 3: Clean the Tray 2-X rollers

Use the following procedure to clean the Tray 2-X rollers.

- Use a damp, lint-free cloth to gently clean the rollers.

⚠ CAUTION: When handling the rollers, avoid touching the spongy surfaces. Skin oils and fingerprints on a roller surface can cause print-quality problems.

Figure 3-138 **Clean the rollers**



Step 4: Install the roller assembly

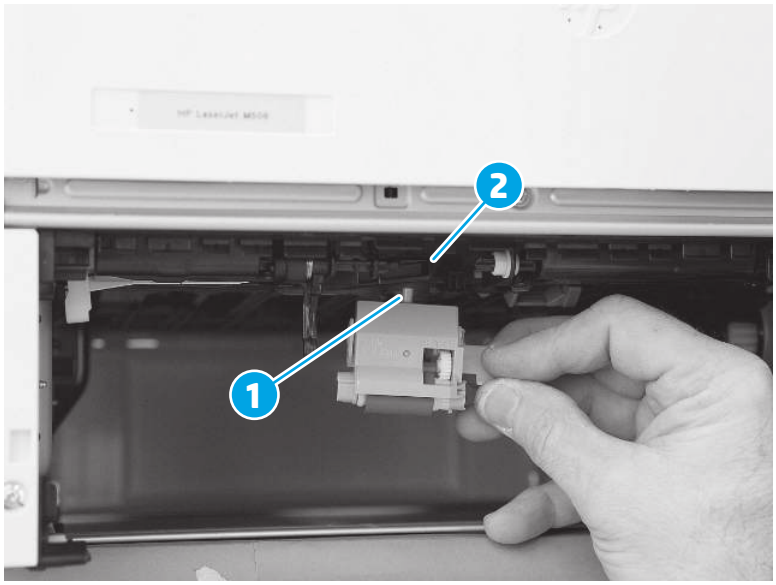
Use the following procedure to install the roller assembly.

⚠ CAUTION: When handling the roller assembly, do not touch the gray spongy portion of the rollers. Skin oils on the rollers can cause paper handling problems. HP recommends washing your hands before handling the assembly.

NOTE: The figures in this section show the M506 and M527 Tray 2. However, the procedure is correct for replacing the Tray 2 pickup and feed roller and separation roller assemblies in the M501, as well as the optional Tray 3, Tray 4, and Tray 5 accessories.

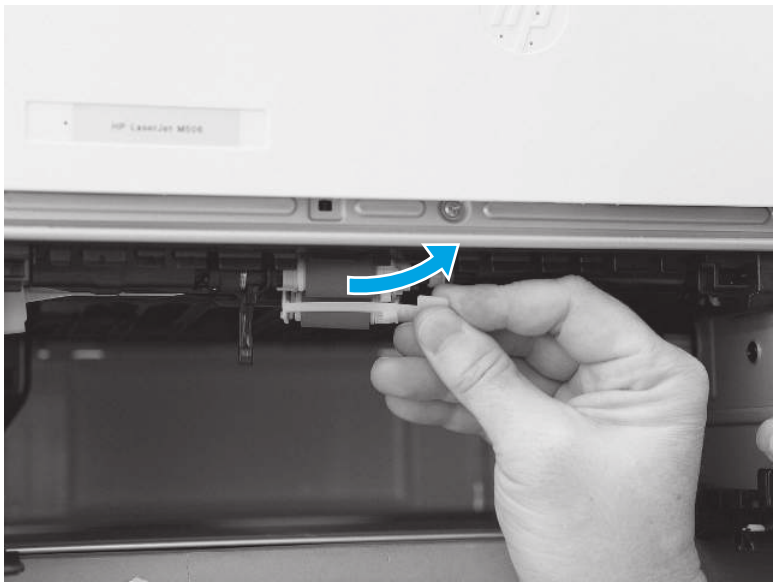
1. When the assembly is installed, the actuator pin (callout 1) on the roller assembly must be installed in the slot (callout 2) in the actuator arm.

Figure 3-139 Check the pin on the assembly



2. Position the left end of the assembly on the spring loaded shaft and push it left to compress the shaft (callout 1), keep the roller holder parallel to the underside of the printer, and then rotate the right end up and into the printer (callout 2).

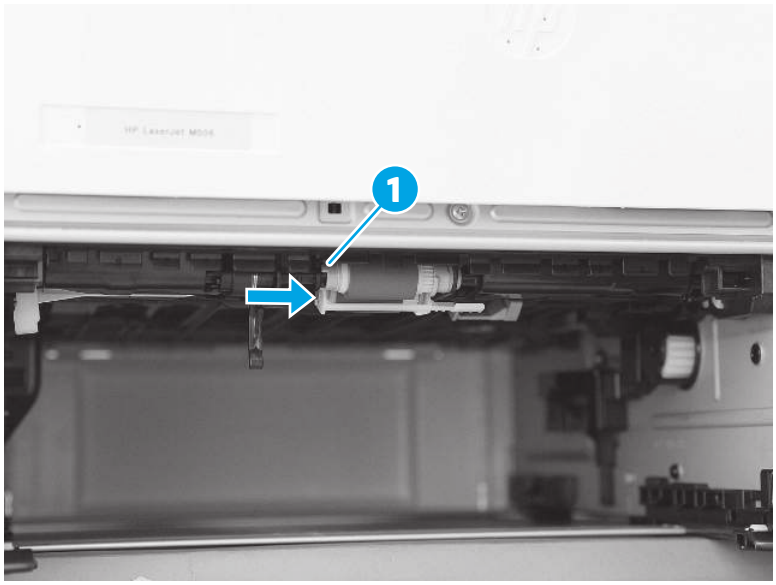
Figure 3-140 Install the roller assembly



3. Slowly release the depressed spring loaded shaft to allow the right end of the roller assembly to engage with the right-side drive shaft.

   Make sure that the right side of the assembly is fully engaged with the right-side drive shaft.

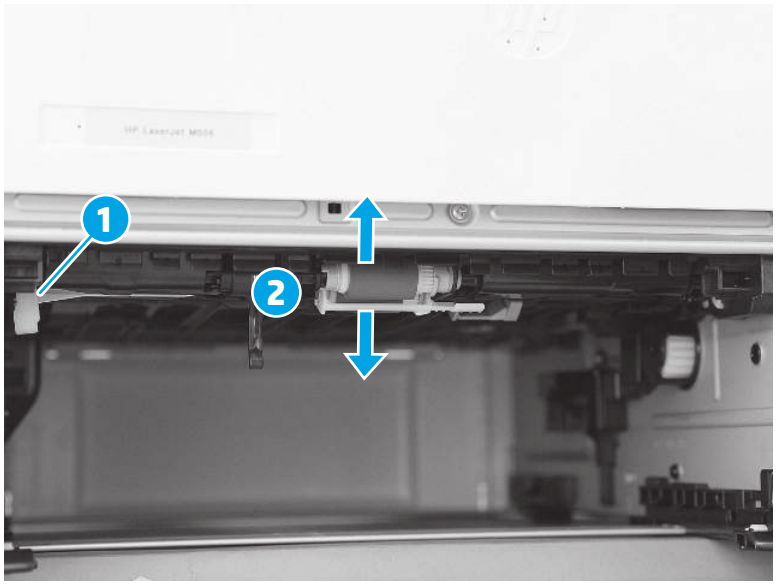
Figure 3-141 Decompress the spring-loaded shaft



4. To check the installation, repeatedly push up and release, the tray actuator (callout 1) and observe the roller assembly. If the assembly is correctly installed, it moves up and down (callout 2).

NOTE: If the assembly does not properly move, remove it and then reinstall it, making sure that the pin on the assembly is installed in the slot in the actuator arm. See Figure 3-139 Check the pin on the assembly on page 309.

Figure 3-142 Check the installation

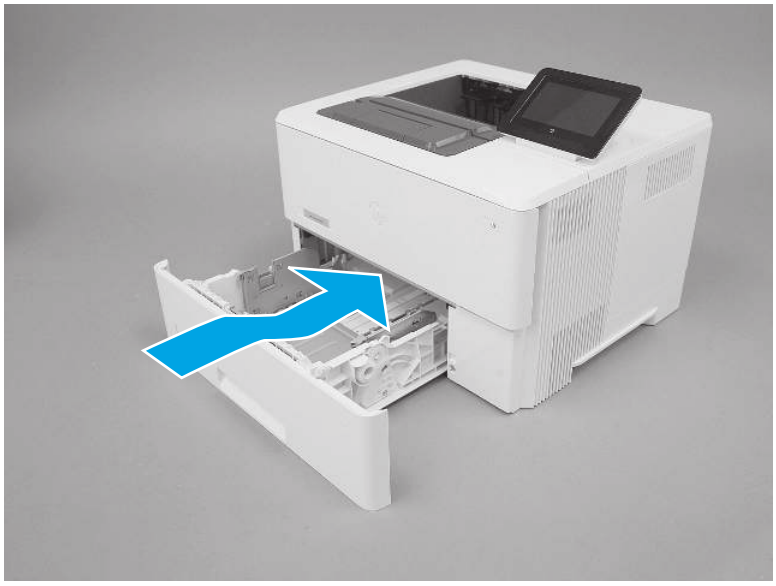


Step 5: Install the tray

Use the following procedure to install the tray.

1. With the tray at a slight angle, align the sides of the tray with the rails in the accessory, and then partially slide the tray into the printer.

Figure 3-143 Install the tray



2. Push the tray straight into the accessory to close it.

Figure 3-144 Close the tray

Solve paper handling problems

Review the following information to solve paper handling problems.

Printer feeds incorrect page size

Review the following information when the printer feeds an incorrect page size.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-47 Printer feeds incorrect page size

Cause	Solution
The correct size paper is not loaded in the tray.	Load the correct size paper in the tray.
The correct size paper is not selected in the software program or printer driver.	Confirm that the settings in the software program and printer driver are correct, because the software program settings override the printer driver and control panel settings, and the printer driver settings override the control panel settings.
The correct size paper for the tray is not selected in the printer control panel.	From the control panel, select the correct size paper for the tray.
The paper size is not configured correctly for the tray.	Print a configuration page to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the paper guides are touching the paper.

Printer pulls from incorrect tray

Review the following information when the printer pulls from an incorrect tray.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-48 Printer pulls from incorrect tray

Cause	Solution
A driver for a different printer is in use.	Use a driver for this printer.
The specified tray is empty.	Load paper in the specified tray.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the guides are touching the paper.

Printer will not duplex or duplexes incorrectly (duplex models)

Review the following information when the printer will not duplex or duplexes incorrectly.

Table 3-49 Printer will not duplex (print 2-sided jobs) or duplexes incorrectly

Cause	Solution
The duplex job is trying to use unsupported paper.	Verify that the paper is supported for duplex printing.
The printer driver is not set up for duplex printing.	Set up the printer driver to enable duplex printing.
The first page is printing on the back of preprinted forms or letterhead.	Load preprinted forms and letterhead in Tray 1 with the letterhead or printed side down, with the top of the page leading into the printer. For Tray 2-X, load the paper printed side up with the top of the page toward the right of the printer.

Table 3-49 Printer will not duplex (print 2-sided jobs) or duplexes incorrectly (continued)

Cause	Solution
The printer model does not support automatic 2-sided printing.	The printer model does not support automatic 2-sided printing.

Paper does not feed from Tray 2-X

Review the following information when the paper does not feed from Tray 2-X.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-50 Paper does not feed from Tray 2-X

Cause	Solution
The correct size paper is not loaded.	Load the correct size paper.
The input tray is empty.	Load paper in the input tray.
The correct paper type for the input tray is not selected in the printer control panel.	From the printer control panel, select the correct paper type for the input tray. Trays configured for a paper type with a specific weight range will not match a print job that specifies an exact weight, even if the specified weight is within the weight range.
Paper from a previous jam has not been completely removed.	Open the printer and remove any paper in the paper path. Closely inspect the fuser area for jams.
None of the optional trays appear as input tray options.	The optional trays only display as available if they are installed. Verify that any optional trays are correctly installed. Verify that the printer driver has been configured to recognize the optional trays.
An optional tray is incorrectly installed.	Print a configuration page to confirm that the optional tray is installed. If not, verify that the tray is correctly attached to the printer.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the guides are touching the paper.

Output is curled or wrinkled

Review the following information when the output is curled or wrinkled.

Table 3-51 Output is curled or wrinkled

Cause	Solution
Paper does not meet the specifications for this printer.	Use only paper that meets the HP paper specifications for this printer. Non-recycled, 75 g/m2 (20 lb) paper is optimal for office use.
The correct paper type for the input tray is not selected in the printer control panel.	From the printer control panel, select the correct paper type for the input tray. Trays configured for a paper type with a specific weight range will not match a print job that specifies an exact weight, even if the specified weight is within the weight range.

Table 3-51 **Output is curled or wrinkled (continued)**

Cause	Solution
Paper is damaged or in poor condition.	Remove paper from the input tray and load paper that is in good condition.
The printer is operating in an excessively humid environment.	Verify that the printing environment is within humidity specifications.
The print job consist of large, solid-filled areas.	Large, solid-filled areas can cause excessive curl. Try using a different pattern.
Paper used was not stored correctly and might have absorbed moisture.	Remove paper and replace it with paper from a fresh, unopened package. Store paper in a plastic bag to protect it from humidity.
Paper has poorly cut edges.	Remove paper, flex it, rotate it 180 degrees or turn it over, and then reload it into the input tray. Do not fan paper. If the problem persists, replace the paper.
The specific paper type was not configured for the tray or selected in the software.	Configure the software for the paper (see the software documentation). Configure the tray for the paper.
The paper has previously been used for a print job.	Do not re-use paper.

Printer does not pick up paper or misfeeds

Use the following procedures if the printer will not pick up paper or misfeeds paper.

The printer does not pick up paper

If the printer does not pick up paper from the tray, try these solutions.

NOTE: Tray 1 and Tray 2 are optimal for paper pickup when using special paper or media other than 20lb plain paper. For Tray 1 and Tray 2 the printer increases the number of attempts to pick up a page, which increases the reliability of successfully picking the page from the tray and decreases the possibility of a mispick jam.

HP recommends using Tray 1 or Tray 2 if the printer is experiencing excessive or reoccurring jams from trays other than Tray 1 and Tray 2, or for print jobs that require media other than 20lb plain paper.

1. Open the printer and remove any jammed sheets of paper.
2. Load the tray with the correct size of paper for the job.
3. Make sure the paper size and type are set correctly on the printer control panel.
4. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides to the appropriate indentation in the tray.
5. Check the printer control panel to see if the printer is waiting for an acknowledgment to the feed the paper manually prompt. Load paper, and continue.
6. The rollers above the tray might be contaminated. Clean the rollers with a lint-free cloth dampened with warm water.

The printer picks up multiple sheets of paper

If the printer picks up multiple sheets of paper from the tray, try these solutions.

1. Remove the stack of paper from the tray and flex it, rotate it 180 degrees, and flip it over. *Do not fan the paper*. Return the stack of paper to the tray.
2. Use only paper that meets HP specifications for this printer.
3. Use paper that is not wrinkled, folded, or damaged. If necessary, use paper from a different package.
4. Make sure the tray is not overfilled. If it is, remove the entire stack of paper from the tray, straighten the stack, and then return some of the paper to the tray.
5. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides to the appropriate indentation in the tray.
6. Make sure the printing environment is within recommended specifications.
7. The tray pick and/or feed rollers might be contaminated. Clean the rollers with a lint-free cloth dampened with warm water.

The document feeder jams, skews, or picks up multiple sheets of paper (MFP)

Learn about MFP document feeder paper handling problems.

Review the following information when the document feeder jams, skews, or picks up multiple sheets of paper.

- Check to see if there are areas on the page that might have had staples removed. This can cause jams and/or mispicks.
- The original might have something on it, such as staples or self-adhesive notes that must be removed.
- Check that all rollers are in place and correctly installed.
- Make sure that the top document-feeder cover is closed.
- The pages might not be placed correctly. Straighten the pages and adjust the paper guides to center the stack.
- The paper guides must be touching the sides of the paper stack to work correctly. Make sure that the paper stack is straight, and the guides are against the paper stack.
- The document feeder input tray or output bin might contain more than the maximum number of pages. Make sure the paper stack fits below the guides in the input tray and remove pages from the output bin.
- Verify that there are no pieces of paper, staples, paper clips, or other debris in the paper path.
- Clean the document-feeder rollers and the separation pad. Use compressed air or a clean, lint-free cloth moistened with warm water. If misfeeds still occur, replace the rollers.
- Use the control panel menus to check the status of the document-feeder kit and replace it if necessary.

Paper does not feed automatically

Review the following information when the paper does not feed automatically.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-52 Paper does not feed automatically

Cause	Solution
Manual feed is selected in the software program.	Load Tray 1 with paper, or, if the paper is loaded, press the OK button.
The correct size paper is not loaded.	Load the correct size paper.
The input tray is empty.	Load paper into the input tray.
Paper from a previous jam has not been completely removed.	Open the printer and remove any paper in the paper path.
The paper size is not configured correctly for the input tray.	Print a configuration page or use the control panel to determine the paper size for which the tray is configured.
The guides in the tray are not against the paper.	Verify that the rear and width paper guides are touching the paper.

Clear paper jams

Use the following information and procedures to clear paper jams.

Paper path jam sensor locations

Use the figures below to identify the locations of sensors where reoccurring jams are found.

Figure 3-145 Jam sensors

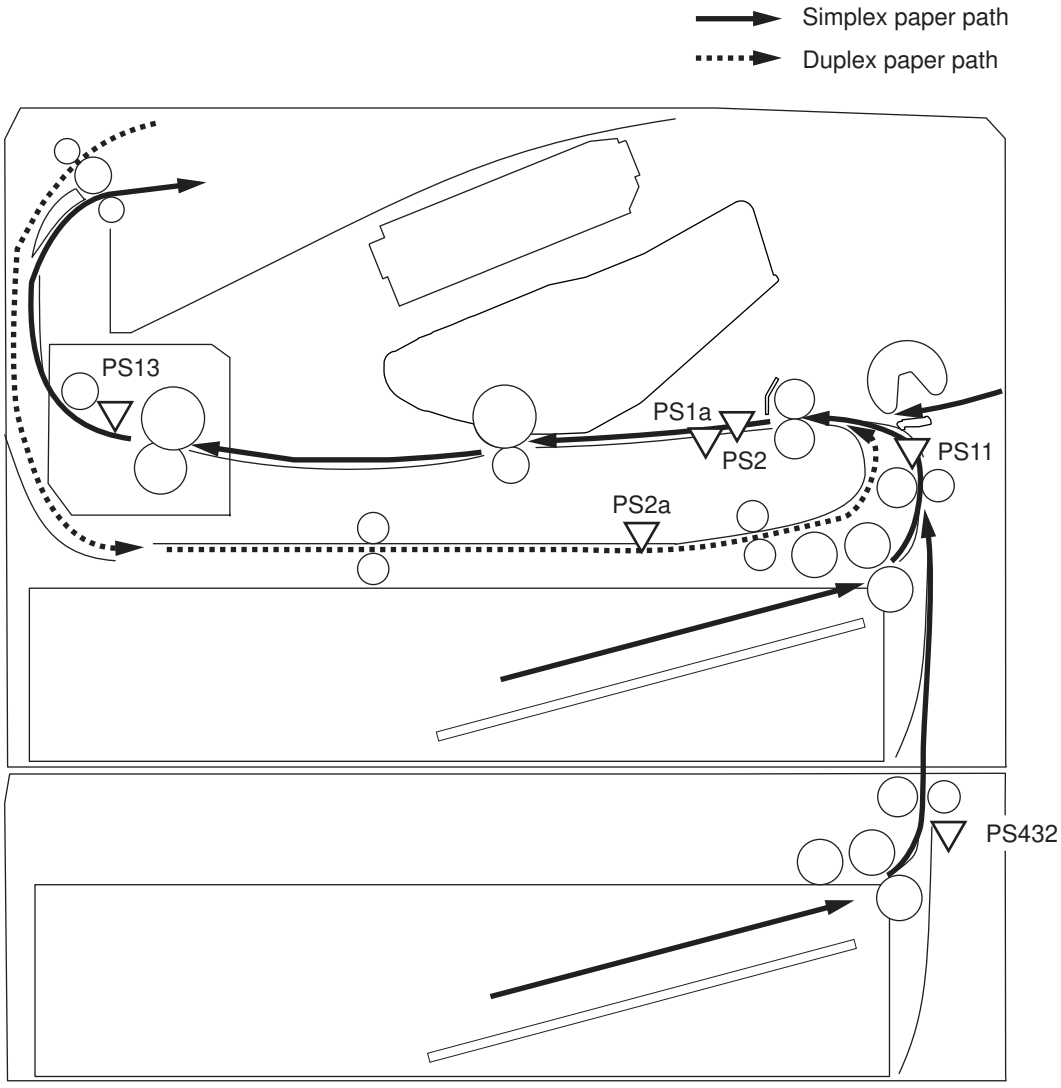


Table 3-53 Jam sensors

Sensor	Description	Sensor	Description
SR2	TOP sensor	SR2a	Duplex feed sensor[1]
SR1a	Media-width sensor	SR11	Registration sensor
SR13	Fuser output sensor	SR432	Paper feeder feed sensor[2]

1 Duplex models only.
2 550-sheet paper feeder accessory.

Auto-navigation for clearing jams

The auto-navigation feature assists you in clearing jams by providing step-by-step instructions on the control panel. When you complete a step, the product displays instructions for the next step until you have completed all steps in the procedure.

Experiencing frequent or recurring paper jams?

To reduce the number of paper jams, try these solutions.

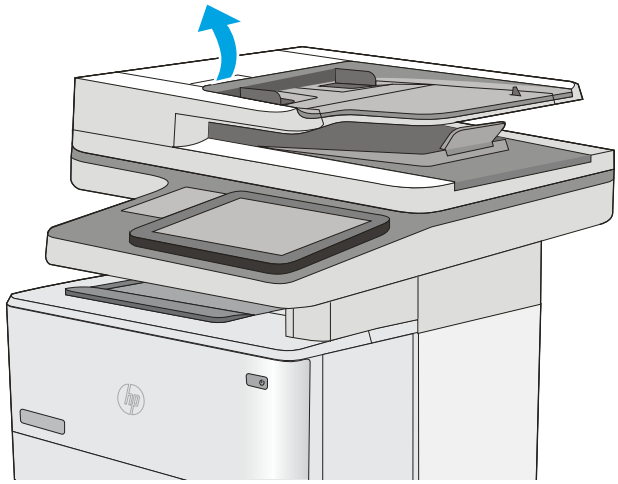
1. Use only paper that meets HP specifications for this product.
2. Use paper that is not wrinkled, folded, or damaged. If necessary, use paper from a different package.
3. Use paper that has not previously been printed or copied on.
4. Make sure the tray is not overfilled. If it is, remove the entire stack of paper from the tray, straighten the stack, and then return some of the paper to the tray.
5. Make sure the paper guides in the tray are adjusted correctly for the size of paper. Adjust the guides so they are touching the paper stack without bending it.
6. Make sure that the tray is fully inserted in the product.
7. If you are printing on heavy, embossed, or perforated paper, use the manual feed feature and feed sheets one at a time.
8. Open the Trays menu on the product control panel. Verify that the tray is configured correctly for the paper type and size.
9. Make sure the printing environment is within recommended specifications.

Clear paper jams in the document feeder

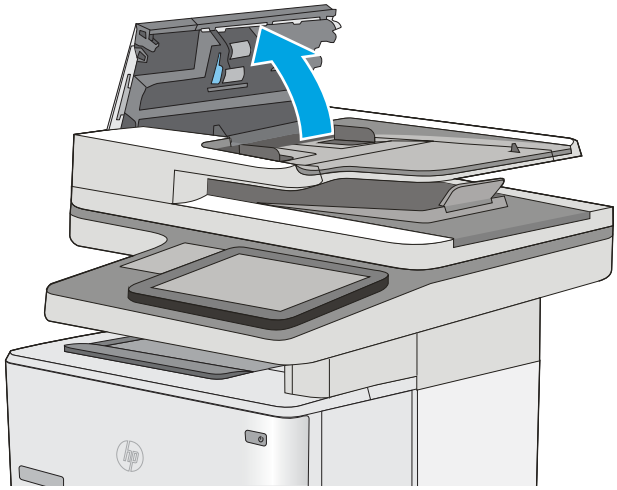
The following information describes how to clear paper jams in the document feeder.

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

1. . Lift the latch to release the document-feeder cover.

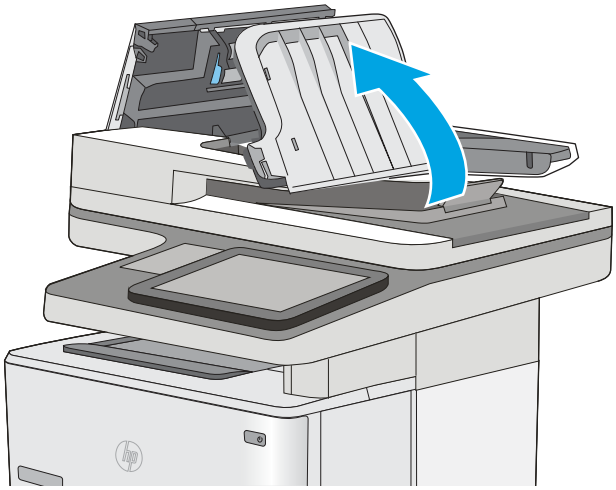


2. . Open the document-feeder cover.

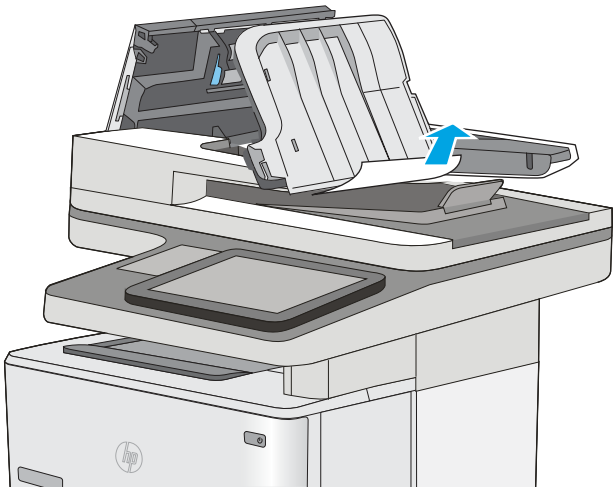


3. . Remove any jammed paper.

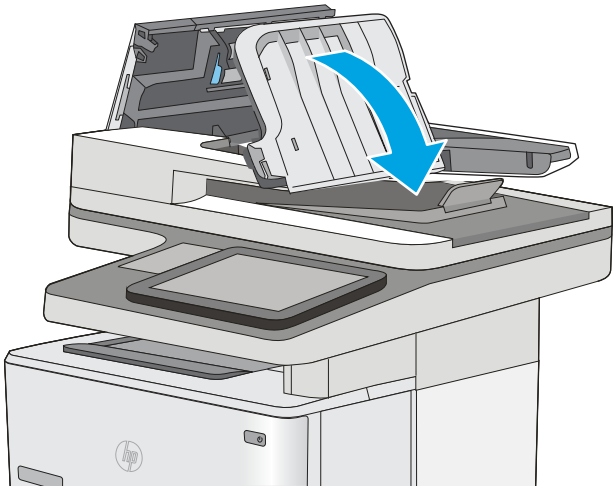
4. . Lift the document-feeder input tray.



5. . Remove any jammed paper.

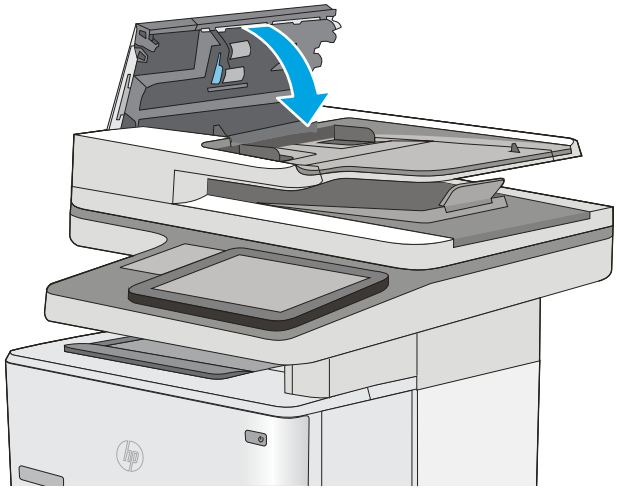


6. . Lower the document-feeder input tray.



7.. Close the document-feeder cover.

NOTE: Verify that the latch on the top of the document-feeder cover is completely closed.



NOTE: To avoid jams, make sure the guides in the document-feeder input tray are adjusted against the document, without bending the document. To copy narrow documents, use the flatbed scanner. Remove all staples and paper clips from original documents.

NOTE: Original documents that are printed on heavy, glossy paper can jam more frequently than originals that are printed on plain paper.

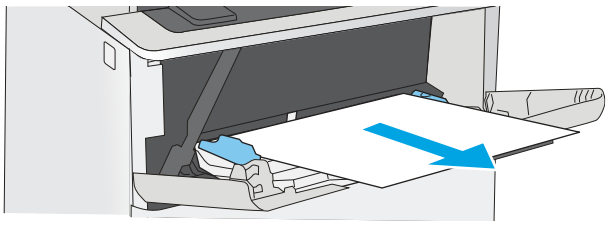
Clear paper jams in Tray 1

Use the following procedure to clear paper jams in Tray 1.

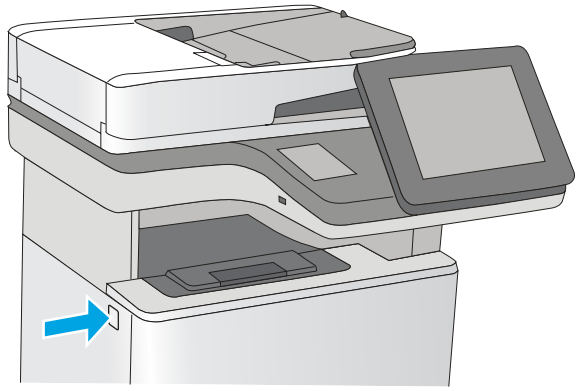
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

1.. If most of the sheet of paper is visible in the tray, slowly pull the jammed paper out of the printer. Make sure that the entire sheet is removed. If it tears, continue with the following steps to find the remnants.

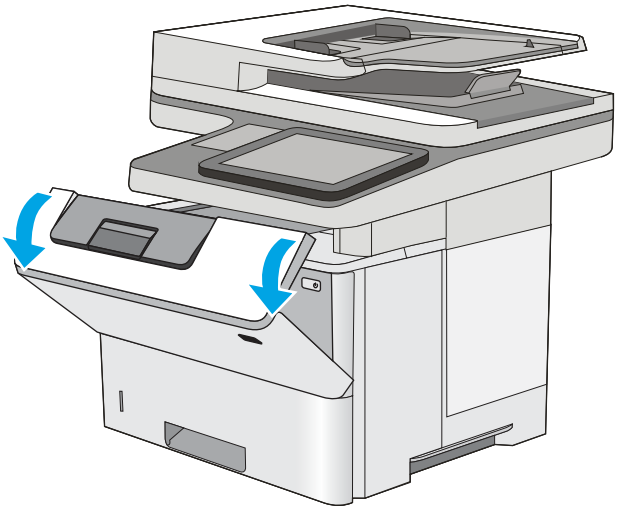
If most of the sheet of paper has been pulled inside the printer, continue with the following steps.



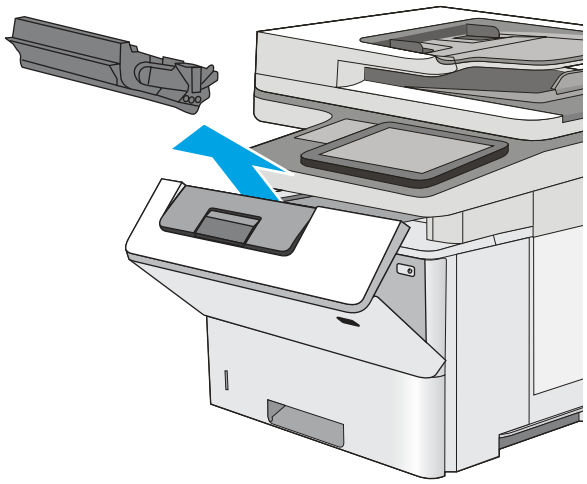
2. Press the top-cover-release button on the left side of the printer.



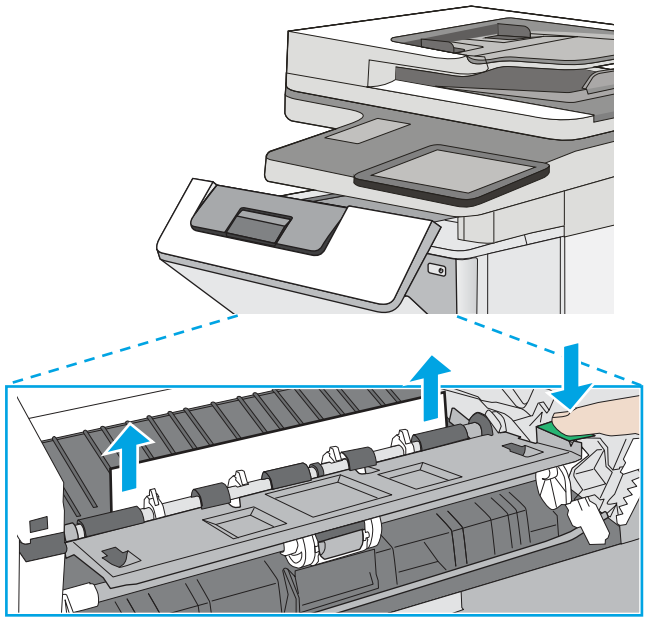
3. Open the front door.



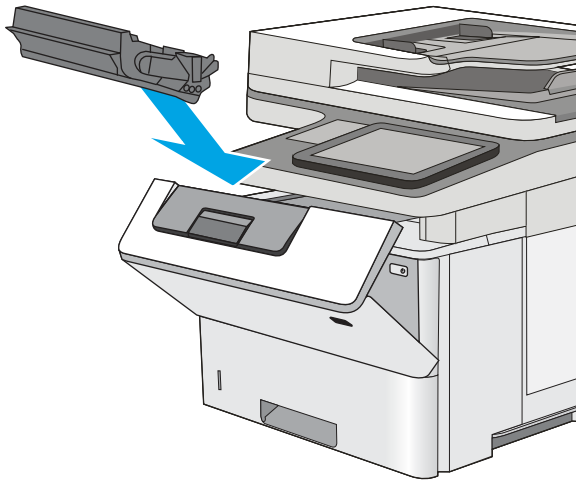
4. Remove the toner cartridge.



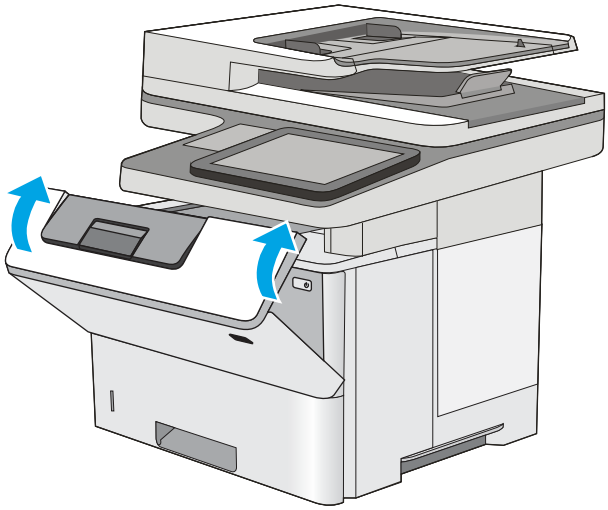
5. . Lift the jam-access cover and slowly remove any jammed paper. Be careful not to tear the paper.



6. . Reinsert the toner cartridge.



7. . Close the front door.

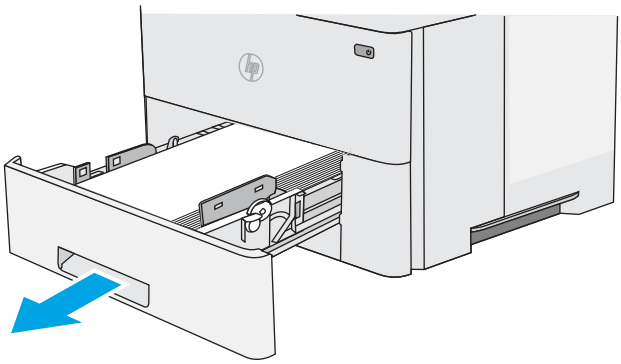


Clear paper jams in Tray 2 and the 550-sheet trays

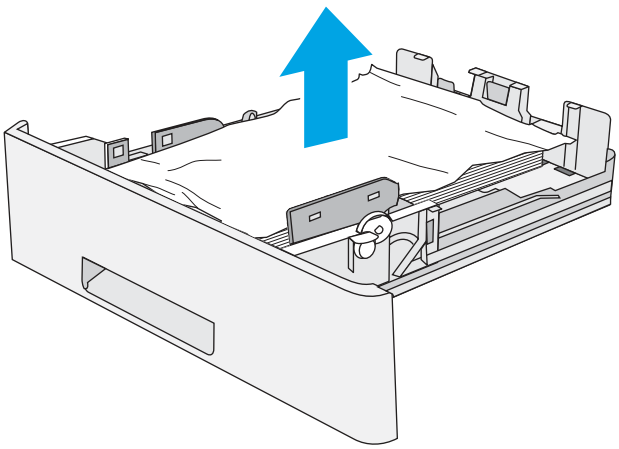
Use the following procedure to check for paper in all possible jam locations related to Tray 2 and the 550-sheet trays.

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

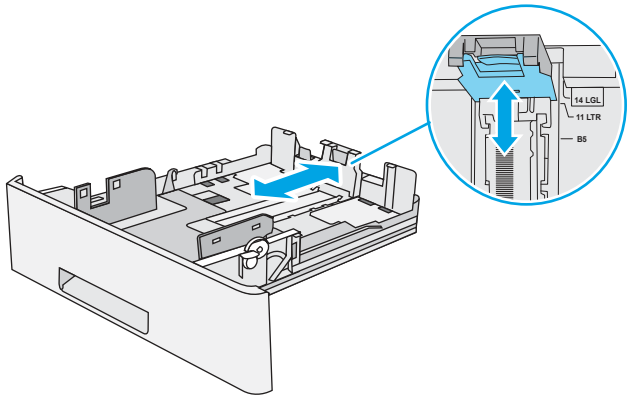
1. . Remove the tray from the printer.



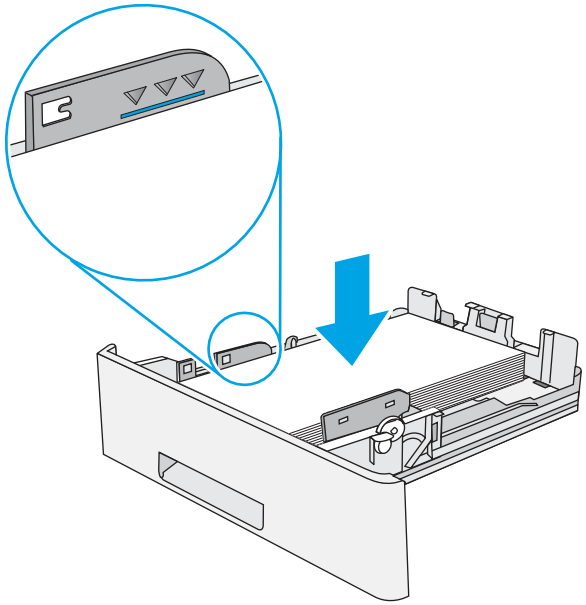
2. . Remove the paper from the tray, and discard any damaged paper.



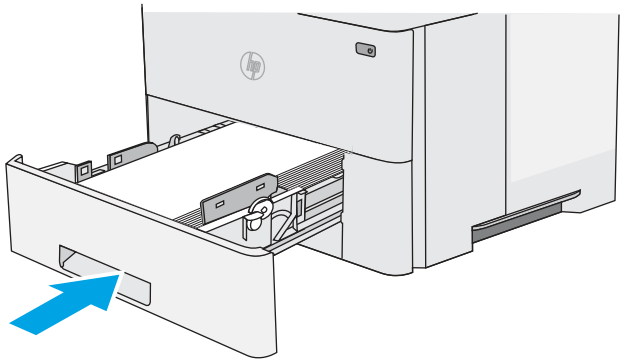
3. Verify that the rear paper guide is adjusted to the indentation for the correct paper size. If necessary, pinch the release and move the rear paper guide to the correct position. It should click into place.



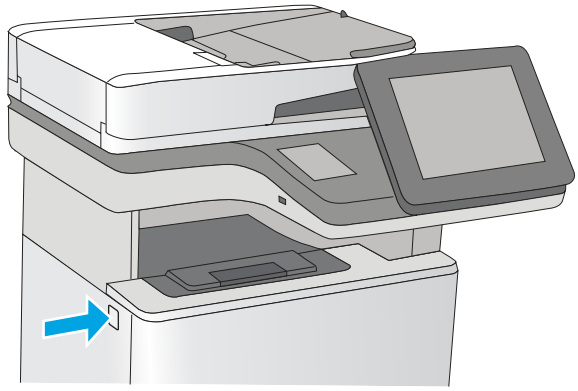
4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.



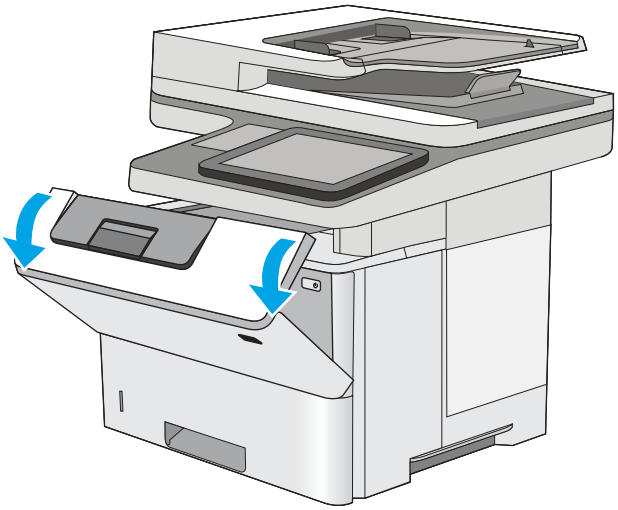
5. Reinsert and close the tray.



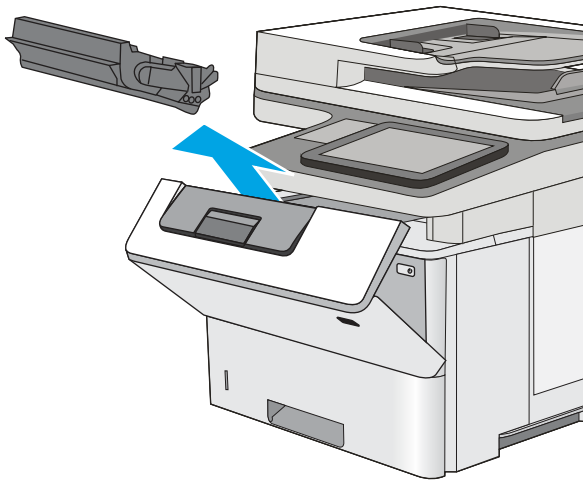
6. Press the top-cover-release button on the left side of the printer.



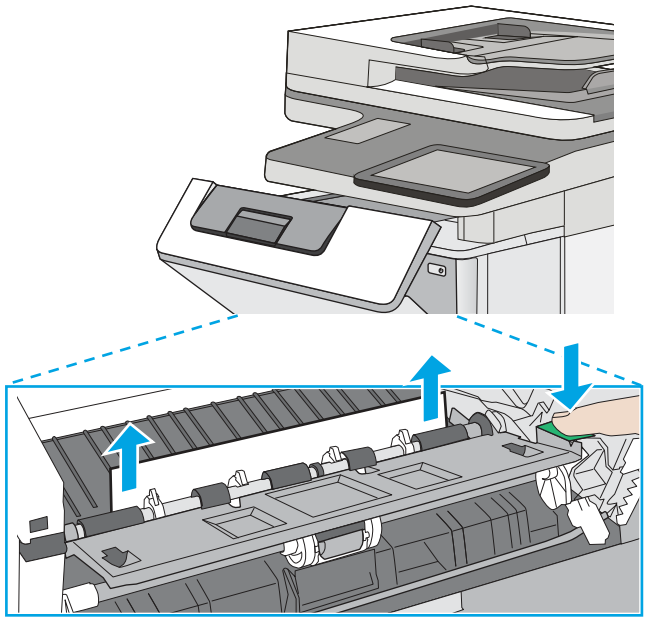
7. Open the front door.



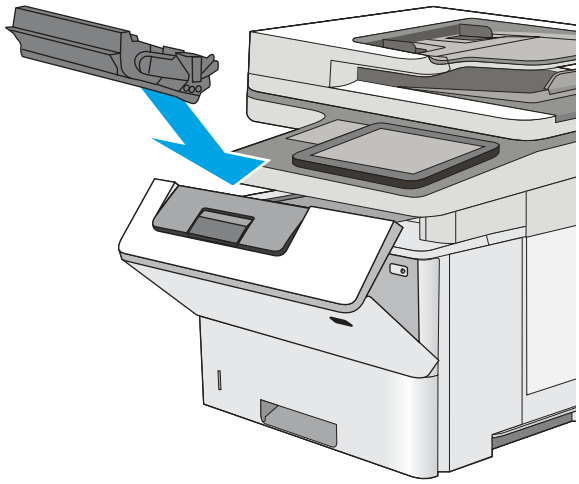
8. Remove the toner cartridge.



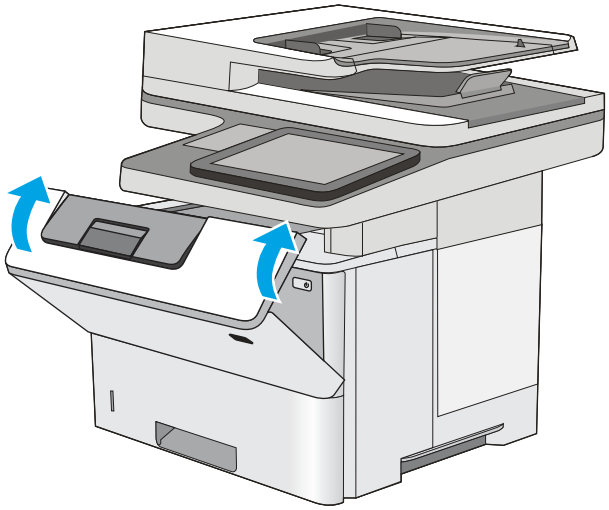
9. . Lift the jam-access cover and slowly remove any jammed paper. Be careful not to tear the paper.



10. . Reinsert the toner cartridge.



11.. Close the front door.

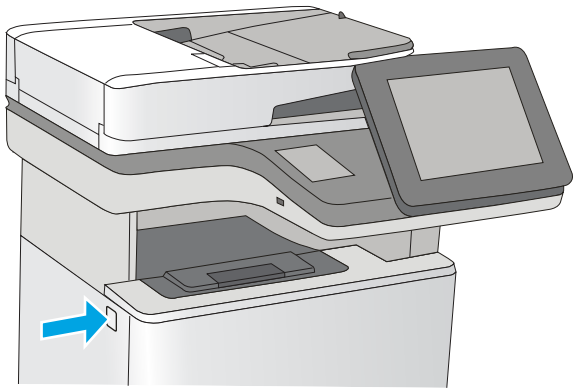


Clear paper jams in the toner-cartridge area

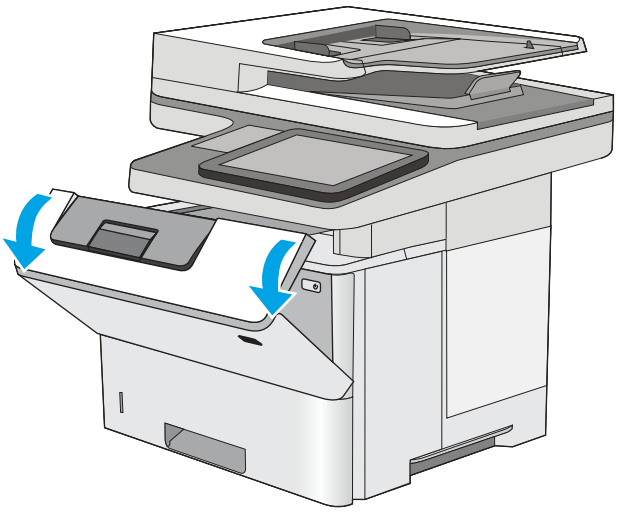
Use the following procedure to check for paper in all possible jam locations in the toner-cartridge area.

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

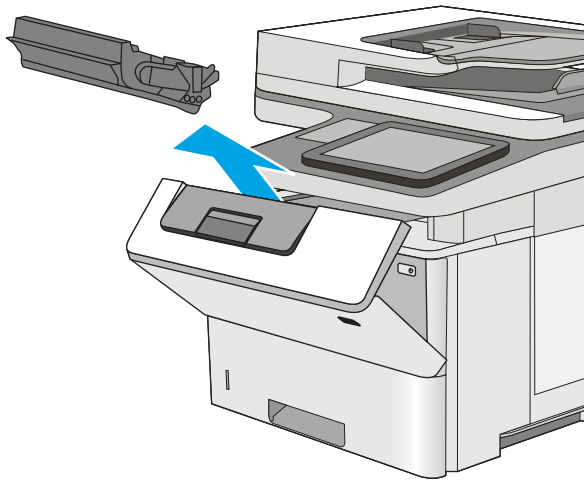
1.. Press the top-cover-release button on the left side of the printer.



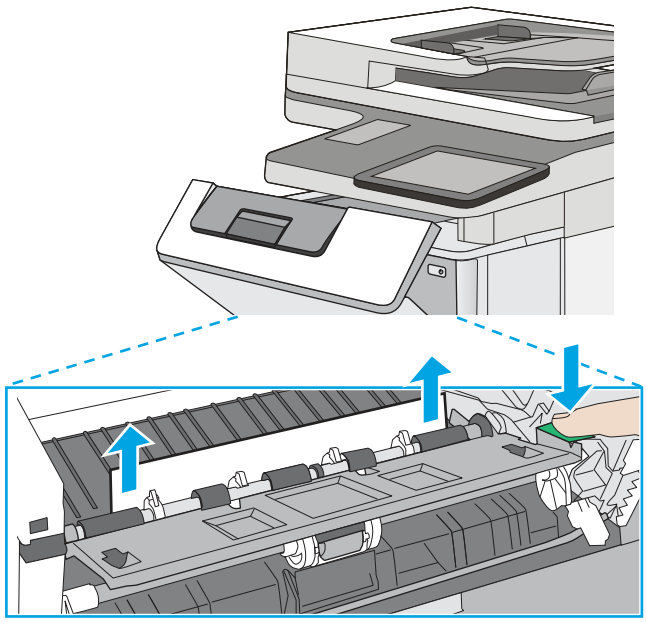
2.. Open the front door.



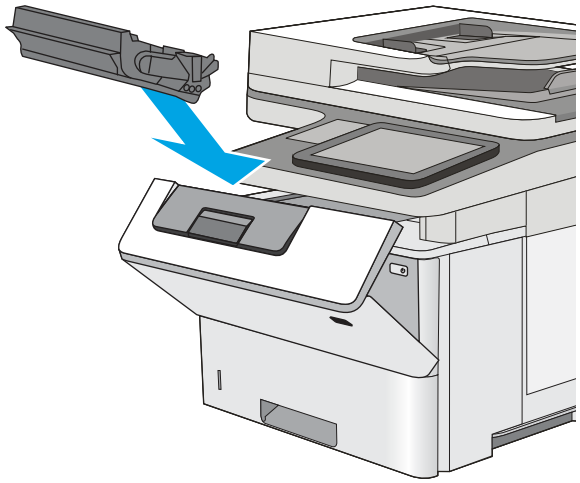
3. Remove the toner cartridge.



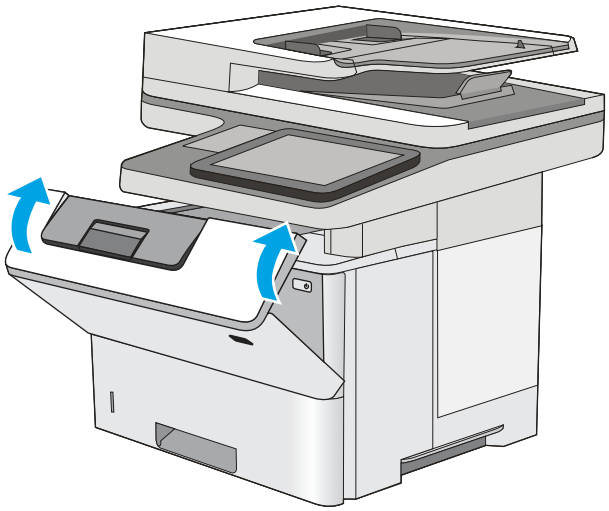
4. Lift the jam-access cover and slowly remove any jammed paper. Be careful not to tear the paper.



5. . Reinsert the toner cartridge.



6. . Close the front door.



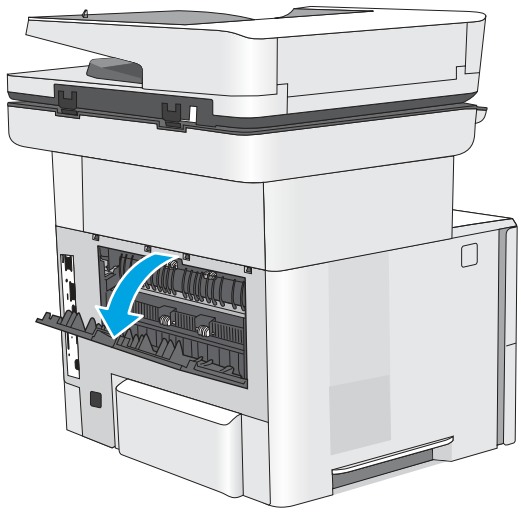
Clear paper jams in the rear door and the fuser area

Use the following procedure to clear paper jams in the rear door and fuser area.

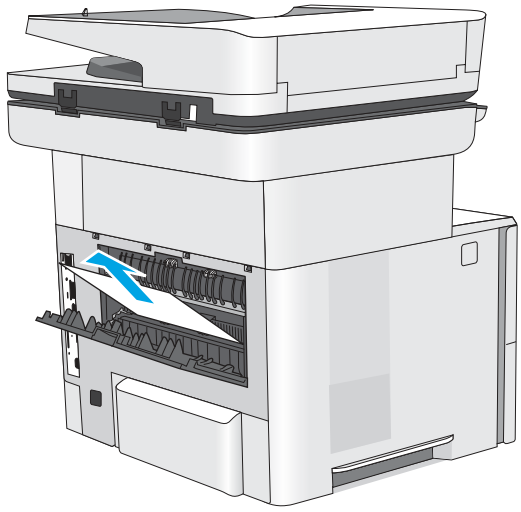
When a jam occurs, the control panel displays an animation that assists in clearing the jam.

NOTE: The fuser is hot while the printer is in use. Wait for the fuser to cool before clearing jams.

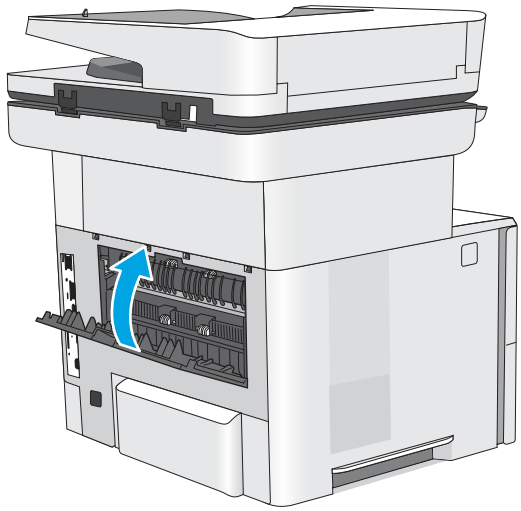
1. . Open the rear door.



2. . Remove any jammed paper.



3. . Close the rear door

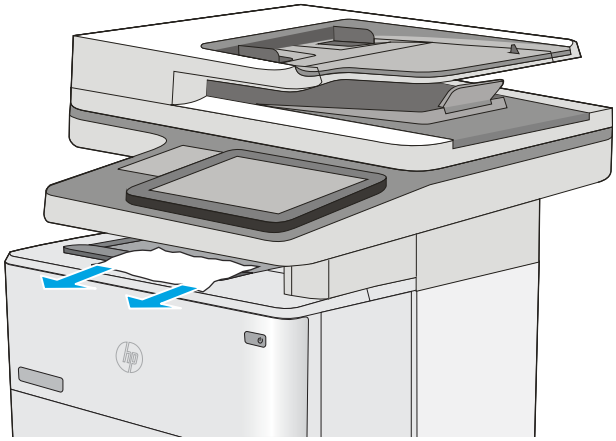


Clear paper jams in the output bin

Use the following procedure to check for paper in all possible jam locations in the output bin.

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

1. . If paper is visible in the output bin, grasp the leading edge and remove it.

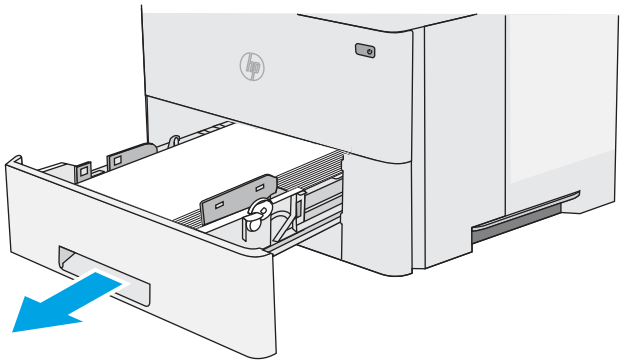


Clear paper jams in the duplexer

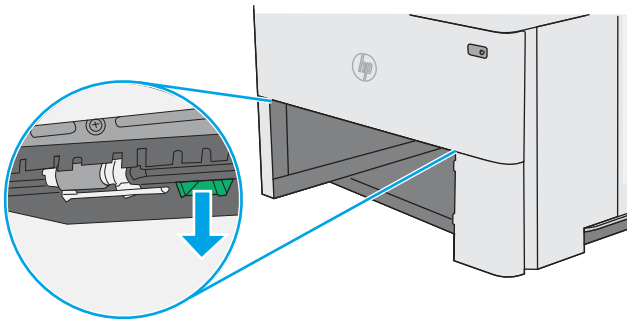
Use the following procedure to check for paper in all possible jam locations in the automatic duplexer.

When a jam occurs, the control panel displays an animation that assists in clearing the jam.

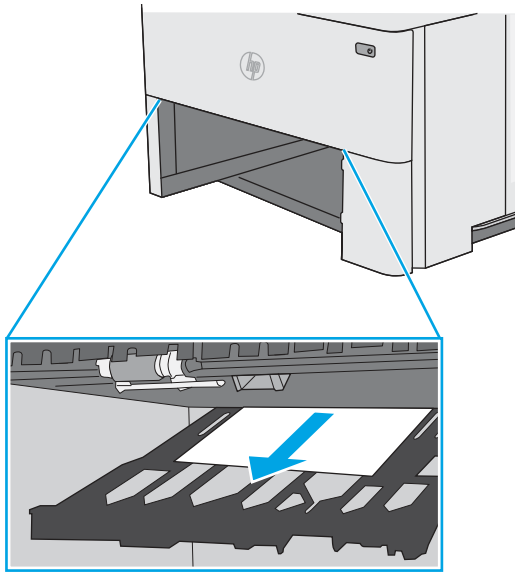
1. . Remove Tray 2 from the printer.



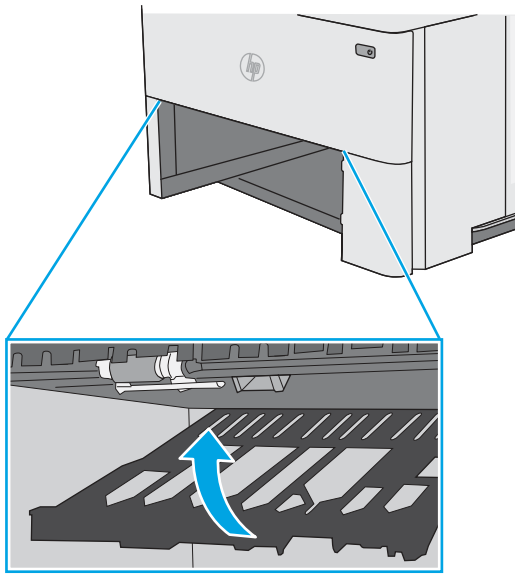
2. Pull forward on the green tab inside the tray area to release the duplex pan.



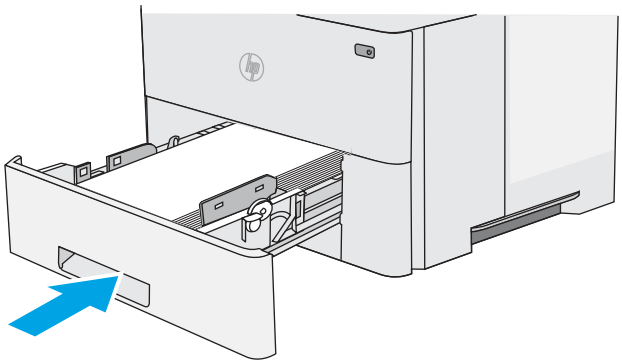
3. Remove any jammed paper.



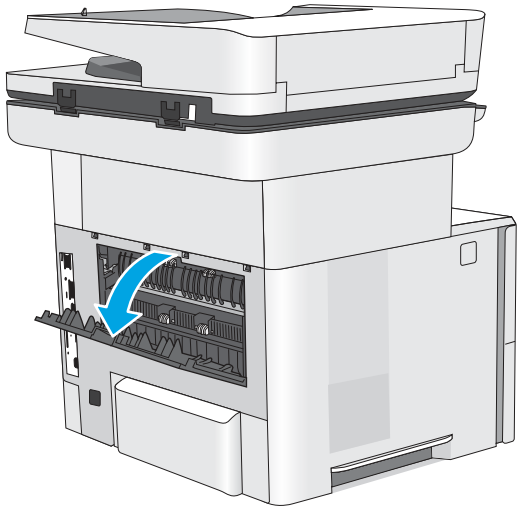
4. Close the duplex pan.



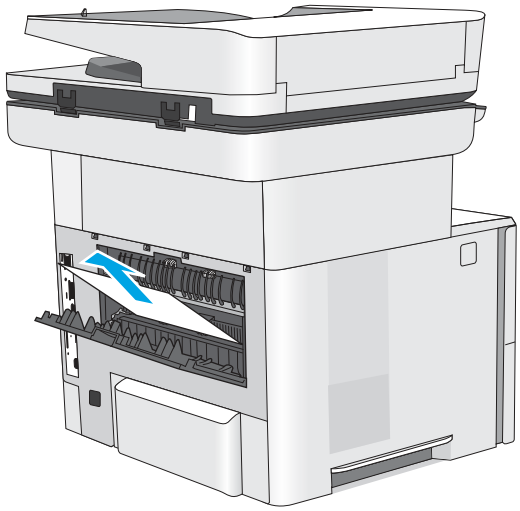
5. . Reinsert and close the tray.



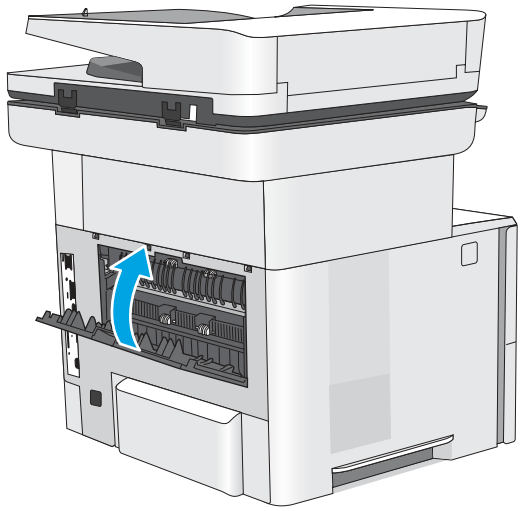
6. . Open the rear door.



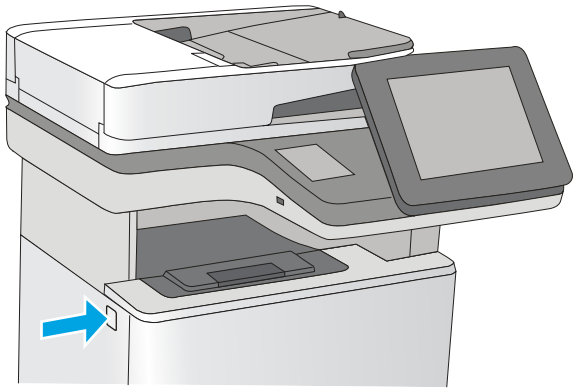
7. . Remove any jammed paper.



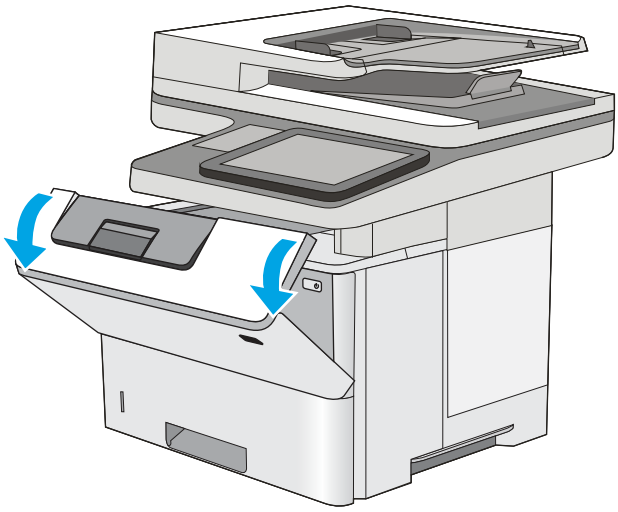
8. . Close the rear door



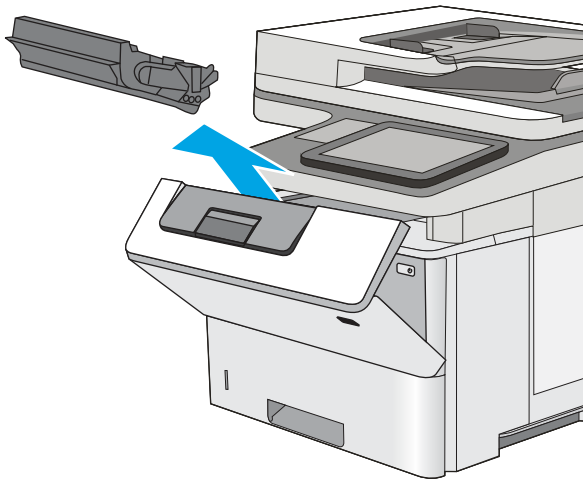
9. . Press the top-cover-release button on the left side of the printer.



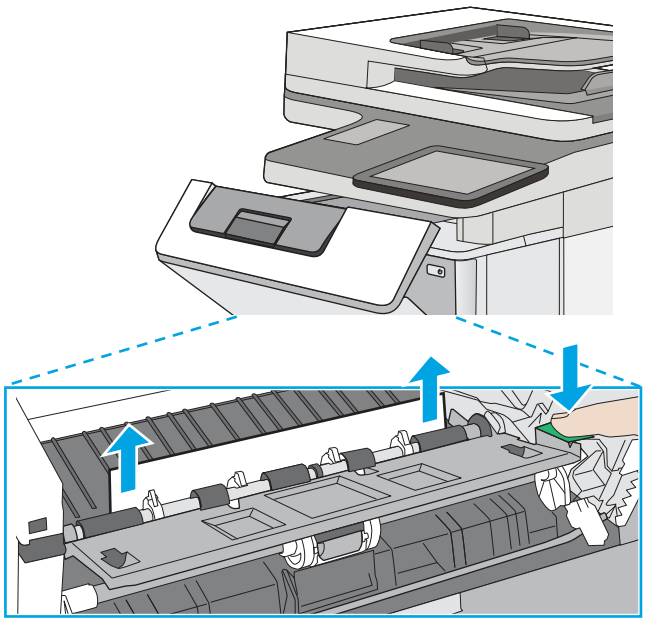
10. . Open the front door.



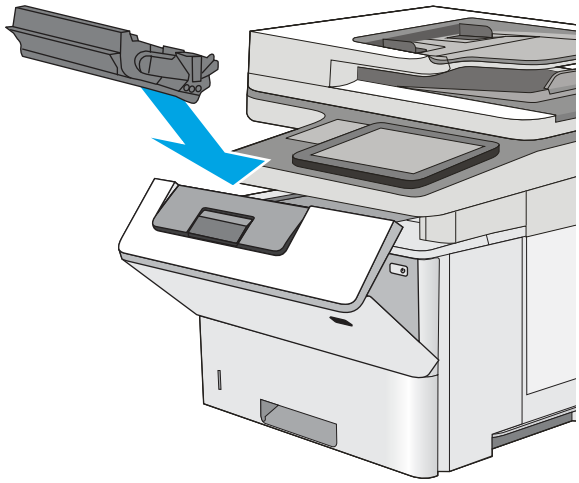
11. . Remove the toner cartridge.



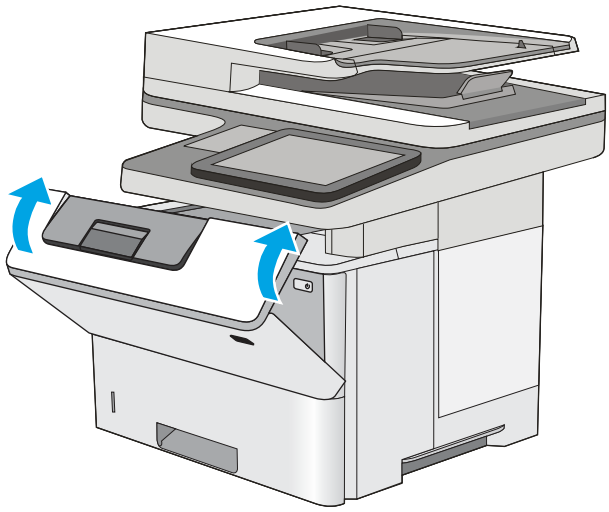
12. . Lift the jam-access cover and slowly remove any jammed paper. Be careful not to tear the paper.



13.. Reinsert the toner cartridge.



14.. Close the front door.



Change jam recovery (all except M501)

This printer provides a jam recovery feature that reprints jammed pages.

Change jam recovery from a touchscreen control panel

Use the following procedure to change jam recovery from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Settings button (FutureSmart 4).
2. Open the General Settings menu (FutureSmart 3) or the Settings menu (FutureSmart 4), and then open the Jam Recovery menu.
3. Select one of the following options:
   - Automatic – The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting.

- Off – The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

NOTE: Some pages can be lost if the printer runs out of paper while printing a duplex job with Jam Recovery set to Off.

- On – The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed.

Change jam recovery from a LCD control panel

Use the following procedure to change jam recovery from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to General Settings, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Jam Recovery, and then press the OK button.
4. Use the down arrow ▼ button to scroll to an option, and then press the OK button to select it.
   - Automatic – The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting.
   - Off – The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

   NOTE: Some pages can be lost if the printer runs out of paper while printing a duplex job with Jam Recovery set to Off.

   - On – The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Settings, and then press the OK button.
2. Use the down arrow ▼ button to scroll to General, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Jam Recovery, and then press the OK button.
4. Use the down arrow ▼ button to scroll to an option, and then press the OK button to select it.
   - Auto – The printer attempts to reprint jammed pages when sufficient memory is available. This is the default setting.
   - Off – The printer does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.

   NOTE: Some pages can be lost if the printer runs out of paper while printing a duplex job with Jam Recovery set to Off.

   - On – The printer always reprints jammed pages. Additional memory is allocated to store the last few pages printed.

Solve performance problems

Review the following information and procedures to solve performance problems.

NOTE: Tray 1 and Tray 2 are optimal for paper pickup when using special paper or media other than 75-80gsm (20lb) plain paper. For Tray 1 and Tray 2 the printer increases the number of attempts to pick up a page, which increases the reliability of successfully picking the page from the tray and decreases the possibility of a mis-pick jam.

HP recommends using Tray 1 or Tray 2 if the printer is experiencing excessive or reoccurring jams from trays other than Tray 1 and Tray 2, or for print jobs that require media other than 75-80gsm (20lb) plain paper.

Factors affecting print performance

Review the following information about factors affecting print performance.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Table 3-54 Solve performance problems

Problem	Cause	Solution
Pages print but are totally blank.	The document might contain blank pages.	Check the original document to see if content is present on all of the pages.
Pages print but are totally blank.	The printer might be malfunctioning.	To check the printer, print a Configuration page.
Pages print but are totally blank.	Make sure that the printer is not feeding multiple pages (especially if very thin paper is used).	Make sure that the paper meets HP specifications for this printer. For a complete list of specific HP-brand paper that this printer supports, go to http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.
Pages print very slowly. NOTE: Some software programs process print jobs slowly.	Heavier paper types can slow the print job.	Print on a different type of paper.
Pages print very slowly. NOTE: Some software programs process print jobs slowly.	Complex pages can print slowly.	Proper fusing might require a slower print speed to ensure the best print quality.
Pages print very slowly. NOTE: Some software programs process print jobs slowly.	Large batches, narrow paper, and special paper such as gloss, transparency, cardstock, and HP Tough Paper can slow the print job.	Print in smaller batches, on a different type of paper, or on a different size of paper.

Table 3-54 Solve performance problems (continued)

Problem	Cause	Solution
Pages did not print.	The printer might not be pulling paper correctly.	Make sure paper is loaded in the tray correctly.
Pages did not print.	The paper is jamming in the printer.	Clear the jam.
Pages did not print.	The USB cable might be defective or incorrectly connected.	• Disconnect the USB cable at both ends and reconnect it. • Try printing a job that has printed in the past. • Try using a different USB cable.
Pages did not print.	Other devices are running on the host computer.	The printer might not share a USB port. If an external hard drive or network switchbox is connected to the same port as the printer, the other device might be interfering with the printer. To connect and use the printer, disconnect the other device or use two USB ports on the host computer.
Pages did not print.	The print job might not have arrived at the printer.	Check the printer status queue. Also, the Printing message should appear on the control panel display.

Print speeds

Print speed is the number of pages that print in one minute. Print speed depends on different engine-process speeds or operational pauses between printed pages during normal printer operation. Factors that determine the print speed of the printer include the following:

- Page formatting time

  The printer must pause for each page to be formatted before it prints. Complex pages take more time to format, resulting in reduced print speed. However, most jobs print at full engine speed.

- Media size

  Legal-size media reduces print speed because it is longer than the standard Letter- or A4-size media. A reduce print speed is used when printing on narrow media to prevent the edges of the fuser from overheating.

- Media mode

  Some media types require a reduced print speed to achieve maximum print quality on that media. For example, glossy, heavy, and specialty media (for example, envelopes or photos) require a reduced print speed. To maximize the print speed for special media types, make sure that the correct media type in the print driver is selected.

- Printer temperature

  To prevent printer damage, print speed is reduced if the printer reaches a specific internal temperature (thermal slow down). The starting temperature of the printer, ambient environment temperature, and the print job size effect the number of pages that can be printed before the printer reduces the print speed. Thermal slow down reduces print speed by printing four pages and then pausing for an amount of time before printing continues.

- Other print speed reduction factors

  Other factors (especially during large print jobs) that can cause reduced print speeds include:

  – Density control sequence; occurs every 150 pages and takes about 120 seconds

The printer does not print or it prints slowly

Use the following procedures when the printer does not print or it prints slowly.

The printer does not print

If the printer does not print at all, try the following solutions.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

1. Make sure the printer is turned on and that the control panel indicates it is ready.
   - If the control panel does not indicate the printer is ready, turn the printer off and then on again.
   - If the control panel indicates the printer is ready, try sending the job again.
2. If the control panel indicates the printer has an error, resolve the error and then try sending the job again.
3. Make sure the cables are all connected correctly. If the printer is connected to a network, check the following items:
   - Check the bottom LED next to the network connection on the printer. If the network is active, the light is green.
   - Make sure that a network cable and not a phone cord is used to connect to the network.
   - Make sure the network router, hub, or switch is turned on and that it is working correctly.
4. Install the HP software for the printer. Using generic printer drivers can cause delays clearing jobs from the print queue.
5. From the list of printers on your computer, right-click the name of this product, click **Properties**, and open the **Ports** tab.
   - If a network cable is used to connect to the network, make sure the printer name listed on the **Ports** tab matches the one on the printer configuration page.
   - If a USB cable is used, and the printer is connected to a wireless network, make sure the box is checked next to **Virtual printer port for USB**.
6. If a personal firewall system on the computer is used, it might be blocking communication with the printer. Try temporarily disabling the firewall to see if it is the source of the problem.
7. If the host computer or the printer is connected to a wireless network, low signal quality or interference might be delaying print jobs.

The printer prints slowly

If the printer prints, but it seems slow, try the following solutions.

1. Make sure the computer meets the minimum specifications for this printer.
   For a list of specifications, go to this Web site: http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.
2. When the printer is configured to print on some paper types, such as heavy paper, the printer prints more slowly so it can correctly fuse the toner to the paper. If the paper type setting is not correct for the type of paper you are using, change the setting to the correct paper type.
3. If the host computer or the printer is connected to a wireless network, low signal quality or interference might be delaying print jobs.

Solve connectivity problems

Review the following information and procedures to solve connectivity problems.

Solve USB connection problems

If you have connected the product directly to a computer, check the cable.

- Verify that the cable is connected to the computer and to the product.
- Verify that the cable is not longer than 2 m (6.65 ft). Try using a shorter cable.
- Verify that the cable is working correctly by connecting it to another product. Replace the cable if necessary.

Solve wired network problems

Review the following information and procedures to solve wired network problems.

Introduction

Learn about solving wired network problems.

Certain types of problems can indicate there is a network communication problem. These problems include the following issues:

- The periodic loss of ability to communicate with the printer
- The printer cannot be found during driver installation
- A periodic failure to print

Check the items in this topic to verify that the printer is communicating with the network. Before beginning, print a configuration page from the printer control panel and locate the printer IP address that is listed on this page.

NOTE: To print using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

Poor physical connection

Use the following procedure when the printer has a poor physical connection.

1. Verify that the printer is attached to the correct network port using a cable of the correct length.
2. Verify that cable connections are secure.
3. Look at the network port connection on the back of the printer, and verify that the amber activity light and the green link-status light are lit.
4. If the problem continues, try a different cable or port on the hub.

The computer is using the incorrect IP address for the printer

Use the following procedure when the computer is using the incorrect IP address for the printer.

1. Open the printer properties and click the **Ports** tab. Verify that the current IP address for the printer is selected. The printer IP address is listed on the printer configuration page.

> NOTE: To print a configuration page using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

2. If you installed the printer using the HP standard TCP/IP port, select the box labeled **Always print to this printer, even if its IP address changes**.
3. If you installed the printer using a Microsoft standard TCP/IP port, use the hostname instead of the IP address.
4. If the IP address is correct, delete the printer and then add it again.

The computer is unable to communicate with the printer

Use the following procedure when the computer is unable to communicate with the printer.

1. Test network communication by pinging the network.
   a. Open a command-line prompt on your computer.
      - For Windows, click **Start**, click **Run**, type `cmd`, and then press Enter.
      - For macOS, go to **Applications**, then **Utilities**, and open **Terminal**.
   b. Type `ping` followed by the IP address for your printer.
   c. If the window displays round-trip times, the network is working.
2. If the ping command failed, verify that the network hubs are on, and then verify that the network settings, the printer, and the computer are all configured for the same network.

The printer is using incorrect link and duplex settings for the network

HP recommends leaving these settings in automatic mode (the default setting). If you change these settings, you must also change them for your network.

New software programs might be causing compatibility problems

Verify that any new software programs are correctly installed and that they use the correct print driver.

The computer or workstation might be set up incorrectly

Use the following procedure when the computer or workstation might be set up incorrectly.

1. Check the network drivers, print drivers, and the network redirection settings.
2. Verify that the operating system is configured correctly.

The printer is disabled, or other network settings are incorrect

Use the following procedure when the printer is disabled, or other network settings are incorrect.

1. Review the configuration page to check the status of the network protocol. Enable it if necessary.

> **NOTE:** To print a configuration page using an HP Plus printer, the printer must have genuine original HP toner cartridges installed, must have an ongoing internet connection and an active HP Plus account (for more information, go to hp.com/plus).

2. Reconfigure the network settings if necessary.

Service mode functions (M501)

Review the following information about service mode functions on an M501 printer.

Service menu (M501)

Use the control panel Service menu to troubleshoot printer problems.

Service menu settings

The Service menu is used to adjust print settings, restore factory default settings, and clean the print paper path.

The following Service menu items are available:

- Cleaning Page—used to remove dust and toner from the print paper path.
- USB Speed—used to set the USB speed to high or full.
- Less Paper Curl—used to put the printer into a mode that reduces paper curl.
- Archive Print—used to put the printer into a mode that produces output less susceptible to toner smearing and dusting for preservation and archival.
- Firmware Date—used to display the product's firmware date code.
- Restore Defaults—used to reset all customer-accessible menu settings back to the factory default settings (except language) via the control panel or software.

> **NOTE:** This Service menu item does not reset factory-settable settings, including formatter number, page counts, factory paper settings, language, and so on.

- Signature Check—used to configure how the printer proceeds when a firmware upgrade file does not have a valid signature.
- LaserJet Update—used to manually update the firmware or to set up automatic firmware updates.

Restore the factory-set defaults

Use the following procedure to restore the factory-set defaults.

Restore the factory-set defaults from a LCD control panel (M501)

Use the following procedure to restore the factory-set defaults from a LCD control panel on an M501 printer.

1. On the printer control panel, press the OK button to open the menus.
2. Open the following menus:
   - Service
   - Restore Defaults

   The printer automatically restarts.

Secondary service menu (M501)

Use the secondary service menu to print service-related reports and to run special tests. Customers do not have access to this menu.

Open the secondary service menu (M501)

Use the following procedure to open the secondary service menu on an M501 printer.

Open the secondary service menu from a LCD control panel (M501)

Use the following procedure to open the secondary service menu from a LCD control panel on an M501 printer.

1. Make sure the printer is in the Ready state.
2. From the printer control panel, press the setup button to open the main menu.
3. Press and the down arrow button, and then quickly press the Cancel button.
4. Press the setup button. The message **2ndary Service** appears on the control panel display.
5. Press the OK button to open the **2ndary Service** menu.

NOTE: Use the arrow buttons to scroll though the **2ndary Service** menu.

Secondary service menu structure (M501)

Review the following information about the secondary service menu structure on an M501 printer.

Table 3-55 Secondary Service menu (M501)

Menu item	Sub-menu item	Description
Service Reports	Cont-Self Test	Print a continuous configuration page.
Service Reports	Error Report	Print an error report.
Service Reports	Extended key map	10-key pad values for job storage.
Speed		Use this item to toggle between high and low.
Default settings		Taylor system defaults (IT managed or self-managed).

Table 3-55 Secondary Service menu (M501) (continued)

Menu item	Sub-menu item	Description
Location	A list of available locations appears	This item sets certain printer parameters that are dependent on the location, such as the default paper size and the symbol set. Scroll to the appropriate location and select Yes to set the location. The printer automatically restarts after you change the location.
Line Frequency		This item allows the refresh rate of the touchscreen control panel to be changed between 50 and 60 Hz.
LED Test		This item allows the testing of the different LED Displays
Display Test		Use this test to verify that the LEDs and characters on the control-panel display function correctly. At the beginning of the test, each of the LEDs is turned on one-at-time. Press the OK button to continue to the next LED. After the LED test is complete, the character test begins by testing the pixels on each line. Then, each of the 255 characters is displayed in groups of 16. Press the OK button to continue to the next group of 16 characters. You can cancel the test at any time by pressing the Cancel ✕ button.
Button Test		Use this test to verify that the control-panel buttons function correctly. The display prompts you to press each button.
CP FW Version		This item shows the current date code of the firmware.
NAND Reset		This item allows the NAND to be reset.
Permanent Config		Allow or prevent the action to be performed.

Printer resets (M501)

Review the following information about printer resets on an M501 printer.

NVRAM initialization (M501)

Use the following procedure to perform an NVRAM initialization on an M501 printer.

⚠ CAUTION: All HP Jetdirect settings are also reset. Be sure to print a configuration page before performing an NVRAM initialization. Make note of the IP address that is listed on the Jetdirect configuration page. You need to restore the IP address after performing an NVRAM initialization.

An NVRAM initialization erases all data stored in the unprotected NVRAM sections. Performing an NVRAM initialization resets the following settings and information:

- All menu settings are reset to factory default values.
- All localization settings, including language and country/region, are reset.

After performing an NVRAM initialization, reconfigure any computers that print to this printer so that the computers can recognize the printer.

1. Turn the printer off.
2. Simultaneously press and hold the up arrow ▲ button and the Cancel ✕ button. Keep these buttons depressed as you turn the printer on.

3. When the Permanent Storage Init. message appears on the display, release the buttons.
4. When the printer has finished the NVRAM initialization, it returns to the Ready state.

Service mode functions

Learn about the printer service mode functions.

Service menu

Learn about the printer service menu items.

Service menu access is restricted by using a personal identification number (PIN). Only authorized service people should access the Service menu. When selecting Service from the list of menus, the printer prompts the user to enter an eight-digit PIN.

NOTE: The printer automatically exits the Service menu after about one minute if no items are selected or changed.

Open the service menu from a touchscreen control panel

Use the following procedure to open the service menu from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).
2. Open the Service menu.
3. On the sign-in screen, select Service Access Code from the drop-down list.
4. Enter the following service access code for the printer:
   - 10050615 (M506/E50045)
   - 11052715 (M527/E52545)
   - 03050719 (M507, E50145)
   - 03052819 (M528/E52645)

Open the service menu from a LCD control panel

Use the following procedure to open the service menu from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Device Maintenance, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Service, and then press the OK button to select it.
3. Use the down arrow ▼ button to scroll to Service Access Code, and then press the OK button to select it.
4. Enter the following service access code for the printer:

NOTE: After entering the PIN, press the OK button.

- 10050615 (M506/E50045/M507/E50145)
- 11052715 (M527/E52545/M528/E52645)

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Navigate to Maintenance, and then select OK.
3. Navigate to Service, and then select OK.
4. Enter the following service access code for the printer:

NOTE: After entering the PIN, select Sign In.

- 10050615 (M506/E50045/M507/E50145)
- 11052715 (M527/E52545/M528/E52645)

Service menu items

The following menu items appear in the Service menu.

Table 3-56 Service menu (all except M501)

First level	Second level	Value	Description
Event Log	Print		Print or view the event log.
Clear Event Log	Clear		Use this item to clear the printer event log.
Cycle Counts	Total Engine Cycles		Set the page count that was stored in NVRAM prior to installing a new formatter.
Cycle Counts	Refurbish Cycle Count		Use this item to record the page count when the printer was refurbished.
Cycle Counts	Document (M527/E52545/ M528/E52645 only)		Total number of pages since the document feeder kit was replaced.
Cycle Counts	Document Feeder Kit Interval (M527/E52545/M528/E52645 only)		Use this item to set the interval that causes the printer to prompt the customer to replace document feeder maintenance kit.
Cycle Counts	Clean Rollers Count (M527/ E52545/M528/E52645 only)		Total number of pages since the document feeder rollers were cleaned.
Cycle Counts	Clean Rollers Interval (M527/ E52545/M528/E52645 only)		Use this item to set the interval that causes the printer to prompt the customer to clean the document feeder rollers and separation pad.

Table 3-56 Service menu (all except M501) (continued)

First level	Second level	Value	Description
Cycle Counts	ADF Count (M527/E52545/ M528/E52645 only)		Set the total pages fed through the document feeder.
Cycle Counts	Flatbed Count (M527/E52545/ M528/E52645 only)		Set the total pages scanned from the flatbed.
Cycle Counts	ADF Simplex Count (M527/ E52545/M528/E52645 only)		Set the total single-sided pages fed through the document feeder.
Cycle Counts	ADF Duplex Count (M527/ E52545/M528/E52645 only)		Set the total two-sided pages fed through the document feeder.
Cycle Counts	Copy Scan Count (M527/ E52545/M528/E52645 only)		Set the total copy pages that have been scanned.
Cycle Counts	Send Scan Count (M527/ E52545/M528/E52645 only)		Set the number of scanned pages sent to email.
Cycle Counts	Fax Scan Count NOTE: M527/E52545/M528/ E52645 fax models only.		Set the number of scanned pages that have been faxed.
Cycle Counts	Copy Pages Count (M527/ E52545/M528/E52645 only)		Set the number of scanned pages that have been printed.
Scanner Settings (M527/E52545/ M528/E52645 only)	ADF Settings	Leading edge front Leading edge back Trailing edge front Trailing edge back Left side front Left side back	Set the calibration values. WARNING! Do not change these values unless instructed to do so.
Scanner Settings (M527/E52545/ M528/E52645 only)	Glass Settings	Leading edge glass Left Side Glass	
Serial Number			Set the serial number.
Service ID			Use this item to show the date that the printer was first used on the control panel. This eliminates the need for users to keep paper receipts for proof of warranty.
Cold Reset Paper			When you perform a cold reset, the paper size that is stored in NVRAM is reset to the default factory setting. If you replace a formatter board in a country/region that uses A4 as the standard paper size, use this menu to reset the default paper size to A4. LETTER and A4 are the only available values.

Table 3-56 Service menu (all except M501) (continued)

First level	Second level	Value	Description
Low Alerts		Enable Disable	Turn on (or off) low alerts (for supplies).
Reset Low Alerts	• Reset to level 1 • Reset to level 2 • Reset to level 3 • Set to non-HP managed mode		
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.			Test the internal modem for the analog fax accessory.
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Hook Operations	Off Hook On Hook	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate Random Data	Select a value from the list.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate DTMF Tone Burst	Select a value from the list.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate DTMF Continuous Tone	Select a value from the list.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate Pulse Burst	Select a value from the list.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate Tone Dial Number	Enter dial number.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate Pulse Dial Number	Enter dial number.	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Generate Single Modem Tone	Range: 1100–2100 Hz Default = 2100 Hz	
PTT Test Mode **NOTE:** M527/E52545/M528/E52645 fax models only.	Line Measurements		

Table 3-56 Service menu (all except M501) (continued)

First level	Second level	Value	Description
PTT Test Mode NOTE: M527/E52545/M528/E52645 fax models only.	Fax Transmit Signal Loss		
Test Support	Continuous Scan (M527/E52545/M528/E52645 only)	2-sided Save to Disk	
Test Support	Continuous Copy (M527/E52545/M528/E52645 only)	2-sided Save to Disk	
Test Support	Raw Scan (M527/E52545/M528/E52645 only)	2-sided Mechanical Calibration	
Test Support	Continuous Print from USB		
Test Support	Automatic Calibrations (M527/E52545/M528/E52645 only)	Disabled Enabled*	
Test Support	Runtime Configuration (M527/E52545/M528/E52645 only)	Standard StandardEIC Workflow WorkflowEIC Reconfigure	

Printer resets (all except M501)

Review the following information and procedures about printer resets.

Restore factory-set defaults (all except M501)

Use the following procedures to restore the factory-set defaults.

NOTE: The printer restarts automatically after the reset operation completes.

Restore factory-set defaults from a touchscreen control panel

Use the following procedure to restore factory-set defaults from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Settings button (FutureSmart 4).
2. Open the following menus:
   - General Settings (FutureSmart 3) or General (FutureSmart 4).
   - Restore Factory Settings (FutureSmart 3) or Reset Factory Settings (FutureSmart 4).
3. A verification message advises that completing the reset function might result in loss of data. Touch the Reset button to complete the process.

Restore factory-set defaults from a LCD control panel

Use the following procedure to restore factory-set defaults from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Use the down arrow ▼ button to scroll to General Settings, and then press the OK button to select it.
3. Use the down arrow ▼ button to scroll to Restore Factory Settings, and then press the OK button to select it.
4. Use the down arrow ▼ button to scroll to Restore, and then press the OK button to select it.
5. A verification message advises that completing the reset function might result in loss of data. Touch the Reset button to complete the process.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Settings, and then select OK.
2. Use the down arrow ▼ button to scroll to General, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Reset Factory Settings, and then press the OK button to select it.
4. A verification message advises that completing the reset function might result in loss of data. Touch the Reset button to complete the process.

Restore the service ID (all except M501)

Use the following procedure to restore the service ID.

Restore the service ID

When replacing the formatter, the date is lost. Use this menu item to reset the date to the original date that the printer was first used. The date format is YYDDD. Use the following formula to calculate the dates:

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the printer was first used in 2002, calculate YY as follows: 2002 - 1990 = 12. YY = 12.
2. Subtract 1 from 10 (October is the tenth month of the year): 10 - 1 = 9.
   - Multiply 9 by 30: 9 x 30 = 270 or add 17 to 270: 270 + 17 = 287. Thus, DDD = 287.

Convert the service ID to an actual date

Use the printer Service ID number to determine whether the printer is still under warranty. Use the following formula to convert the Service ID into the installation date as follows:

1. Add 1990 to YY to get the actual year that the printer was installed.
2. Divide DDD by 30. If there is a remainder, add 1 to the result. This is the month.
3. The remainder from the calculation in step 2 is the date.

Using the Service ID 12287 as an example, the date conversion is as follows:

1. 12 + 1990 = 2002, so the year is 2002.
2. 287 divided by 30 = 9 with a remainder of 17. Because there is a remainder, add 1 to 9 to get 10, which represents October.
3. The remainder in step 2 is 17, so that is the date.

The complete date is 17-October-2002.

NOTE: A six-day grace period is built into the date system.

Printer cold reset (all except M501)

Use the following procedures to perform a printer cold reset.

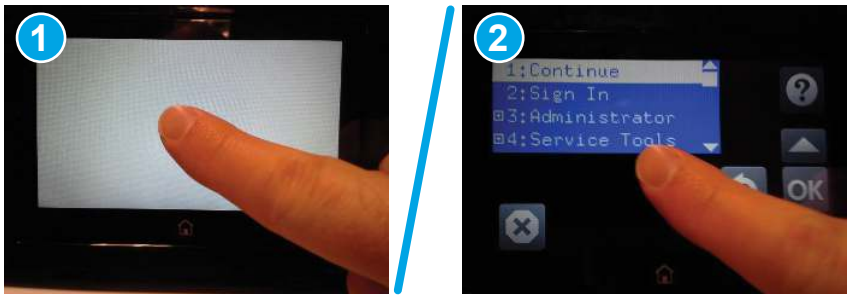
Cold reset using the Pre-boot menu from a touchscreen control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from a touchscreen control panel.

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control panel display when you see the 1/8 under the logo.

Figure 3-146 **Open the Pre-boot menu**



2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then touch the OK button.
3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then touch the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then touch the OK button to select it.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

Cold reset using the Pre-boot menu from a LCD control panel

Use the following procedure to perform a cold reset using the Pre-boot menu from a LCD control panel.

CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo.

2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then press the OK button.
3. Use the down arrow ▼ button to highlight the +8:Startup Options item, and then press the OK button.
4. Use the down arrow ▼ button to highlight the 2 Cold Reset item, and then press the OK button to select it.
5. Touch the Home button to return to the main Pre-boot menu and highlight the 1:Continue item, and then touch the OK button.

NOTE: The printer will initialize.

Format Disk and Partial Clean functions (all except M501)

Review the following information about the Format Disk and Partial Clean functions.

NOTE: Only for printers with an optional hard-disk drive (HDD) installed).

Active and repository firmware locations

The firmware bundle consists of multiple parts. The main components are the Windows CE Operating System and the printer/peripheral firmware files.

There are two locations/partitions on the hard drive where the firmware components are stored:

- The Active, where the operating system and firmware currently are executing.
- The Repository, the recovery location.

If the Active location is damaged, or a Partial Clean was performed, the printer automatically copies over the OS and firmware files from the Repository location and the printer recovers.

If both the Active and Repository locations are damaged, or a Format Disk was performed, then both locations are gone and the error message **99.09.67** displays on the control-panel display. The user must upload the firmware to the printer in order for it to function again.

CAUTION: The Format Disk option performs a disk initialization for the entire disk. The operating system, firmware files, and third party files (among other files) will be completely lost. HP does not recommend this action.

Partial Clean

The Partial Clean option erases all partitions and data on the disk drive, except for the firmware repository where a backup copy of the firmware file is stored. This allows the disk drive to be reformatted without having to download a firmware upgrade file to return the printer to a bootable state.

Characteristics of a Partial Clean

- Customer-defined settings, third-party solutions, firmware files, and the operating system are deleted.
- Rebooting the printer restores the firmware files from the Repository location, but does not restore any customer-defined settings.

- For previous HP printers, a Hard Disk Initialization is similar to executing the Partial Clean function for this printer.

⚠ **CAUTION:** HP recommends backing-up printer configuration data before executing a Partial Clean to retain customer-defined settings (if needed). See the Backup/Restore item in the Device Maintenance menu.

Reasons for performing Partial Clean

- The printer continually boots up in an error state.

NOTE: Try clearing the error prior to executing a Partial Clean.

- The printer will not respond to commands from the control panel.
- Executing the Partial Clean function is helpful for troubleshooting hard disk problems.
- To reset the printer by deleting all solutions and customer-defined settings.
- The printer default settings are not properly working.

Execute a Partial Clean

Use the following procedures to execute a Partial Clean on the printer.

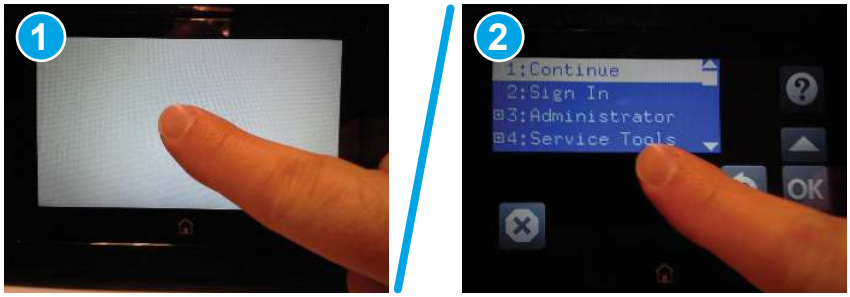
Execute a Partial Clean from a touchscreen control panel

Use the following procedure to execute a Partial Clean from a touchscreen control panel.

⚠ **CAUTION:** This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo.

Figure 3-147 **Open the Pre-boot menu**



2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then touch the OK button.
3. Use the down arrow ▼ button to highlight Partial Clean and then touch the OK button.
4. Touch the OK button again.
5. Touch the Home button to highlight Continue, and then touch the OK button.

NOTE: The printer initializes.

Execute a Partial Clean from a LCD control panel

Use the following procedure to execute a Partial Clean from a LCD control panel.

⚠ **CAUTION:** This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then press the OK button.
3. Use the down arrow ▼ button to highlight Partial Clean and then press the OK button.
4. Press the OK button again.
5. Press the Home button to highlight Continue, and then press the OK button.

NOTE: The printer initializes.

Format Disk

The Format Disk option erases the entire disk drive.

⚠ **CAUTION:** After executing a Format Disk option, the printer is *not* bootable.

Characteristics of a Format Disk

- Customer-defined settings, third-party solutions, firmware files, and the operating system are deleted.

NOTE: Rebooting the printer *does not* restore the firmware files.

- Rebooting the printer restores the firmware files from the Repository location, but does not restore any customer-defined settings.
- After executing the Format Disk function, the message **99.09.67** displays on the control panel.
- After executing the Format Disk function, the printer firmware must be reloaded.

⚠ **CAUTION:** HP recommends not using the Format Disk option unless an error occurs and the solution in the printer service manual recommends this solution. After executing the Format Disk function, the printer is unusable.

HP recommends backing-up printer configuration data before executing a Format Disk to retain customer-defined settings (if needed). See the Backup/Restore item in the Device Maintenance menu.

Reasons for performing Format Disk

- The printer continually boots up in an error state.

NOTE: Try clearing the error prior to executing a Format Disk.

- The printer will not respond to commands from the control panel.
- Executing the Format Disk function is helpful for troubleshooting hard disk problems.
- To reset the printer by deleting all solutions and customer-defined settings.

Execute a Format Disk

Use the following procedures to execute a Format Disk on the printer.

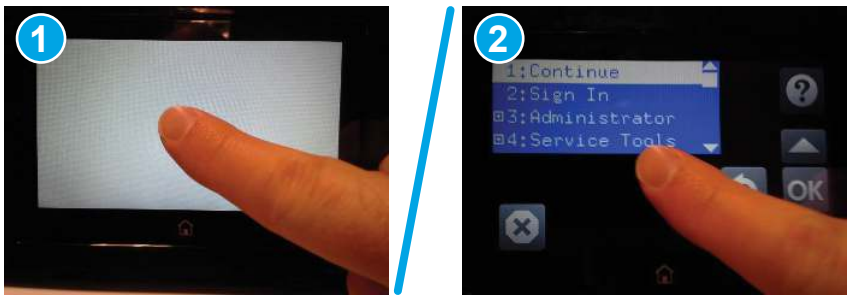
Execute a Format Disk from a touchscreen control panel

Use the following procedure to execute a Format Disk from a touchscreen control panel.

⚠ CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Touch the middle of the control-panel display when you see the 1/8 under the logo.

   Figure 3-148 Open the Pre-boot menu

2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then touch the OK button.
3. Use the down arrow ▼ button to highlight Format Disk, and then touch the OK button.
4. Touch the OK button again.

NOTE: When the Format Disk operation is complete, reload the printer firmware.

Execute a Format Disk from a LCD control panel

Use the following procedure to execute a Format Disk from a LCD control panel.

⚠ CAUTION: This procedure resets all printer configurations and settings to factory defaults (customer configurations and settings are lost).

1. Press the Cancel button when you see the 1/8 under the logo.
2. Use the down arrow ▼ button to highlight the +3:Administrator item, and then press the OK button.
3. Use the down arrow ▼ button to highlight Format Disk, and then press the OK button.
4. Press the OK button again.

NOTE: When the Format Disk operation is complete, reload the printer firmware.

Firmware upgrades (M501)

HP offers periodic printer updates, new Web Services apps, and new features to existing Web Services apps. Follow these steps to update the firmware for a single printer. When you update the firmware, Web Service apps will update automatically.

There are two supported methods to perform a firmware update on this printer. Use only one of the following methods to update the printer firmware.

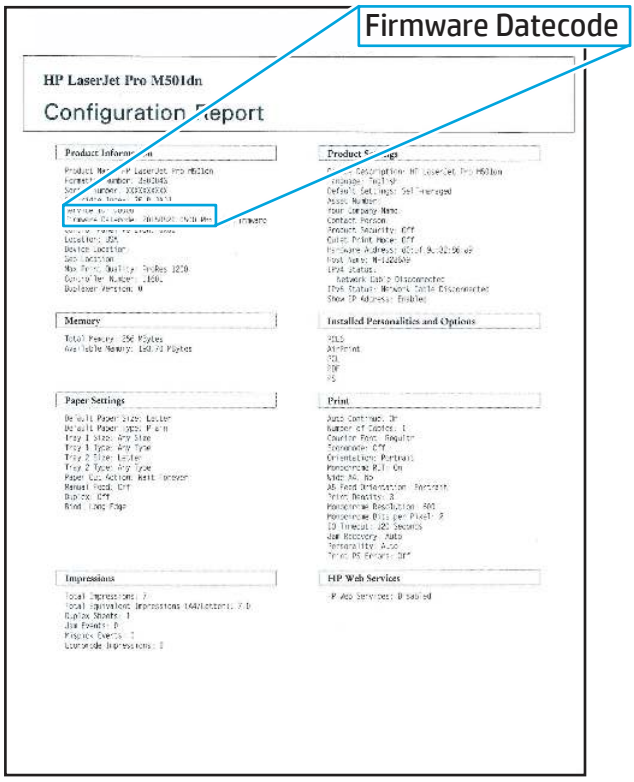
Determine the installed revision of firmware (M501)

Use the following procedure to determine the installed revision of firmware on an M501 printer.

NOTE: Print a configuration page to determine the installed revision of firmware.

1. On the printer control panel, press the OK button.
2. Open the Reports menu.
3. Select Configuration Report.

Figure 3-149 Configuration page firmware date code location (M501)



Method one: Update the firmware using the control panel (M501)

Use these steps to load the firmware from the control panel (for network-connected printers only), and/or set the printer to automatically load future firmware updates. For USB-connected printers, use method two.

1. Make sure the printer is connected to a wired (Ethernet) or wireless network with an active Internet connection.

NOTE: The printer must be connected to the internet to update the firmware via a network connection.

2. From the Home screen on the printer control panel, open the Setup menu.
   - For standard control panels, press the left or right arrow button.

3. Scroll to and open the Service menu, and then open the LaserJet Update menu.

NOTE: If the LaserJet Update option is not listed, use method two.

4. Check for updates.

   - For standard control panels, select **Check for Update**.

NOTE: The printer automatically checks for an update, and if a newer version is detected, the update process automatically starts.

5. Set the printer to automatically update the firmware when updates become available.

   From the Home screen on the printer control panel, open the Setup menu.

   - For standard control panels, press the left or right arrow button.

   Scroll to and open the Service menu, open the LaserJet Update menu, and then select the Manage Updates menu.

   Set the printer to automatically update the firmware.

   - For standard control panels, set the **Allow Updates** option to **YES**, and then set the **Automatic Check** option to **ON**.

Method two: Update the firmware using the Firmware Update Utility (M501)

Use these steps to manually download and install the Firmware Update Utility from HP.com.

NOTE: This method is the only firmware update option available for printers connected to the computer via a USB cable. It also works for printers connected to a network.

1. Go to www.hp.com/go/support, click the **Drivers & Software** link, type the printer name in the search field, press the ENTER button, and then select the printer from the list of search results.
2. Select the operating system.
3. Under the **Firmware** section, locate the **Firmware Update Utility**.
4. Click **Download**, click **Run**, and then click **Run** again.
5. When the utility launches, select the printer from the drop-down list, and then click **Send Firmware**.

NOTE: To print a configuration page to verify the installed firmware version before or after the update process, click **Print Config**.

6. Follow the on-screen instructions to complete the installation, and then click the **Exit** button to close the utility.

Firmware upgrades (all except M501)

Review the following information about downloading firmware upgrades.

To download the most recent firmware upgrade for the printer, go to:

- In the US, go to http://www.hp.com/support/ljM501 or http://www.hp.com/support/ljM506 or http://www.hp.com/support/ljE50045 or http://www.hp.com/support/ljM507 or http://www.hp.com/support/ljE50145 or http://www.hp.com/support/ljM527mfp or http://www.hp.com/support/ljE52545mfp or http://www.hp.com/support/ljM528mfp or http://www.hp.com/support/E52645mfp.

  a. Select **Get drivers, Software, and Firmware**, and then select the appropriate product by name.

  NOTE: More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

  b. Select the driver language and operating system.

  c. Locate the firmware download, and then select **Download**.

- Outside the U.S., go to www.hp.com/support.

  a. Select your country/region.

  b. Select **Drivers & Downloads**.

  c. Enter the product name in the **Find my product** dialogue box, and then select **Go**.

  TIP: Click on the **How do I find my product name/number?** link to see a short video on identifying the printer name and number.

  d. Select the appropriate product by name.

  NOTE: More than one printer model might be listed. Make sure to select the correct model so that the upgraded firmware supports all of the printer functions.

  e. Select the driver language and operating system.

  f. Locate the firmware download, and then select **Download**.

Determine the installed revision of firmware (all except M501)

Use the following procedures to determine the installed revision of firmware.

NOTE: Print a configuration page to determine the installed revision of firmware.

Print the configuration page from a touchscreen control panel

Use the following procedure to print the configuration page from a touchscreen control panel.

1. From the Home screen on the printer control panel, scroll to and touch the Administration button (FutureSmart 3), or scroll to and touch the Reports button (FutureSmart 4).
2. Open the following menus:
   - Reports (FutureSmart 3)
   - Configuration/Status Pages
3. Touch Configuration Page to select it.
4. Touch the Print button to print the pages.

Print the configuration page from a LCD control panel

Use the following procedure to print the configuration page from a LCD control panel.

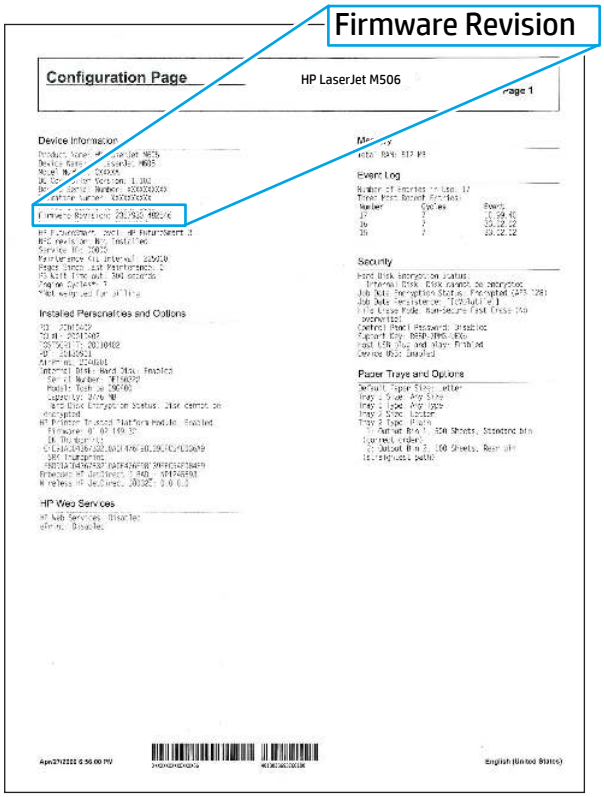
FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Administration, and then press the OK button.
2. Open the following menus:
   - Reports
   - Configuration/Status Pages
3. Use the down arrow ▼ button to scroll to Configuration Page, and then press the OK button to select it.
4. Use the up arrow ▲ button to scroll to Print, and then press the OK button to print the pages.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Reports, and then press the OK button.
2. Use the down arrow ▼ button to scroll to Configuration/Status Pages, and then press the OK button.
3. Use the down arrow ▼ button to scroll to Configuration Page, and then press the OK button.
4. Use the down arrow ▼ to scroll down to Cancel, and then use the right arrow▶ to highlight the print icon . Select OK to print the pages.

Figure 3-150 Configuration page firmware version (all except M501)



Perform a firmware upgrade (all except M501)

The firmware bundle is a .bdl file. This file requires an interactive upgrade method. The traditional FTP, LPR, or Port 9100 methods of upgrading are not available.

Use one of the following methods to upgrade the firmware for this printer.

HP Embedded Web Server (all except M501)

Use the following procedure to perform a firmware upgrade using the HP Embedded Web Server.

NOTE: The printer should be at the **Ready** state.

The firmware update might take 10 minutes or longer based on the input/output (I/O) transfer rates and the time it takes for the printer to reinitialize.

1. Open an Internet browser window.
2. Enter the printer IP address in the URL line.
3. Select the **Firmware Upgrade** link from the **General** tab or from the **Troubleshooting** tab.
4. Browse to the location that the firmware upgrade file was downloaded to, and then select the firmware file. The file has a .bdl file extension. Select the Install button to perform the upgrade.

NOTE: Do not close the browser window OR interrupt communication until the HP Embedded Web Server (EWS) displays the confirmation page.

5. After the printer reinitializes, print a configuration page and verify that the latest firmware version has been installed.

USB flash drive (Pre-boot menu) (all except M501)

Use the following procedures to perform a firmware upgrade using a USB flash drive and the Pre-boot menu.

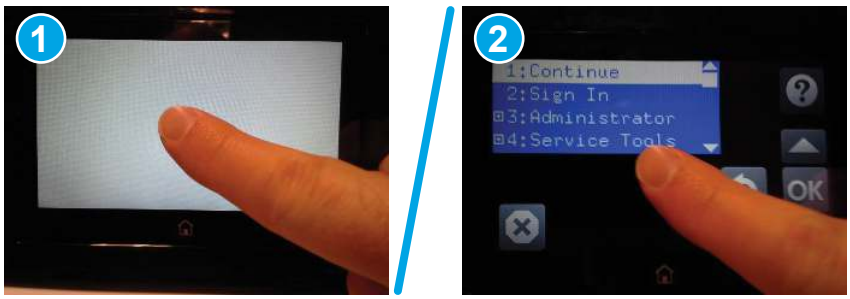
IMPORTANT: Only use this method of performing a firmware upgrade if the printer cannot initialize to the **Ready** state.

USB flash drive firmware (Pre-boot menu) update from a touchscreen control panel

Use the following procedure to perform a USB flash drive firmware (Pre-boot menu) update from a touchscreen control panel.

1. Copy the .bdl file to a portable USB flash drive.
2. Touch the middle of the control panel display when you see the 1/8 under the logo.

Figure 3-151 **Open the Pre-boot menu**



3. Touch the down arrow ▼ button to highlight +3 Administrator, and then touch the OK button.
4. If necessary, touch the down arrow ▼ button to highlight +1 Download, and then touch the OK button.
5. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.

NOTE: If the error message No USB Thumbdrive Files Found displays on the control panel display, try using a different portable storage device.

6. Touch the down arrow ▼ button to highlight USB Thumbdrive, and then touch the OK button.
7. Touch the down arrow ▼ button to highlight the .bdl file, and then touch the OK button.

NOTE: The upgrade process can take 10 minutes or longer to complete.

TIP: If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

8. When the message Complete displays on the control panel display, touch the down arrow ▼ button several times until the message Continue displays.
9. Touch the OK button to begin the upgrade. When the upgrade is complete, the printer will initialize to the **Ready** state.

10. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive firmware (Pre-boot menu) update from a LCD control panel

Use the following procedure to perform a USB flash drive firmware (Pre-boot menu) update from a LCD control panel.

1. Press the Cancel button when you see the 1/8 under the logo.
2. Press the down arrow ▼ button to highlight +3 Administrator, and then press the OK button.
3. If necessary, press the down arrow ▼ button to highlight +1 Download, and then press the OK button.
4. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.

NOTE: If the error message No USB Thumbdrive Files Found displays on the control panel display, try using a different portable storage device.

5. Press the down arrow ▼ button to highlight USB Thumbdrive, and then press the OK button.
6. Press the down arrow ▼ button to highlight the .bdl file, and then press the OK button.

NOTE: The upgrade process can take 10 minutes or longer to complete.

TIP: If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

7. When the message Complete displays on the control panel display, turn the printer power off, and then on again.
8. When the upgrade process is complete, print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive (control panel menu) (all except M501)

Use the following procedures to perform a firmware upgrade using a USB flash drive and the control panel menu.

NOTE: USB flash drives that are not using a FAT32 format, or do not have a CD formatted partition, might not be recognized by the printer. If the printer does not recognize a USB flash drive, try using a different USB flash drive.

TIP: The USB port on the printer must be enabled. If it is disabled, use the Enable Retrieve from USB item in the General Settings menu to enable it.

USB flash drive firmware (control panel menu) update from a touchscreen control panel

Use the following procedure to perform a USB flash drive firmware (control panel menu) update from a touchscreen control panel.

1. Copy the .bdl file to a portable USB flash drive.
2. Turn the printer on, and then wait until it reaches the **Ready** state.
3. From the Home screen on the printer control panel, scroll to and touch the Device Maintenance button (FutureSmart 3), or scroll to and touch the Support Tools button (FutureSmart 4).

4. Open the Maintenance menu (FutureSmart 4).
5. Touch the USB Firmware Upgrade button.
6. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.
7. Touch the .bdl file, and then touch the Upgrade button.

> **TIP:** If there is more than one .bdl file on the storage device, make sure to select the correct file for this printer.

8. Select one of the following options:
   - Upgrade

     > **NOTE:** The upgrade process can take 10 minutes or longer to complete.

   - Re-install
   - Downgrade
9. When the upgrade is complete, the printer will initialize to the **Ready** state. Print a configuration page and verify that the upgrade firmware version was installed.

USB flash drive firmware (control panel menu) update from a LCD control panel

Use the following procedure to perform a USB flash drive firmware (control panel menu) update from a LCD control panel.

FutureSmart 3

1. From the Home screen on the printer control panel, use the down arrow ▼ button to scroll to Device Maintenance, and then press the OK button.
2. Open the following menus:
   - USB Firmware Upgrade
3. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.
4. If necessary, use the down arrow ▼ button to scroll to the appropriate .bdl file, and then press the OK button to select.
5. Use the down arrow ▼ button to scroll to Upgrade, and then press the OK button to start the firmware upgrade.

> **NOTE:** If the firmware in the .bdl file on the portable USB storage device matches the installed firmware on the printer, Upgrade is replaced by Re-Install.

FutureSmart 4

1. From the Home screen on the printer control panel, use the arrow keys to navigate to Support Tools, and then select OK.
2. Navigate to Maintenance, and then select OK.
3. Navigate to USB Firmware Upgrade, and then select OK.
4. Insert the USB flash drive with the .bdl file on it into the USB port on the printer.

5. If necessary, use the down arrow ▼ button to scroll to the appropriate .bdl file, and then press the OK button to select.

4 Removal and replacement

When servicing the printer, several items must be taken into account to ensure a successful repair and to avoid damage to the printer or injury. Learn about these considerations and find detailed instructions for removing and replacing printer parts.

Safety precautions

Follow these safety protocols when handling or repairing the printer.

Product safety classification: This is a Safety Class I product, which means it has a protective earth terminal. This terminal must be connected to earth ground.

IMPORTANT: Before operation or repair, check the product and review this manual for safety warnings and instructions. Safety warnings for specific procedures are located at appropriate places in the manual.

WARNING: Hazardous voltages exist within the product.

NOTE: HP recommends that only qualified personnel trained in working with high voltage power equipment should service this unit.

Follow these precautions always:

NOTE: If you do not want to disassemble and repair the printer yourself, contact your local HP Service Representative for service, see Contact HP Support on page viii section.

Warnings and Cautions

To ensure the proper use of the printer and to prevent the printer from being damaged, follow the warning and caution symbols marked in this guide. See Conventions used in this guide on page iii.

Electrical precautions

- **Power cord instructions**
  - Make sure your power source is adequate for the product voltage rating. The voltage rating is on the product label.

    Typically, the product uses either 110-127 Vac or 220-240 Vac and 50/60 Hz. Depending on a product, the voltage usage might change (100-127 Vac, for example). It is recommended to refer your product manual for the specified voltage.
  - Connect the power cord between the product and a grounded AC outlet.

CAUTION: To prevent damage to the product, use only the power cord that is provided with the product.

Do not damage, cut, or repair the power cord. A damaged power cord can cause fire or electric shock. Replace a damaged power cord with an HP-approved power cord.

- Unplug the power cord when disassembling or assembling the printer.

  The printer utilizes a power switch (button) that is turned "ON" or "OFF". Be aware that electricity may flow on the primary side of the printer even when the printer is "OFF".

- Power off the printer and unplug the power cord and fax cord (if available) from the electrical outlet in any of the following cases:
  - When removing product enclosure or covers from the printer or when accessing internal parts of a printer.
  - If there is smoke or an unusual smell coming from the printer.
  - A piece of metal or a liquid (not part of cleaning and maintenance routines) touches internal parts of the printer.
  - During an electrical storm (with thunder and/or lightning).
  - During an electrical power failure.

Electrostatic Discharge (ESD) precautions

Electrostatic discharge (ESD) can damage electronic components inside your printer.

Use these guidelines to protect sensitive parts against damage from electrostatic discharge.

- Touch a metal object that is not painted and is grounded.
- Leave electronic parts such as a memory chip in the bag it was shipped in until you are ready to perform the installation.
- ESD wrist straps can also be used to help release excess electrostatic charge.

  - **CAUTION:**

    Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing printer parts.

    Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly.

  - Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

Handling toner

HP recommends that you wear gloves when handling toner cartridges and toner system components.

Do not expose toner or toner cartridge to fire or any heat source.

Keep imaging unit and/or toner cartridge away from children. The toner powder contained in the imaging unit and toner cartridge may be harmful, and if swallowed, you should contact a doctor.

Lifting equipment

Follow the recommendations for lifting or moving your printer.

The printed inbox guides and support documentation available on support.hp.com for your printer model will provide the lifting requirements to avoid injury and to safely move the printer.

NOTE: Do not attempt to lift heavy equipment without assistance.

Safety measures during disassembling or reassembling

IMPORTANT: Before disassembling or reassembling a printer, be sure to unplug its power cord from the electrical outlet.

NOTE: Assembly is the reverse of disassembly unless otherwise specified.

- During disassembly, reassembly, or transportation of a printer, remove the toner cartridge as necessary.
- Only fuses with the required rated current, voltage, and specified type (normal blow, time delay, etc.) should be used.

  Do not use repaired fuses or short-circuited fuse holders. Doing so, could cause a shock or fire hazard.
- Capacitors inside this product may hold a hazardous charge even if the product has been disconnected from its power source.
- Do not disable safety functions (Interlocks or safety circuits). Safety will not be assured leading to a safety hazard and potential injury.
- Note the length, diameters, and locations of screws as you remove them. When reassembling the printer, be sure to use them in their original locations.
- As a best practice safety rule, do not run the printer with any parts removed.

Ingestion hazards

This product may contain a button cell or coin battery that is not intended to be replaced.

- A swallowed button cell or coin battery can cause internal chemical burns in as little as two (2) hours.

  Death or serious injury can occur if ingested.
- Keep new and used batteries out of reach of children. Used batteries may cause severe injury or death.

  Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. Call a local poison control center for treatment information.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do not dispose of batteries in household trash or incinerate.

Laser radiation hazards

The printer is certified as a Class 1 laser product.

WARNING: Using controls, adjusting or performing procedures other than those specified in the user guide could result in exposure to hazardous radiation. Do not disassemble the laser/scanner unit as the laser beam can injure your eyes. An invisible laser beam is emitted within the laser/scanner unit.

Mechanical hazards

The printer has moving parts that could cause injury. To avoid personal injury, take the following precautions when working close to the printer.

- Keep your clothes and body away from the printer's moving parts.
  - Avoid wearing dangling jewelry or other hanging objects around the printer as it might be caught by moving parts and lead to injury.
  - Keep long hair tied up and away from the paper feed mechanism.
  - Ensure the sleeves or gloves do not get caught in the printer's moving parts.
- Avoid standing close to the fans as it could cause injury and could also affect print quality (by obstructing the air flow).
- Do not touch gears or moving rolls during printing.
- Do not operate the printer when having enclosure covers removed or interlock switches bypassed.
- The product may have internal sharp edges.

  Make sure the wiring does not come into contact with sharp edges, burrs, or other pointed parts. Current can leak, leading to a risk of electrical shock or fire hazard.
- During and after repair, check internal electrical wiring for squeezing, sheaths and any damage.
- – Make sure that all screws, components, wiring, connectors and so forth that were removed, have been reinstalled in the original location.
  - Do not allow any metal parts such as clips, staples and screws to fall into the printer. This could potentially short internal circuits and cause an electrical shock hazard.
  - Do not allow liquids (except those used in HP cleaning kits) to touch the internal parts of the printer. Doing so may cause fire, electric shock, or other serious hazards.

Thermal hazards

Caution: Inspection before repair for fuser

The area around the fuser unit may be hot. Wait for a few minutes until the fuser assembly cools down.

Contact HP Support

HP offers phone support to assist you for printer issues. Ensure to read the following information before contacting HP Support.

Before contacting HP Support

Before contacting support, consider checking the resources available on HP Customer Support.

1. Go to HP Customer Support (https://support.hp.com) to locate your product support page.
2. Review the documents for troubleshooting before contacting HP.

Information required when contacting HP Support

If you call an HP support representative for assistance, ensure you have the following information for HP support to answer your questions quickly:

- **Product model**: Note the printer model, product number, and serial number you are using. The product number and the serial number are typically found on the label at the back of the product.
- **Error code**: If there is an error code or message displaying on the printer control panel, note the error code and message.
- **Computer (operating system)**: Provide the name of the computer/computer operating system you are using.
- Any **special equipment or software** you are using (for example, spoolers, networks, switch-boxes, modems or special software drivers).
  - The type of interface used on your product (USB or network).
  - The software and driver name and firmware version number that you are currently using.
- **Printer service information**: You can obtain the printer service information from the Embedded Web Server (EWS). If you need to send this information by email, download it as a file from your browser, and send the file.

NOTE: Depending on your printer firmware version, the menu items in the EWS might vary.

1. Open a Web browser on your computer, and then enter the IP address of your printer to access the Embedded Web Server.
2. Click **Support** > **Service support** > **Service information** > **Display**.

Phone support

HP phone support is available on the HP support website. For assistance, go to one of the following websites:

- https://support.hp.com/contact or
- https://support.hp.com/contact/help/printer or
- https://www.hp.com/us-en/contact-hp/contact.html.

Removal and replacement strategy

The printer uses a field repair strategy. Defective parts are diagnosed and replaced at the Field Replaceable Unit (FRU) assembly level. Follow some basic safety precautions to avoid injury or printer damage. Learn about the tools required to service the printer and the types of fasteners used.

Introduction

Learn the overall process for troubleshooting failures and replacing parts, as well as items of note related to installing and tracking printer supplies

Repair normally begins by using the printer internal diagnostics and the following two-step process:

1. Isolate the problem to the major system (for example, the network, the server, or the printer).
2. Identify the cause of failures according to the troubleshooting section in the printer service manual, and follow the disassembly procedures to replace the defective parts or the consumable parts.

After locating a faulty part, the printer can usually be repaired at the assembly level by replacing the field replaceable unit (FRUs). HP does not support replacement of components on the printed circuit assemblies (PCAs).

The user replaces supplies (cartridges) as they are depleted. Additional instructions about other user-replaceable parts are provided in this section.

The printer tracks the amount of use on the customer-replaceable supplies by keeping a page count. The printer prompts the user to replace certain items when a supply is depleted or a specific number of pages have been printed.

Swapping supplies between products might be necessary in some test scenarios. However, this might cause a misrepresentation of supply life values, and is not recommended.

Considerations during removal and replacement

Understand the items to take into account when removing and replacing parts.

This chapter describes the FRUs.

Reinstalling FRUs is generally the reverse of removal. Notes are included to provide directions for difficult or critical replacement procedures.

HP does not support repairing individual subassemblies or troubleshooting at the PCA component level.

⚠ **WARNING!** Never operate or service the printer with the protective cover removed from the laser scanner assembly. The reflected beam, although invisible, can cause damage to the eyes.

The sheet-metal parts can have sharp edges. Be careful when handling sheet-metal parts.

Turn the printer off, wait five seconds, and then remove the power cord before attempting to service the printer. **If this warning is not followed, severe injury can result as well as damage to the printer**. The power must be on for certain functional checks during troubleshooting. However, the power cord must be disconnected during parts removal. AC voltage is still present inside the printer when the power switch is in the off position. The power cord must be disconnected before servicing the printer.

⚠ **CAUTION:** Incorrectly routed or loose wire harnesses or flat flexible cables (FFCs) might interfere with other internal components or assemblies and can be damaged, pinched, or frayed. Make sure that wire harnesses are correctly routed and retained when installing assemblies.

Do not bend or fold the FFCs during removal or installation.

Do not expose the toner cartridges or imaging drums to strong light even for a short time.

IMPORTANT: When an assembly is removed that includes a rating plate, tag, or a printer code label, make sure to transfer the plate, tag, or code label to the replacement assembly.

Do not replace the formatter, DC controller, memory PCA (island of data), eMMC PCA, or hard-disk drive (HDD) simultaneously during a single printer servicing. Doing so might cause the printer to become unstable or inoperable.

When replacing the formatter, make sure that all accessories installed on the formatter, such as the fax PCA, hard disk drive, trusted platform module, and DIMM, are removed from the defective formatter and installed on the replacement formatter. Make sure that the formatter is a new service part that has not been installed in a different device.

NOTE: During assembly removal and replacement, or if the printer is moved, remove the toner cartridges, the imaging drums, and the toner collection unit.

Toner is a non-poisonous substance composed of plastic and a small number of colored components. If toner gets on the skin or clothing, wipe it off with dry tissue paper and wash in cold water. Hot water sets toner and it might be difficult, or impossible, to remove. Toner easily breaks down vinyl materials, so avoid letting toner contact vinyl.

TIP: Some figures might show assemblies removed or installed that have not yet been removed or installed at that specific step. However, the procedures are correct for this printer and the target assembly. Always thoroughly read the instructions that accompany each figure.

Electrostatic discharge

Learn how to protect sensitive parts against damage from electrostatic discharge.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing printer parts. Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly.

Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

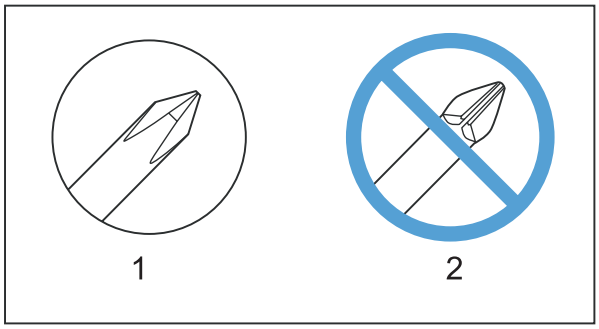
Required tools

Find information about the tools required to remove and replace parts on the printer.

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver
- Needle-nose pliers
- ESD strap (if one is available)
- Penlight

CAUTION: Always use a #2 Phillips screwdriver (callout 1). Do not use a Pozidriv screwdriver (callout 2) or any motorized screwdriver. These can damage screws or screw threads.

Figure 4-1 Screwdrivers



Fasteners used in this printer

Learn about the different types of screws used in the printer and the importance of installing the correct type of screw in the correct location when replacing a part.

⚠ **WARNING!** Make sure that assemblies are replaced with the correct screw type. Using the incorrect screw (for example, substituting a long screw for the correct shorter screw) can cause damage to the printer or interfere with printer operation. Do not intermix screws that are removed from one assembly with the screws that are removed from another assembly.

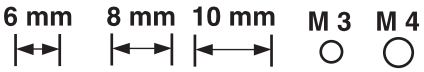
NOTE: To install a self-tapping screw, first turn it counterclockwise to align it with the existing thread pattern, and then carefully turn it clockwise to tighten. Do not overtighten. If a self-tapping screw hole becomes stripped, repair the screw hole or replace the affected assembly.

Always take note of the length, diameter, color, type, and location of each removed screw. Make sure that screws are installed in their original location during reinstallation.

Types of screws used in the printer

- Screw, BH M3x10
- Screw, W/Washer, M3x8
- Screw, D, M3x8
- Screw, Machine, Truss Head, M3x6

Figure 4-2 Screw size chart



Service approach

Follow these steps before and after performing service on the printer to prevent damage to the printer and ensure that the repair was successful.

Before performing service

Follow these steps before performing any type of service on the printer.

⚠ **WARNING!** Turn the printer off, wait five seconds, and then remove the power cord before attempting to service the printer. **If this warning is not followed, severe injury can result as well as damage to the printer**. The power must be on for certain functional checks during troubleshooting. However, the power

cord must be disconnected during parts removal. AC voltage is still present inside the printer when the power switch is in the off position. The power cord must be disconnected before servicing the printer.

1. Turn the printer off using the power button.
2. Unplug the power cable and interface cable or cables.
3. Place the product on an ESD workstation or mat, or use an ESD strap (if one is available). If an ESD workstation, mat or strap is not available, ground yourself by touching the sheet-metal chassis before touching an ESD-sensitive part.
4. Remove the toner cartridge(s) and/or imaging drum(s). Place a sheet of paper over the cartridges or imaging drums to protect them from excessive light exposure.
5. Remove all paper from the trays.
6. Remove the tray(s).

After performing service

Follow these steps after performing service on the printer.

1. Verify that you have completed the necessary reassembly steps.
2. Reinstall the tray(s).
3. Return all paper to the trays.
4. Reinstall the toner cartridge(s) and/or imaging drum(s).
5. Plug in the power cable and interface cable or cables.
6. Turn the printer on using the power button.
7. Verify that the expected start up sounds occur.

Print quality test

Ensure that the print quality is acceptable after performing printer repairs.

Use the printer internal print quality pages to help diagnose and solve print-quality problems. For more information, see the troubleshooting section in the service manual.

NOTE: To get further assistance in print quality troubleshooting, go to http://www.hp.com/support/colorljM751 or http://www.hp.com/support/colorljE75245.. Select **Troubleshooting**, select **Print**, and then select **Print Quality**.

Removal and replacement procedures

Learn how to remove and replace selected parts on the printer.

Customer self-repair (CSR) A parts and accessories

Customer self-repair (CSR) A parts are parts that a customer replaces without assistance from a field technician. These parts can be replaced without the use of any tools.

Removal and replacement: Toner cartridge

Learn how to remove and replace the toner cartridge.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the toner cartridge.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-1 Part number

Part number	Part description
CF287A **CF287-67901 (service)**	HP 872A Black Original LaserJet Toner Cartridge (M501/M506/E50045/M527/E52545 only.) Standard-capacity replacement black toner cartridge
CF287X **CF287-67902 (service)**	HP 872X High Yield Black Original LaserJet Toner Cartridge (M501/M506/E50045/M527/E52545 only.) High-capacity replacement black toner cartridge
CF289A **CF289-67901 (service)**	HP 89A Black Original LaserJet Toner Cartridge (M507/M528/E52545/E52645 only) Standard-capacity replacement black toner cartridge
CF289X **CF289-67902 (service)**	HP 89X High Yield Black Original LaserJet Toner Cartridge (M507/M528/E52545/E52645 only) High-capacity replacement black toner cartridge
CF289Y **CF289-67903 (service)**	HP 89Y Extra High Yield Black Original LaserJet Toner Cartridge (M507/M528/E52545/E52645 only) Extra High-capacity replacement black toner cartridge
CF289YC **CF289-67904 (service)**	HP Black contract LaserJet Toner Cartridge (M507/M528/E52545/E52645 only)
CF289A **CF289-67905 (service)**	HP Black managed LaserJet Toner Cartridge (M507/M528/E52545/E52645 only)

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

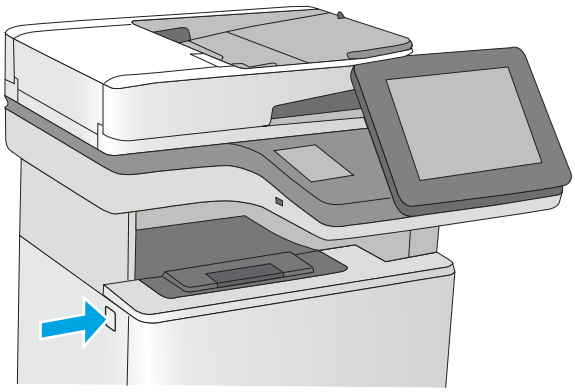
Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the toner cartridge.

   An MFP printer is shown in this section. However, the procedure is correct for all printer models.

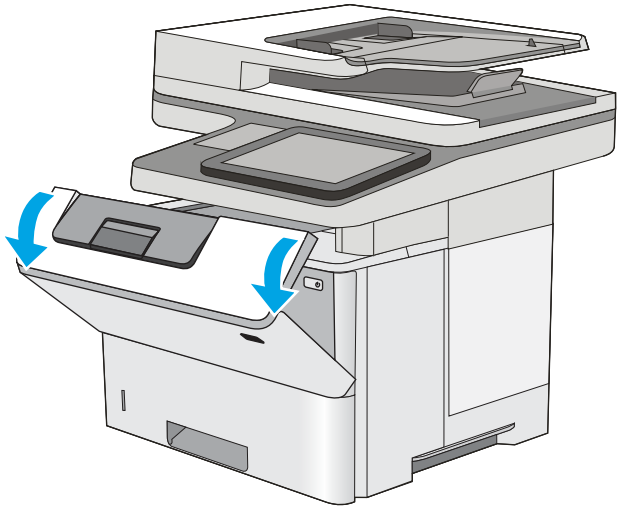
   a. Press the cartridge-door-release button.

   Figure 4-3 Press the cartridge-door-release button

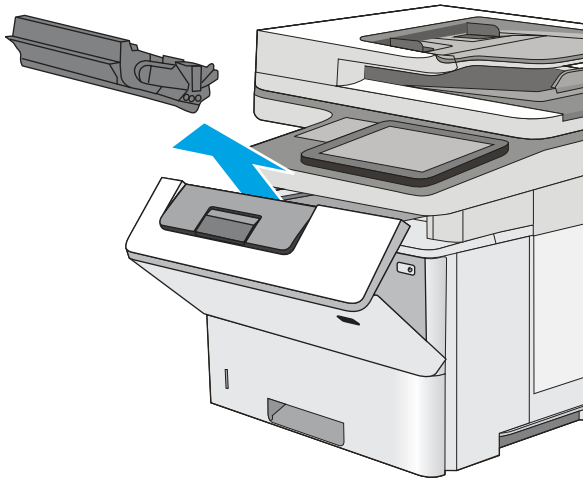
   b. Open the toner-cartridge door.

   Figure 4-4 Open the toner-cartridge door

c. Remove the toner cartridge from the printer.

Figure 4-5 Remove the toner cartridge



2. Unpack the replacement toner cartridge.

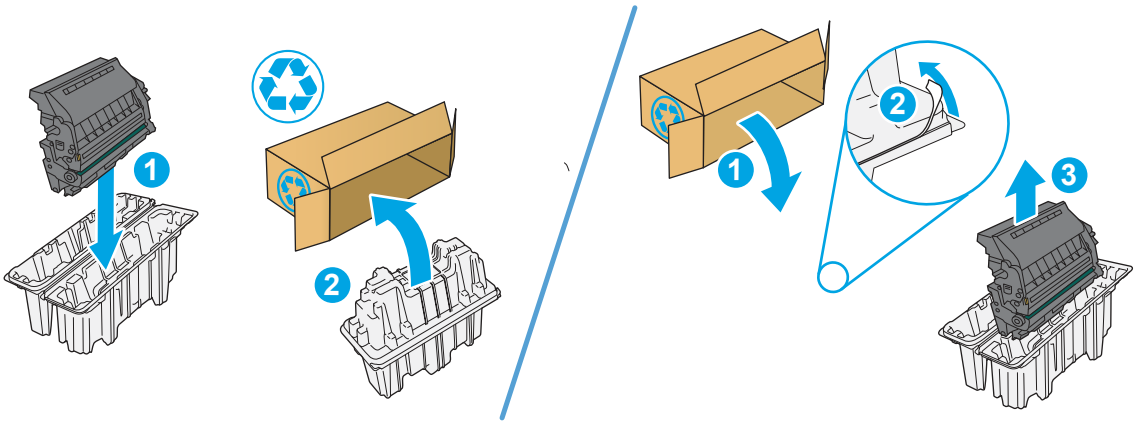
a. Dispose of the old part.

NOTE: HP recommends responsible disposal of the defective part.

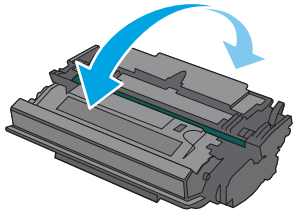
b. Unpack the replacement part from the packaging.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

Figure 4-6 Recycle and unpack



NOTE: When installing a replacement toner cartridge, hold both ends of the toner cartridge and rock it back and forth 5-6 times.

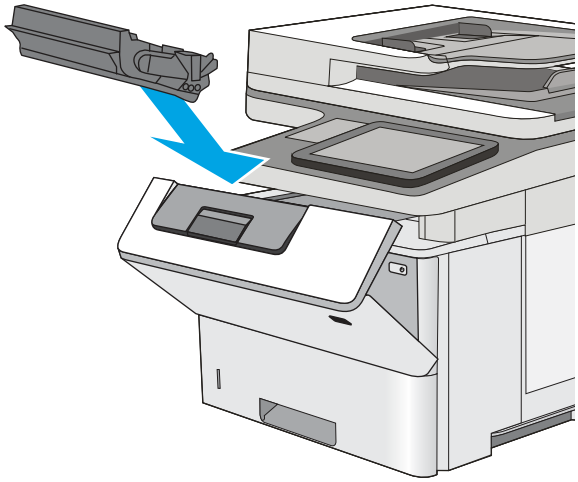


3. Install the toner cartridge.

   An MFP printer is shown in this section. However, the procedure is correct for all printer models.

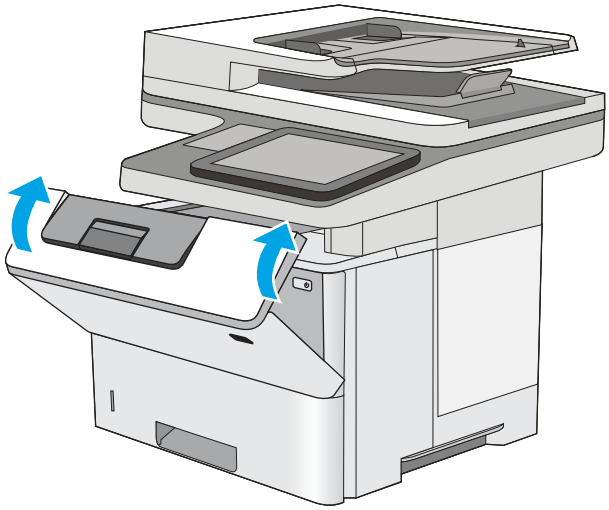
   a. Align the toner cartridge with the tracks inside the printer, and then install the toner cartridge until it is firmly seated.

   Figure 4-7 Install the toner cartridge



b. Close the toner-cartridge door.

Figure 4-8 **Close the toner-cartridge door**



Removal and replacement: Staple cartridge (MFP)

Learn how to remove and replace the staple cartridge.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the staple cartridge.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-2 **Part information**

Part number	Part description
Q7432A	HP staple cartridge pack (new)
Q7432-67901	HP staple cartridge pack (service)

Required tools

No special tools are required to remove this part.

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the staple cartridge.

NOTE: Stapler models only

a. Open the stapler door.

Figure 4-9 Open the stapler door

b. Pull the staple cartridge straight out of the printer to remove it.

Figure 4-10 Remove the staple cartridge

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the staple cartridge.

NOTE: Stapler models only

a. Push the staple cartridge straight into the printer to install it.

Figure 4-11 Install the staple cartridge

b. Close the stapler door.

Figure 4-12 Close the stapler door

Removal and replacement: embedded Multi-Media Card (eMMC) (all except M501)

Learn how to remove and replace the embedded Multi-Media Card (eMMC)

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the eMMC.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

IMPORTANT: Do not replace the formatter, DC controller, and eMMC PCA simultaneously during a single printer servicing. Doing so might cause the printer to become unstable or inoperable.

NOTE: Data stored on the eMMC is not secure and cannot be encrypted.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-3 Part information

Part number	Part description
5851-6436 (M527dn/E52545dn/M528dn/E52645dn)	embedded Multi-Media Card (eMMC) with instruction guide
B5L32-67901 (M506/E50045/M507/E50145)	embedded Multi-Media Card (eMMC) with instruction guide

Required tools

No special tools are required to install this part.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

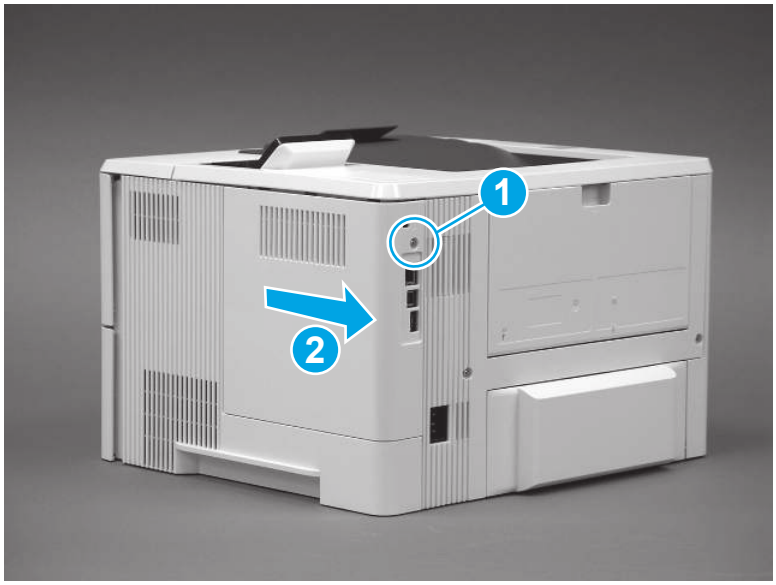
Post service test

Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

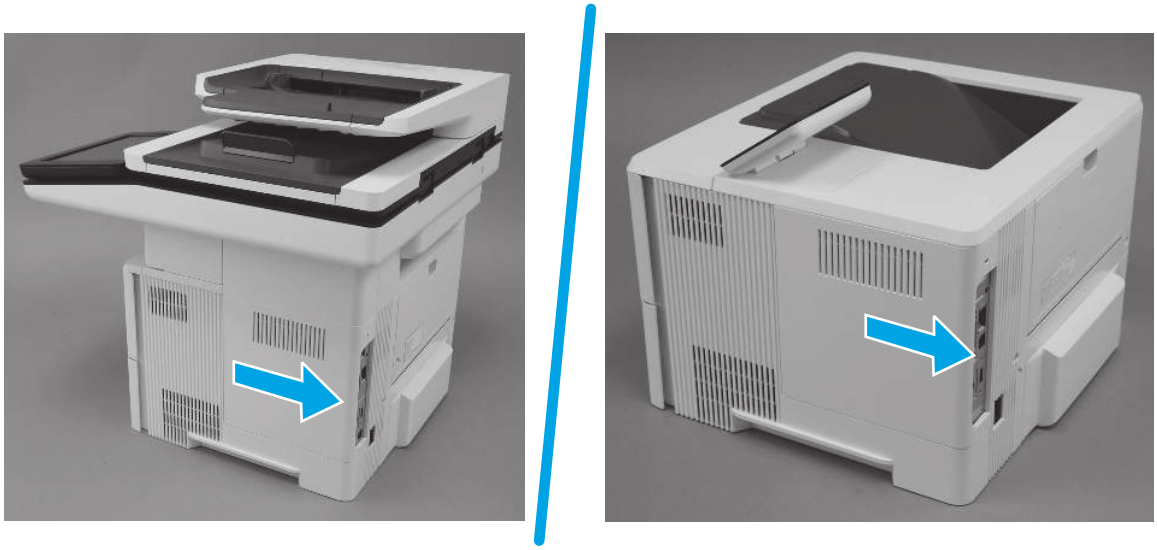
1. Remove the formatter cover.
   - Do one of the following:
     - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-13 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-14 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

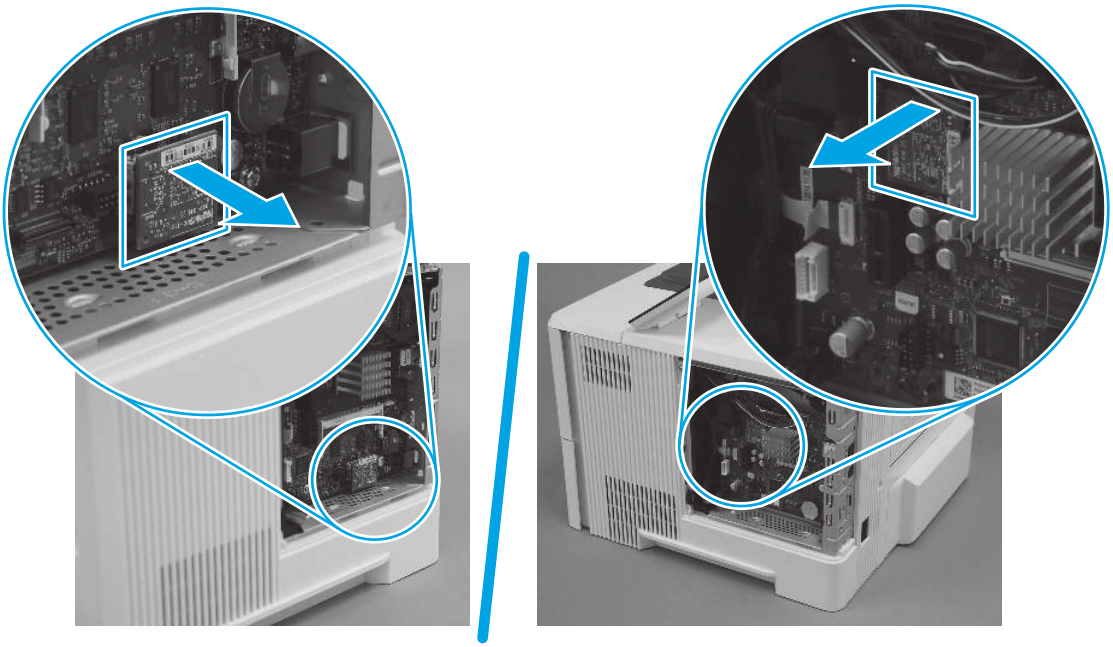


2. Remove the embedded Multi-Media Card (eMMC models).

⚠ CAUTION: ESD sensitive part.

- Locate the eMMC component on the formatter, and then pull it straight off of the formatter to remove it.

Figure 4-15 Remove the eMMC



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the eMMC (eMMC models).

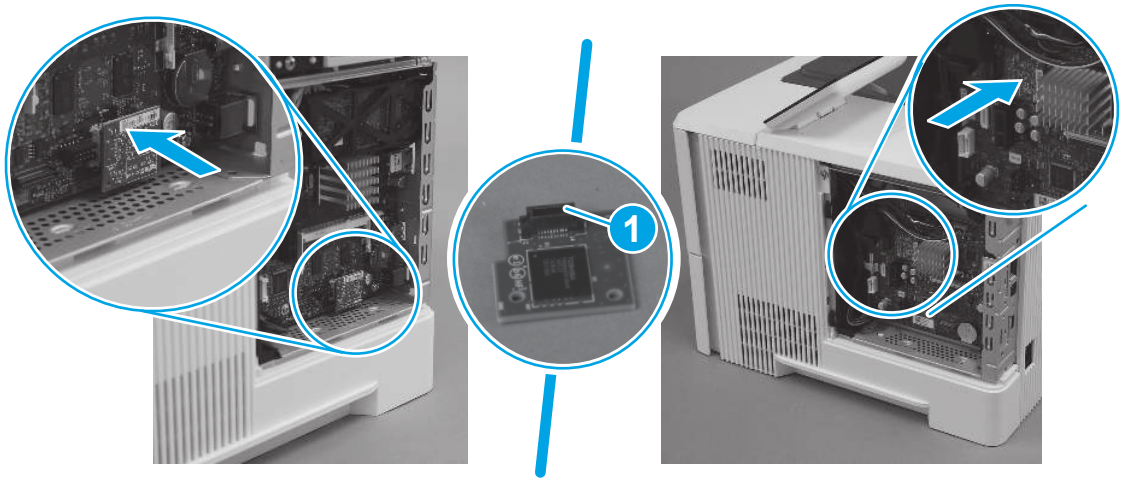
CAUTION: ESD sensitive part.

- Align the connector on the replacement eMMC (callout 1) with the connector on the formatter, and then push the eMMC onto the formatter to install it.

IMPORTANT: Push on the eMMC at the location shown by the arrow. Ignore any “Push here” label on the eMMC itself. Make sure that the eMMC is fully seated in the connector .

NOTE: The eMMC can only be installed in one direction on the formatter.

Figure 4-16 Install the eMMC

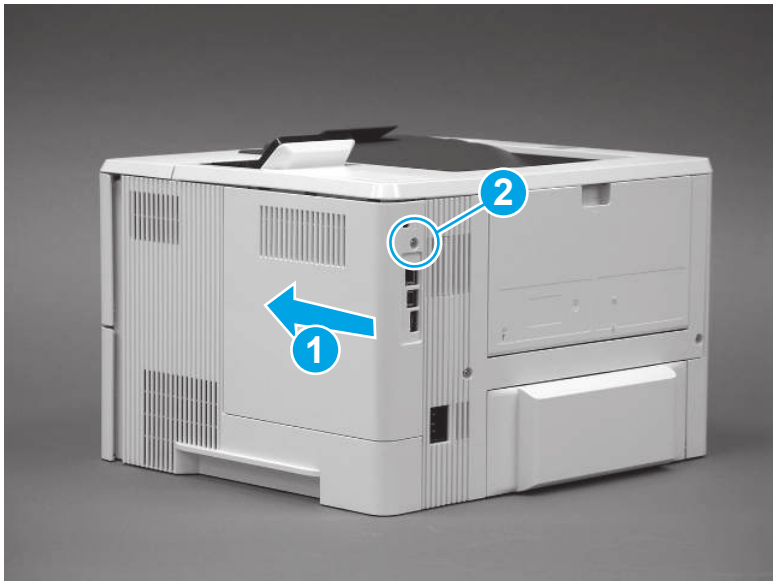


5. Install the formatter cover.

- Do one of the following:

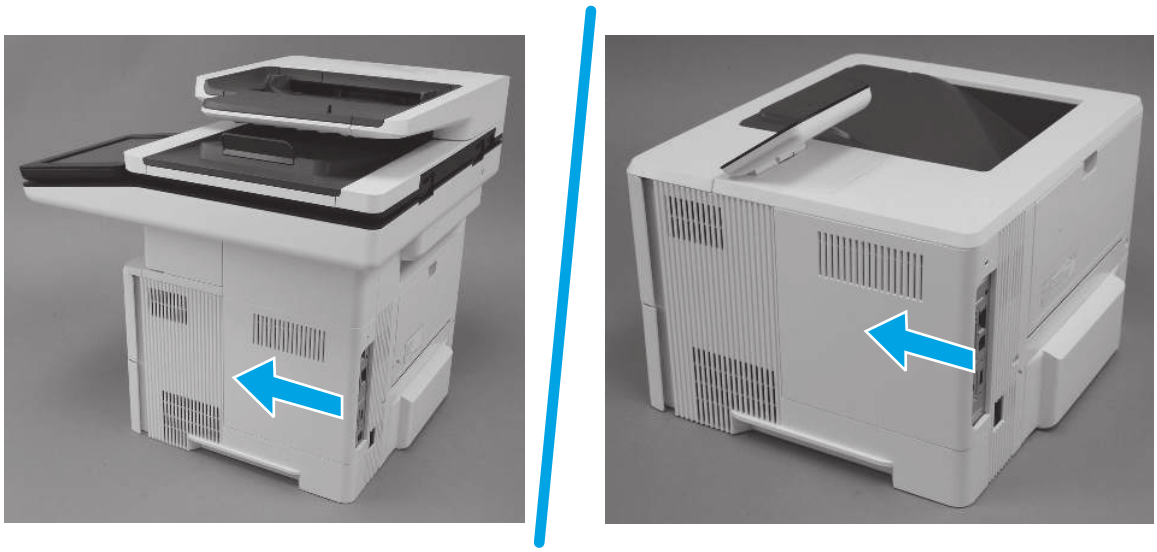
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-17 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-18 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



6. Reverse the removal steps to install the assembly. Also use the following **special installation instructions**.

   Reinstall the printer firmware

   a. Go to www.hp.com/go/futuresmart.

   b. Select **Upgrade now**.

   c. Find your Enterprise printer model.

   d. Select the link to open the firmware download page.

e. Select **OS Independent** from the list of operating systems.

f. Under the **Firmware** section, find the file for multiple operating systems.

g. Select **Download**.

Reinstallation tip: To view installation instructions, go to http://www.hp.com/go/futuresmart. Select **Upgrade now**, and then select **How to perform a firmware update**.

Removal and replacement: Hard-disk drive (HDD)

Learn how to remove and replace the hard-disk drive (HDD).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the HDD.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-4 Part information

Part number	Part description
B5L29-67907	Hard-disk drive (HDD) accessory (M506/E50045/M527/E52545/M528/E52645) with instruction guide
5EL03A	Hard-disk drive (HDD) (government only)

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

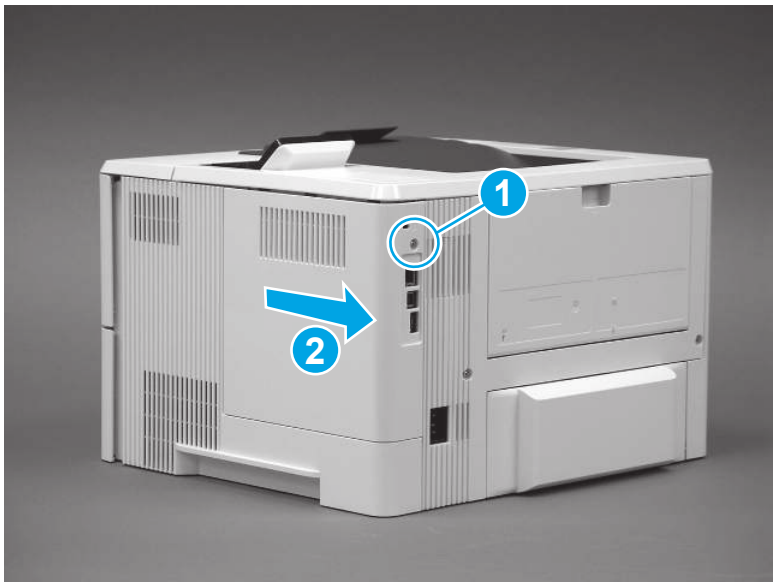
Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the formatter cover.

   - Do one of the following:

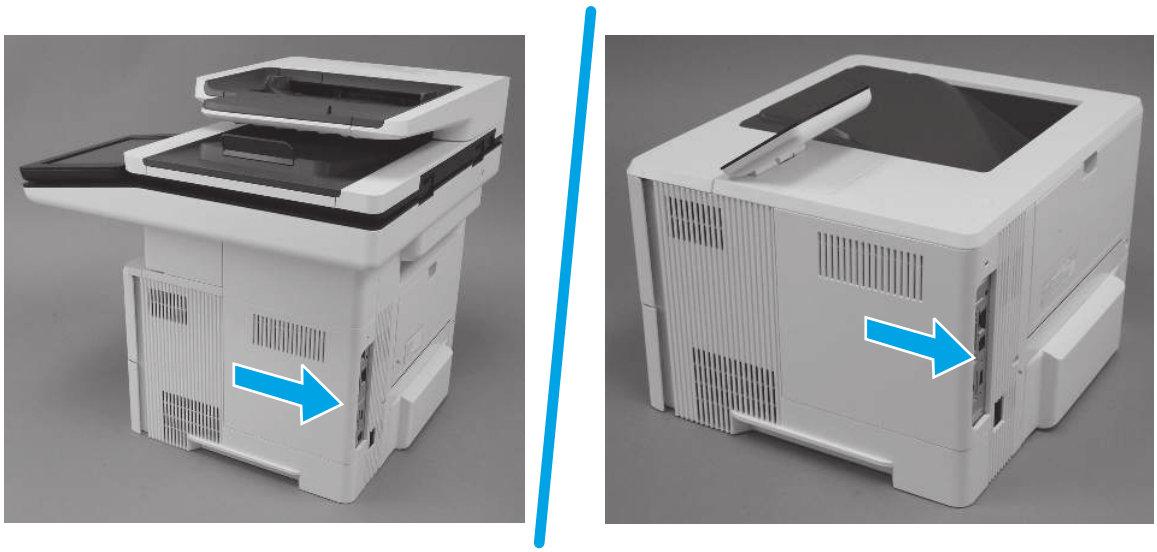
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-19 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

     Figure 4-20 **Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

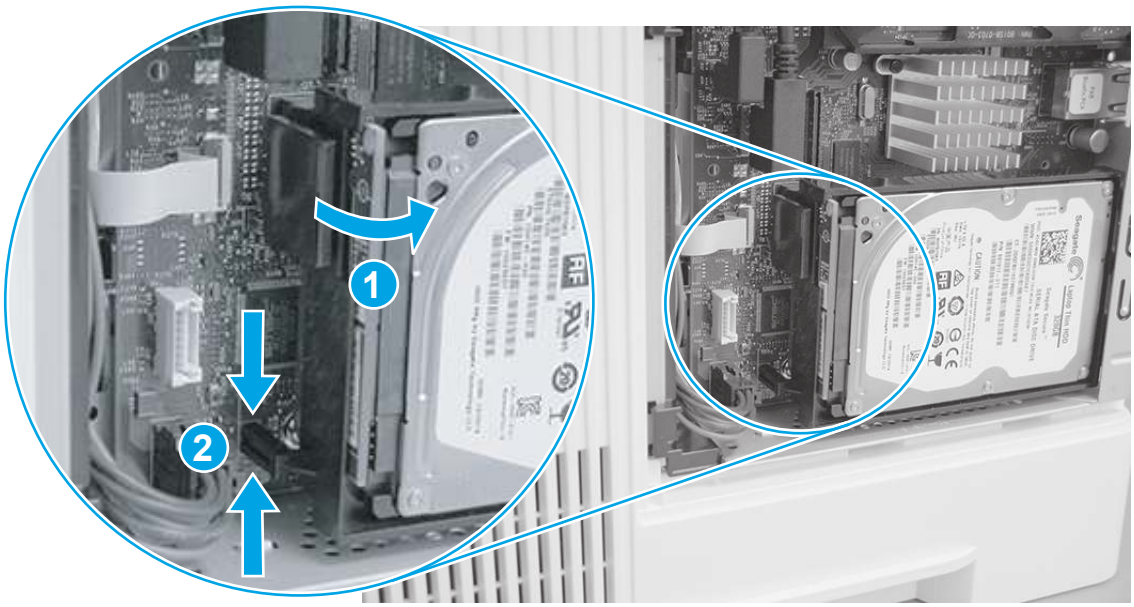
     

2. Remove the hard-disk drive (HDD models).

⚠ **CAUTION:** ESD sensitive part.

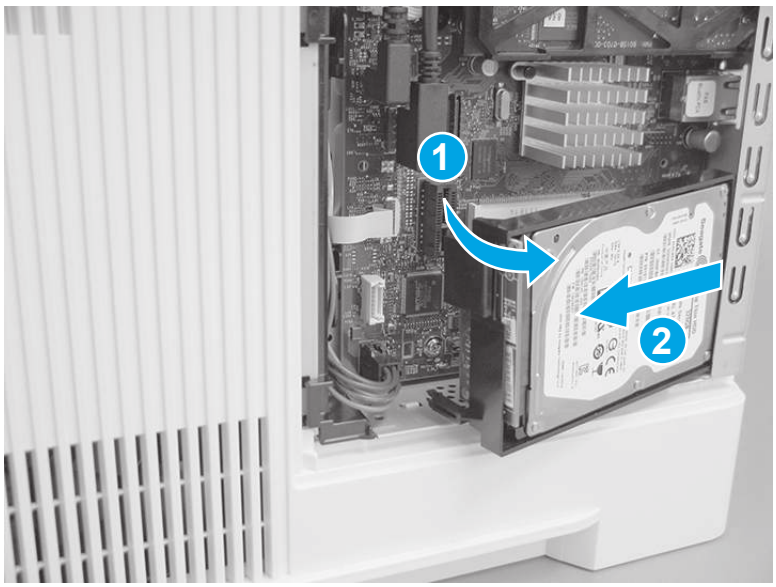
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-21 **Release the HDD**



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-22 **Remove the HDD**



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

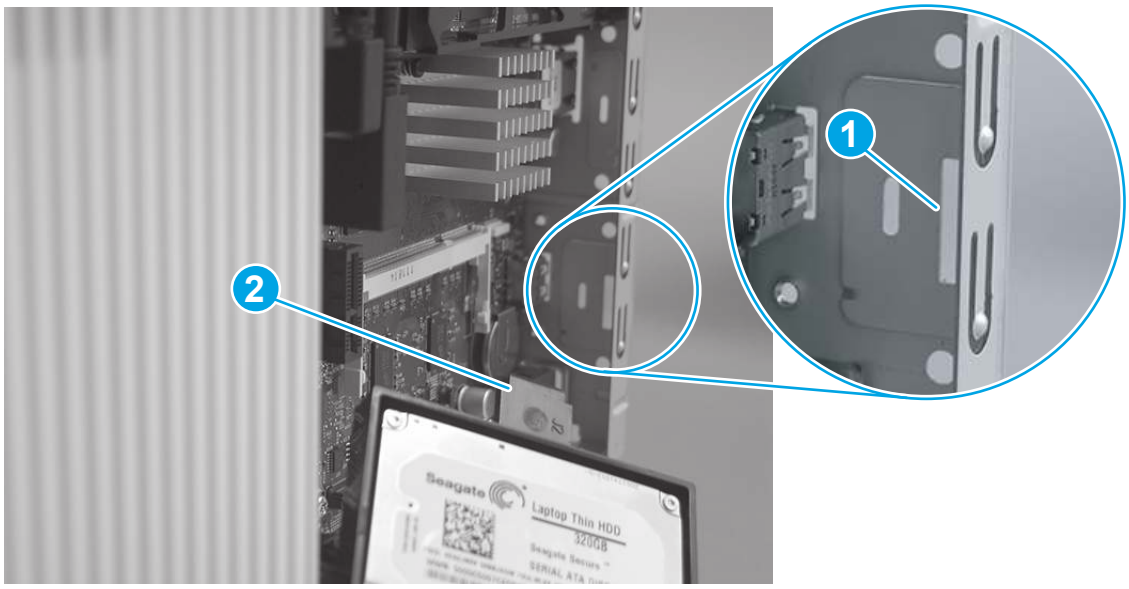
4. Install the HDD (HDD models).

CAUTION: ESD sensitive part.

a. Before proceeding, take note of the location of the slot (callout 1) in the sheet-metal where the HDD cradle mounting tab (callout 2) must be installed.

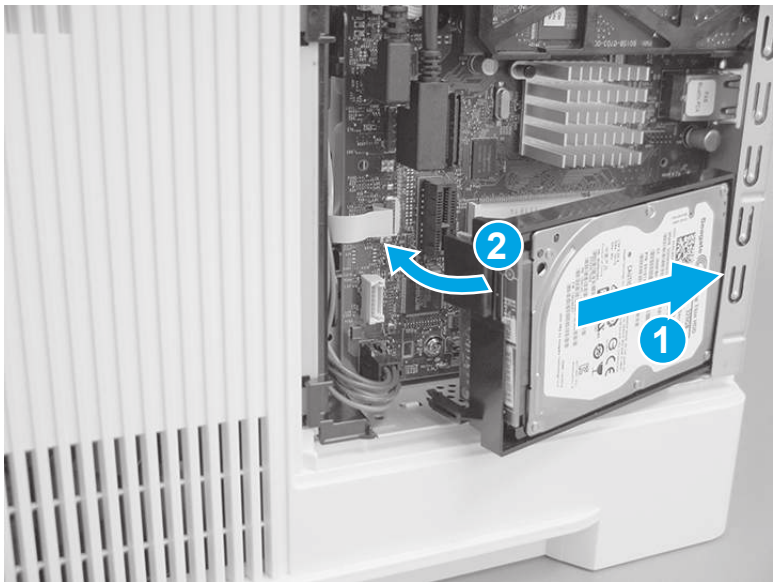
CAUTION: This portion of the sheet-metal is a knock-out plate (callout 1). Do not push on it with sufficient force to detach it when installing the HDD.

Figure 4-23 Locate the slot in the sheet-metal



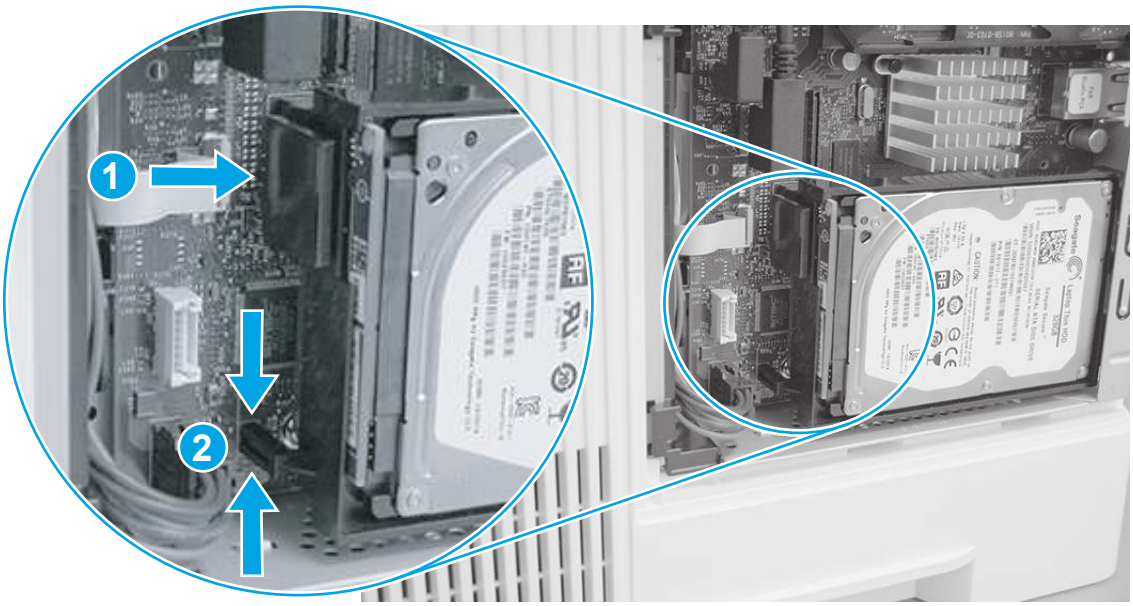
b. Insert the HDD cradle mounting tab in the slot in the sheet-metal (callout 1), and then rotate the connector end (callout 2) of the HDD toward the formatter.

Figure 4-24 Install the HDD



c. Make sure that the locking connector (callout 1) latches and that the standoff (callout 2) engages with the slot in the formatter (it might be necessary to pinch the retainer to engage it with the slot).

Figure 4-25 Install the HDD

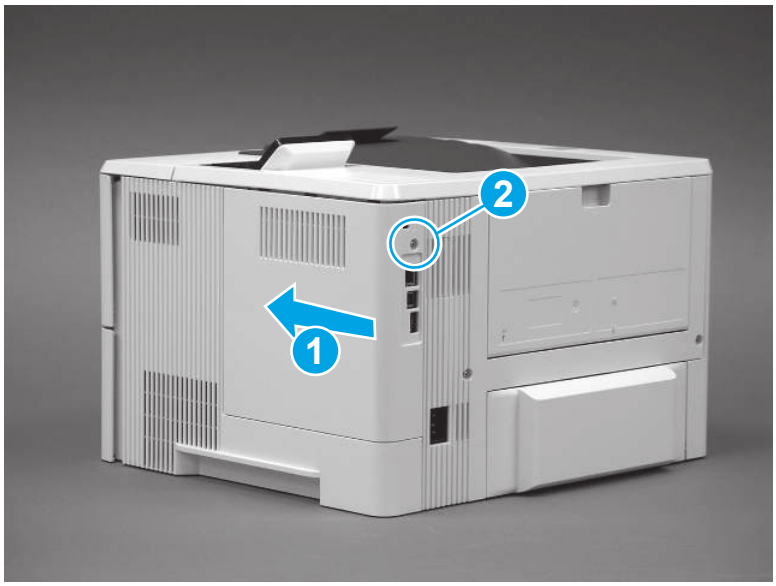


5. Install the formatter cover.

- Do one of the following:

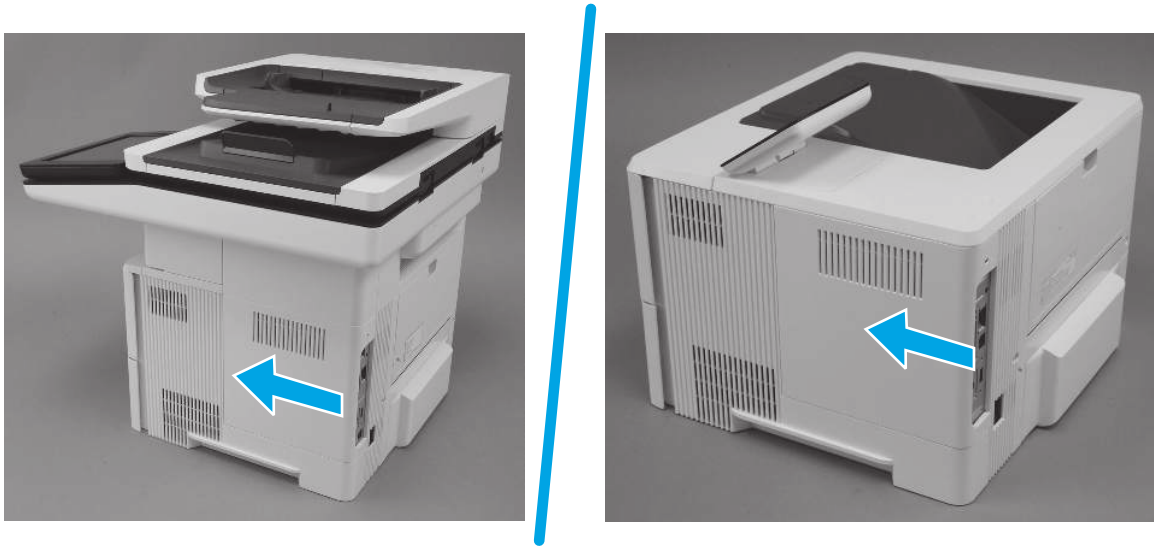
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-26 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-27 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



6. Reverse the removal steps to install the assembly. Also use the following **special installation instructions**.

   Reinstall the printer firmware

   a. Go to www.hp.com/go/futuresmart.

   b. Select **Upgrade now**.

   c. Find your Enterprise printer model.

   d. Select the link to open the firmware download page.

   e. Select **OS Independent** from the list of operating systems.

   f. Under the **Firmware** section, find the file for multiple operating systems.

   g. Select **Download**.

   Reinstallation tip: To view installation instructions, go to http://www.hp.com/go/futuresmart. Select **Upgrade now**, and then select **How to perform a firmware update**.

Removal and replacement: Dual in-line memory module (DIMM)

Learn how to remove and replace the dual in-line memory module (DIMM).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the DIMM.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-5 Part information

Part number	Part description
E5K48-67902	HP 1GB DDR3 x32 144-pin 800MHz SODIMM (M527/E52545/M528/E52645)
5851-6581	HP 2GB DDR3 x32 144-pin 800MHz SODIMM (M527/E52545/M528/E52645)
G6W84-67902	HP 1GB 90-pin DDR3 x32 Slim DIMM (M506/E50045/M507/E50145)
2NR03-67901	1GB 90-Pin DDR3 Slim DIMM TAA-Compliant (M506/E50045/M507/E50145)
2NR09-67901	2GB 144-Pin DDR3 DIMM TAA-Compliant (M527/E52545/M528/E52645)

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

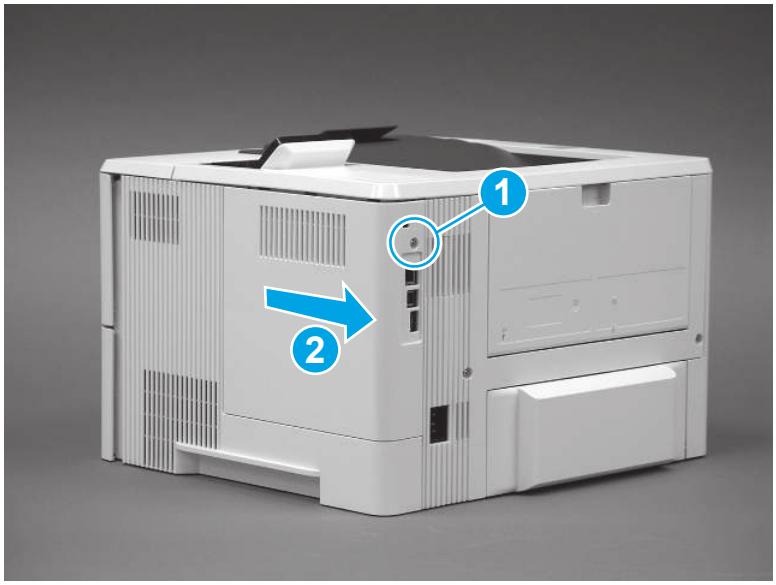
Post service test

Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

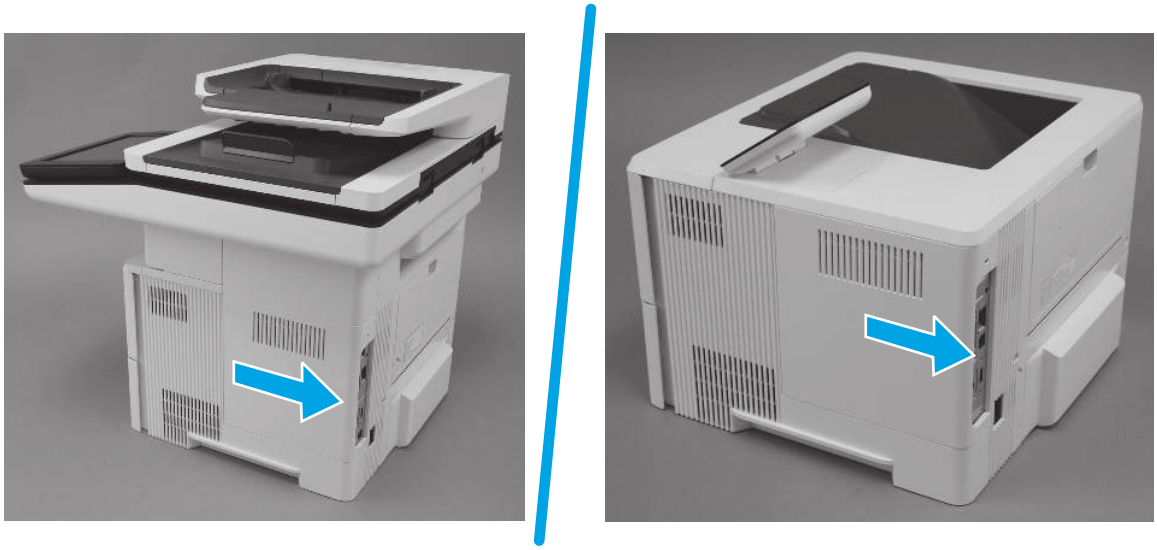
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-28 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-29 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

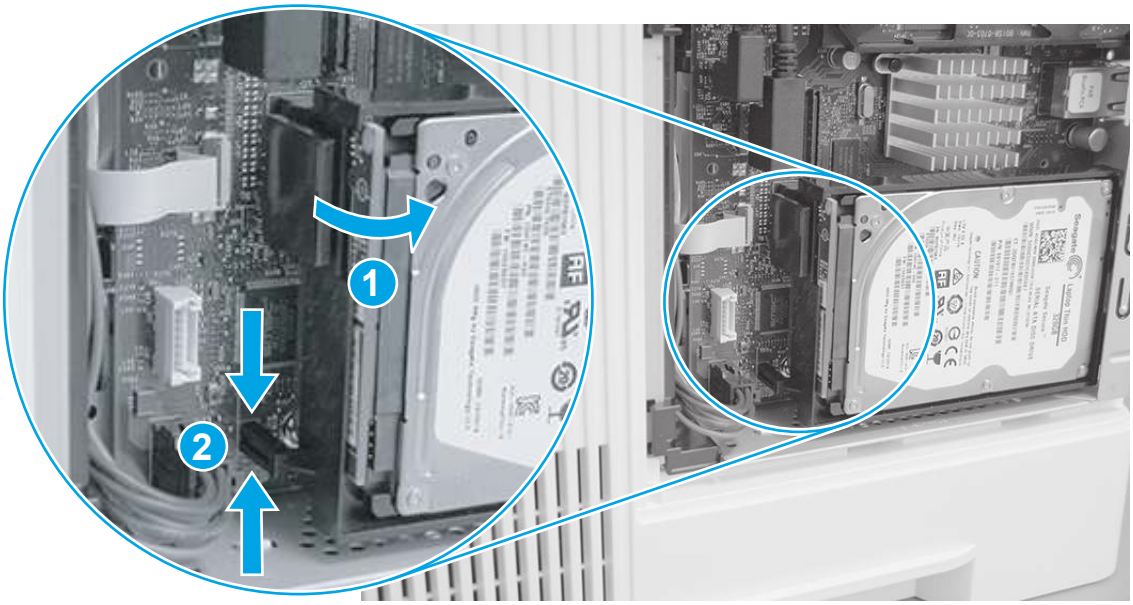


2. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

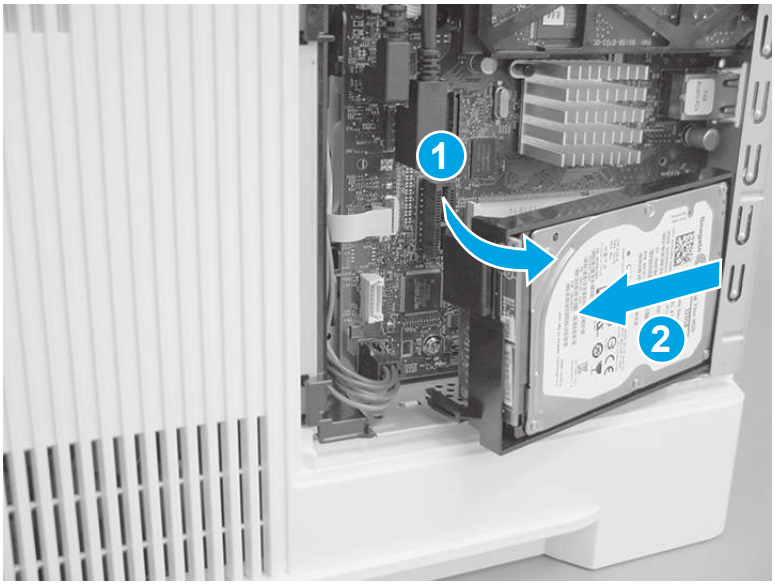
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-30 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-31 Remove the HDD



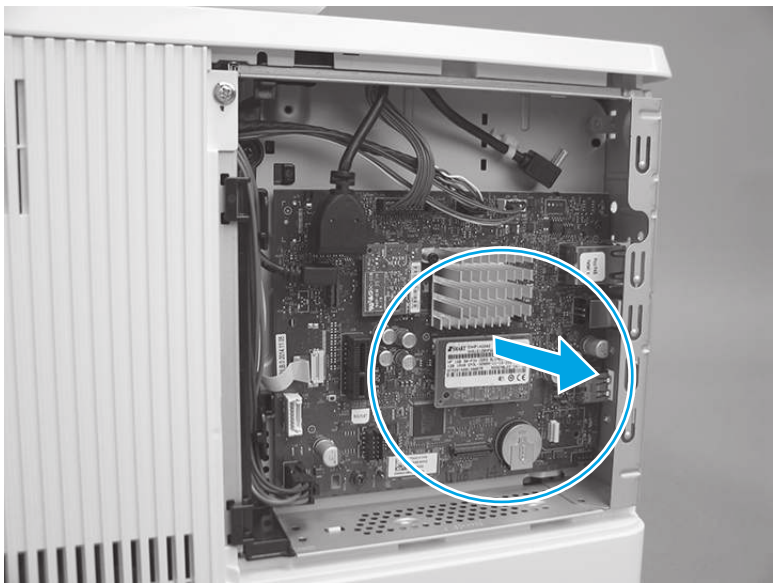
3. Remove the dual in-line memory module (DIMM).

CAUTION: ESD sensitive part.

NOTE: The M506/E50045/M507/E50145 printers use a Slim dual in-line memory module (DIMM).

a. **M506/E50045/M507/E50145 only**: Locate the DIMM component on the formatter, and then pull it straight off of the formatter to remove it.

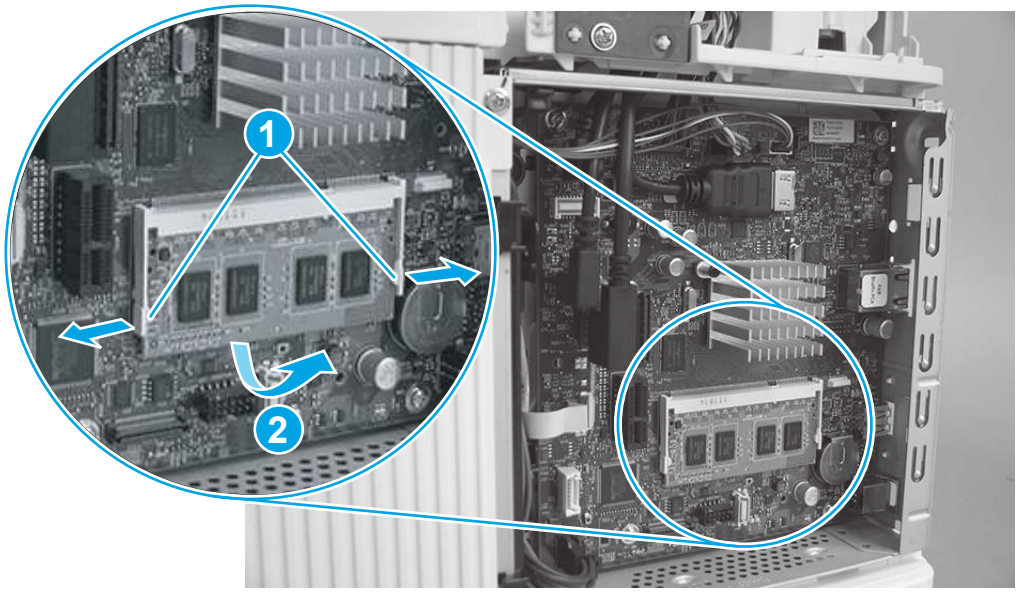
Figure 4-32 **Remove the DIMM (M506/E50045/M507/E50145)**



b. **M527/E52545/M528/E52645 only**: Do the following.

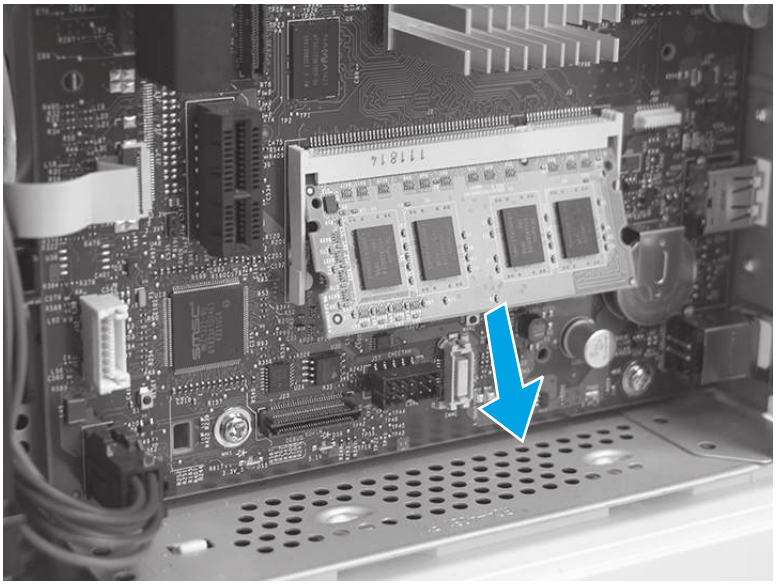
i. Locate the DIMM component on the formatter, release two locking arms (callout 1), and then let the bottom edge of the DIMM rotate away from the holder (callout 2).

Figure 4-33 **Release the DIMM (M527/E52545/M528/E52645)**



ii. Pull the DIMM down and away from the holder to remove it.

Figure 4-34 Remove the DIMM (M527/E52545/M528/E52645)



4. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

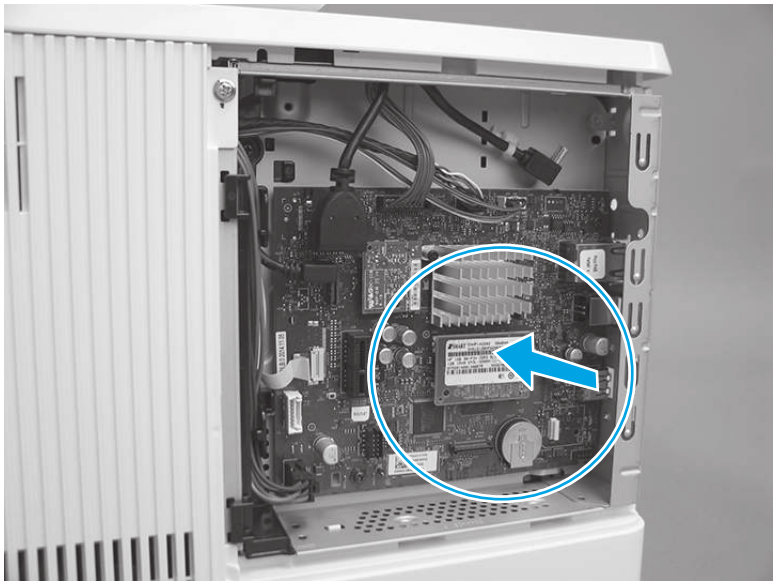
5. Install the dual in-line memory module (DIMM).

CAUTION: ESD sensitive part.

NOTE: The M506/E50045/M507/E50145 printers use a Slim dual in-line memory module (DIMM).

a. **M506/E50045/M507/E50145 only:** Push the DIMM straight on the connector to install it.

Figure 4-35 **Install the DIMM (M506/E50045/M507/E50145)**

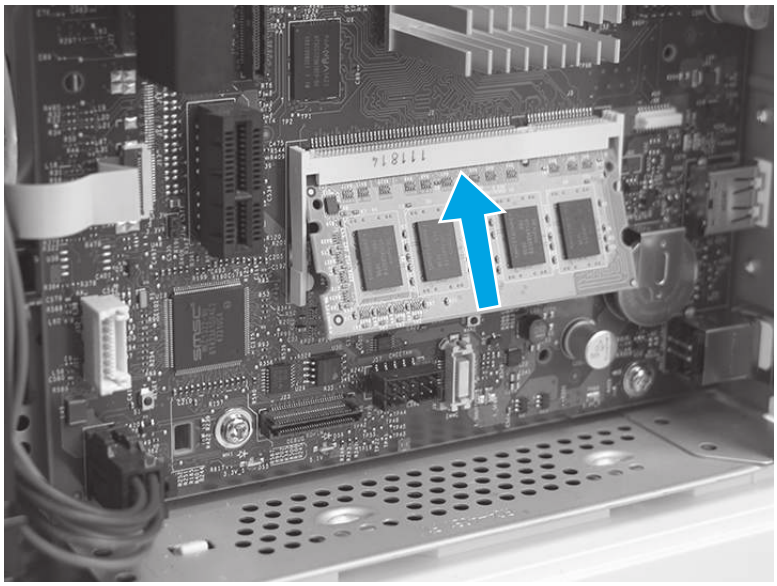


b. **M527/E52545/M528/E52645 only:** Do the following.

i. Insert the top edge of the DIMM in the holder.

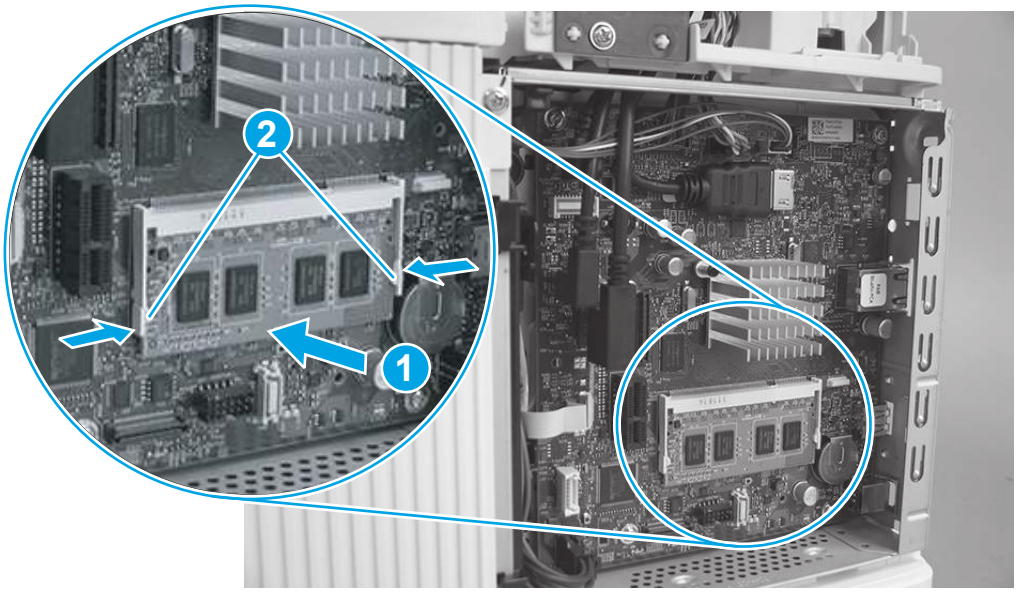
Reinstallation tip: The DIMM is keyed and can only be inserted in the holder one way.

Figure 4-36 **Insert the DIMM (M527/E52545/M528/E52645)**



ii. Rotate the bottom edge of the DIMM toward the holder (callout 1), and then make sure that the two locking arms snap into place (callout 2).

Figure 4-37 Install the DIMM (M527/E52545/M528/E52645)



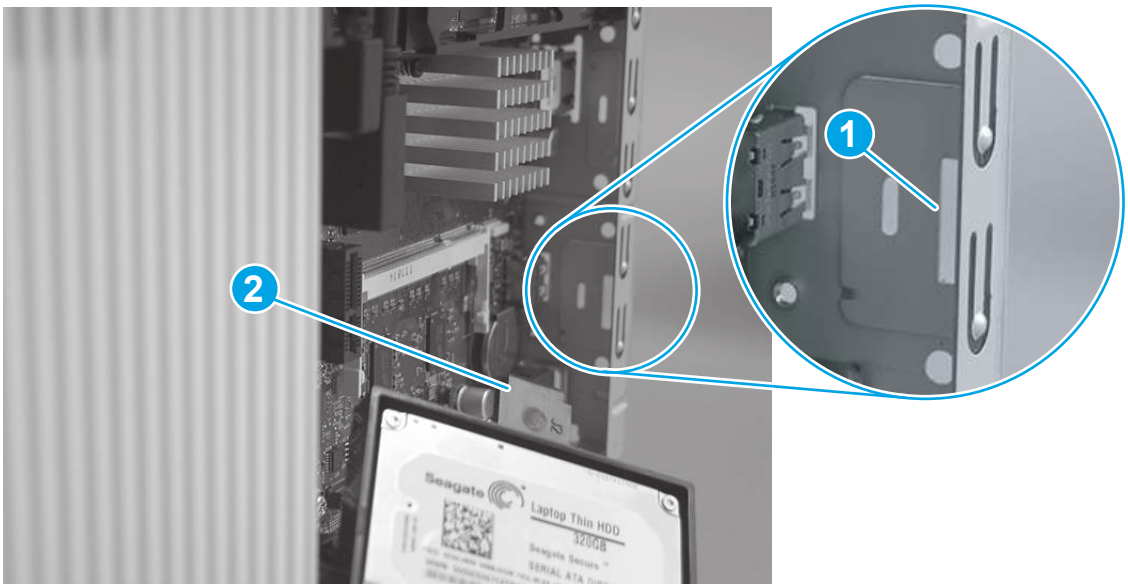
6. Install the HDD (HDD models).

⚠ CAUTION: ESD sensitive part.

a. Before proceeding, take note of the location of the slot (callout 1) in the sheet-metal where the HDD cradle mounting tab (callout 2) must be installed.

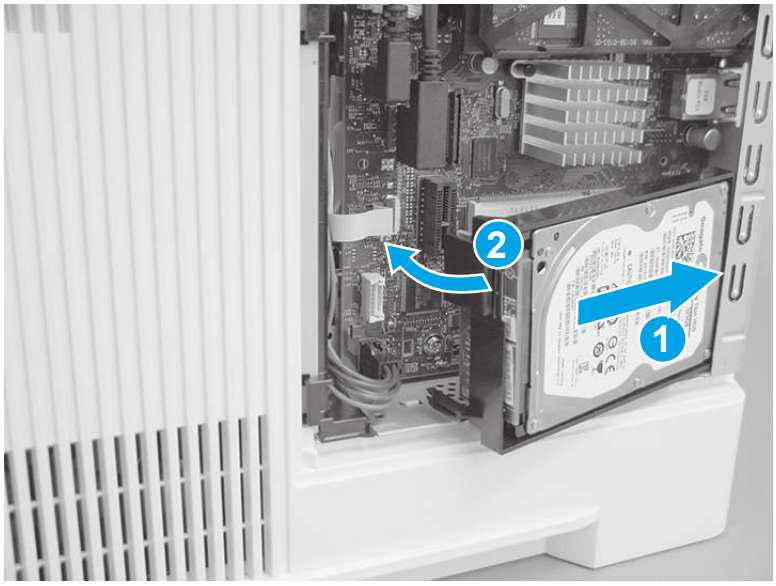
⚠ CAUTION: This portion of the sheet-metal is a knock-out plate (callout 1). Do not push on it with sufficient force to detach it when installing the HDD.

Figure 4-38 Locate the slot in the sheet-metal



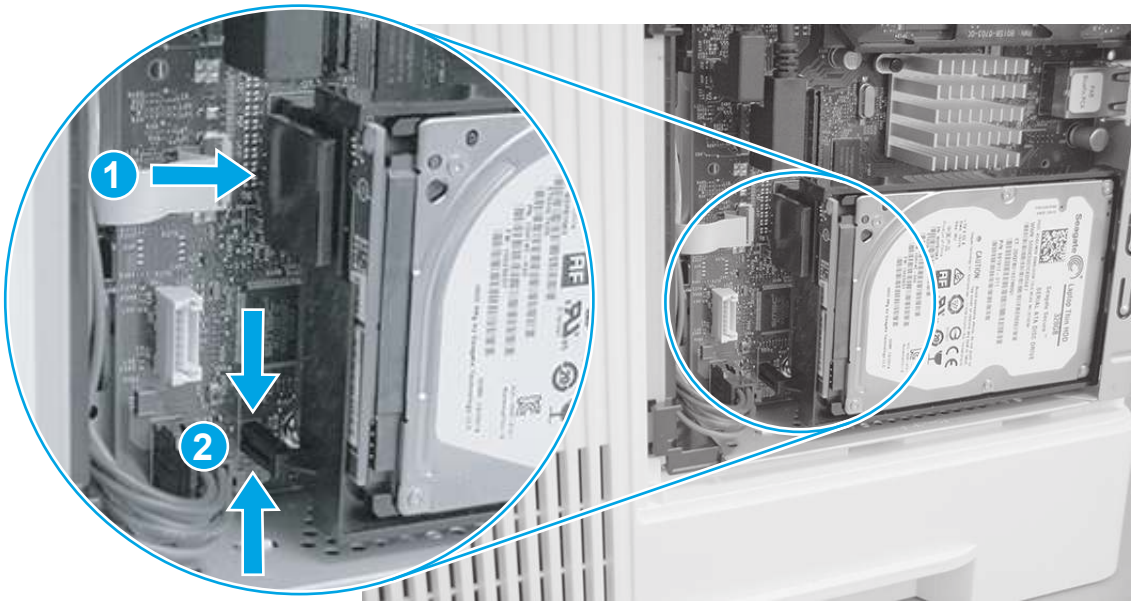
b. Insert the HDD cradle mounting tab in the slot in the sheet-metal (callout 1), and then rotate the connector end (callout 2) of the HDD toward the formatter.

Figure 4-39 Install the HDD



c. Make sure that the locking connector (callout 1) latches and that the standoff (callout 2) engages with the slot in the formatter (it might be necessary to pinch the retainer to engage it with the slot).

Figure 4-40 Install the HDD

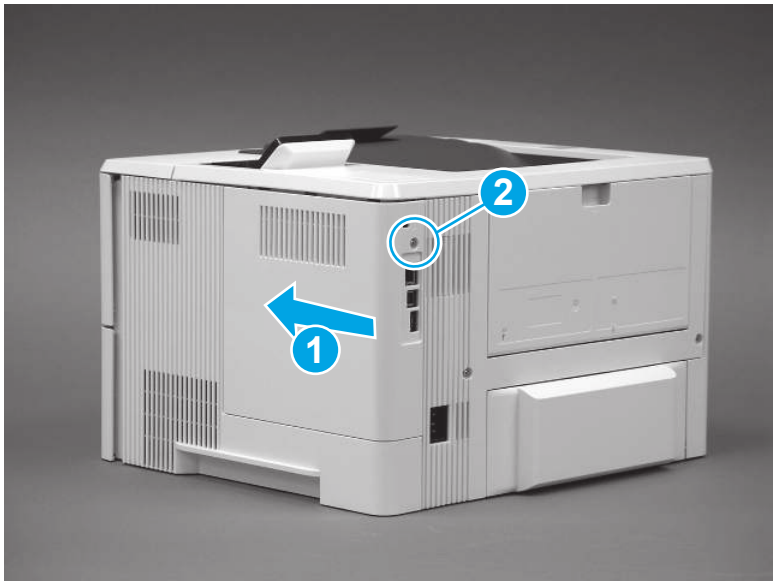


7. Install the formatter cover.

- Do one of the following:

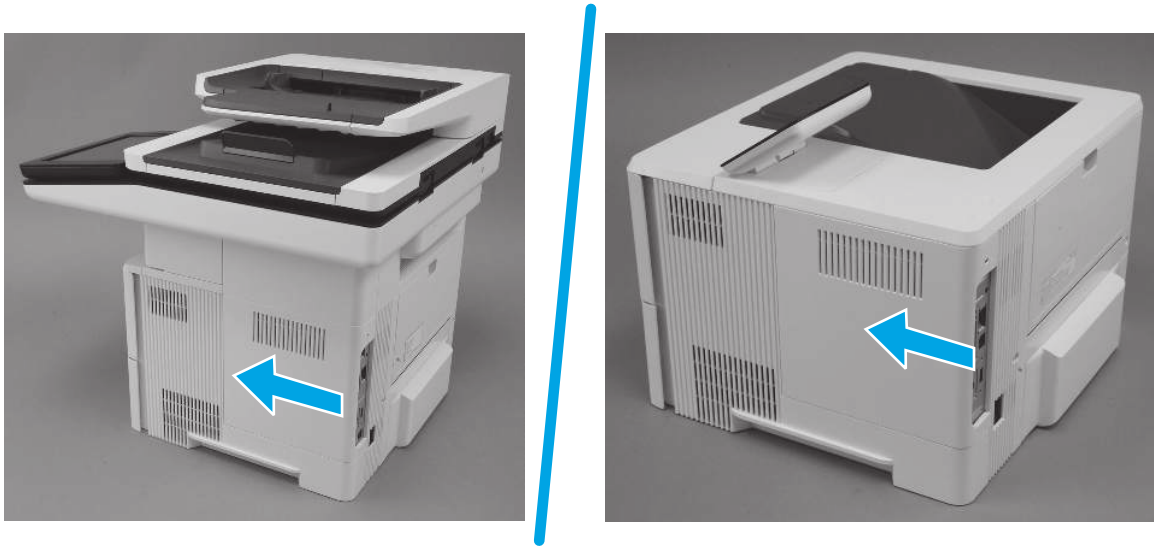
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-41 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-42 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



Removal and replacement: Transfer roller

Learn how to remove and replace the transfer roller.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the transfer roller.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-6 Part information

Part number	Part description
F2A68-67910	Transfer roller with instruction guide

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

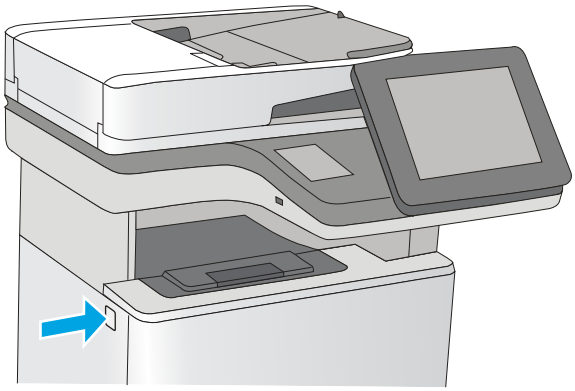
Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the toner cartridge.

   An MFP printer is shown in this section. However, the procedure is correct for all printer models.

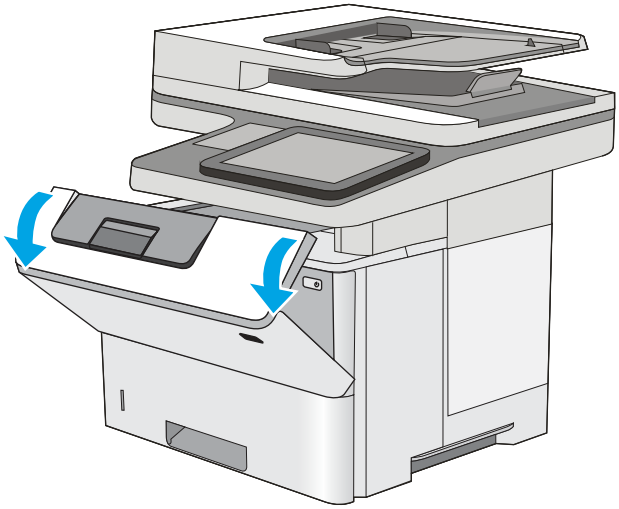
   a. Press the cartridge-door-release button.

   Figure 4-43 Press the cartridge-door-release button



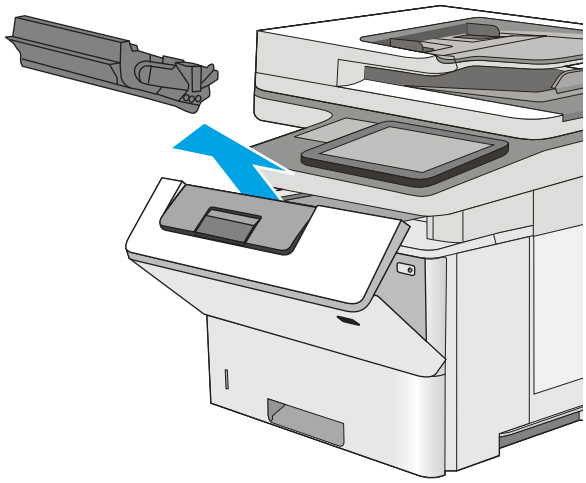
b. Open the toner-cartridge door.

Figure 4-44 Open the toner-cartridge door



c. Remove the toner cartridge from the printer.

Figure 4-45 Remove the toner cartridge

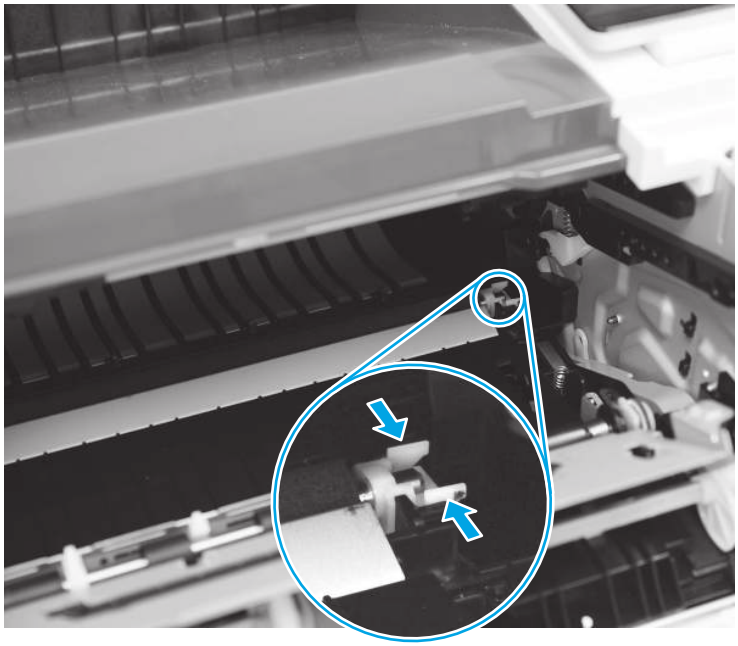


2. Remove the transfer roller.

a. Push in on the two white tabs on the right-side retainer clip to release them.

NOTE: The right end of the roller slightly springs up when the tabs are released.

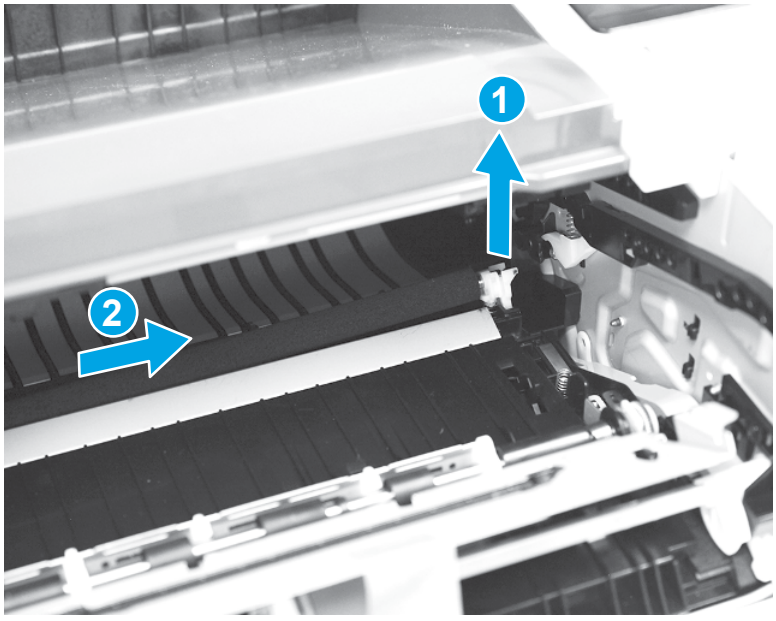
Figure 4-46 Release the retainer clip



b. Grasp the silver shaft end of the roller or the white retainer clip, raise the right-end of the roller up, and then slide the roller to the right to release the left-end of the roller shaft.

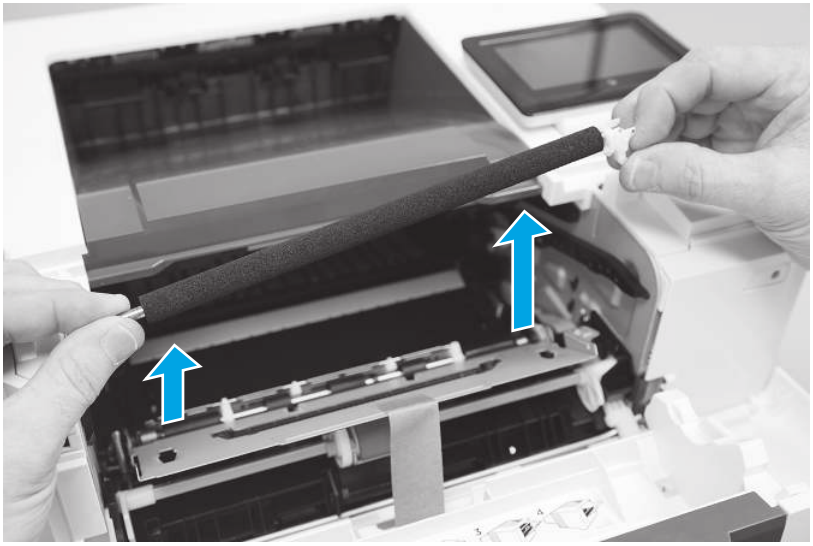
⚠ CAUTION: The retainer clip is not captive. Do not drop it into the product when handling the roller.

Figure 4-47 Release the roller



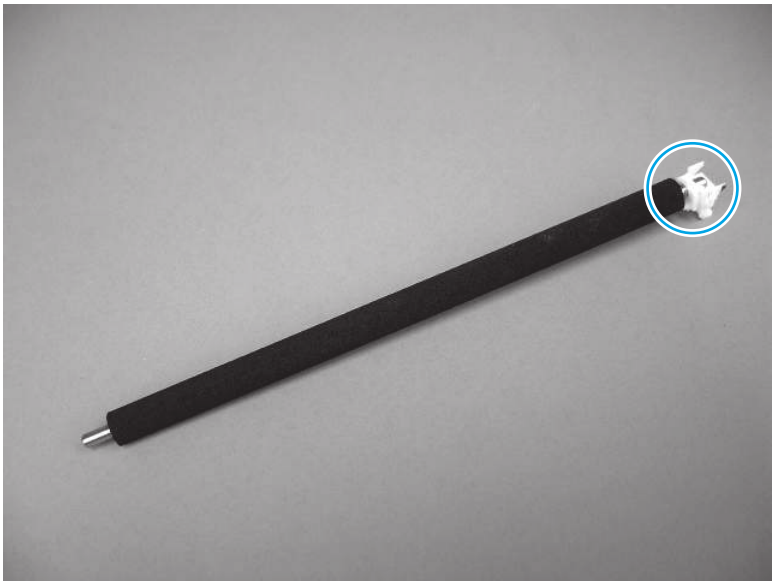
c. Remove the transfer roller from the printer.

Figure 4-48 Remove the roller



d. Remove the clip from the right end of the transfer roller. Set the clip aside, it will be installed on the replacement roller.

Figure 4-49 Remove the retainer clip



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

⚠ **CAUTION:** Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

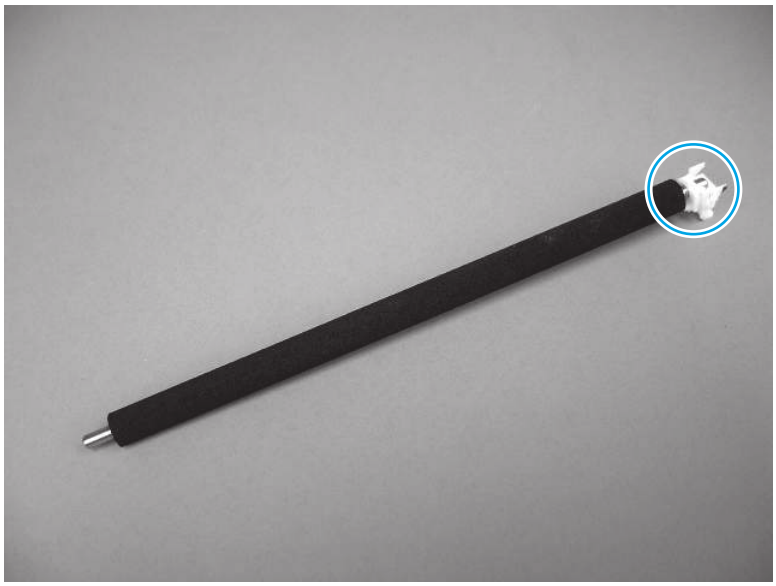
4. Install the transfer roller.

⚠ **CAUTION:** Do not touch the spongy portion of the replacement roller. Skin oils on the roller can cause paper handling problems. HP recommends washing your hands before handling the assembly.

a. From the discarded transfer roller, install the clip on either end of the replacement transfer roller.

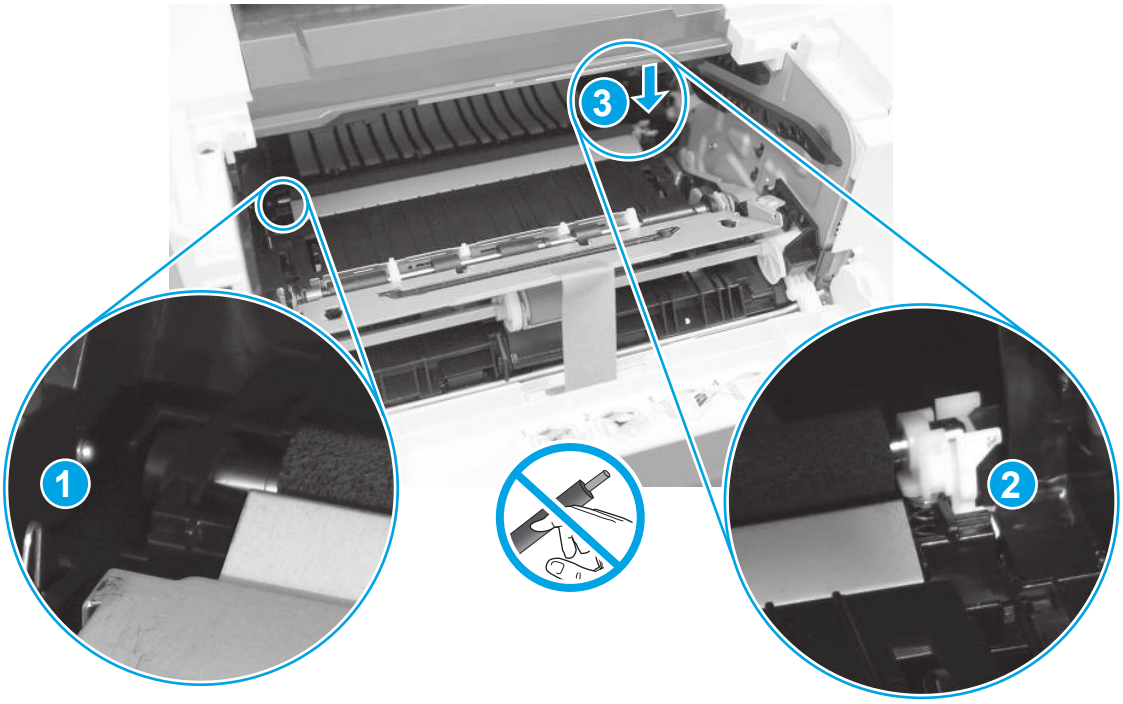
⚠ **CAUTION:** Avoid touching the black spongy part of the roller. Skin oils deposited on the rollers might cause print quality problems. HP recommends washing your hands before handling the roller.

Figure 4-50 **Install the holder**



b. Place the left (shaft) end of the roller in the retainer clip (callout 1), lower the right end (with the clip) into place making sure that the clip and spring are aligned (callout 2), and then push down (callout 3) on the clip until it snaps in place.

Figure 4-51 Install the roller and retainer clip

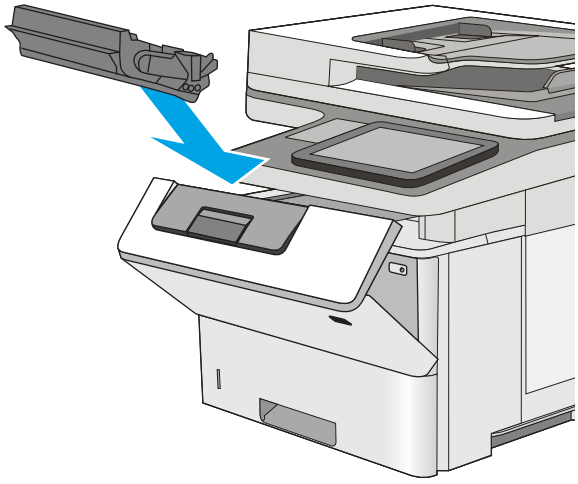


5. Install the toner cartridge.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

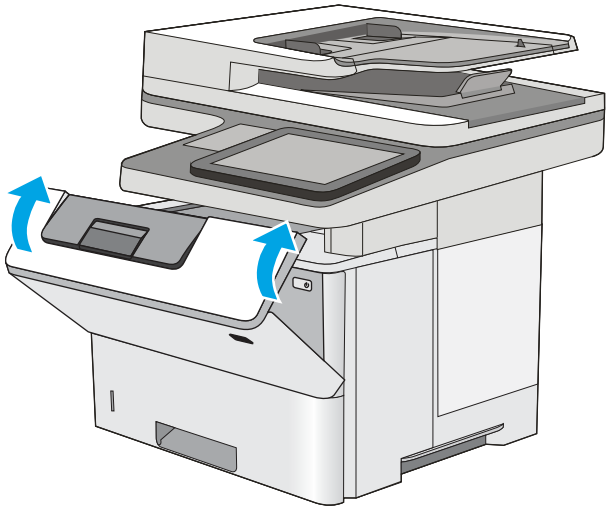
a. Align the toner cartridge with the tracks inside the printer, and install the toner cartridge until it is firmly seated.

Figure 4-52 Install the toner cartridge



b. Close the toner-cartridge door.

Figure 4-53 Close the toner-cartridge door



Removal and replacement: Control panel (MFP)

Learn how to remove and replace the control panel.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the control panel.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-7 Part information

Part number	Part description
B5L47-67018	Control panel (M527/E52545/M528/E52645) with instruction guide

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the control panel.
   a. Open the document feeder.

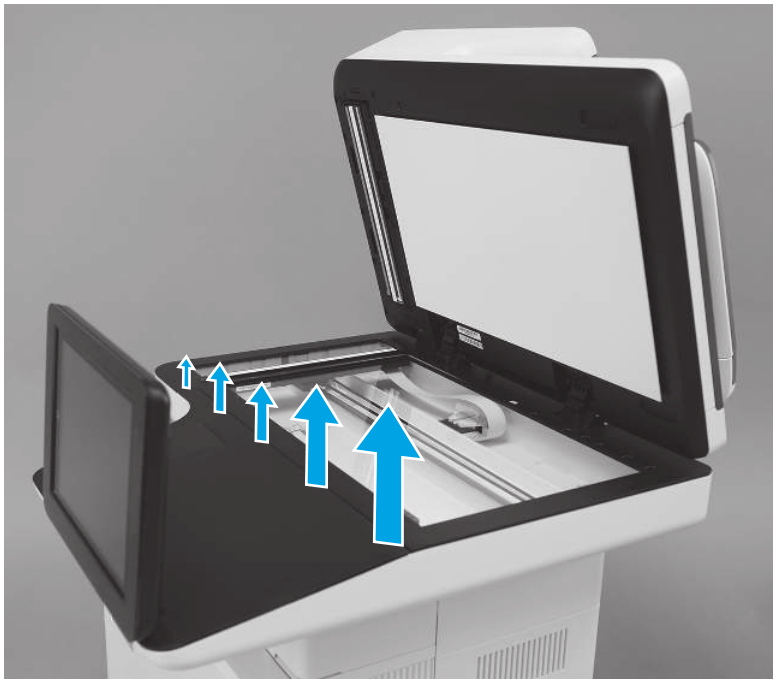
   NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

   Figure 4-54 **Open the document feeder**

   b. Beginning at the right side of the control-panel cover, carefully release five tabs along the top edge of the cover.

   NOTE: The thin black-plastic cover will separate from the white-plastic control-panel base.

Figure 4-55 Release five tabs

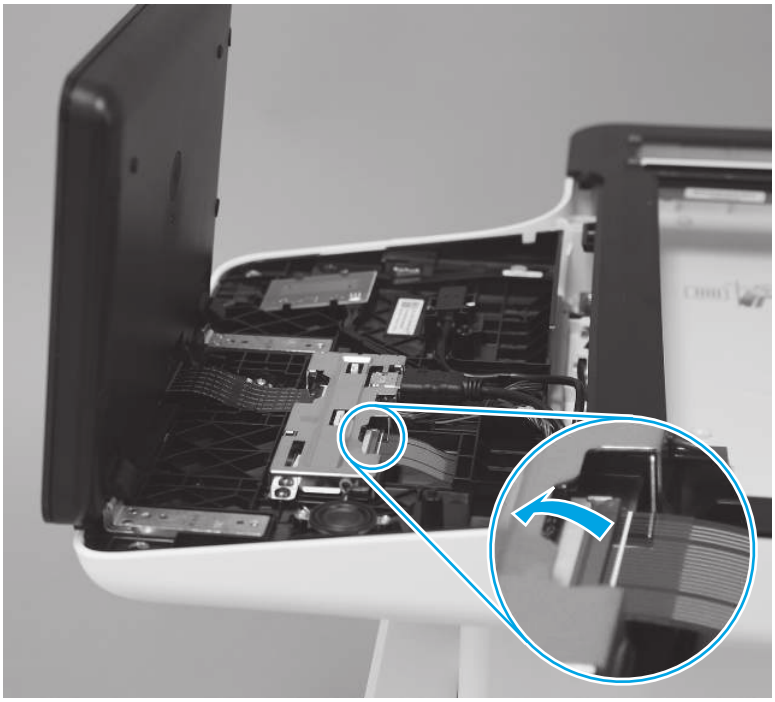


c. Continue to rotate the top edge of the cover away from the printer, and then remove the cover.

Figure 4-56 Remove the cover

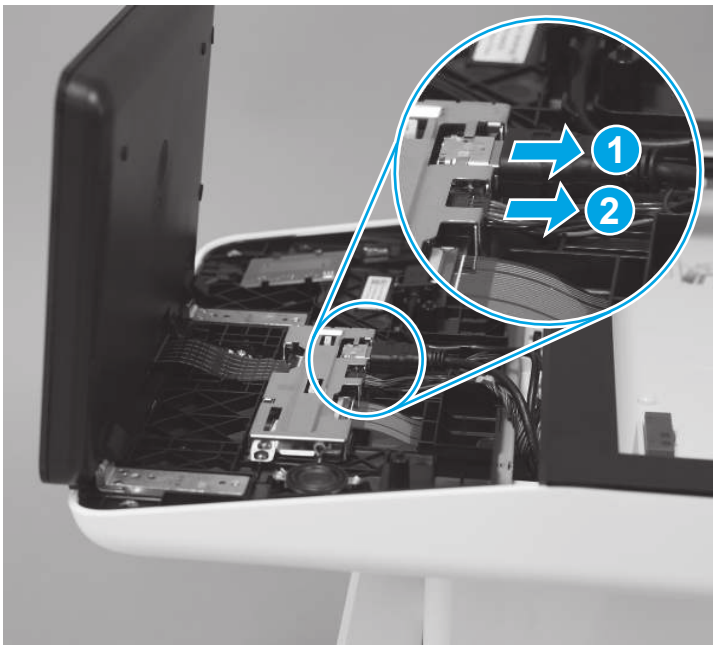
d. **M527/E52545/M528c/z, and E52645c/z only**: Open the connector latch to release the keyboard flat cable.

Figure 4-57 **Disconnect the FFC (M527/E52545/M528c/z, and E52645c/z)**



e. Disconnect one HDMI cable (callout 1) and one connector (callout 2).

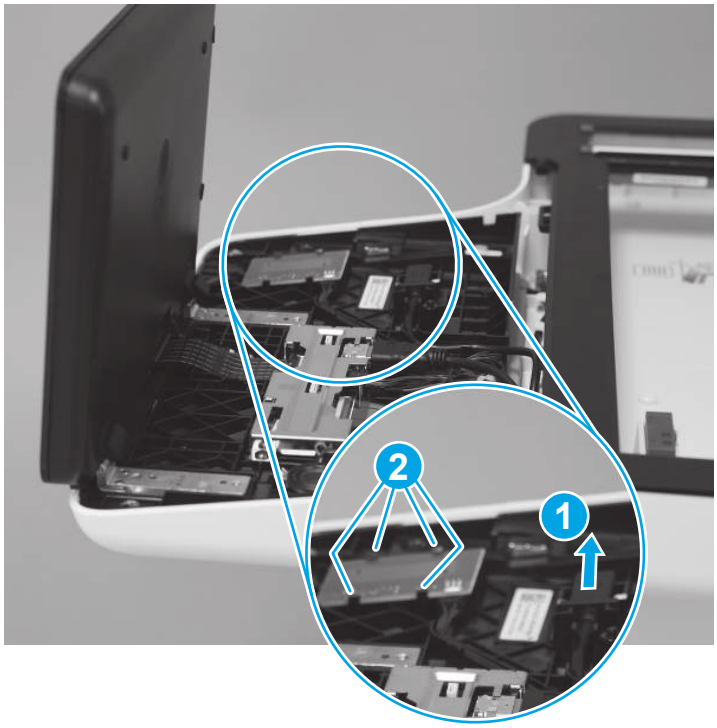
Figure 4-58 **Disconnect connectors**



f. Remove the USB cable (callout 1) from the holder.

NOTE: **M527z/E52545z only**: Release four tabs (callout 2), and then remove the near-field communication (NFC) printed circuit board.

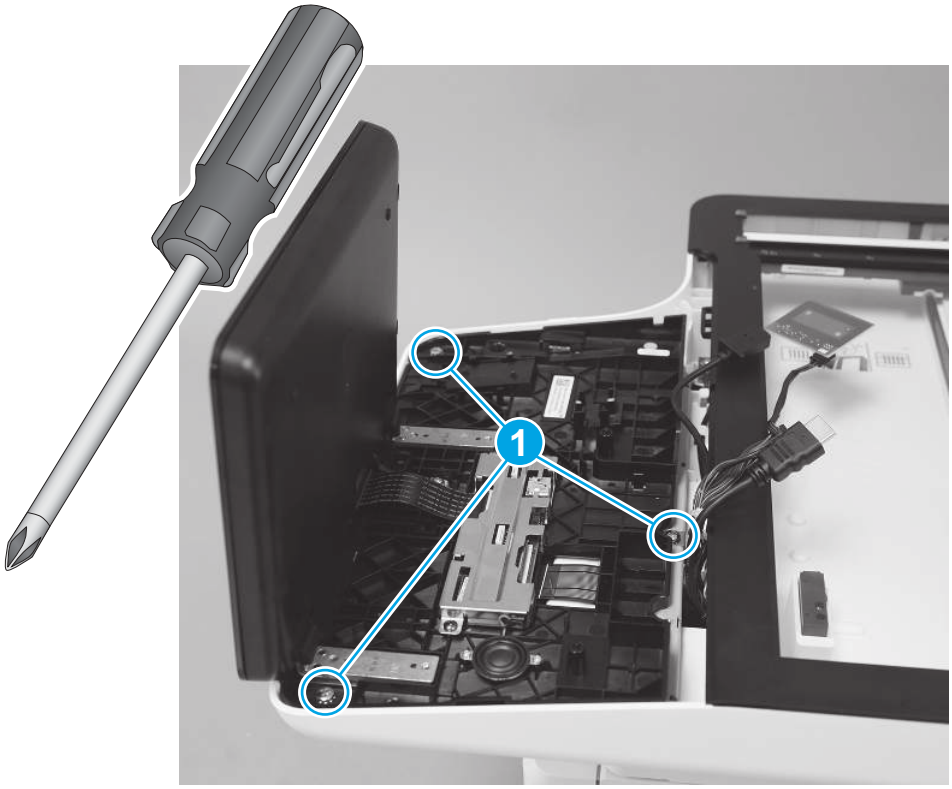
Figure 4-59 Remove USB cable and NFC PCA



g. Remove three screws (callout 1).

TIP: The screwdriver (supplied with the kit) has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

Figure 4-60 Remove three screws



h. Lift the front of the control panel off of the printer (callout 1), and then slide it toward the front of the printer (callout 2) to remove it.

Figure 4-61 Remove the control panel

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

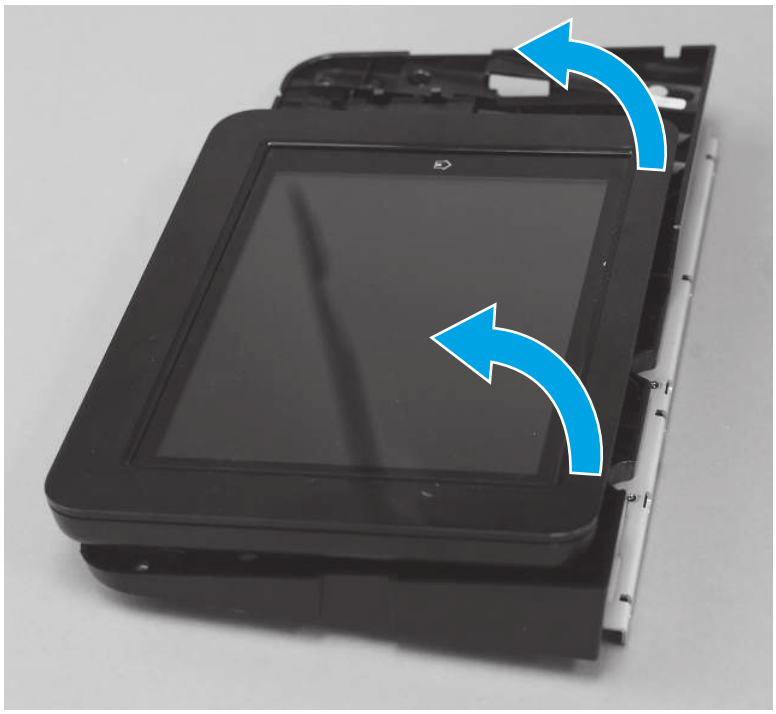
c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the control panel.

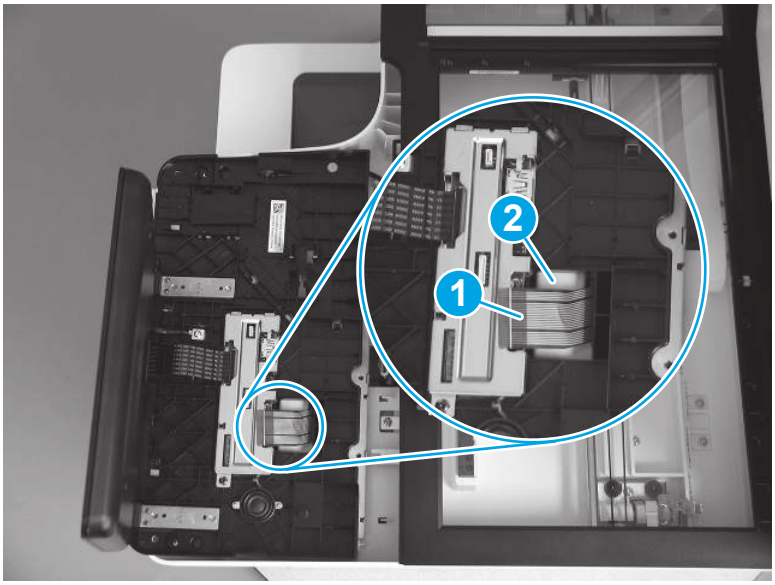
a. Tilt the replacement control panel away from the base plate.

Figure 4-62 Open the control panel



b. **M527/E52545/M528c/z, and E52645c/z only**: Make sure to feed the keyboard flat cable (callout 1) passes through the opening (callout 2) in the control-panel base when installing the control panel.

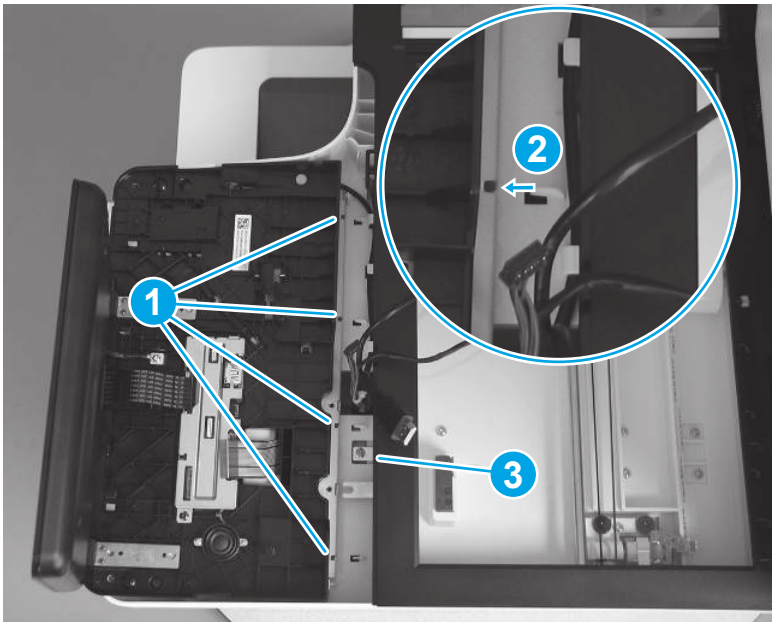
Figure 4-63 **Check the keyboard flat cable (M527/E52545/M528c/z, and E52645c/z)**



c. Locate the four hooks on the printer and matching slots in the control-panel base (callout 1). The hooks fit into the slots (callout 2) when the assembly is installed.

NOTE: Make sure that the grounding clip (callout 3) is on top of the assembly base when it is installed.

Figure 4-64 **Locate the hooks and slots**



d. Position the rear edge of the control panel in the printer (callout 1), and then lower the front edge down (callout 2) to install it.

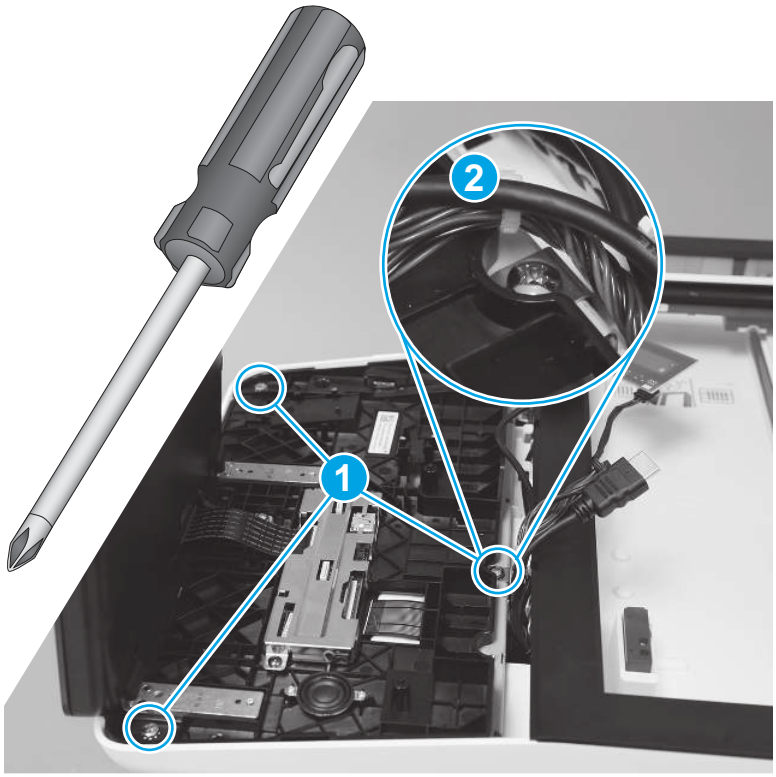
NOTE: If the control panel is difficult to install, make sure that the hooks, slots, and grounding clip are correctly engaged. See previous steps.

Figure 4-65 Install the control-panel

e. Install three screws (callout 1), make sure that the grounding clip is correctly installed (callout 2).

TIP: The screwdriver (supplied with the kit) has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

Figure 4-66 Install three screws



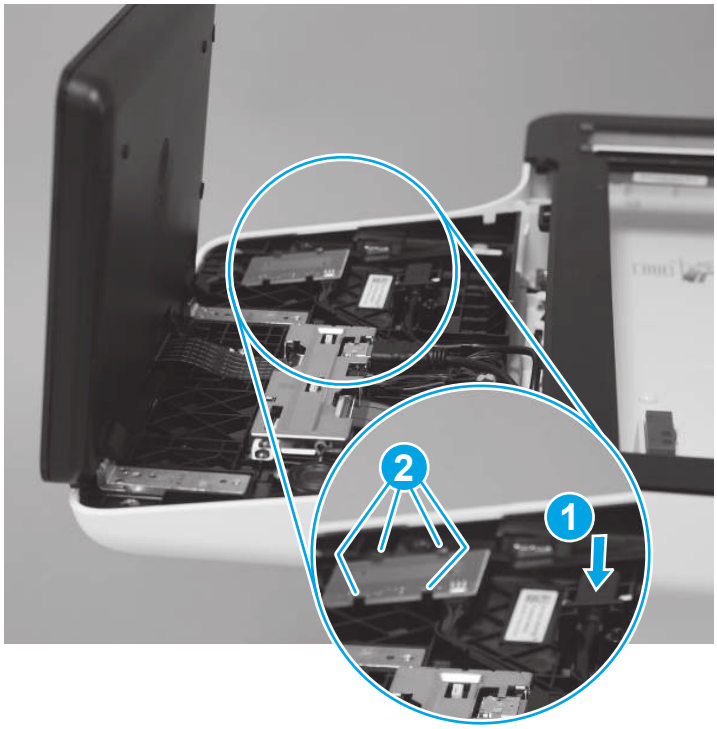
f. Connect one HDMI cable (callout 1) and one connector (callout 2).

Figure 4-67 Connect the connectors

g. Install the USB cable (callout 1) in the holder.

NOTE: **M527z/E52545z only**: Install the near-field communication (NFC) printed circuit board under the four tabs (callout 2).

Figure 4-68 **Install the USB cable and NFC PCA**

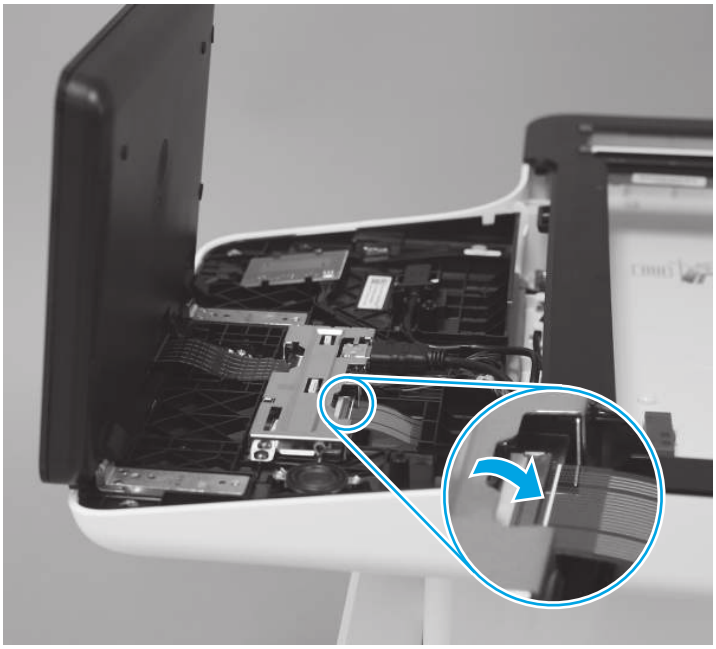


h. **M527/E52545/M528c/z, and E52645c/z only**: Position the keyboard flat cable in the connector, and then close the connector latch.

IMPORTANT: Slightly tug on the cable to make sure that it is fully captured in the connector.

NOTE: When the connector latch is closed, and the cable is correctly installed, the white line on the cable is parallel to the connector latch.

Figure 4-69 Connect the flat cable (M527/E52545/M528c/z, and E52645c/z)

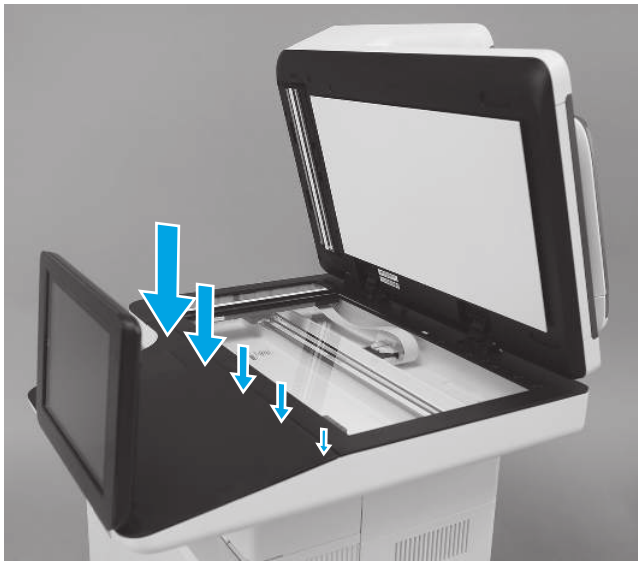


i. Position the control-panel cover on the printer.

Figure 4-70 Position the control-panel cover on the printer

j. Beginning at the left side of the control-panel cover, carefully engage five tabs along the top edge of the cover.

Figure 4-71 Engage five tabs

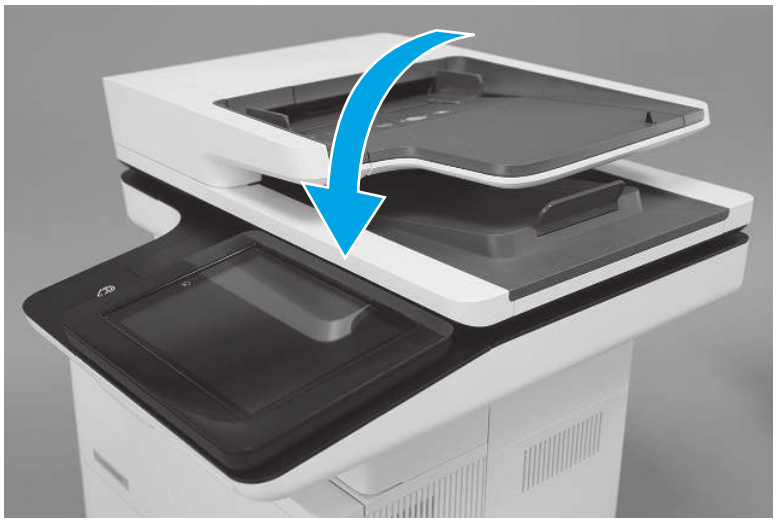


k. Close the document feeder.

NOTE: Adjust the control panel to the desired angle.

Reinstallation tip: If the keyboard is unresponsive after turning the printer on, check the flat cable installed in a previous step. Reinstall the cable if necessary.

Figure 4-72 Close the document feeder



Removal and replacement: Control panel (M506x/E50045x/M507x/E50145x)

Learn how to remove and replace the control panel.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the control panel.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-8 Part information

Part number	Part description
G1W41-67907	Control panel (M506x//M506xm/E50045dw/E50045x) with instruction guide
K0Q15-67901	Control panel (M507x/E50145x) with instruction guide

Required tools

> **NOTE:** A reversible-shaft screwdriver is supplied with this kit.

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

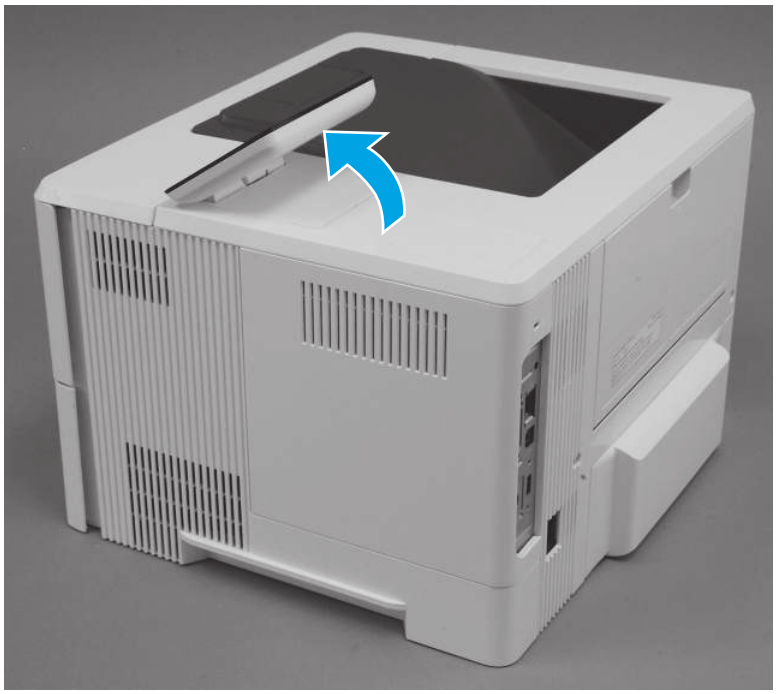
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

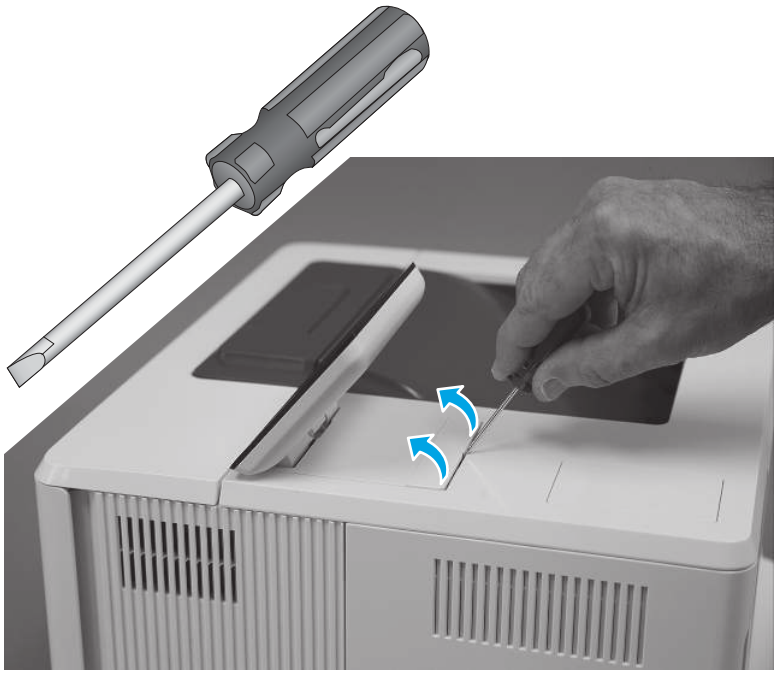
Figure 4-73 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

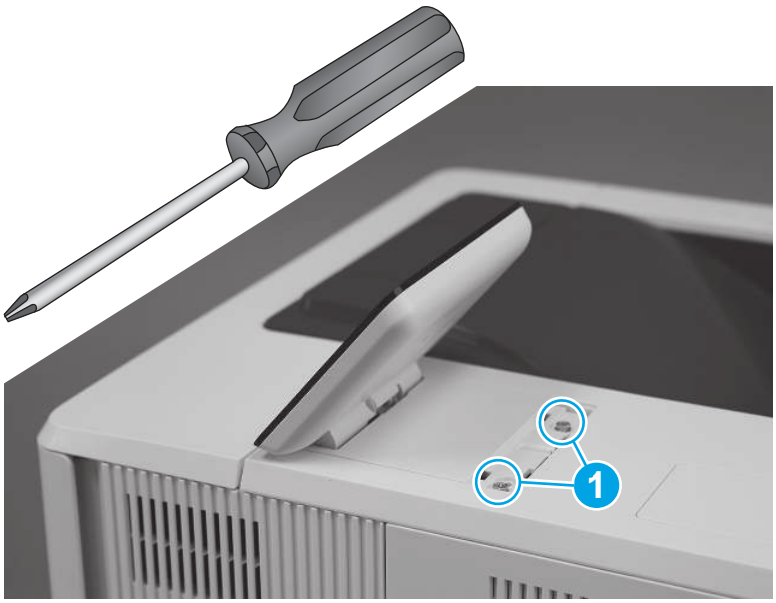
Figure 4-74 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

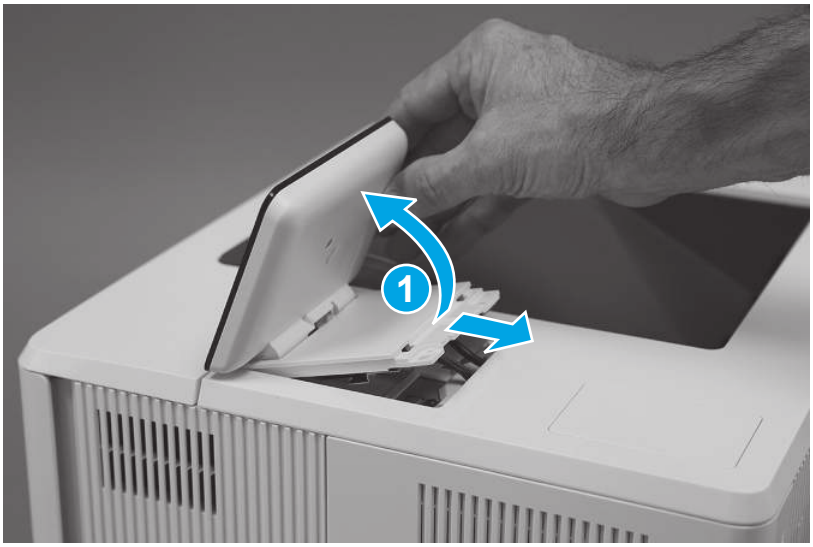
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-75 Remove two screws



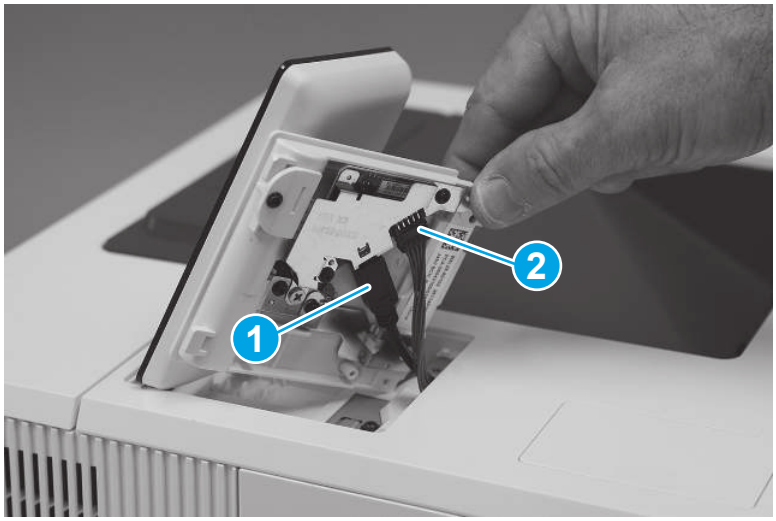
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-76 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-77 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-78 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-79 **Remove the control panel (M507/E50145)**

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

⚠ **CAUTION:** Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

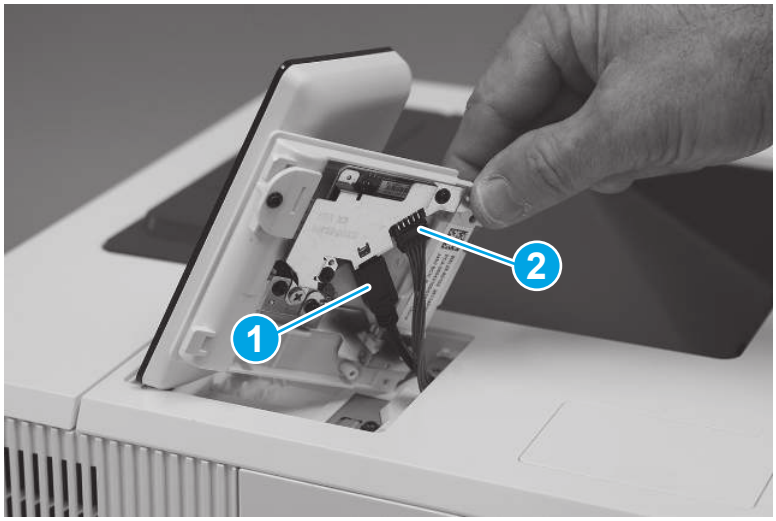
c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the control panel (M506x/E50045x/M507x/E50145x).

   a. **M506/E50045 only**: Connect one HDMI cable (callout 1) and one connector (callout 2).

   Figure 4-80 **Connect the cables (M506/E50045)**

   b. **M507/E50145 only**: Pass the FFC through the opening in the cover.

   CAUTION: ESD sensitive part.

   Figure 4-81 **Install the FFC (M507/E50145)**

   c. **M507/E50145 only**: Connect one FFC.

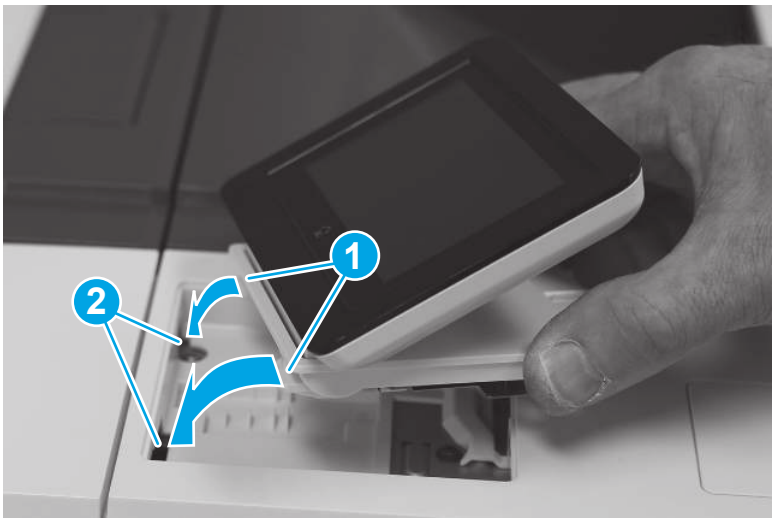
   CAUTION: ESD sensitive part.

   NOTE: Reinstall the formatter cover.

Figure 4-82 Connect one FFC (M507/E50145)

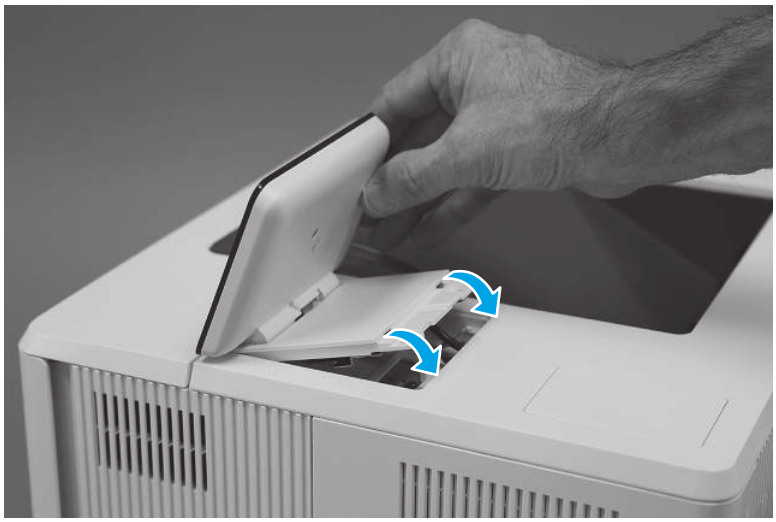
d. Install the tabs (callout 1) on the front of the control panel in the slots (callout 2) on the printer top cover.

Figure 4-83 Install the control panel



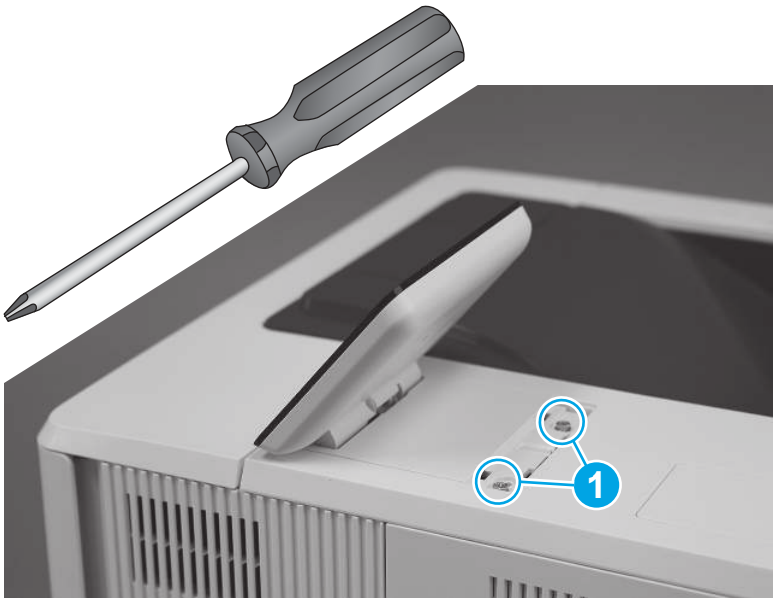
e. Rotate the control-panel base down onto the printer.

Figure 4-84 Rotate the control-panel base down



f. Use the small Phillips screwdriver supplied in the kit to install two screws (callout 1).

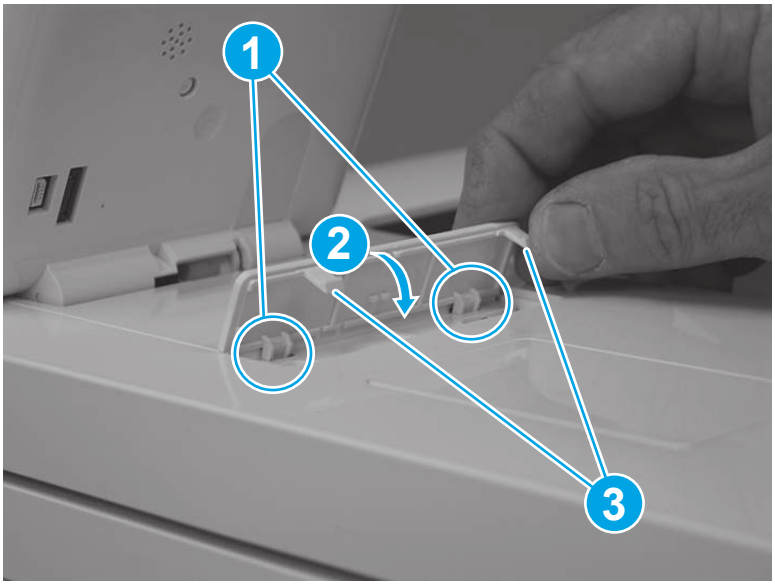
Figure 4-85 Install two screws



g. Position the screw cover mounting feet into the slots in the top cover (callout 1), and then rotate the cover down (callout 2) to install it.

NOTE: Press down on the cover firmly to make sure that the tabs (callout 3) snap into place.

Figure 4-86 Install the cover



Removal and replacement: White backing (MFP)

Learn how to remove and replace the white backing.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the white backing.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-9 Part information

Part number	Part description
5851-6570	White backing kit (with instruction guide)[1]

[1] This kit includes the white backing retention clips.

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

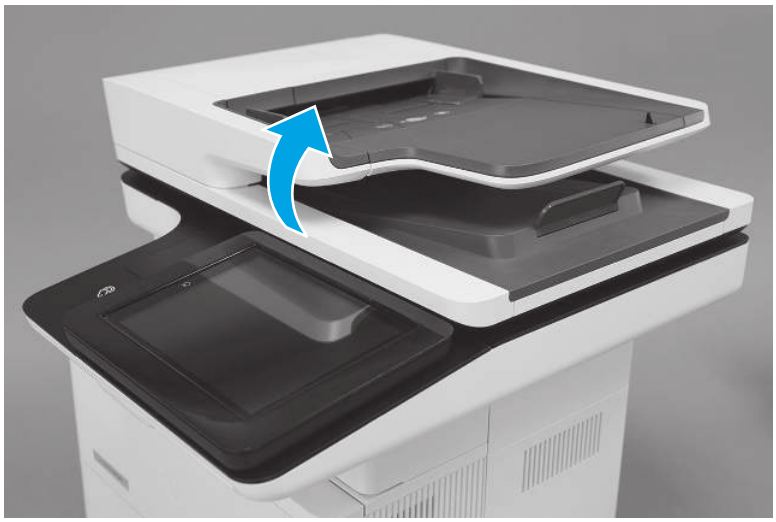
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

1. Remove the white backing (M527/E52545/M528/E52645).
   a. Open the document feeder.

   Figure 4-87 Open the document feeder

   b. Remove the white backing and retention clips (attached to the document feeder behind the white backing).

   TIP: Use the edge of a coin to loosen the clips.

Figure 4-88 Remove the white backing

2. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

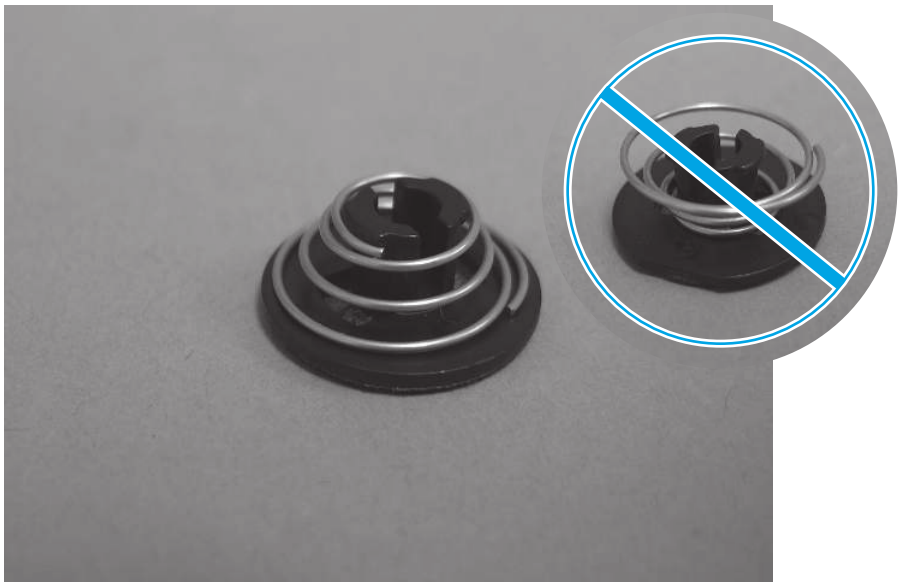
   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the white backing (M527/E52545/M528/E52645).

   a. Verify that the springs are positioned correctly on the replacement retention clips.

   NOTE: Replacement retention clips are supplied in the kit.

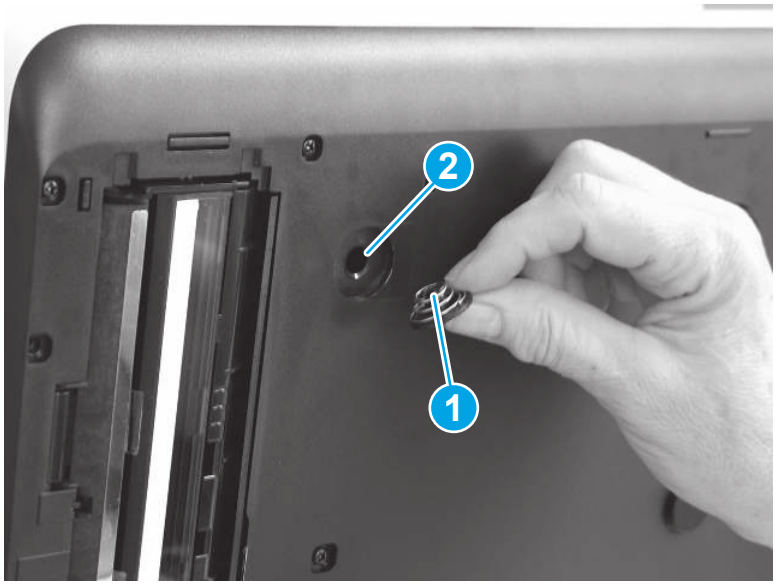
Figure 4-89 Check the retention clip spring



b. Install the replacement clips (callout 1) in the openings (callout 2) in the document feeder.

NOTE: Make sure that the springs are correctly installed. See the previous step.

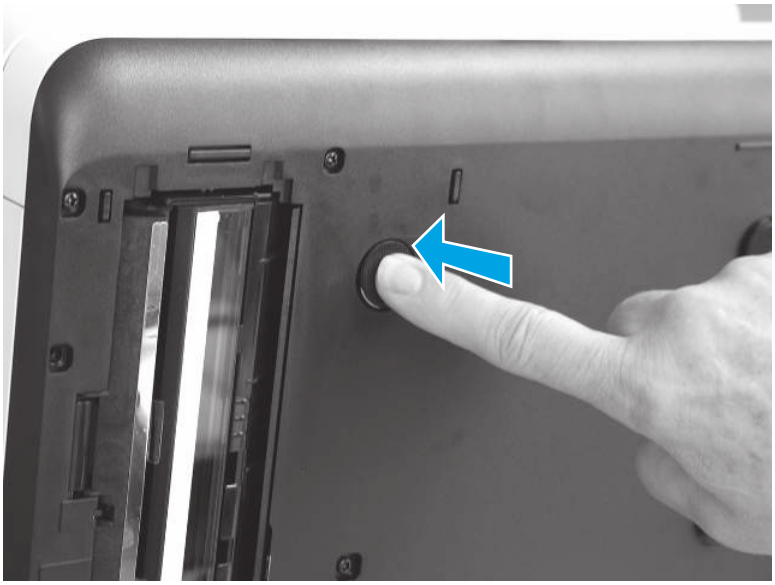
Figure 4-90 Install the retention clip



c. Press the clip to make sure it is securely installed.

NOTE: An audible click indicates when the clip is correctly installed.

Figure 4-91 Press the retention clip



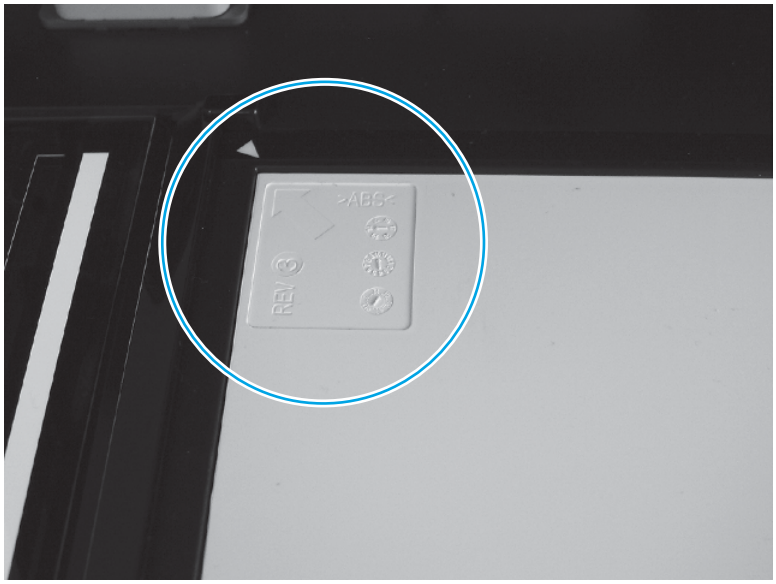
d. Remove the protective film off of each adhesive square.

Figure 4-92 White backing adhesive squares

e. Position the replacement white backing on the image scanner glass.

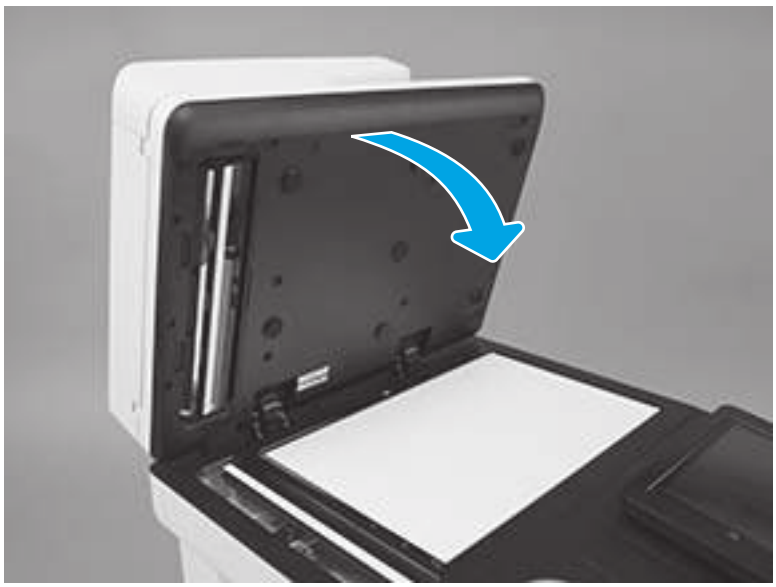
NOTE: Make sure that the corner with the embossed arrow on the white backing is positioned against the corner with the arrow on the scanner.

Figure 4-93 Install the white backing



f. Close the document feeder.

Figure 4-94 Close the document feeder

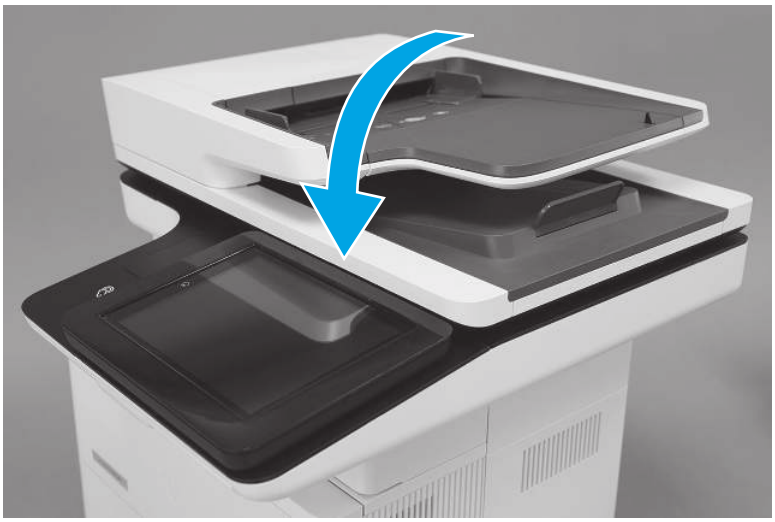


g. Open the document feeder and press on the white backing at the location of each retention clip to ensure that the backing is securely attached to the adhesive on the clips.

Figure 4-95 Check the white backing

h. Close the document feeder.

Figure 4-96 Close the document feeder



Removal and replacement: Keyboard assembly (M527c/z, E52545c/z, M528c/z, and E52645c/z)

This document provides the procedures to remove and replace the keyboard assembly.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the keyboard assembly.

Mean time to repair: 5 minutes

Service level: CSR A

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-10 Part information

Part number	Part description
B5L47-67019	Keyboard assembly (US) kit (527c/z, E52545c/z, M528c/z, and E52645c/z) with instruction guide
B5L47-67020	Keyboard assembly (UK) kit (527c/z, E52545c/z, M528c/z, and E52645c/z) with instruction guide

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use the physical keyboard (in the same way the virtual touchscreen keyboard is used) to make sure that it is correctly functioning.

1. Remove the keyboard.

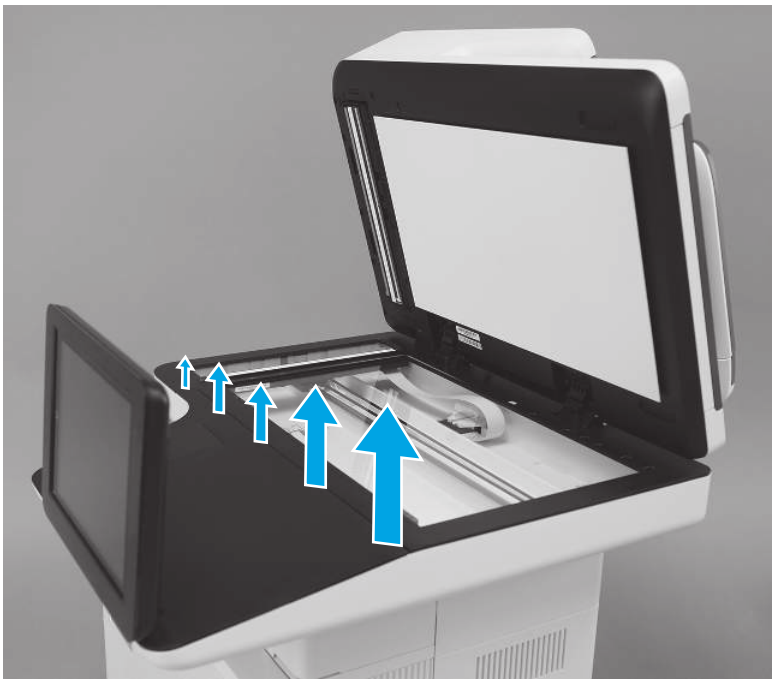
a. Tilt up the control panel (callout 1) and open the document feeder (callout 2).

Figure 4-97 Tilt up the control panel and open the document feeder

b. Beginning at the right side of the control-panel cover, carefully release five tabs along the top edge of the cover.

NOTE: The thin black-plastic cover will separate from the white plastic control-panel base.

Figure 4-98 Remove the control-panel cover

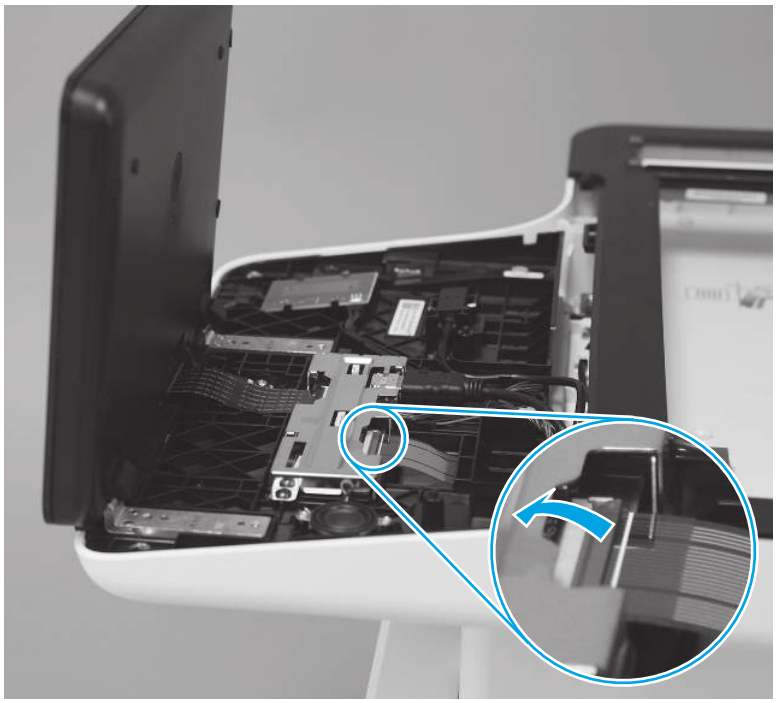


c. Continue to rotate the top edge of the cover away from the printer, and then remove the cover.

Figure 4-99 Remove the cover

d. Open the connector latch to release the keyboard flat cable.

Figure 4-100 Release the keyboard flat cable

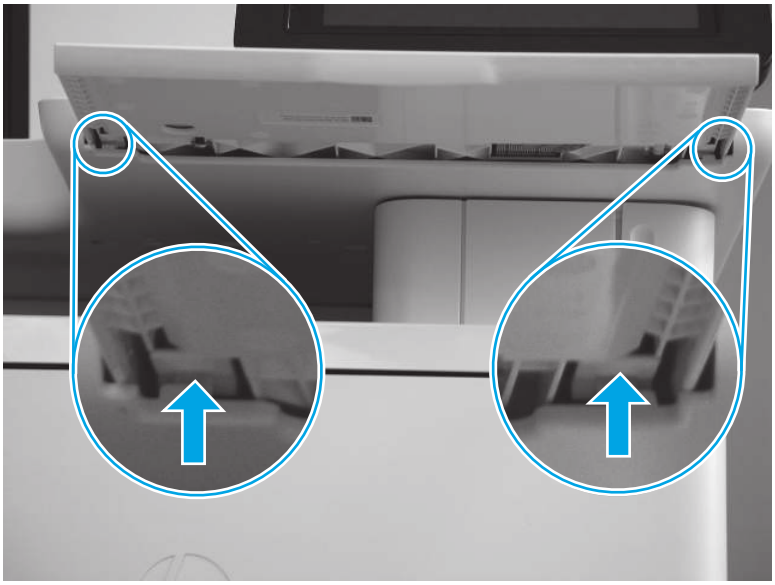


e. Slide the keyboard tray out until it stops.

Figure 4-101 Slide the tray out

f. Push up on the keyboard tray to release two tabs on the bottom of the tray, and then slide the tray toward you to disengage the tabs.

Figure 4-102 Disengage the tabs



g. Slide the keyboard tray all the way out of the printer to remove it.

Figure 4-103 Remove the keyboard

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

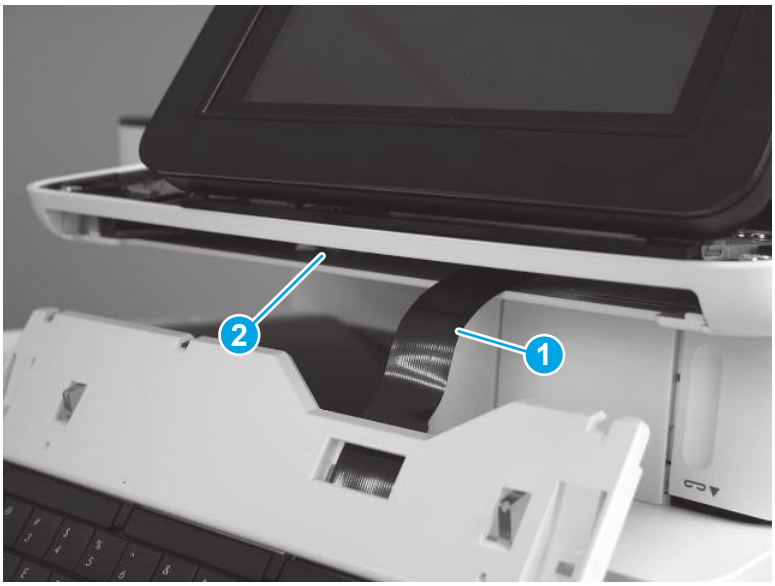
c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

3. Install the keyboard.

a. Position the flat cable (callout 1) on the keyboard into the keyboard slot (callout 2).

Figure 4-104 Install the FFC

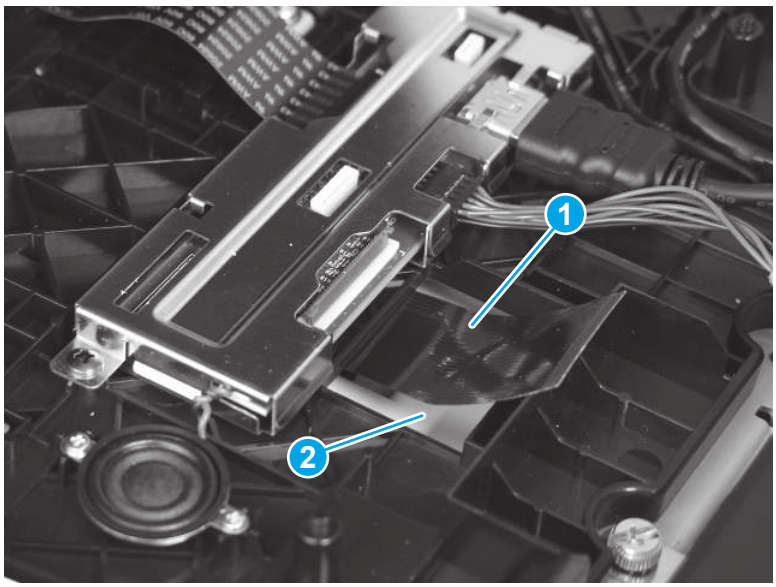


b. Slide the keyboard tray into the slot.

Figure 4-105 Install the keyboard

c. If the flat cable (callout 1) is not in the opening (callout 2) in the control panel base, carefully reach in and thread the flat cable through the opening.

Figure 4-106 Check the flat cable

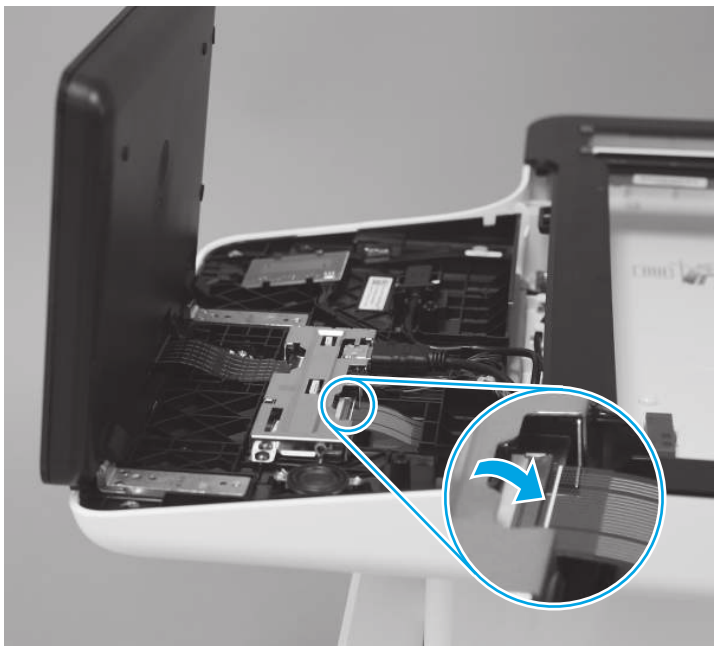


d. Position the keyboard flat cable in the connector, and then close the connector latch.

IMPORTANT: Slightly tug on the cable to make sure that it is fully captured in the connector.

NOTE: When the connector latch is closed and the cable is correctly installed, the white line on the cable is parallel to the connector latch.

Figure 4-107 Close the flat cable latch



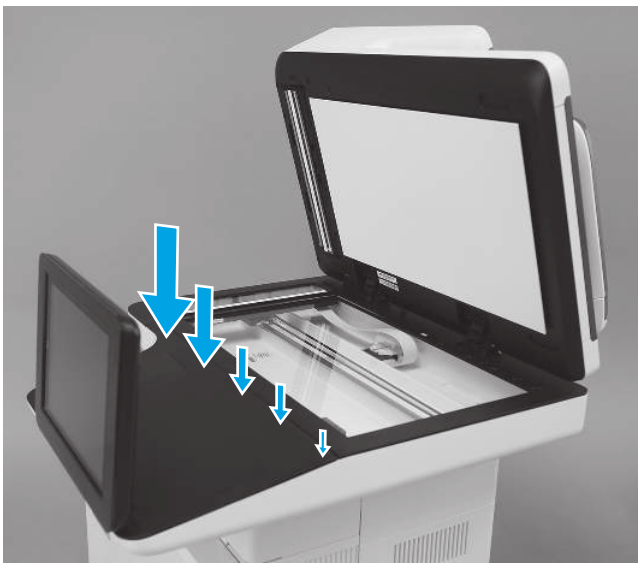
e. Position the control-panel cover on the printer.

Figure 4-108 Install the control-panel cover

f. Beginning at the left side of the control-panel cover, carefully push down along the top edge of the cover to engage five tabs.

NOTE: If the keyboard is unresponsive after turning the printer on, check the flat cable installed earlier. Reinstall the cable if necessary.

Figure 4-109 Engage five tabs



Removal and replacement: Internal parts and assemblies (base printer)

Learn how to remove and replace the base printer internal parts and assemblies.

Removal and replacement: External panels, covers, and doors (base printer)

Learn how to remove and replace the printer external panels, covers, and doors.

Removal and replacement: Formatter cover

Learn how to remove and replace the formatter cover.

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the formatter cover (M501).

M506/E50045/M507/E50145

View a video of how to remove and replace the formatter cover (M506/E50045/M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the formatter cover (M527/E52545/M528/E52645).

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-11 **Part information**

Part number	Part description
RC4-4200-000CN	Formatter cover (M501)
RM2-5725-000CN	Formatter cover (M506/E50045/M507/E50145)
RM2-5717-000CN	Formatter cover (M527/E52545/M528/E52645)

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

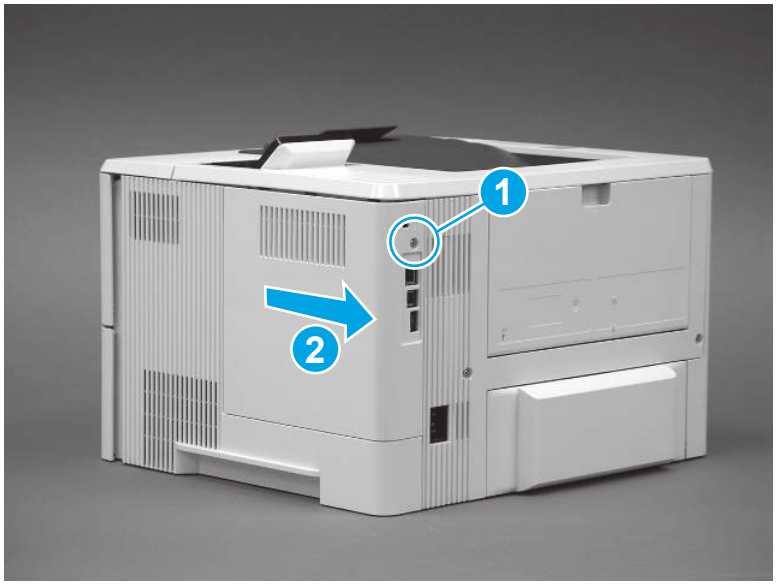
No post service test is available for this assembly.

1. Remove the formatter cover.

   - Do one of the following:

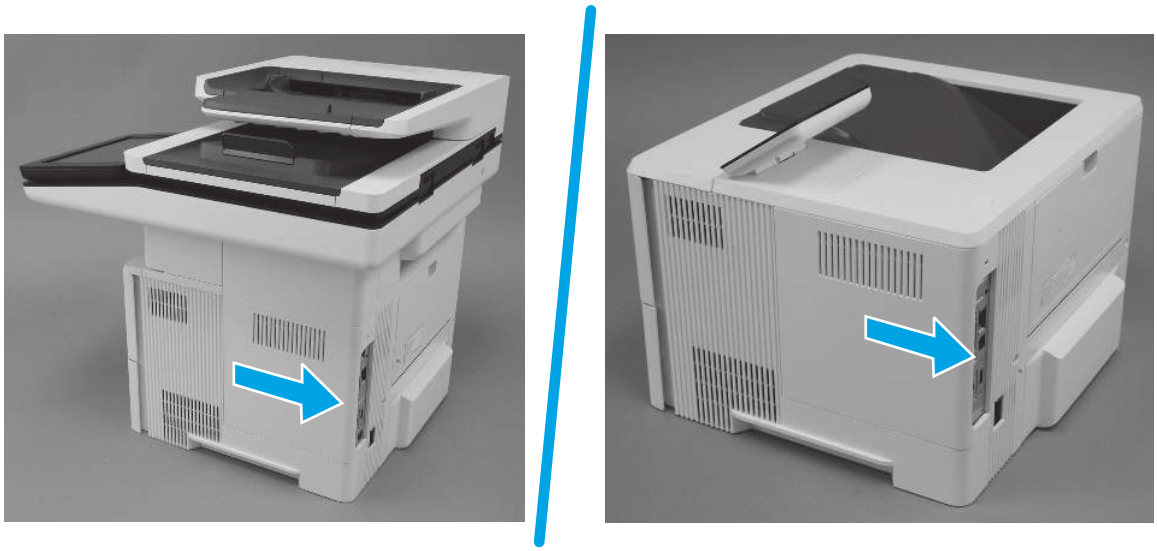
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-110 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

     Figure 4-111 **Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Control panel (M501, 507n/dn, and E50145n/dn)

Learn how to remove and replace the control panel.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the control panel.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-12 Part information

Part number	Part description
J8H60-67904	Control panel (M501)

Table 4-12 Part information (continued)

Part number	Part description
RM2-2610-000CN	Control panel (507n/dn)
K0Q15-60106	Control panel E50145

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

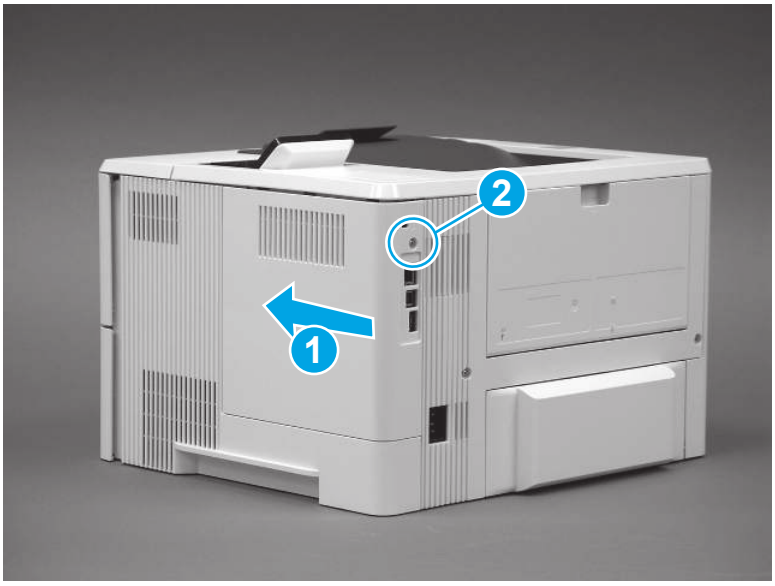
Post service test

Make sure that the printer initializes to a **Ready** state.

Access the menus by using the printer control panel, and then print a configuration page to make sure that the printer is functioning correctly.

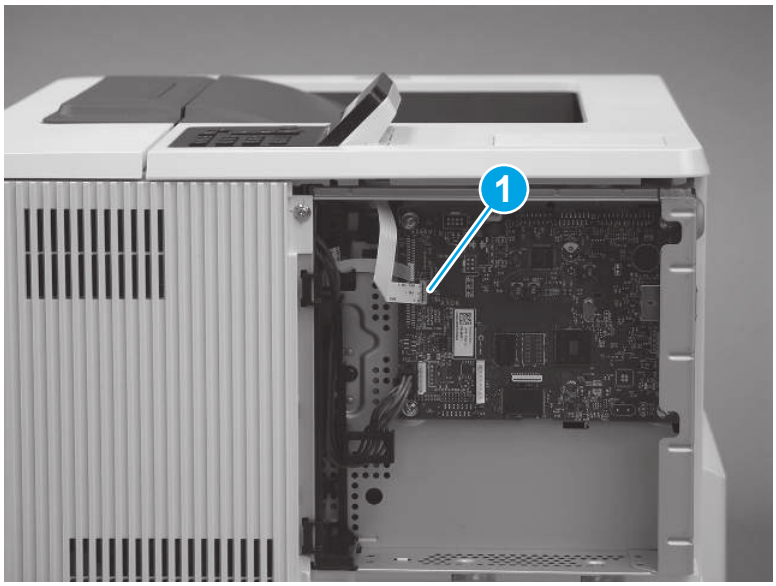
1. Remove the control panel.
   a. Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

   Figure 4-112 Remove the formatter cover



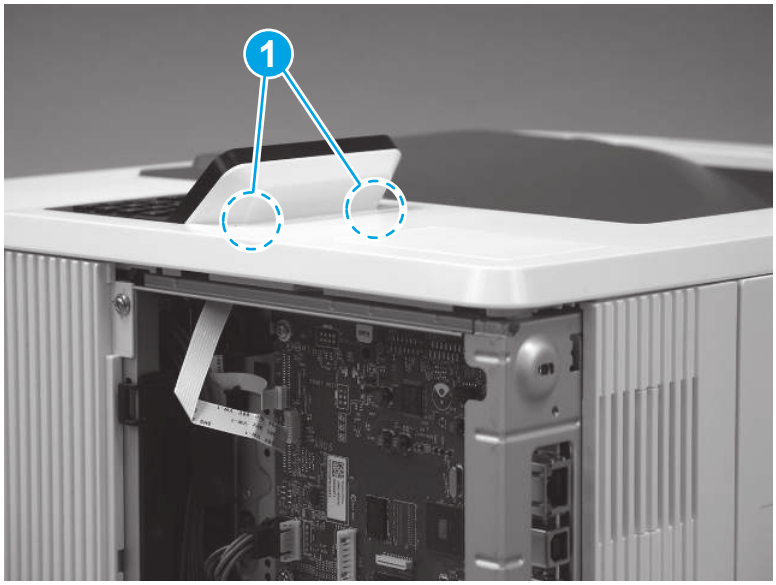
b. Disconnect one flat cable (callout 1).

Figure 4-113 Disconnect one flat cable



c. Locate two tabs (callout 1) along the rear edge of the control panel.

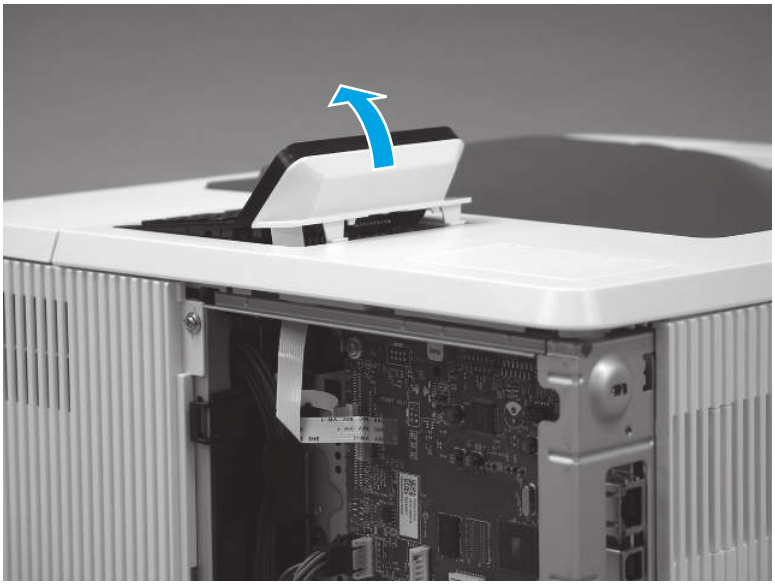
Figure 4-114 Locate two tabs



d. Release the two tabs, and then rotate the rear edge of the control panel up and away from the printer.

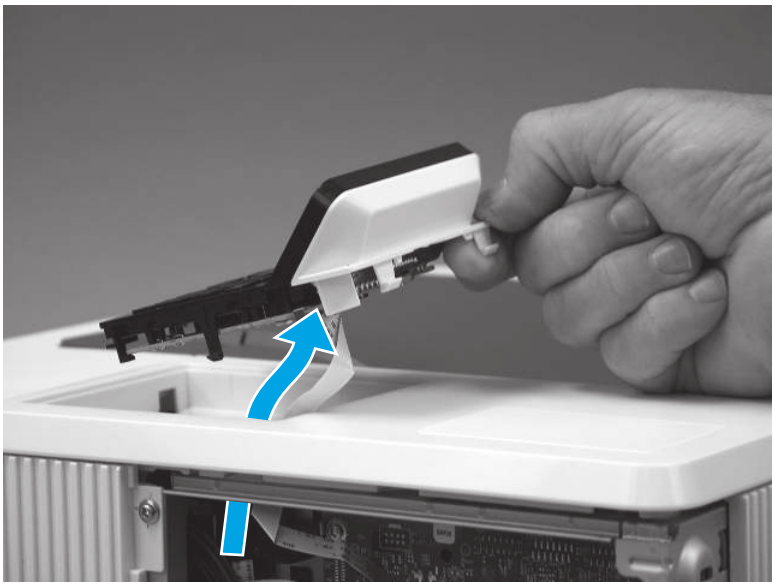
TIP: Use a small flat-blade screw driver to release the two tabs.

Figure 4-115 Release the control panel



e. Pass the flat cable attached to the control panel thorough the opening in the printer chassis, and then remove the control panel.

Figure 4-116 Remove the control panel



2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Control-panel cover (MFP)

Learn how to remove and replace the control-panel cable cover (M527/E52545/M528/E52645).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the control panel cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-13 Part information

Part number	Part description
B5L46-60117	Control-panel cover (M527/E52545)
B5L47-67018	Control-panel cover (M528/E52645)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

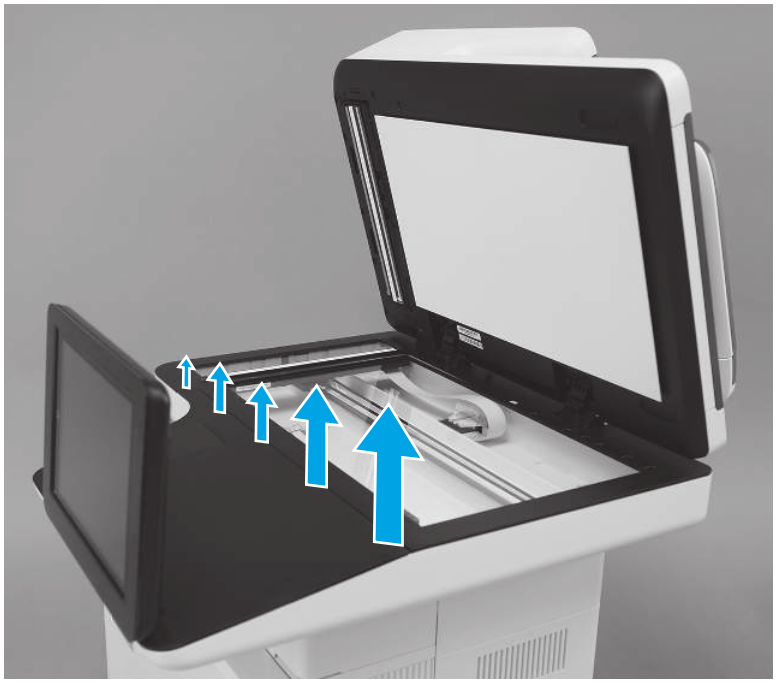
1. Remove the control-panel cover.
   a. If the document feeder is not open, open it now.

   NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

   Figure 4-117 Open the document feeder

b. Beginning at the right side of the control-panel cover, carefully release five tabs along the top edge of the cover.

Figure 4-118 Release five tabs



c. Continue to rotate the top edge of the cover away from the printer, and then remove the cover.

Figure 4-119 Remove the cover

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top-left cover (MFP)

Learn how to remove and replace the top-left cover.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the top-left cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-14 Part information

Part number	Part description
RC4-4147-000CN	Cover, top left

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

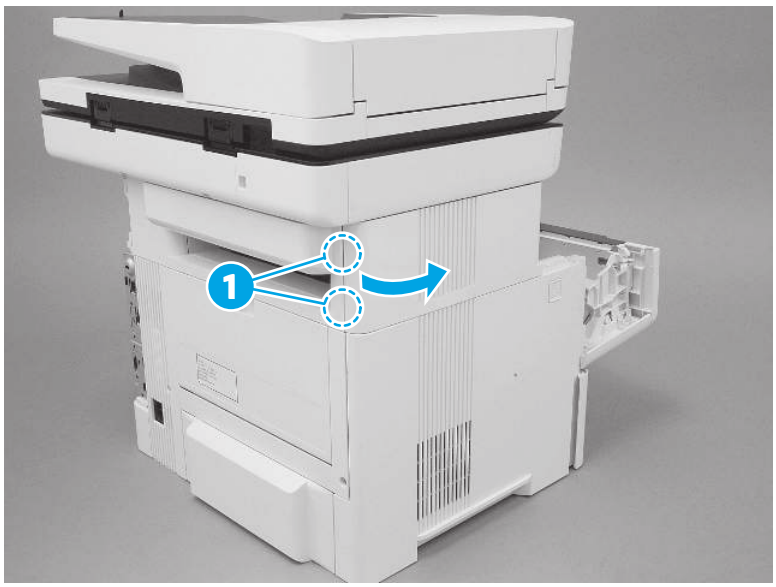
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

1. Remove the top-left cover (M527/E52545M528/E52645).
   a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

   Figure 4-120 Release two tabs

b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

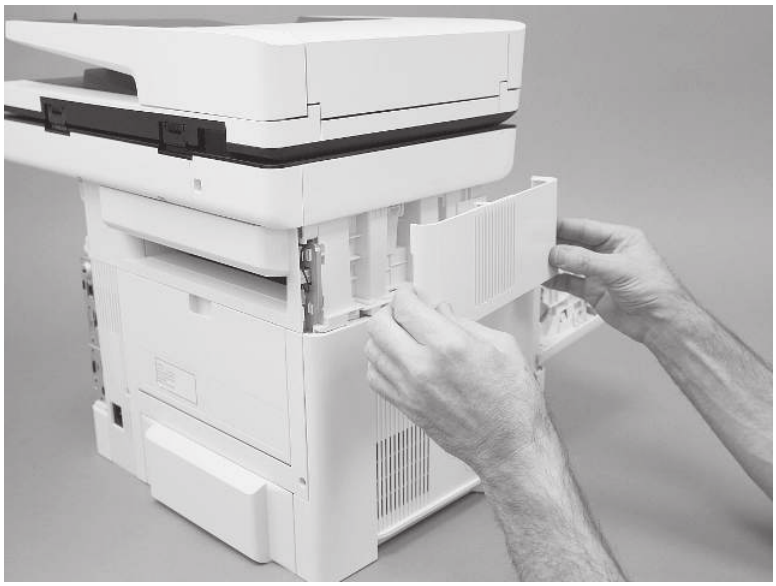
Figure 4-121 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-122 Slide the cover

d. Remove the cover.

Figure 4-123 Remove the cover



2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top-rear cover (MFP)

Learn how to remove and replace the top-rear cover.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the top-rear cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-15 Part information

Part number	Part description
RC4-3002-000CN	Cover, top rear

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

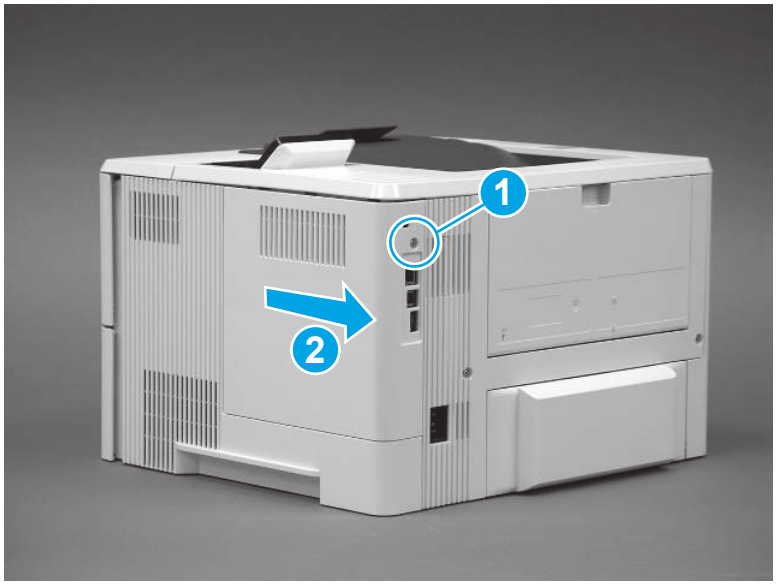
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

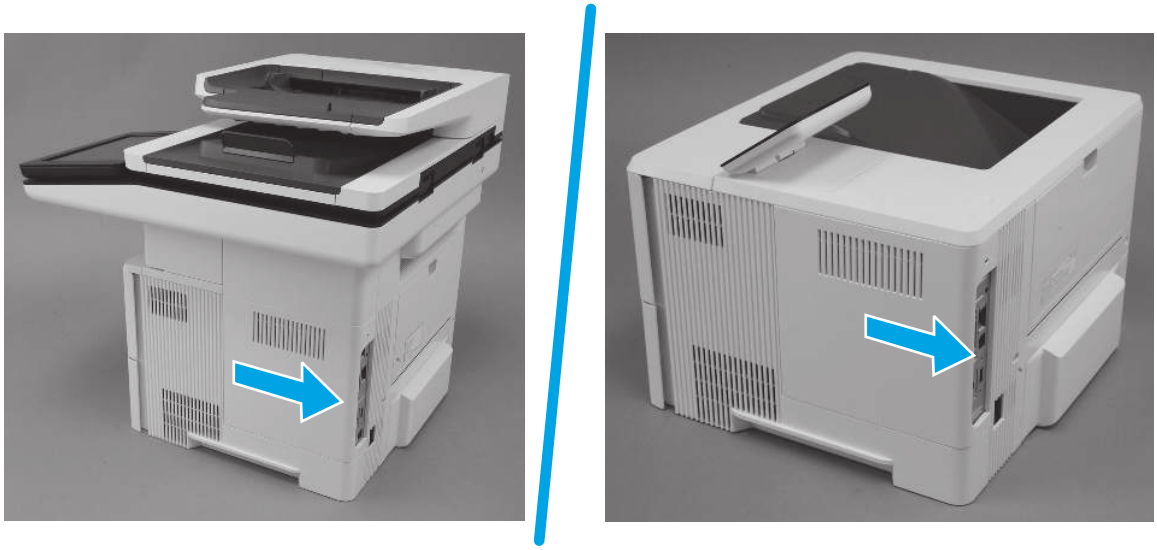
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-124 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

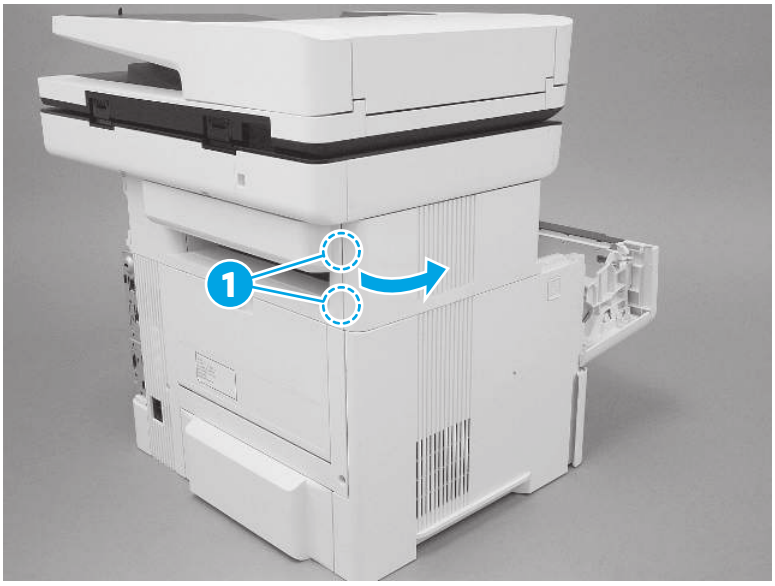
  Figure 4-125 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



2. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-126 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

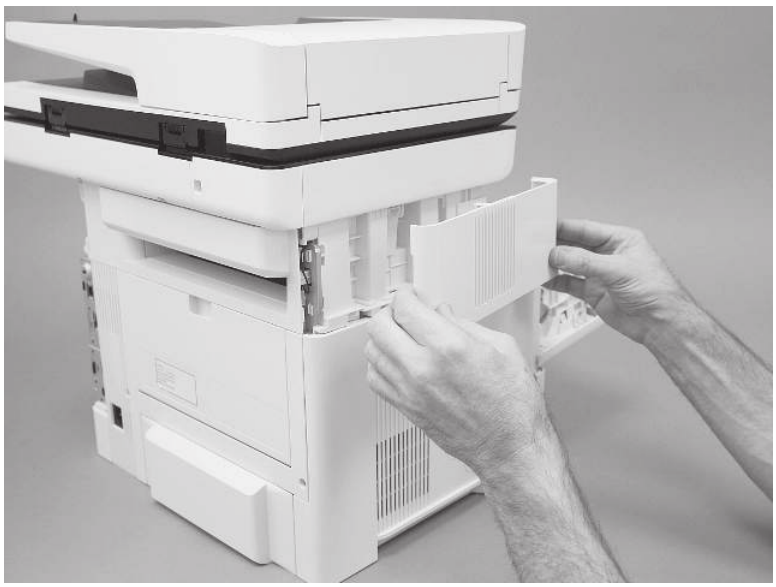
Figure 4-127 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-128 Slide the cover

d. Remove the cover.

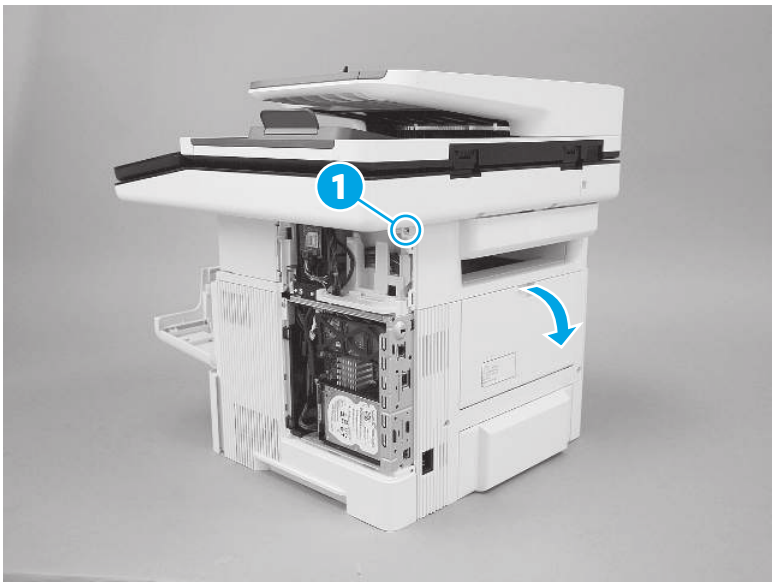
Figure 4-129 Remove the cover



3. Remove the top-rear cover (M527/E52545/M528/E52645).

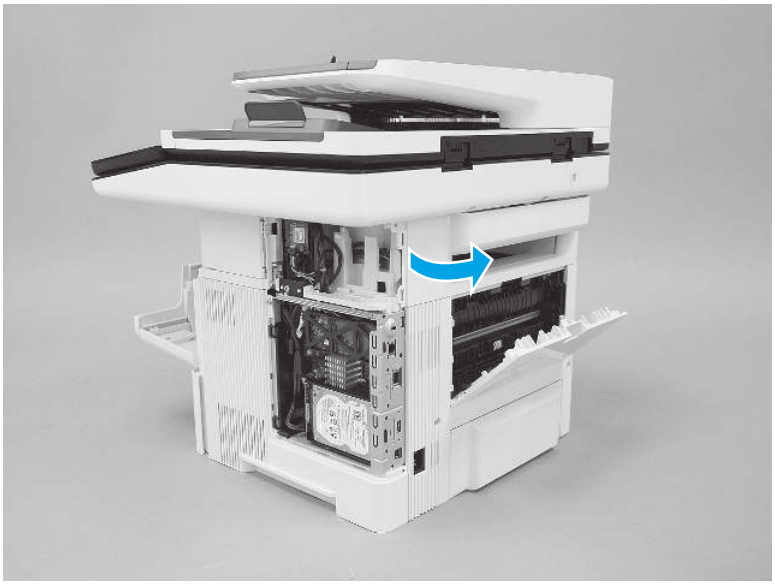
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-130 Remove one screw



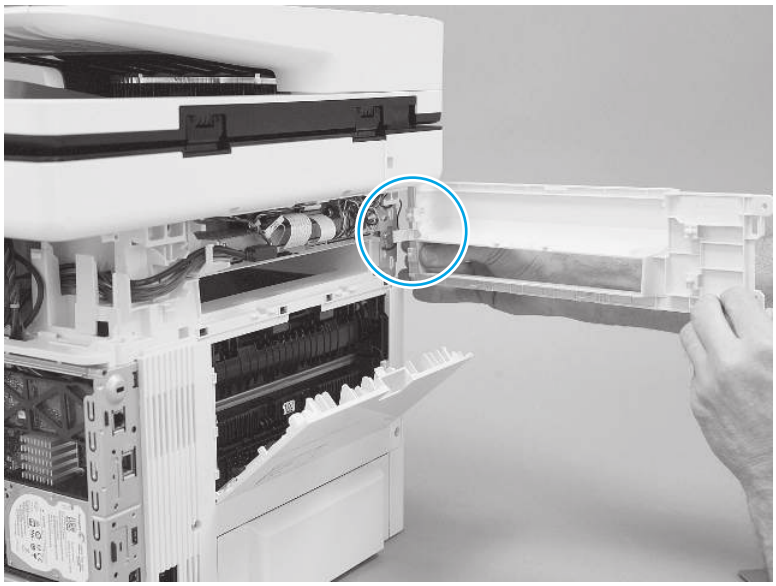
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-131 Rotate the cover



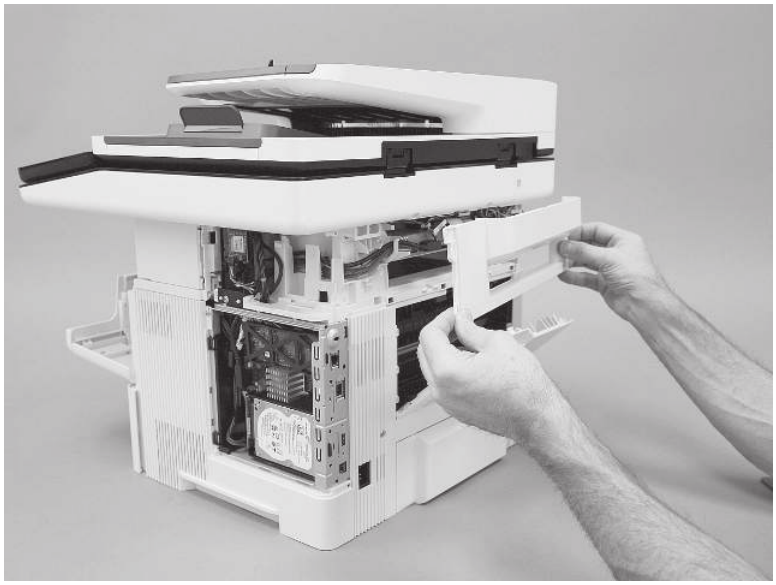
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-132 Release one boss



d. Remove the cover.

Figure 4-133 Remove the cover



4. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Document feeder (MFP)

Learn how to remove and replace the document feeder.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the document feeder.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-16 Part information

Part number	Part description
B5L47-67906	ADF whole unit Enterprise (document feeder; kit with instruction guide; includes white backing kit)
B5L47-67907	ADF whole unit Workflow (document feeder; kit with instruction guide (includes white backing kit)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver

After performing service

Turn the printer power on

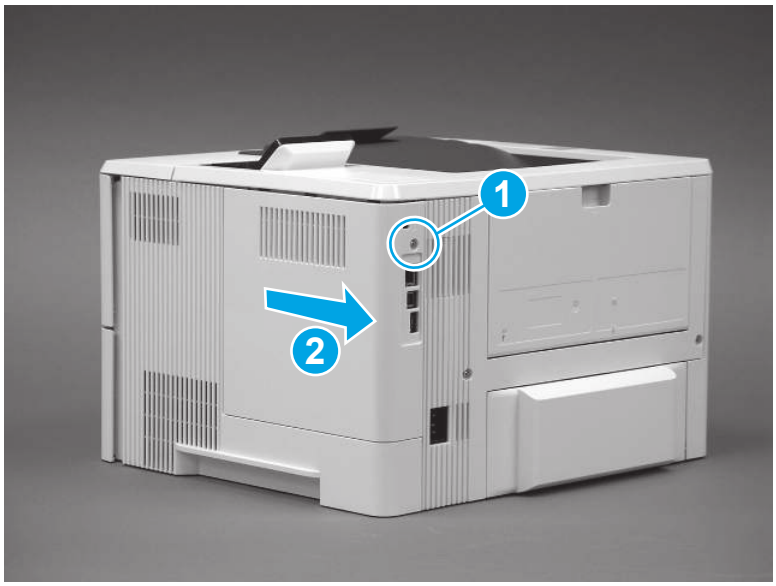
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use the document feeder to make a copy to make sure that it is properly functioning.

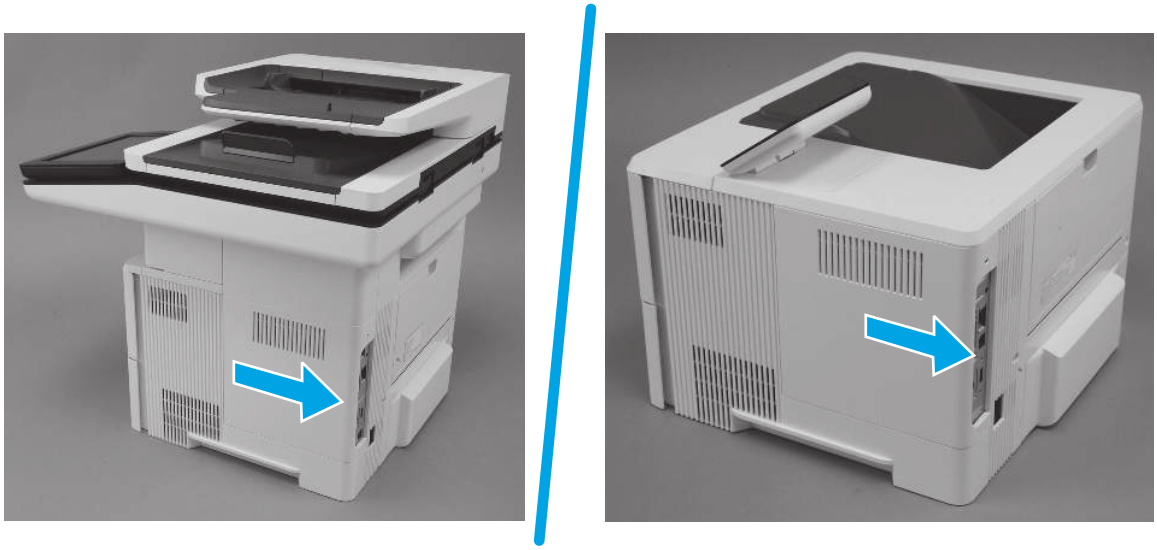
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-134 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

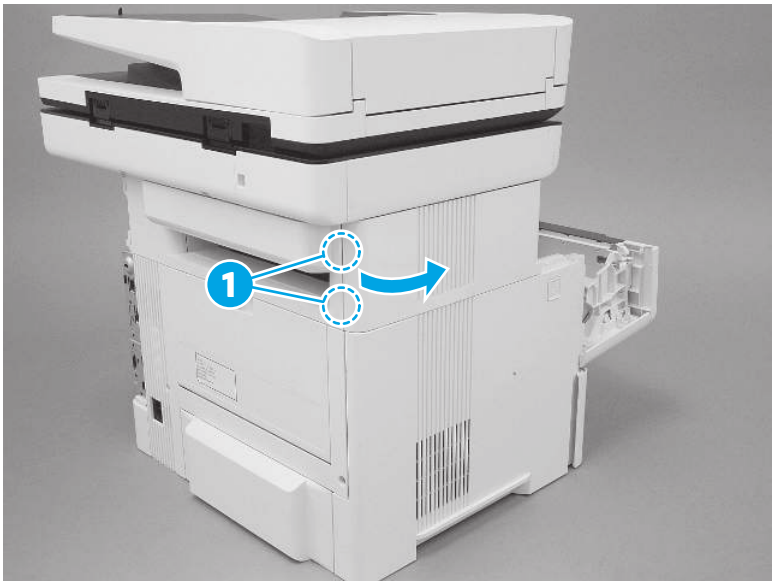
Figure 4-135 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



2. Remove the top-left cover (M527/E52545M528/E52645).

   a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-136 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

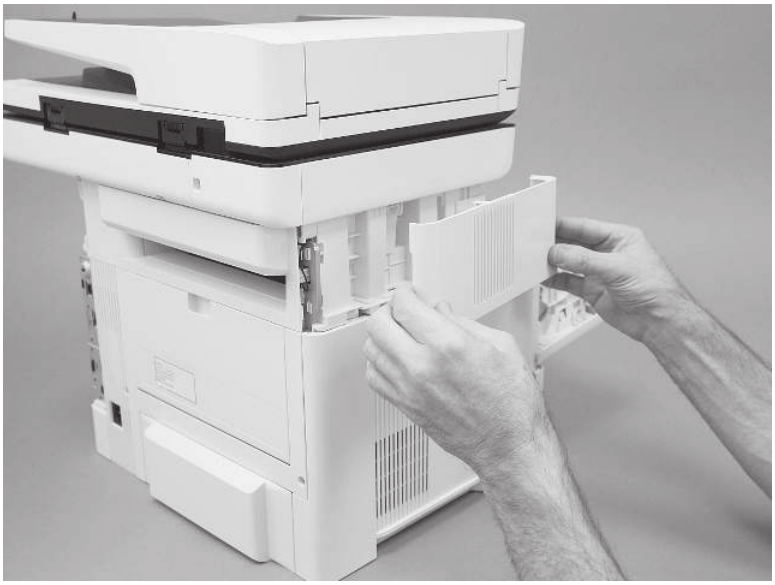
Figure 4-137 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-138 Slide the cover

d. Remove the cover.

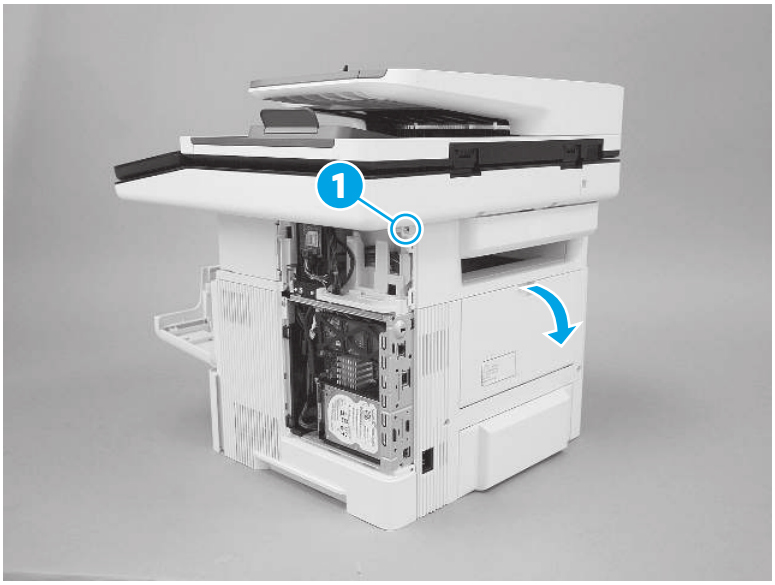
Figure 4-139 Remove the cover



3. Remove the top-rear cover (M527/E52545/M528/E52645).

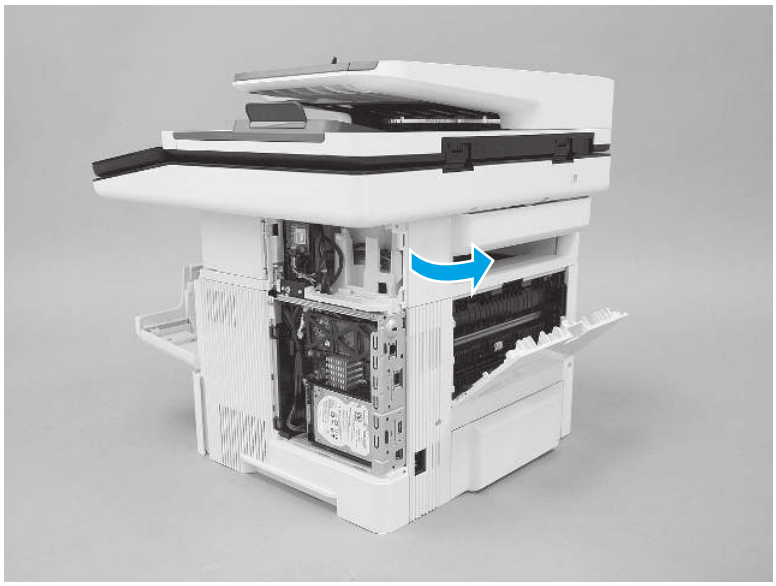
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-140 Remove one screw



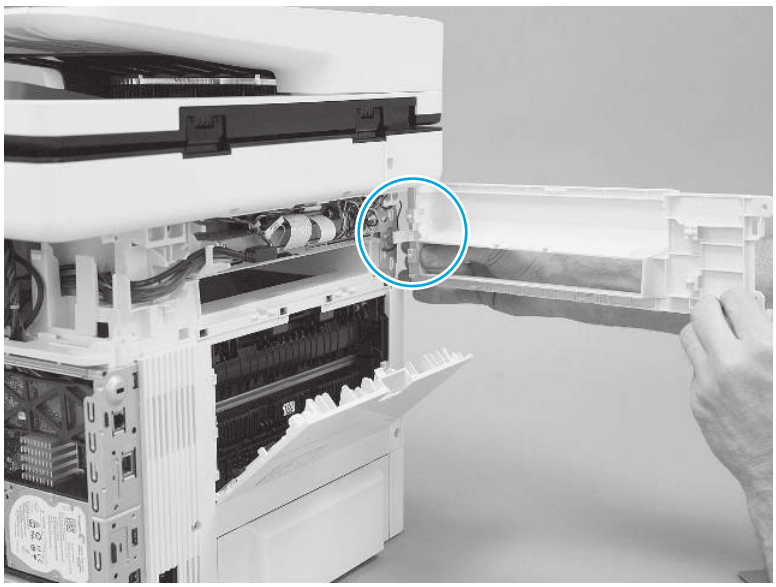
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-141 Rotate the cover



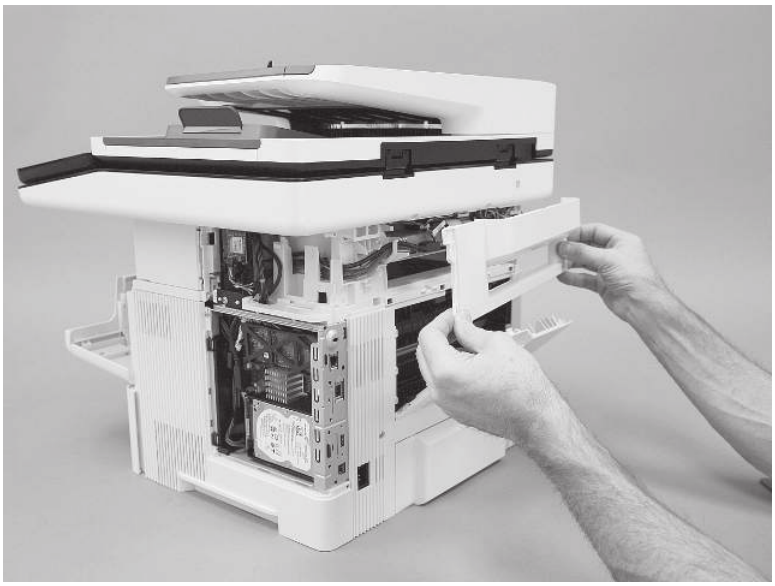
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-142 Release one boss



d. Remove the cover.

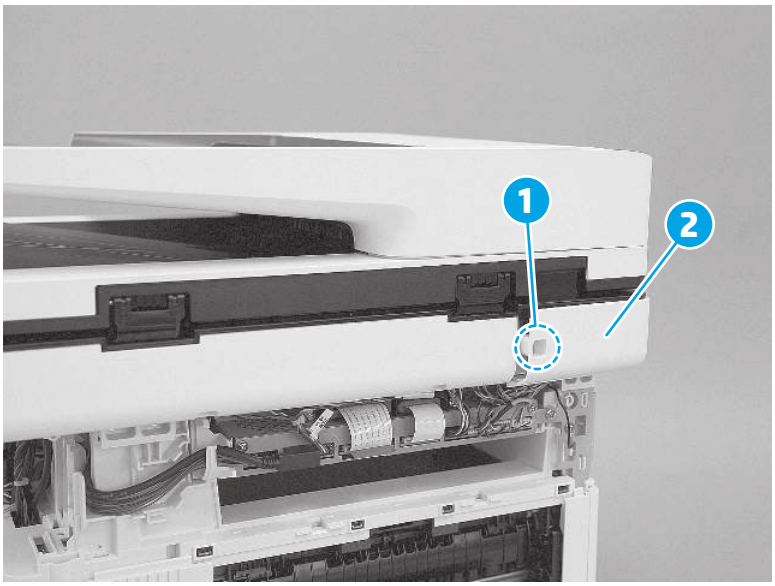
Figure 4-143 Remove the cover



4. Remove the document feeder.

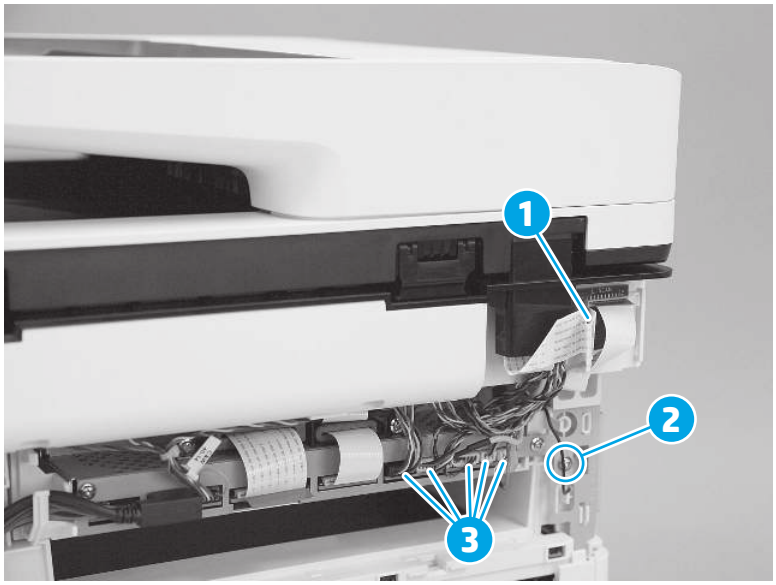
a. Remove one screw (callout 1), and then remove the cable cover (callout 2).

Figure 4-144 Remove the cover



b. Disconnect one flat-flexible cable (FFC; callout 1), remove one ground screw (callout 2), and then disconnect five connectors (callout 3).

Figure 4-145 Disconnect the FFC, ground cable, and connectors



c. Open the document feeder.

Figure 4-146 Open the document feeder

d. Tilt the document feeder back until it stops (callout 1), and then lift it up until it stops (callout 2).

Figure 4-147 Raise the document feeder

e. Support the document feeder, and then use a small flat-blade screwdriver to release two tabs on the document feeder hinges.

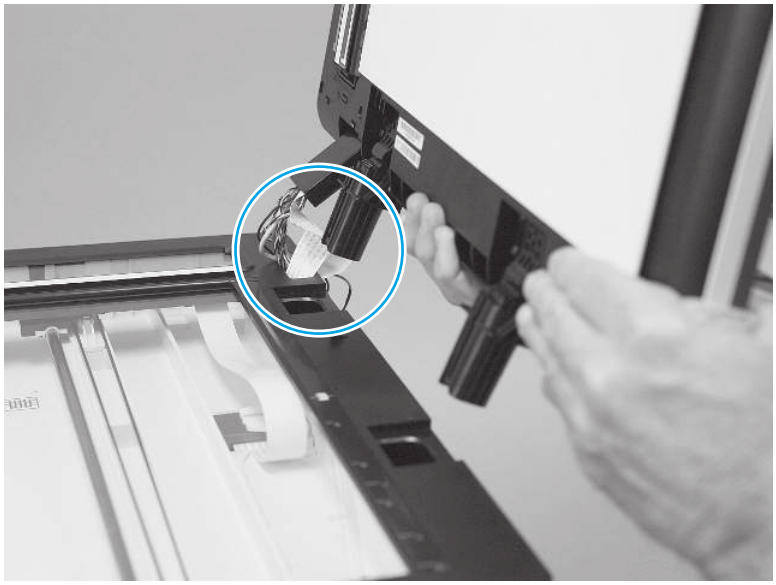
NOTE: The tabs are located on the front side (scanner flatbed glass) of the hinges. Use the figure below to locate the tabs.

Figure 4-148 Release two tabs

f. Lift the document feeder up to remove it.

NOTE: While removing the document feeder, carefully pass the wire harnesses and the FFC through the opening in the scanner.

Figure 4-149 **Remove the document feeder**



5. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

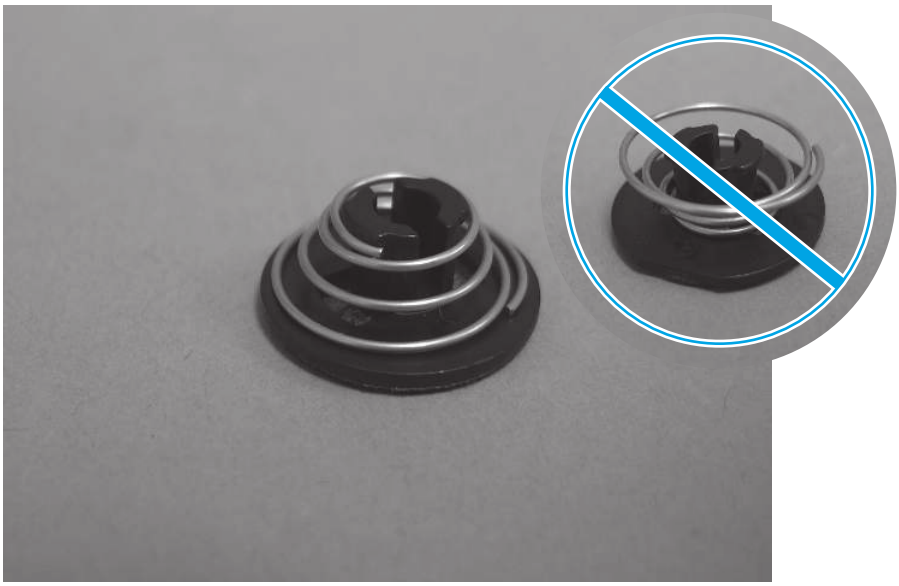
   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

6. Reverse the removal steps to install the assembly. Also use the following **special installation instructions**.

   Install a replacement white backing

   a. Verify that the springs are positioned correctly on the replacement retention clips.

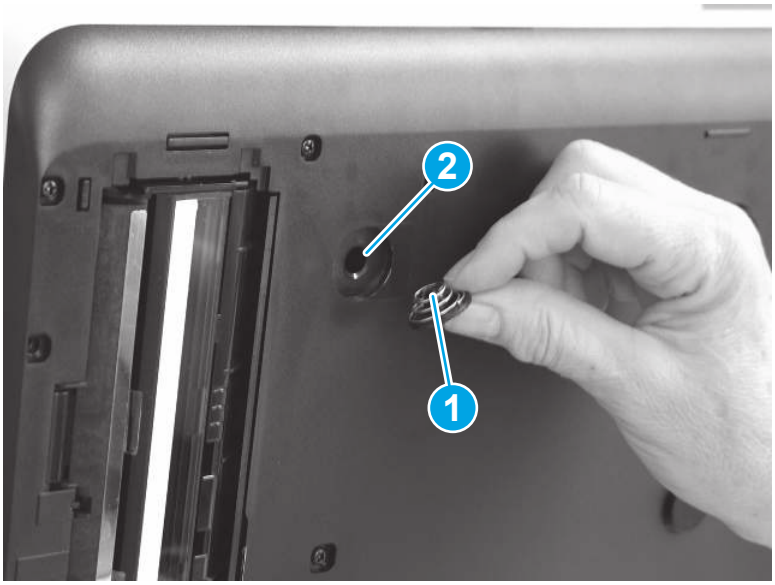
Figure 4-150 Check the retention clip spring



b. Install the clip (callout 1) in the opening (callout 2) in the document feeder.

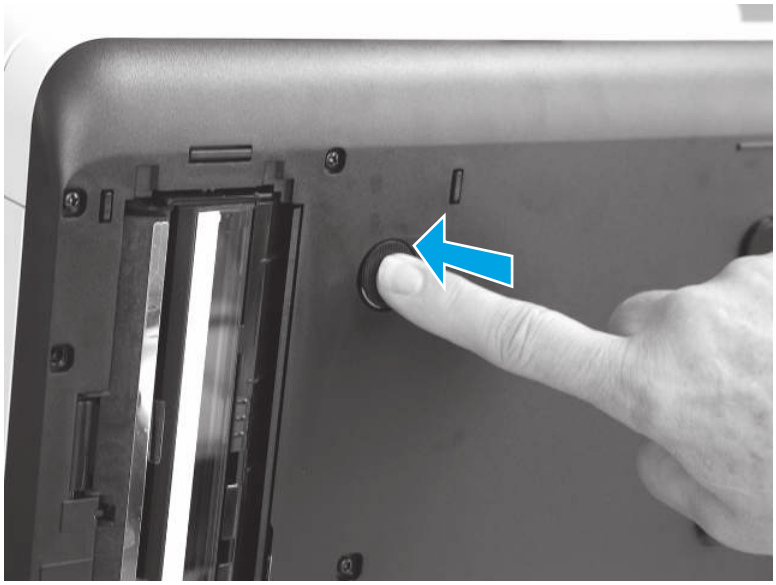
NOTE: Make sure that the springs are correctly installed. See the previous step.

Figure 4-151 Install the retention clip



c. Press the clip to make sure it is securely installed.

Figure 4-152 Press the retention clip



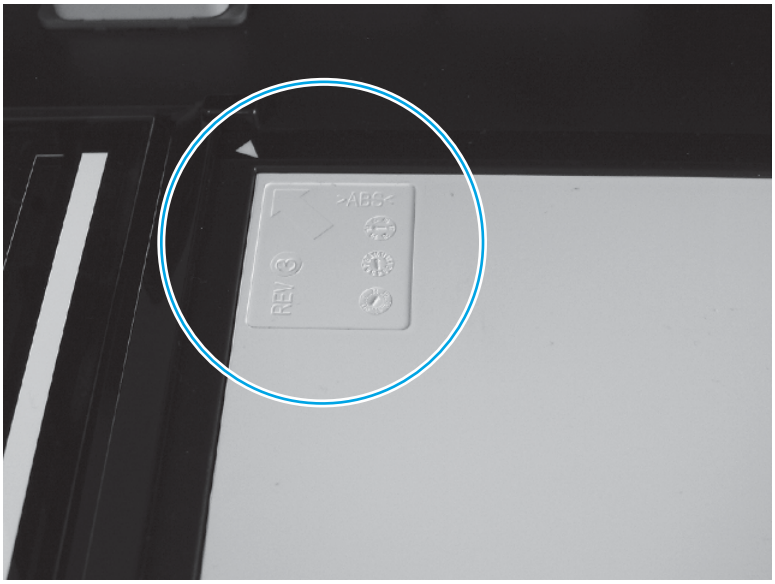
d. Remove the protective film off of each adhesive square.

Figure 4-153 White backing adhesive squares

e. Position the replacement white backing on the image scanner glass.

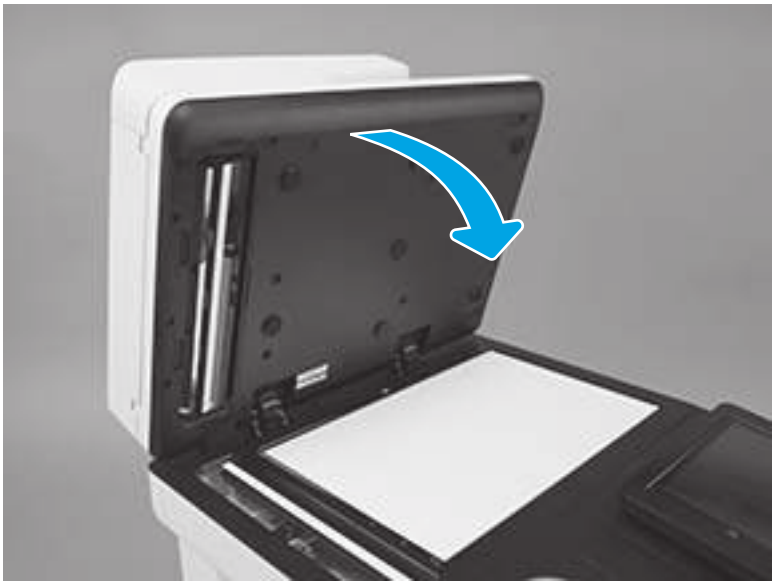
NOTE: Make sure that the corner with the embossed arrow on the white backing is positioned against the corner with the arrow on the scanner.

Figure 4-154 Install the white backing



f. Close the document feeder.

Figure 4-155 Close the document feeder

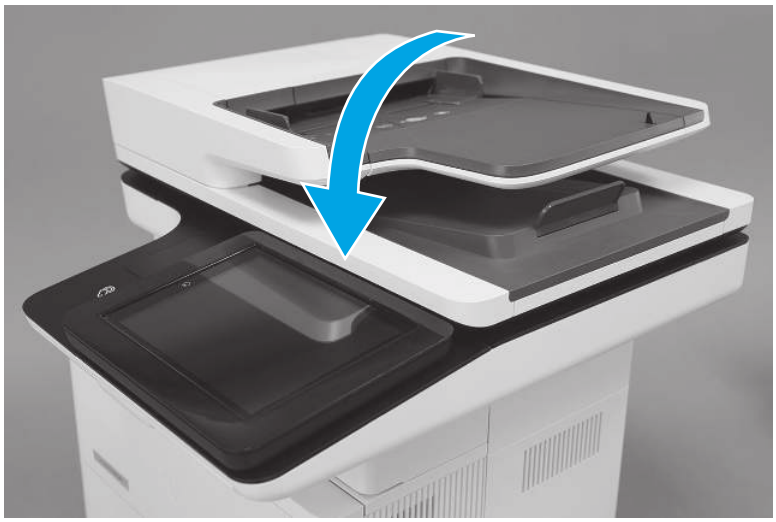


g. Open the document feeder and press on the white backing at the location of each retention clip to ensure that the backing is securely attached to the adhesive on the clips.

Figure 4-156 **Check the white backing**

h. Close the document feeder.

Figure 4-157 **Close the document feeder**



Reset the firmware counter.

a. From the HOME screen on the control panel, scroll to and touch the **Device Maintenance** button.

b. Scroll to and touch the **Service** button.

c. On the sign-in screen, select the **Service Access Code** option from the drop-down list.

d. Enter the following service access code for this printer:

- **10052715**

e. Scroll to and touch the **Cycle Counts** item.

f. Reset the following items:

- Document Feeder Kit Intervals; set to zero
- ADF Count; set to zero

Removal and replacement: Cartridge door assembly

Learn how to remove and replace the cartridge door assembly.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the cartridge door.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-17 Part information

Part number	Part description
F2A76-67912	Cartridge door assembly kit (M527/E52545; all) with instruction guide (includes nameplate)
RM2-5691-000CN	Cartridge door assembly (M528/E52645)
F2A68-67919	Cartridge door assembly kit (M506n/dn/E50045n/dn) with instruction guide (includes nameplate)
F2A68-67920	Cartridge door assembly kit (M506x/M50045x) with instruction guide
RM2-5677-000CN	Cartridge door assembly (M501 and M507/E50145)
J8H60-40001	Nameplate, LaserJet Pro M501
RC4-3010-000CN	Hinge, cartridge door left
RC4-4479-000CN	Link, pressure release

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the toner-cartridge door correctly opens and closes.

1. Remove the tray.

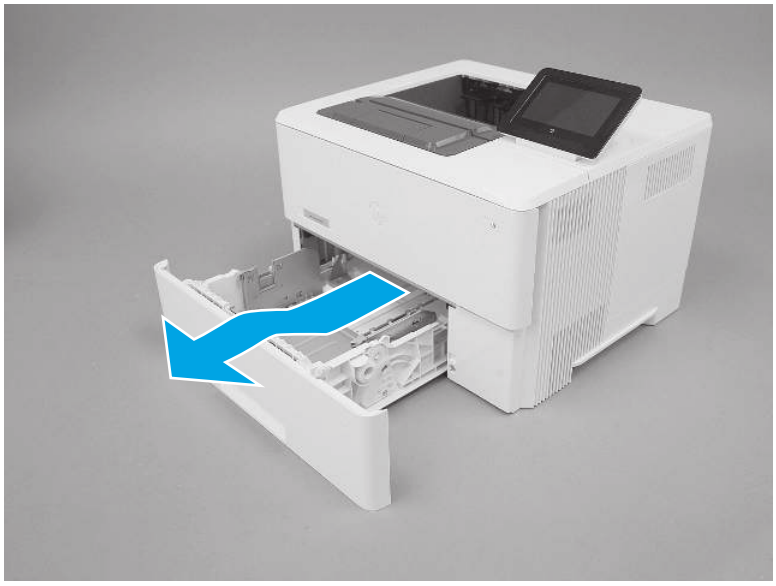
   a. Pull the tray straight out of the printer until it stops.

   Figure 4-158 **Pull the tray out until it stops**

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

   NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

   Figure 4-159 **Release and remove the tray**

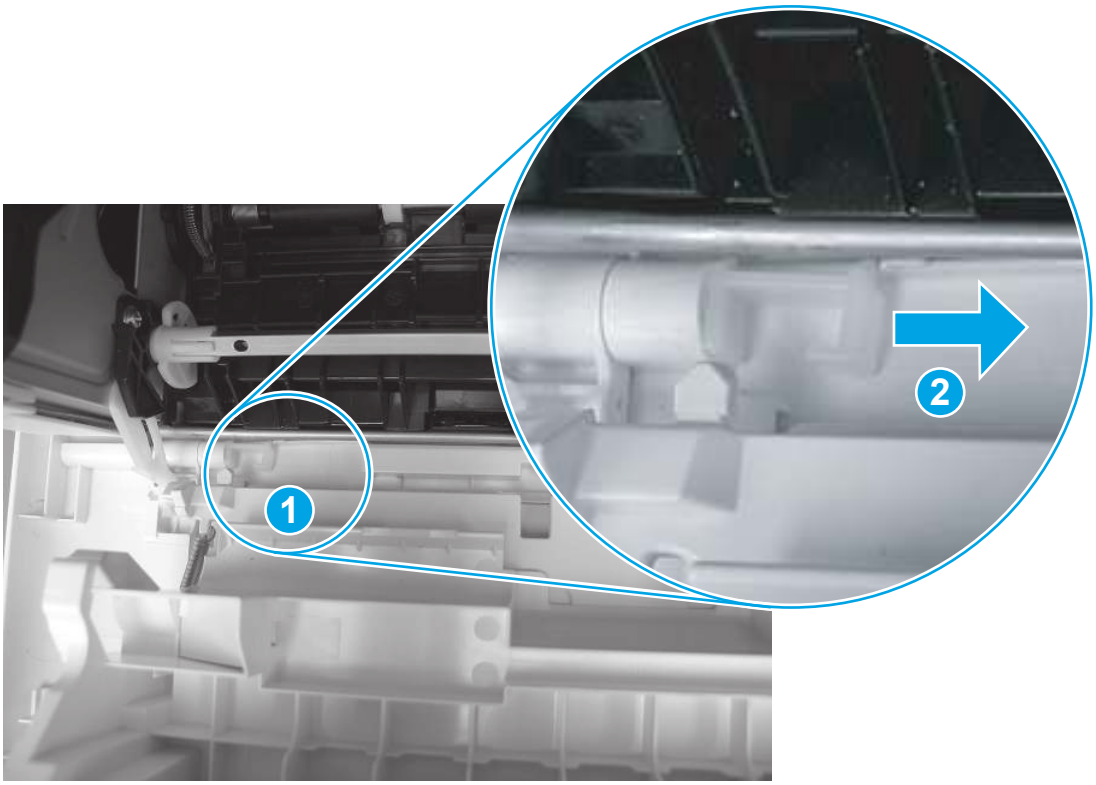
2. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

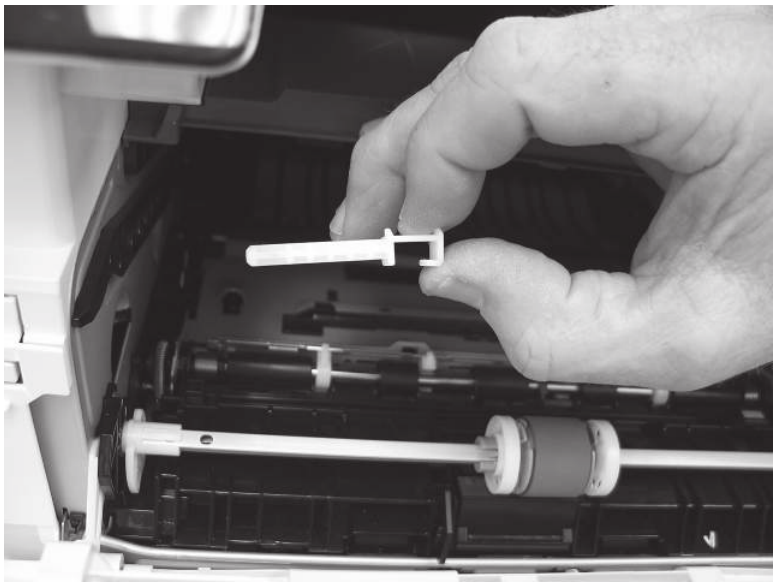
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-160 **Release the support shaft**



b. Remove the support shaft.

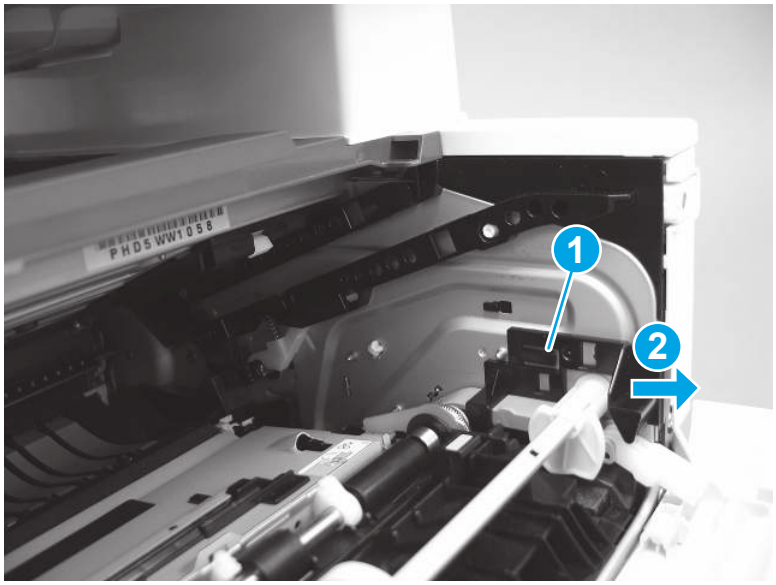
Figure 4-161 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

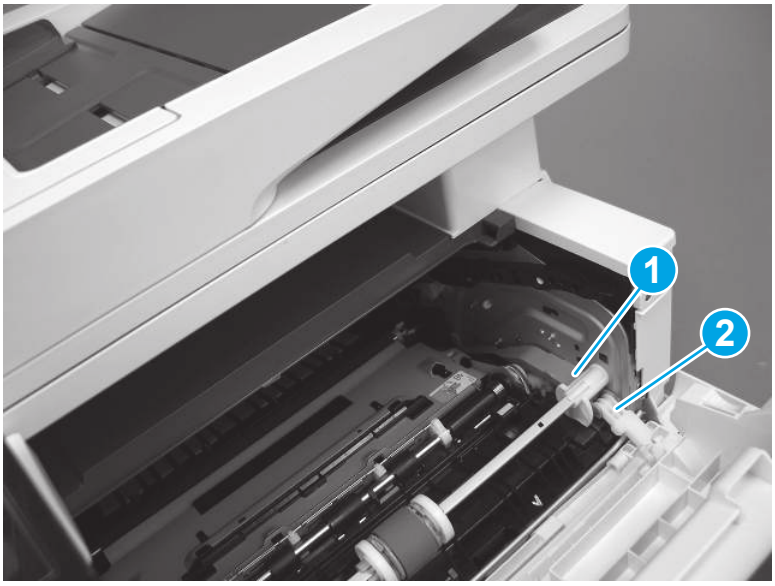
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-162 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-163 Release the pressure-release link



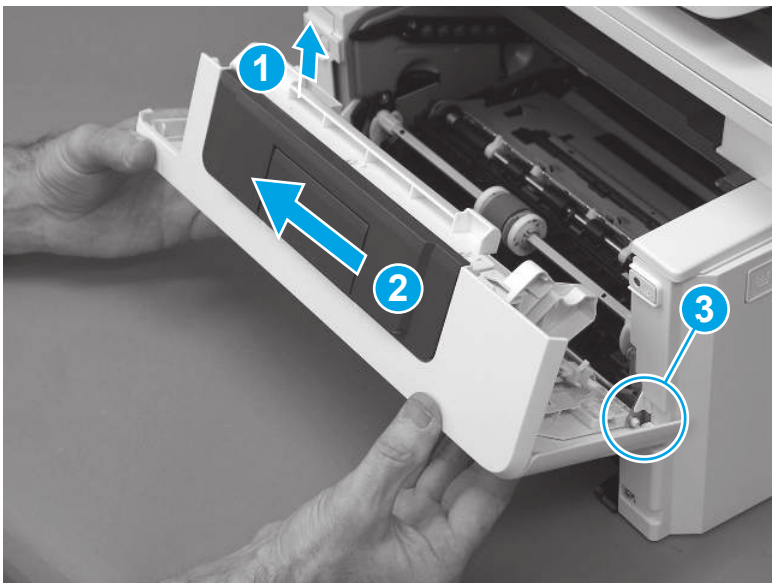
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

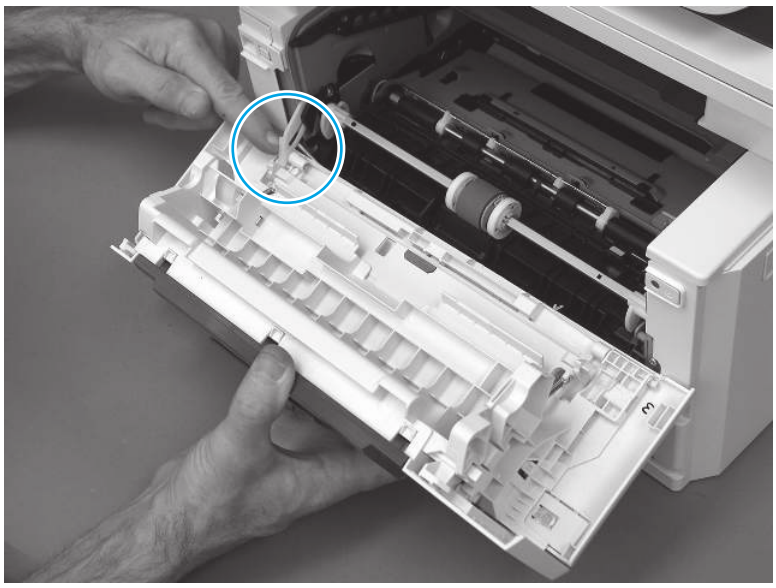
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-164 Release the door



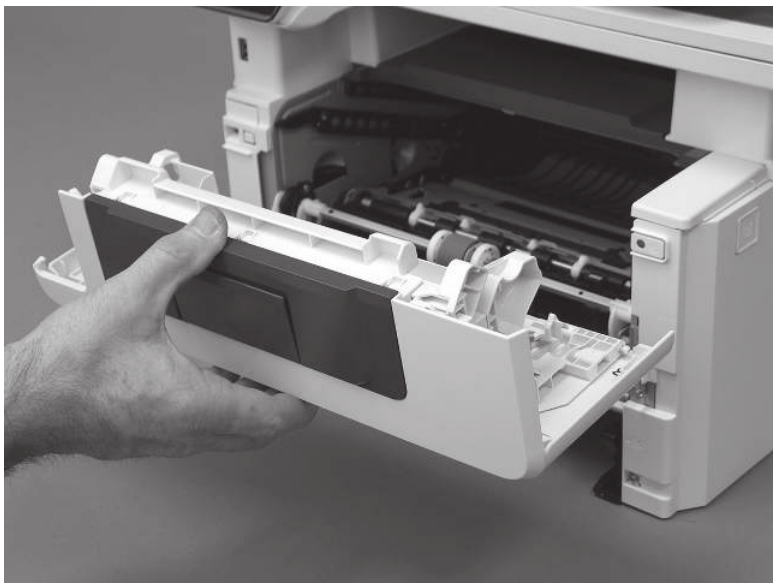
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-165 Release the left-side retainer arm



g. Remove the door.

Figure 4-166 Remove the door



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Rear door assembly

Learn how to remove and replace the rear door assembly.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the rear door assembly.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-18 Part information

Part number	Part description
RM2-5726-000CN	Rear door assembly (M501/M506/E50045/M507/E50145/M527/E52545/M528/E52645 duplex models)
RM2-5712-000CN	Rear door assembly (M501/M506/E50045/M507/E50145 simplex models)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

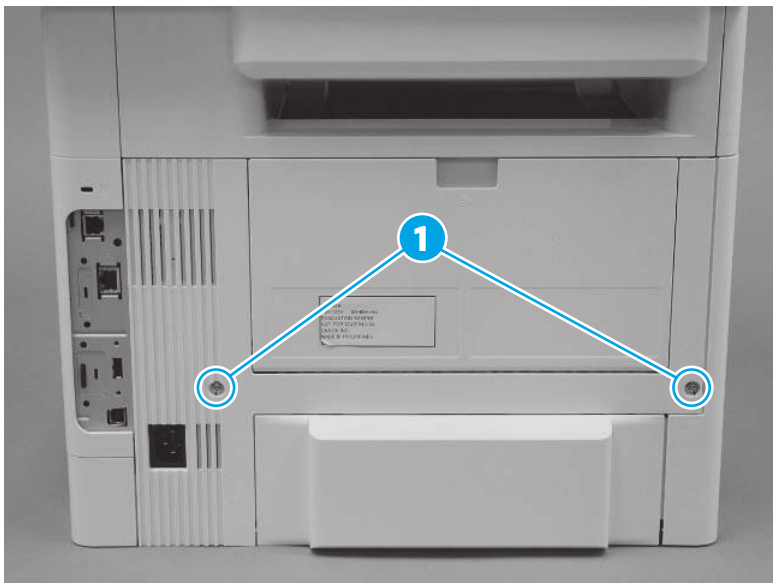
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

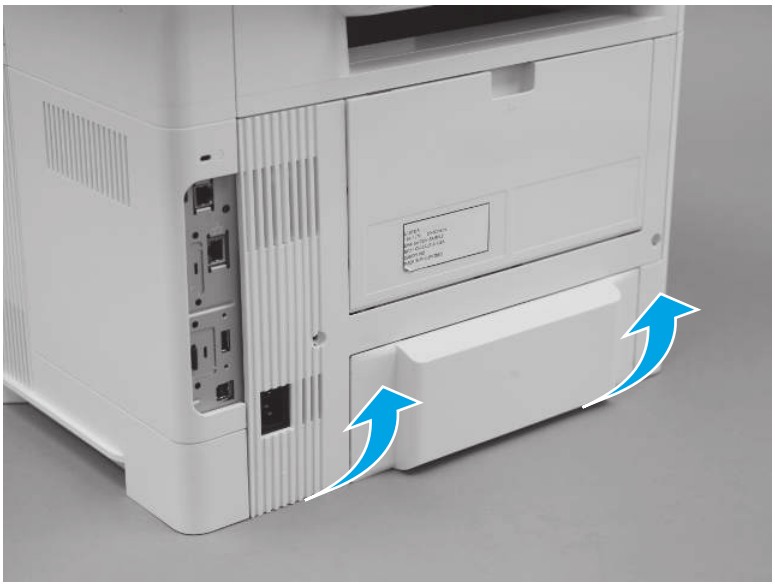
1. Remove the rear door assembly.
   a. At the rear of the printer, remove two screws (callout 1).

Figure 4-167 **Remove two screws**



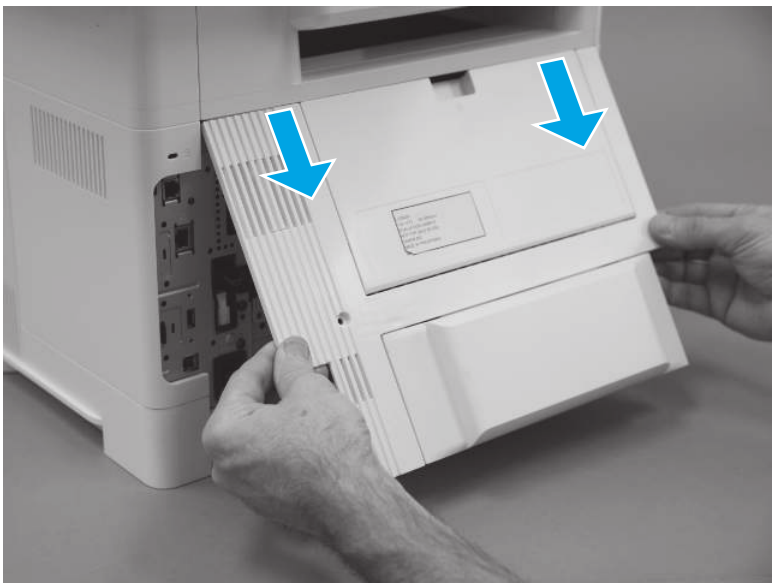
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-168 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-169 Remove the cover



2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Right cover

Learn how to remove and replace the right cover

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the right cover.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-19 Part information

Part number	Part description
RC4-4437-000CN	Right cover

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

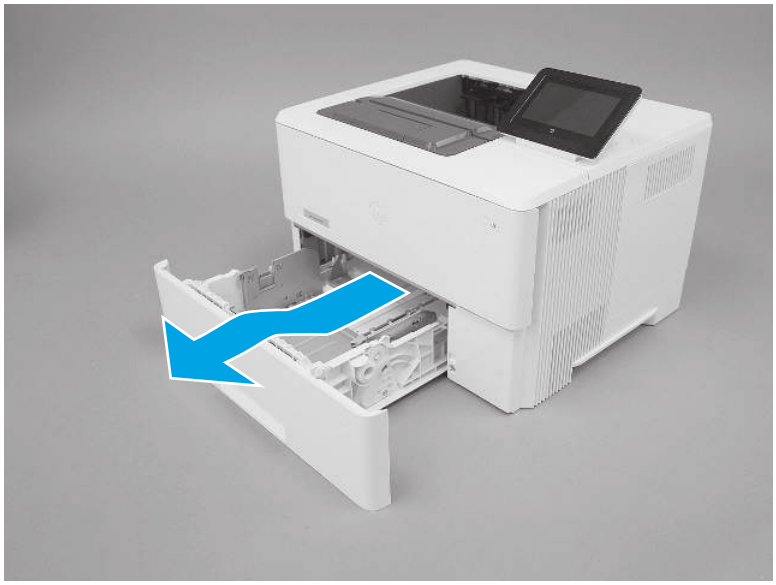
1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

   Figure 4-170 **Pull the tray out until it stops**

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

   NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-171 Release and remove the tray

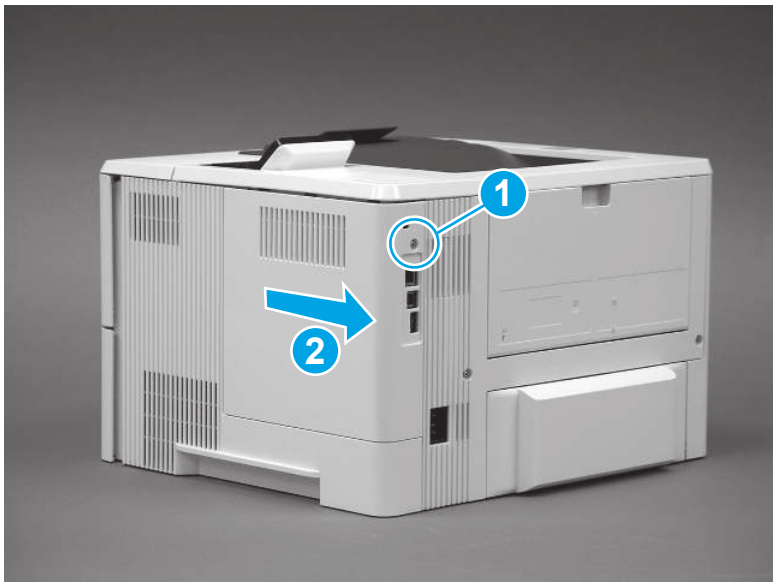


2. Remove the formatter cover.

   - Do one of the following:

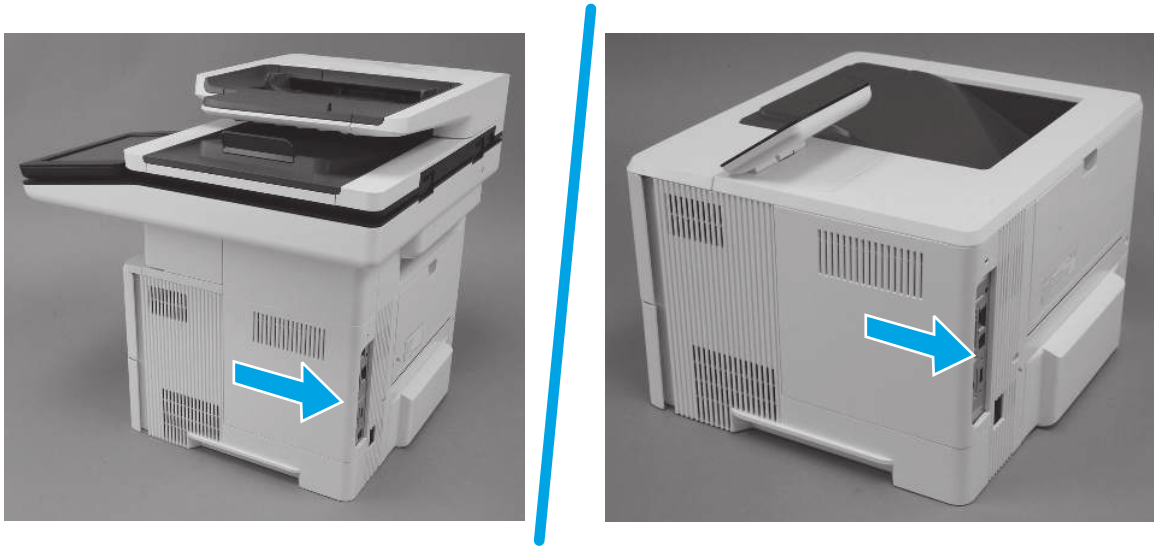
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-172 Remove the formatter cover (M501)

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-173 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



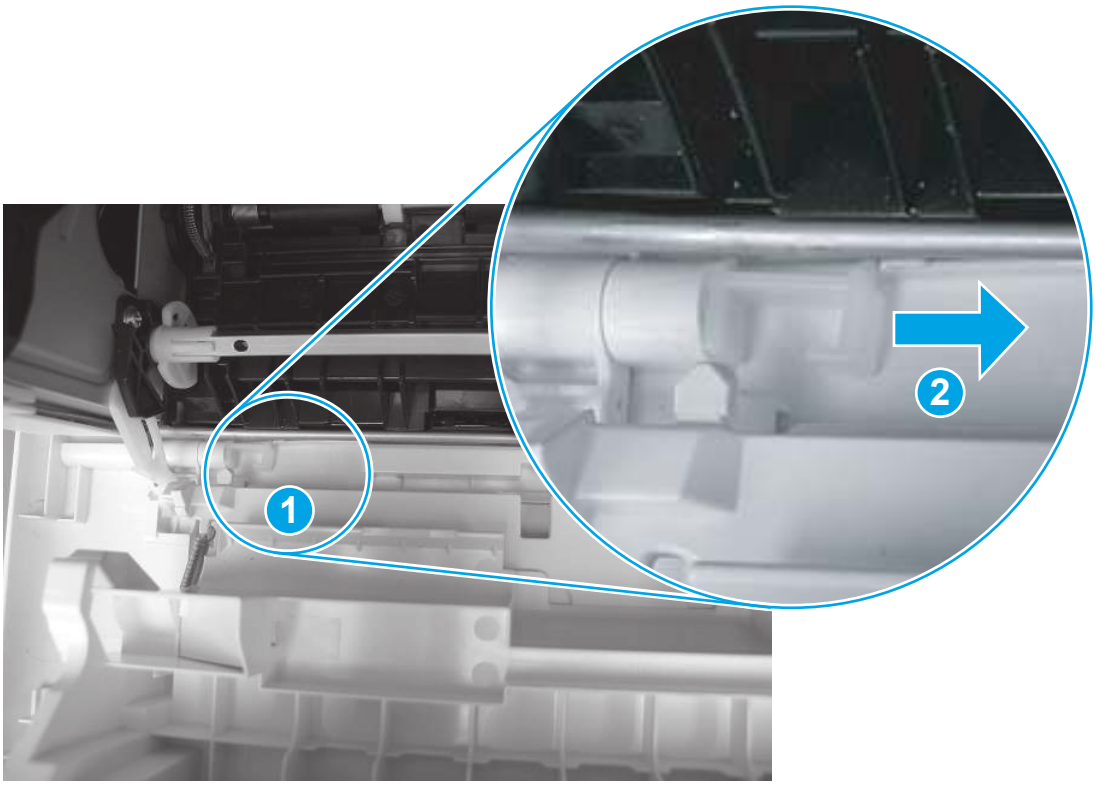
3. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

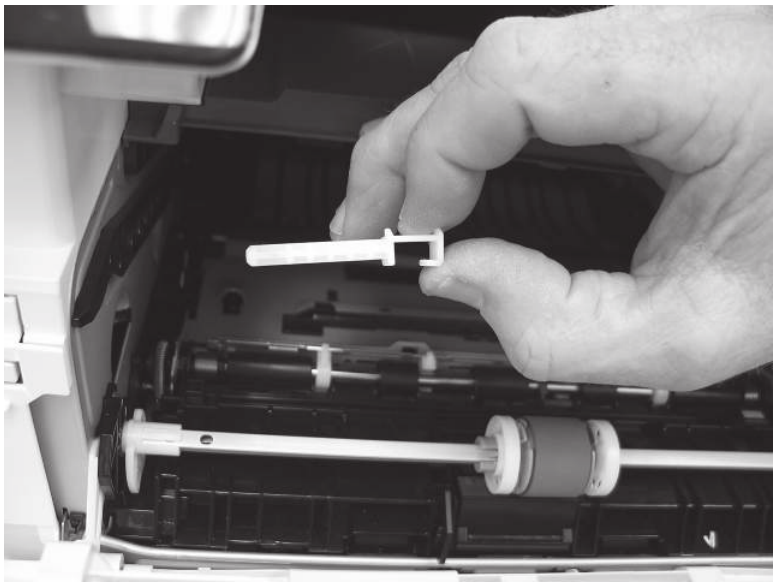
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-174 Release the support shaft



b. Remove the support shaft.

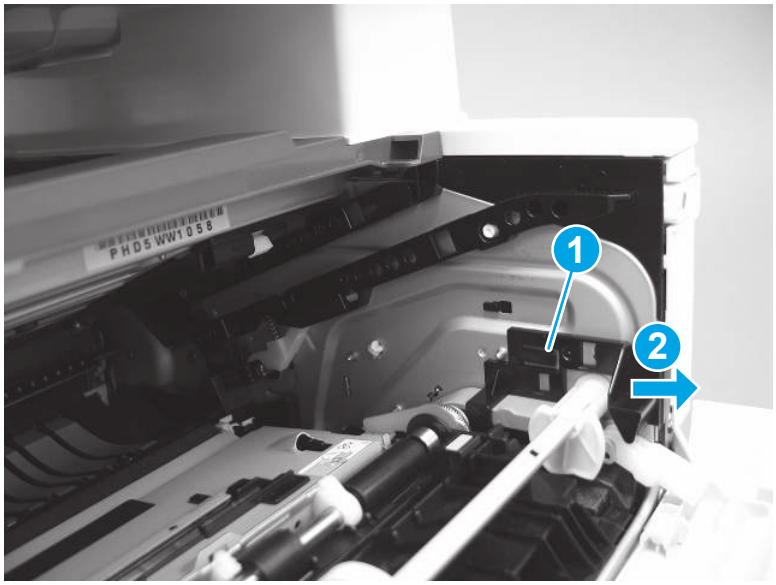
Figure 4-175 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

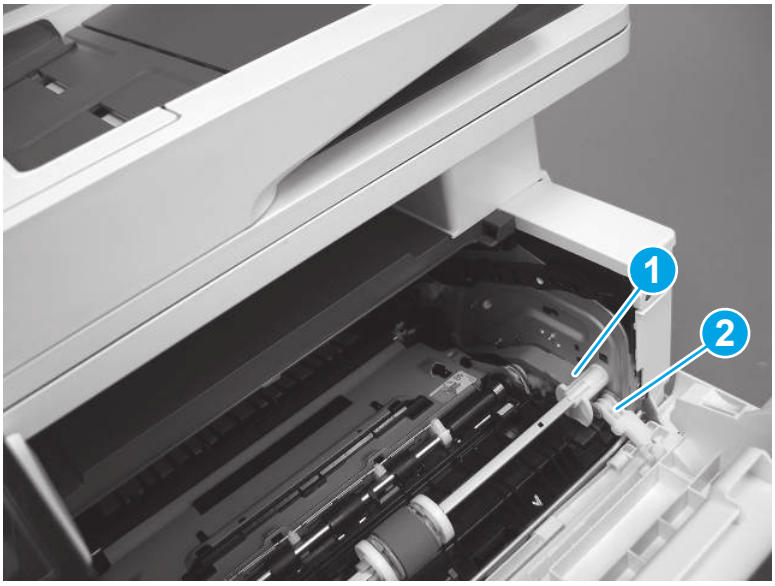
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-176 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-177 Release the pressure-release link



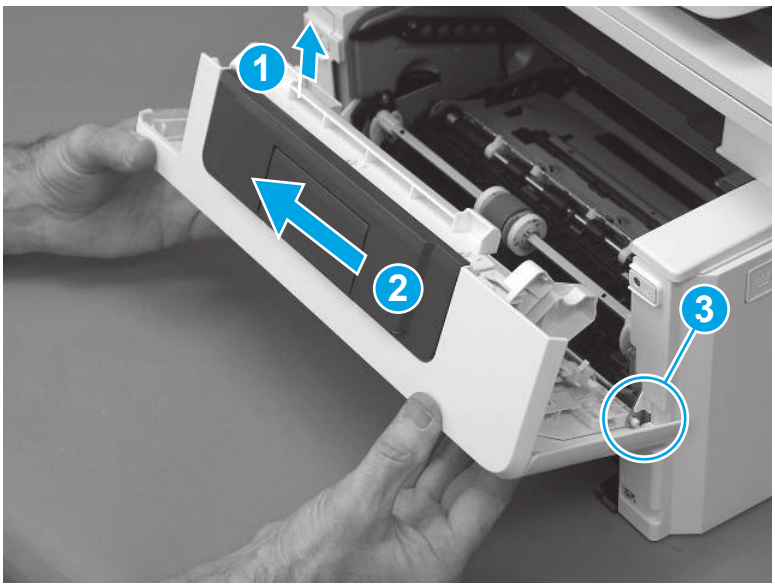
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

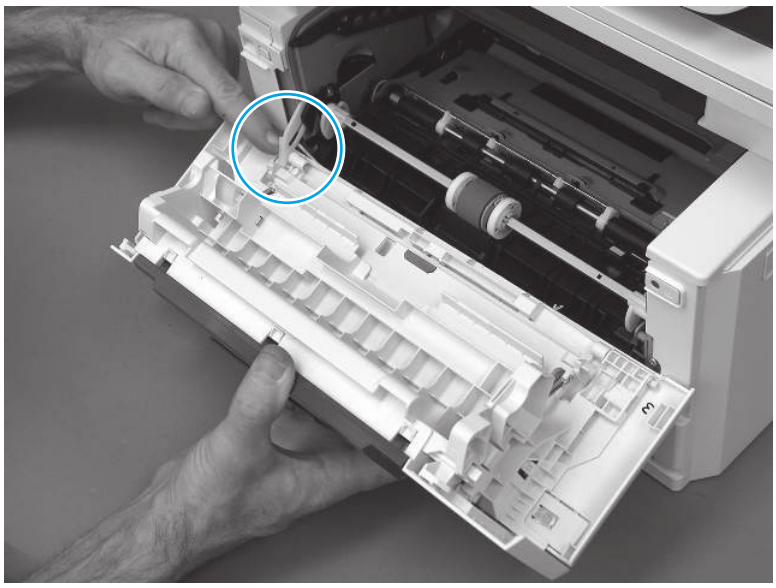
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-178 Release the door



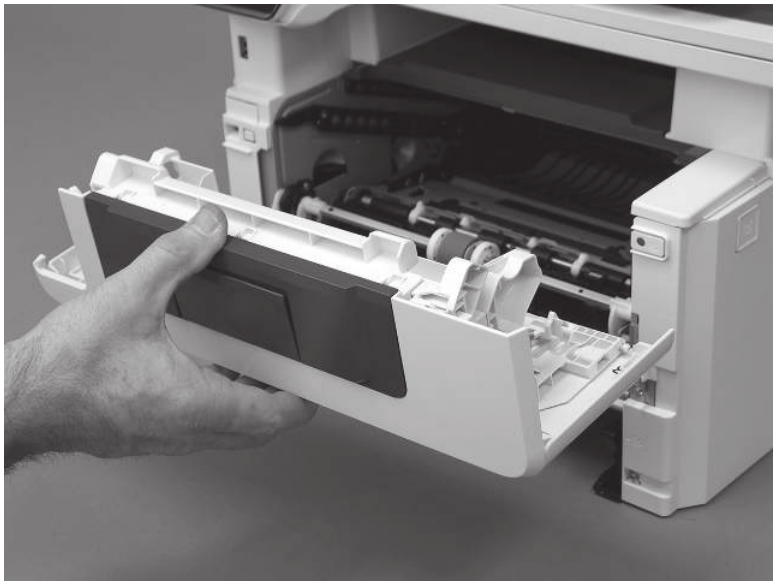
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-179 Release the left-side retainer arm



g. Remove the door.

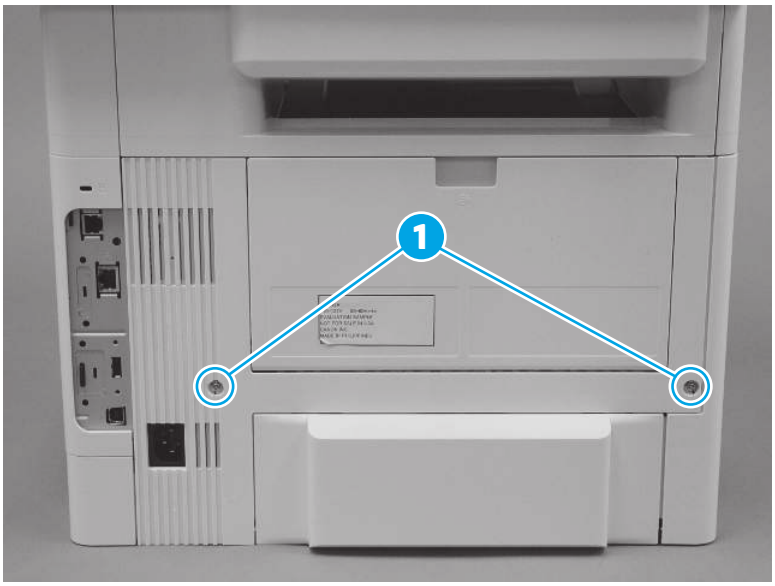
Figure 4-180 Remove the door



4. Remove the rear door assembly.

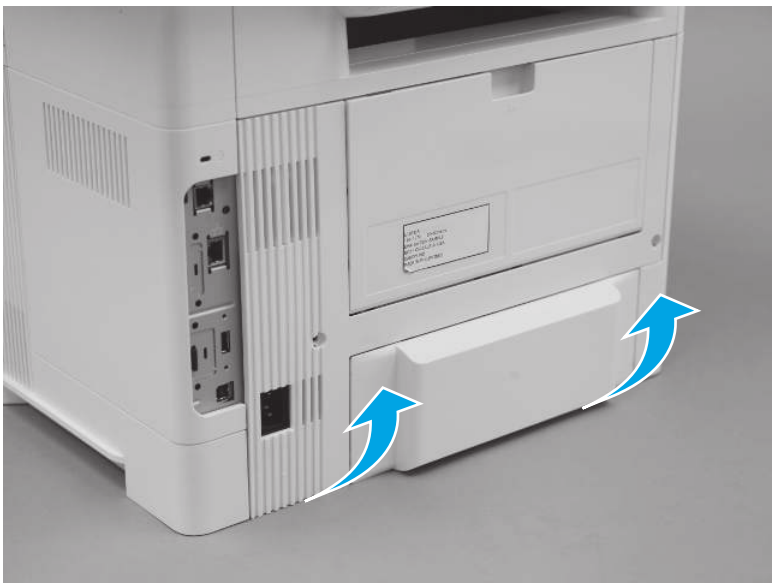
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-181 Remove two screws



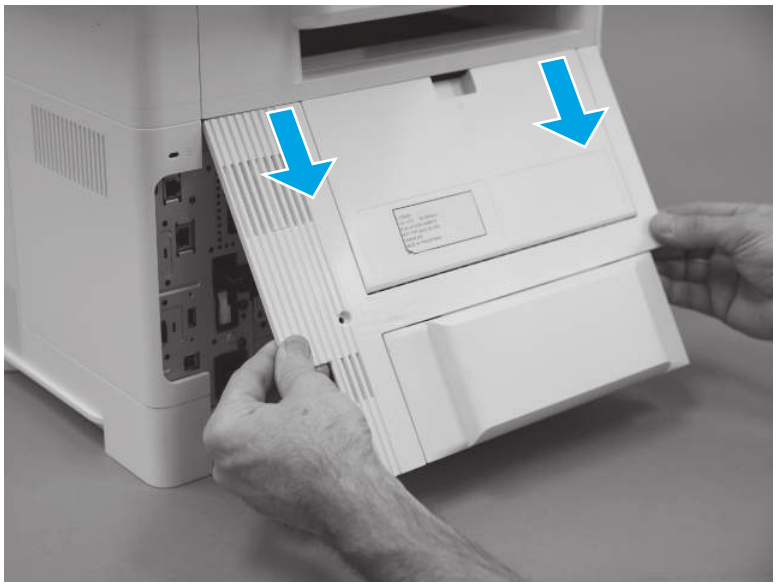
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-182 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-183 Remove the cover



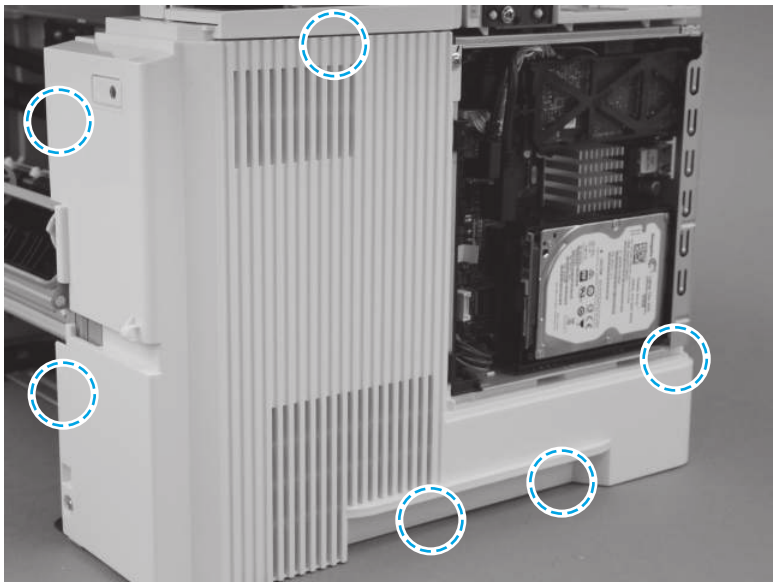
5. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

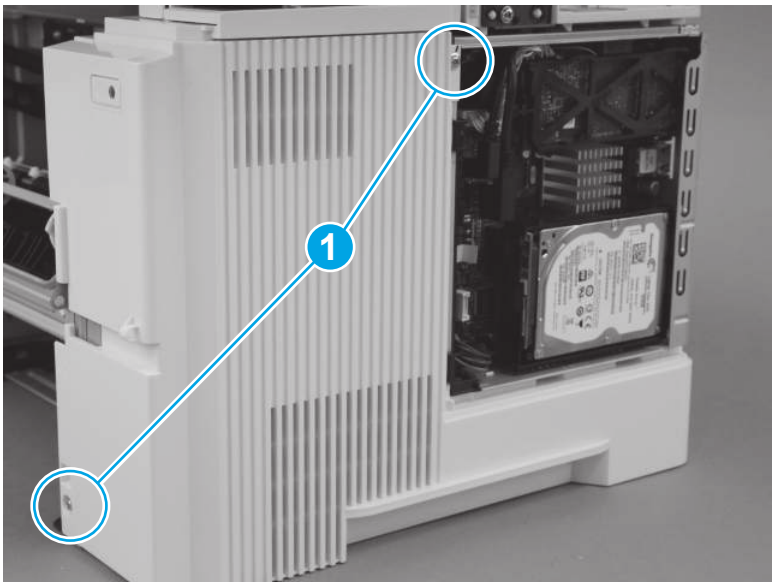
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-184 Locate the tabs and bosses



b. Remove two screws (callout 1).

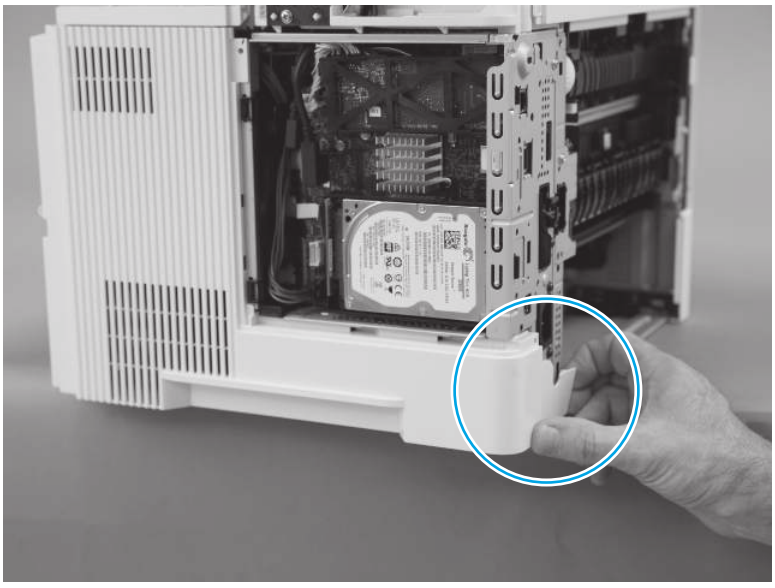
Figure 4-185 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

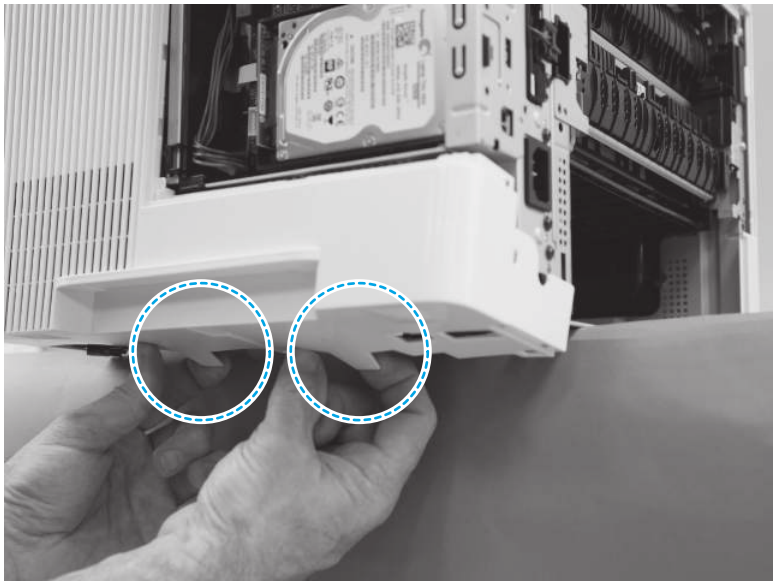
Figure 4-186 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-187 Release two bosses

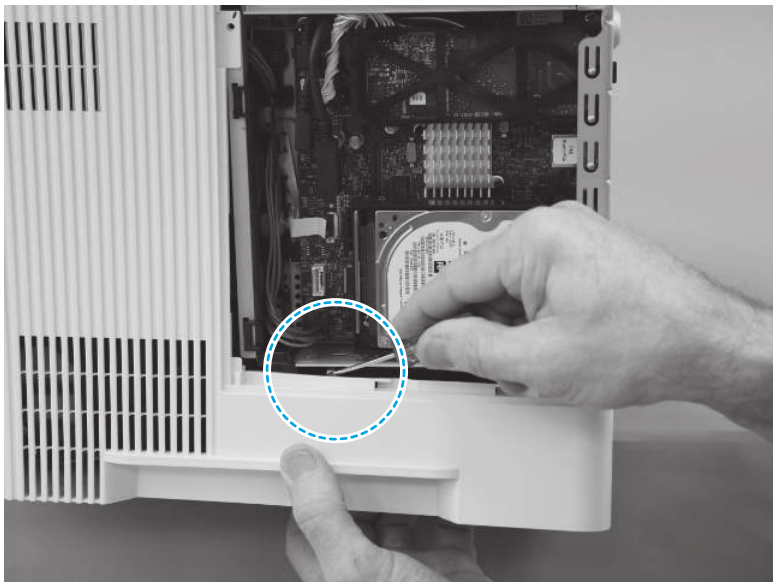


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-188 Release one tab

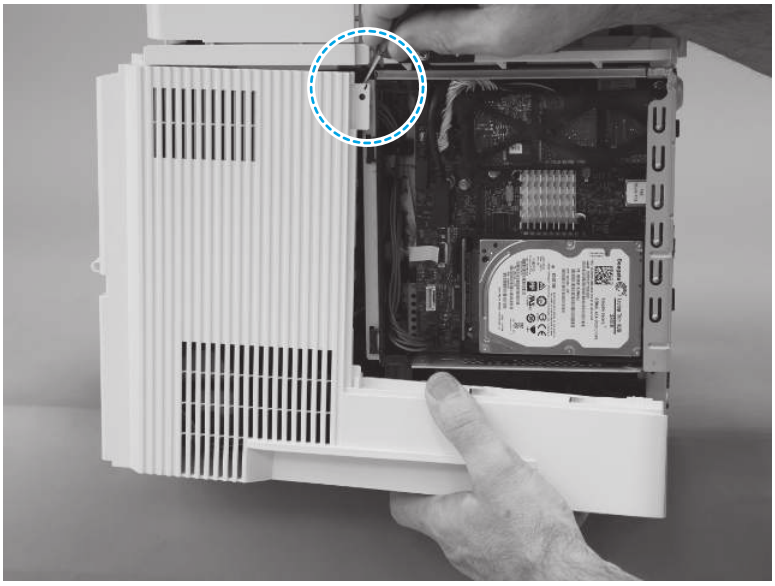


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

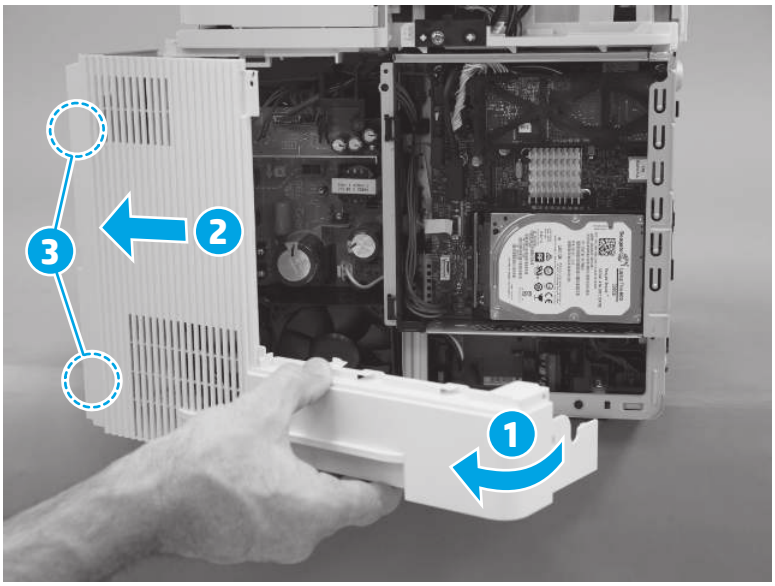
Figure 4-189 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-190 Remove the cover



6. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Left cover

Learn how to remove and replace the left cover

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the left cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-20 Part information

Part number	Part description
RM2-5727-000CN	Left cover

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

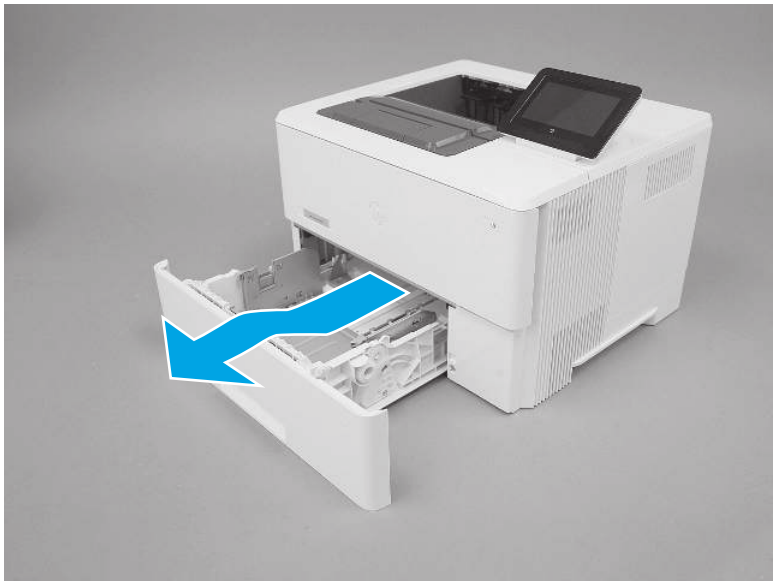
1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

      Figure 4-191 **Pull the tray out until it stops**

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

> NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-192 Release and remove the tray



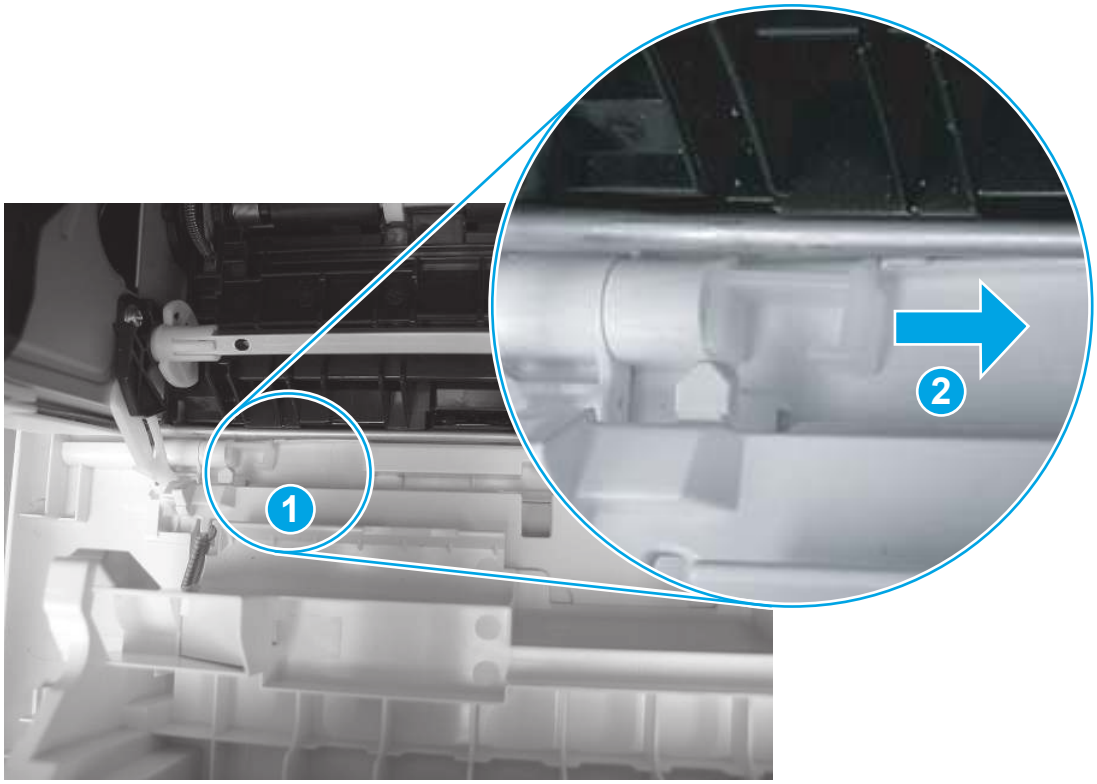
2. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

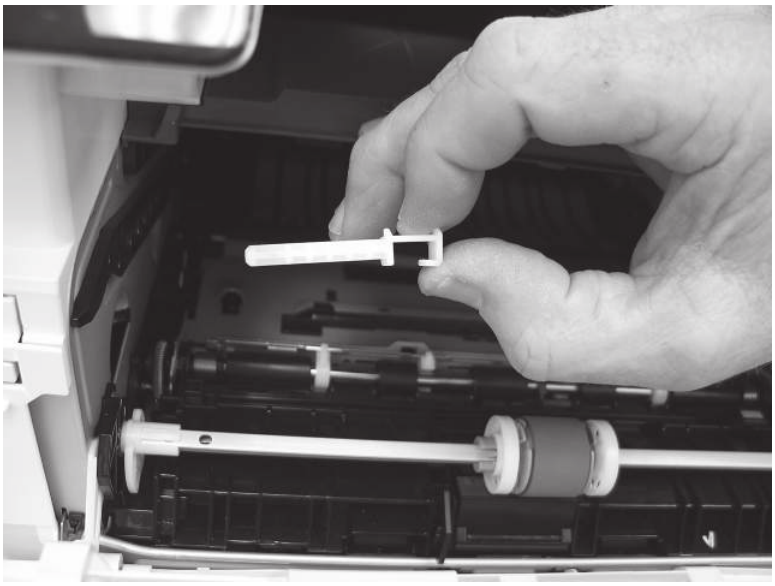
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-193 Release the support shaft



b. Remove the support shaft.

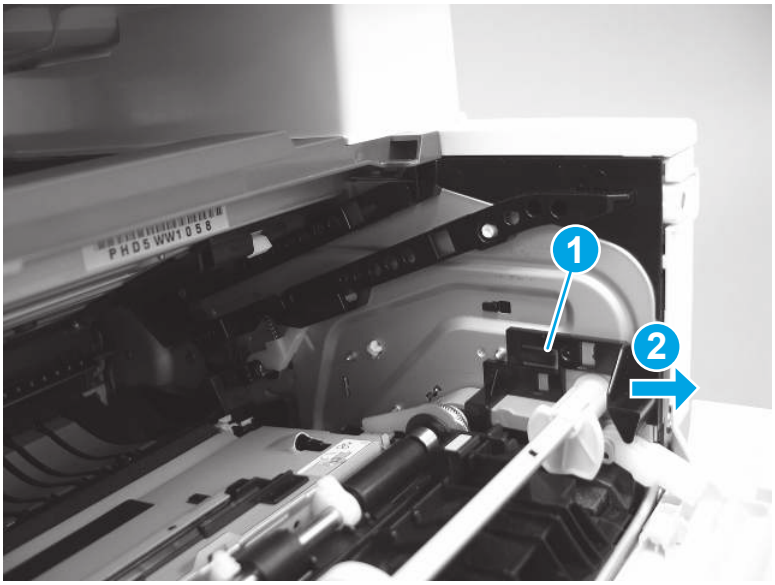
Figure 4-194 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

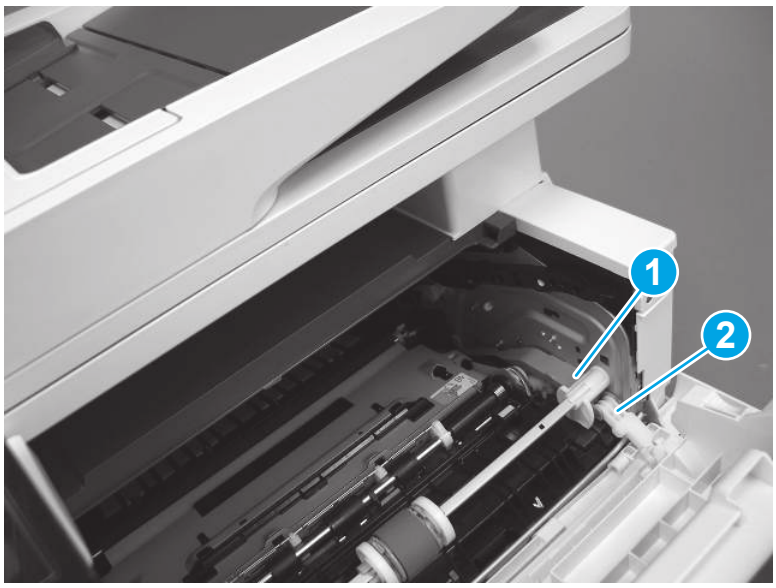
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-195 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-196 Release the pressure-release link



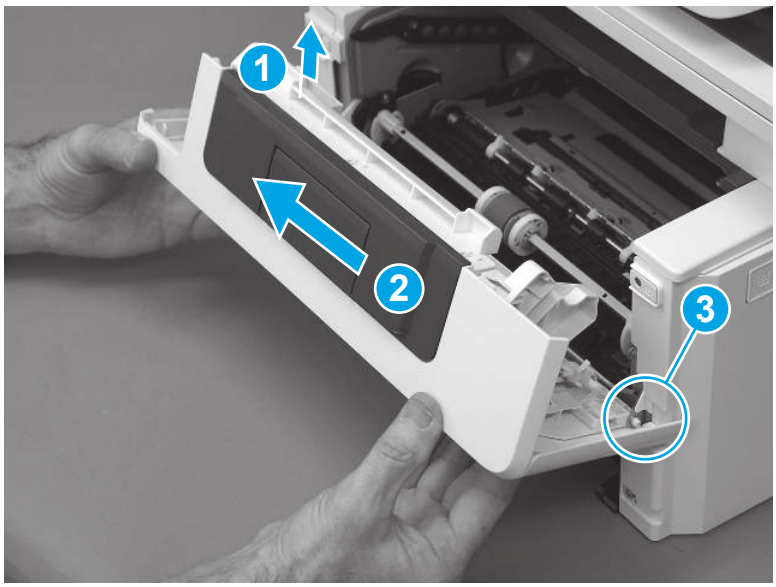
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

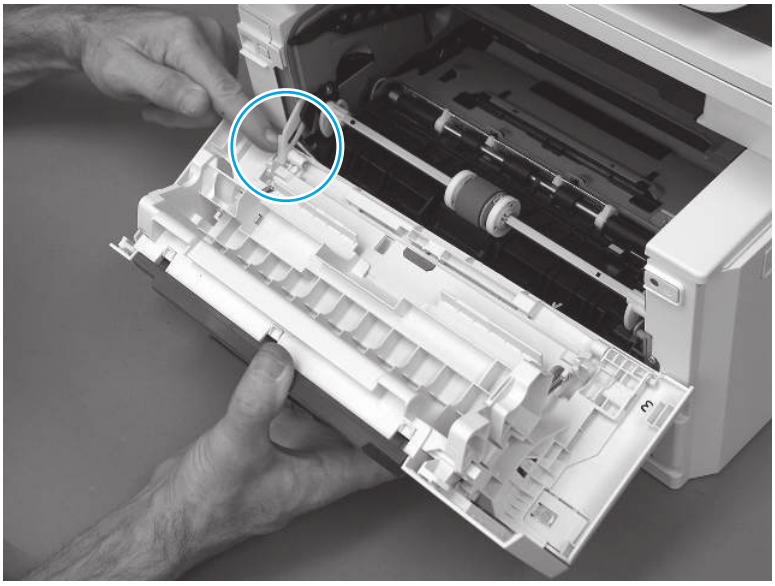
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-197 Release the door



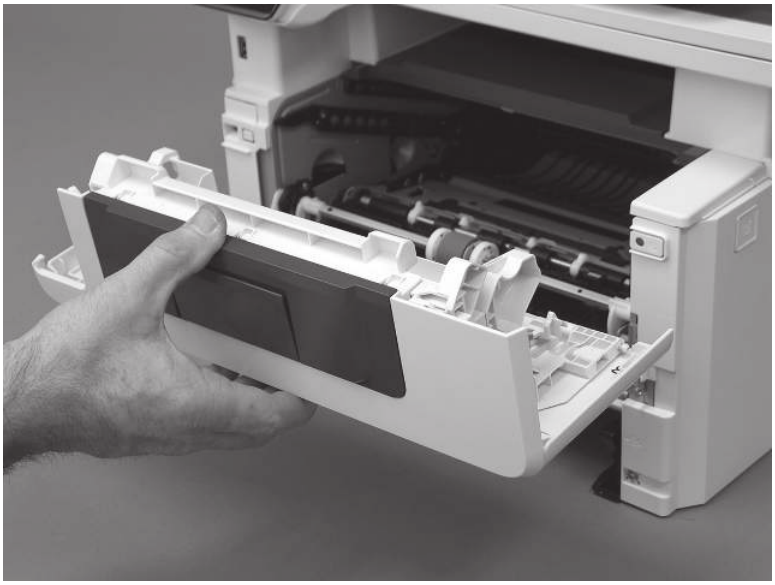
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-198 Release the left-side retainer arm



g. Remove the door.

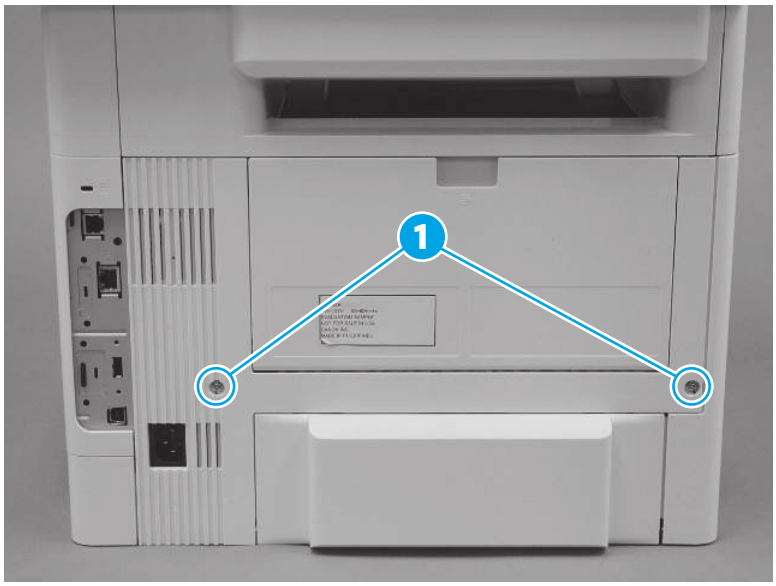
Figure 4-199 Remove the door



3. Remove the rear door assembly.

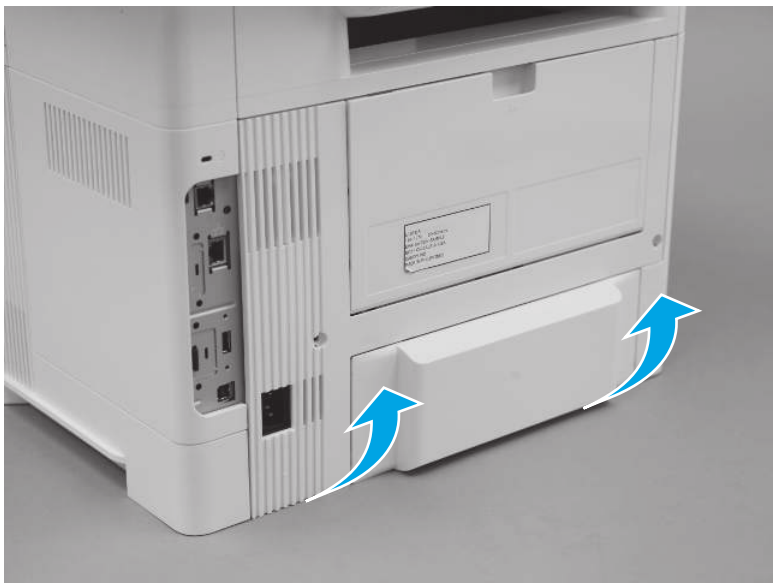
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-200 Remove two screws



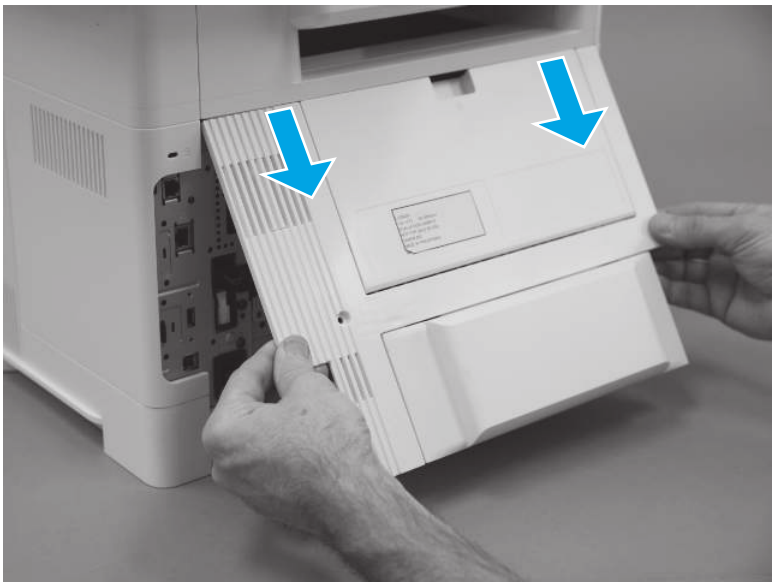
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-201 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-202 Remove the cover



4. Remove the left cover.

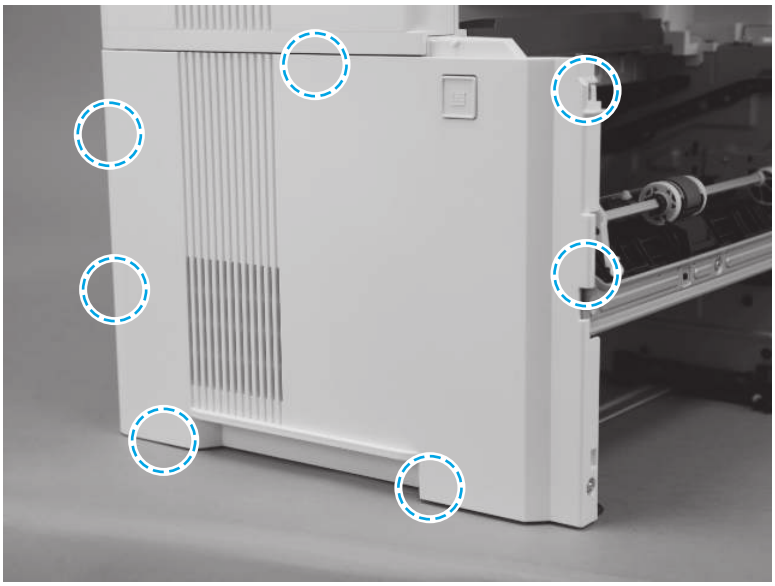
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

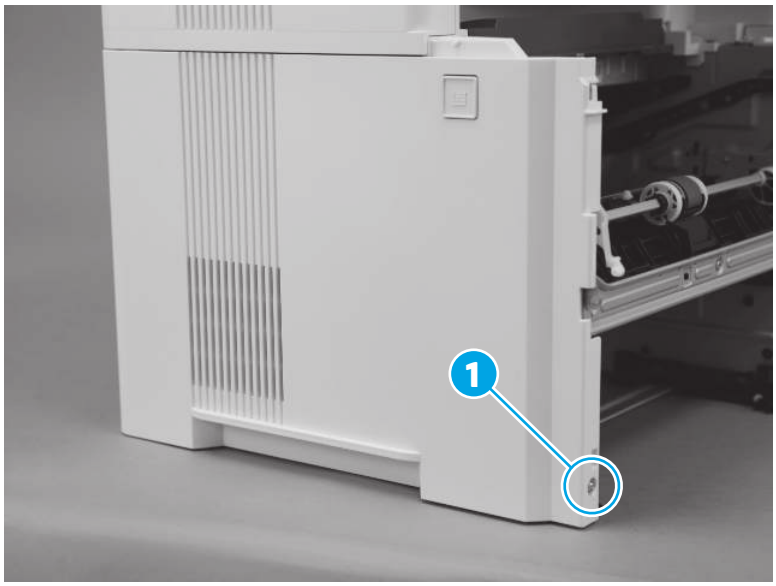
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-203 Locate of the tabs and bosses



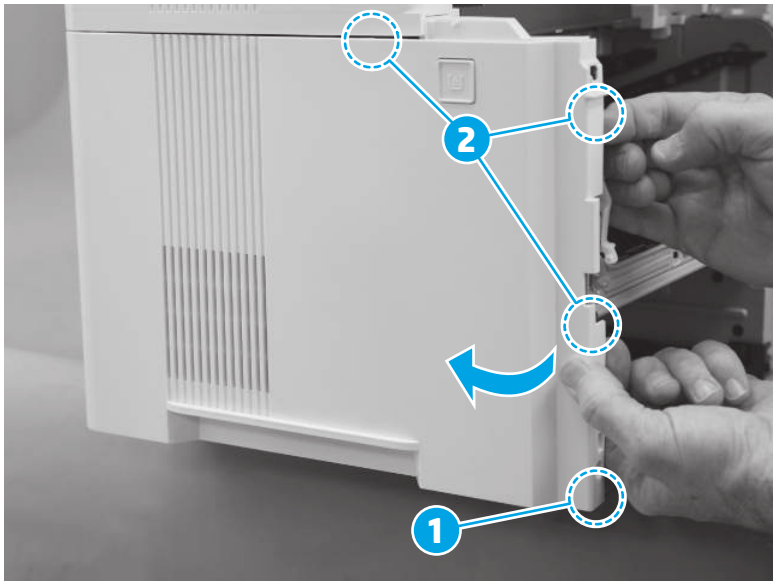
b. Remove one screw (callout 1).

Figure 4-204 Remove one screw



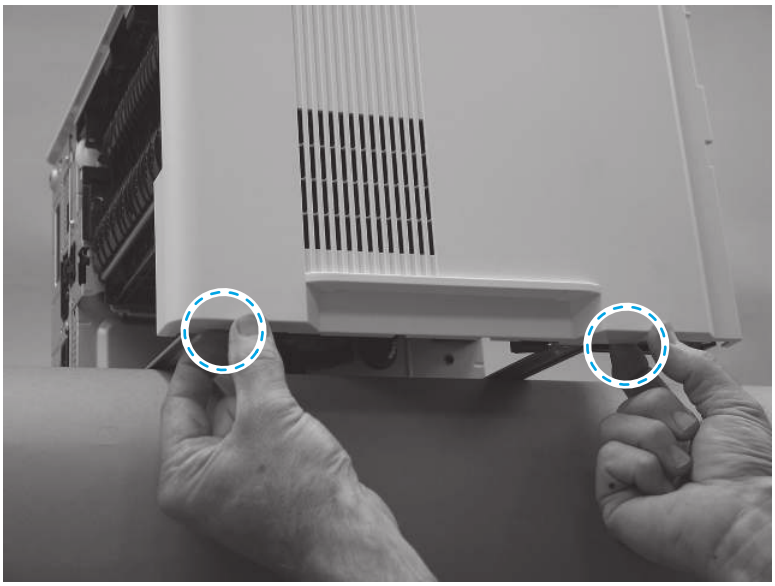
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-205 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

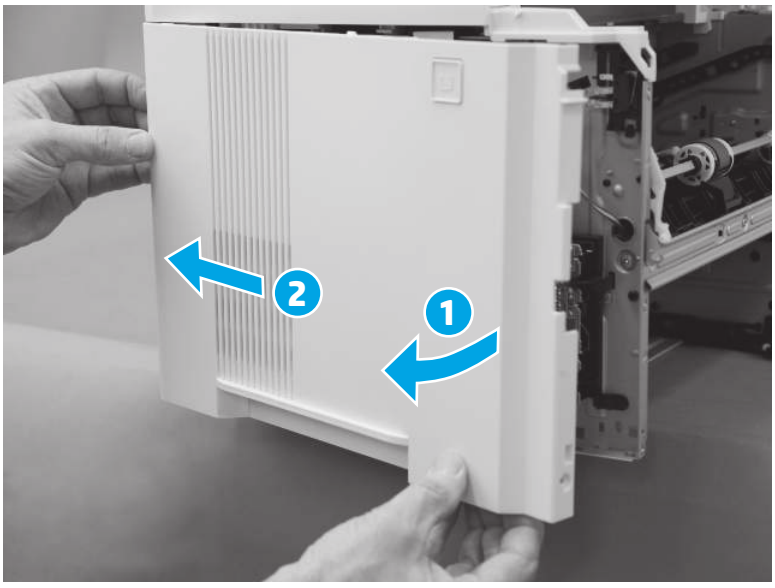
Figure 4-206 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-207 Remove the cover



5. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Stapler door or stapler blank cover (M527/E52545/M528/E52645)

Learn how to remove and replace the stapler door or stapler blank cover.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the stapler door or stapler blank cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-21 Part information

Part number	Part description
F2A76-40004	Stapler door (stapler models)
F2A76-40005	Stapler blank cover (non-stapler models)

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

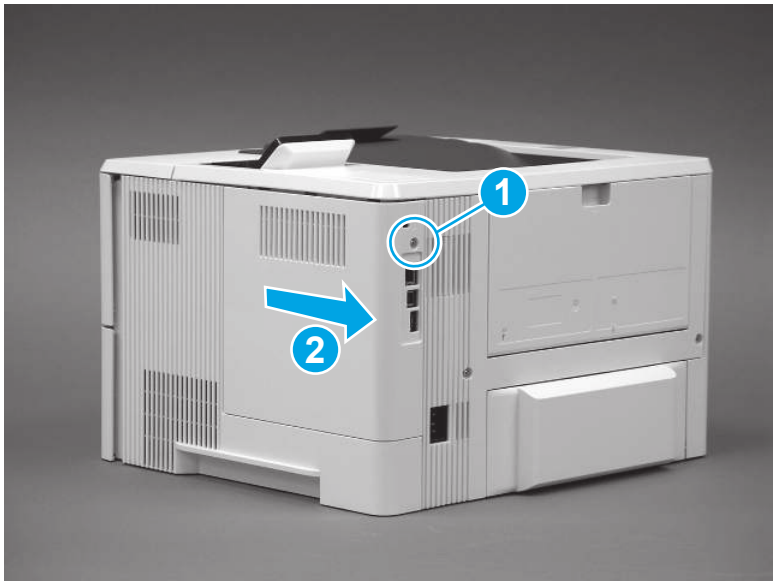
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Staple two pages together.

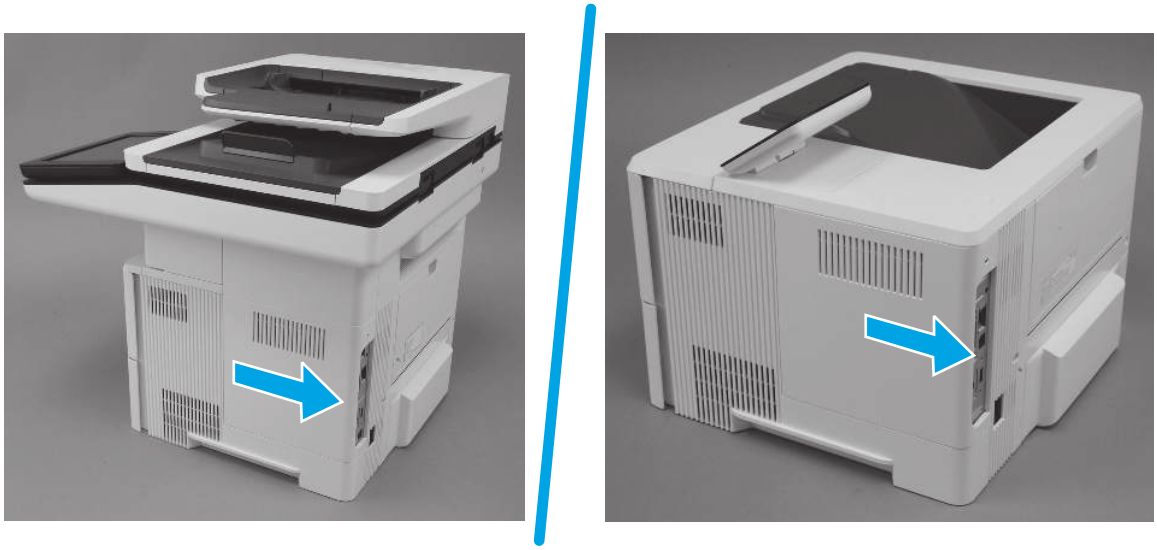
1. Remove the formatter cover.
   - Do one of the following:
     - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

       Figure 4-208 **Remove the formatter cover (M501)**

     - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-209 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

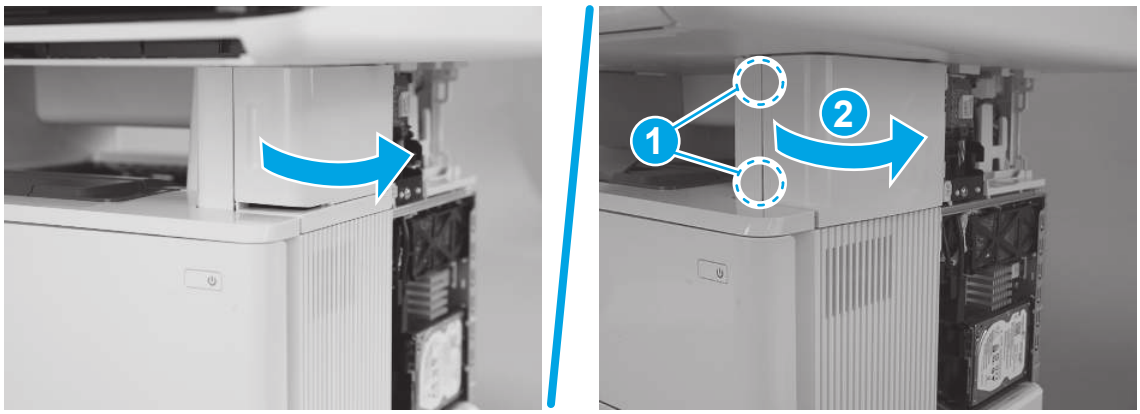


2. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

   Figure 4-210 Open the door or release the cover



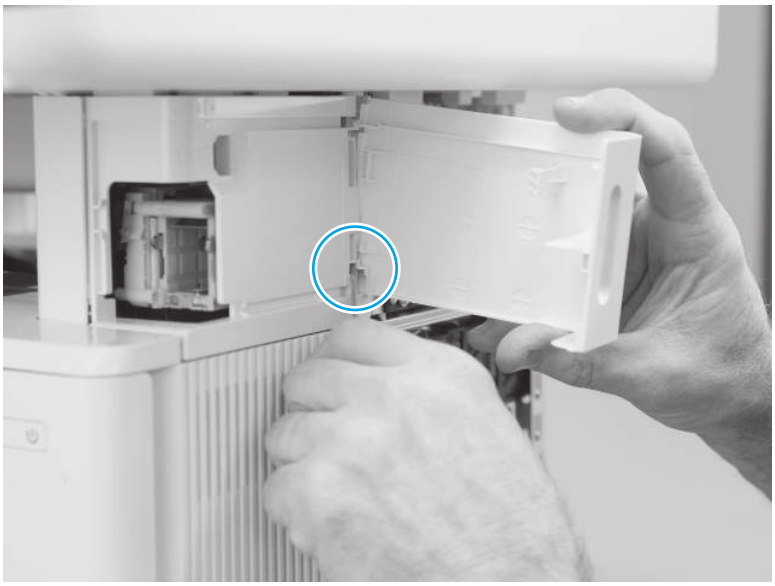
   b. Do one of the following:

   - **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
   - **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-211 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-212 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-213 **Remove the door**

3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Stapler stationary (inner) cover (M527/E52545/M528/E52645)

Learn how to remove and replace the cassette stapler stationary (inner) cover.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the stapler stationary (inner) cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-22 Part information

Part number	Part description
F2A76-40003	Stapler stationary (inner) cover (stapler models only)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

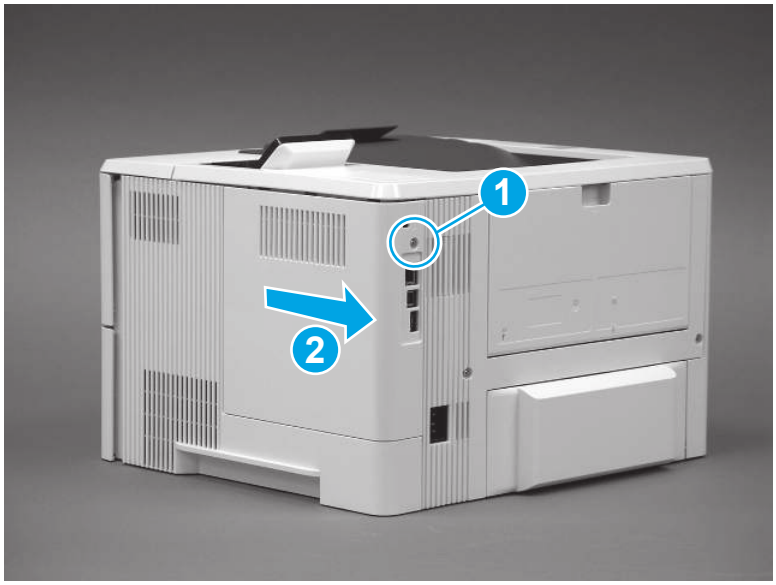
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

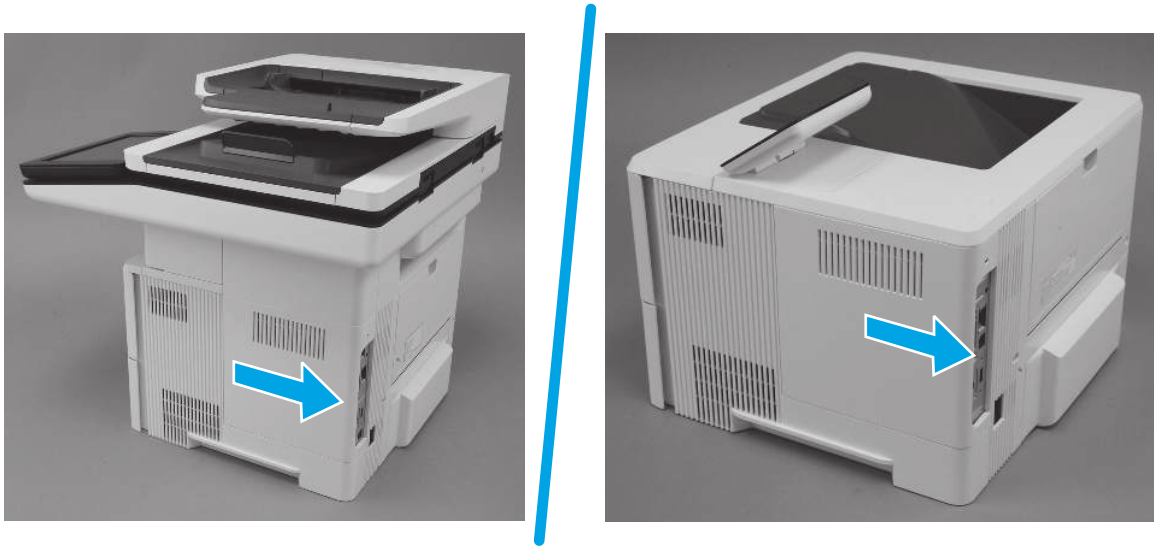
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-214 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-215 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

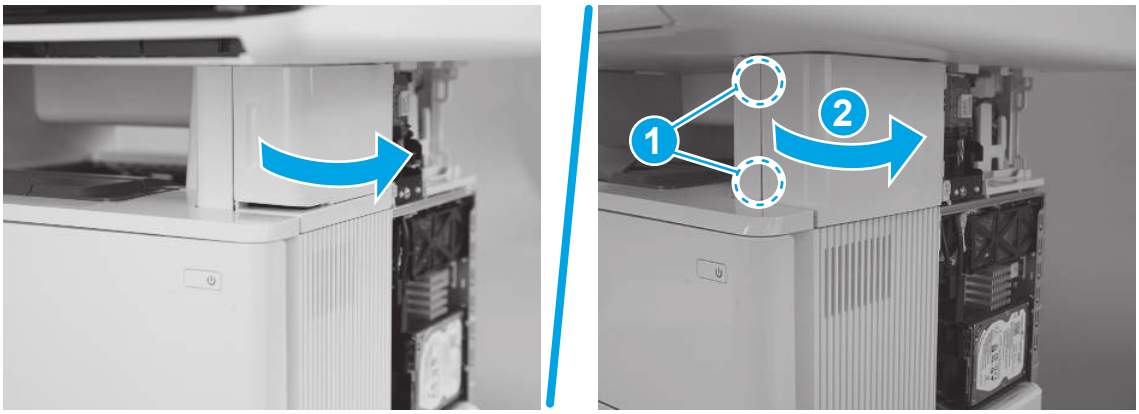


2. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-216 Open the door or release the cover



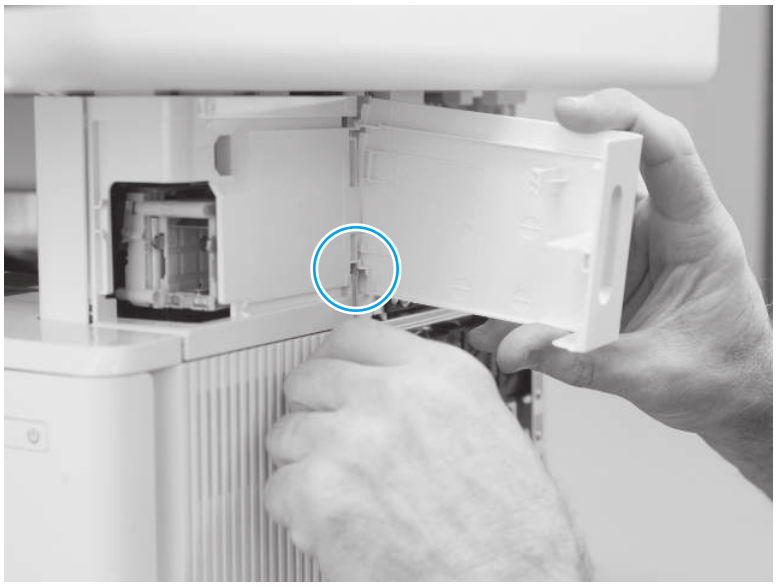
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-217 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-218 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-219 **Remove the door**

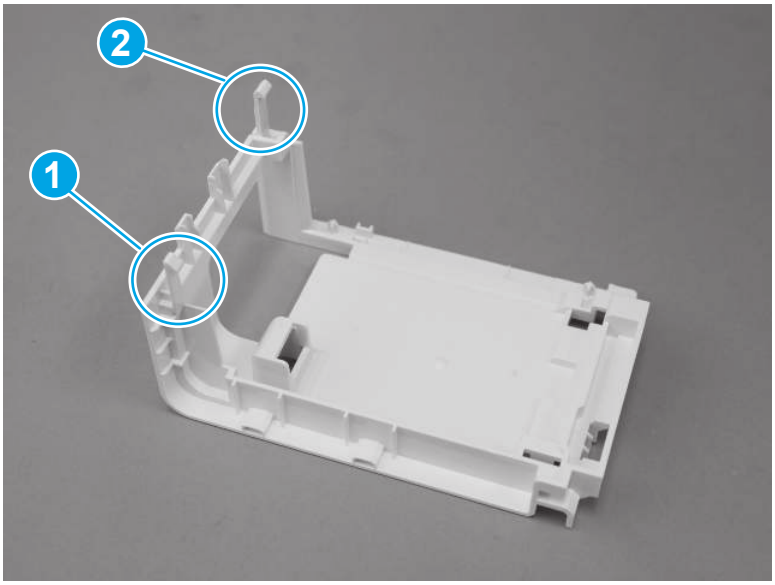
3. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

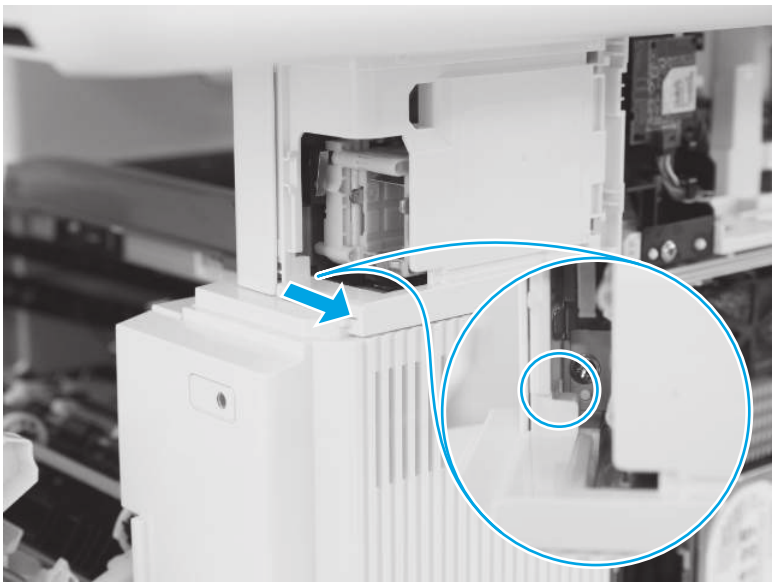
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-220 Locate the tabs



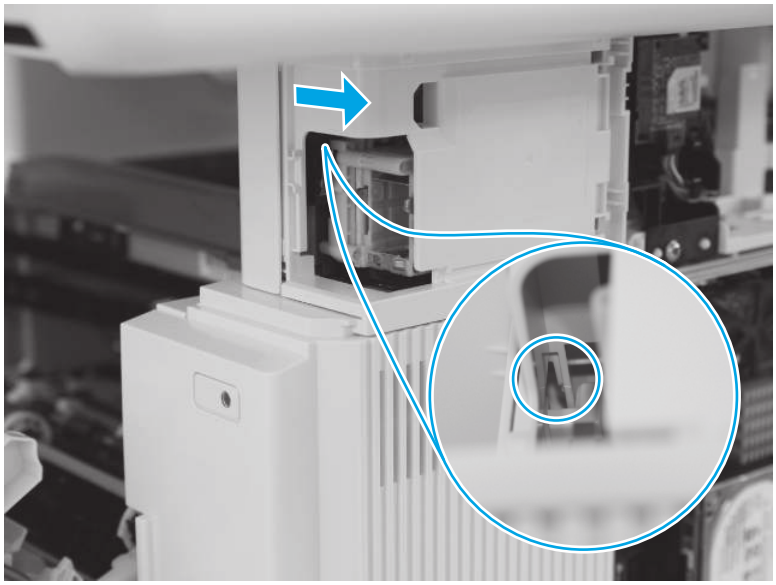
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-221 Release one tab



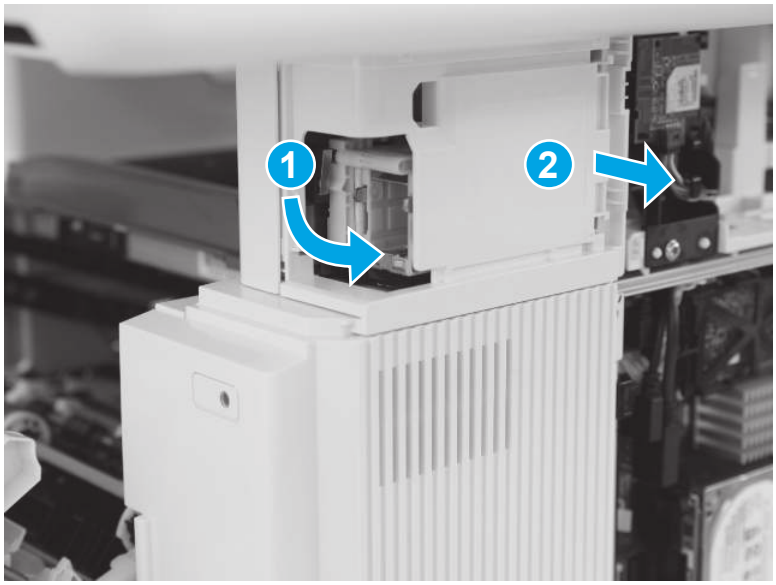
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-222 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

Figure 4-223 Remove the cover



4. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top cover (MFP)

Learn how to remove and replace the top cover.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the top cover.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-23 Part information

Part number	Part description
RM2-5718-000CN	Top cover (M527/E52545/M528/E52645)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

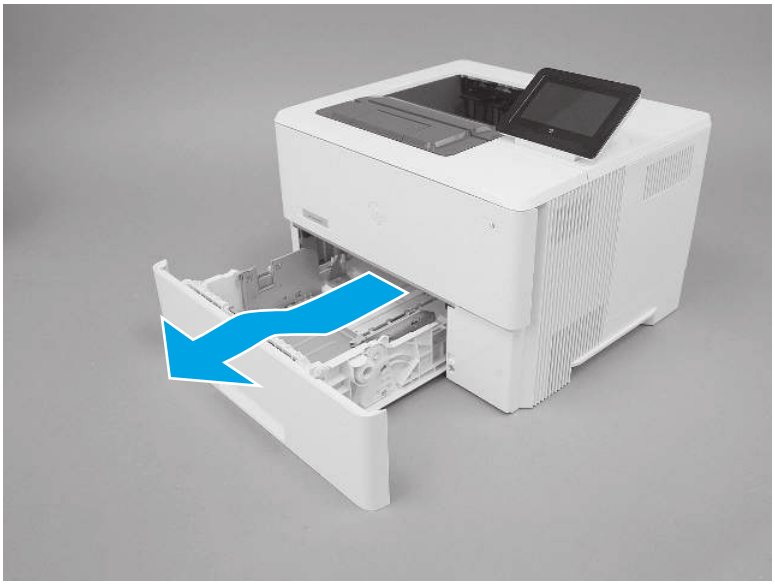
1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

   Figure 4-224 **Pull the tray out until it stops**

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

   NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-225 Release and remove the tray

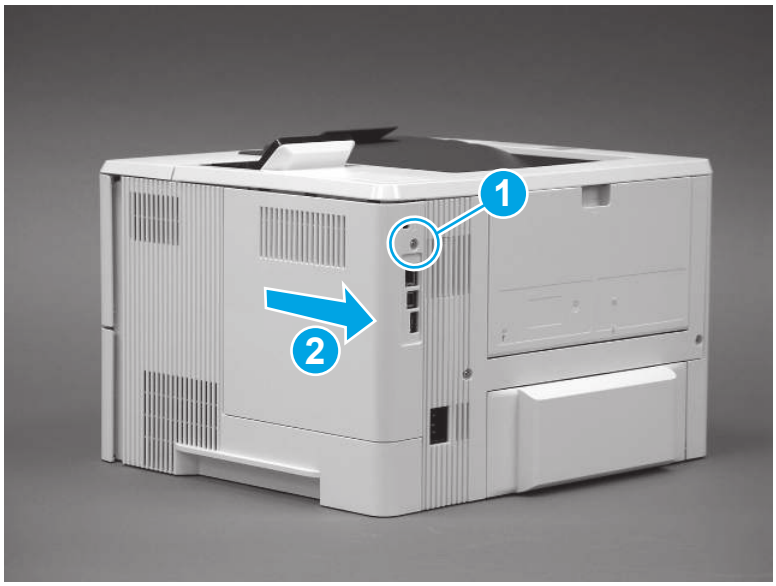


2. Remove the formatter cover.

   - Do one of the following:

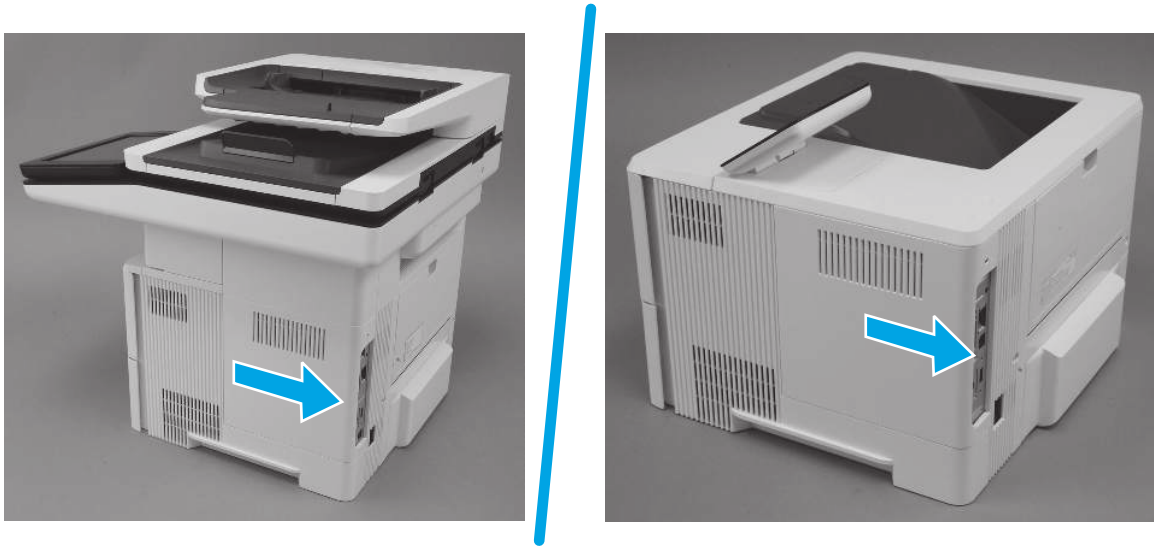
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-226 Remove the formatter cover (M501)

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-227 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

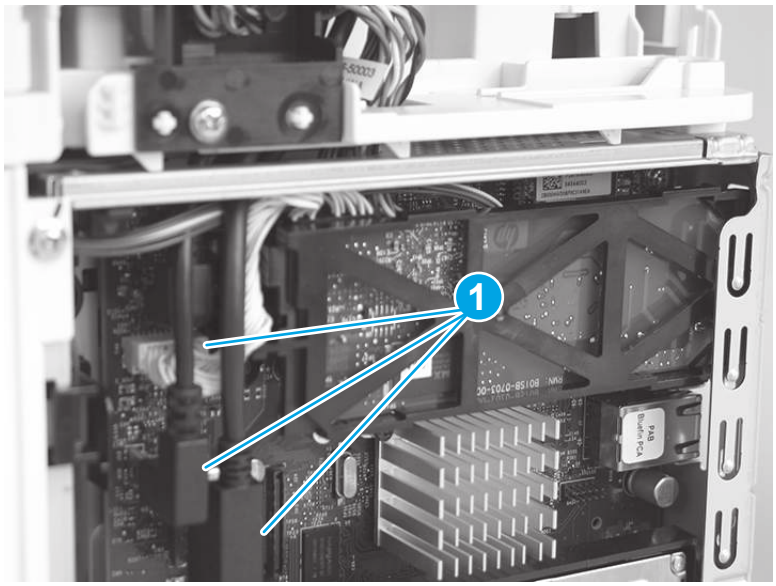


3. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

CAUTION: ESD-sensitive part.

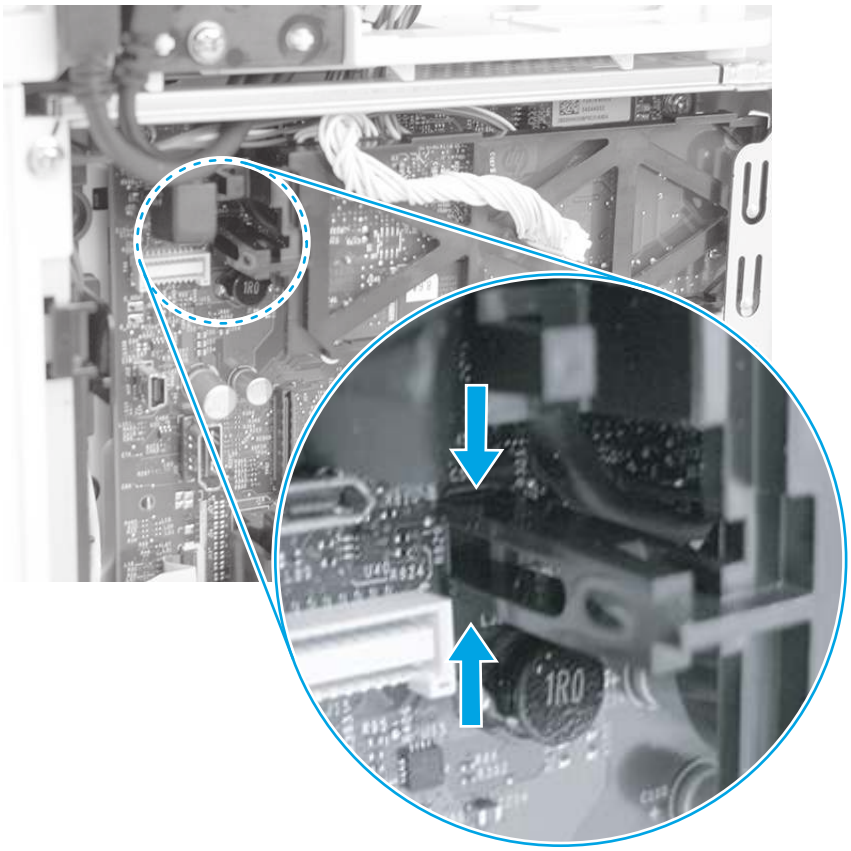
a. Disconnect three connectors (callout 1).

Figure 4-228 Disconnect three connectors



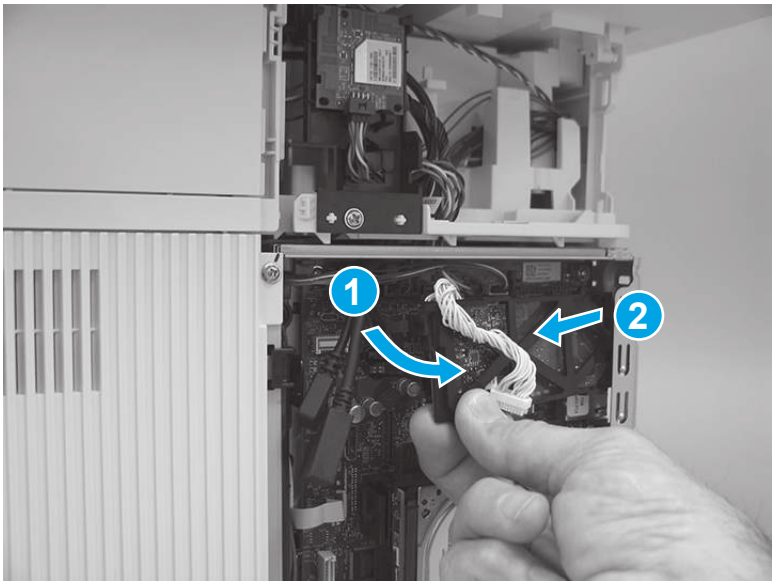
b. Pinch the retainer to release it.

Figure 4-229 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-230 Remove the fax PCA

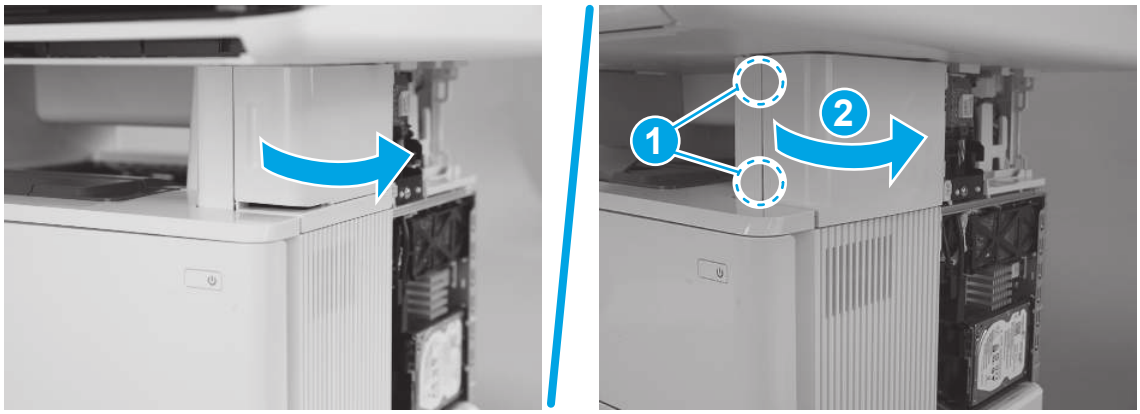


4. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-231 **Open the door or release the cover**



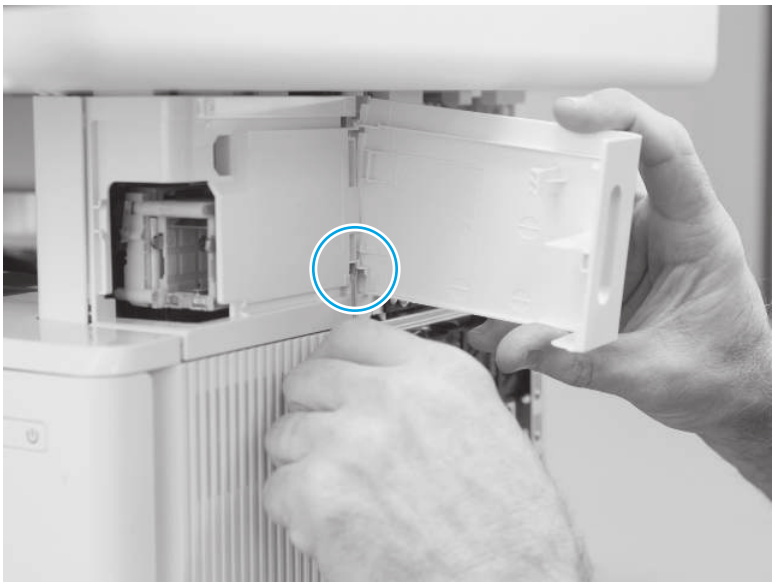
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-232 **Release the upper hinge or remove the cover**

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-233 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-234 **Remove the door**

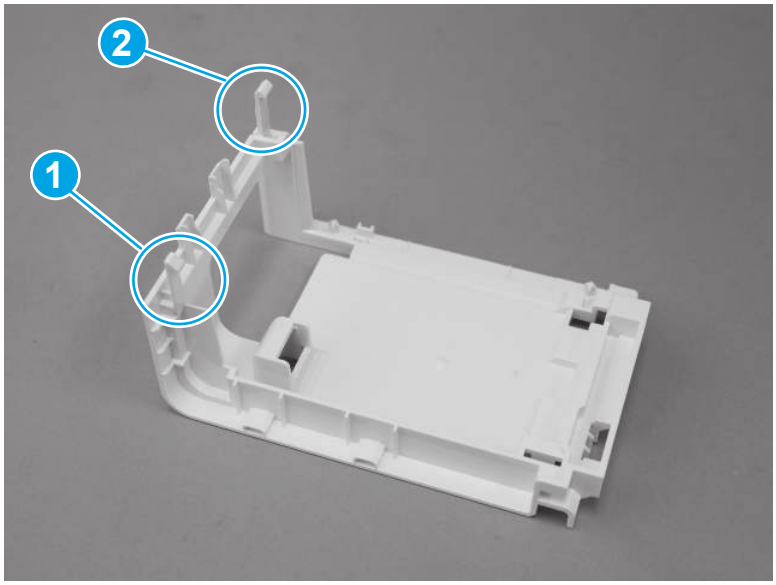
5. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

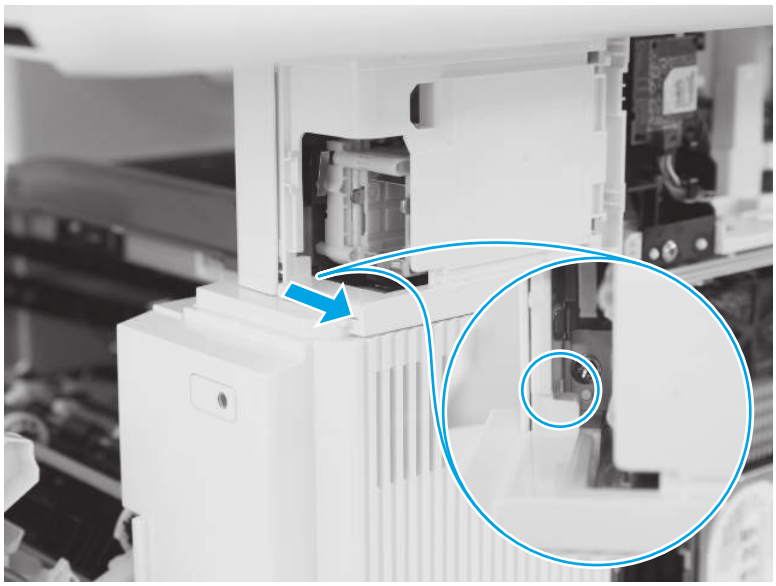
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-235 Locate the tabs



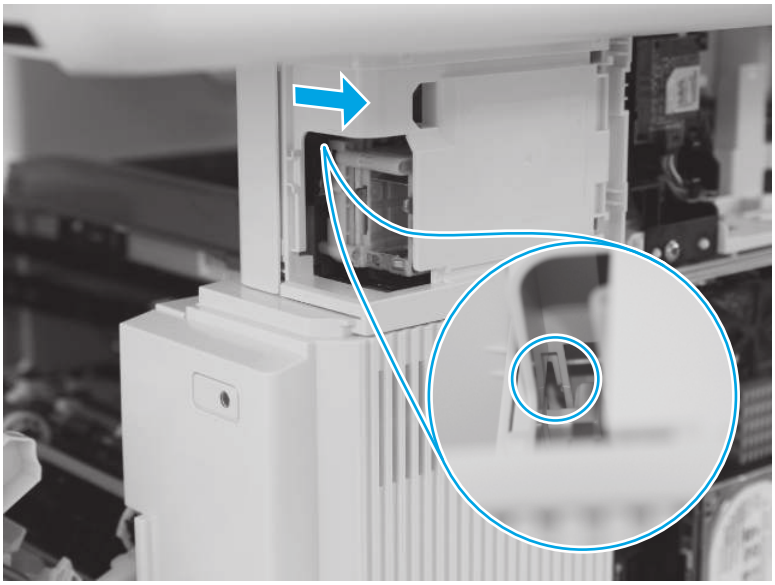
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-236 Release one tab



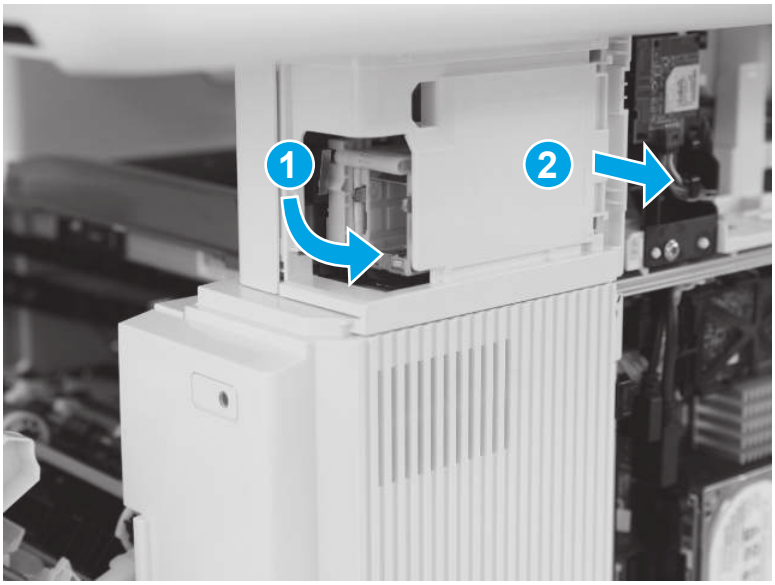
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-237 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

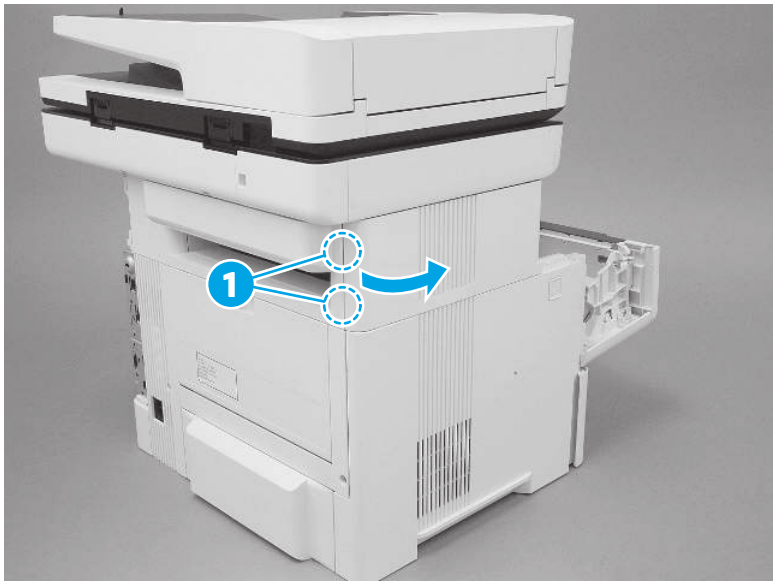
Figure 4-238 Remove the cover



6. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-239 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

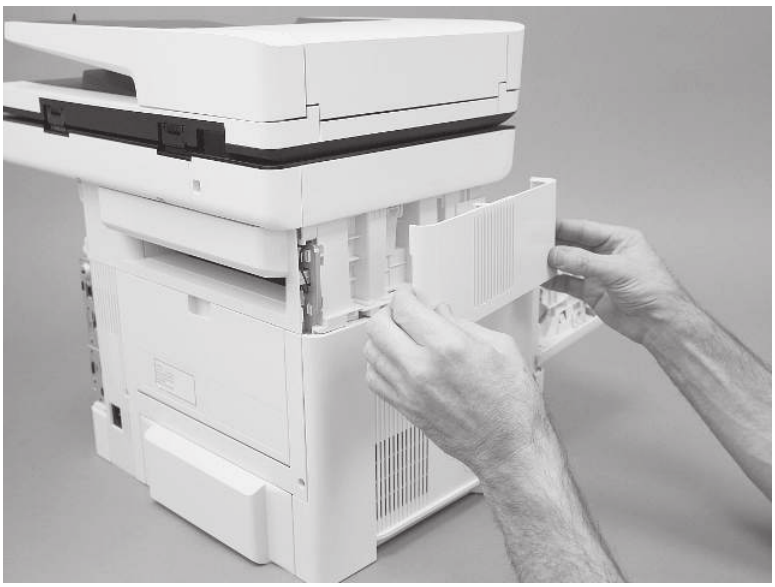
Figure 4-240 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-241 Slide the cover

d. Remove the cover.

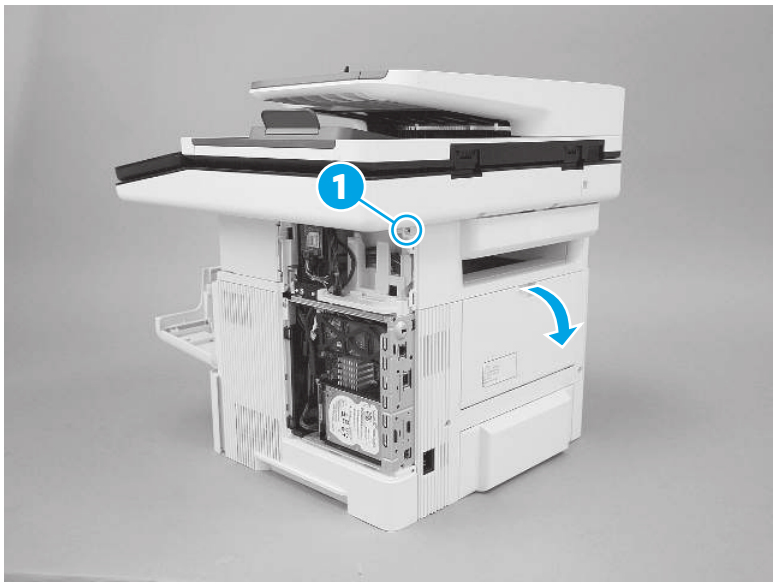
Figure 4-242 Remove the cover



7. Remove the top-rear cover (M527/E52545/M528/E52645).

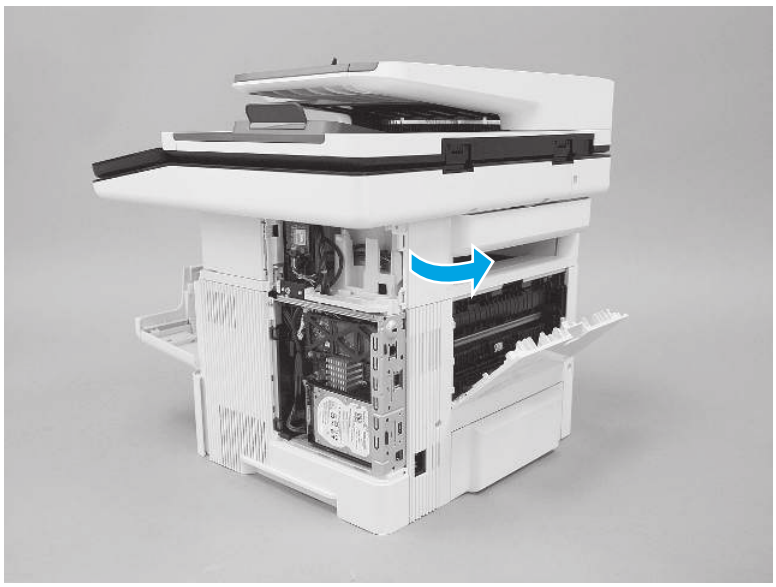
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-243 Remove one screw



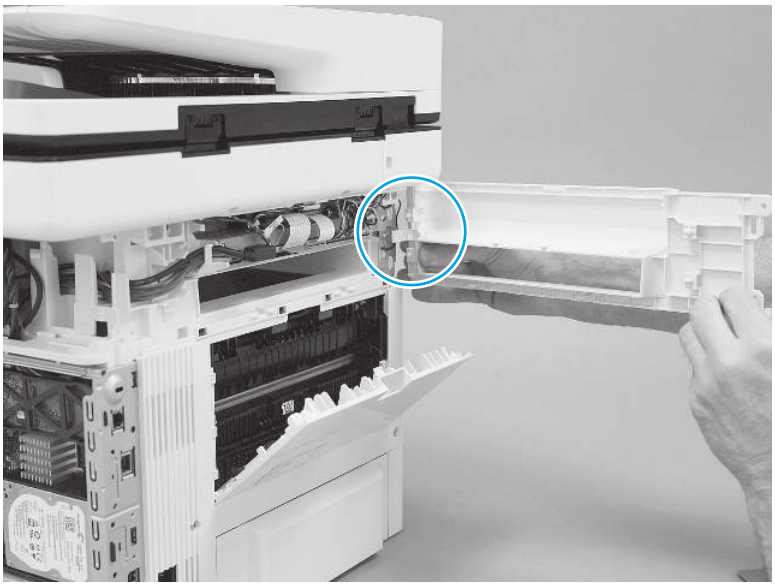
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-244 Rotate the cover



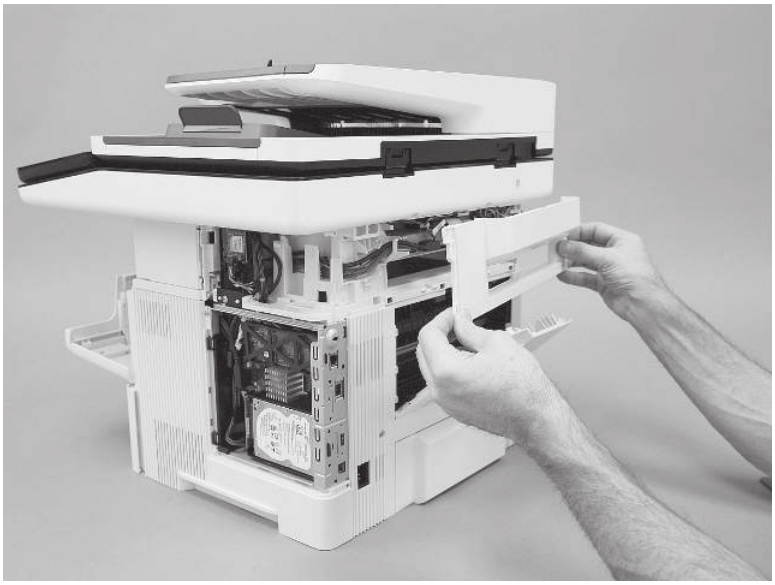
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-245 Release one boss



d. Remove the cover.

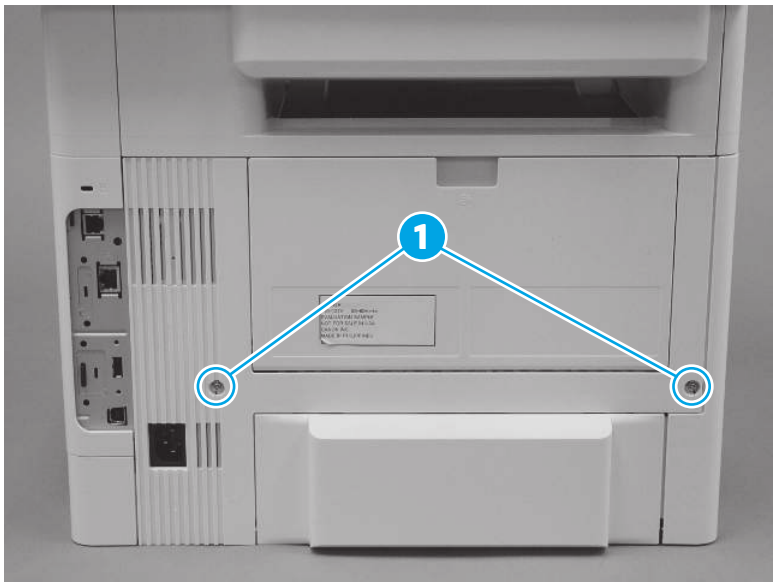
Figure 4-246 Remove the cover



8. Remove the rear door assembly.

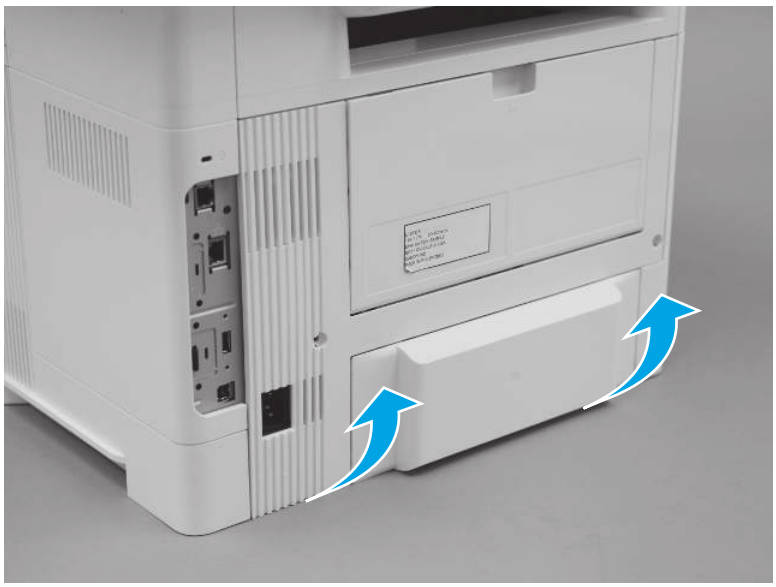
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-247 Remove two screws



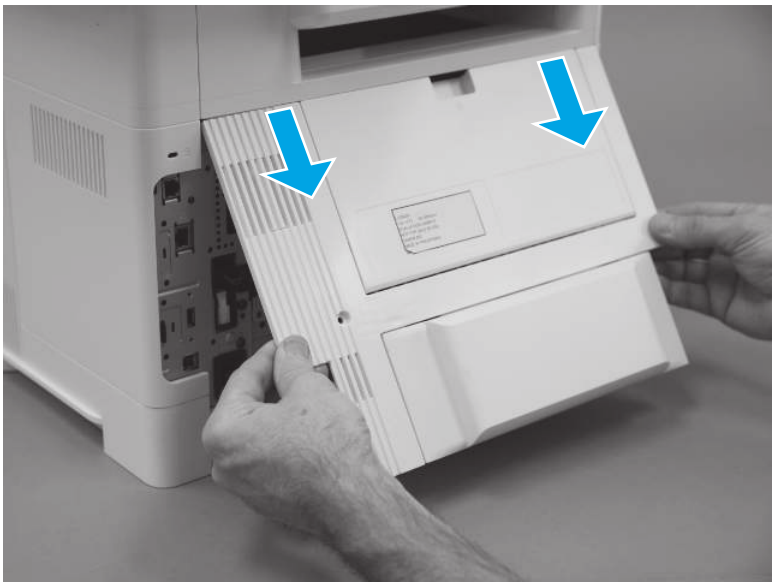
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-248 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-249 Remove the cover



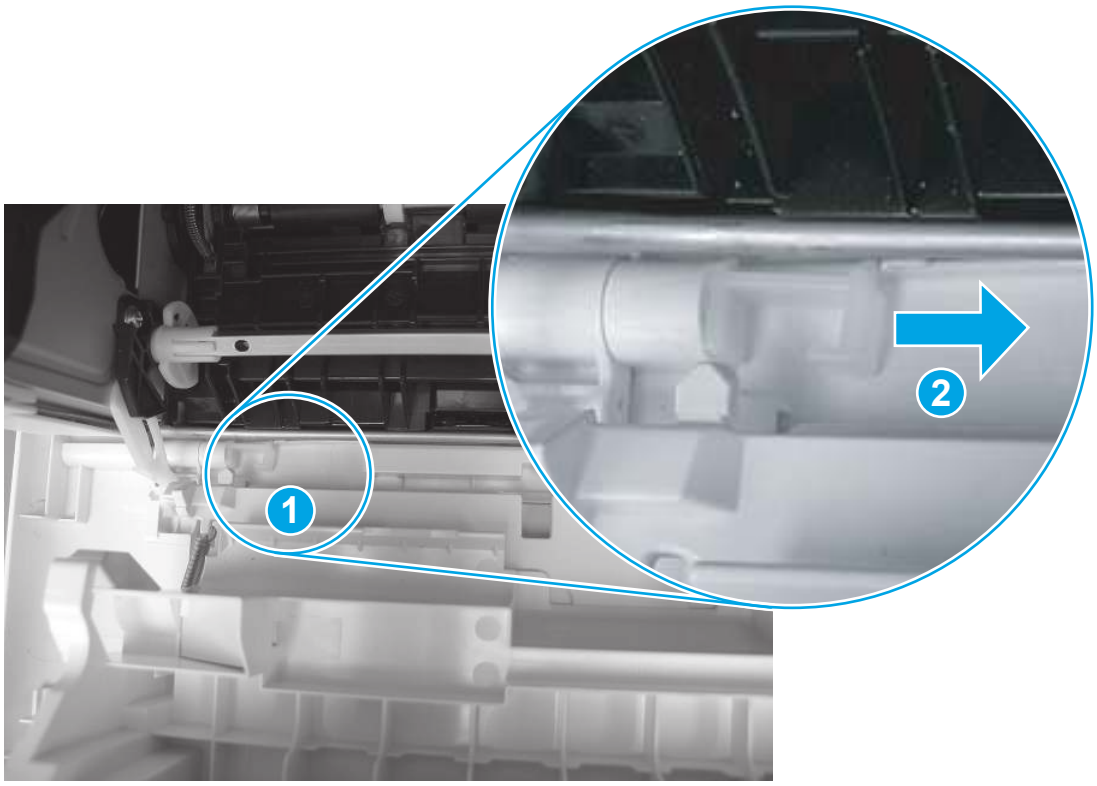
9. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

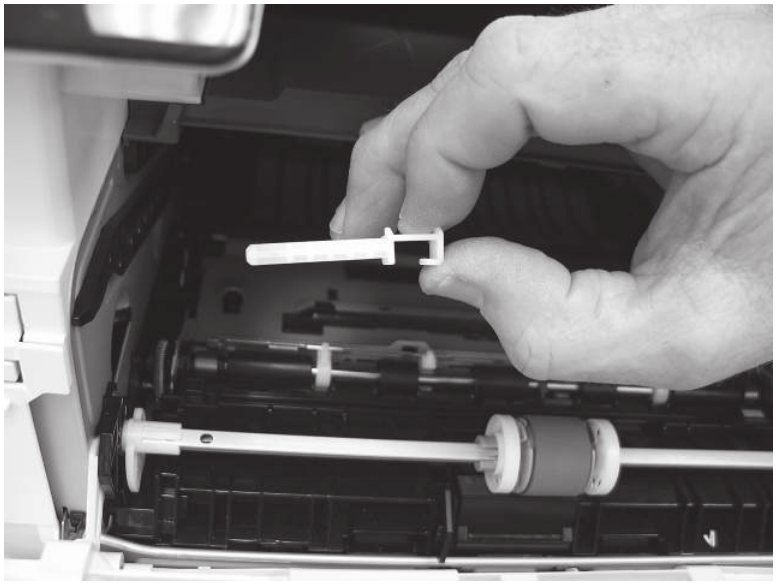
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-250 Release the support shaft



b. Remove the support shaft.

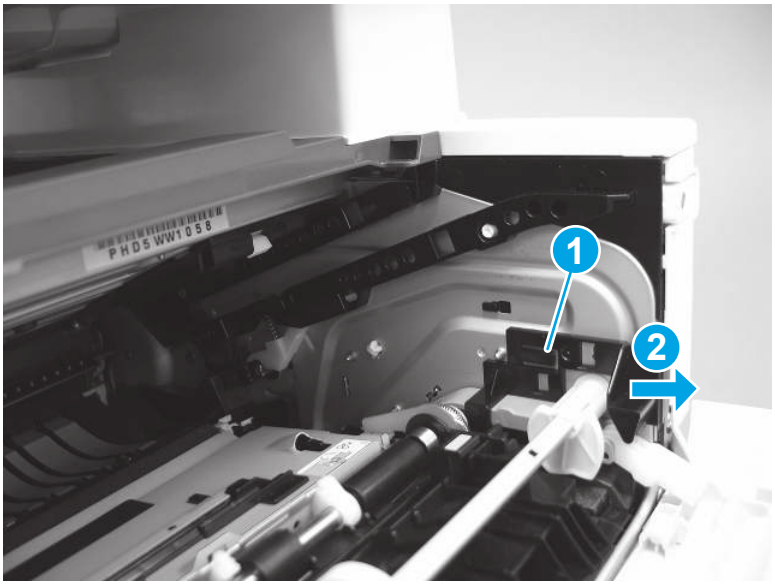
Figure 4-251 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

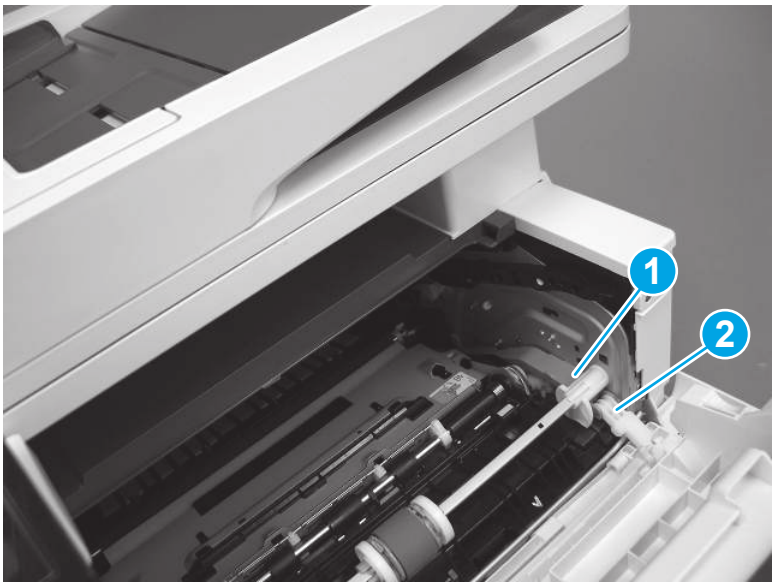
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-252 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-253 Release the pressure-release link



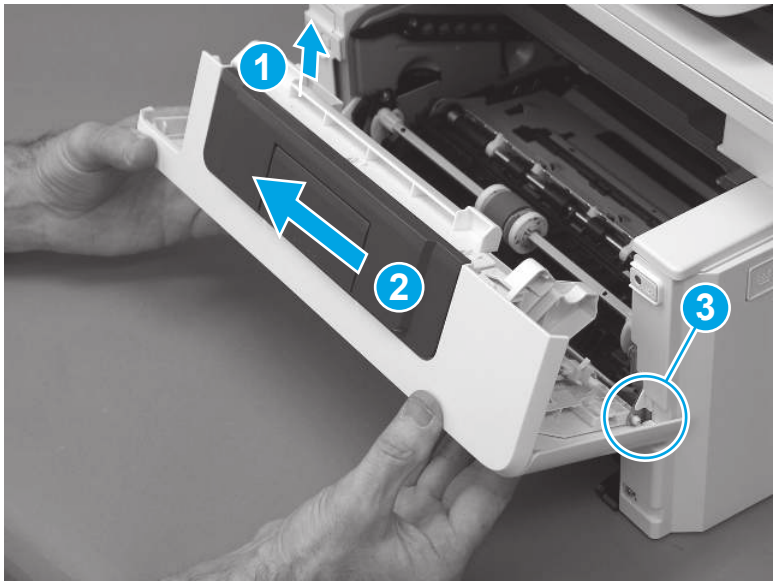
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

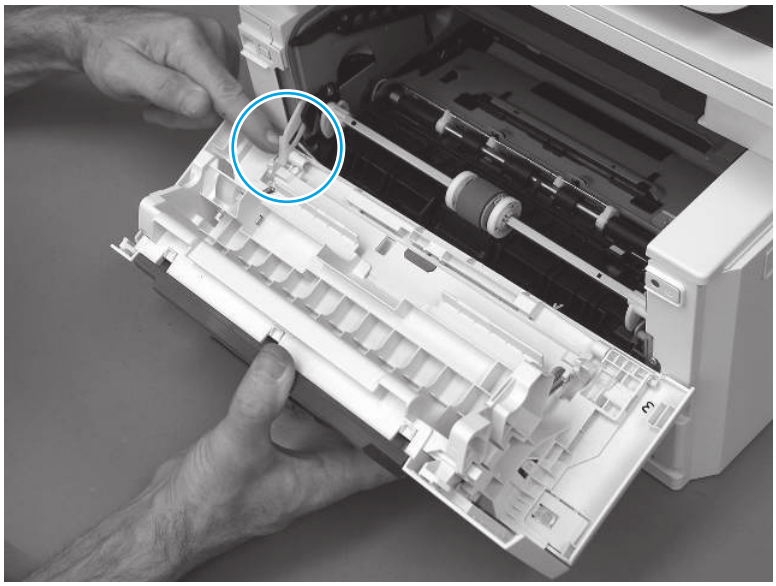
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-254 Release the door



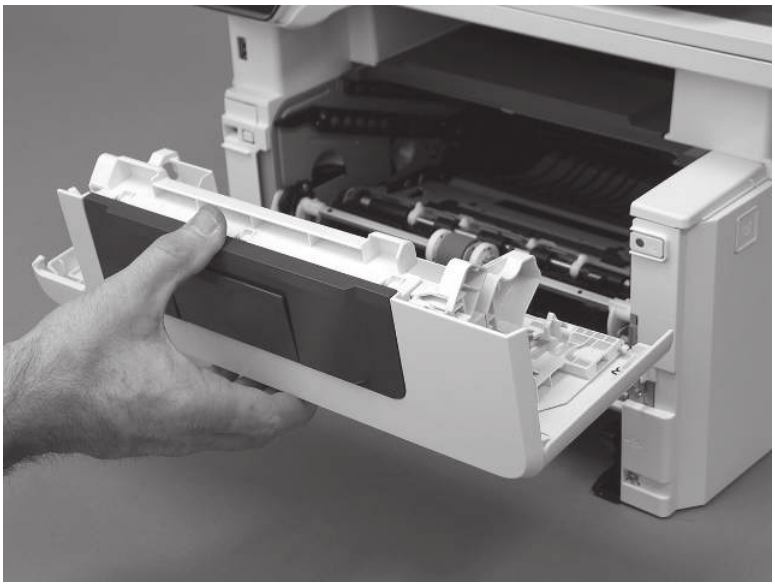
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-255 Release the left-side retainer arm



g. Remove the door.

Figure 4-256 Remove the door



10. Remove the left cover.

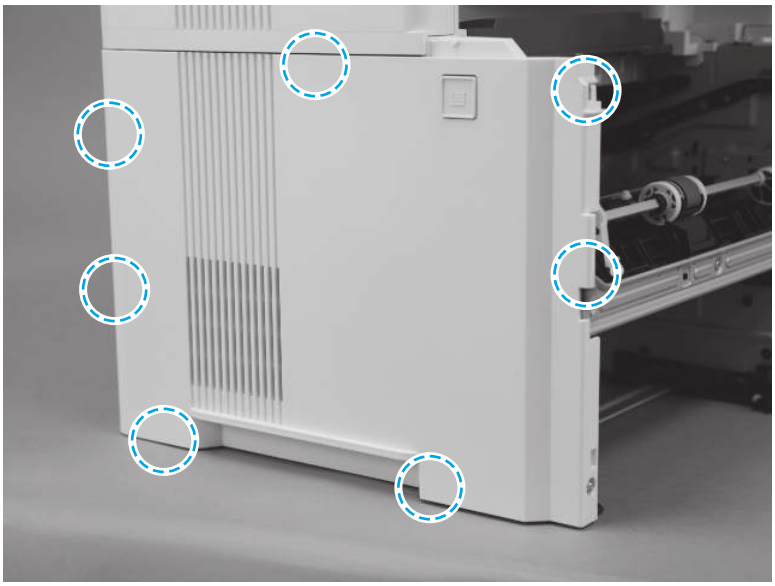
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

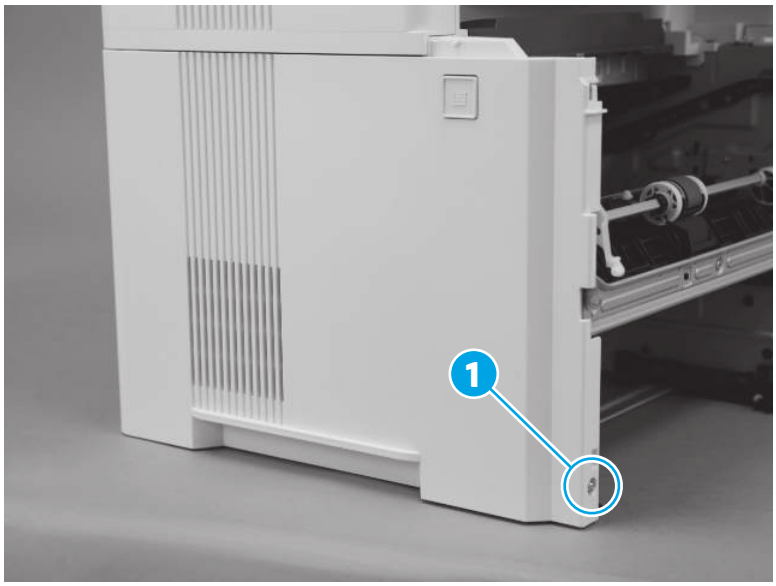
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-257 Locate of the tabs and bosses



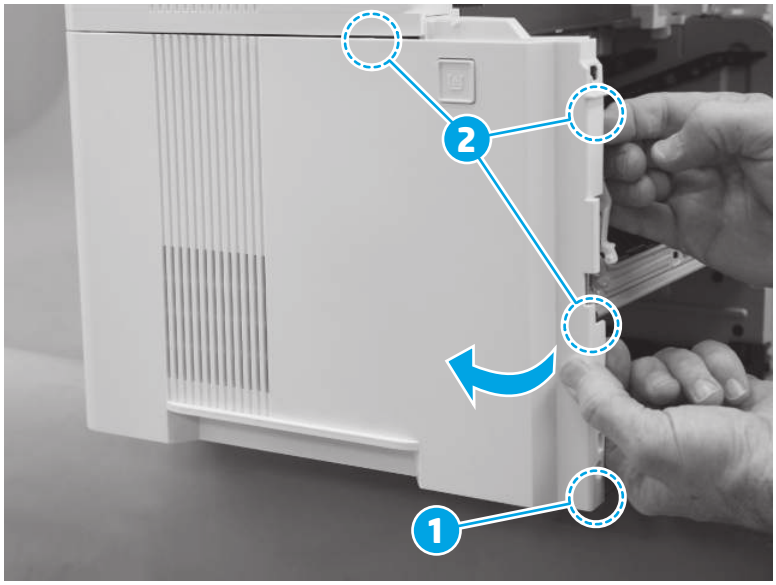
b. Remove one screw (callout 1).

Figure 4-258 Remove one screw



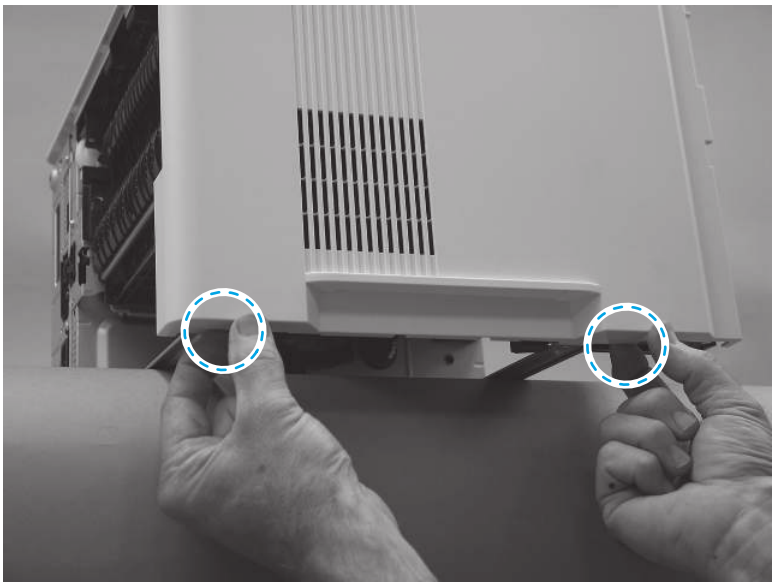
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-259 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

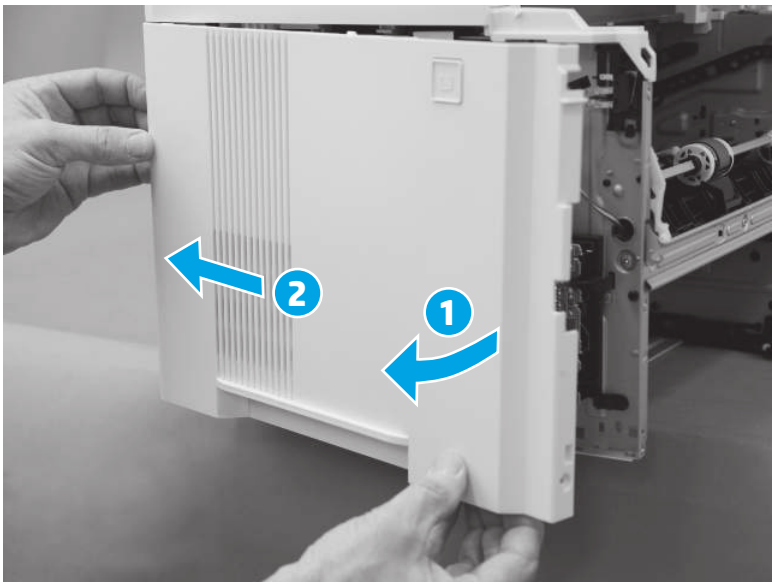
Figure 4-260 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-261 Remove the cover



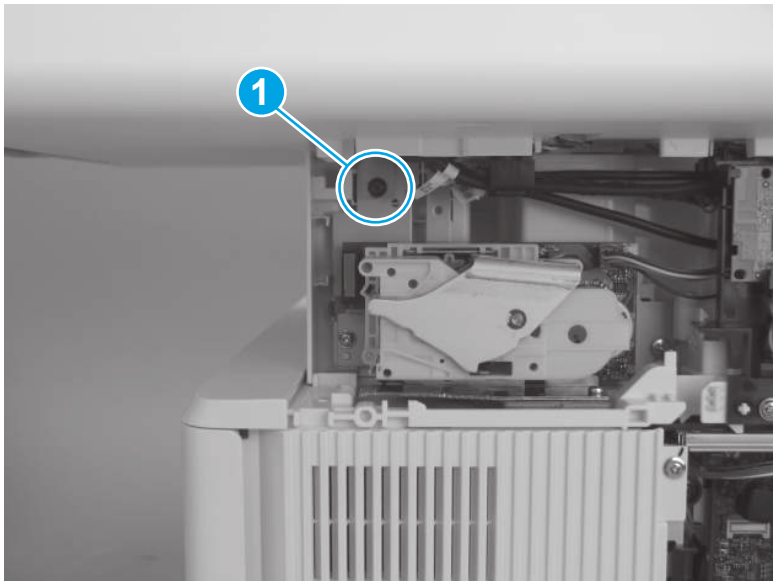
11. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-262 Remove one screw

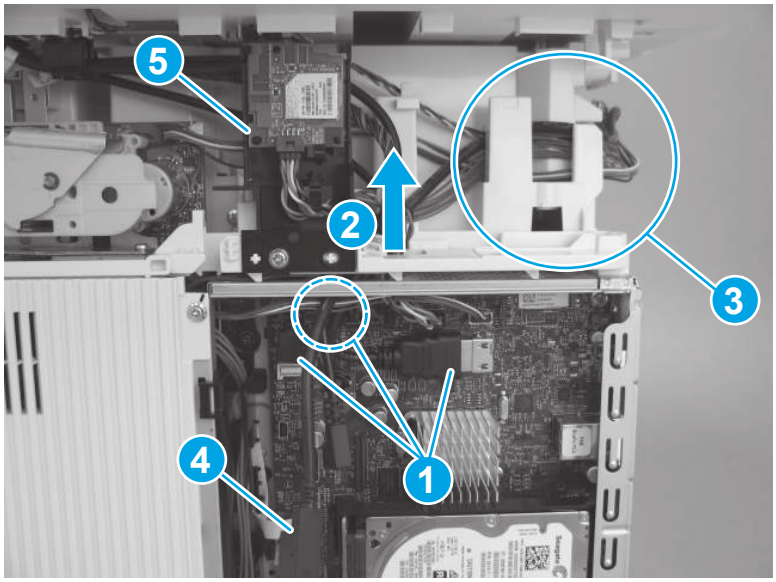


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

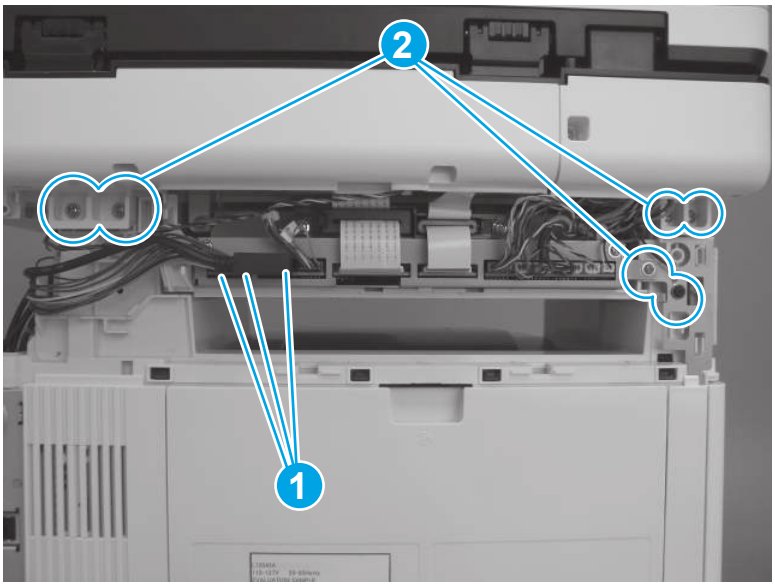
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-263 Disconnect cables and connectors



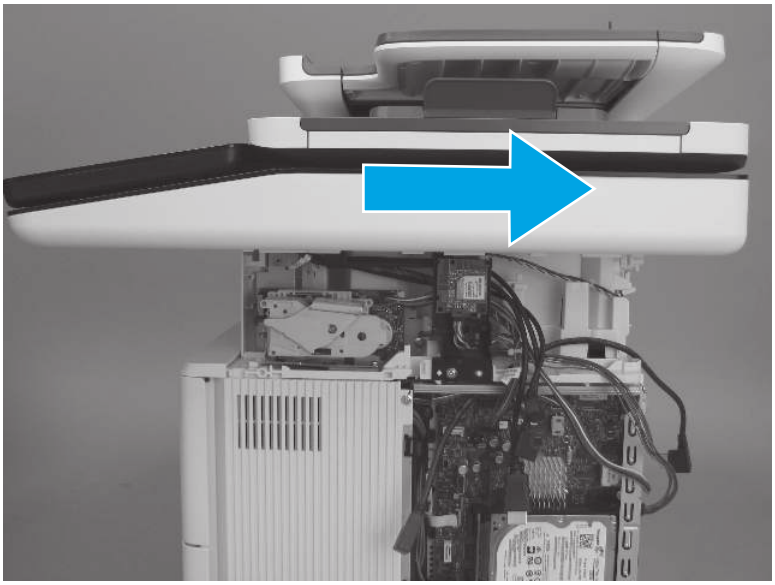
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-264 Disconnect connectors and remove screws



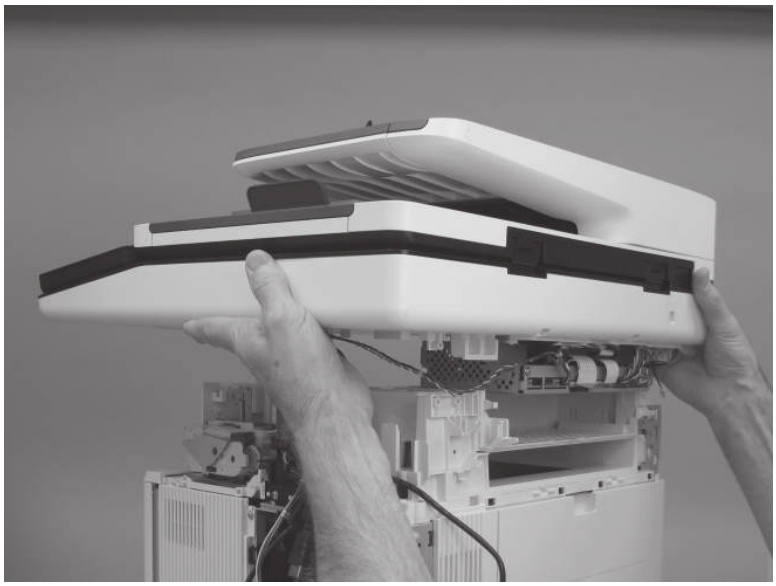
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-265 Slide the ISA towards the back of the printer



e. Remove the ISA.

Figure 4-266 Remove the ISA



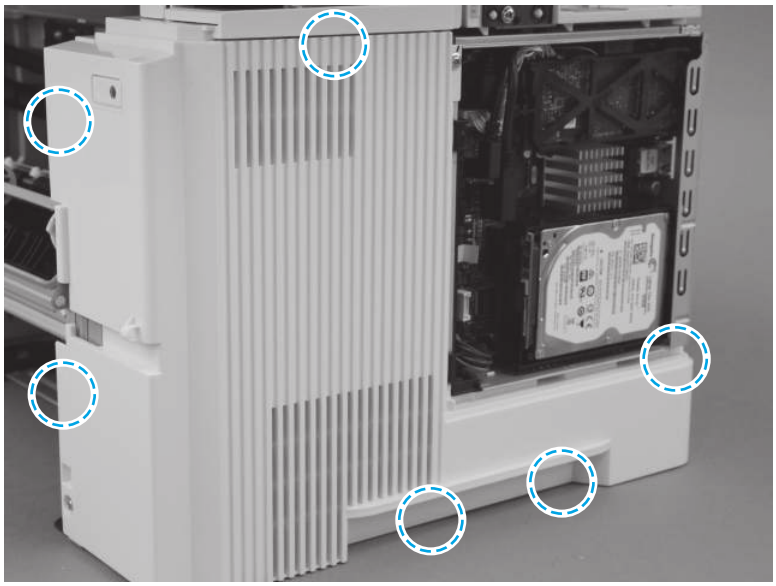
12. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

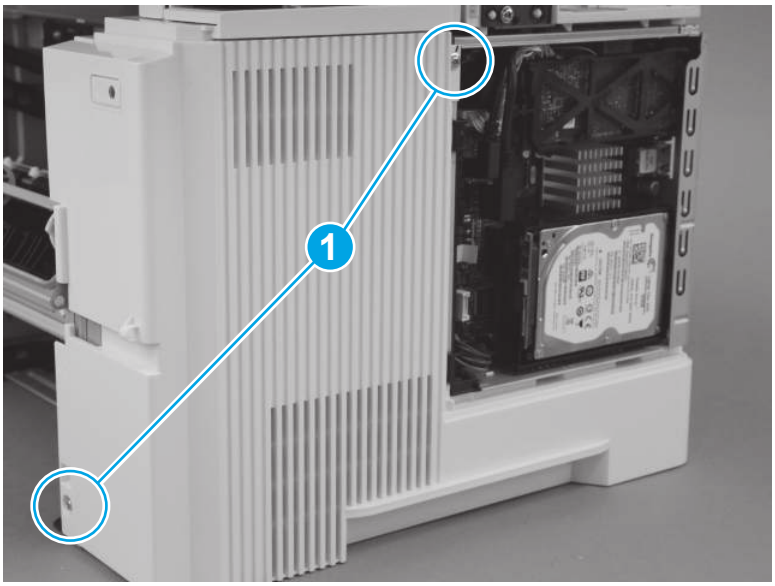
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-267 Locate the tabs and bosses



b. Remove two screws (callout 1).

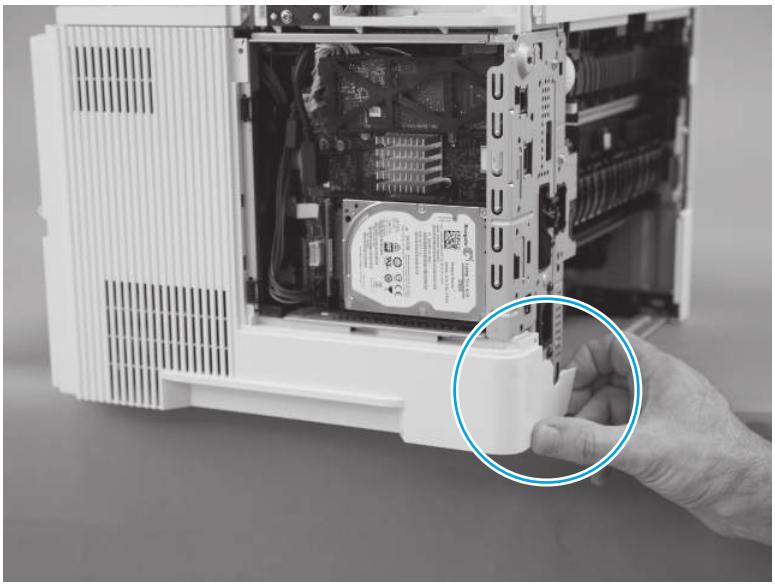
Figure 4-268 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

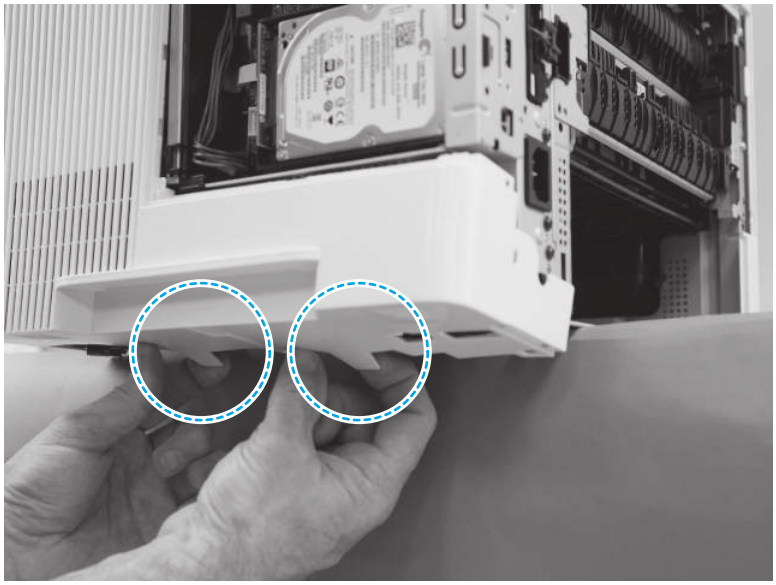
Figure 4-269 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-270 Release two bosses

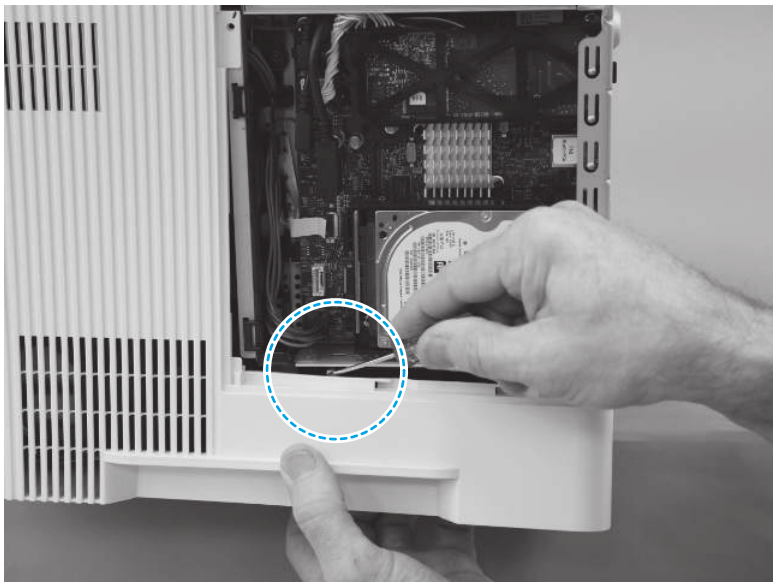


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-271 Release one tab

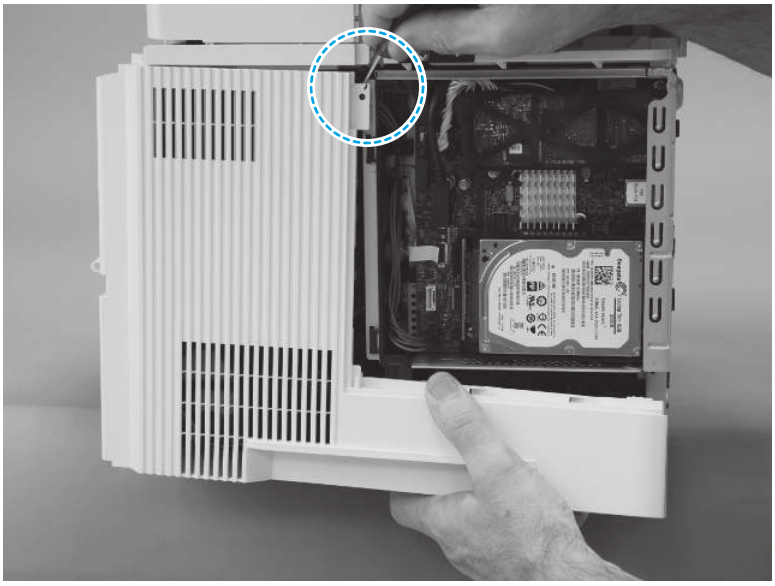


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

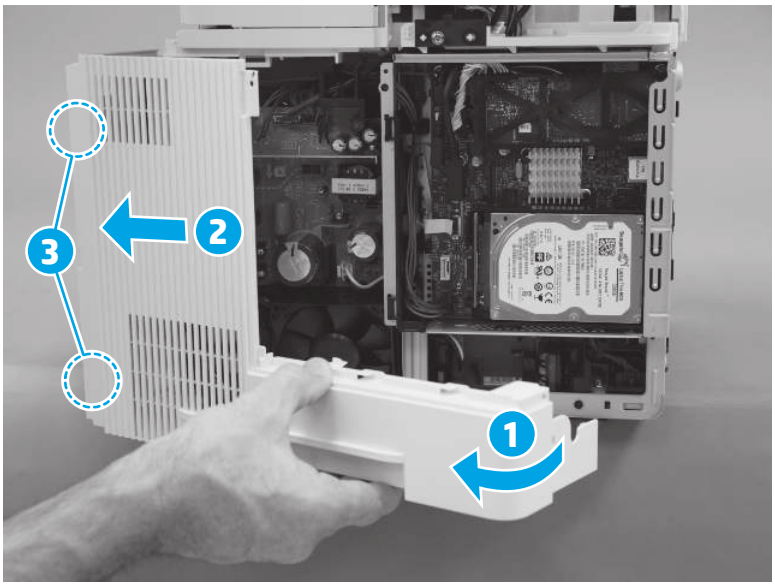
Figure 4-272 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

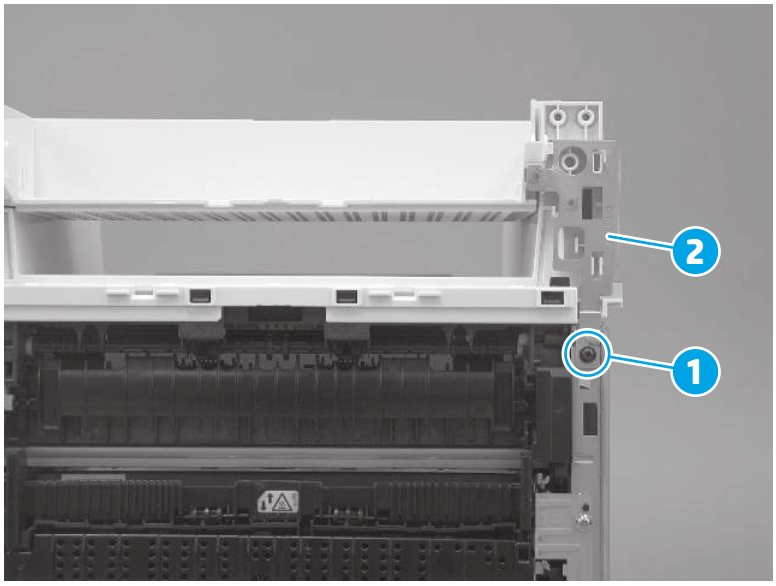
Figure 4-273 Remove the cover



13. Remove the top cover (M527/E52545/M528/E52645).

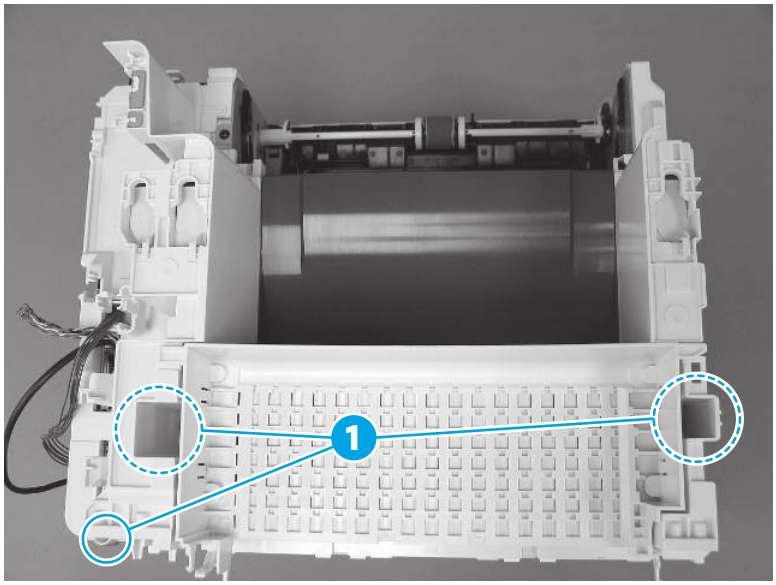
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-274 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

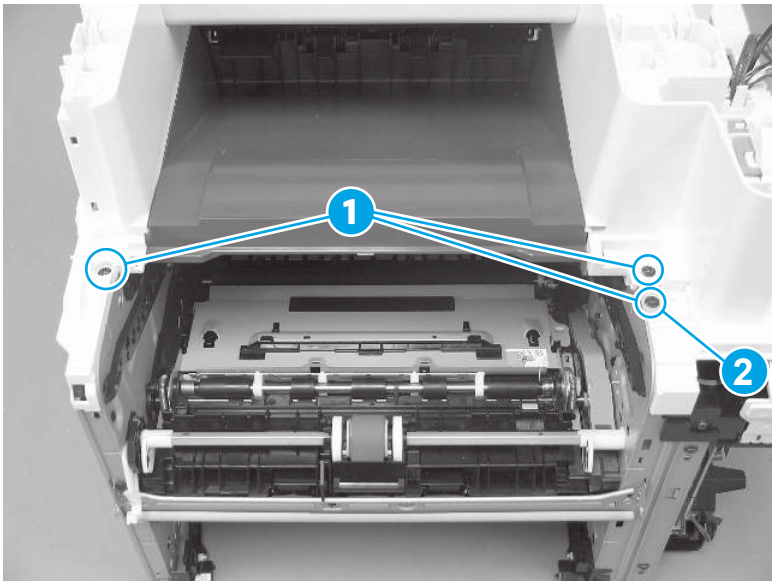
Figure 4-275 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

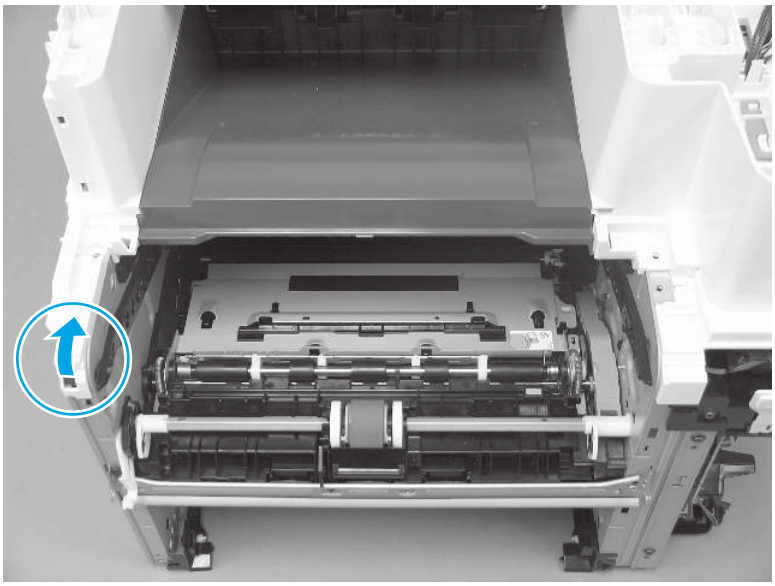
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-276 Remove three screws



d. At the front left of the printer, release one boss.

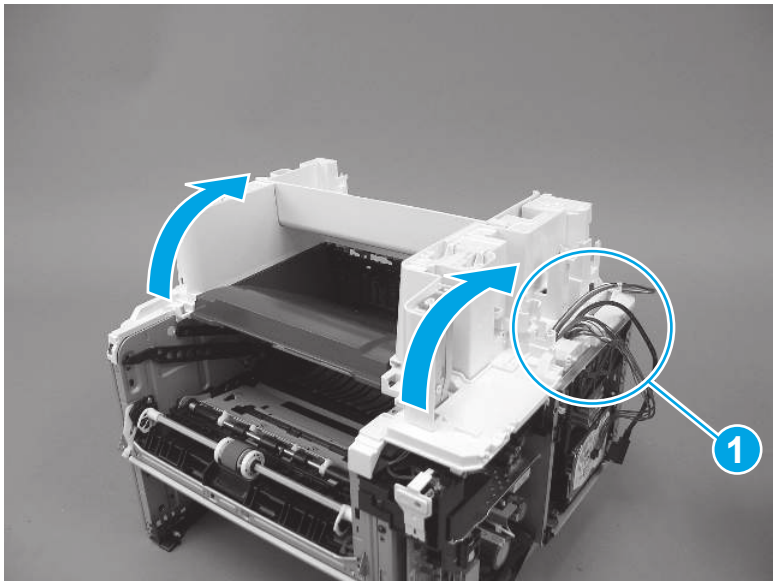
Figure 4-277 Release one boss



e. Rotate the front of the cover up and away from the printer.

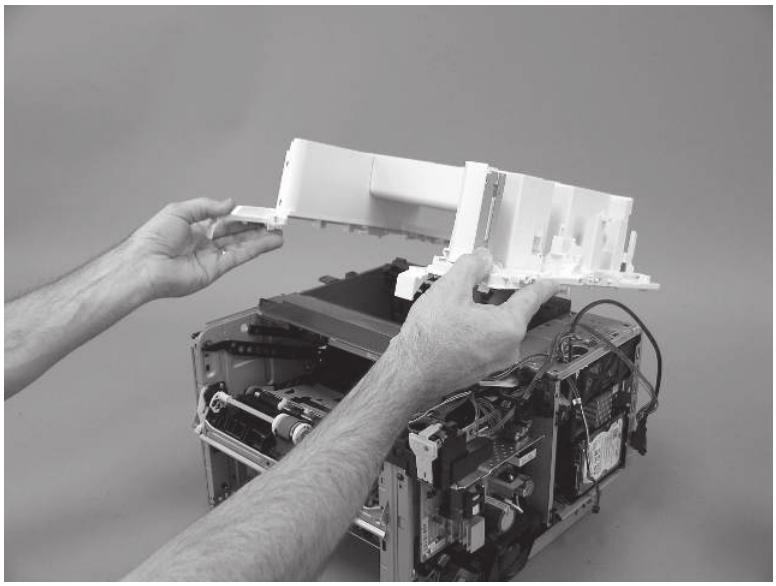
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-278 Rotate the front of the cover up



f. Remove the cover.

Figure 4-279 Remove the cover



14. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Top cover (SFP)

Learn how to remove and replace the top cover (M501/M506/E50045/M507/E50145).

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the top cover (M501).

M506/E50045

View a video of how to remove and replace the top cover (M506/E50045).

M507/E50145

View a video of how to remove and replace the top cover (M507E50145).

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-24 Part information

Part number	Part description
RM2-5735-000CN	Top cover (M501)
RM2-5687-000CN	Top cover (M506/E50045/M507/E50145; simplex)

Table 4-24 Part information (continued)

Part number	Part description
RM2-5728-000CN	Top cover (M506/E50045/M507/E50145; duplex LCD)
RM2-5686-000CN	Top cover (M506/E50045/M507/E50145; duplex MF)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

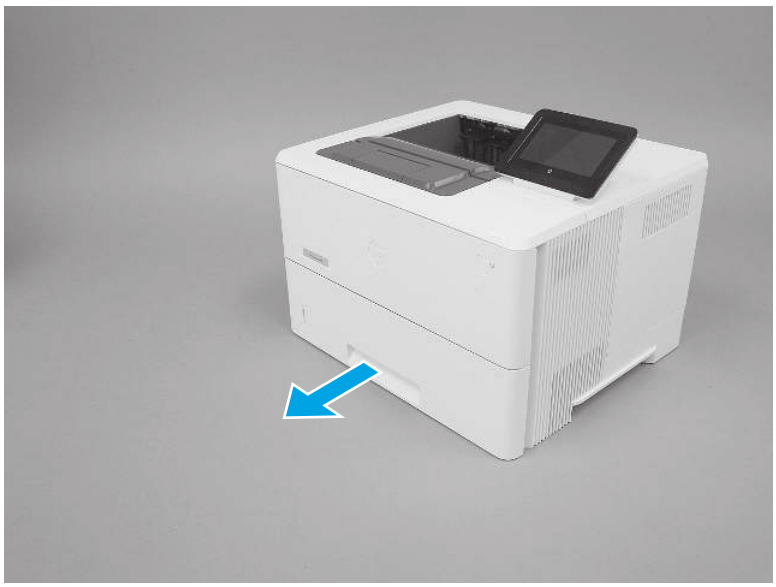
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

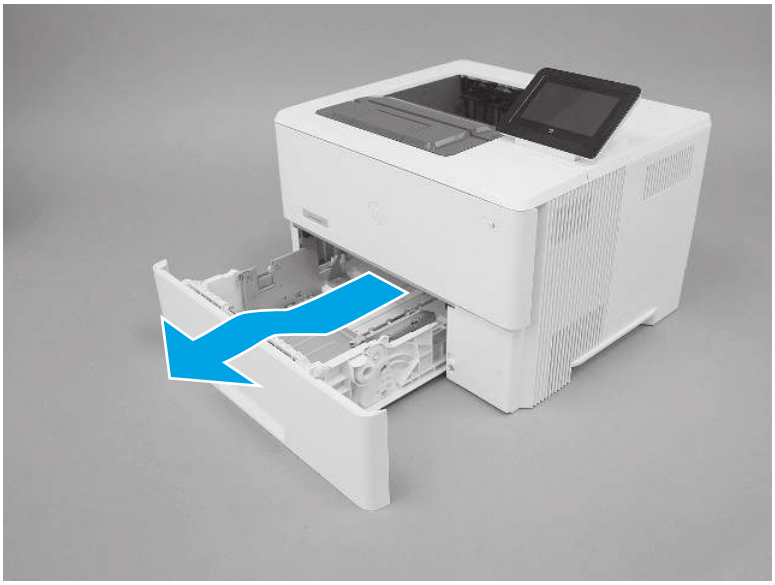
      Figure 4-280 Pull the tray out until it stops

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

> NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

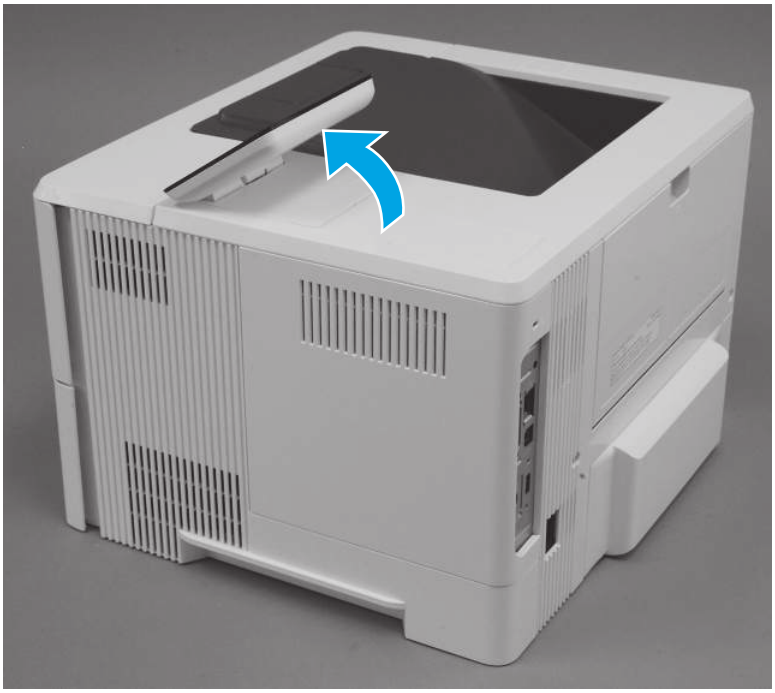
Figure 4-281 Release and remove the tray



2. Remove the control panel (M506x/E50045x/M507x/E50145x).

   a. Tilt the control panel to the fully raised position.

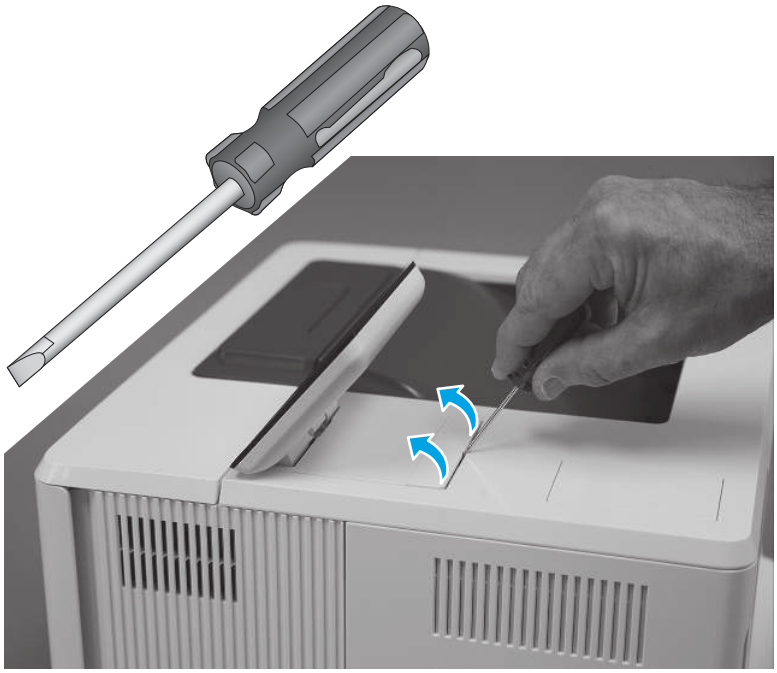
   Figure 4-282 Tilt the control panel up



   b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

   TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

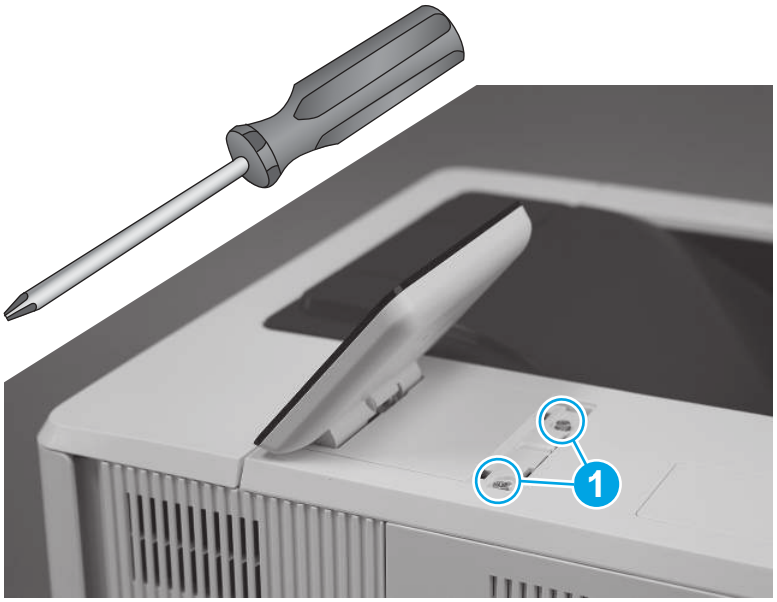
Figure 4-283 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

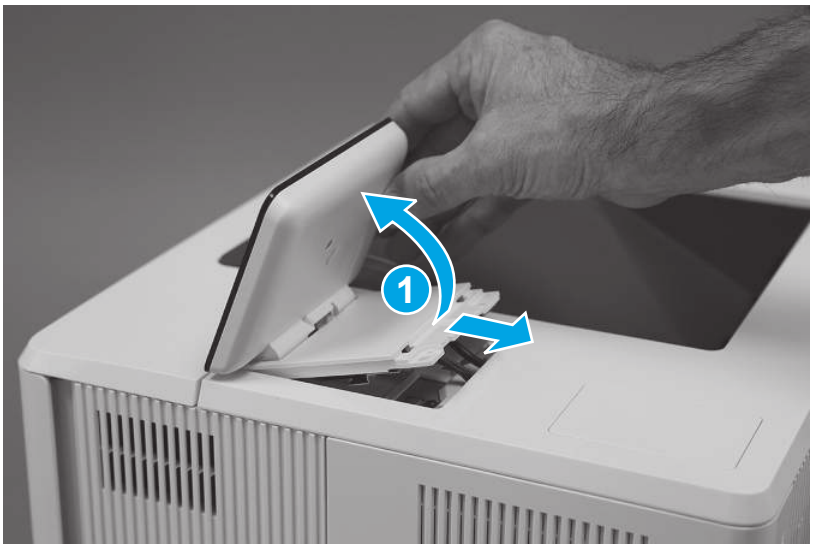
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-284 Remove two screws



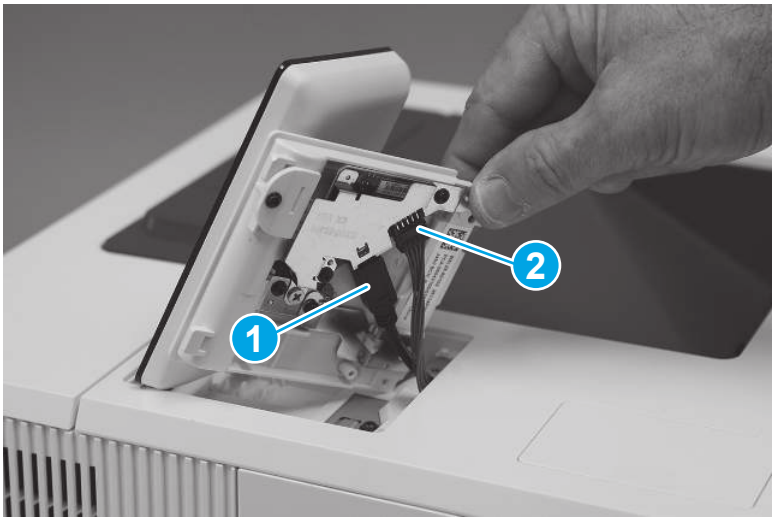
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-285 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-286 Remove the control panel (M506/E50045)



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-287 Disconnect one FFC (M507/E50145)

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

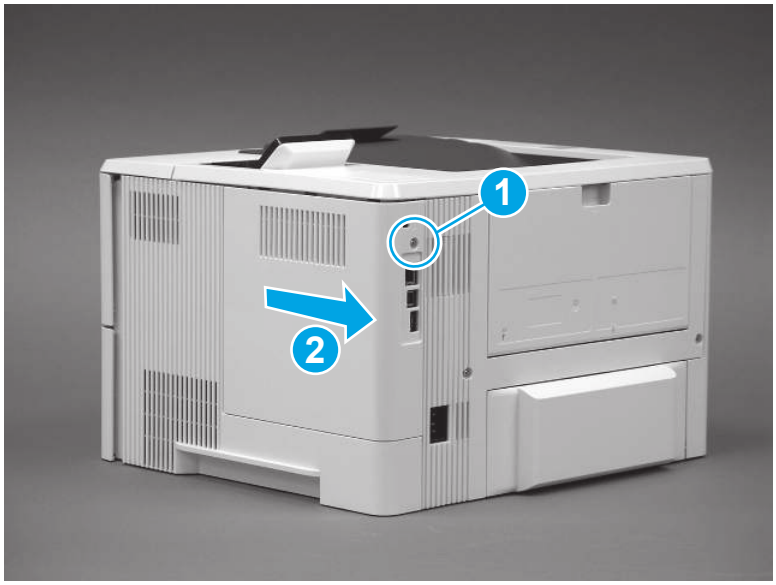
Figure 4-288 Remove the control panel (M507/E50145)

3. Remove the formatter cover.

   - Do one of the following:

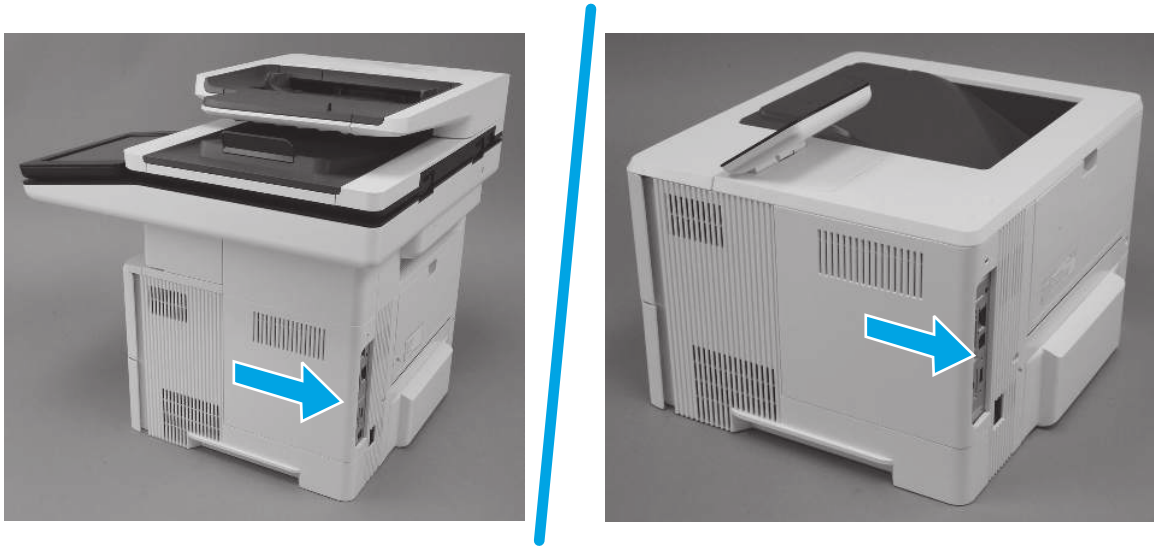
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-289 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

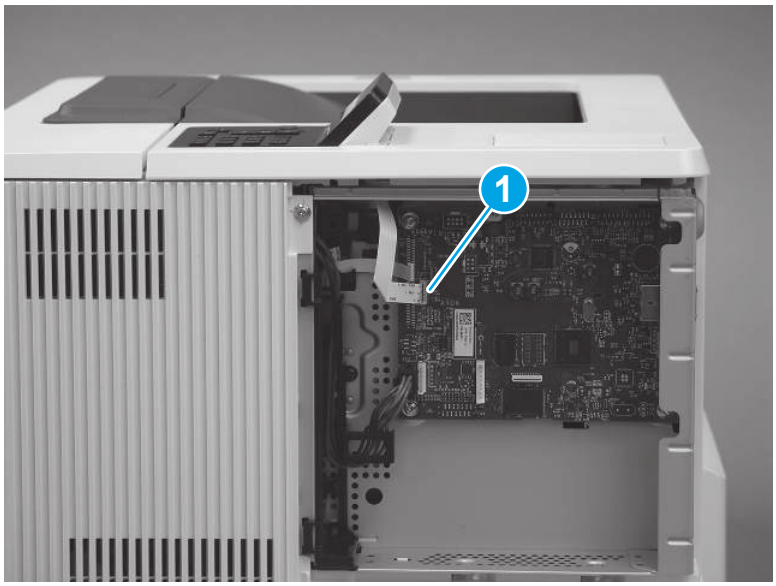
  Figure 4-290 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



4. Remove the control panel (M501).

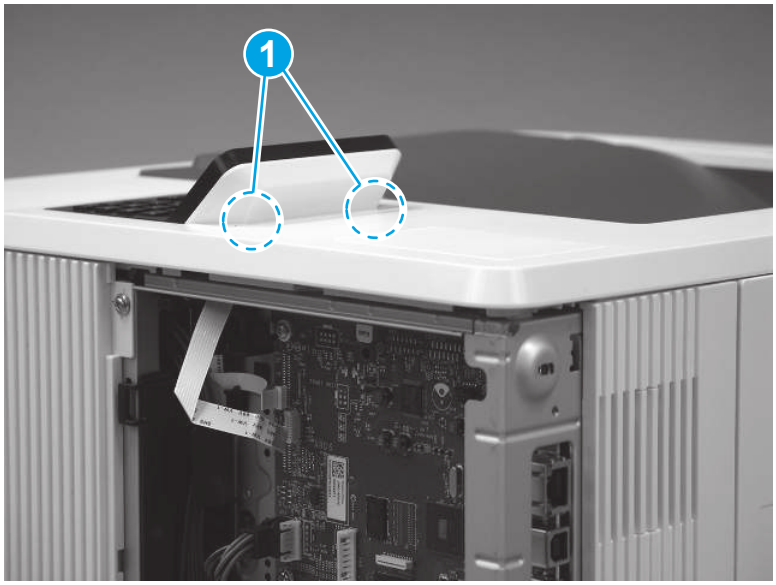
a. Disconnect one flat cable (callout 1).

Figure 4-291 Disconnect one flat cable



b. Locate two tabs (callout 1) along the rear edge of the control panel.

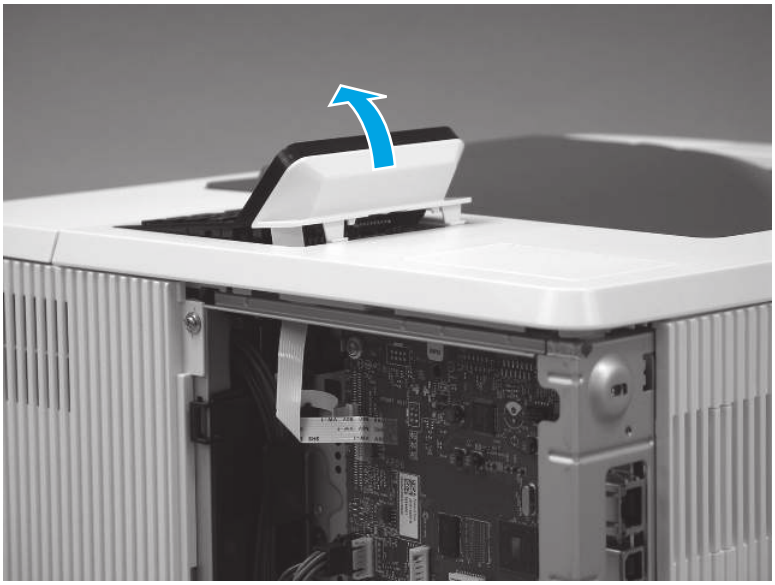
Figure 4-292 Locate two tabs



c. Release the two tabs, and then rotate the rear edge of the control panel up and away from the printer.

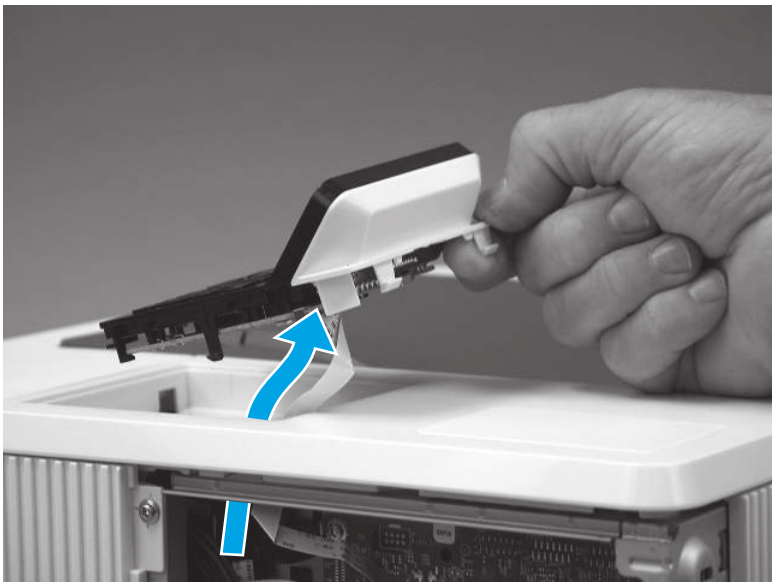
TIP: Use a small flat-blade screw driver to release the two tabs.

Figure 4-293 Release the control panel



d. Pass the flat cable attached to the control panel thorough the opening in the printer chassis, and then remove the control panel.

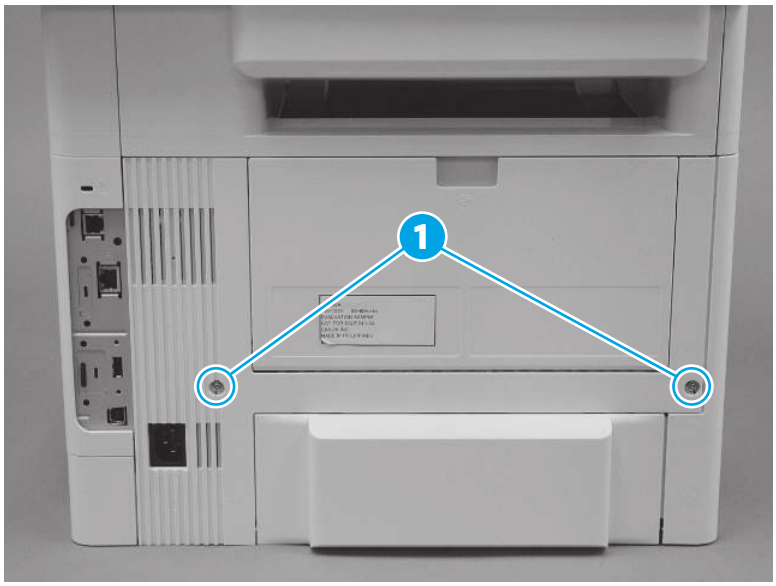
Figure 4-294 Remove the control panel



5. Remove the rear door assembly.

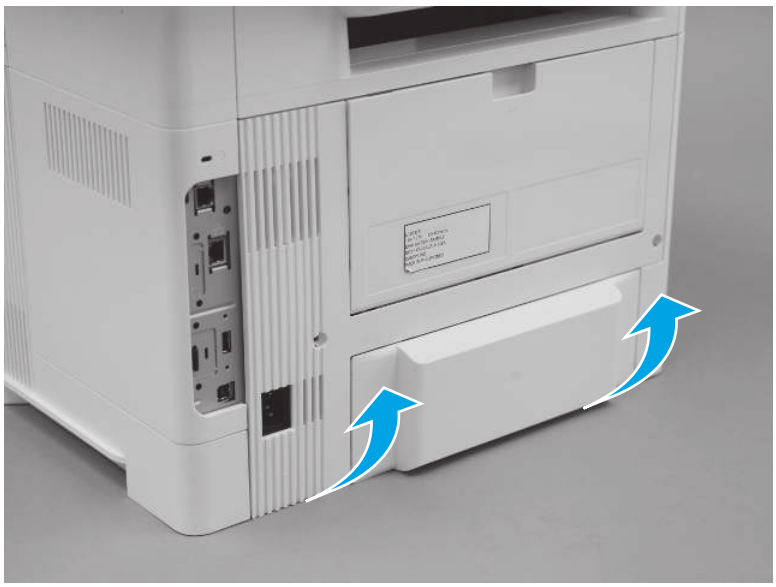
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-295 Remove two screws



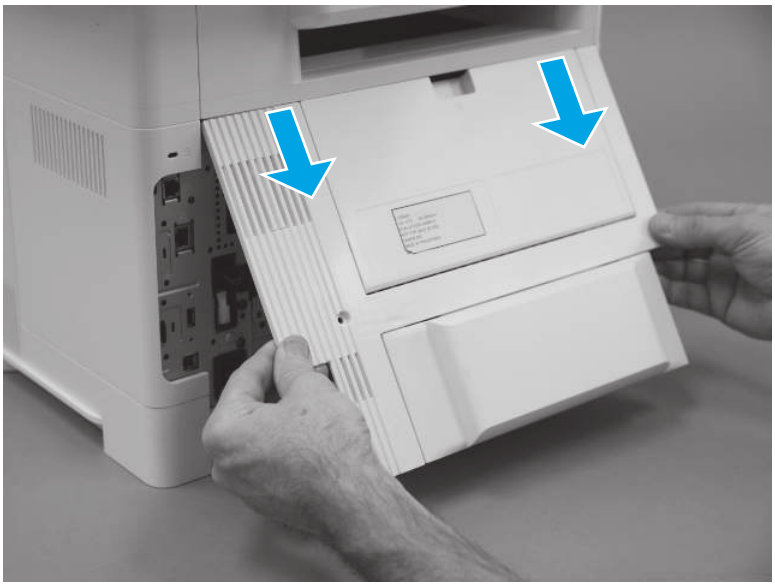
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-296 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-297 Remove the cover



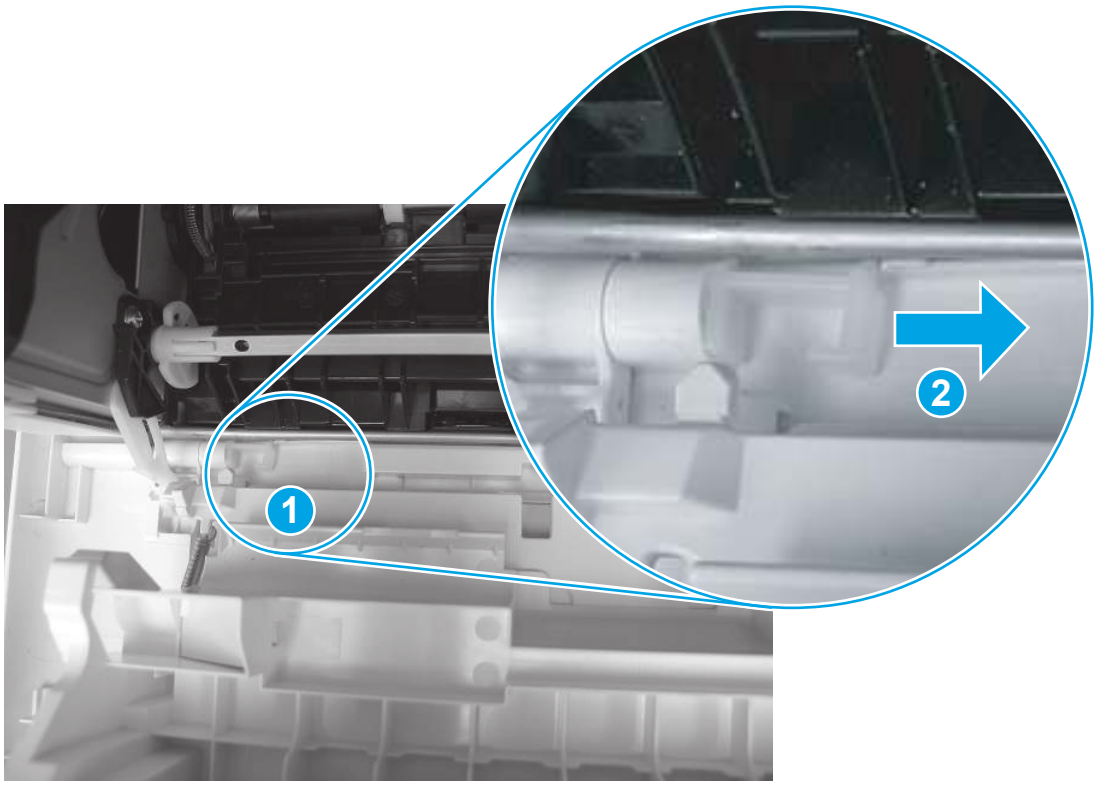
6. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

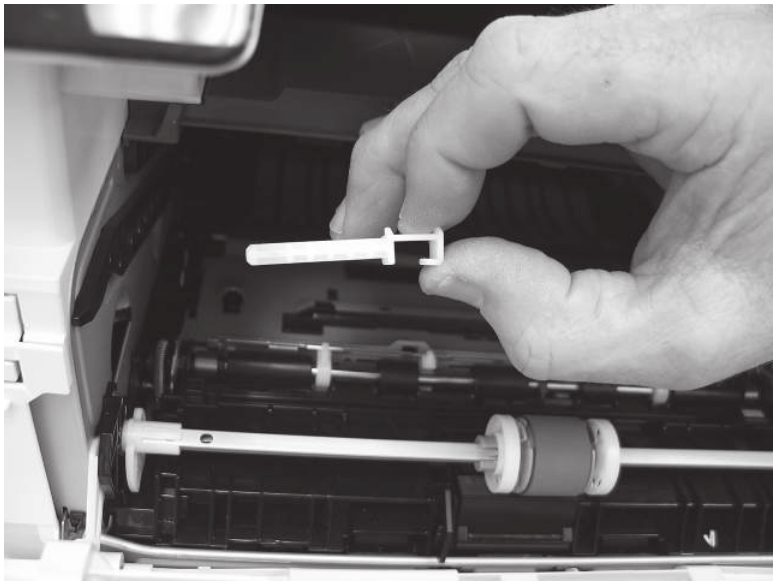
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-298 Release the support shaft



b. Remove the support shaft.

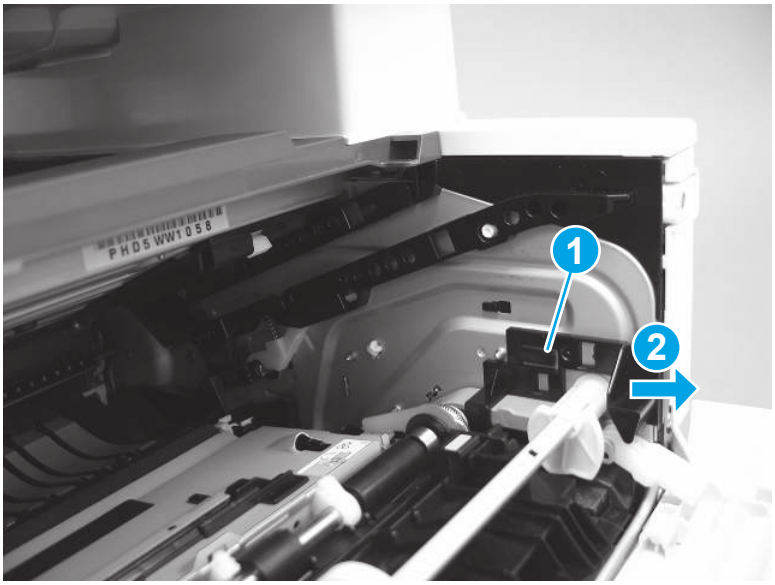
Figure 4-299 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

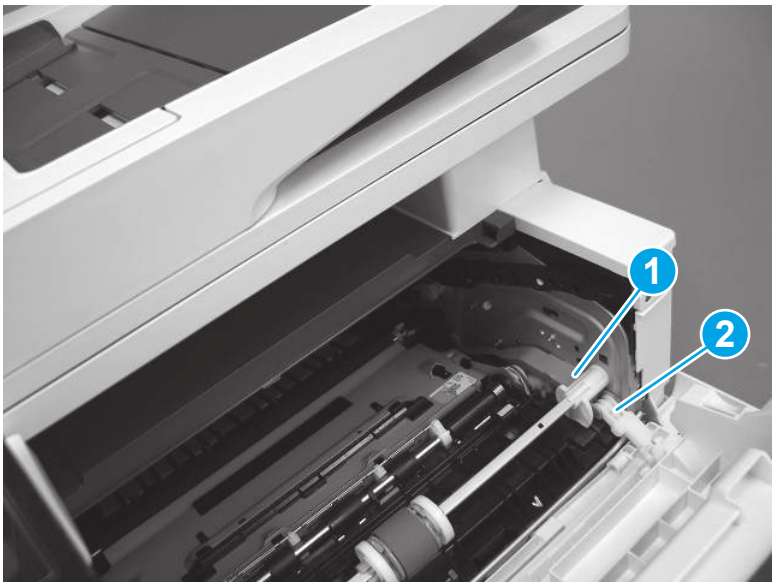
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-300 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-301 Release the pressure-release link



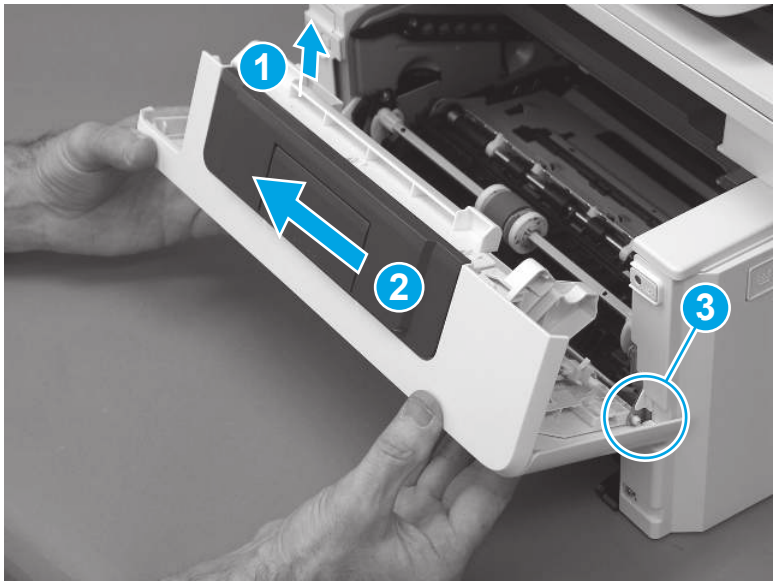
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

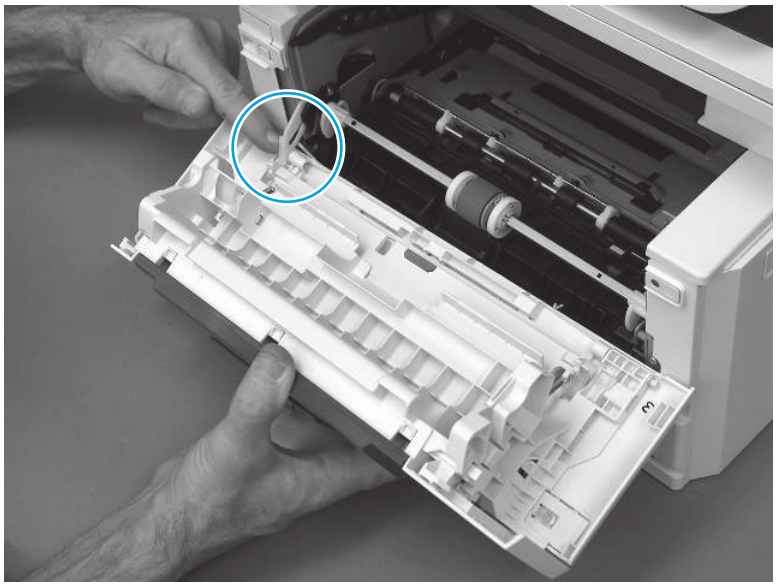
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-302 Release the door



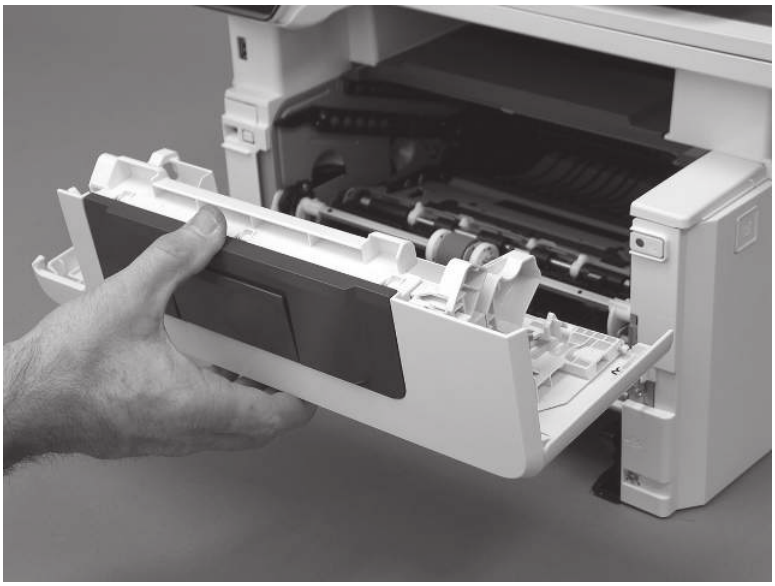
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-303 Release the left-side retainer arm



g. Remove the door.

Figure 4-304 Remove the door



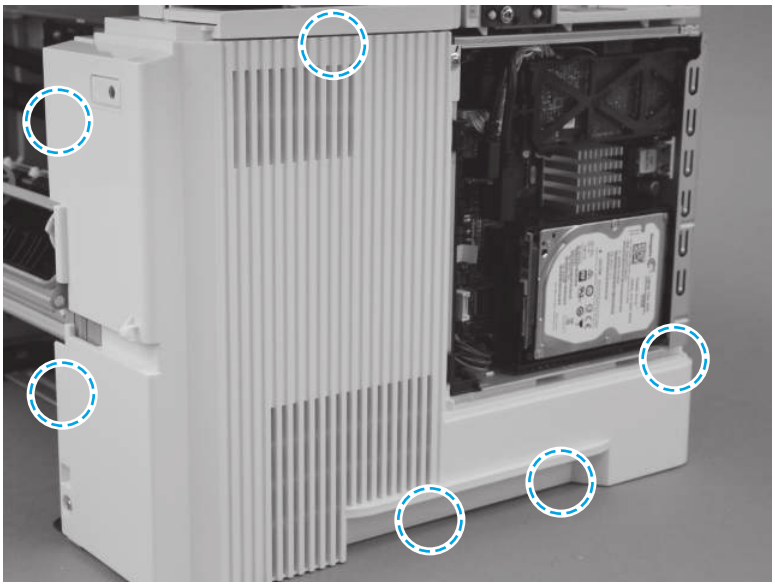
7. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

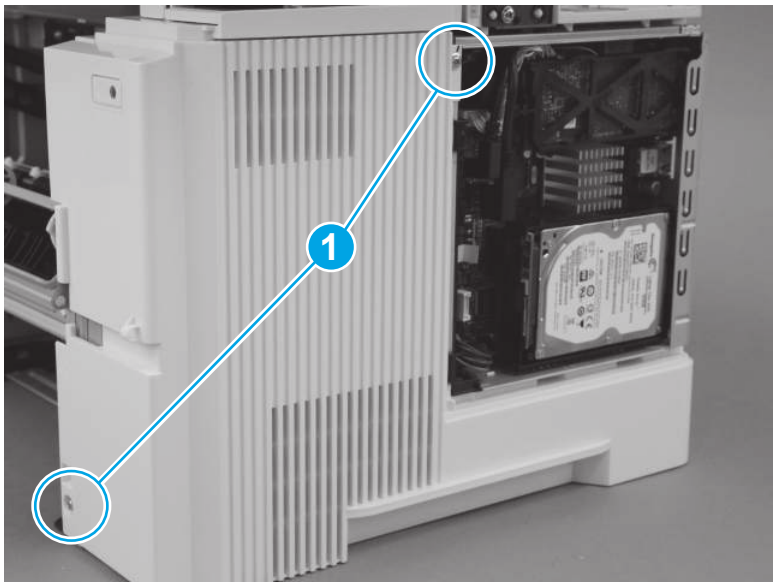
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-305 Locate the tabs and bosses



b. Remove two screws (callout 1).

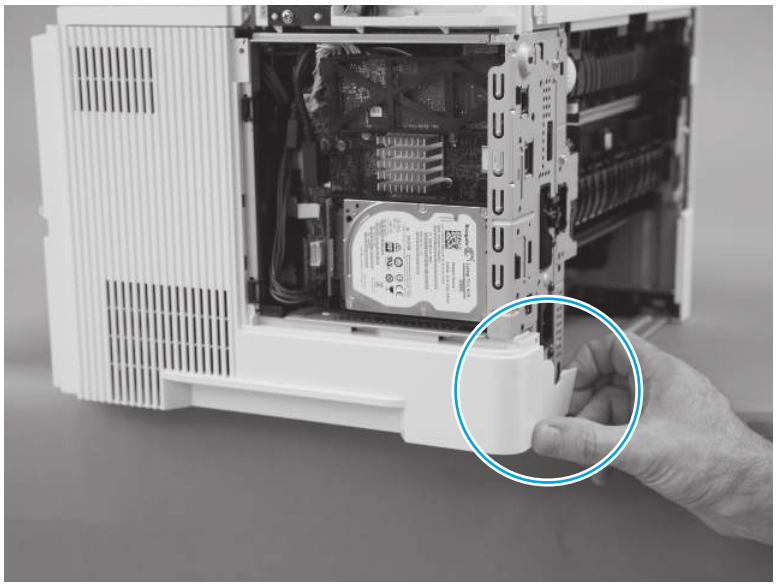
Figure 4-306 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

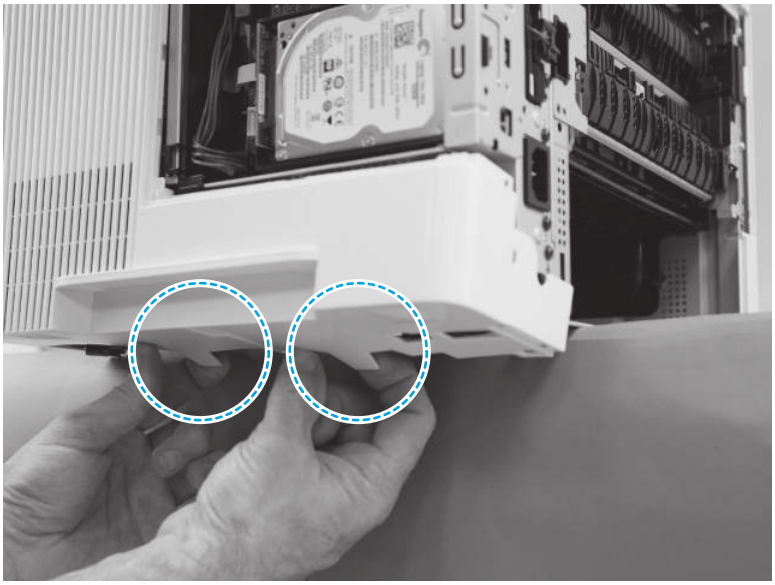
Figure 4-307 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-308 Release two bosses

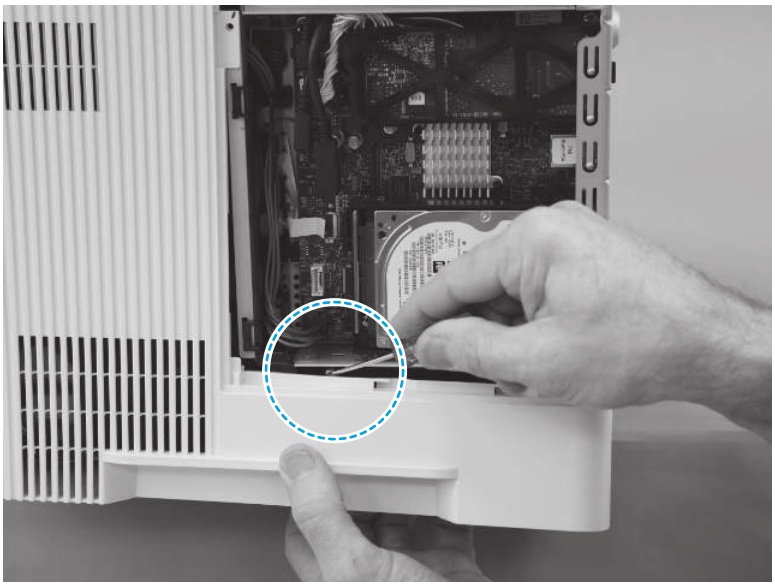


e. Near the formatter, release one tab.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-309 Release one tab

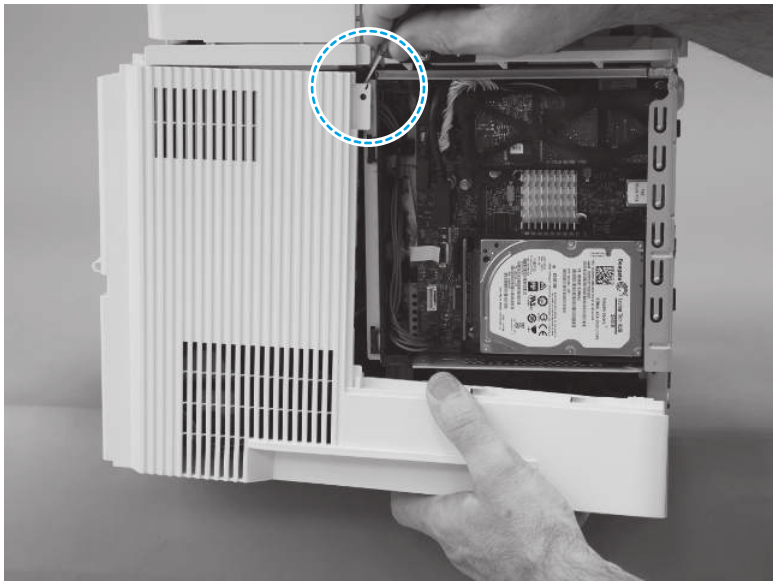


f. At the top rear edge of the cover, release one tab.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

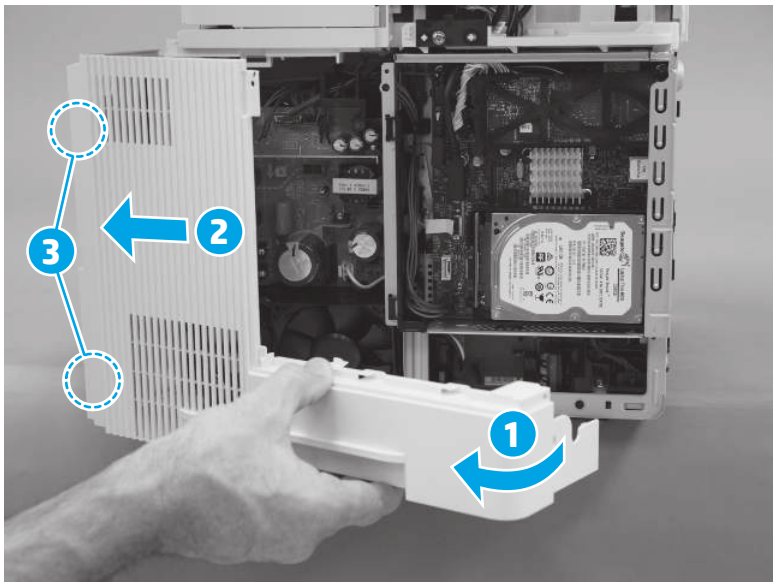
Figure 4-310 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-311 Remove the cover



8. Remove the left cover.

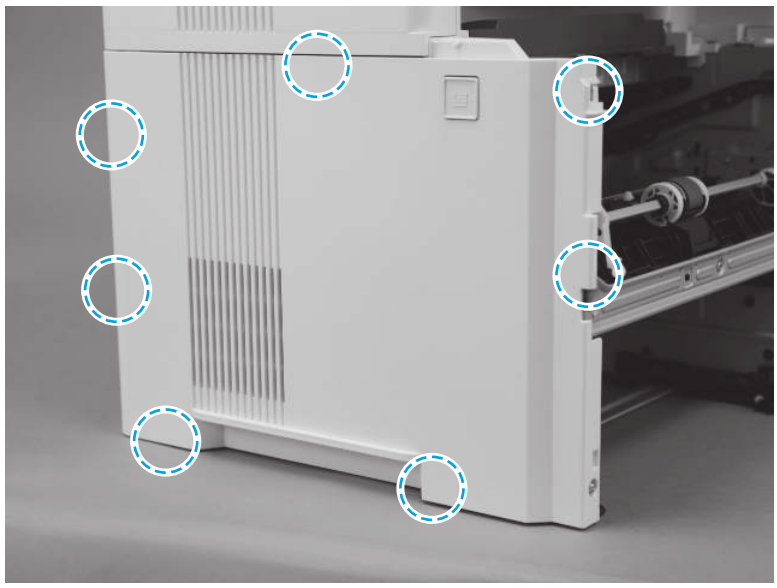
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

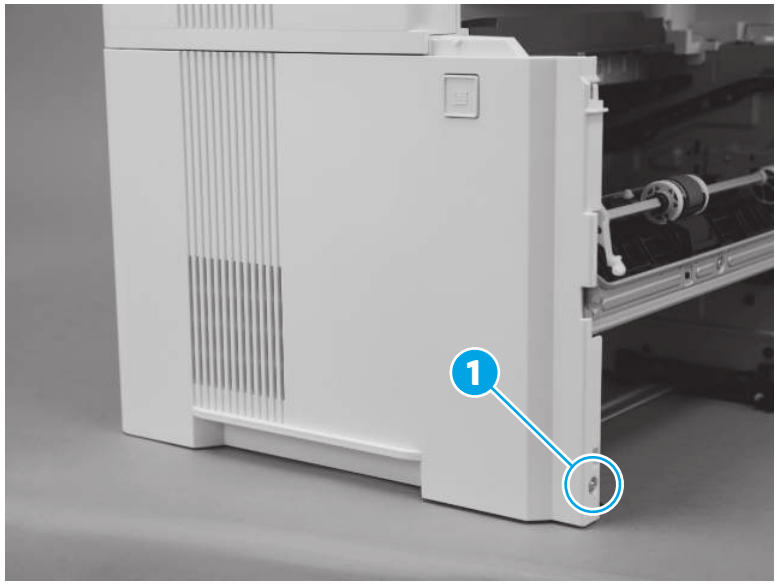
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-312 Locate of the tabs and bosses



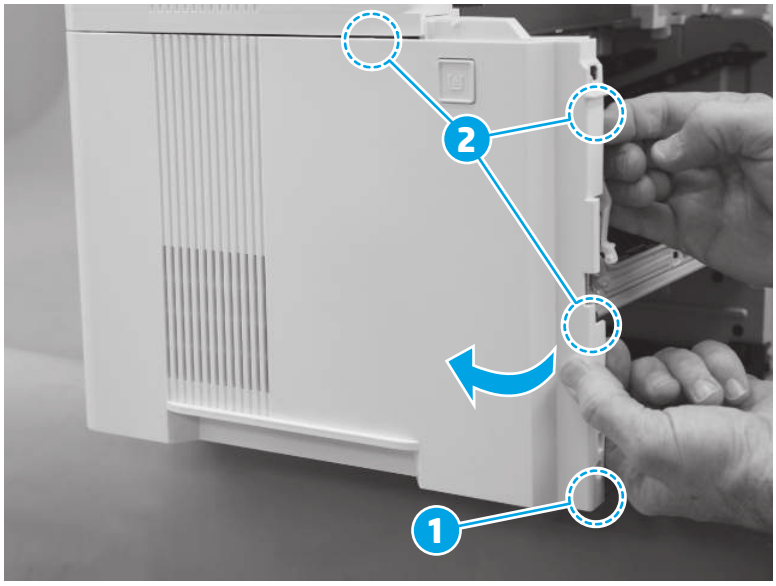
b. Remove one screw (callout 1).

Figure 4-313 Remove one screw



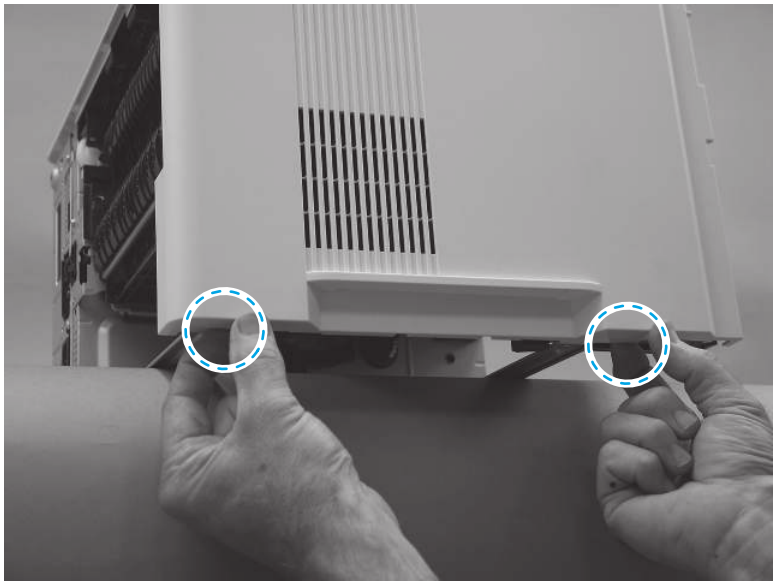
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-314 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

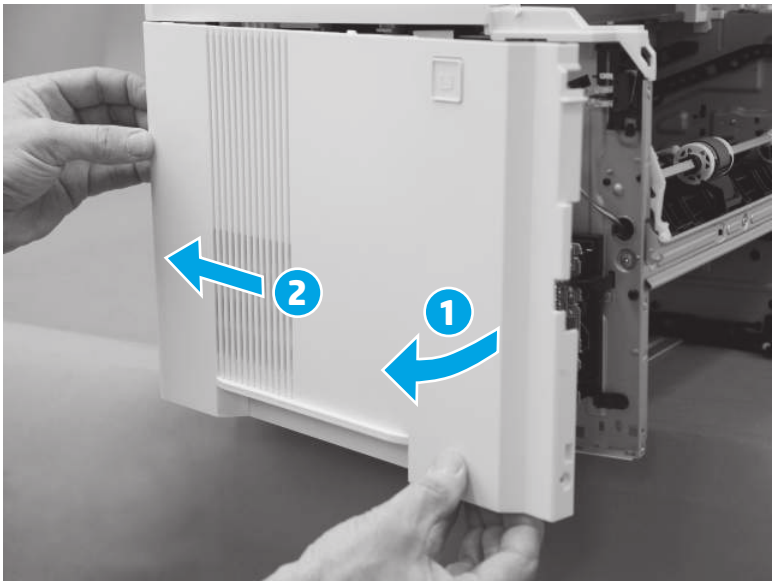
Figure 4-315 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-316 Remove the cover

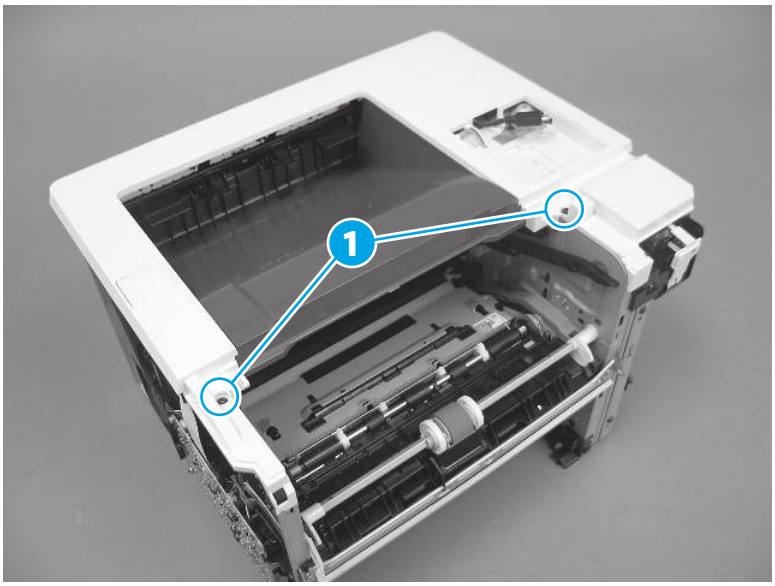


9. Remove the top cover (M501/M506/E50045/M507/E50145).

   The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

   a. Remove two screws (callout 1).

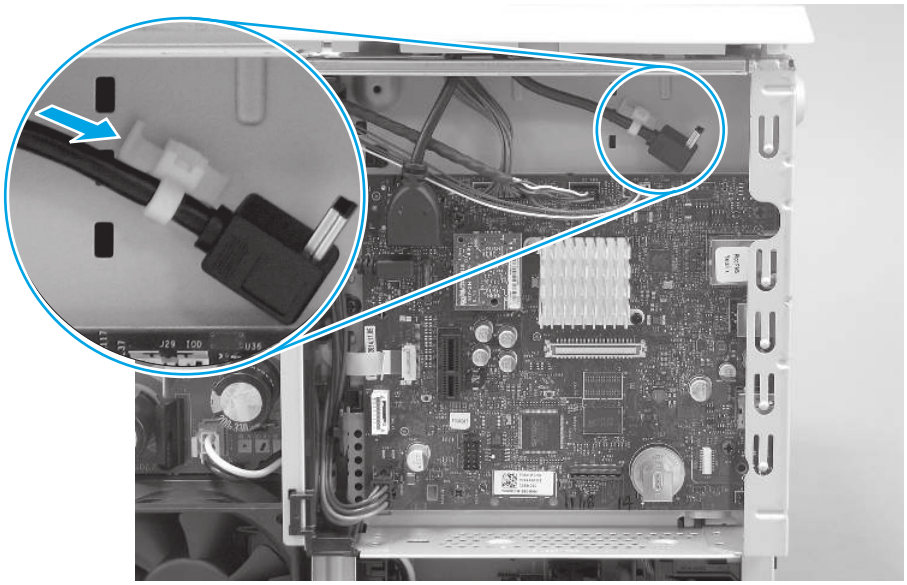
      Figure 4-317 Remove two screws

   b. **M506/E50045/ only:** Release one cable retainer from the chassis.

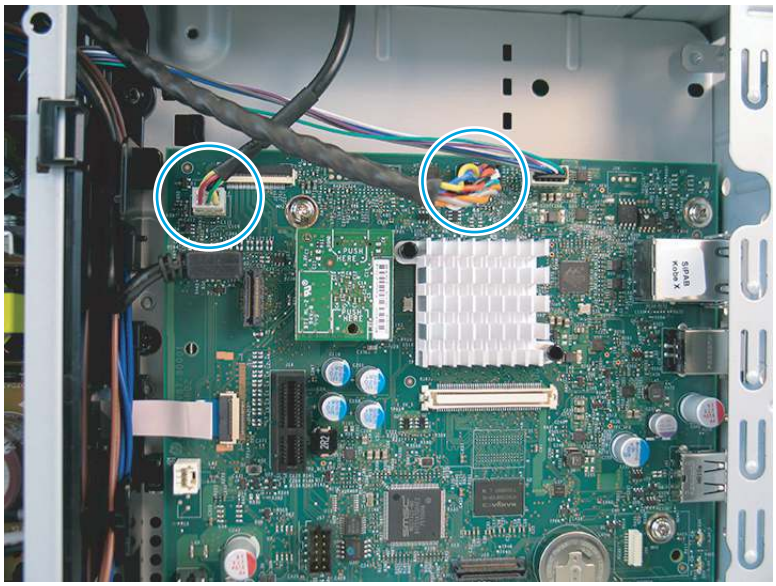
      TIP: Depress the tab on the retainer to release it.

Figure 4-318 Release one cable retainer



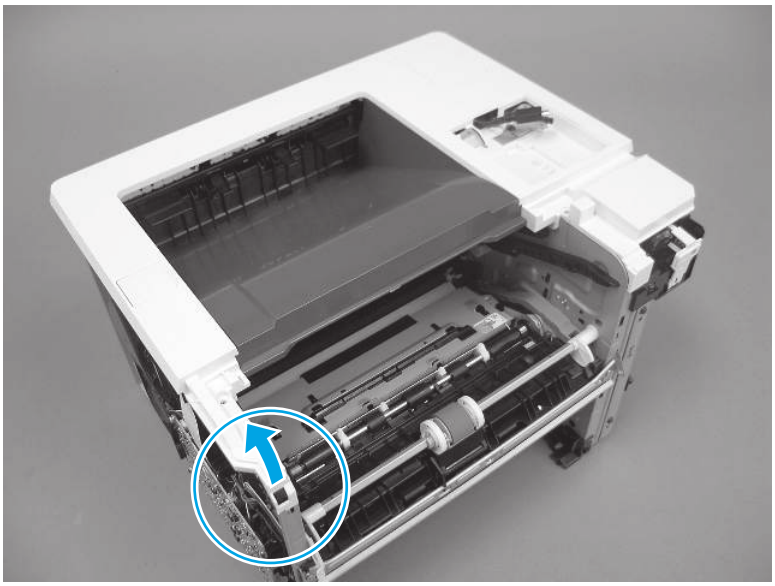
c. **M507/E50145 only:** Disconnect two connectors.

Figure 4-319 Disconnect two connectors



d. Release one boss.

Figure 4-320 Release one boss

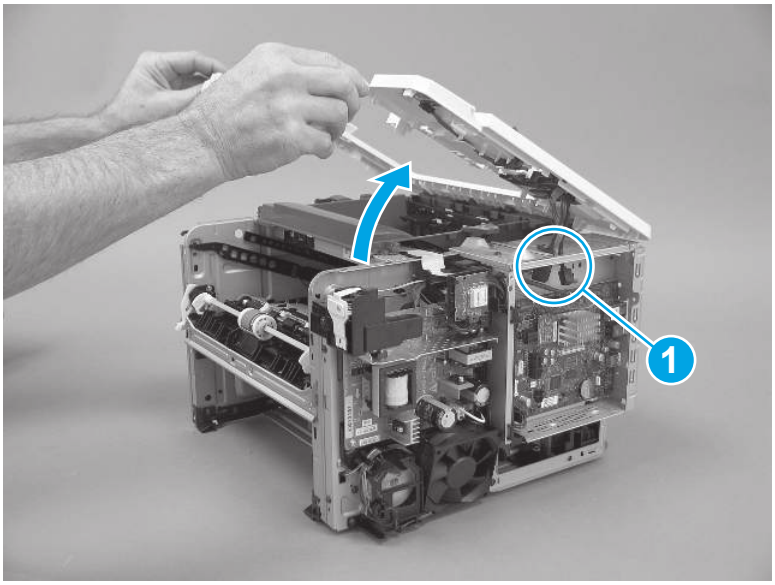


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

⚠ CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-321 Remove the cover (M506/E50045)



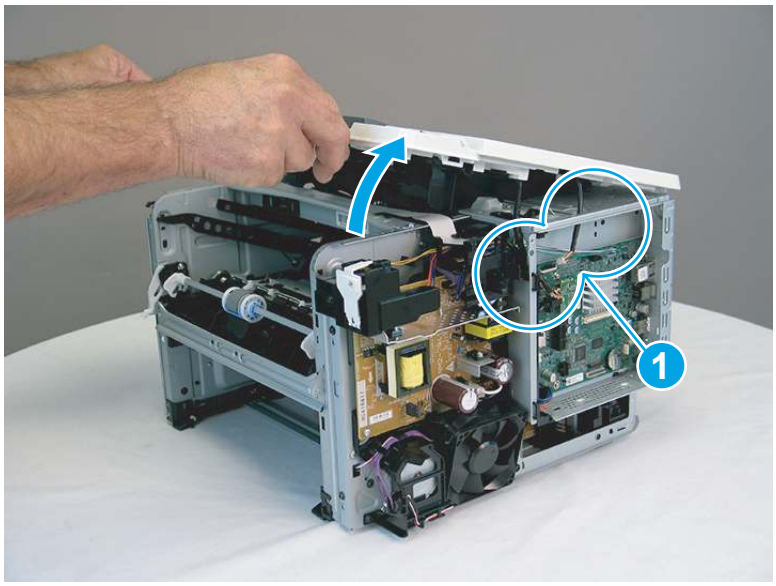
f. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-322 **Remove the cover (M507/E50145)**



10. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Paper delivery tray (output bin)

Learn how to remove and replace the paper delivery tray (output bin).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the paper delivery tray (output bin).

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-25 Part information

Part number	Part description
RC4-4439-000CN	Paper delivery tray (output bin)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length
- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

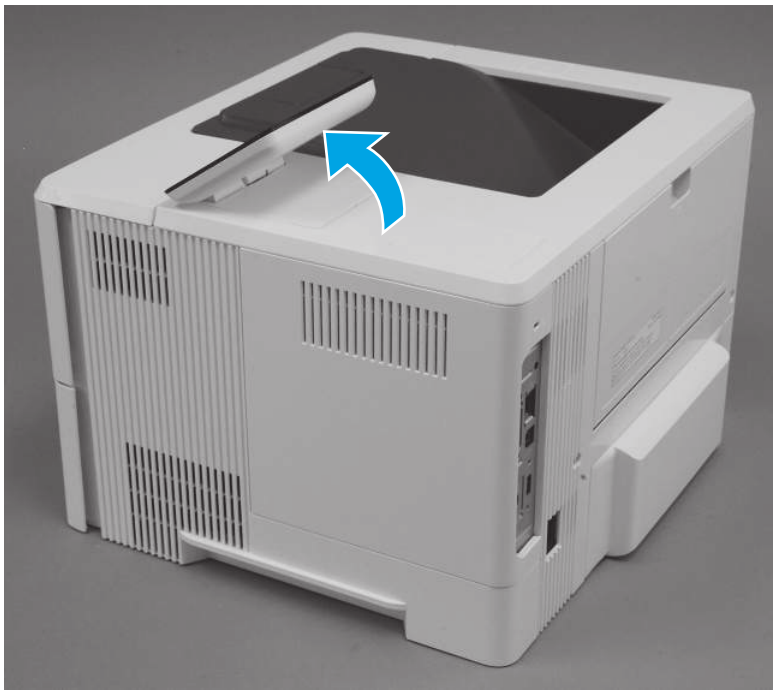
Post service test

No post service test is available for this assembly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

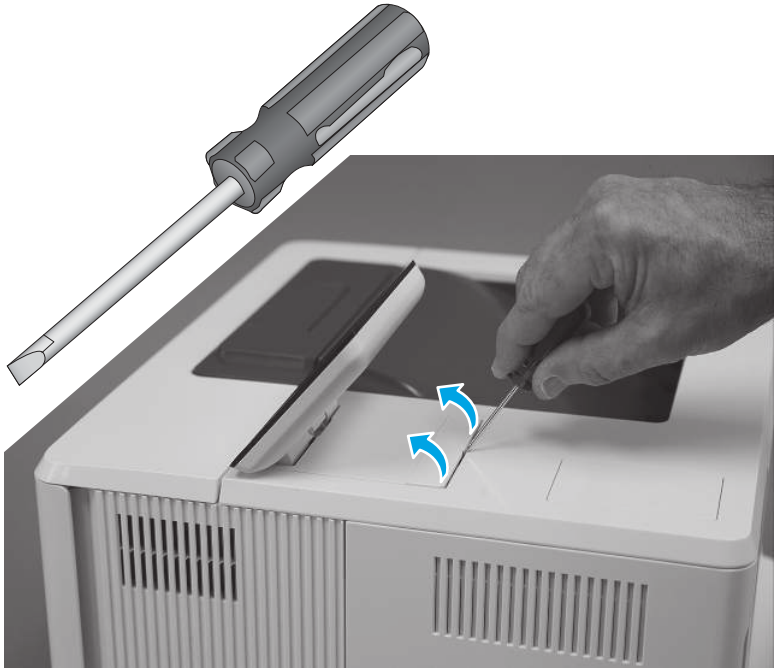
Figure 4-323 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

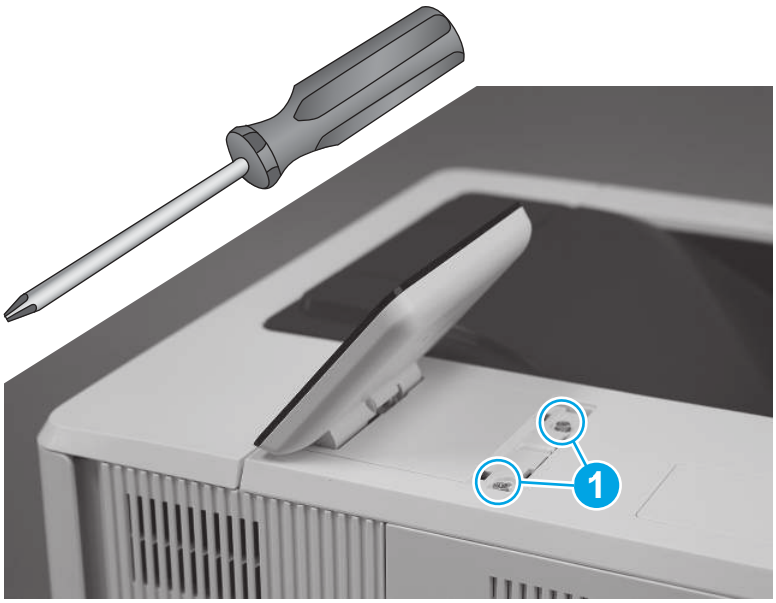
Figure 4-324 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

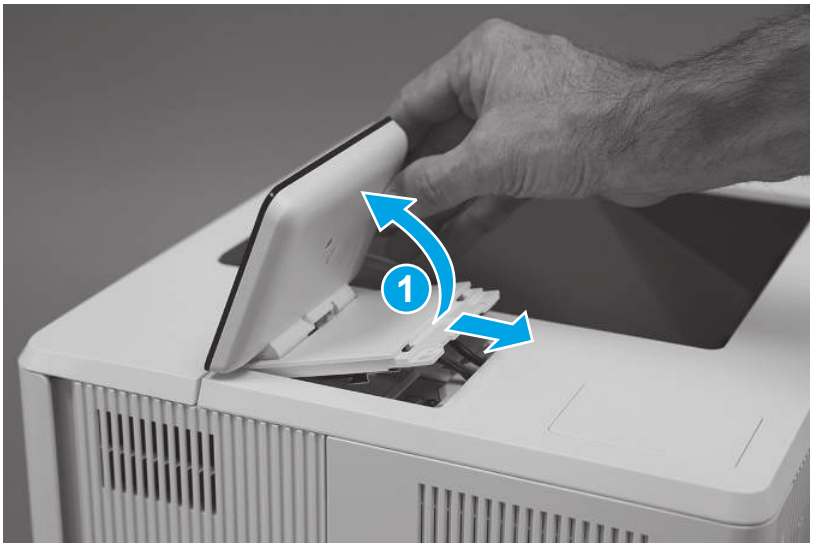
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-325 Remove two screws



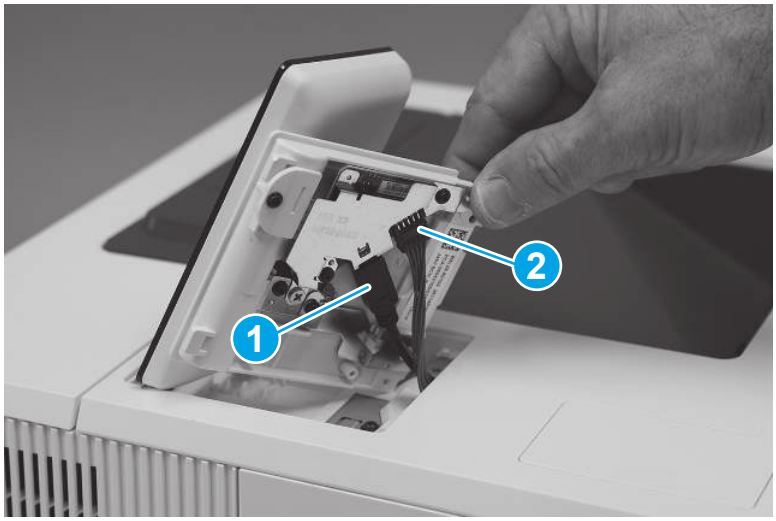
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-326 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-327 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-328 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-329 **Remove the control panel (M507/E50145)**

2. Remove the tray.

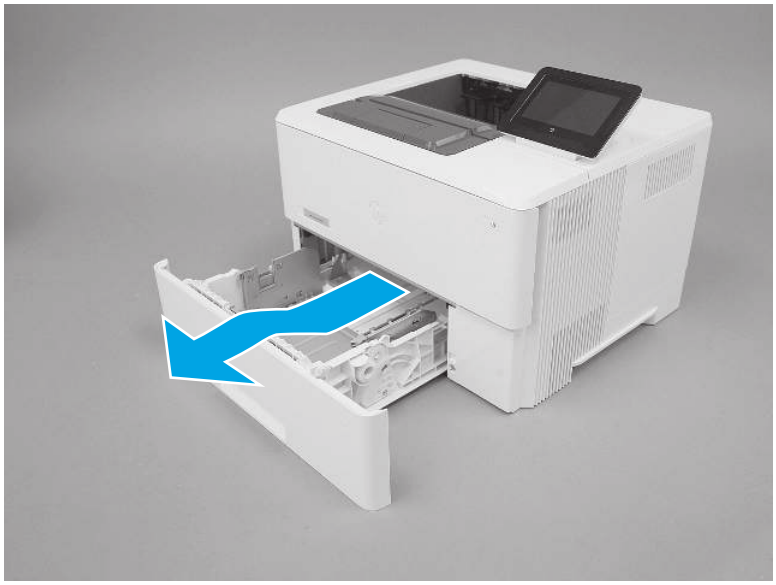
a. Pull the tray straight out of the printer until it stops.

Figure 4-330 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-331 Release and remove the tray

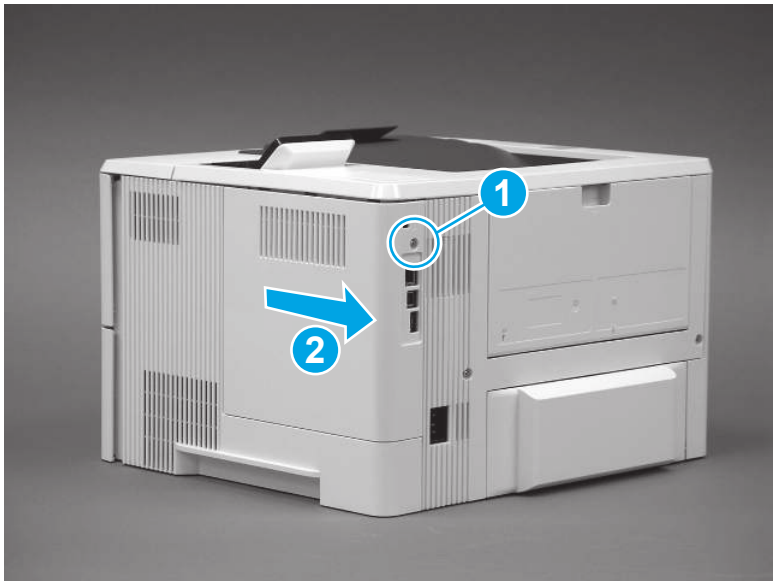


3. Remove the formatter cover.

- Do one of the following:

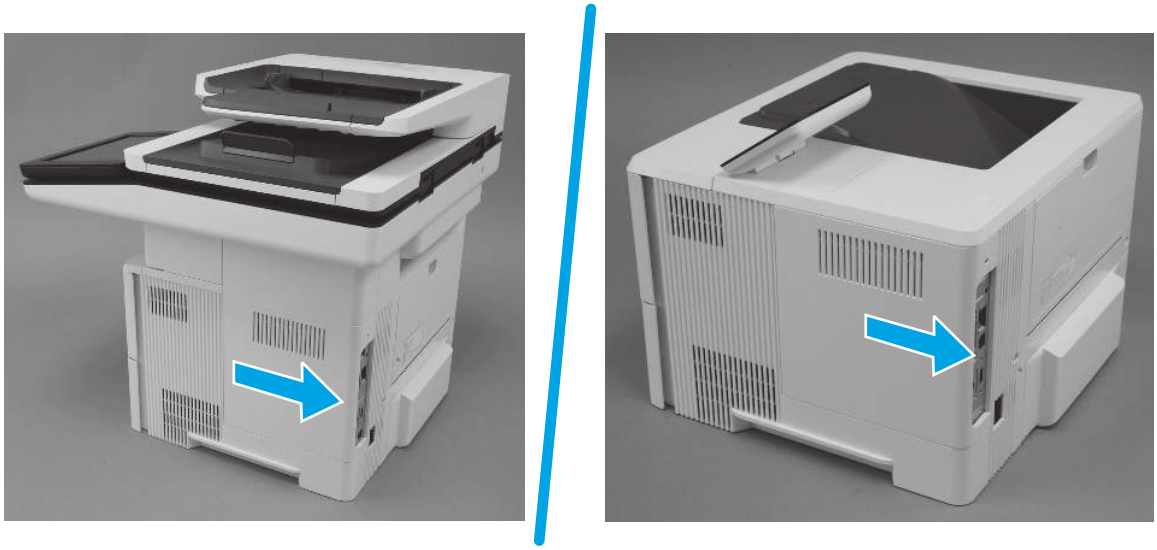
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-332 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-333 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

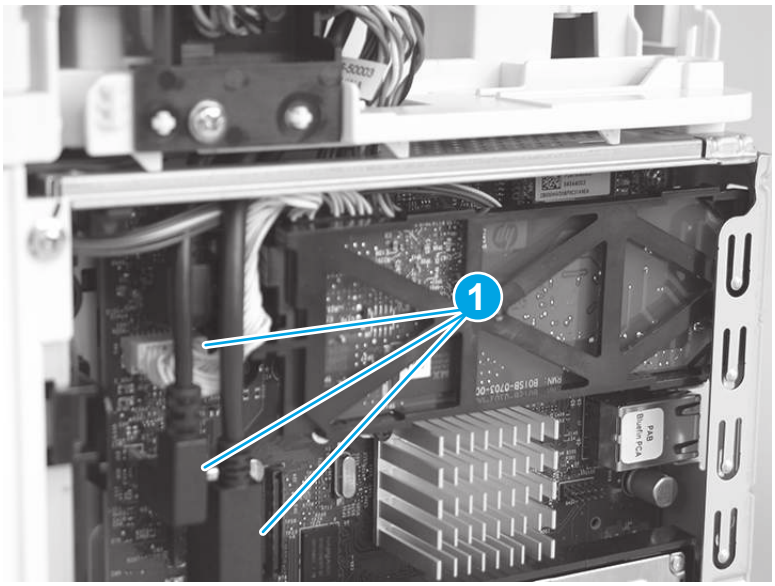


4. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

CAUTION: ESD-sensitive part.

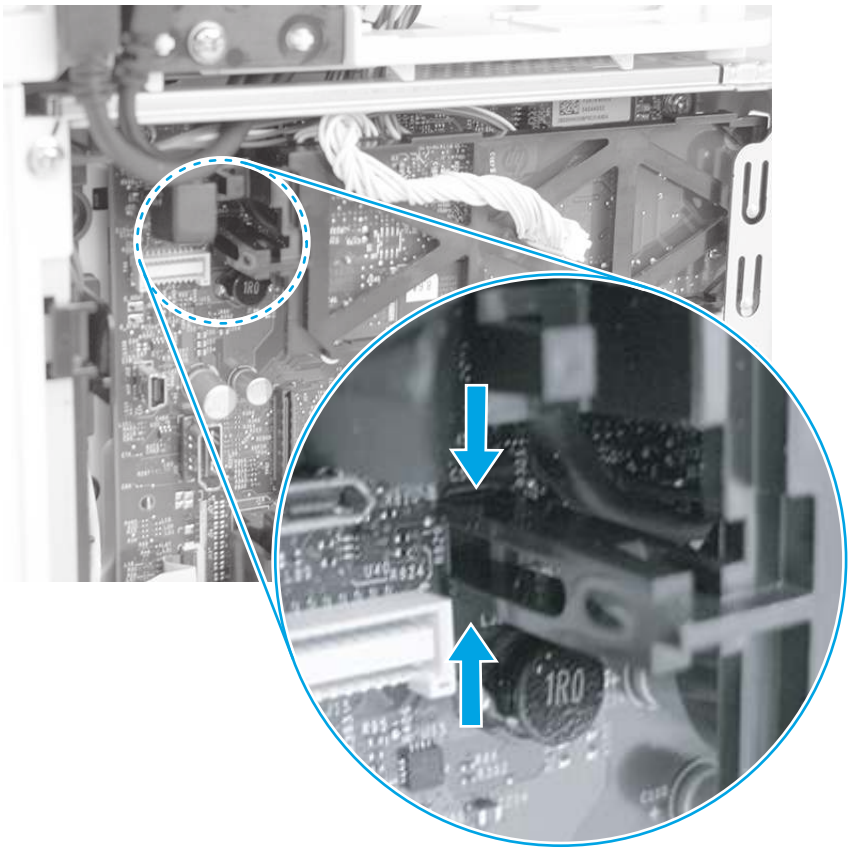
a. Disconnect three connectors (callout 1).

Figure 4-334 Disconnect three connectors



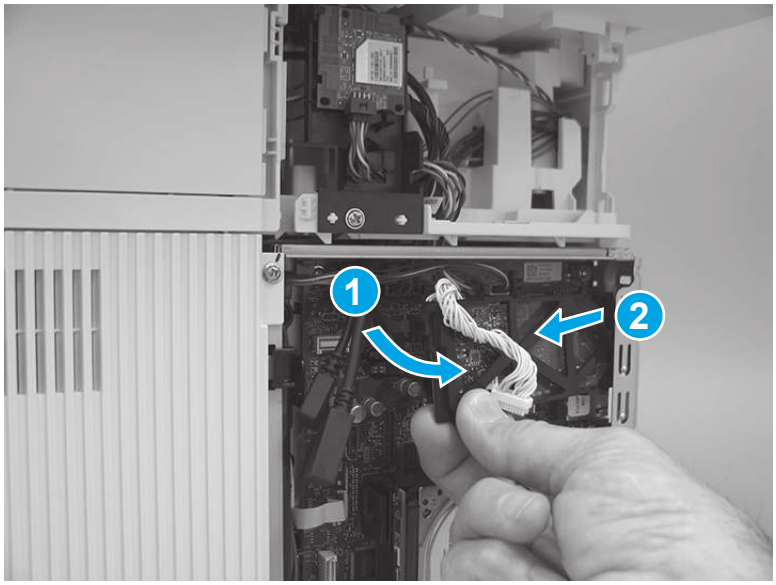
b. Pinch the retainer to release it.

Figure 4-335 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-336 Remove the fax PCA

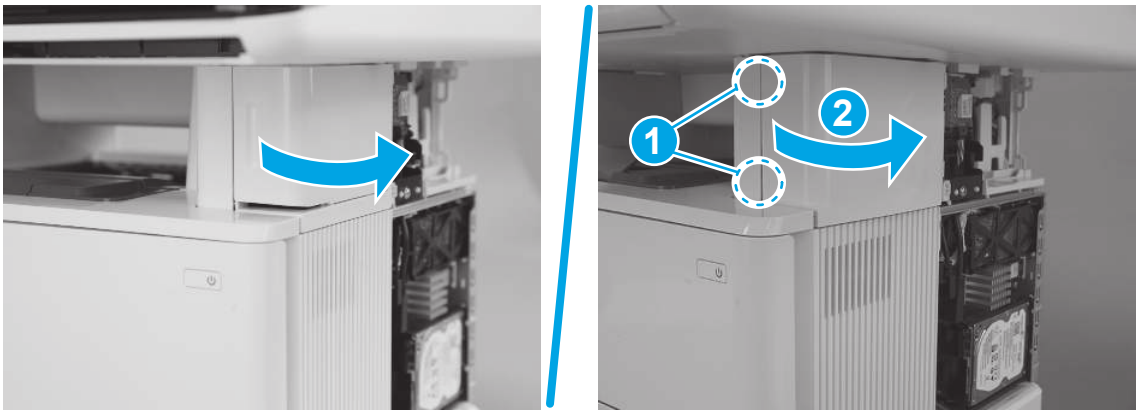


5. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-337 **Open the door or release the cover**



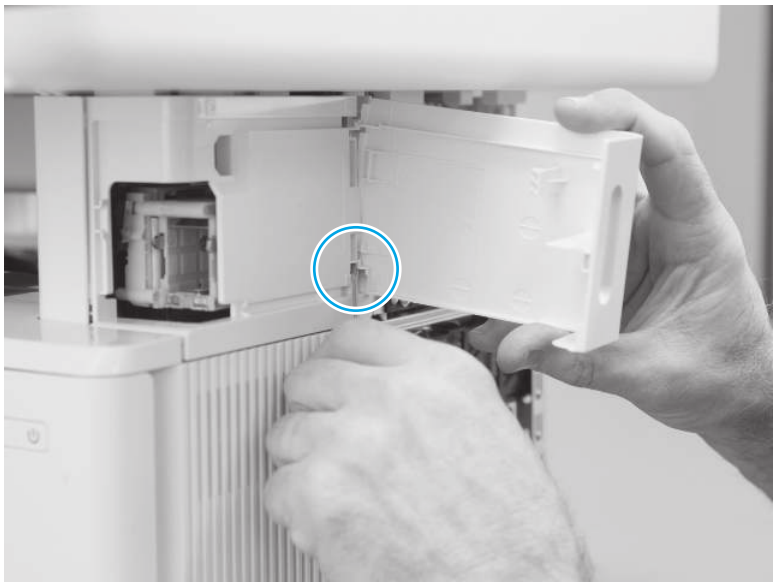
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-338 **Release the upper hinge or remove the cover**

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-339 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-340 **Remove the door**

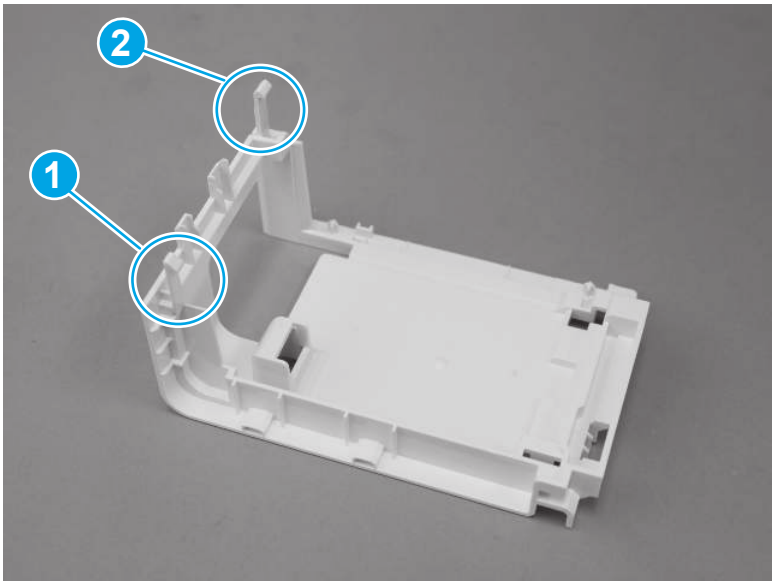
6. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

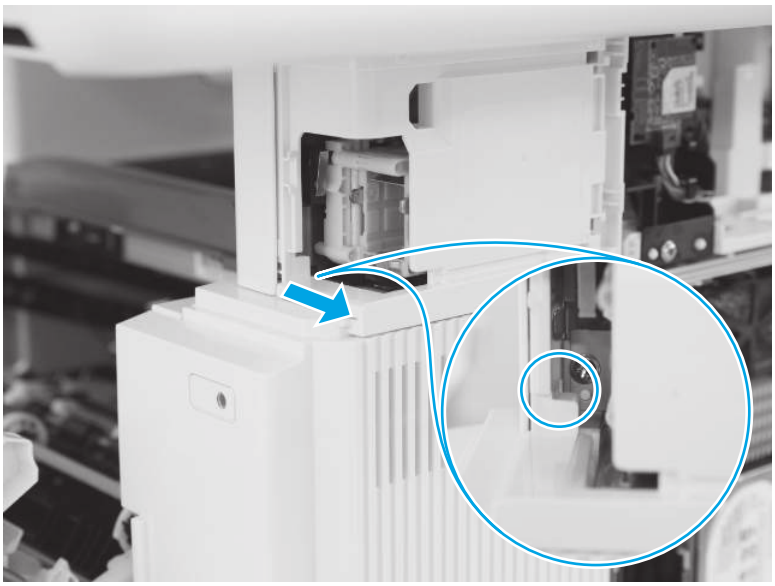
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-341 Locate the tabs



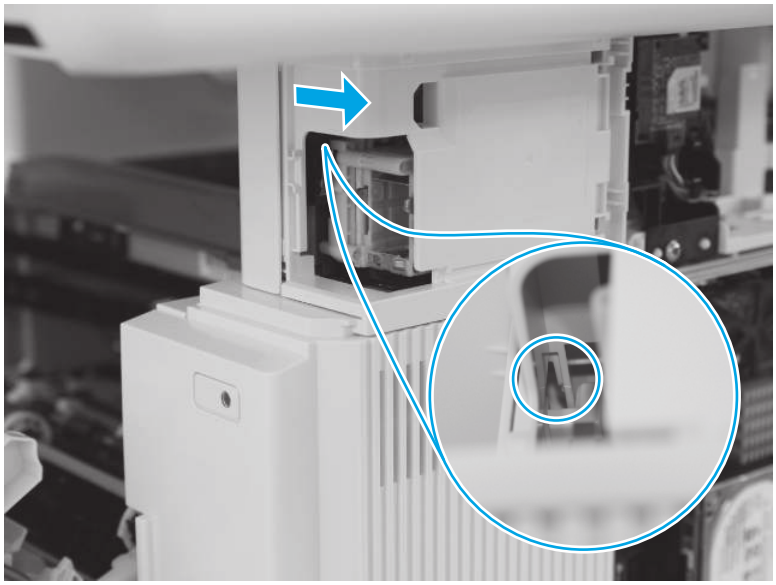
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-342 Release one tab



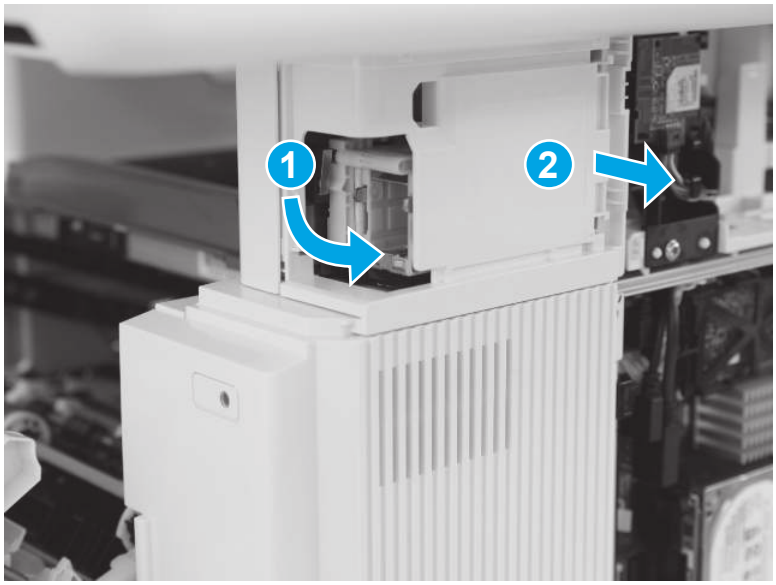
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-343 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

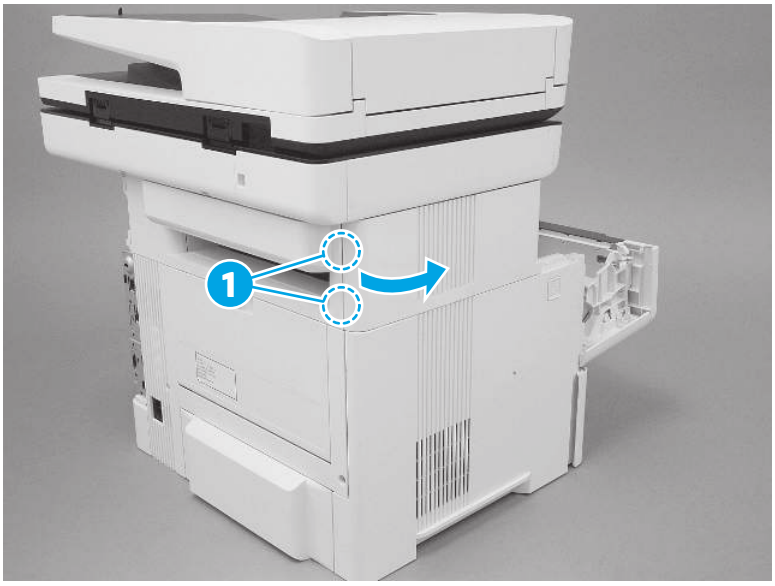
Figure 4-344 Remove the cover



7. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-345 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

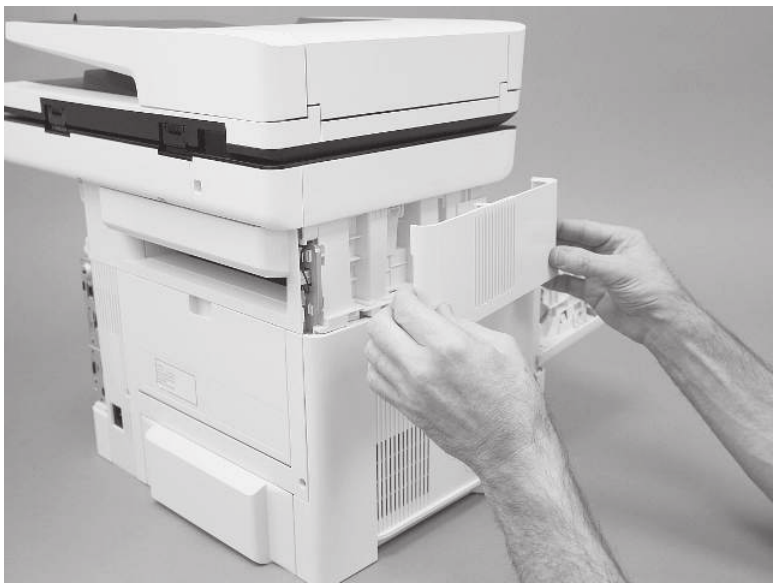
Figure 4-346 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-347 Slide the cover

d. Remove the cover.

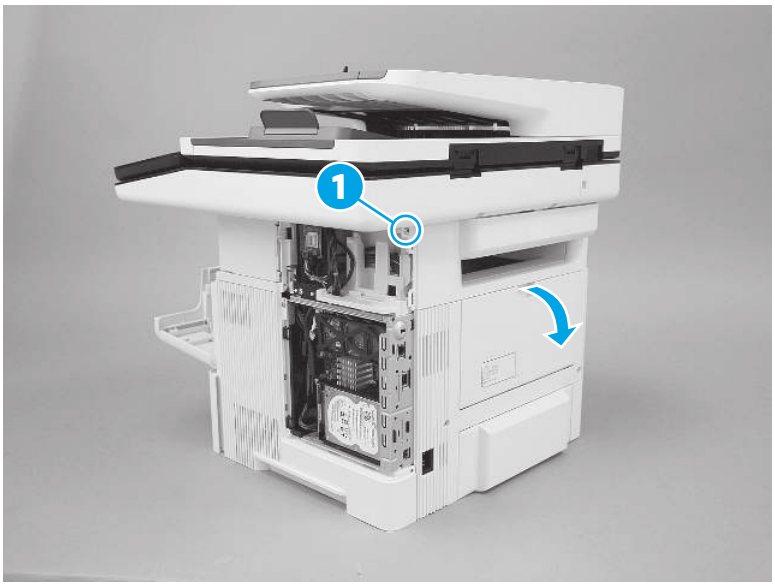
Figure 4-348 Remove the cover



8. Remove the top-rear cover (M527/E52545/M528/E52645).

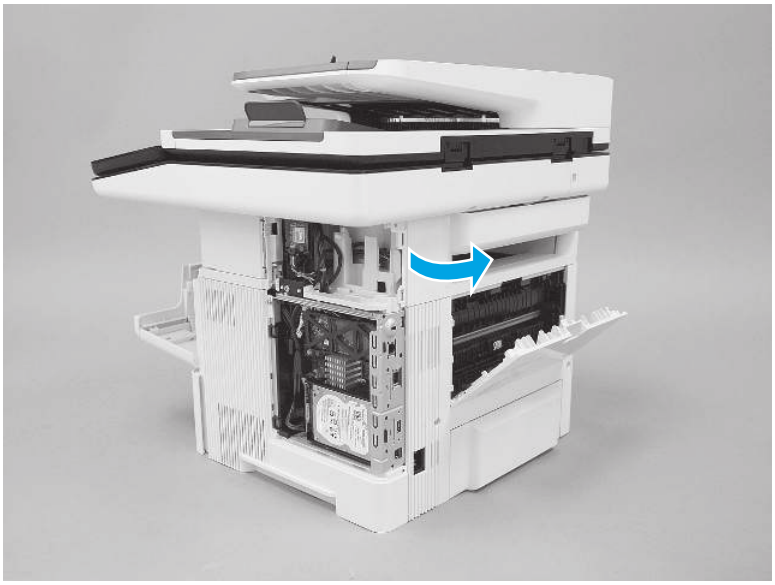
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-349 Remove one screw



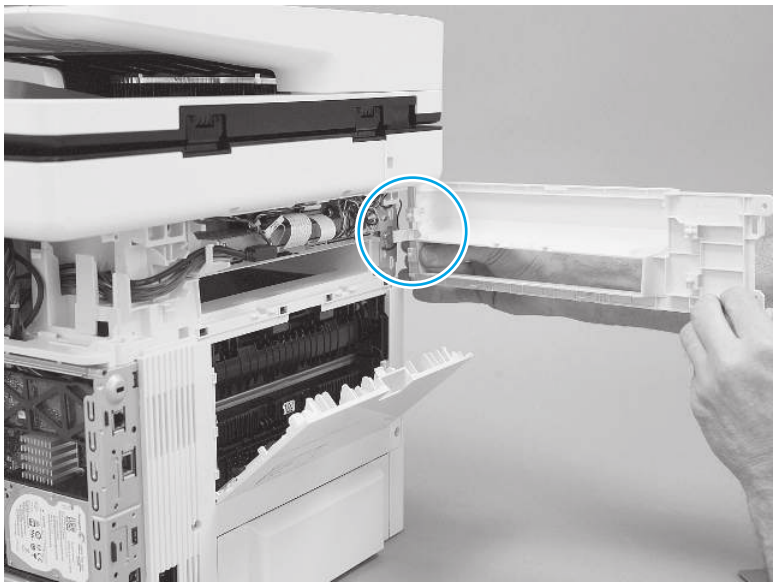
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-350 Rotate the cover



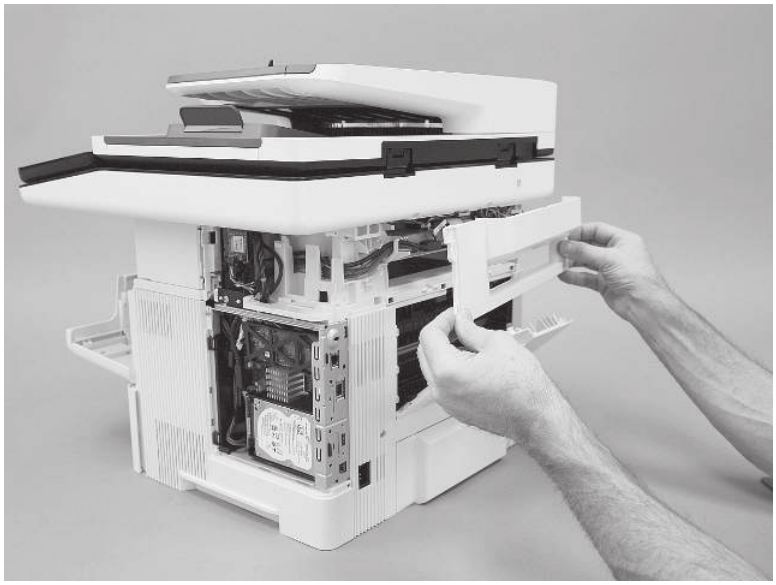
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-351 Release one boss



d. Remove the cover.

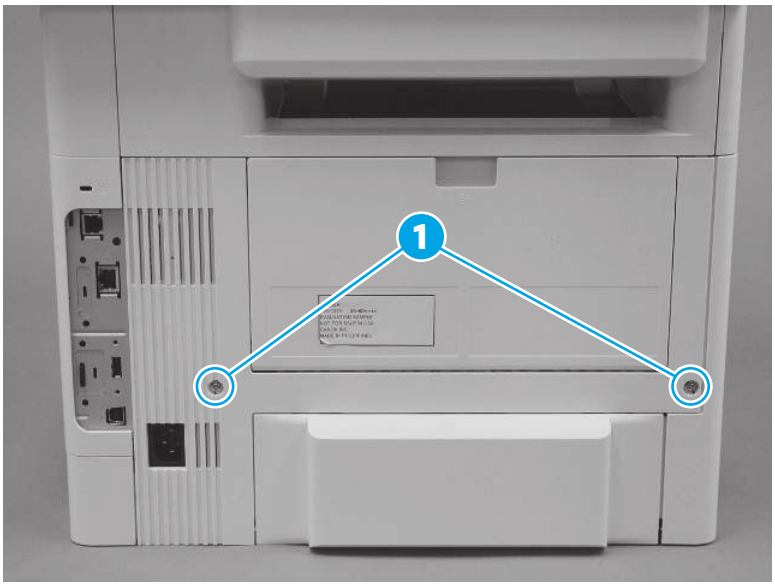
Figure 4-352 Remove the cover



9. Remove the rear door assembly.

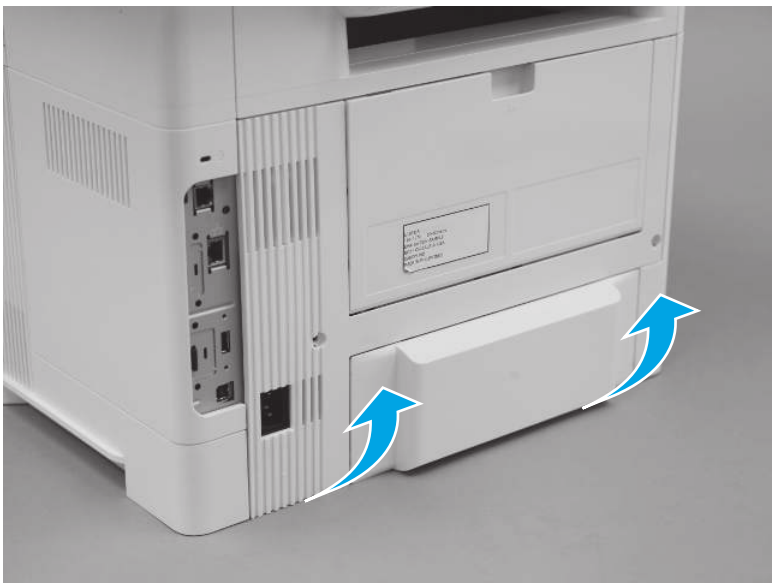
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-353 Remove two screws



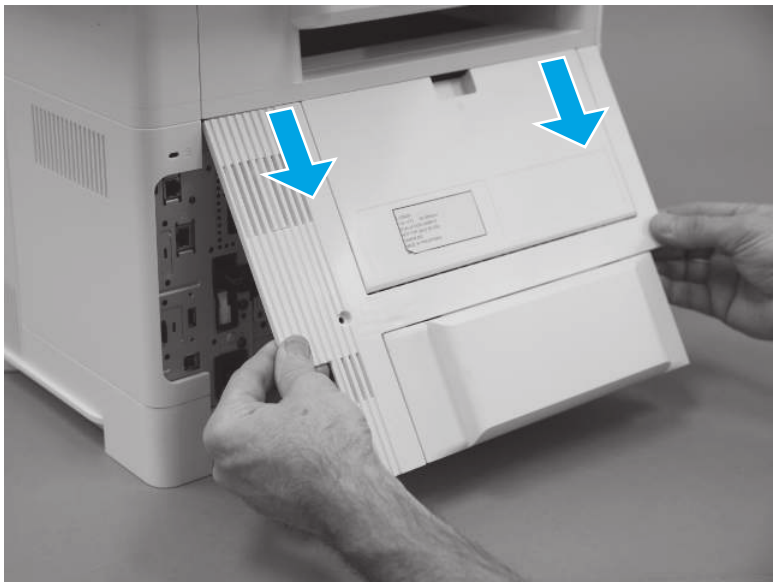
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-354 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-355 **Remove the cover**



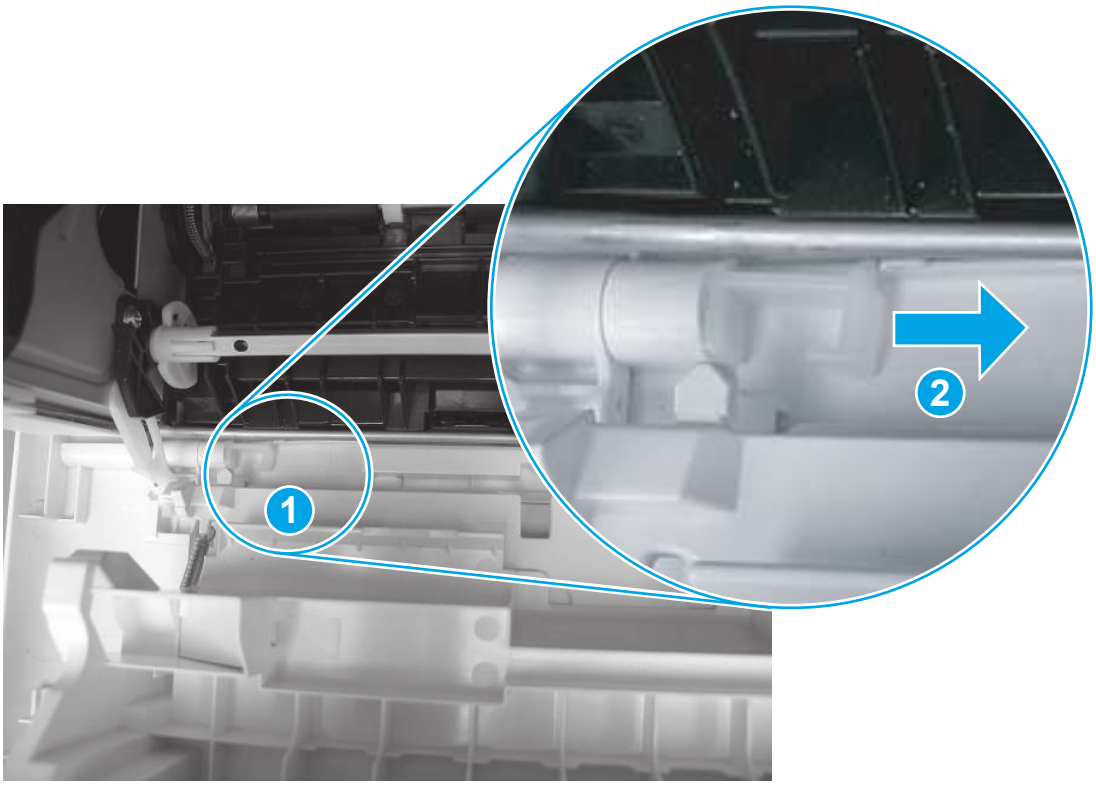
10. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

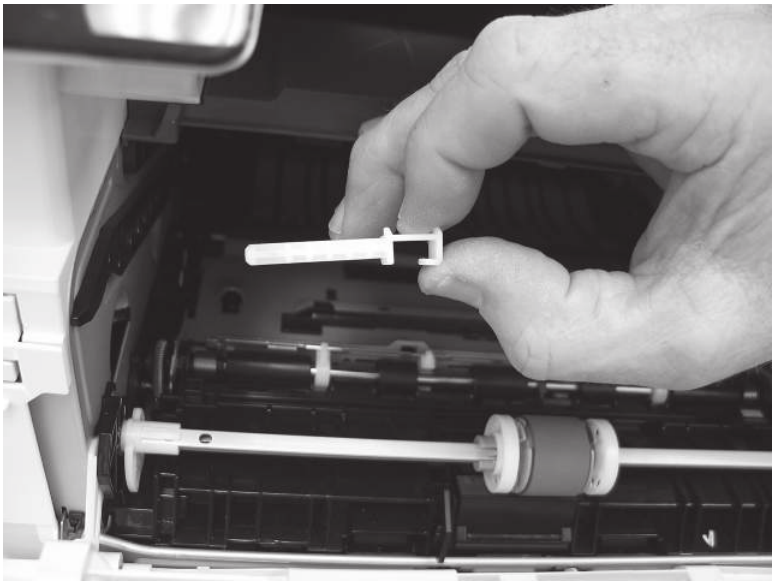
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-356 Release the support shaft



b. Remove the support shaft.

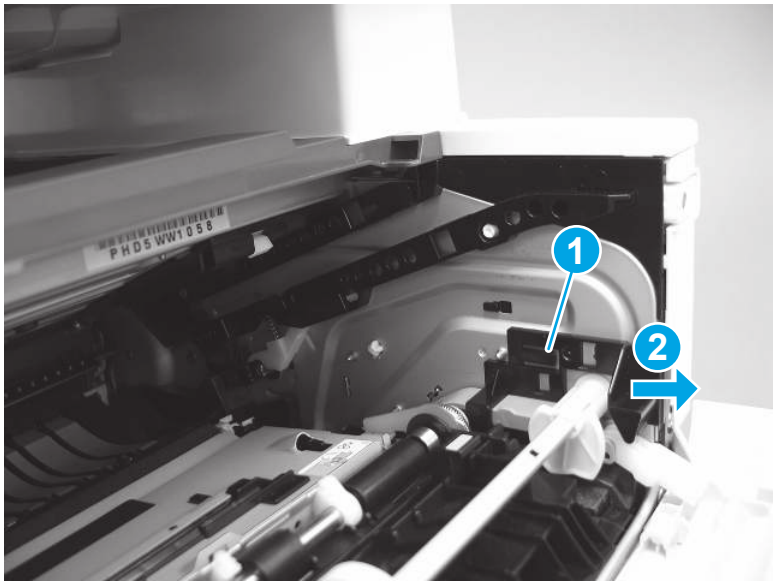
Figure 4-357 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

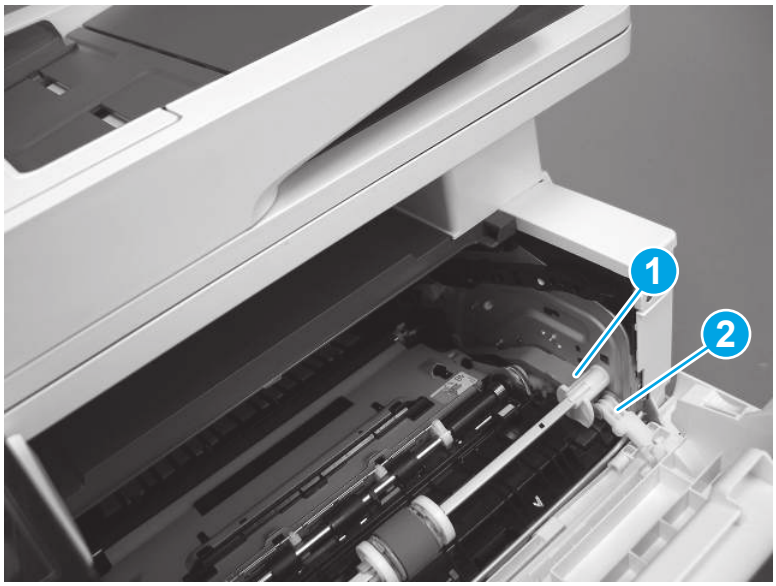
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-358 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-359 Release the pressure-release link



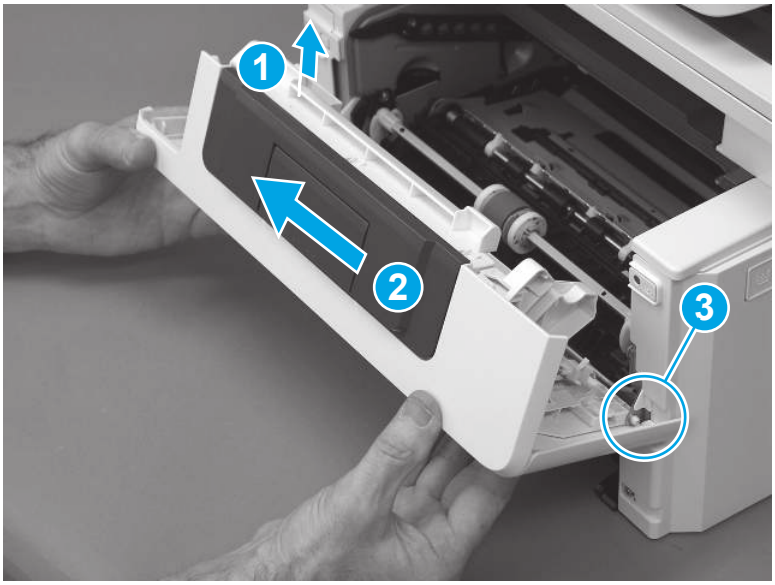
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

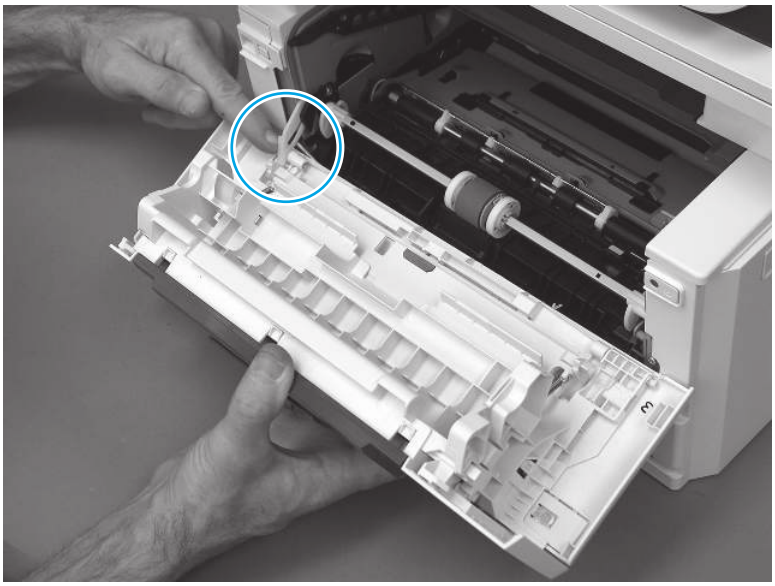
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-360 Release the door



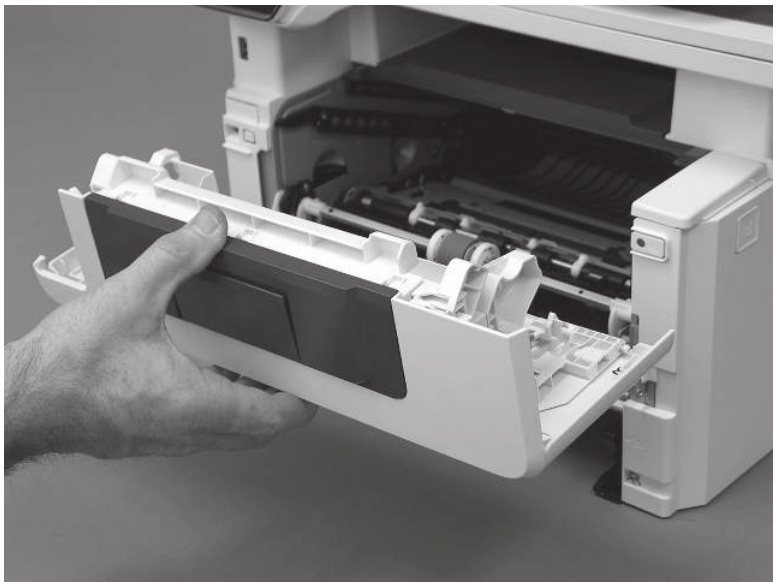
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-361 Release the left-side retainer arm



g. Remove the door.

Figure 4-362 Remove the door



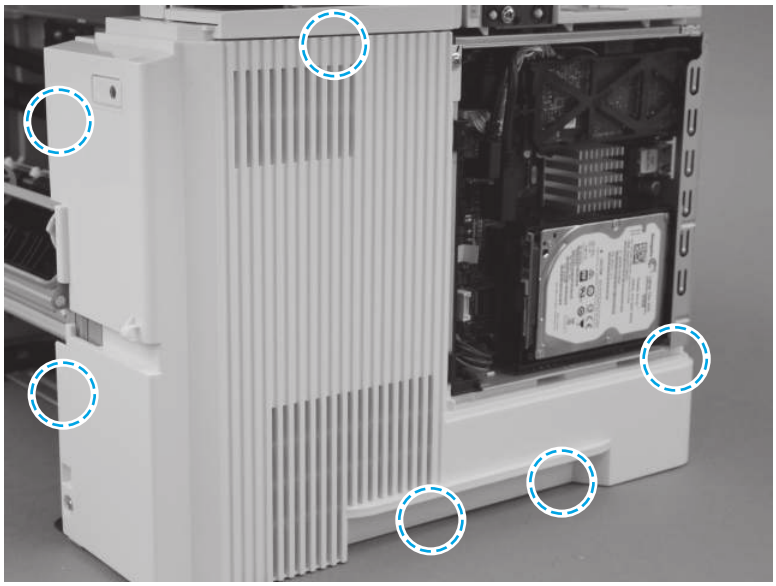
11. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

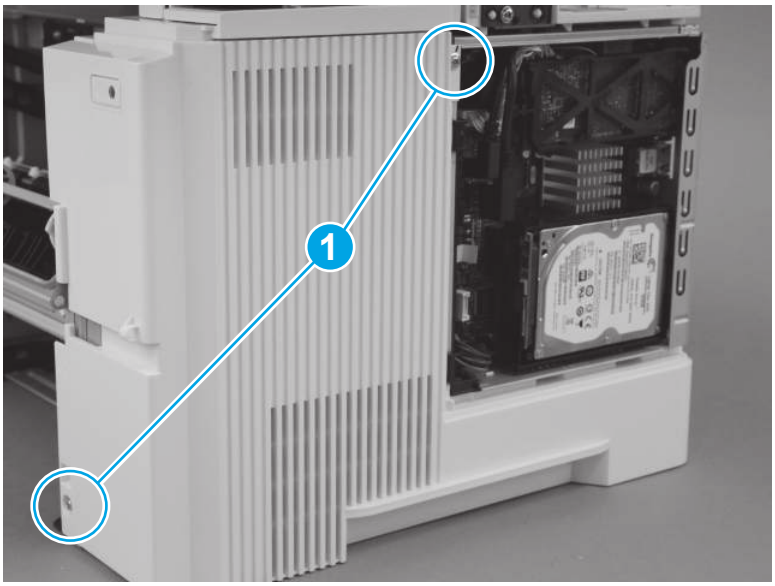
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-363 Locate the tabs and bosses



b. Remove two screws (callout 1).

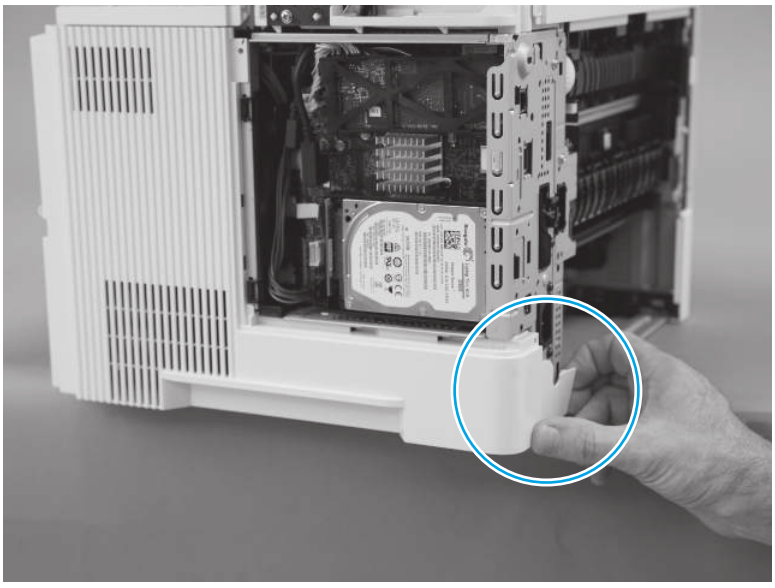
Figure 4-364 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

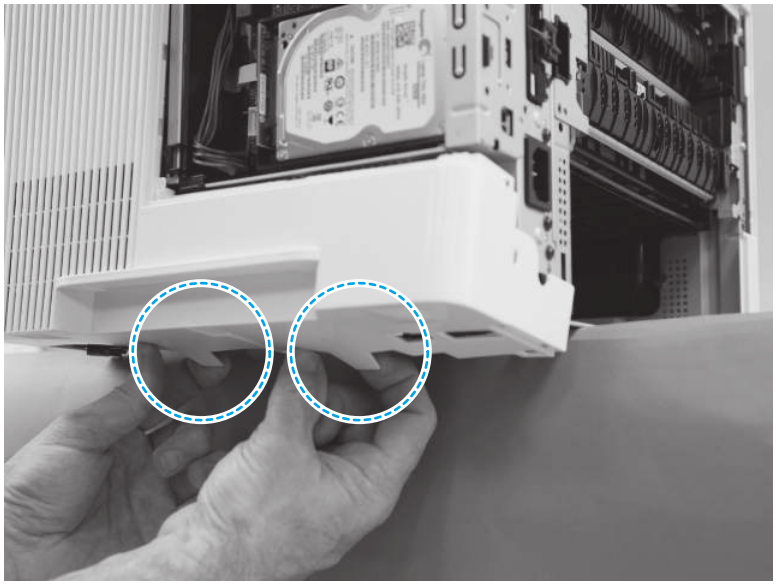
Figure 4-365 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-366 Release two bosses

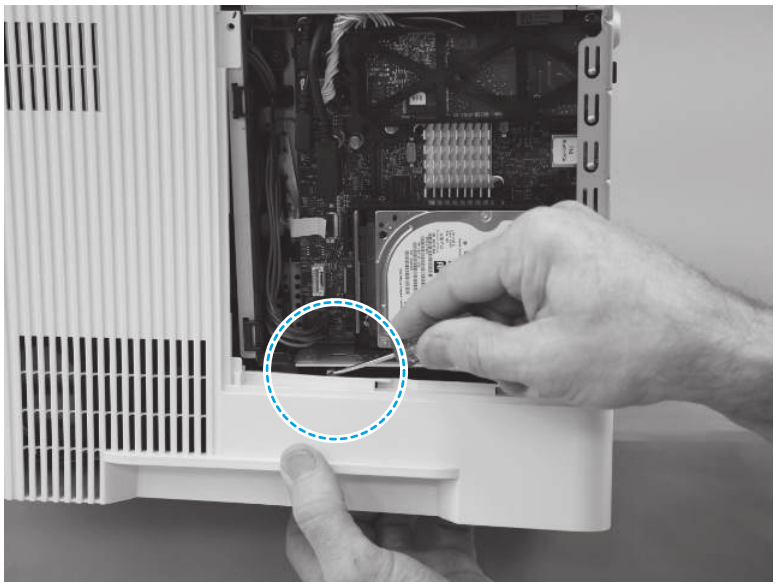


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-367 Release one tab

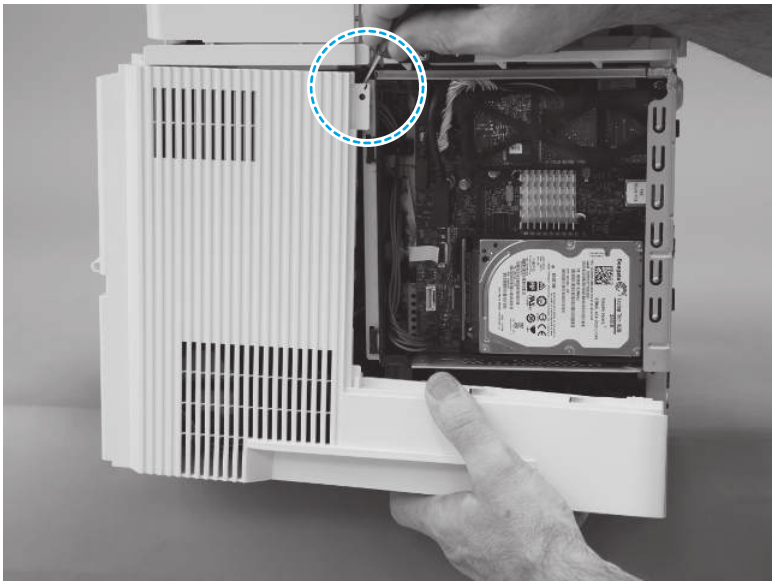


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

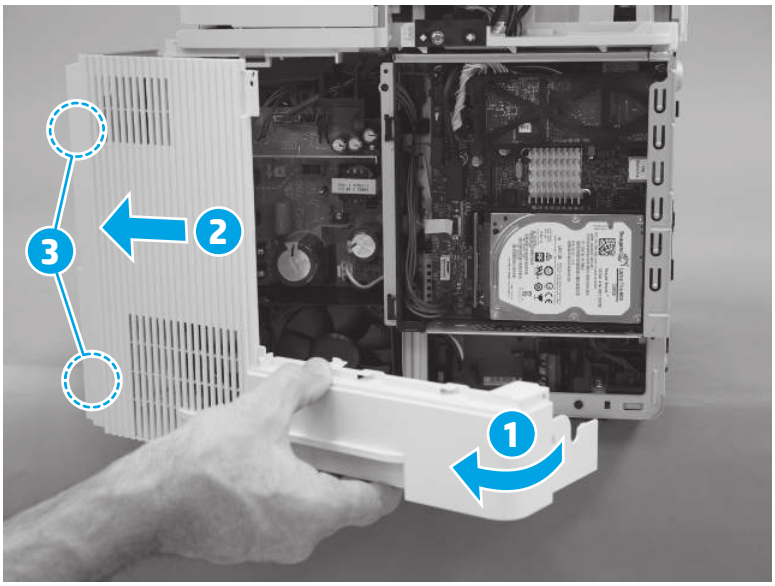
Figure 4-368 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-369 Remove the cover



12. Remove the left cover.

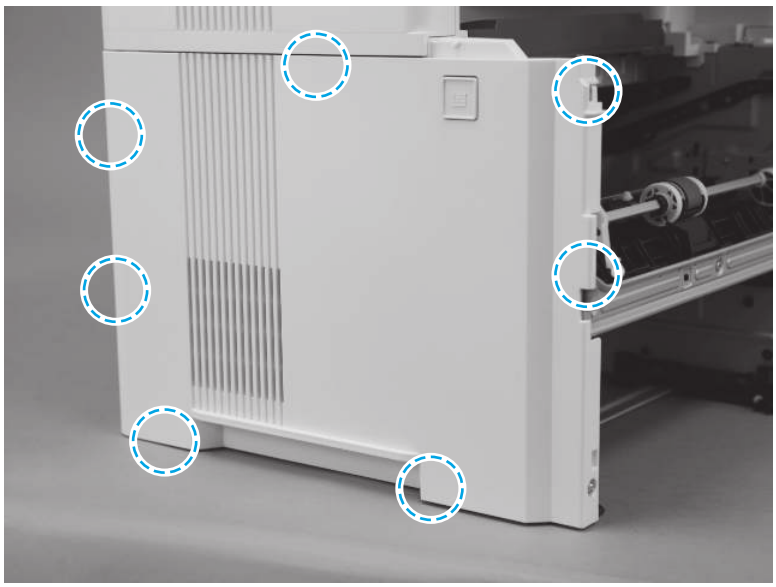
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

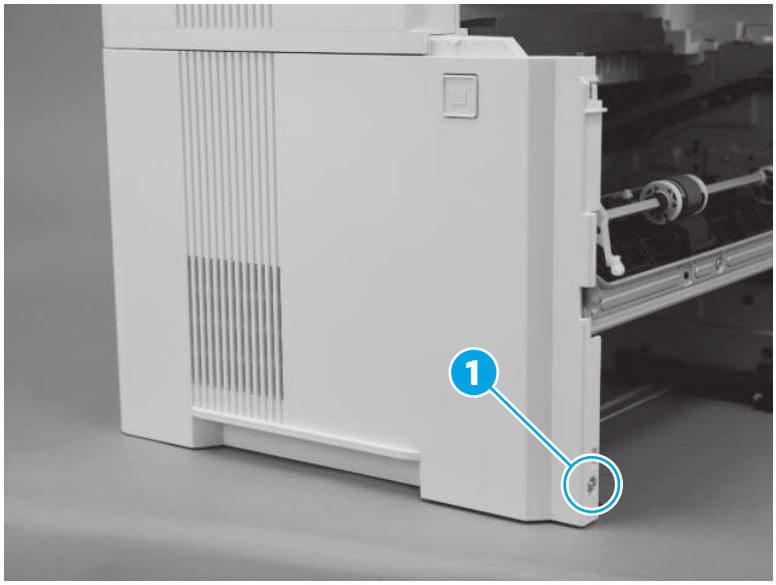
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-370 Locate of the tabs and bosses



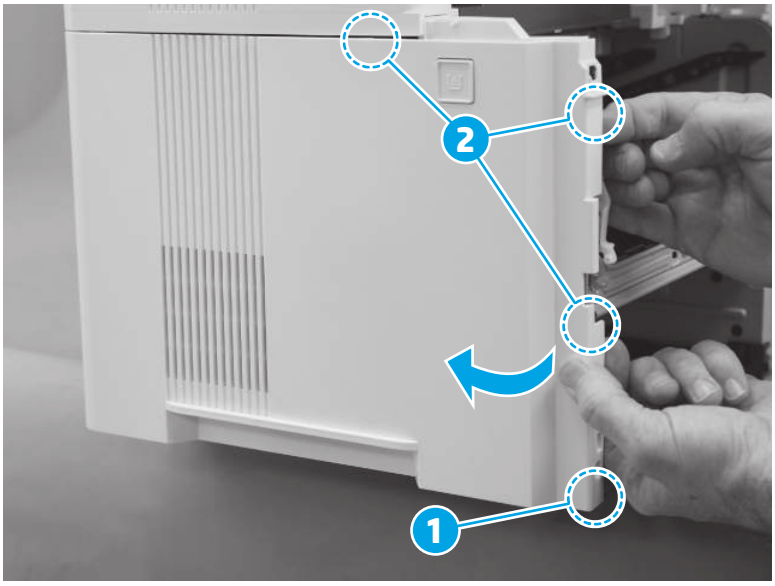
b. Remove one screw (callout 1).

Figure 4-371 Remove one screw



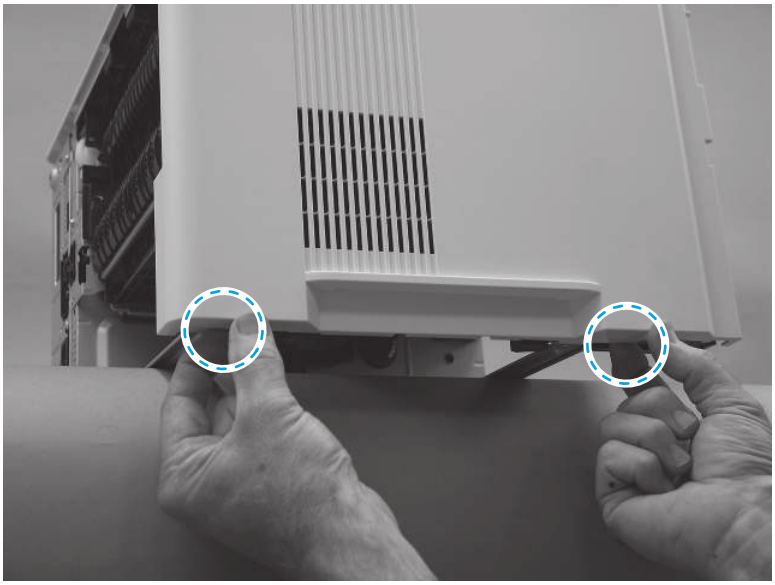
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-372 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

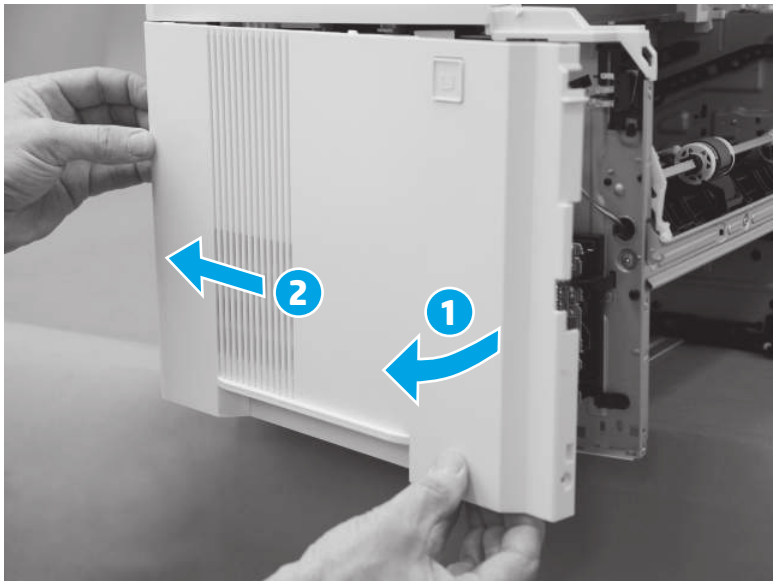
Figure 4-373 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-374 Remove the cover



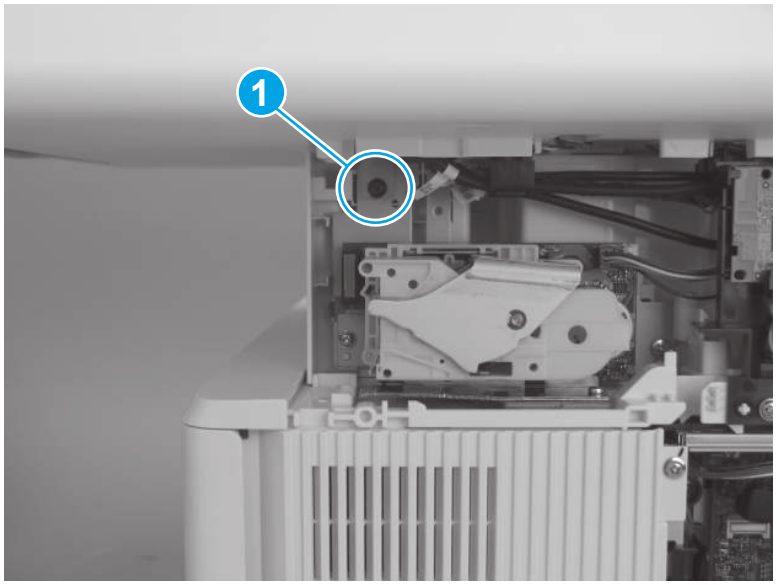
13. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-375 Remove one screw

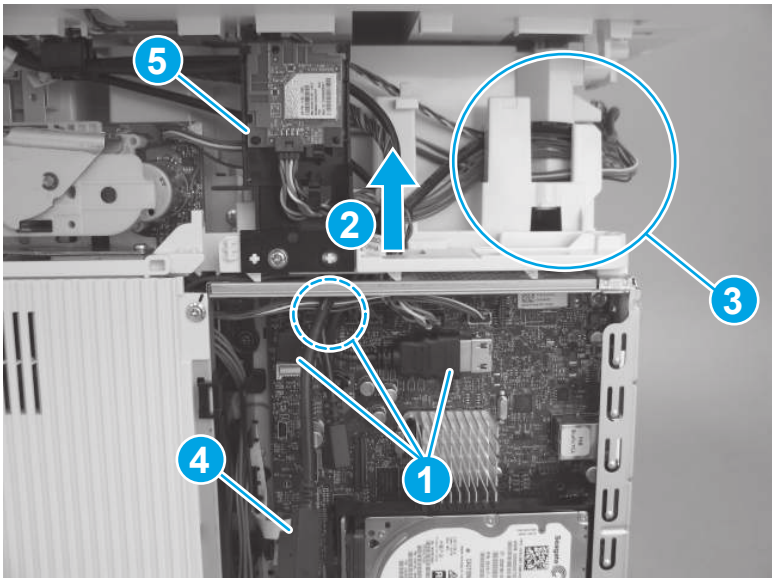


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

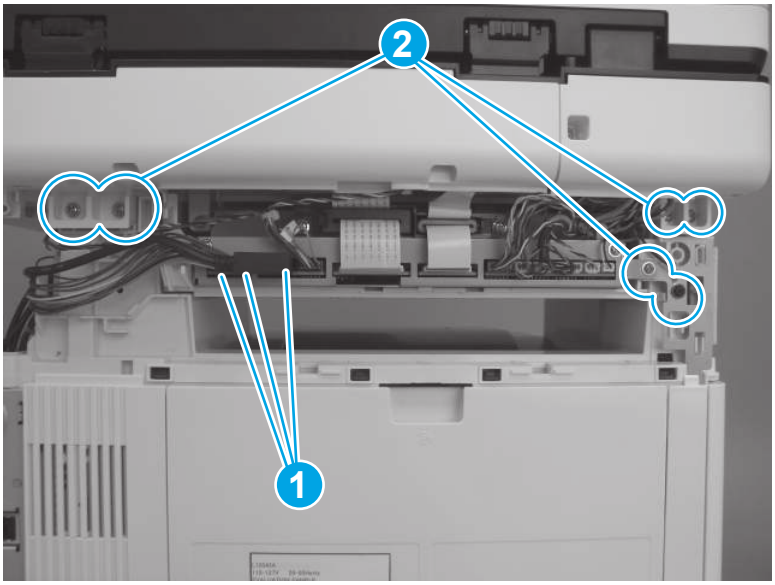
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-376 Disconnect cables and connectors



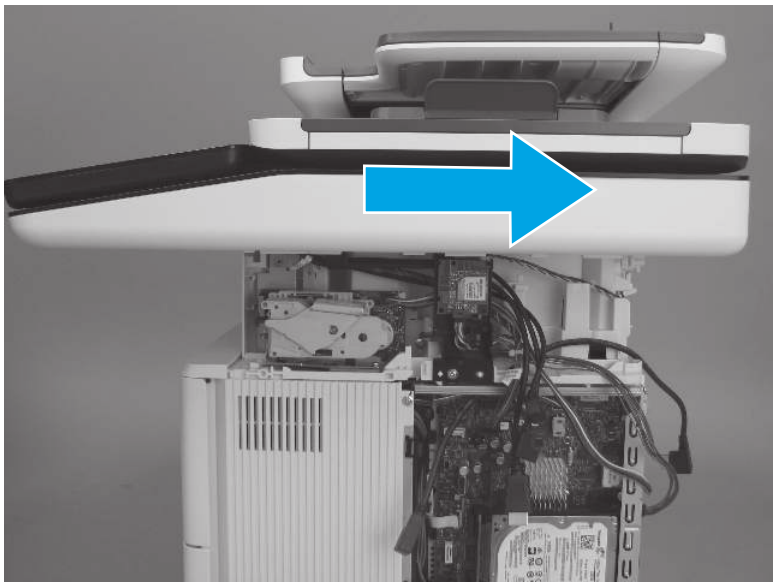
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-377 Disconnect connectors and remove screws



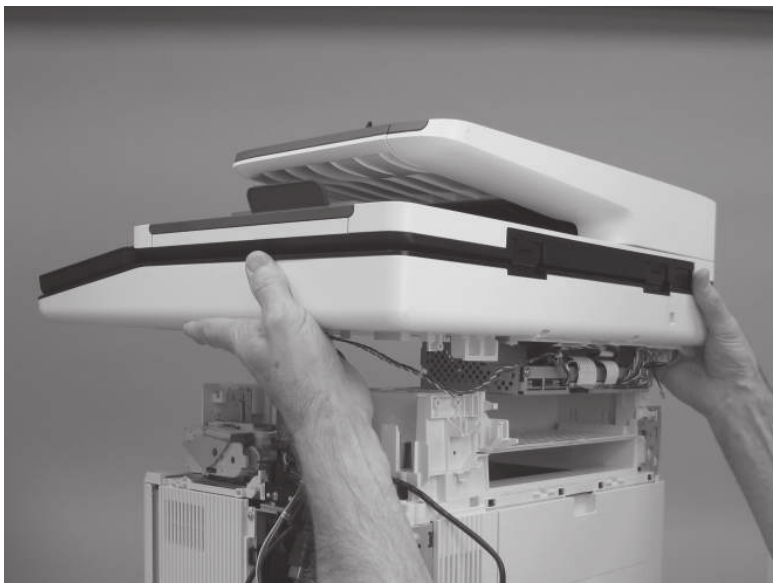
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-378 Slide the ISA towards the back of the printer



e. Remove the ISA.

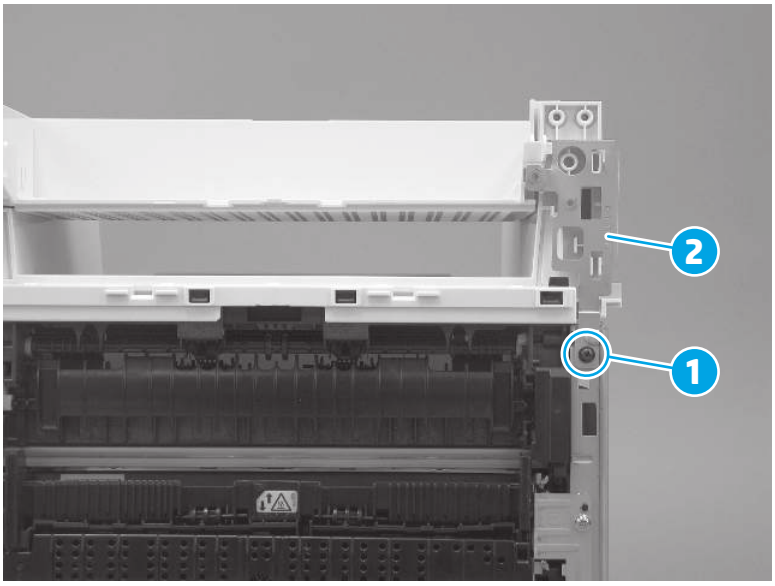
Figure 4-379 Remove the ISA



14. Remove the top cover (M527/E52545/M528/E52645).

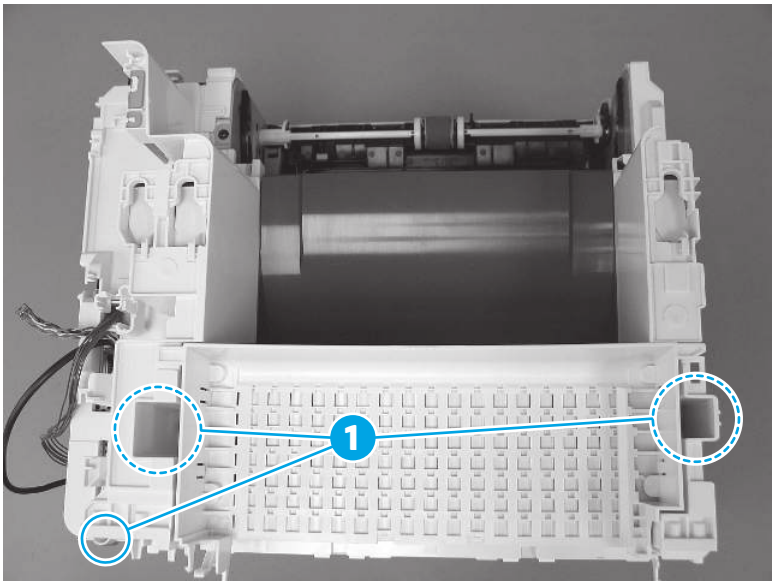
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-380 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

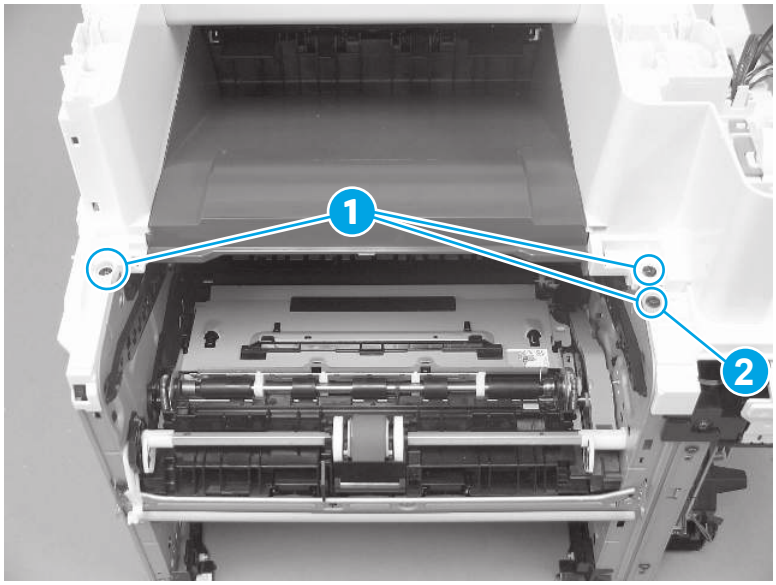
Figure 4-381 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

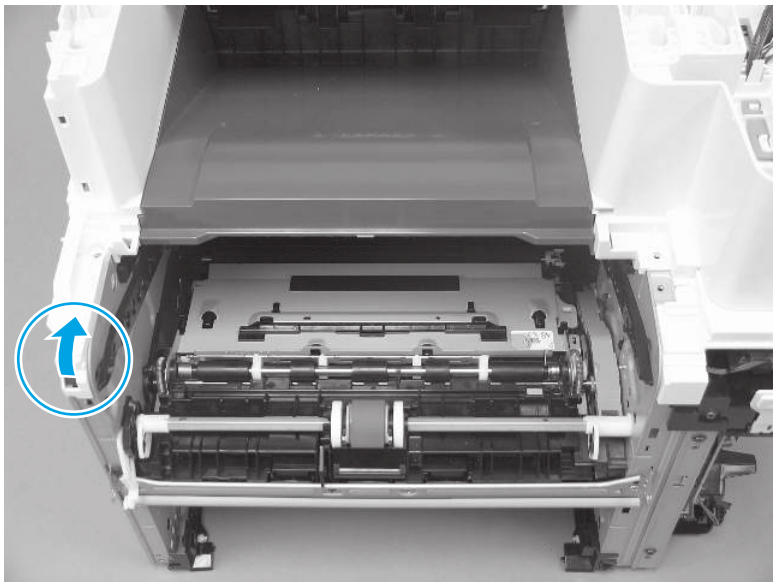
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-382 Remove three screws



d. At the front left of the printer, release one boss.

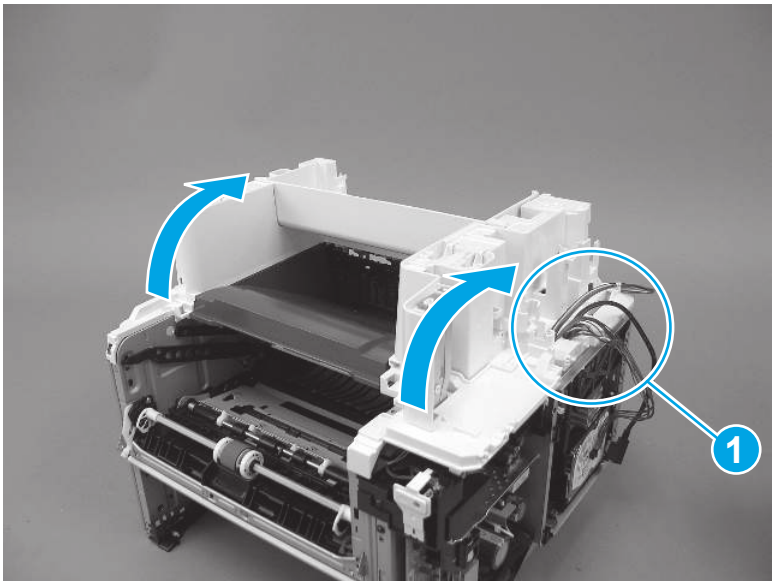
Figure 4-383 Release one boss



e. Rotate the front of the cover up and away from the printer.

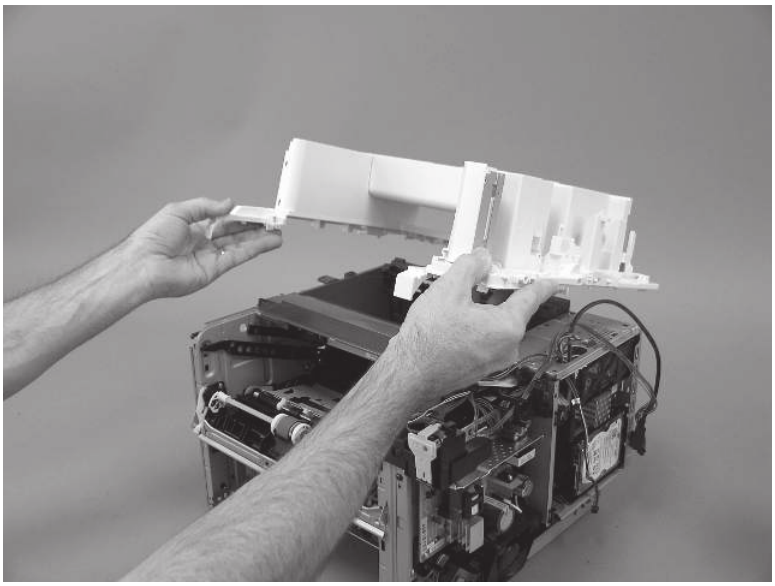
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-384 Rotate the front of the cover up



f. Remove the cover.

Figure 4-385 Remove the cover

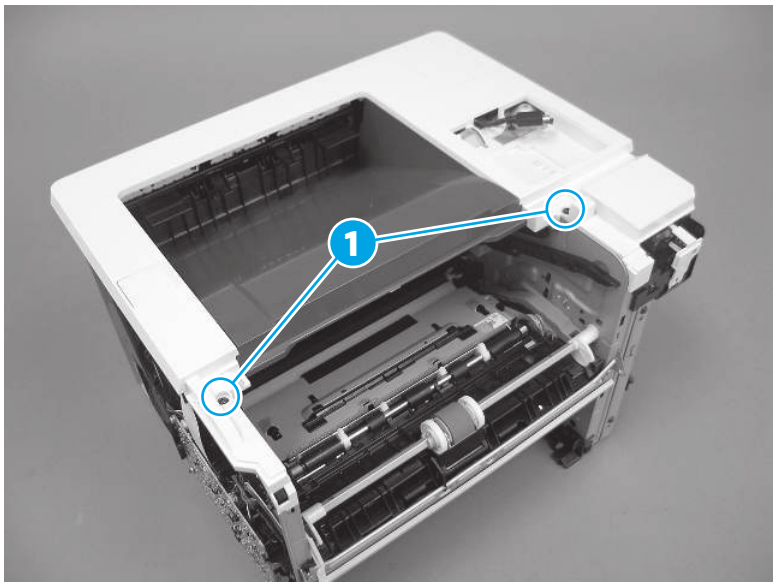


15. Remove the top cover (M501/M506/E50045/M507/E50145).

    The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

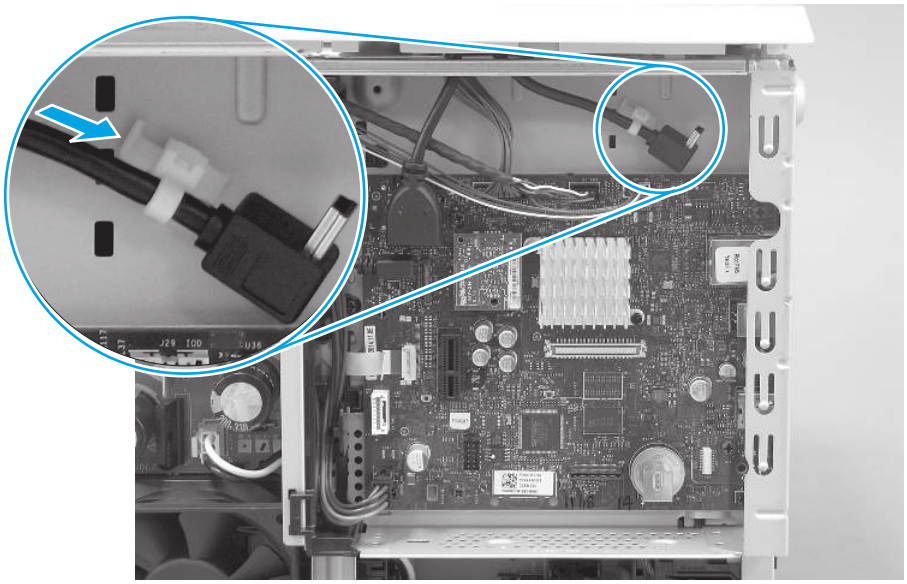
Figure 4-386 **Remove two screws**



b. **M506/E50045/ only**: Release one cable retainer from the chassis.

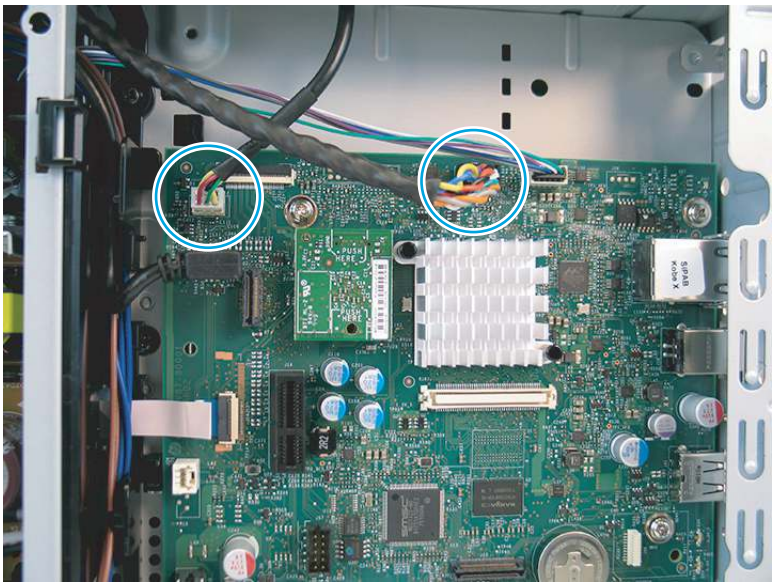
TIP: Depress the tab on the retainer to release it.

Figure 4-387 **Release one cable retainer**



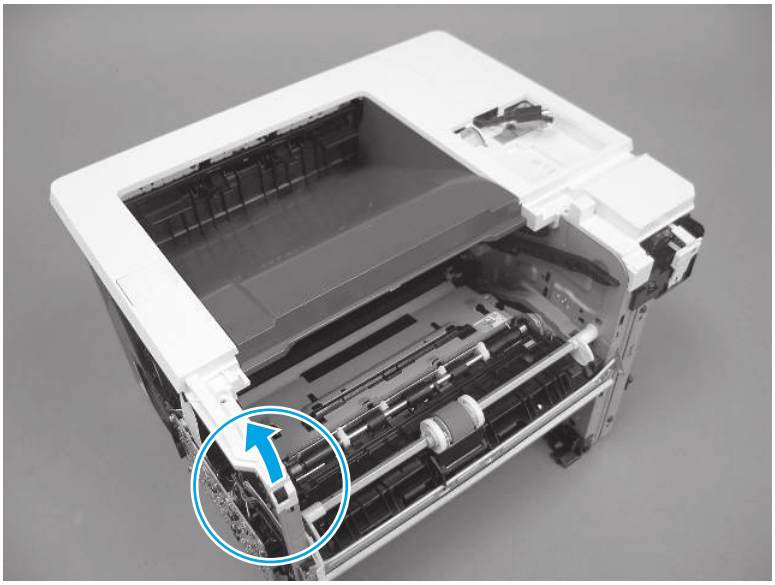
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-388 **Disconnect two connectors**



d. Release one boss.

Figure 4-389 **Release one boss**

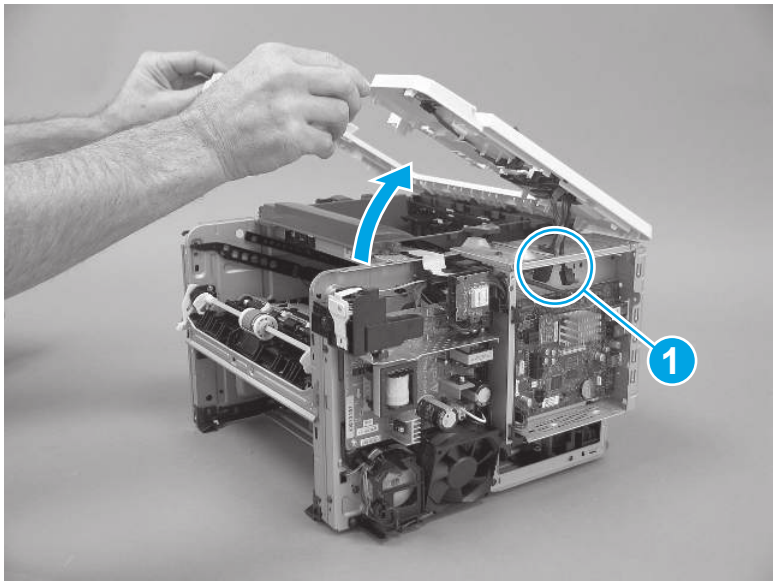


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-390 Remove the cover (M506/E50045)



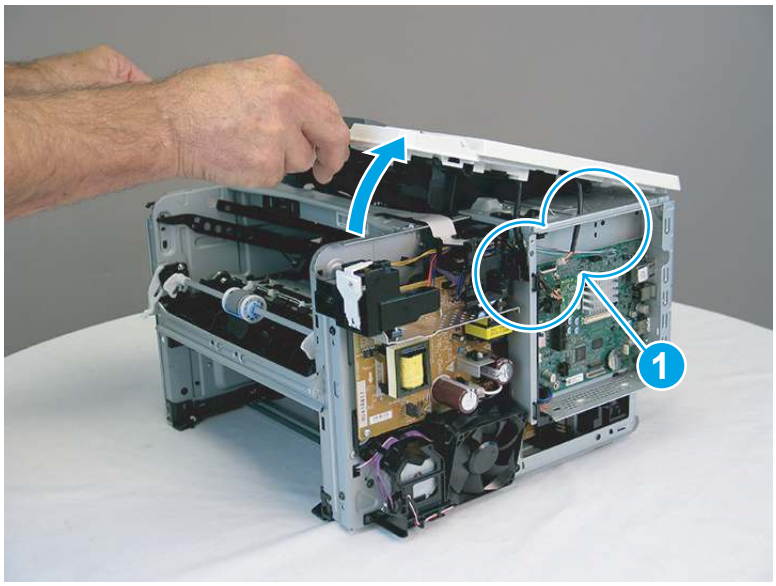
f. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-391 Remove the cover (M507/E50145)

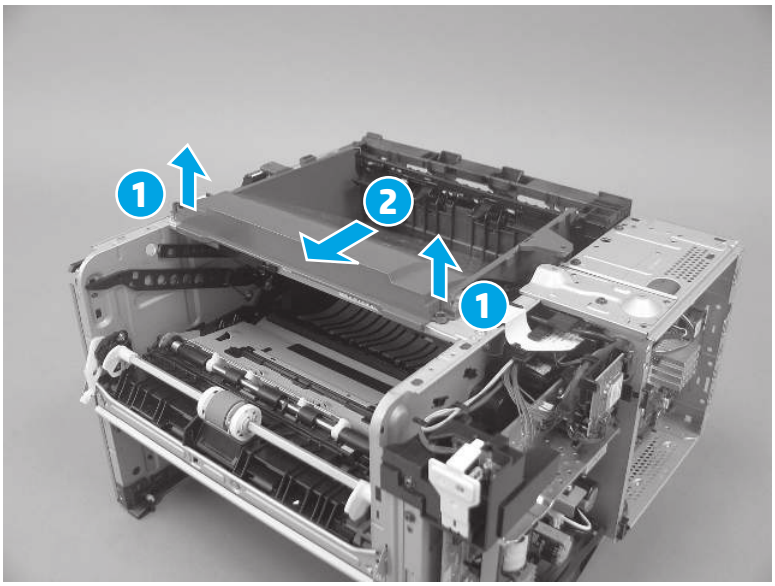


16. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

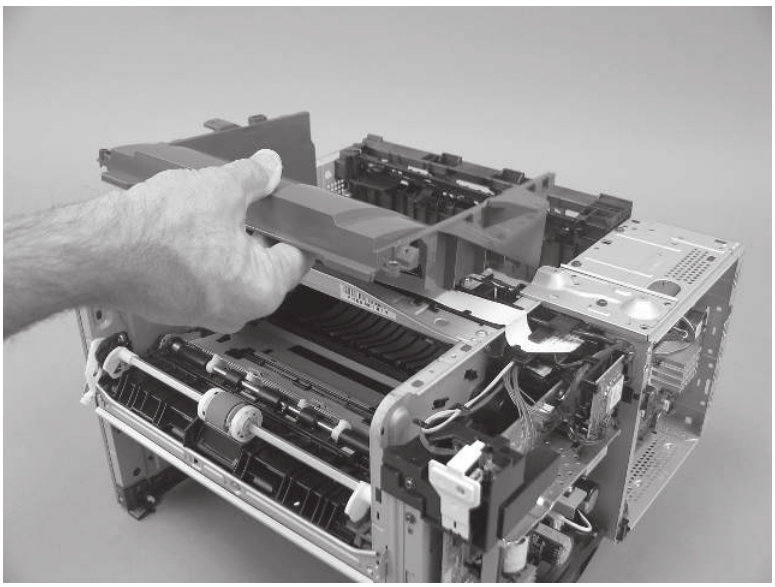
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-392 Release two tabs



b. Remove the bin.

Figure 4-393 Remove he bin



17. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Sub-scanner assembly (SSA) (MFP)

Learn how to remove and replace the sub-scanner assembly (SSA).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the sub-scanner assembly (SSA).

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-26 Part information

Part number	Part description
F2A76-67909	Image scanner kit (M527/E52545/M528/E52645) with instruction guide (includes white backing kit)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

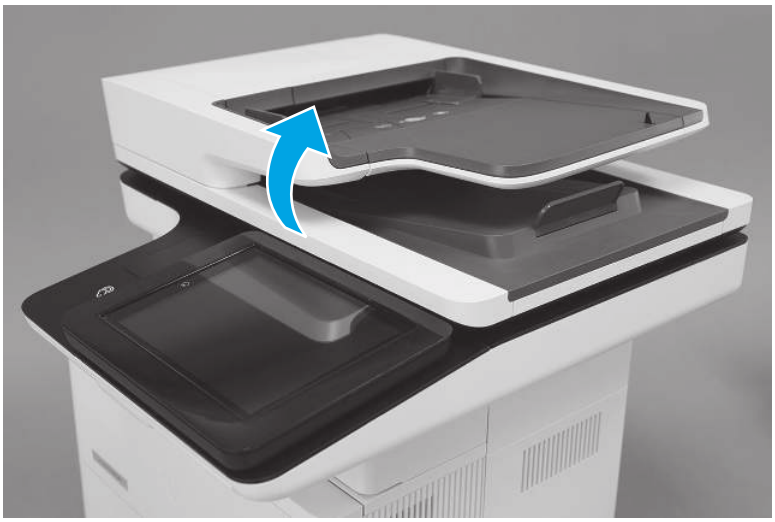
Post service test

Print a configuration page, and then make a copy using the flatbed glass to make sure that it is properly functioning.

Print a configuration page, and then make a copy using the document feeder to make sure that it is properly functioning.

1. Remove the white backing (M527/E52545/M528/E52645).
   a. Open the document feeder.

      Figure 4-394 **Open the document feeder**

   b. Remove the white backing and retention clips (attached to the document feeder behind the white backing).

      TIP: Use the edge of a coin to loosen the clips.

Figure 4-395 Remove the white backing

2. Remove the control panel.

   a. Open the document feeder.

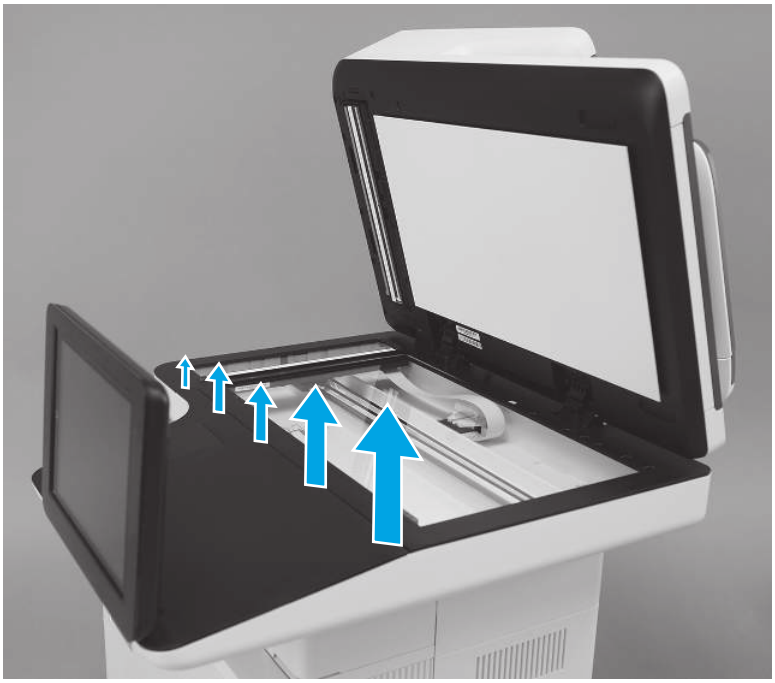
   NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

   Figure 4-396 Open the document feeder

   b. Beginning at the right side of the control-panel cover, carefully release five tabs along the top edge of the cover.

   NOTE: The thin black-plastic cover will separate from the white-plastic control-panel base.

Figure 4-397 Release five tabs

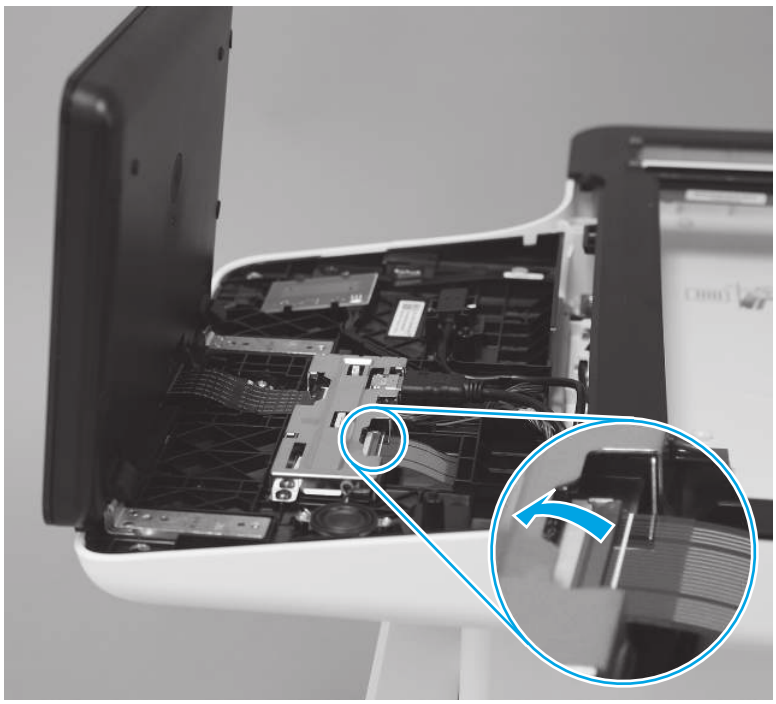


c. Continue to rotate the top edge of the cover away from the printer, and then remove the cover.

Figure 4-398 Remove the cover

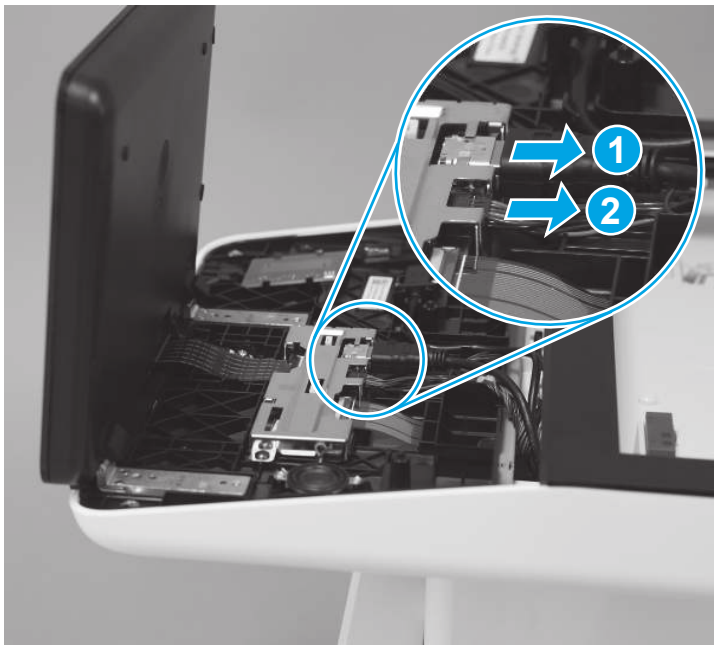
d. **M527/E52545/M528c/z, and E52645c/z only**: Open the connector latch to release the keyboard flat cable.

Figure 4-399 **Disconnect the FFC (M527/E52545/M528c/z, and E52645c/z)**



e. Disconnect one HDMI cable (callout 1) and one connector (callout 2).

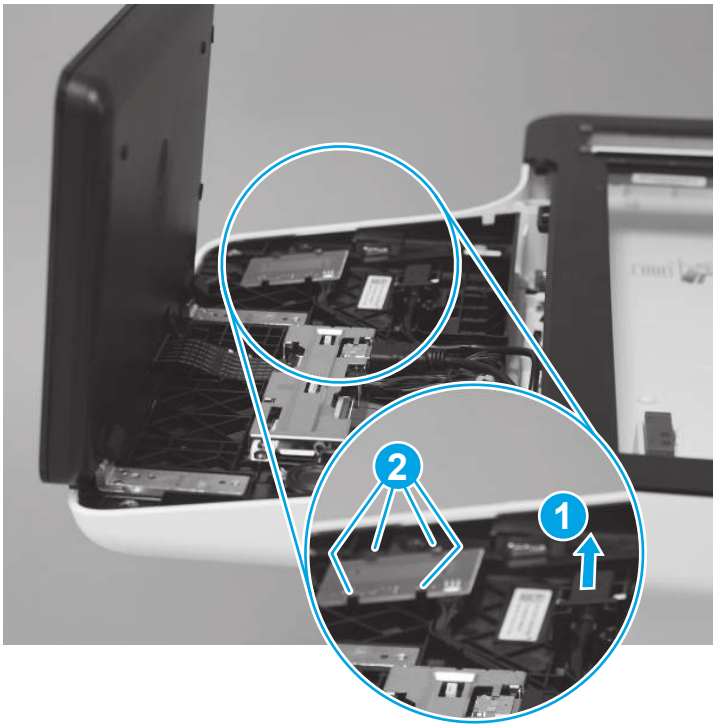
Figure 4-400 **Disconnect connectors**



f. Remove the USB cable (callout 1) from the holder.

NOTE: **M527z/E52545z only**: Release four tabs (callout 2), and then remove the near-field communication (NFC) printed circuit board.

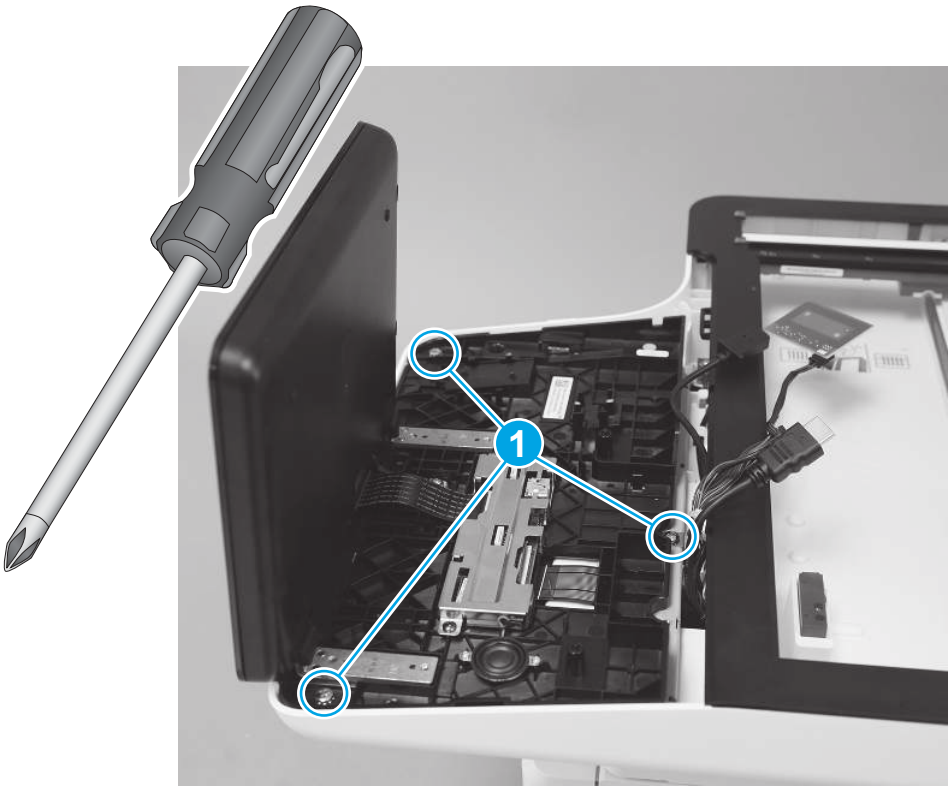
Figure 4-401 Remove USB cable and NFC PCA



g. Remove three screws (callout 1).

TIP: The screwdriver (supplied with the kit) has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

Figure 4-402 Remove three screws



h. Lift the front of the control panel off of the printer (callout 1), and then slide it toward the front of the printer (callout 2) to remove it.

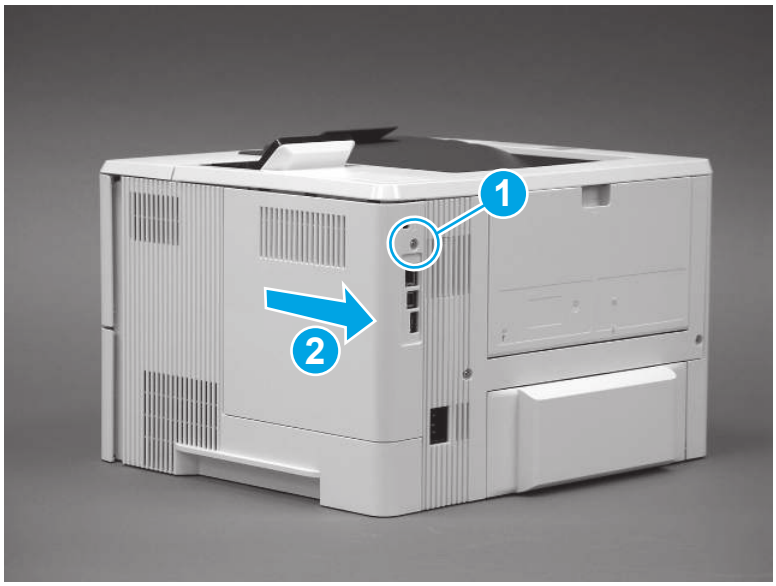
Figure 4-403 Remove the control panel

3. Remove the formatter cover.

- Do one of the following:

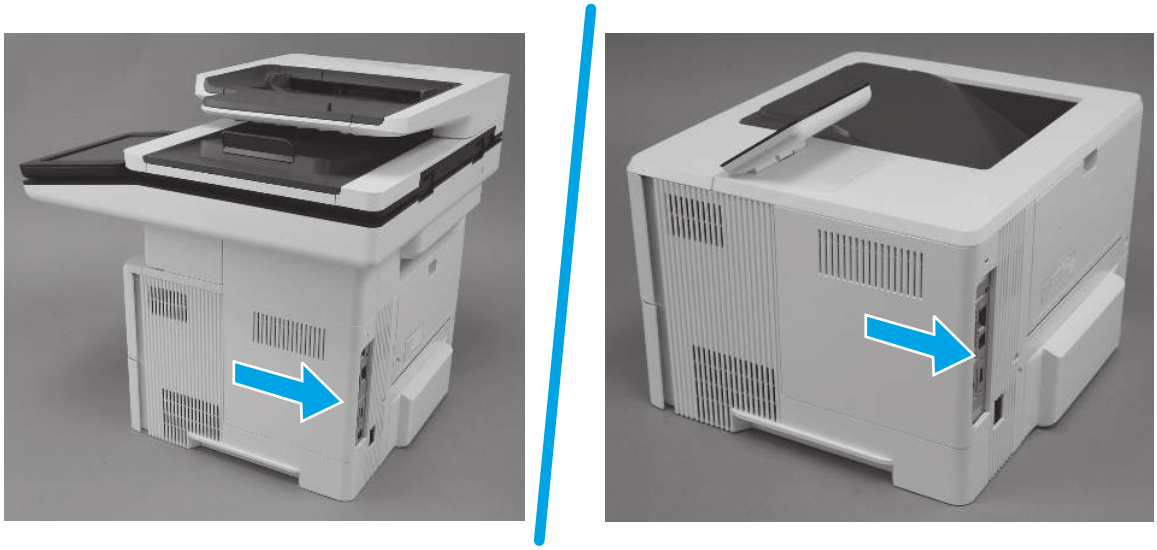
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

  Figure 4-404 **Remove the formatter cover (M501)**

- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-405 **Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

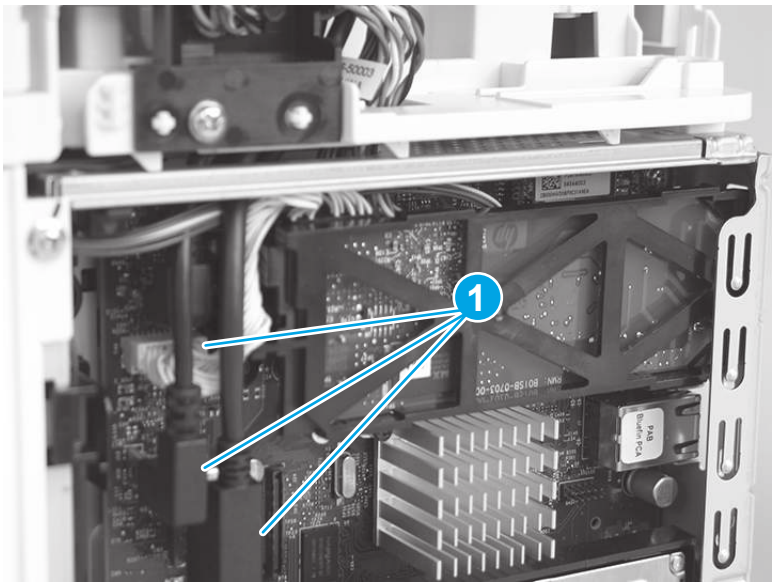
  

4. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

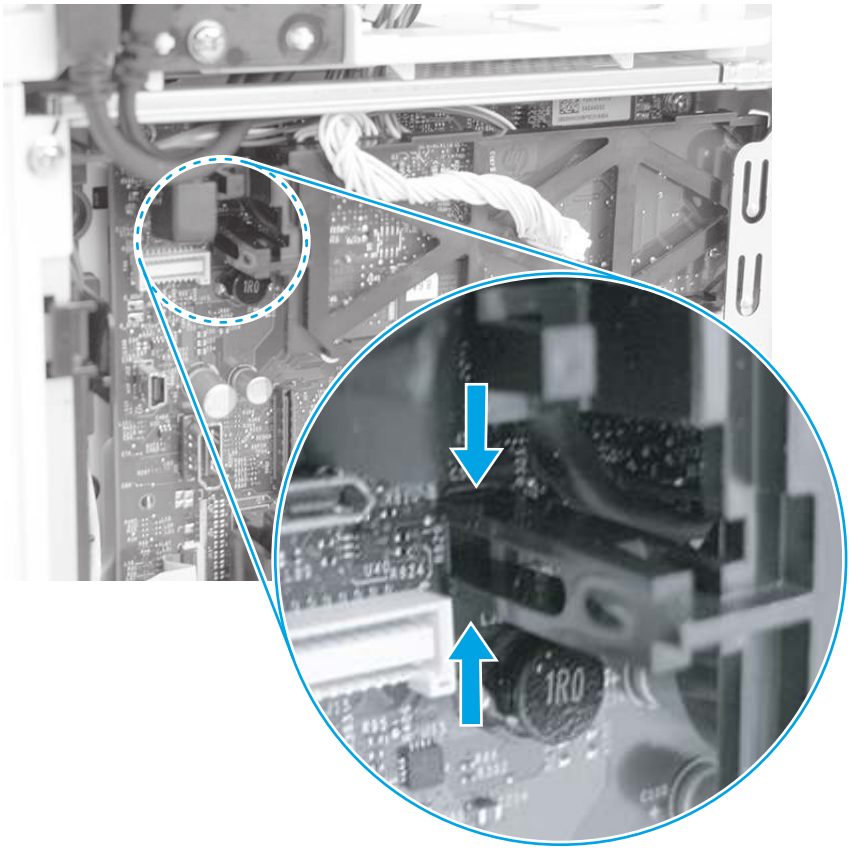
a. Disconnect three connectors (callout 1).

Figure 4-406 Disconnect three connectors



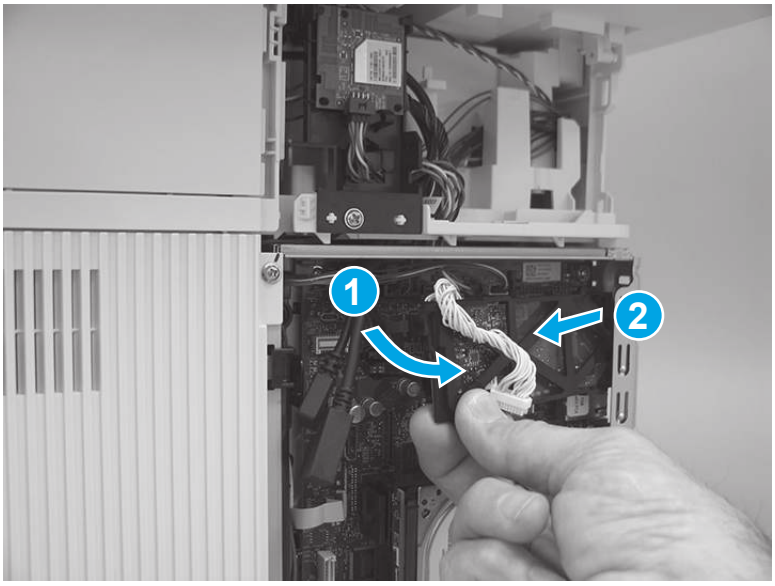
b. Pinch the retainer to release it.

Figure 4-407 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-408 Remove the fax PCA

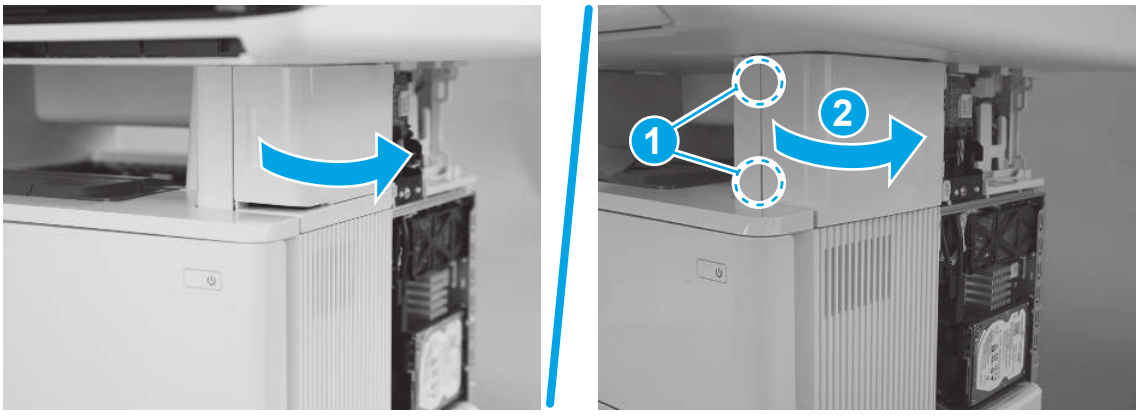


5. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-409 Open the door or release the cover



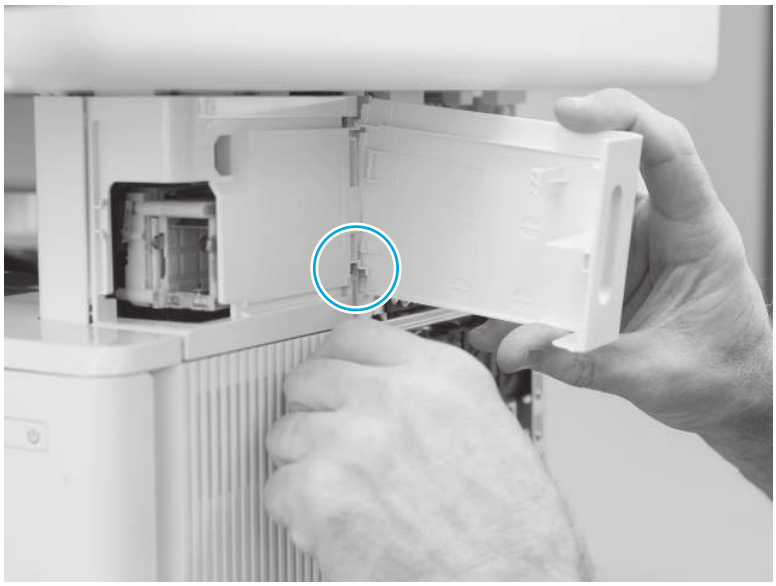
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-410 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-411 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-412 **Remove the door**

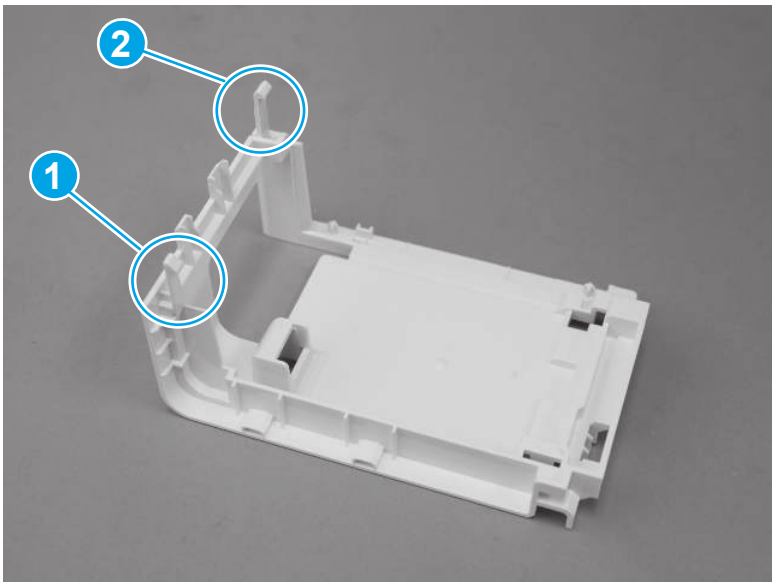
6. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

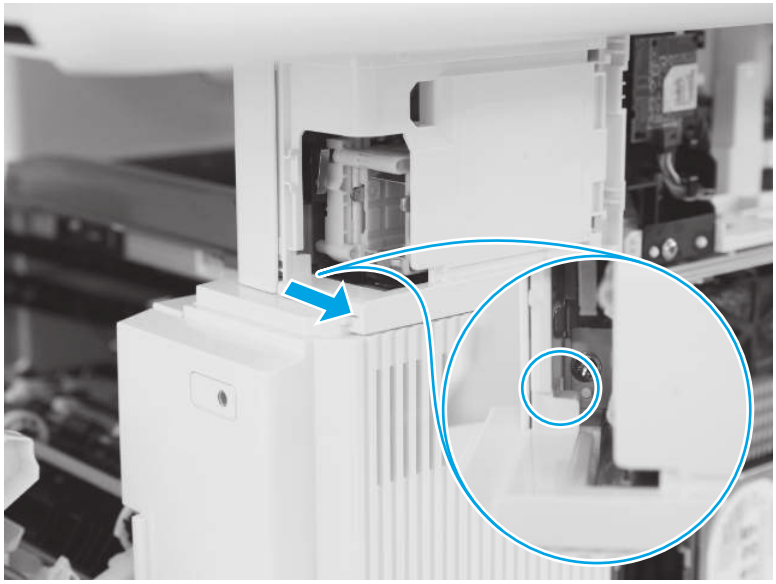
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-413 **Locate the tabs**



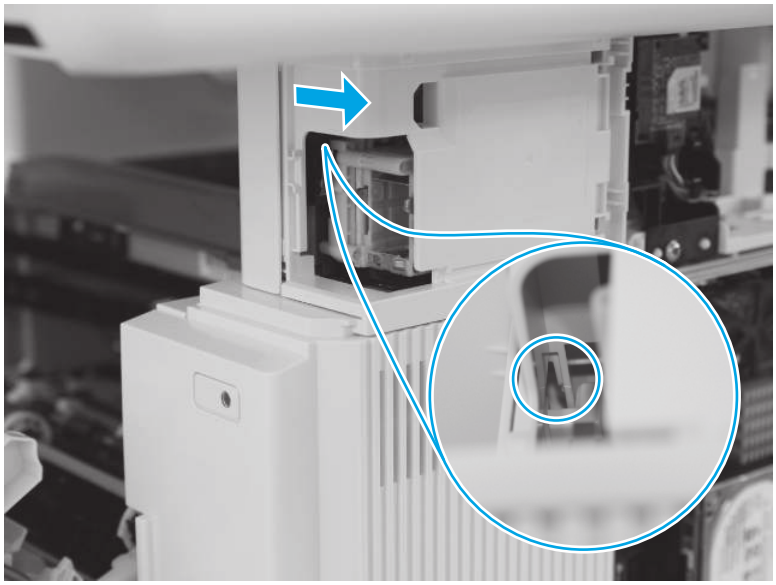
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-414 Release one tab



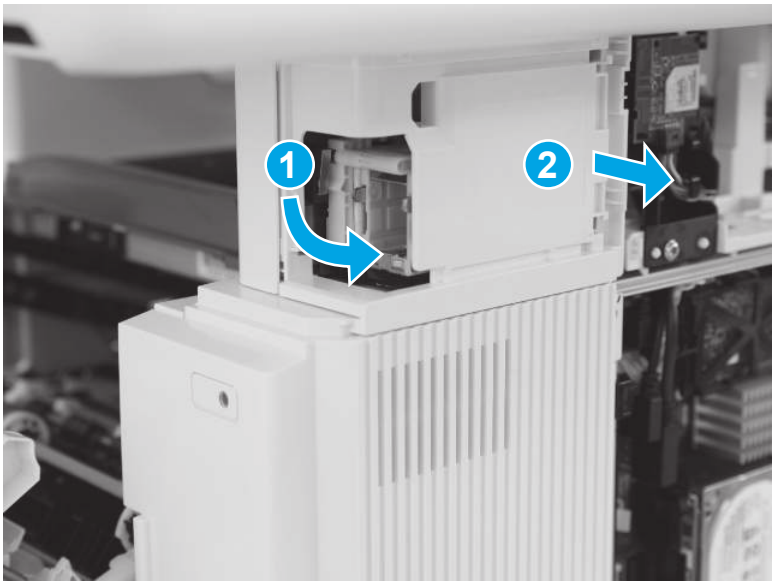
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-415 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

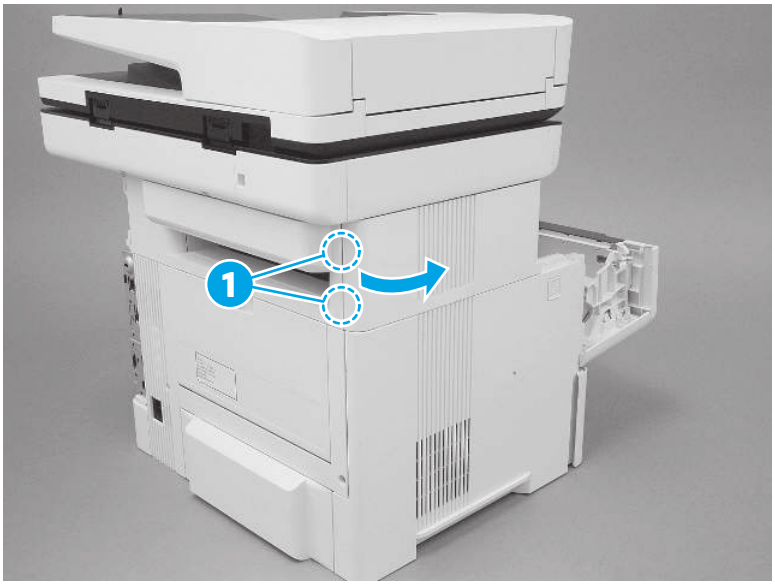
Figure 4-416 Remove the cover



7. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-417 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

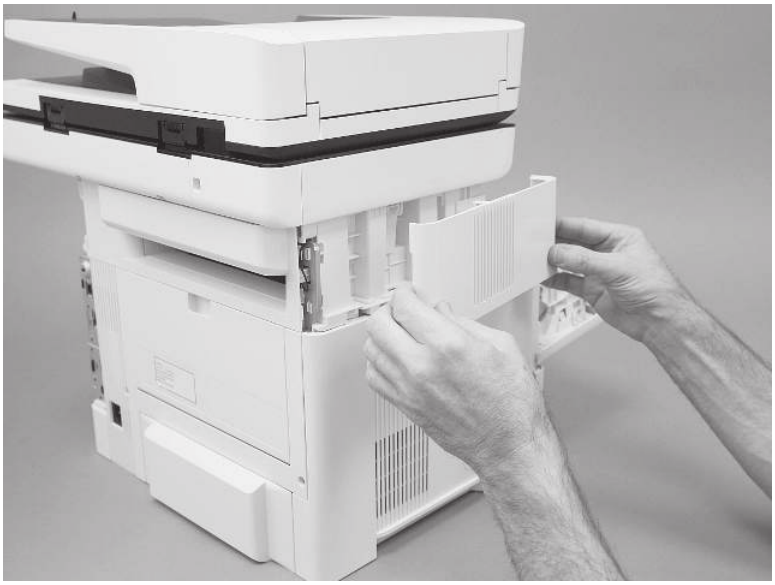
Figure 4-418 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-419 Slide the cover

d. Remove the cover.

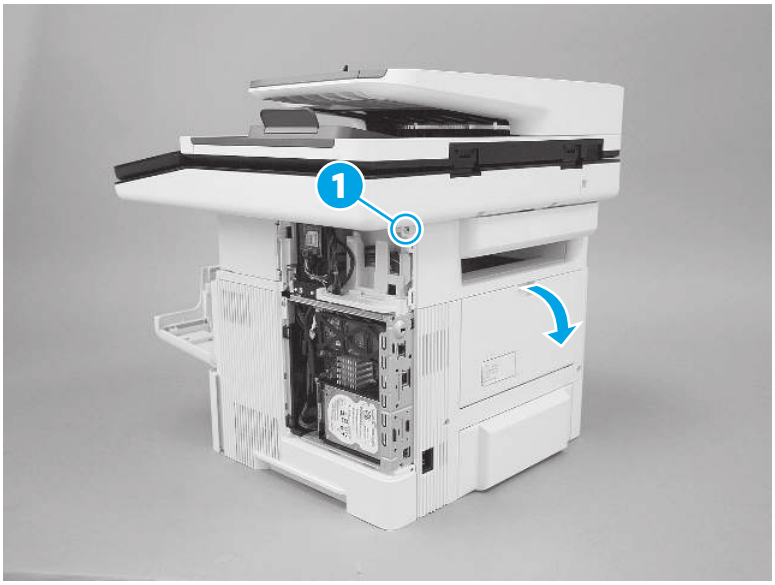
Figure 4-420 Remove the cover



8. Remove the top-rear cover (M527/E52545/M528/E52645).

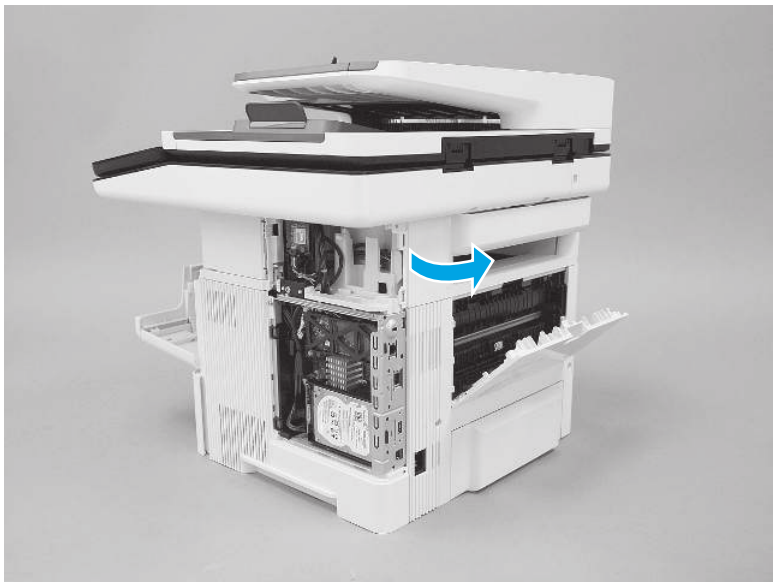
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-421 Remove one screw



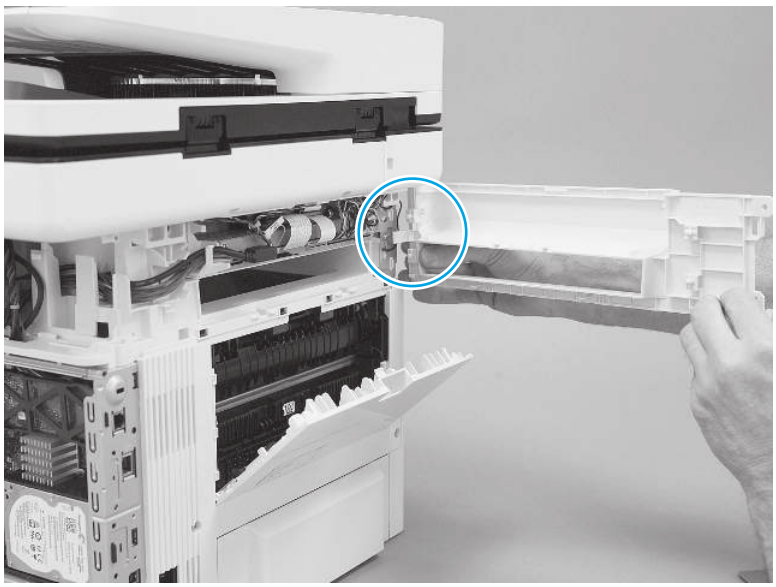
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-422 Rotate the cover



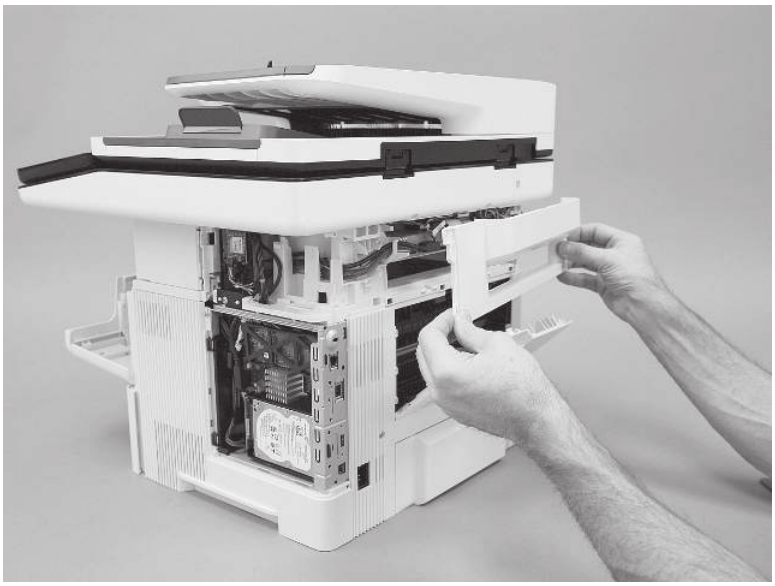
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-423 Release one boss



d. Remove the cover.

Figure 4-424 Remove the cover

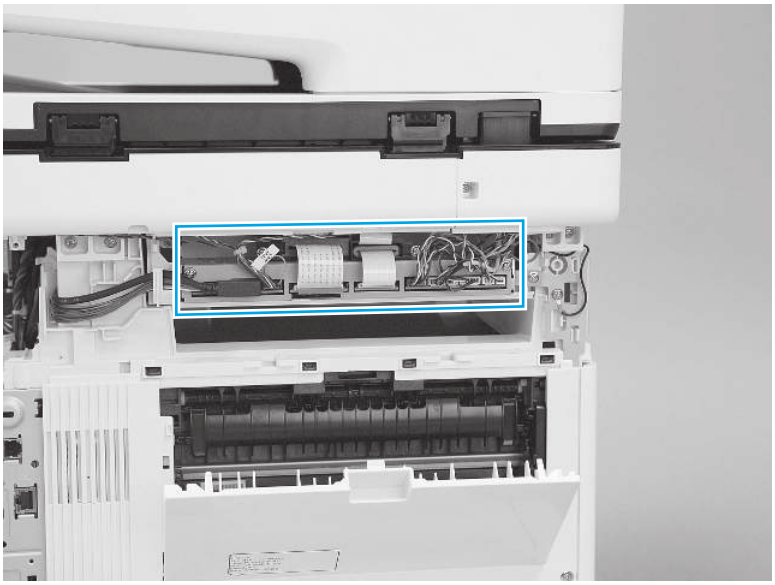


9. Remove the scanner control board (SCB).

a. Disconnect all of the connectors from the SCB.

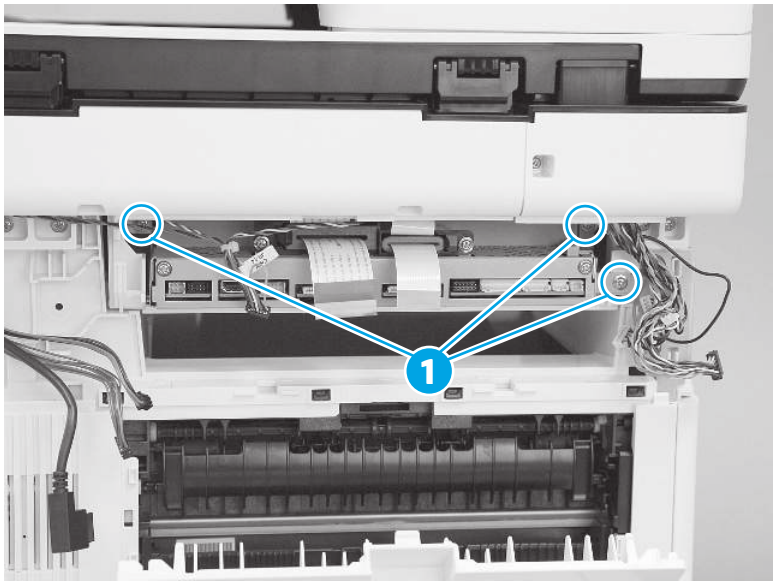
Reinstallation tip: There are eight wire-harness connectors, two flat-flexible cables (FFCs), and one high definition multimedia interface (HDMI) cable connector.

Figure 4-425 Disconnect all of the connectors



b. Remove three screws (callout 1).

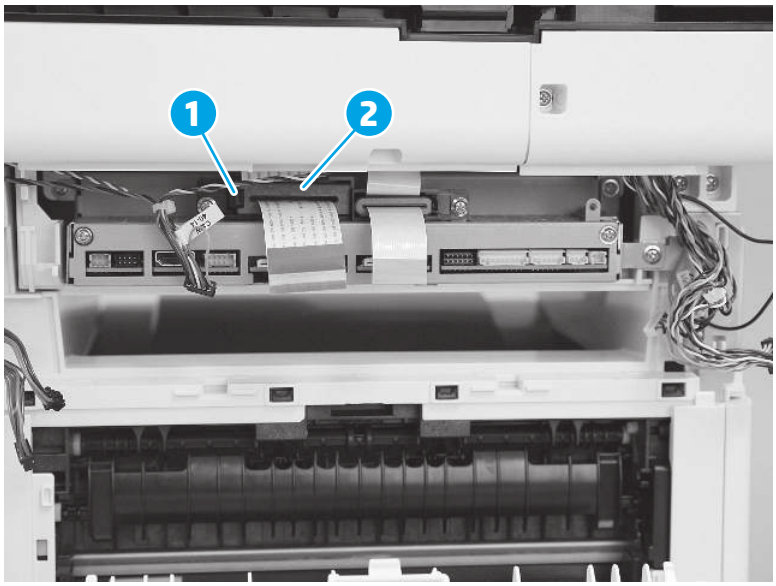
Figure 4-426 Remove three screws



c. Release one tab (callout 1), and then remove one ferrite from the holder (callout 2).

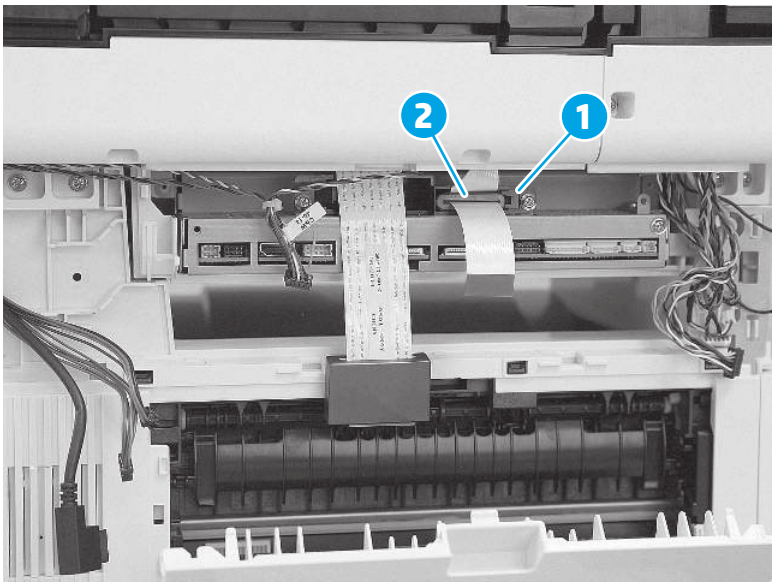
NOTE: The ferrite does not need to be removed from the FFC. Simply let it slide down the FFC until it stops, and then let it hang out of the way.

Figure 4-427 Remove one ferrite



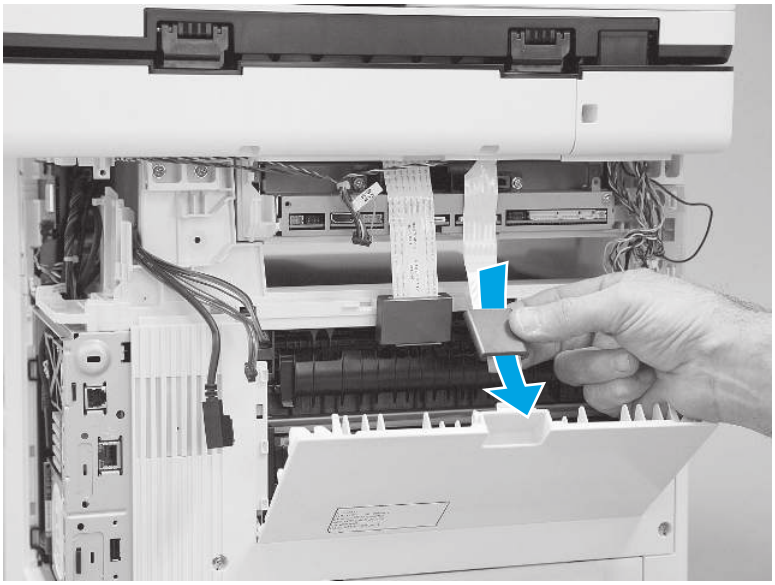
d. Release one tab (callout 1), and then remove one ferrite from the holder (callout 2).

Figure 4-428 Remove one ferrite



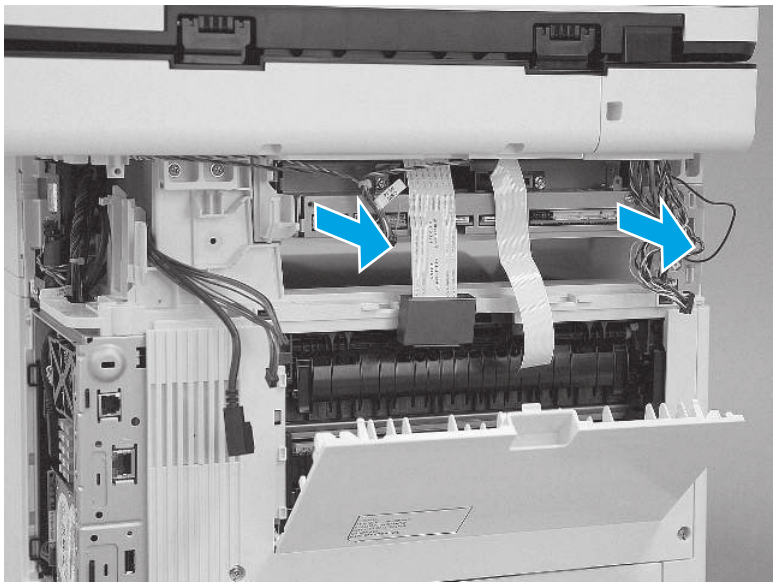
e. Slide the ferrite down the FFC to remove it.

Figure 4-429 Remove the ferrite from the FFC



f. Slide the SCB straight out of the printer.

Figure 4-430 **Slide the SCB out**

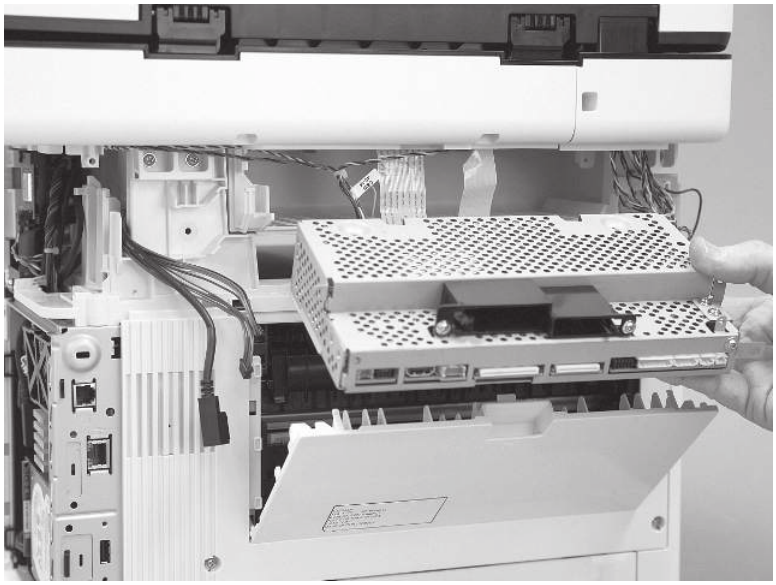


g. Remove the SCB.

Reinstallation tip: For a replacement SCB, do the following

1. Remove two screws, and then remove the SCB cage top cover.
2. Install the top cover on the replacement SCB.

Figure 4-431 **Remove the SCB**

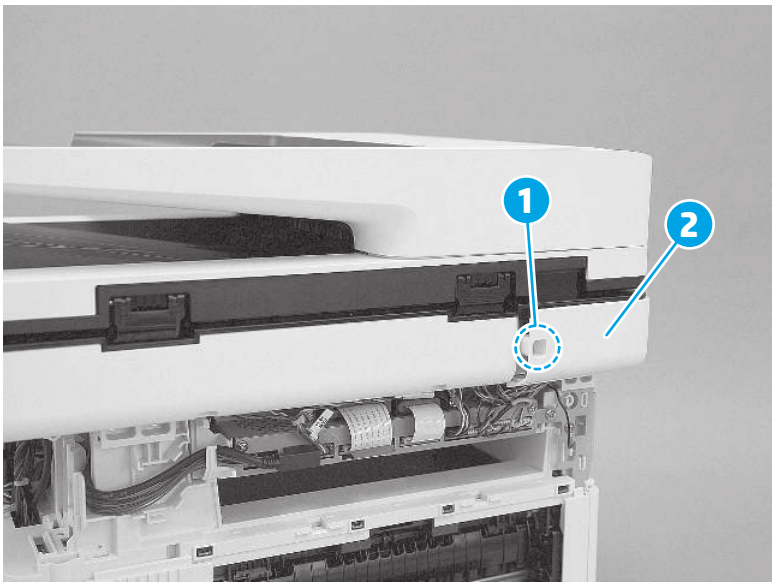


10. Remove the sub-scanner assembly (SSA) (M527/E52545/M528/E52645).

NOTE: The SCB is shown installed in the following steps, but was previously removed. The procedure for removing the document feeder (below) is correct for the printer.

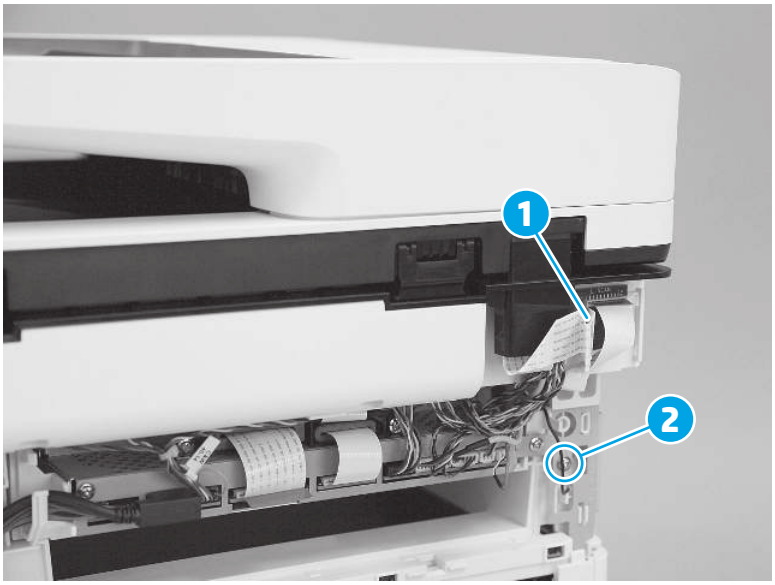
a. Remove one screw (callout 1), and then remove the cable cover (callout 2).

Figure 4-432 Remove the cover



b. Disconnect one flat-flexible cable (FFC; callout 1), and then remove one ground screw (callout 2).

Figure 4-433 Disconnect the FFC and the ground cable



c. Tilt the document feeder back until it stops (callout 1), and then lift it up until it stops (callout 2).

Figure 4-434 Raise the document feeder

d. Support the document feeder, and then use a small flat-blade screwdriver to release two tabs on the document feeder hinges.

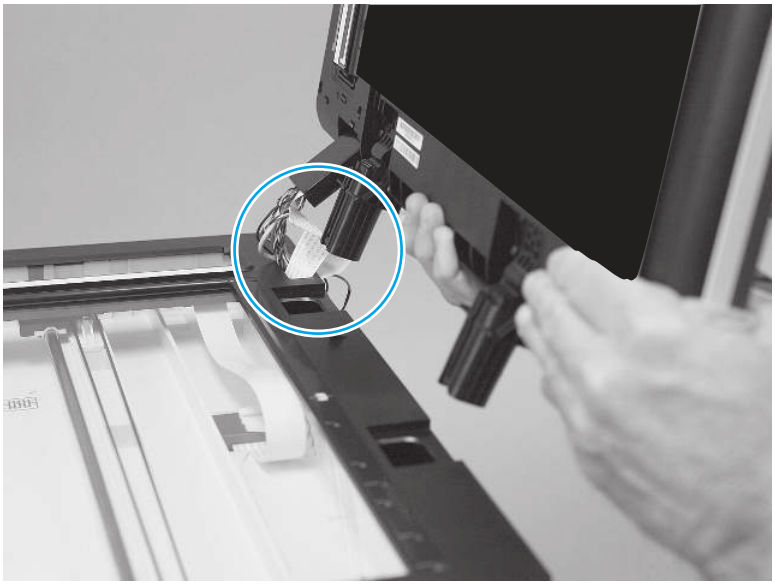
NOTE: The tabs are located on the front side (scanner flatbed glass) of the hinges. Use the figure to locate the tabs.

Figure 4-435 Release two tabs

e. Lift the document feeder up to remove it.

NOTE: While removing the document feeder, carefully pass the wire harnesses and the FFC through the opening in the scanner.

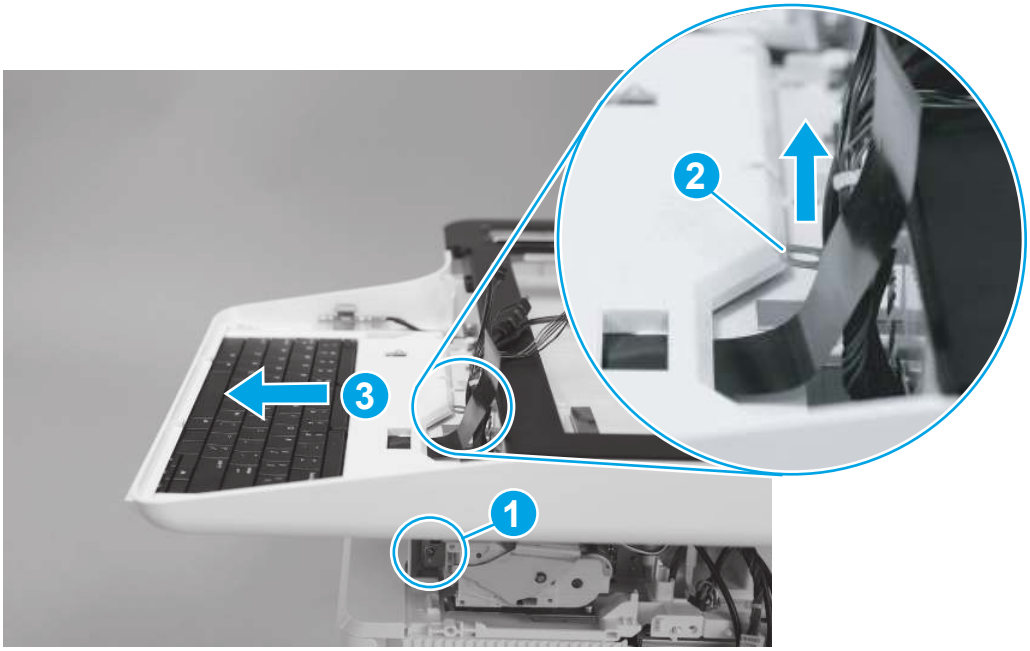
Figure 4-436 Remove the document feeder



f. Remove one screw (callout 1), and then remove the control panel grounding clip (callout 2).

NOTE: M527c/z, E52545c/z, M528c/z, and E52645c/z only: Remove the keyboard (callout 3).

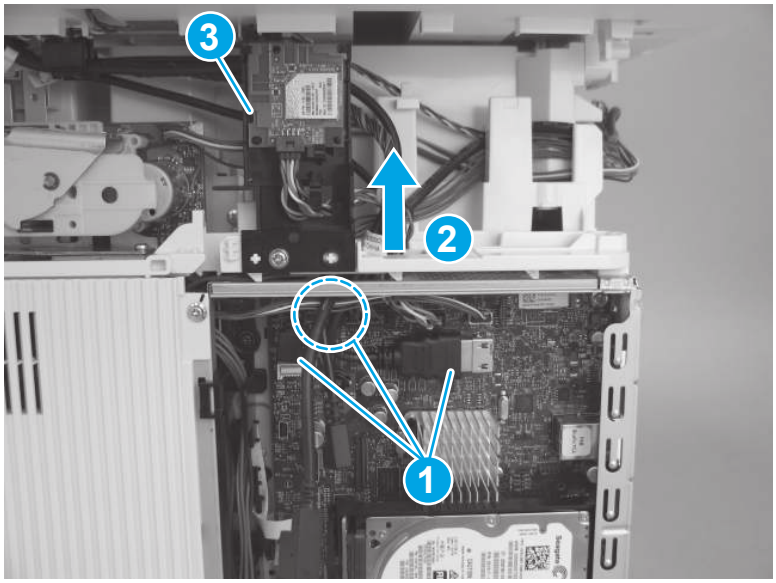
Figure 4-437 Remove one screw



g. Disconnect three connectors (callout 1), and then pass the wire harnesses and cables through the opening in the cover (callout 2).

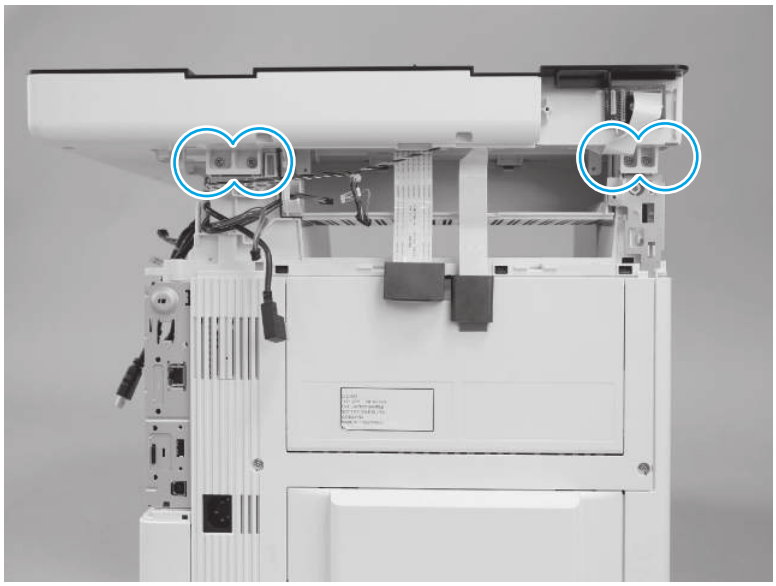
TIP: It might be easier if the WiFi PCA and holder (callout 3) is detached from the printer, and then moved out of the way.

Figure 4-438 Disconnect cables and connectors



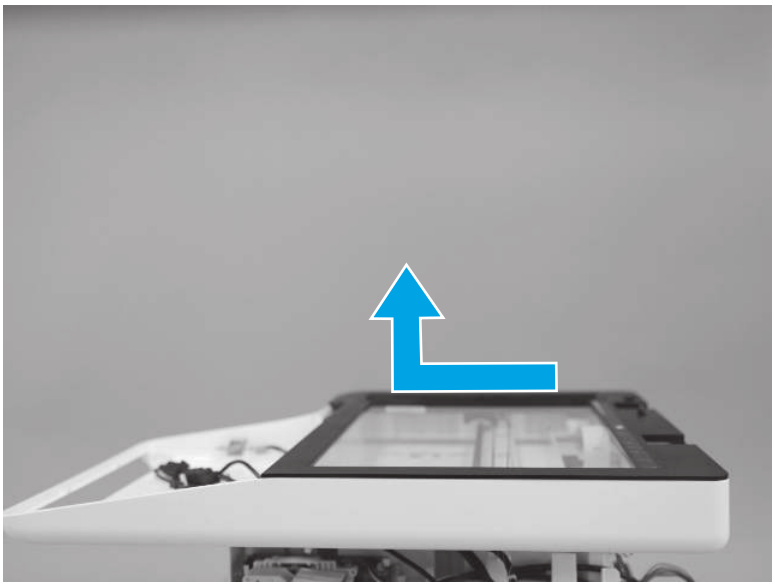
h. Remove four screws.

Figure 4-439 Remove four screws



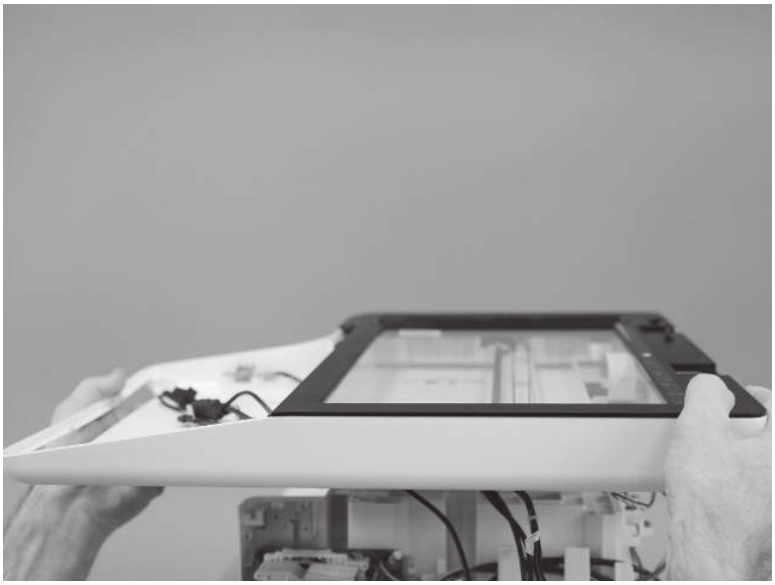
i. Slide the SSA toward the front of the printer to release it.

Figure 4-440 Release the SSA



j. Remove the SSA.

Figure 4-441 Remove the SSA



11. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

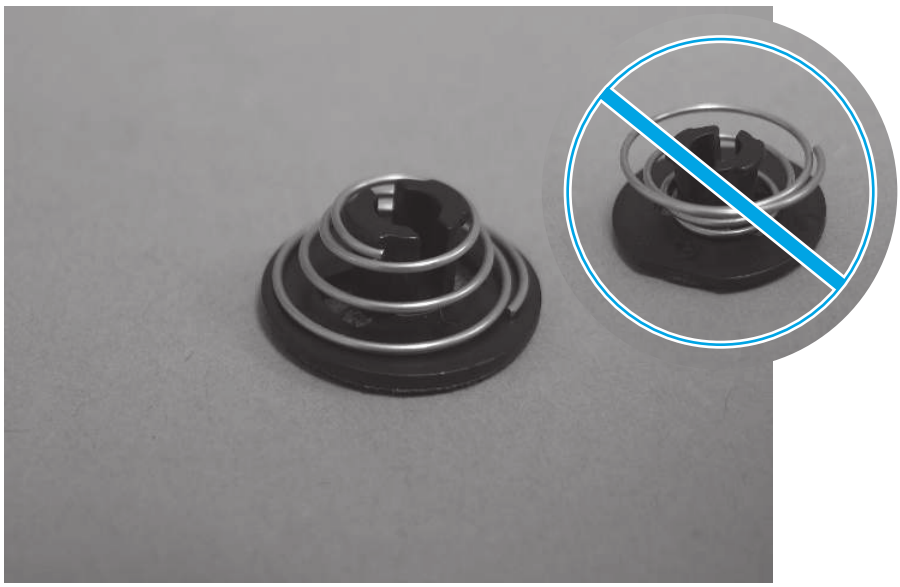
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

12. Reverse the removal steps to install the assembly. Also use the following **special installation instructions**.

Install a replacement white backing

a. Verify that the springs are positioned correctly on the replacement retention clips.

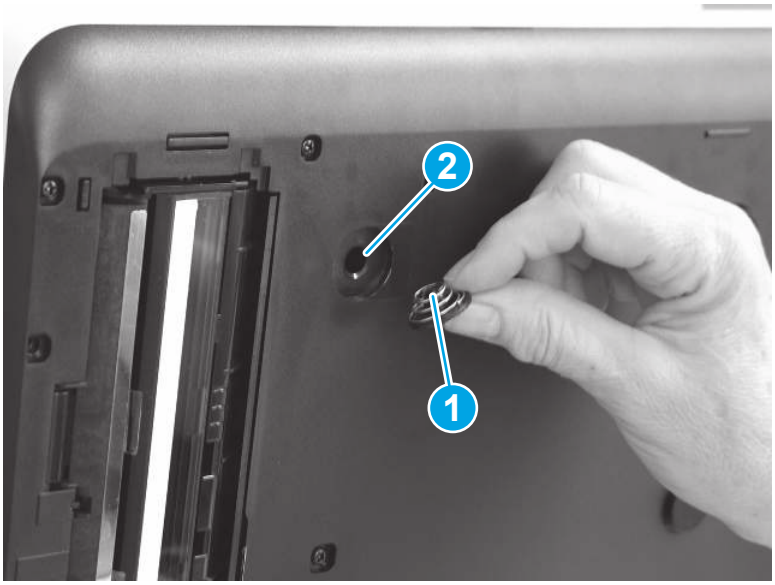
Figure 4-442 **Check the retention clip spring**



b. Install the clip (callout 1) in the opening (callout 2) in the document feeder.

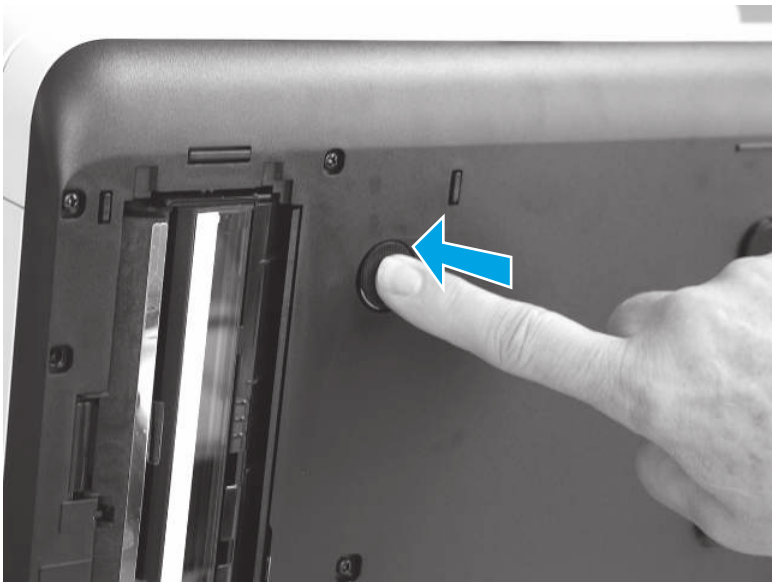
NOTE: Make sure that the springs are correctly installed. See the previous step.

Figure 4-443 Install the retention clip



c. Press the clip to make sure it is securely installed.

Figure 4-444 Press the retention clip



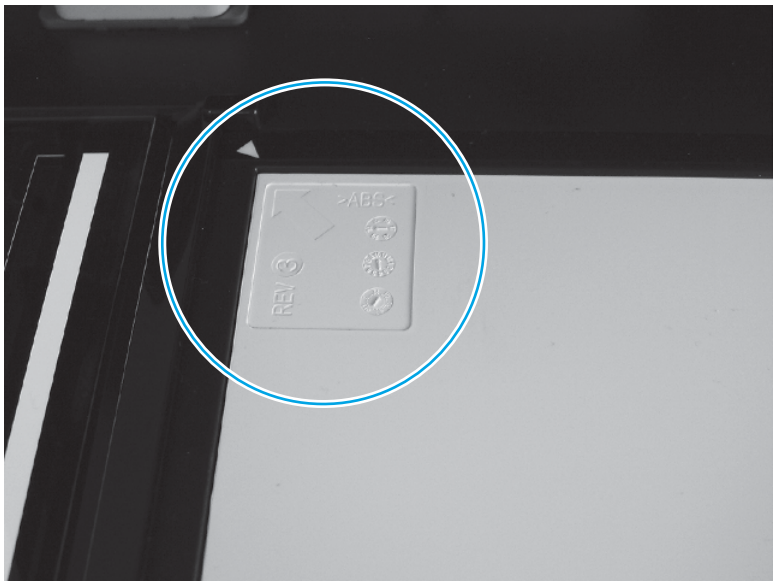
d. Remove the protective film off of each adhesive square.

Figure 4-445 White backing adhesive squares

e. Position the replacement white backing on the image scanner glass.

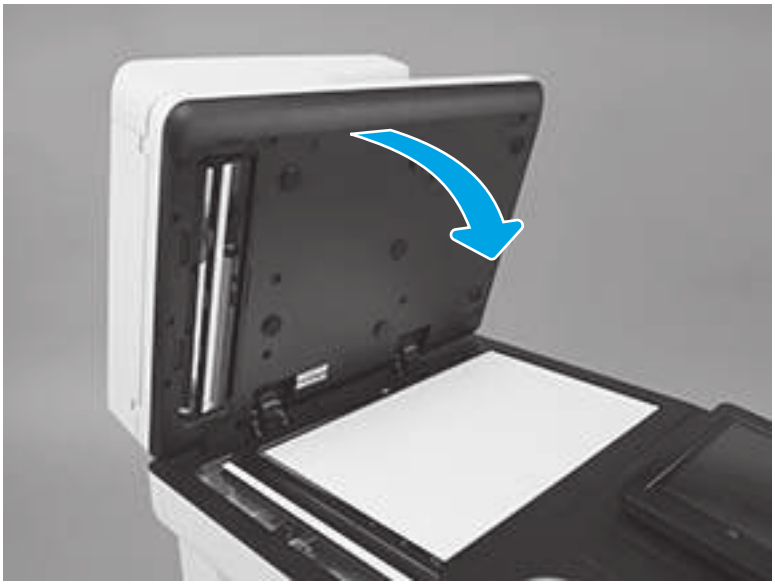
NOTE: Make sure that the corner with the embossed arrow on the white backing is positioned against the corner with the arrow on the scanner.

Figure 4-446 Install the white backing



f. Close the document feeder.

Figure 4-447 Close the document feeder



g. Open the document feeder and press on the white backing at the location of each retention clip to ensure that the backing is securely attached to the adhesive on the clips.

Figure 4-448 Check the white backing

h. Close the document feeder.

Figure 4-449 Close the document feeder

Field replaceable units (FRUs)

Learn how to remove and replace the printer FRU assemblies.

Removal and replacement: Scanner control board (MFP)

Learn how to remove and replace the scanner control board (SCB).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the SCB.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-27 Part information

Part number	Part description
B5L47-67903	Scanner control board kit with instruction guide

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

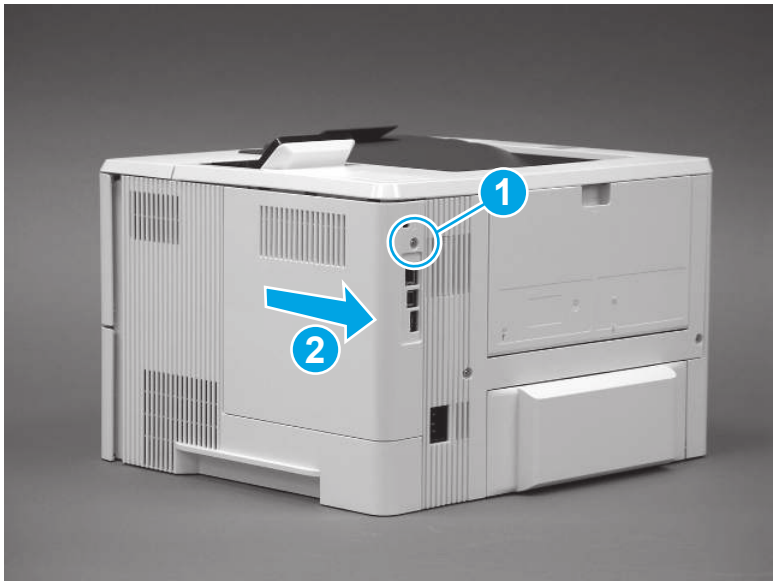
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

Use the flatbed glass to make a copy of the configuration page.

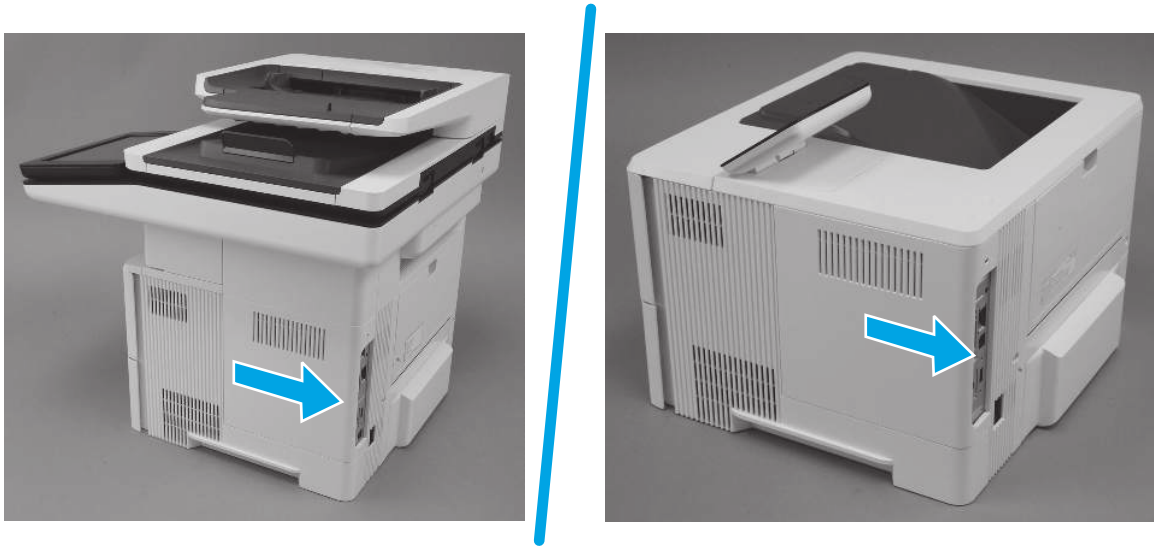
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-450 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

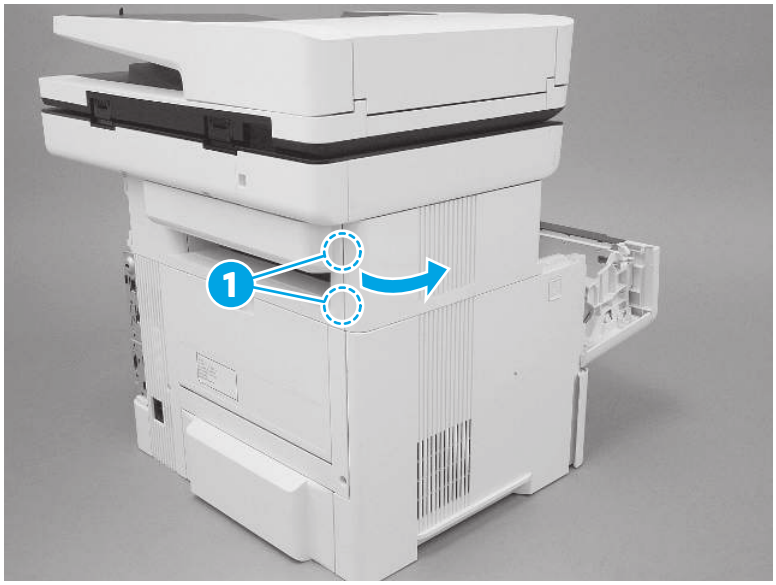
Figure 4-451 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



2. Remove the top-left cover (M527/E52545M528/E52645).

   a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-452 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

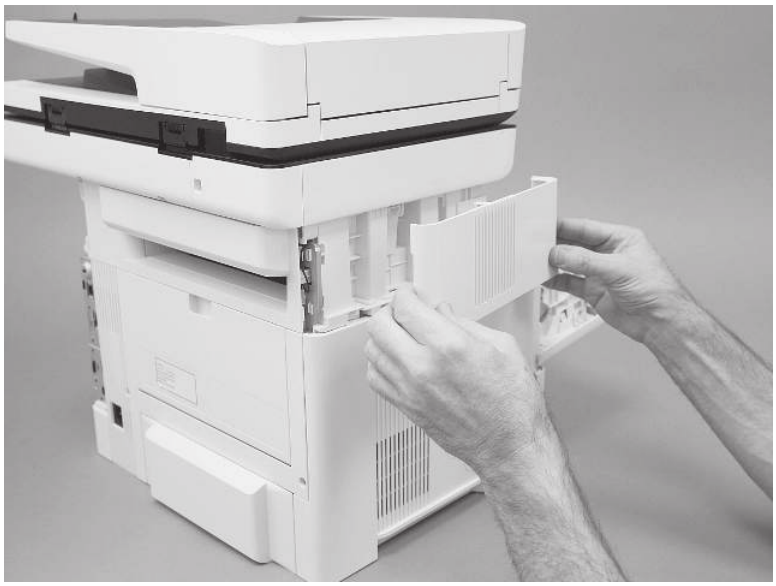
Figure 4-453 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-454 Slide the cover

d. Remove the cover.

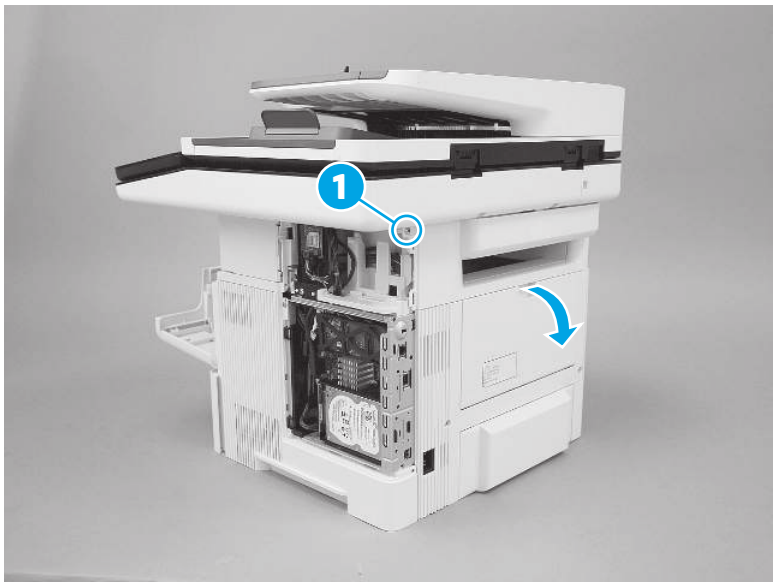
Figure 4-455 Remove the cover



3. Remove the top-rear cover (M527/E52545/M528/E52645).

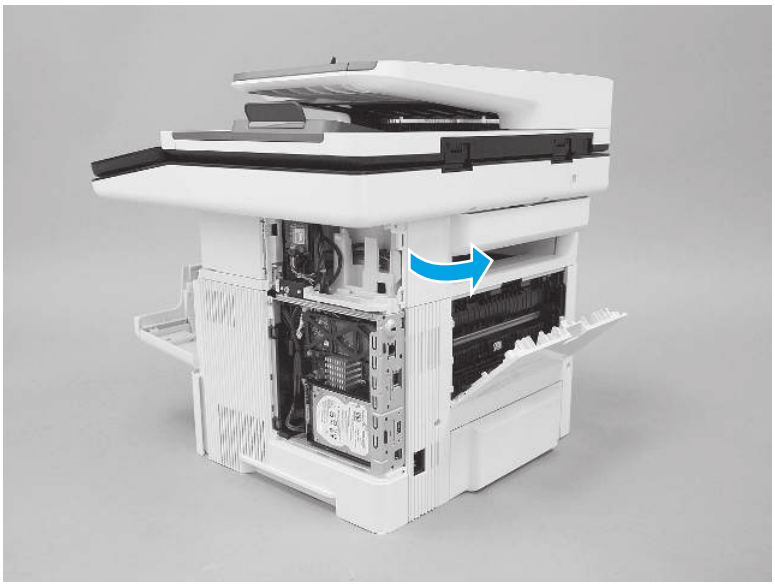
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-456 Remove one screw



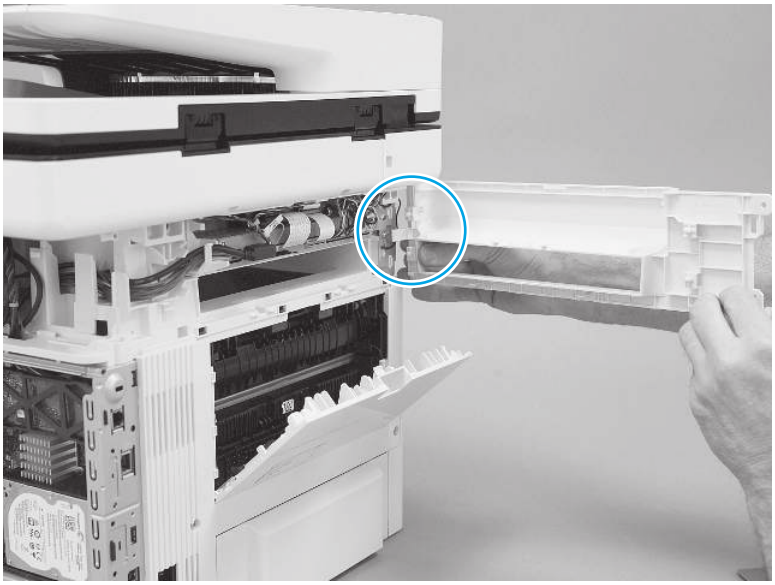
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-457 Rotate the cover



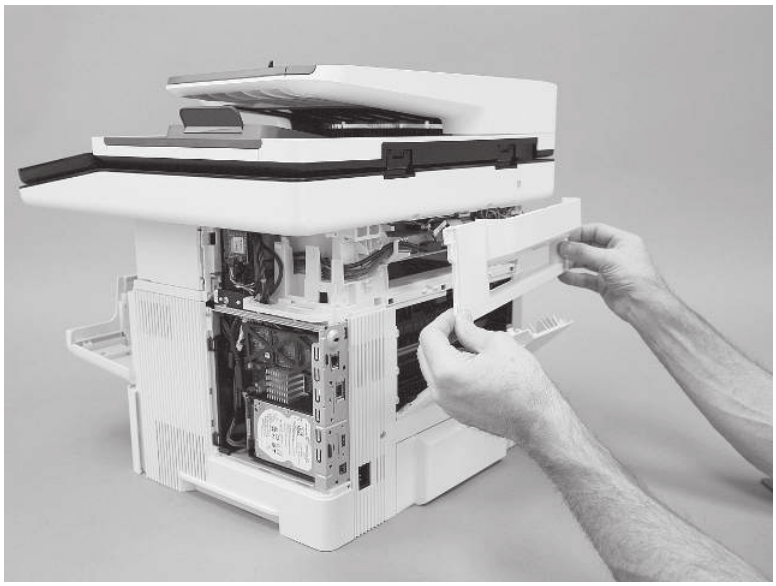
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-458 Release one boss



d. Remove the cover.

Figure 4-459 Remove the cover

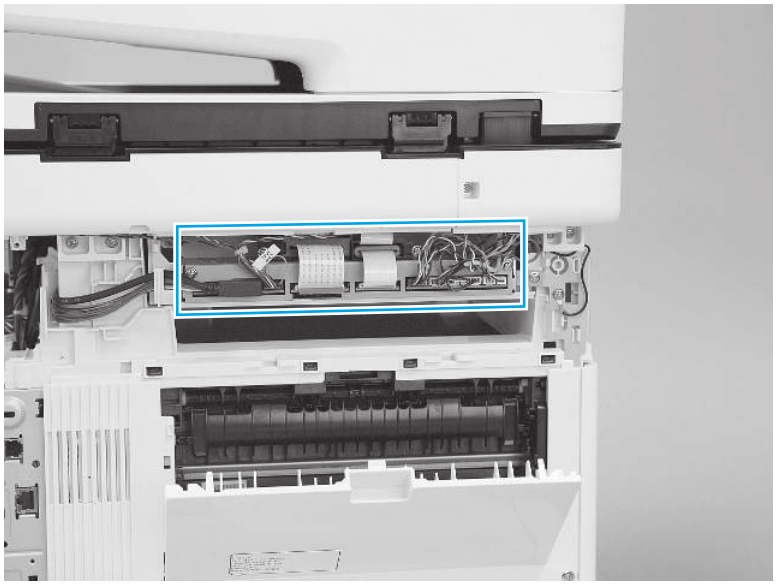


4. Remove the scanner control board (SCB).

a. Disconnect all of the connectors from the SCB.

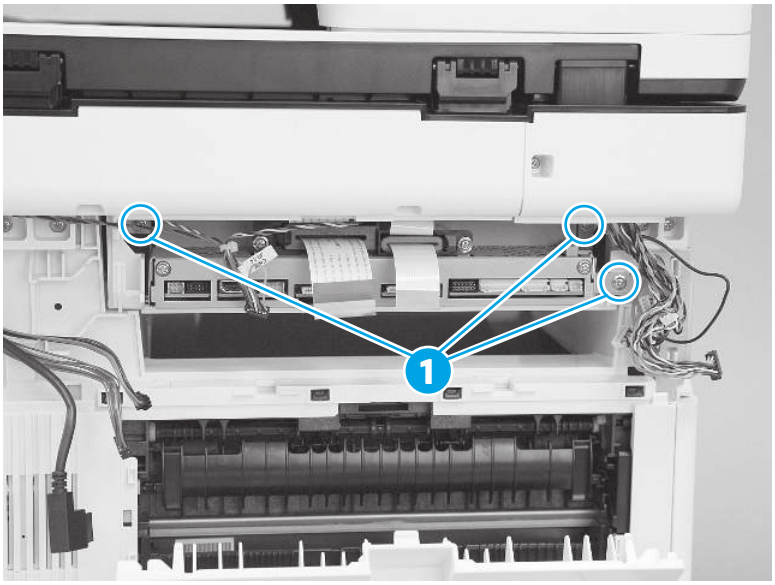
Reinstallation tip: There are eight wire-harness connectors, two flat-flexible cables (FFCs), and one high definition multimedia interface (HDMI) cable connector.

Figure 4-460 Disconnect all of the connectors



b. Remove three screws (callout 1).

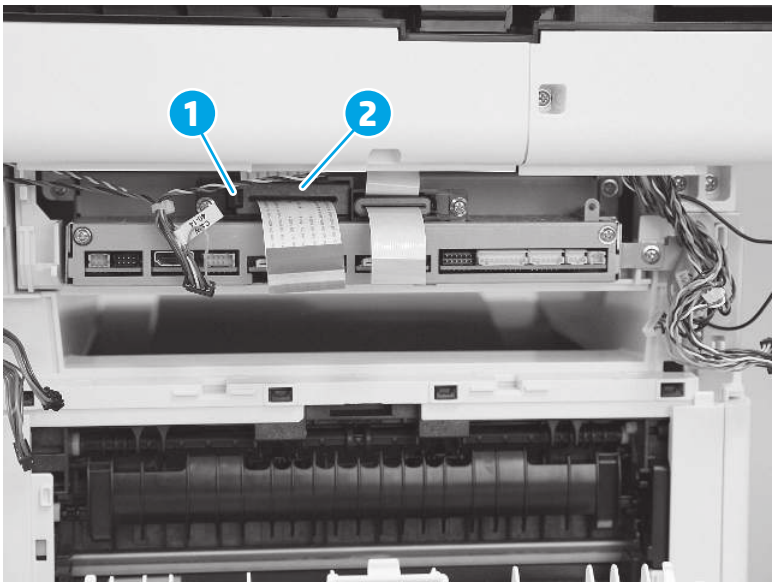
Figure 4-461 Remove three screws



c. Release one tab (callout 1), and then remove one ferrite from the holder (callout 2).

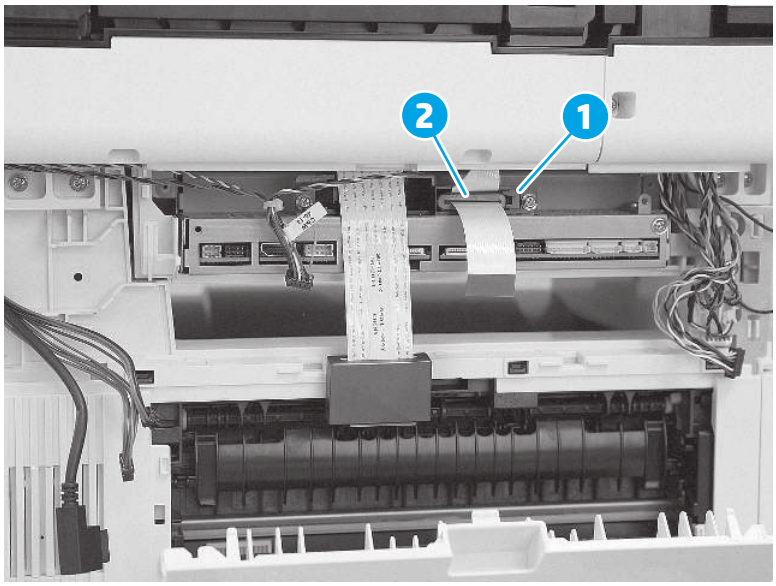
NOTE: The ferrite does not need to be removed from the FFC. Simply let it slide down the FFC until it stops, and then let it hang out of the way.

Figure 4-462 Remove one ferrite



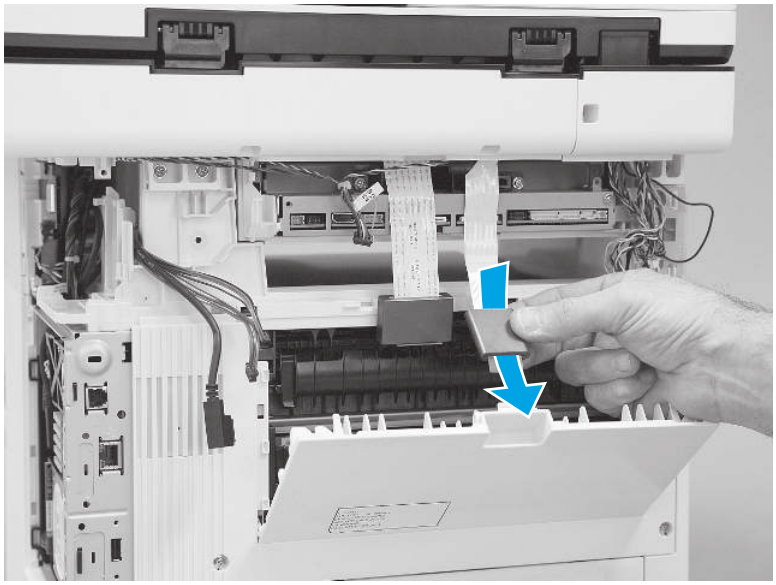
d. Release one tab (callout 1), and then remove one ferrite from the holder (callout 2).

Figure 4-463 Remove one ferrite



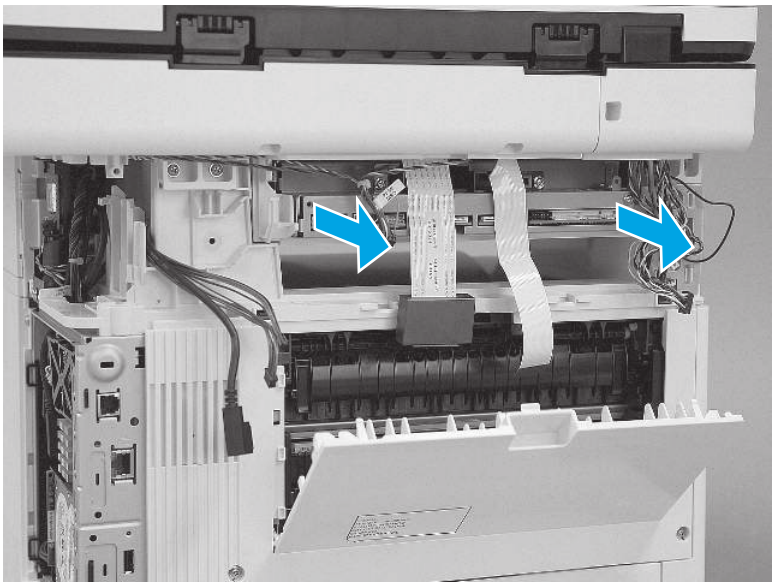
e. Slide the ferrite down the FFC to remove it.

Figure 4-464 Remove the ferrite from the FFC



f. Slide the SCB straight out of the printer.

Figure 4-465 Slide the SCB out

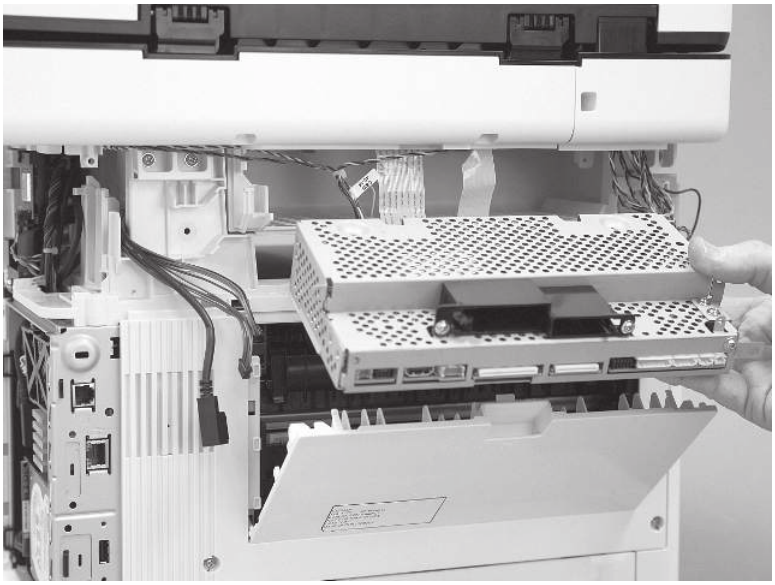


g. Remove the SCB.

Reinstallation tip: For a replacement SCB, do the following

1. Remove two screws, and then remove the SCB cage top cover.
2. Install the top cover on the replacement SCB.

Figure 4-466 Remove the SCB



5. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Near field communication printed-circuit assembly (M527z/E52545z)

Learn how to remove and replace the near field communication (NFC) printed-circuit assembly (PCA).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the NFC.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-28 Part information

Part number	Part description
B5L24-60001	Near field communication (NFC) PCA (M527z/E52545z) **NOTE:** This NFC is also used for the M506x/E50045x printer.

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use an NFC enabled device to print a job from the printer.

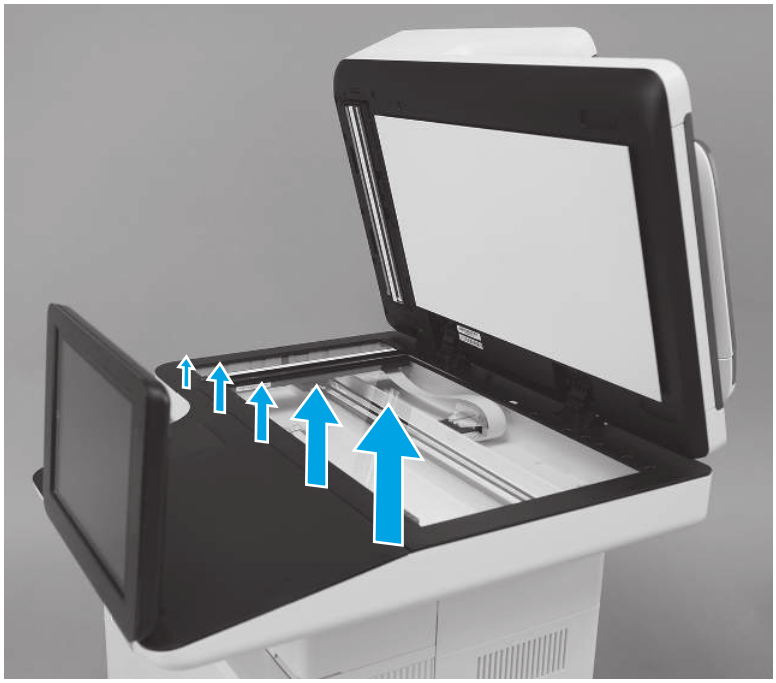
1. Remove the control-panel cover.
   a. If the document feeder is not open, open it now.

   NOTE: If the control panel is not fully tilted forward, tilt it forward now until it stops.

   Figure 4-467 Open the document feeder

b. Beginning at the right side of the control-panel cover, carefully release five tabs along the top edge of the cover.

Figure 4-468 Release five tabs



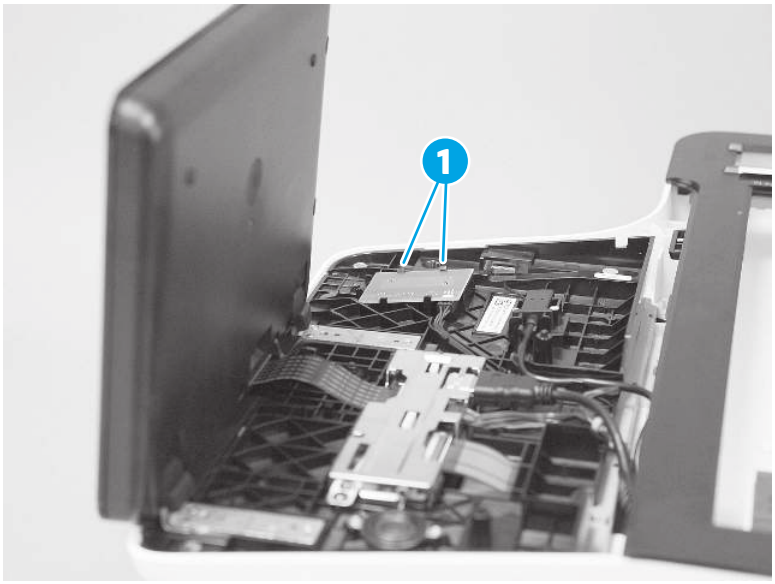
c. Continue to rotate the top edge of the cover away from the printer, and then remove the cover.

Figure 4-469 Remove the cover

2. Remove the NFC PCA.

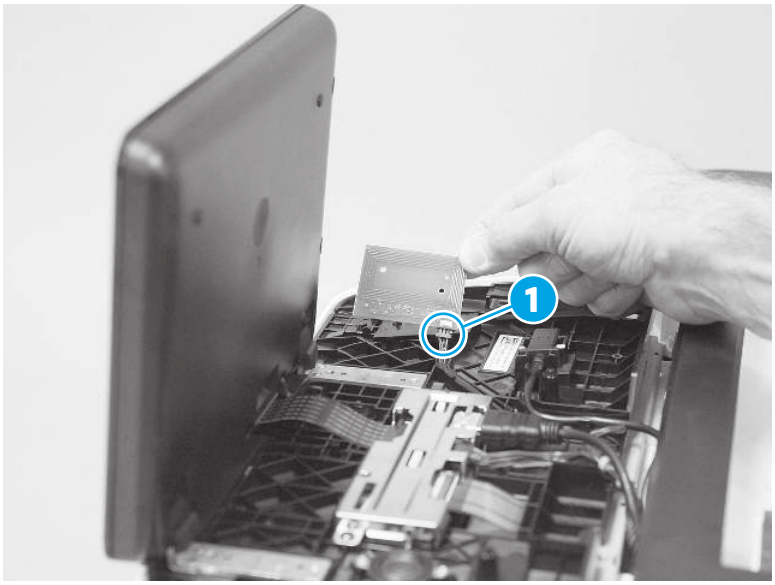
a. Release two tabs (callout 1).

Figure 4-470 Release two tabs



b. Turn the NFC PCA over to access the bottom side, disconnect one connector (callout 1), and then remove the NFC PCA.

Figure 4-471 Remove the NFC PCA



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Wireless printed-circuit board (WiFi) (M506x/E50045x)

Learn how to remove and replace the wireless PCA.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the wireless PCA.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-29 Part information

Part number	Part description
1150-7968	Wireless PCA (M506x/E50045x)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use a wireless device to print a job from the printer.

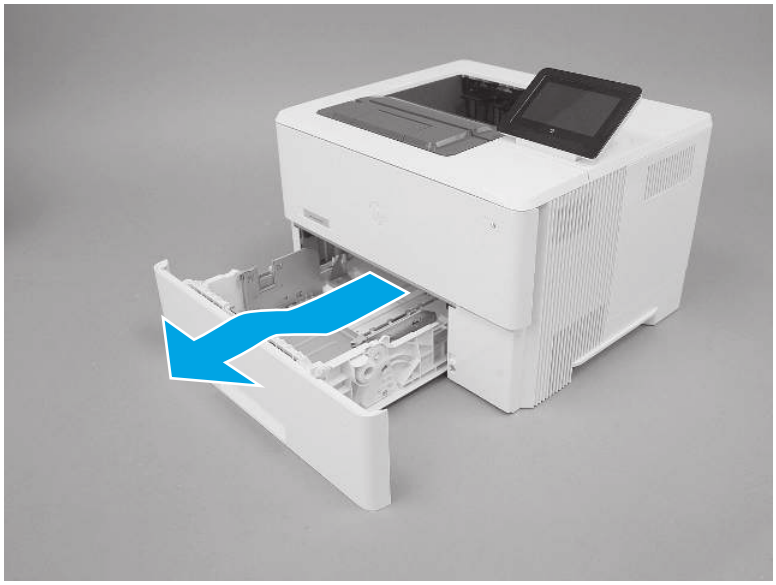
1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

   Figure 4-472 **Pull the tray out until it stops**

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

   NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-473 Release and remove the tray

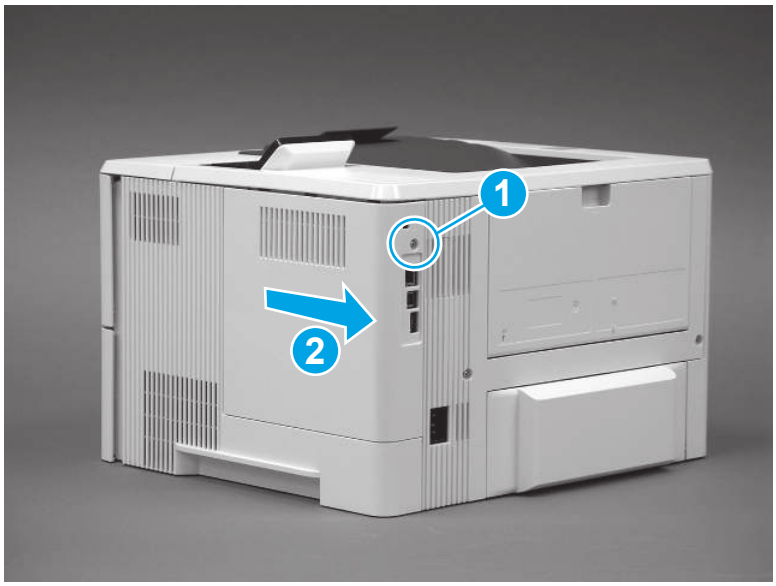


2. Remove the formatter cover.

   - Do one of the following:

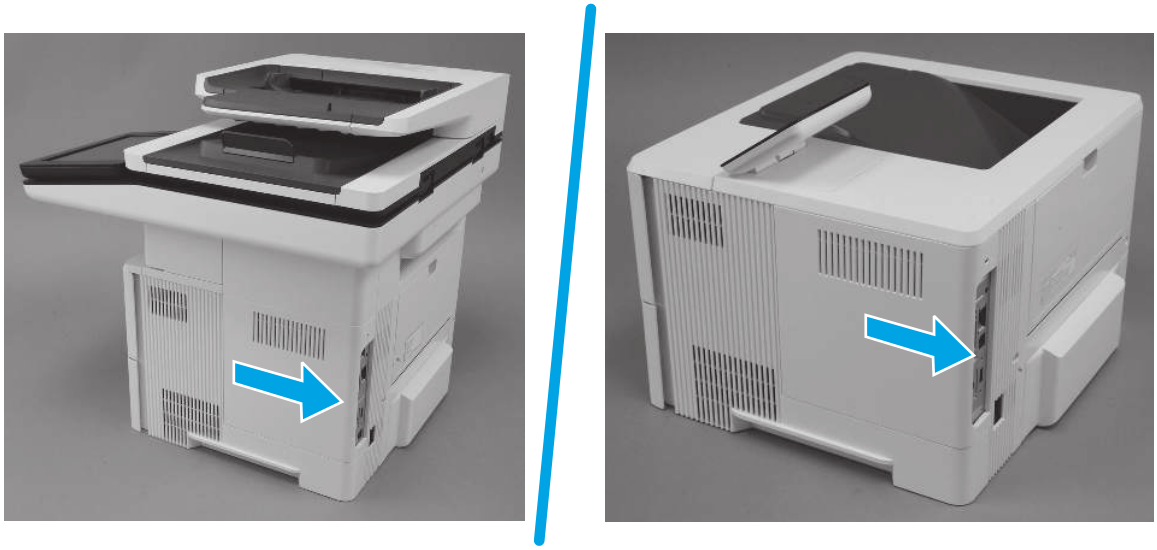
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-474 Remove the formatter cover (M501)

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

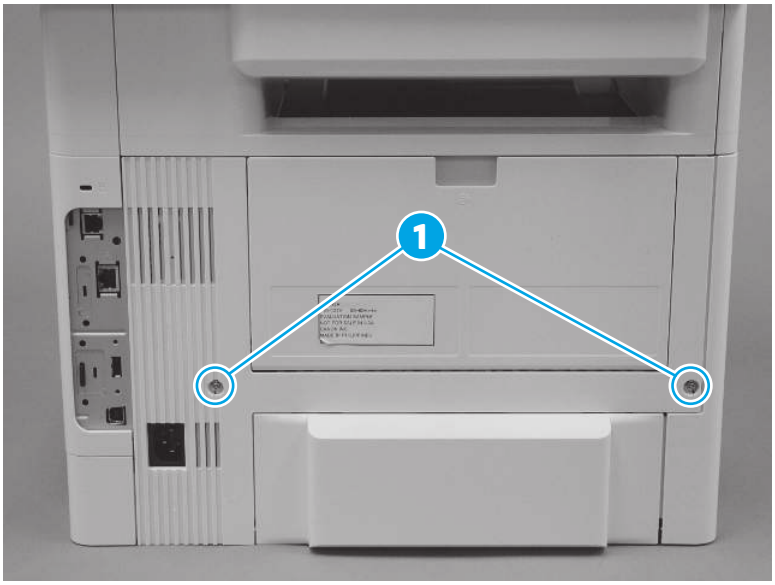
Figure 4-475 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



3. Remove the rear door assembly.

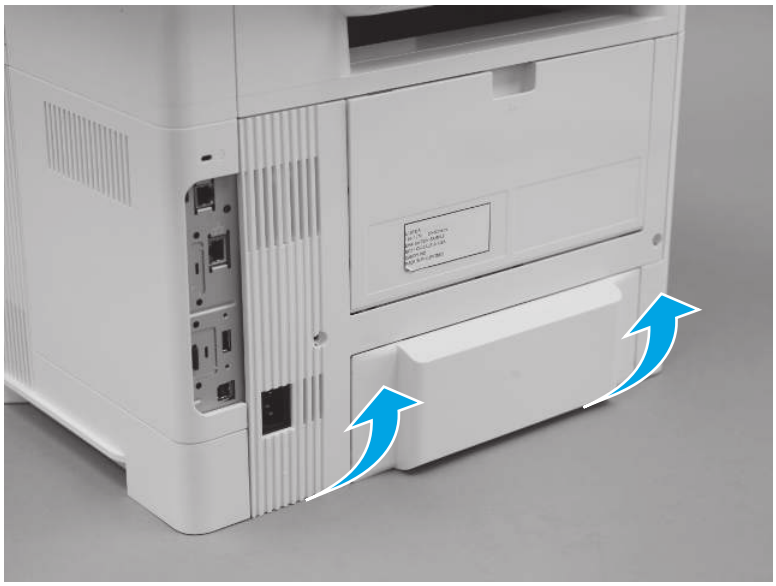
   a. At the rear of the printer, remove two screws (callout 1).

Figure 4-476 Remove two screws



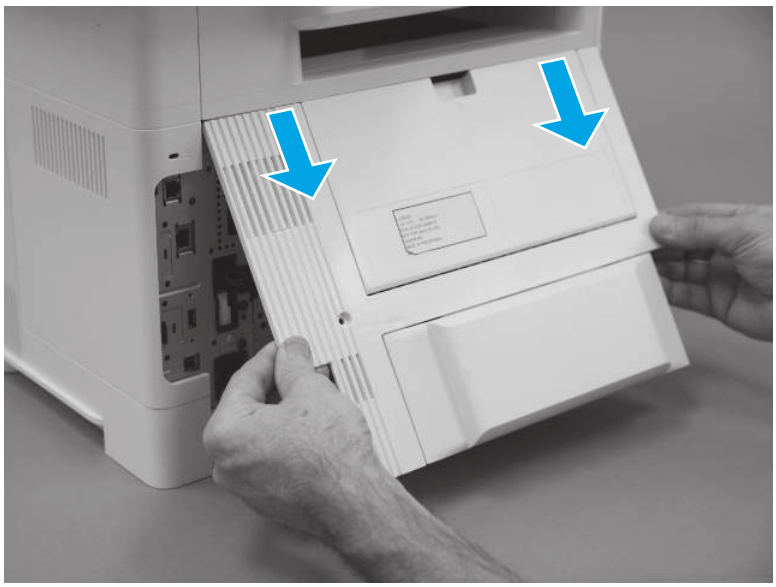
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-477 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-478 Remove the cover



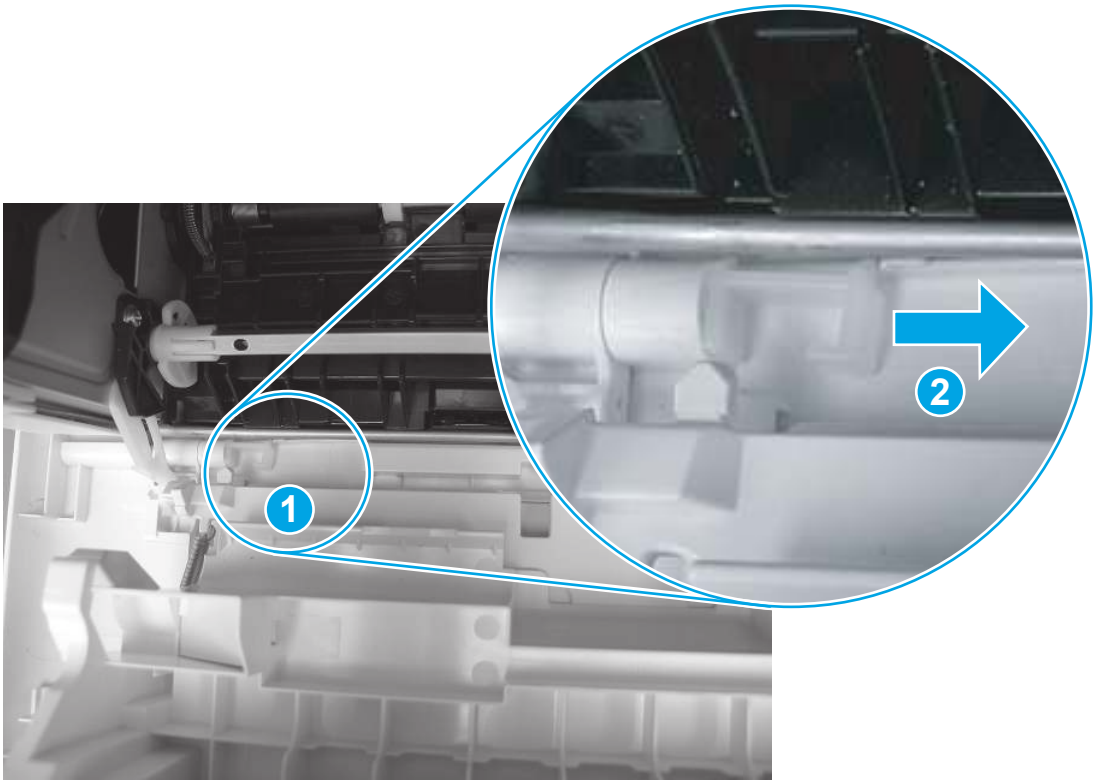
4. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

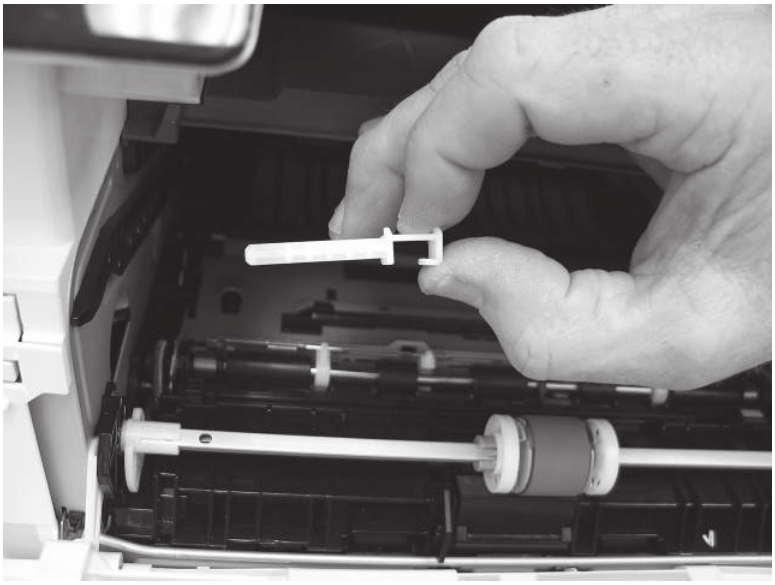
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-479 Release the support shaft



b. Remove the support shaft.

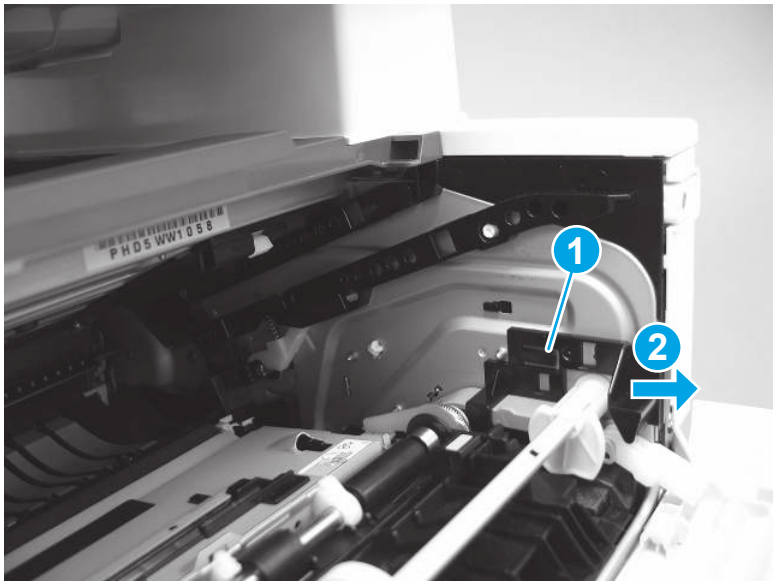
Figure 4-480 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

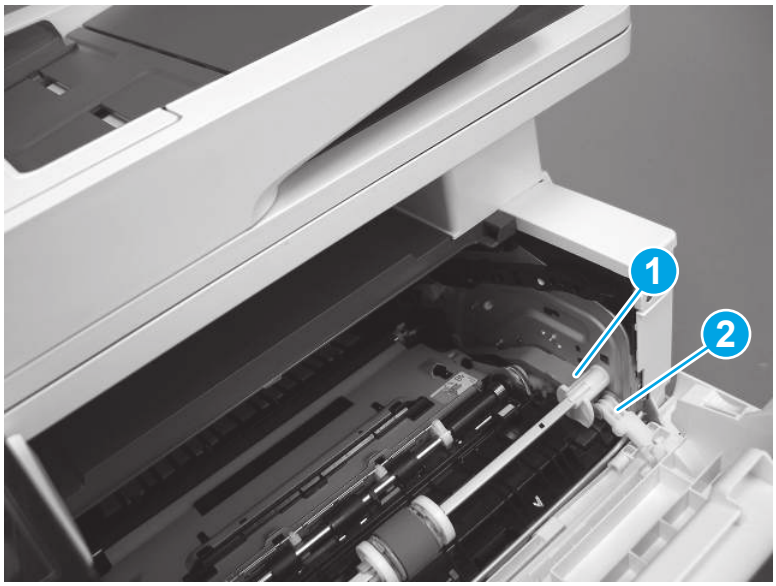
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-481 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-482 Release the pressure-release link



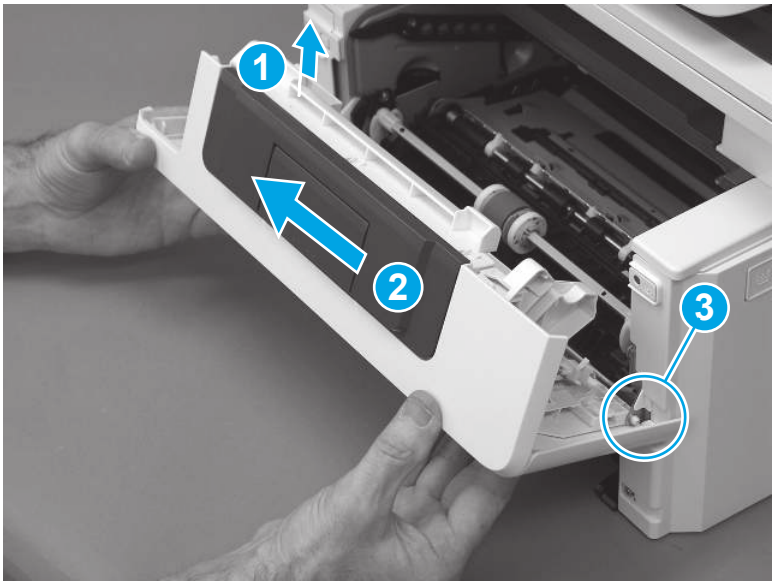
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

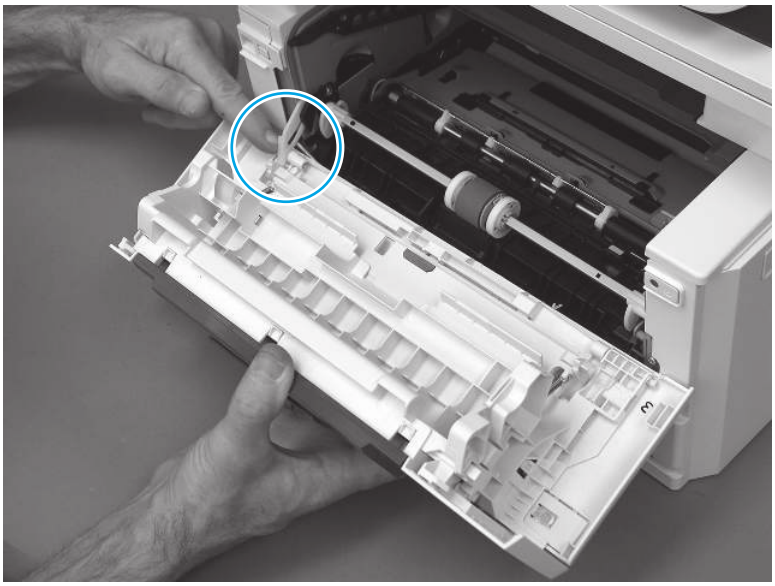
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-483 Release the door



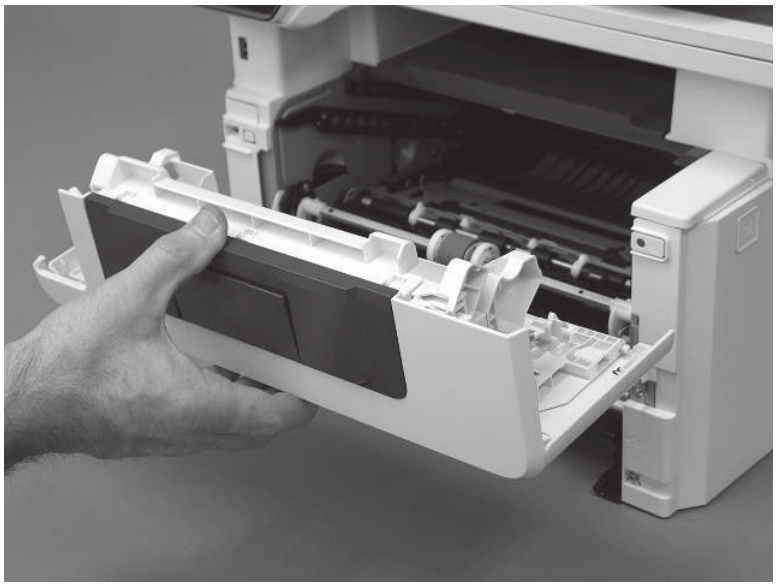
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-484 Release the left-side retainer arm



g. Remove the door.

Figure 4-485 Remove the door



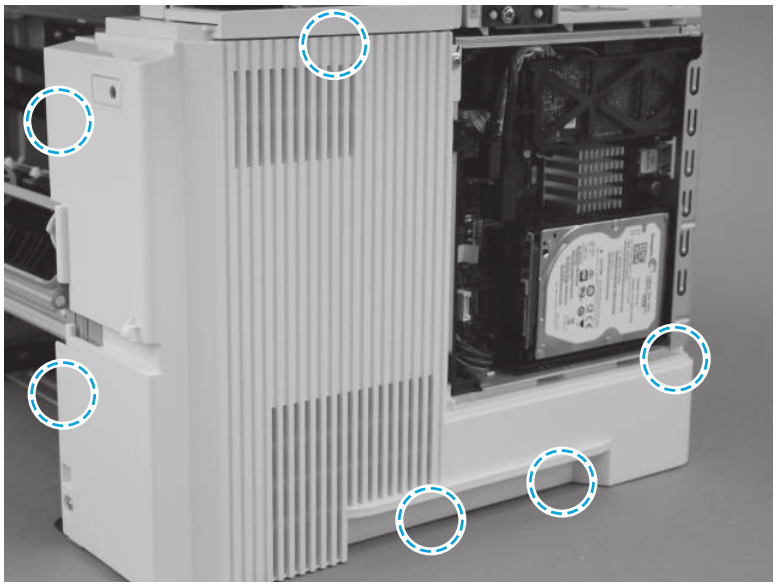
5. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

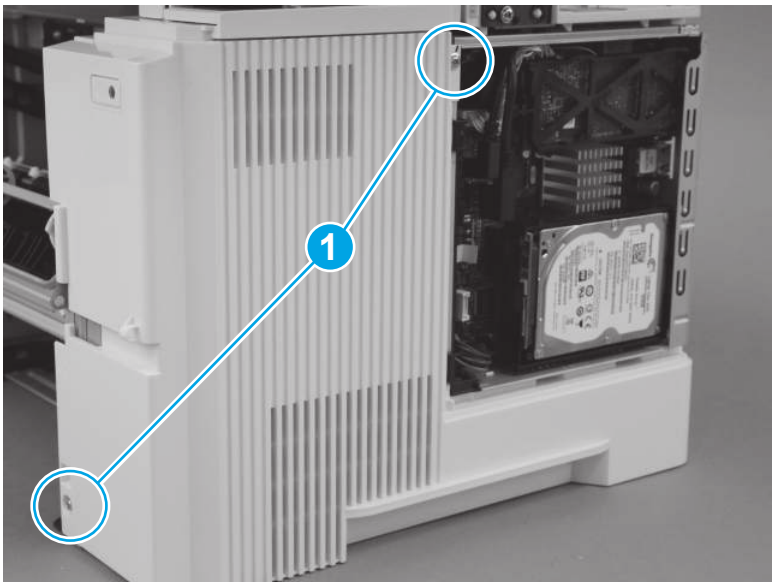
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-486 Locate the tabs and bosses



b. Remove two screws (callout 1).

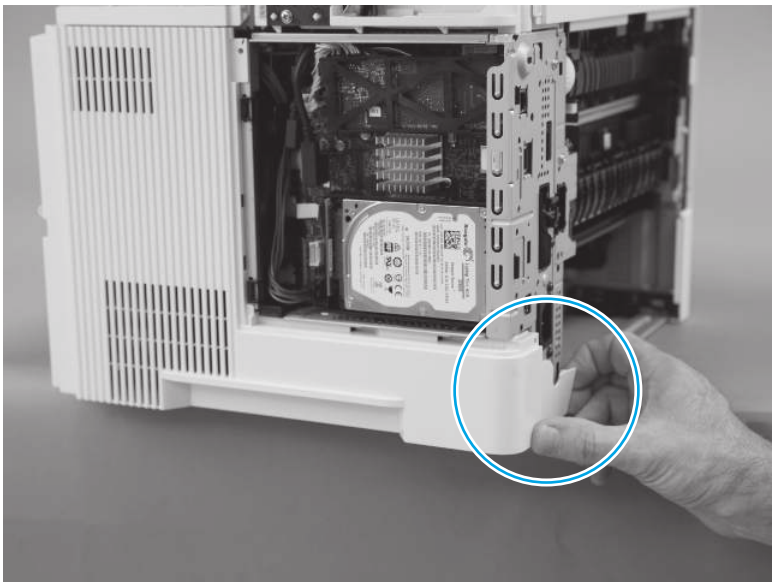
Figure 4-487 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

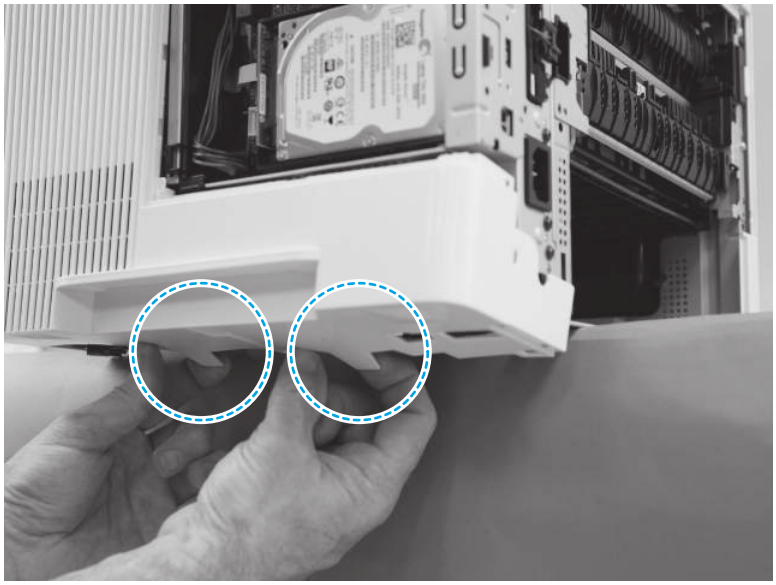
Figure 4-488 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-489 Release two bosses

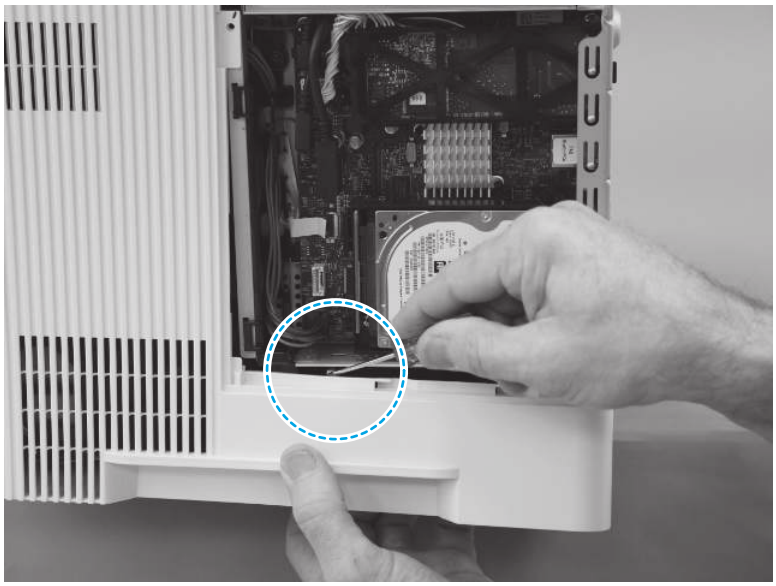


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-490 Release one tab

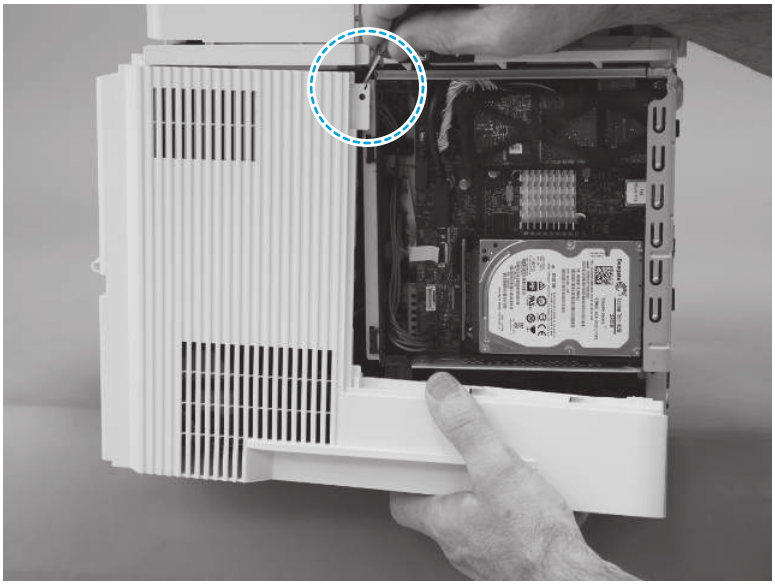


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

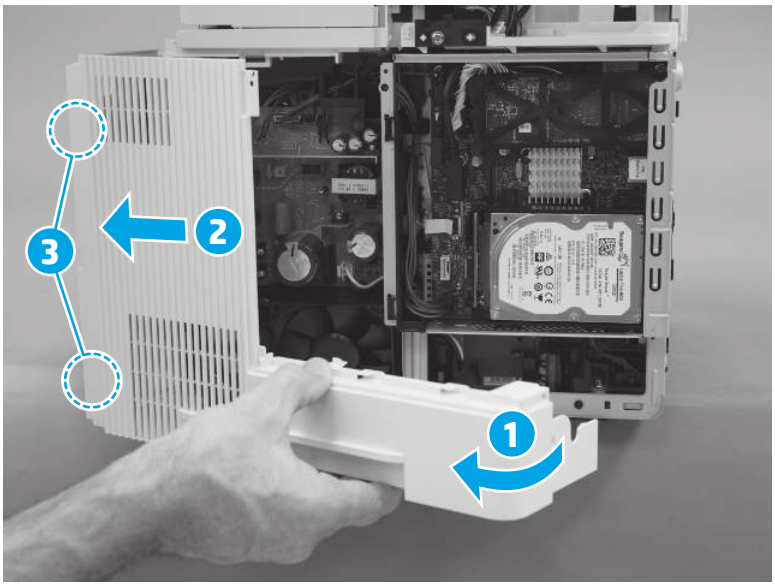
Figure 4-491 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

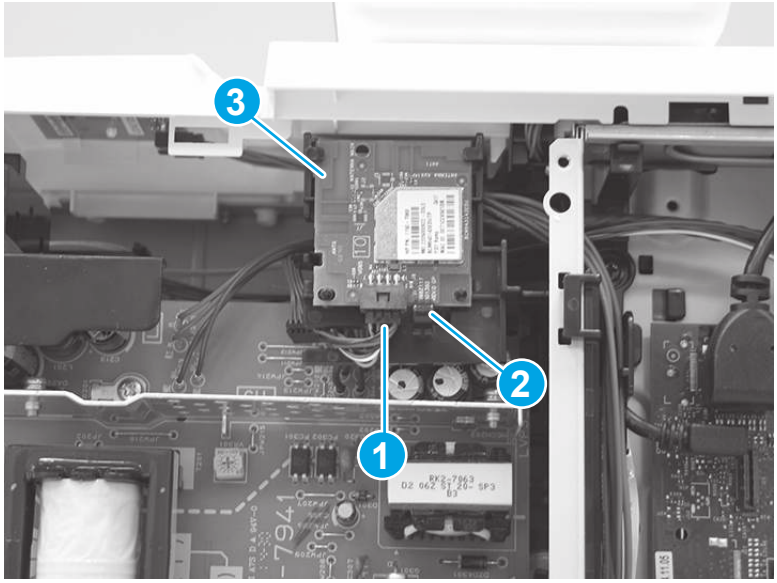
Figure 4-492 Remove the cover



6. Remove the wireless PCA (WiFi) (M506x/E50045x).

- Disconnect one connector (callout 1) release one tab (callout 2), and then remove the WiFi PCA (callout 3).

  Figure 4-493 Remove the WiFi PCA

7. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Wireless printed-circuit board (WiFi) (M507x/E50145x)

Learn how to remove and replace the wireless PCA.

To view a short video of this procedure, click the link below

View a video of how to remove and replace the wireless PCA.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-30 Part information

Part number	Part description
1150-7968	Wireless PCA (M507x/E50145x)

Required tools

- Small flat-blade screwdriver

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use a wireless device to print a job from the printer.

1. Remove the wireless PCA (WiFi) (M507x/E50145x).

a. Open the cartridge door.

Figure 4-494 Open the cartridge door

b. Use a small flat-blade screwdriver to carefully release the WiFi PCA cover, and then remove the cover.

Figure 4-495 Remove the cover

c. Release two tabs, and then separate the WiFi PCA from the printer.

⚠ CAUTION: The PCA is still attached to the printer by a wire harness. Do not attempt to completely remove the PCA.

Figure 4-496 Release the PCA

d. Disconnect one connector, and then remove the WiFi PCA.

Figure 4-497 Remove the WiFi PCA

2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Wireless printed-circuit board (M527z/E52545z/M528z/E52645z)

Learn how to remove and replace the wireless PCA.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the wireless PCA.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-31 Part information

Part number	part description
1150-7968	Wireless PCA (M527z/E52545z/M528z/E52645z)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.

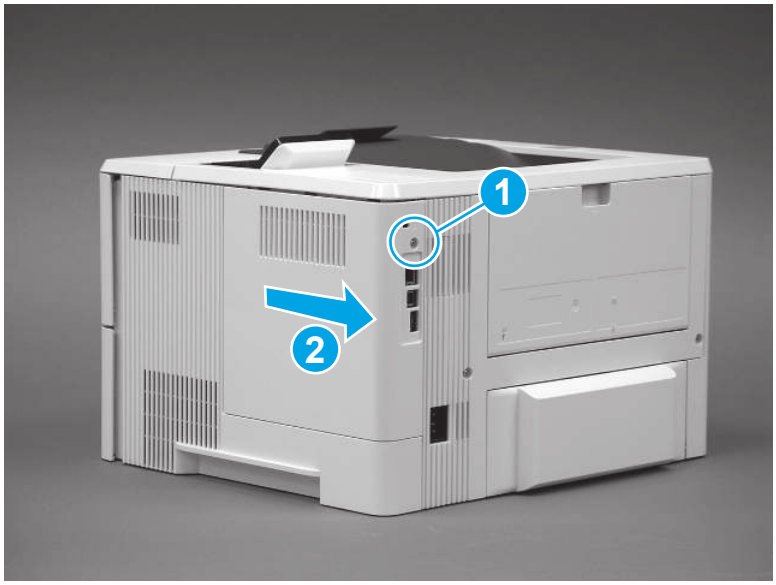
- Use the power switch to turn the power on.

Post service test

Use a wireless device to print a job from the printer.

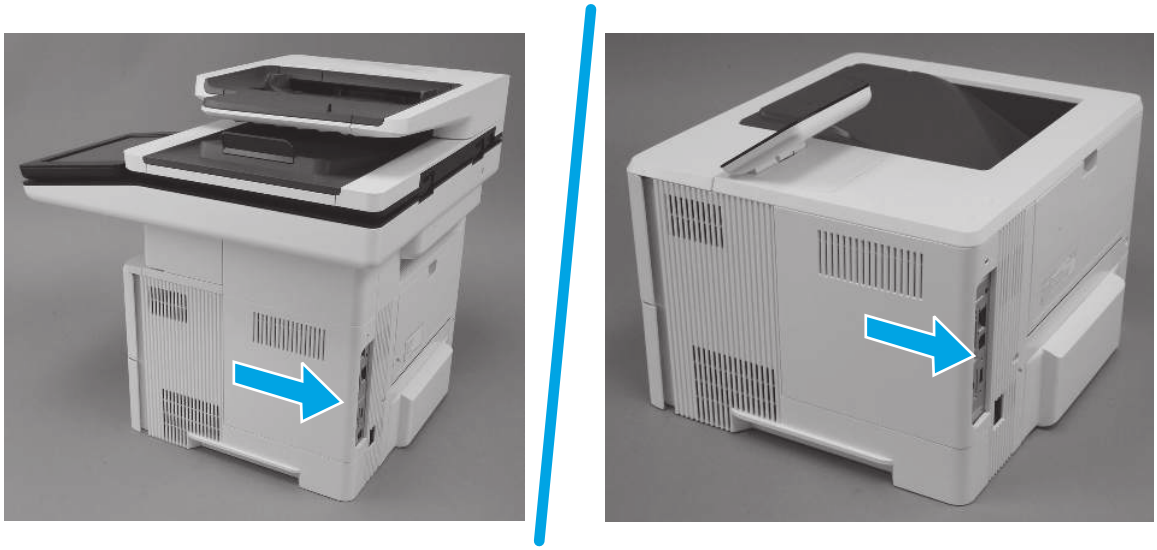
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-498 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

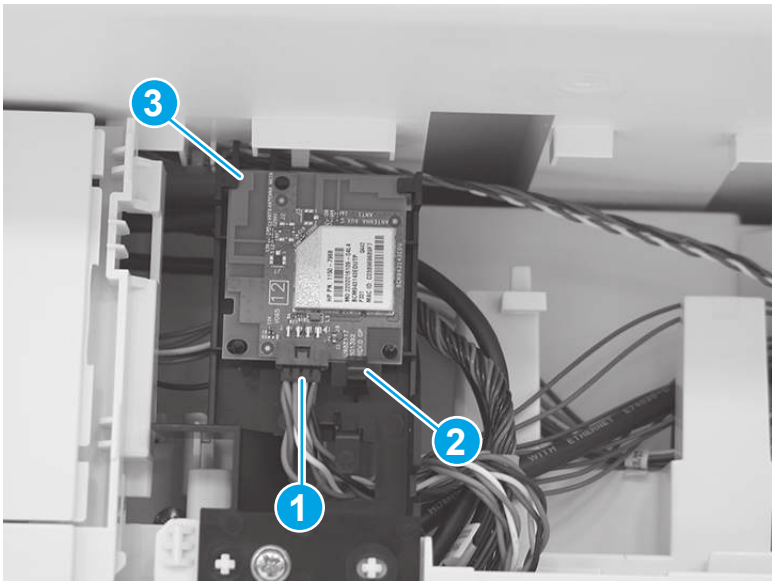
     Figure 4-499 **Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

2. Remove the wireless PCA (WiFi) (M527z/E52545z/M528z/E52645z).

   - Disconnect one connector (callout 1) release one tab (callout 2), and then remove the WiFi PCA (callout 3).

     Figure 4-500 Remove the WiFi PCA

3. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fuser

Learn how to remove and replace the fuser.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the fuser.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Make sure the correct voltage fuser is installed in the printer.

CAUTION: The fuser is hot. Wait at least 30 minutes after turning the printer power off before removing the fuser.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-32 Part information

Part number	Part description
RM2-2585-000CN	Fuser (110V/127V)
RM2-2586-000CN	Fuser (220V/240V)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

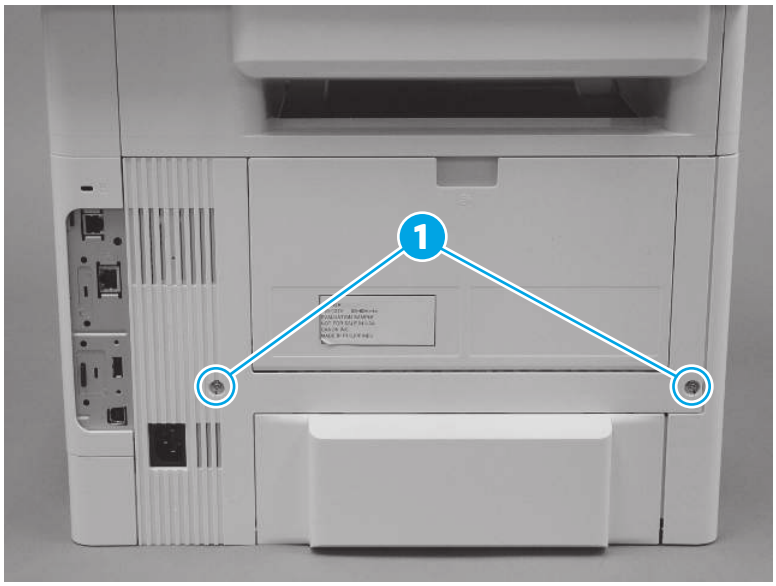
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the rear door assembly.

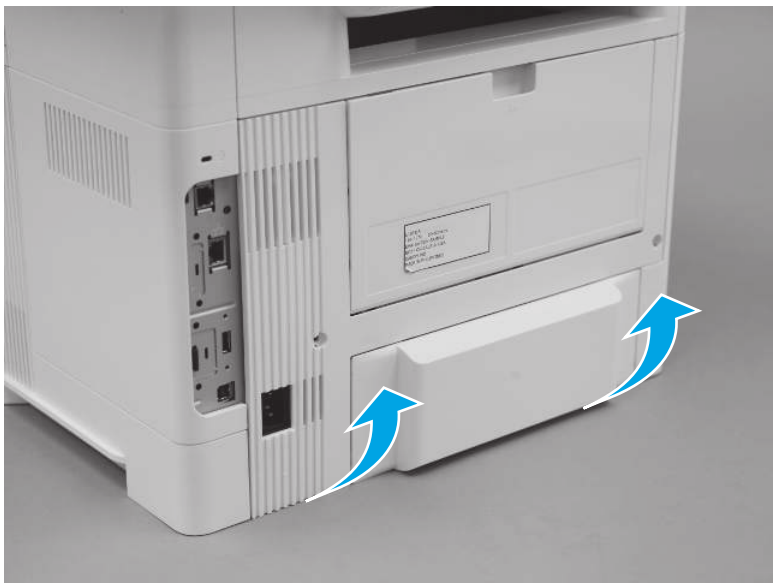
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-501 Remove two screws



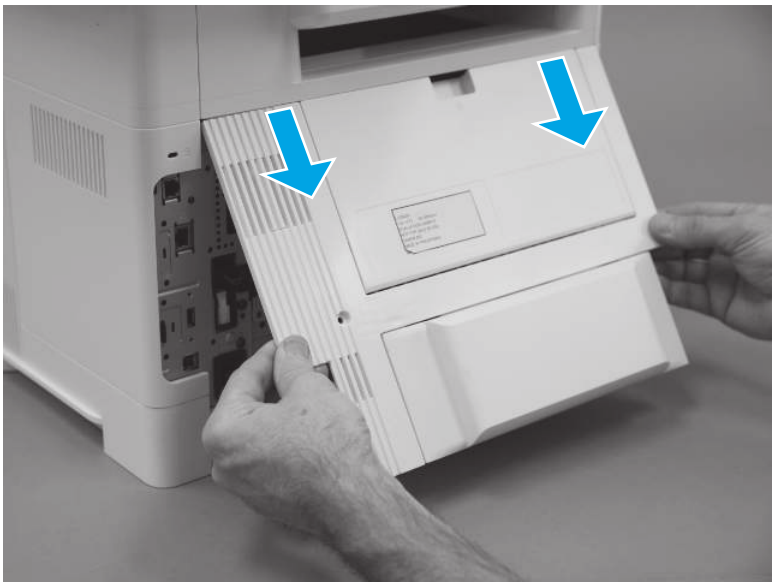
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-502 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-503 Remove the cover



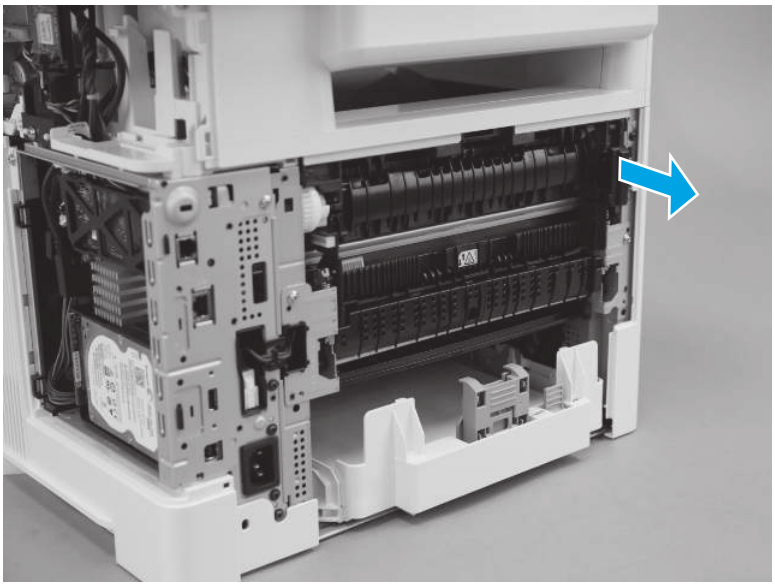
2. Remove the fuser.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

The formatter cover is shown off in the following figures. However, it does not need to be removed to remove the fuser.

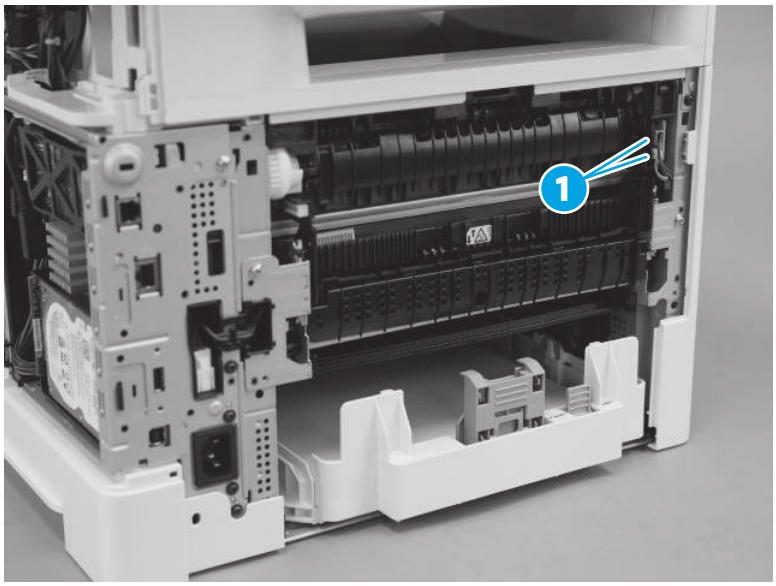
a. Remove the connector cover.

Figure 4-504 Remove the cover



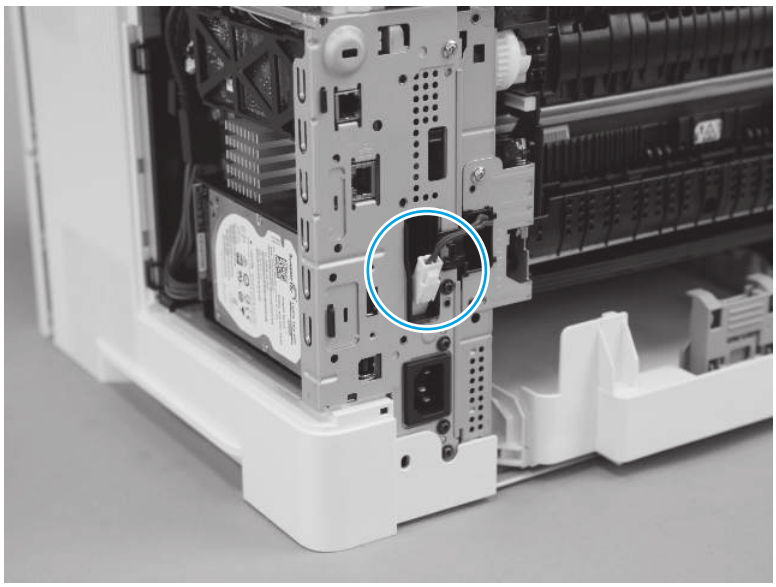
b. Disconnect two connectors (callout 1).

Figure 4-505 Disconnect two connectors



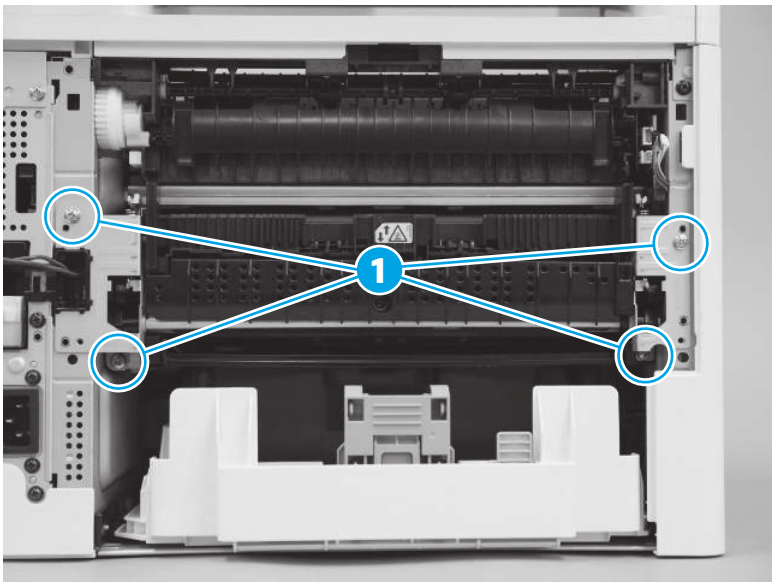
c. Disconnect one connector.

Figure 4-506 Disconnect one connector



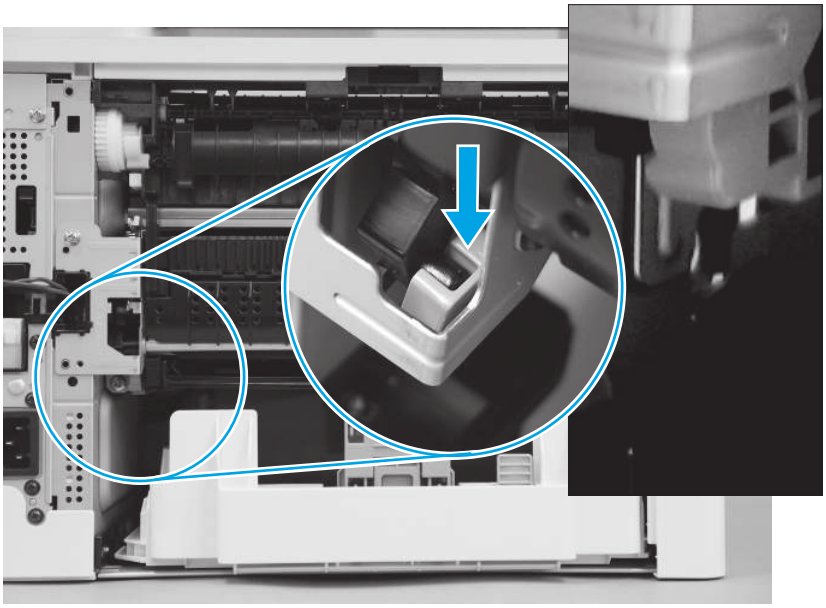
d. Remove four screws (callout 1).

Figure 4-507 Remove four screws



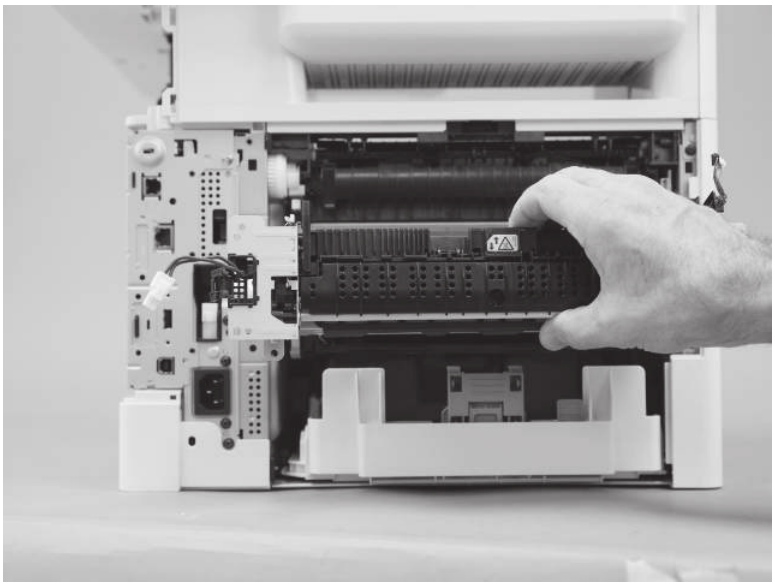
e. Pull down on the fuser-shutter arm to release it from the fuser.

Figure 4-508 Release the pressure-release arm



f. Slide the fuser straight out of the printer.

Figure 4-509 **Remove the fuser**



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Stapler unit (M527c/f/z, E52545c/z/f, M528c/f/z, and E52645c/f/z)

Learn how to remove and replace the cassette stapler unit.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the stapler unit.

Mean time to repair: 5 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-33 Part information

Part number	Part description
B5L46-60102	Stapler unit (M527c/f/z, E52545c/f/z, M528c/f/z, and E52645c/f/z)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

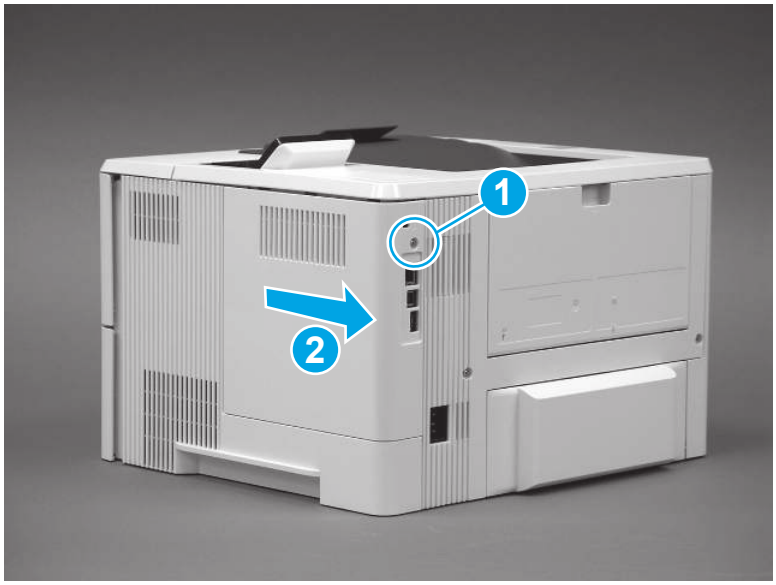
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use the convenience stapler to staple two pages together to test its operation.

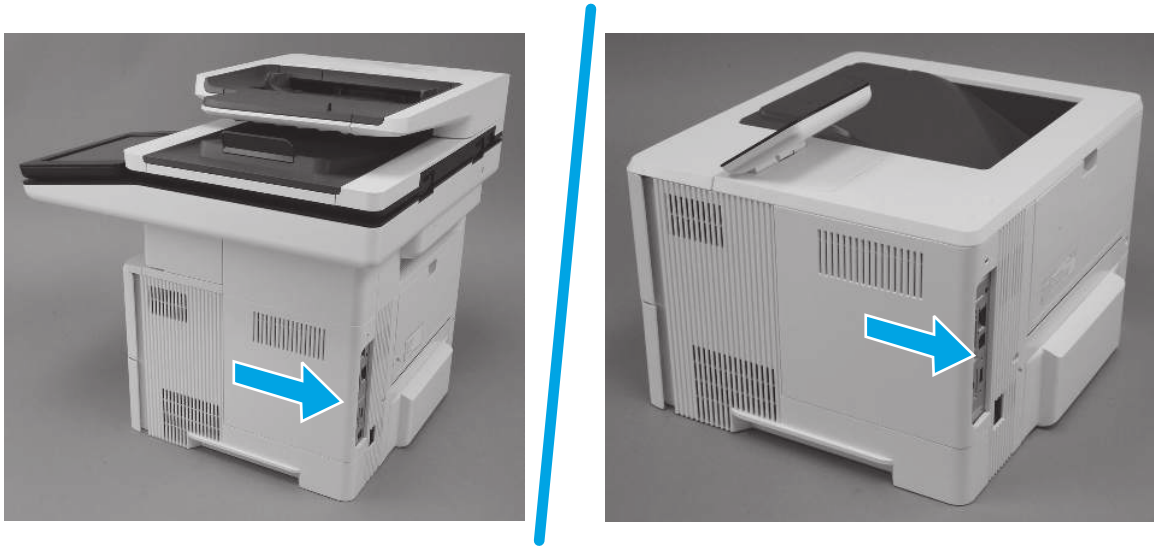
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-510 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-511 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

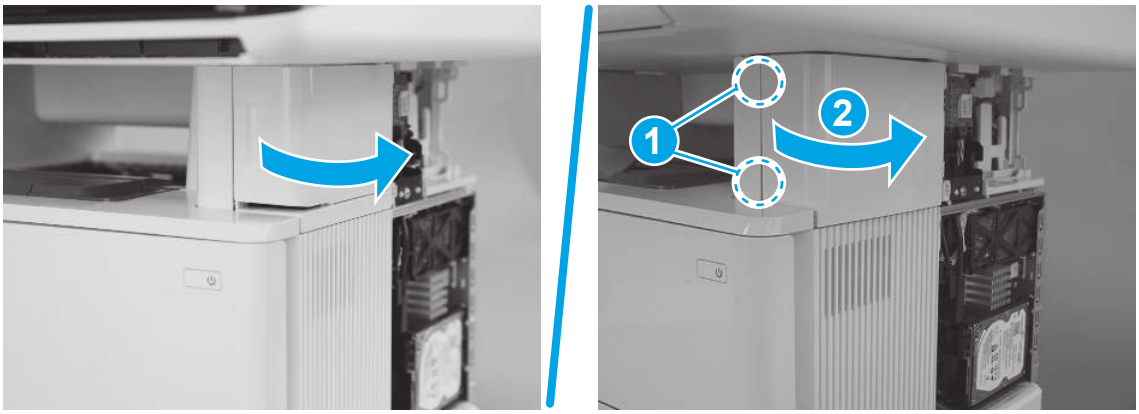


2. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-512 Open the door or release the cover



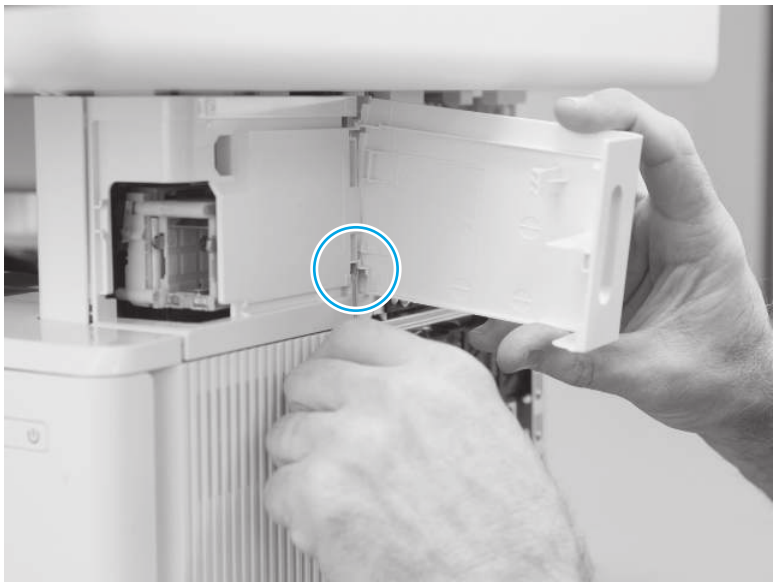
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-513 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-514 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-515 **Remove the door**

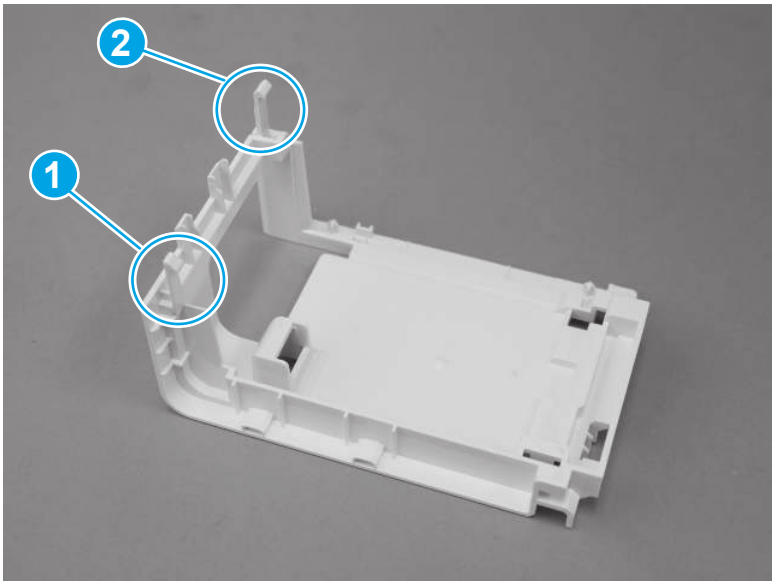
3. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

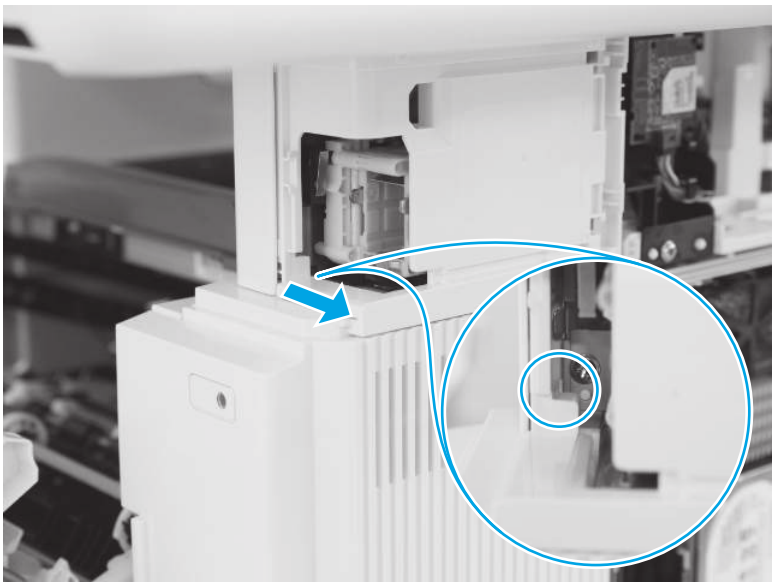
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-516 Locate the tabs



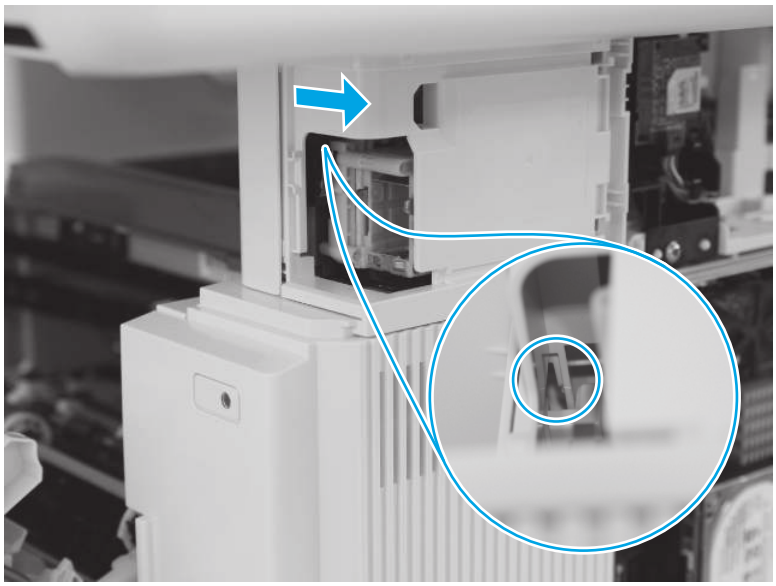
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-517 Release one tab



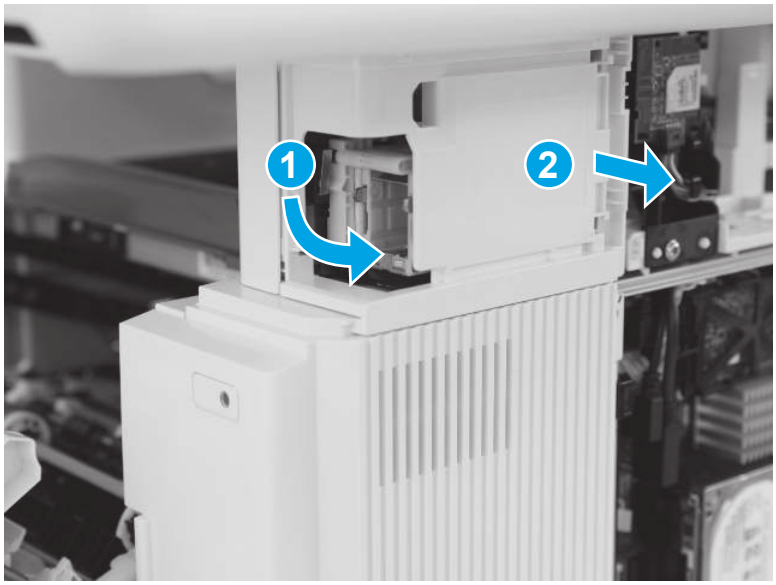
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-518 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

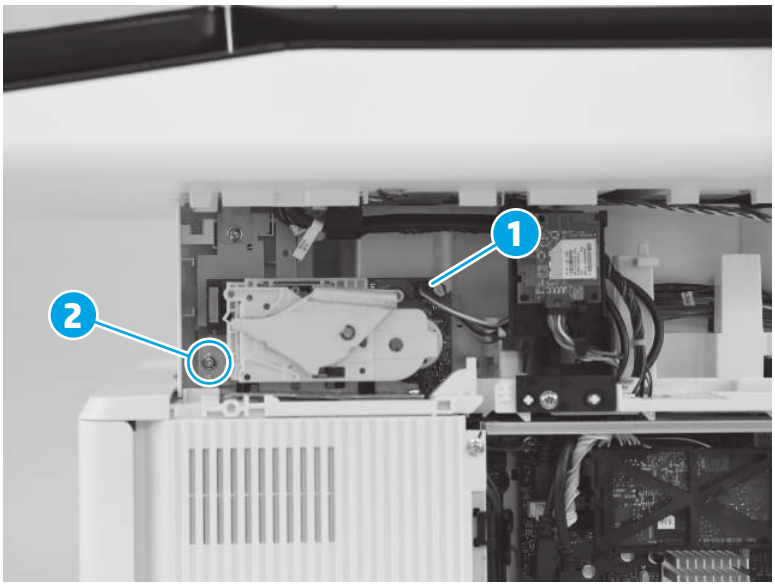
Figure 4-519 Remove the cover



4. Remove the stapler unit (M527/E52545/M528/E52645).

a. Disconnect one connector (callout 1), and then remove one screw (callout 2).

Figure 4-520 Disconnect one connector and remove one screw



b. Remove the stapler unit.

Figure 4-521 Remove the stapler unit

5. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Formatter

Learn how to remove and replace the formatter.

NOTE: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the formatter (M501).

M506/E50045

View a video of how to remove and replace the formatter (M506/E50045).

M507/E50145

View a video of how to remove and replace the formatter (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the formatter (M527/E52545/M528/E52645).

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-34 Part information

Part number	Part description
F2A76-67910	Formatter (M527/E52545) with instruction guide
1PV64-60002	Formatter (M528/E52645) with instruction guide
1PV64-60003	Formatter (M528/E52645 China) with instruction guide
1PV87-60001	Formatter (M507/E50145) with instruction guide
1PV87-60002	Formatter (M507dn)
1PV87-60003	Formatter (M507n)
1PV86-60004	Formatter (M507x) China/India
1PV86-60007	Formatter (M507dn) China/India
1PV86-60008	Formatter (M507n) China/India
F2A68-67915	Formatter (M506n/E50045n) with instruction guide
F2A68-67916	Formatter (M506x/E50045x) with instruction guide
J8H60-67901	Formatter (M501n)
J8H60-67902	Formatter (M501n; China)
J8H61-67901	Formatter (M501dn)
J8H61-67902	Formatter (M501dn; China)

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

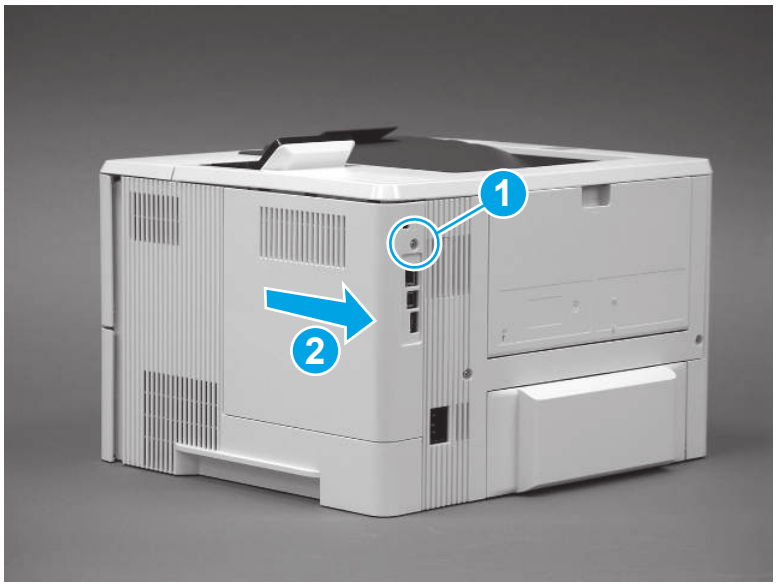
Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the formatter cover.

   - Do one of the following:

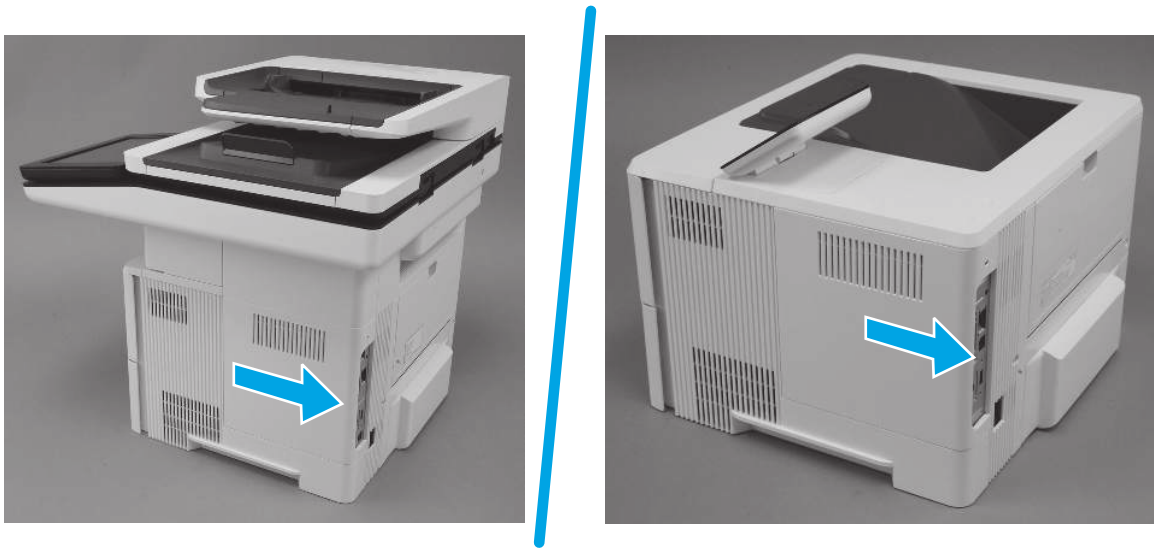
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-522 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

     Figure 4-523 **Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

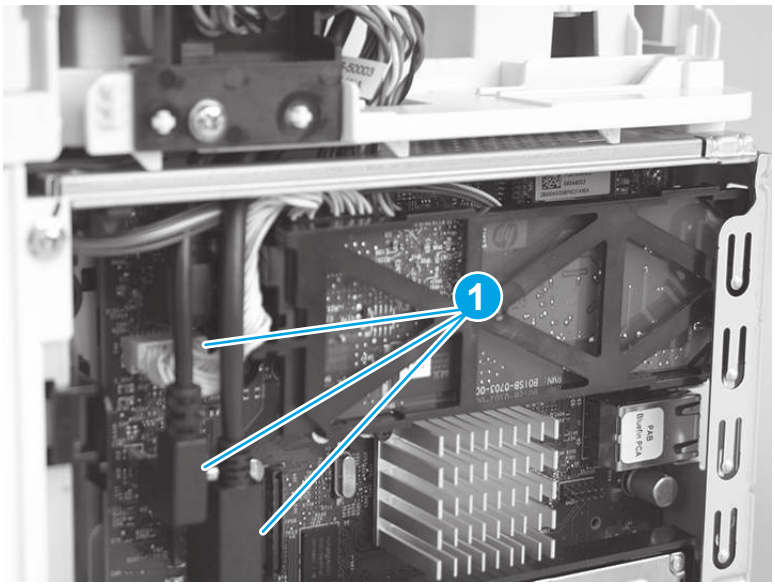
     

2. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ **CAUTION:** ESD-sensitive part.

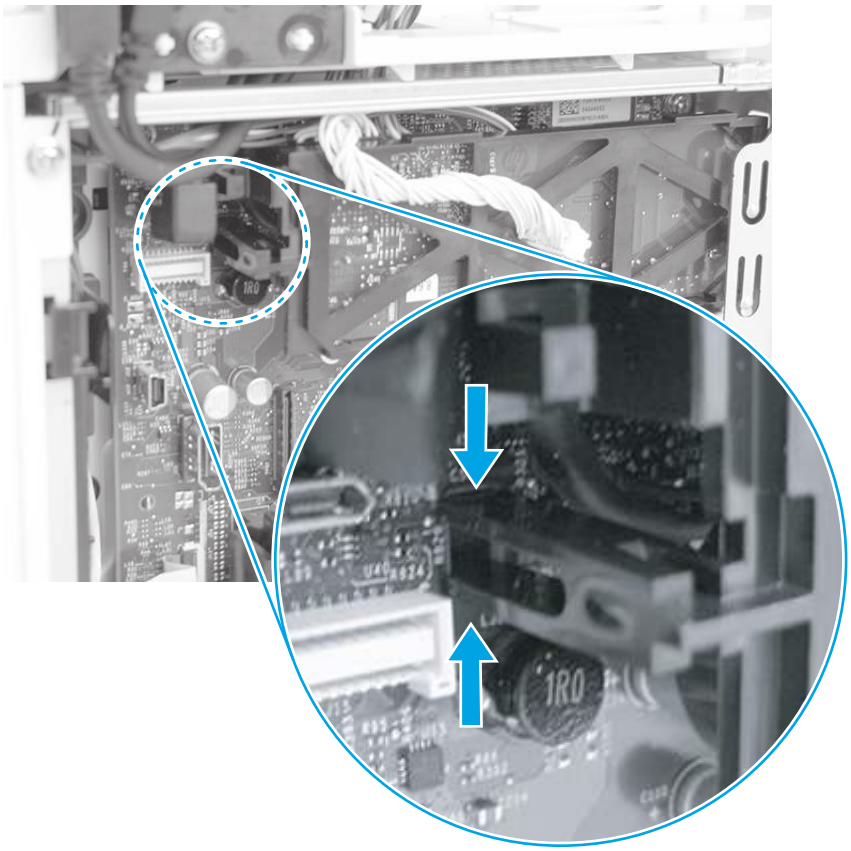
a. Disconnect three connectors (callout 1).

Figure 4-524 Disconnect three connectors



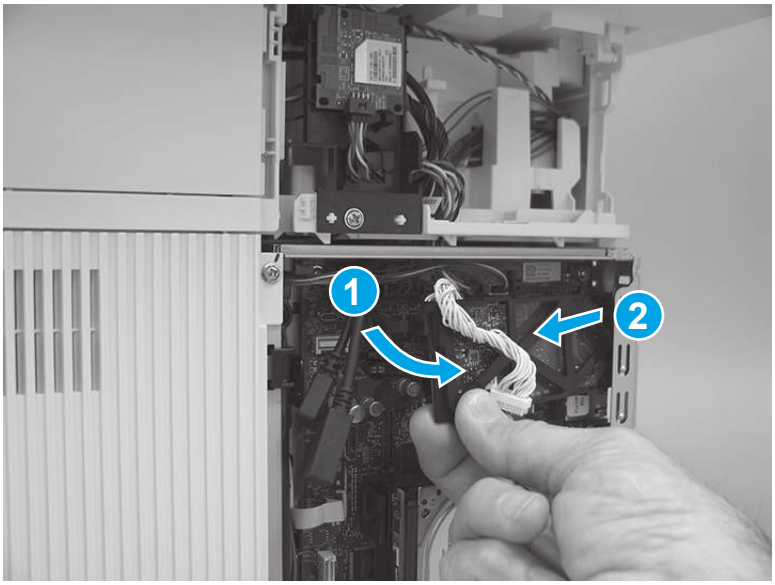
b. Pinch the retainer to release it.

Figure 4-525 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-526 Remove the fax PCA

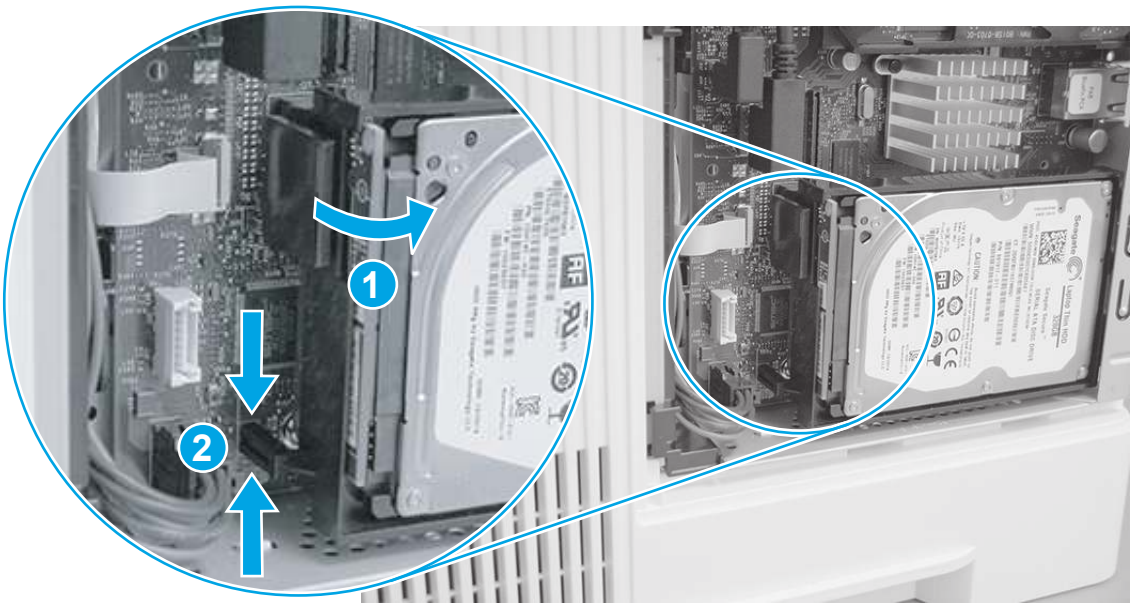


3. Remove the hard-disk drive (HDD models).

⚠ **CAUTION:** ESD sensitive part.

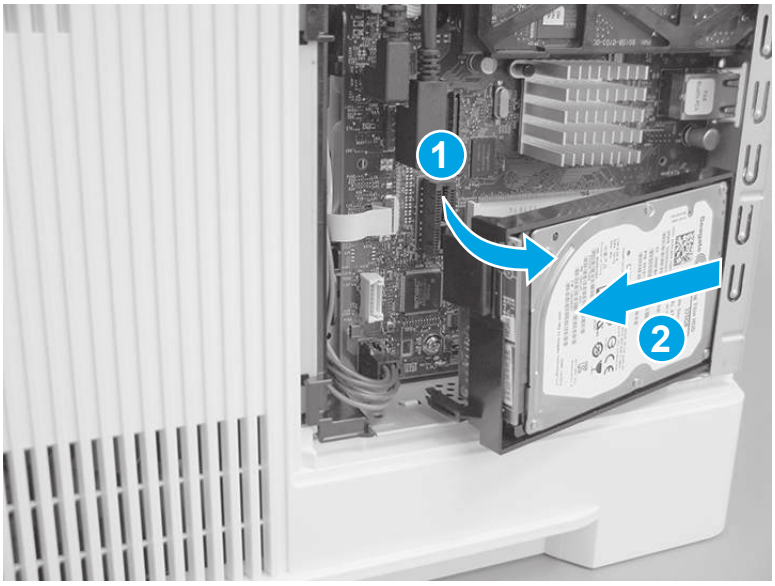
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-527 **Release the HDD**



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-528 **Remove the HDD**

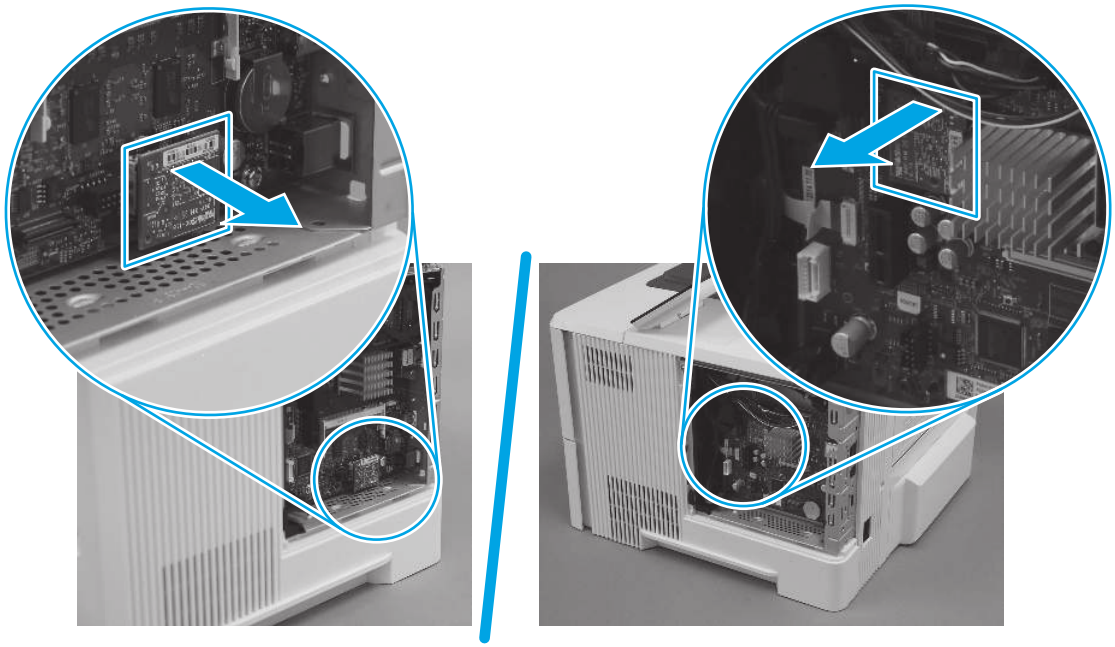


4. Remove the embedded Multi-Media Card (eMMC models).

⚠ **CAUTION:** ESD sensitive part.

- Locate the eMMC component on the formatter, and then pull it straight off of the formatter to remove it.

Figure 4-529 **Remove the eMMC**



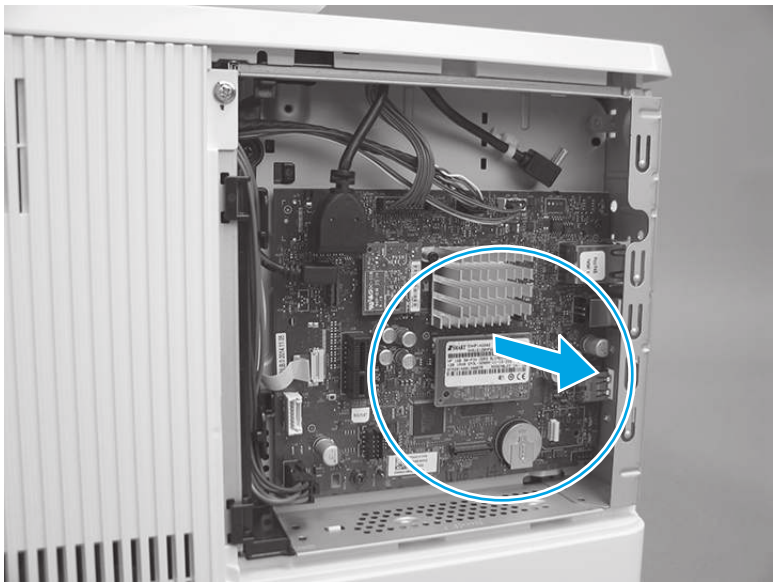
5. Remove the dual in-line memory module (DIMM).

CAUTION: ESD sensitive part.

NOTE: The M506/E50045/M507/E50145 printers use a Slim dual in-line memory module (DIMM).

a. **M506/E50045/M507/E50145 only**: Locate the DIMM component on the formatter, and then pull it straight off of the formatter to remove it.

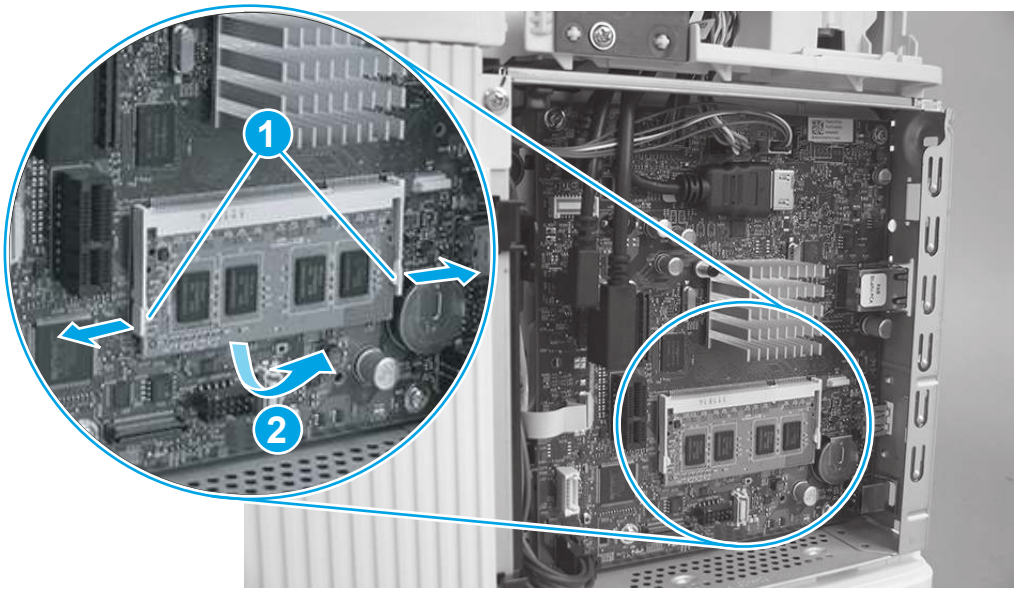
Figure 4-530 **Remove the DIMM (M506/E50045/M507/E50145)**



b. **M527/E52545/M528/E52645 only:** Do the following.

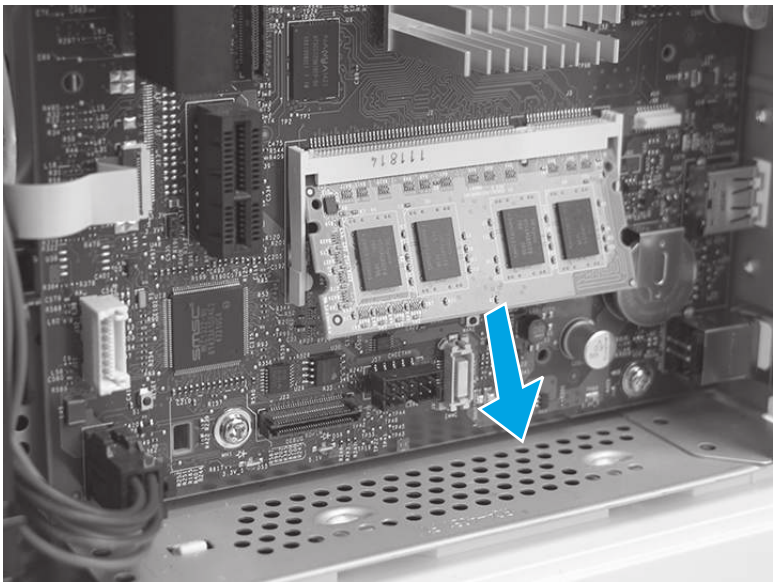
i. Locate the DIMM component on the formatter, release two locking arms (callout 1), and then let the bottom edge of the DIMM rotate away from the holder (callout 2).

Figure 4-531 Release the DIMM (M527/E52545/M528/E52645)



ii. Pull the DIMM down and away from the holder to remove it.

Figure 4-532 Remove the DIMM (M527/E52545/M528/E52645)



6. Remove the formatter.

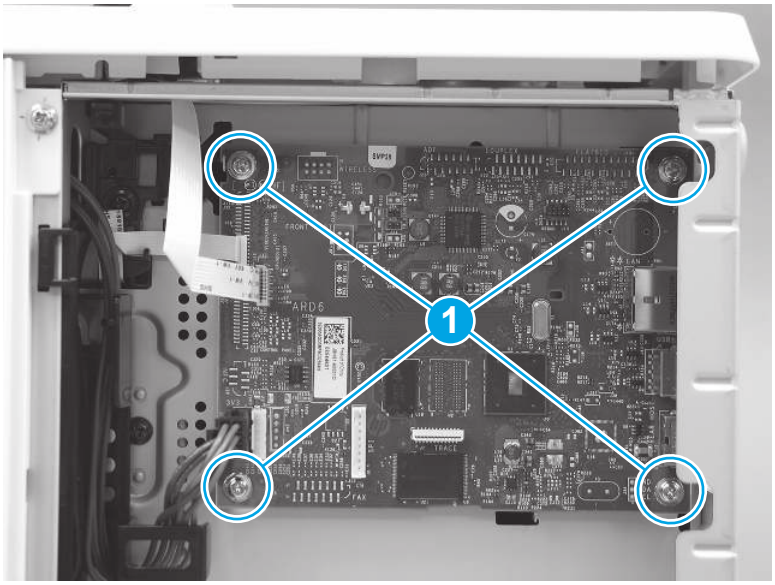
⚠ CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

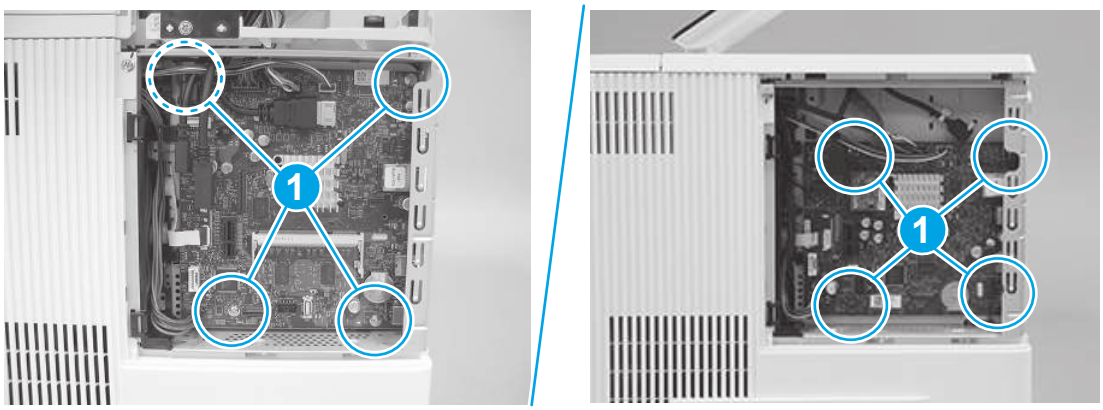
Figure 4-533 Remove the formatter (M501)



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-534 Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



7. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Laser/scanner assembly

Learn how to remove and replace the laser/scanner assembly.

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the laser/scanner (M501).

M506/E50045

View a video of how to remove and replace the laser/scanner (M506/E50045).

M507/E50145

View a video of how to remove and replace the laser/scanner (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the laser/scanner (M527/E52545/M528/E52645).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-35 Part information

Part number	Part description
RM2-5528-000CN	Laser/scanner assembly

Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

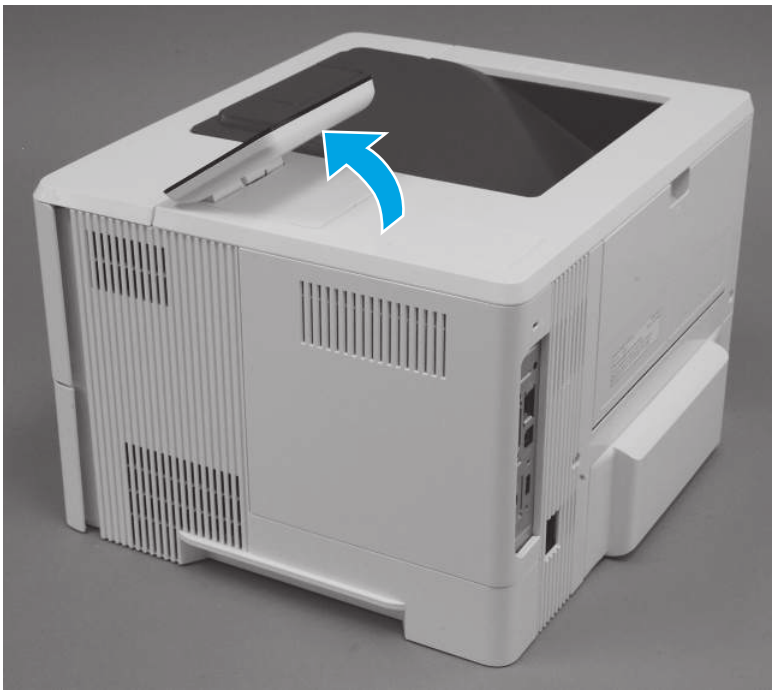
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

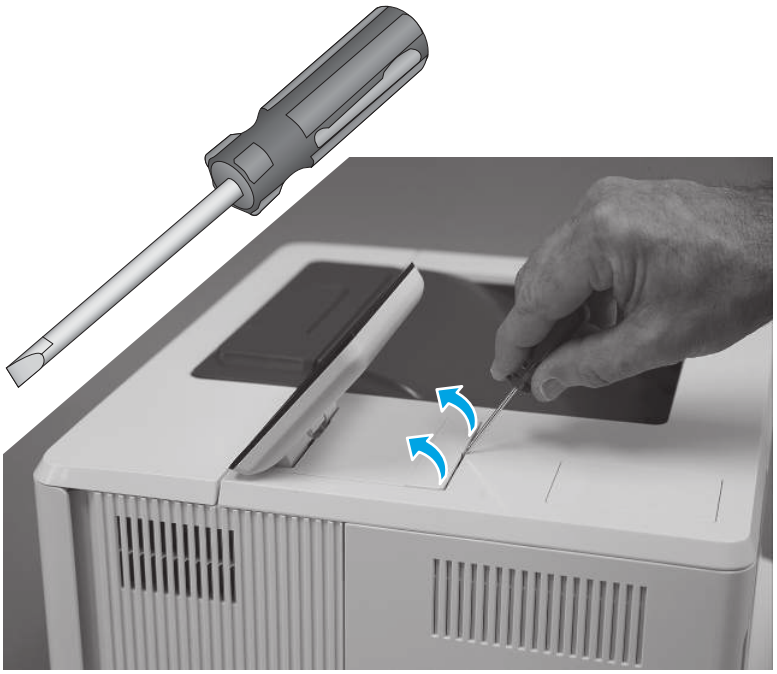
Figure 4-535 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

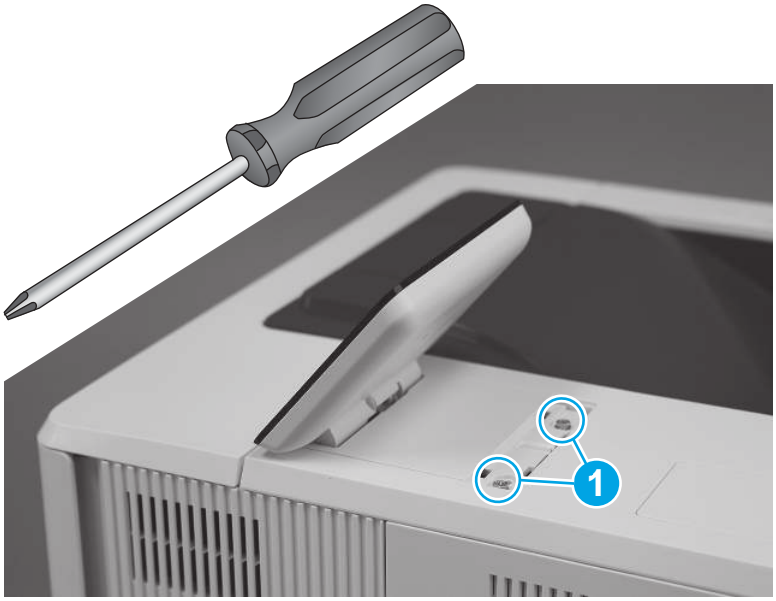
Figure 4-536 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

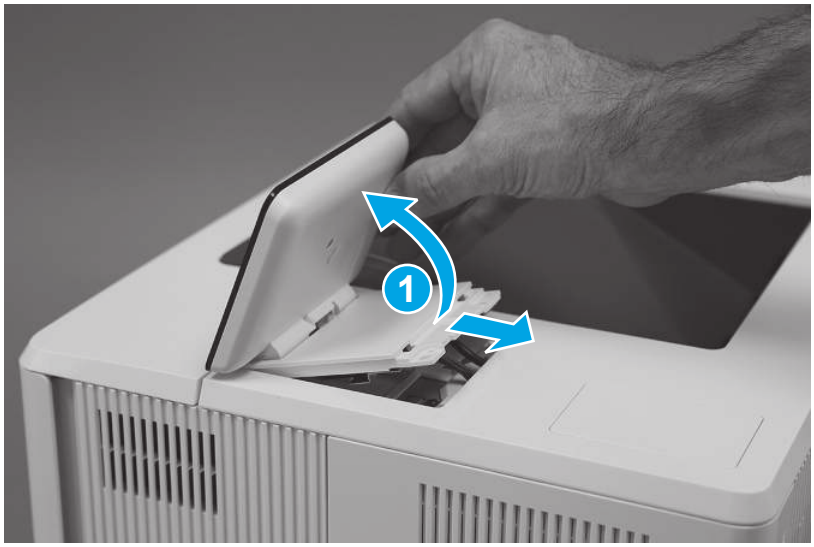
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-537 Remove two screws



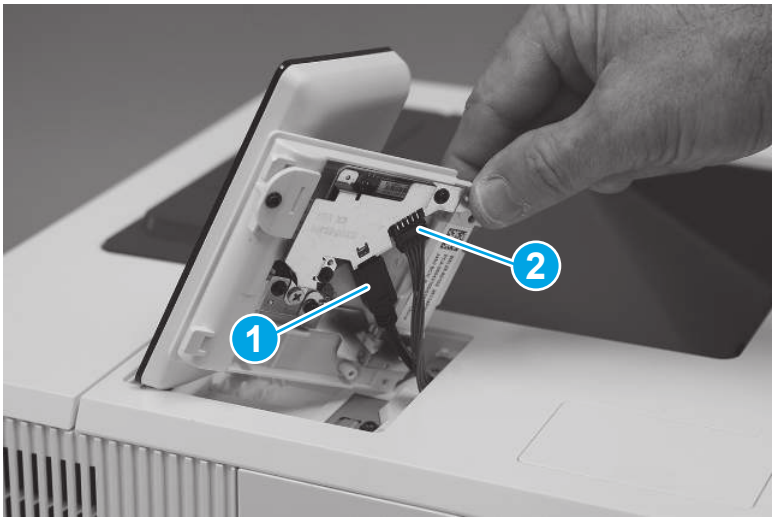
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-538 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-539 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-540 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-541 **Remove the control panel (M507/E50145)**

2. Remove the tray.

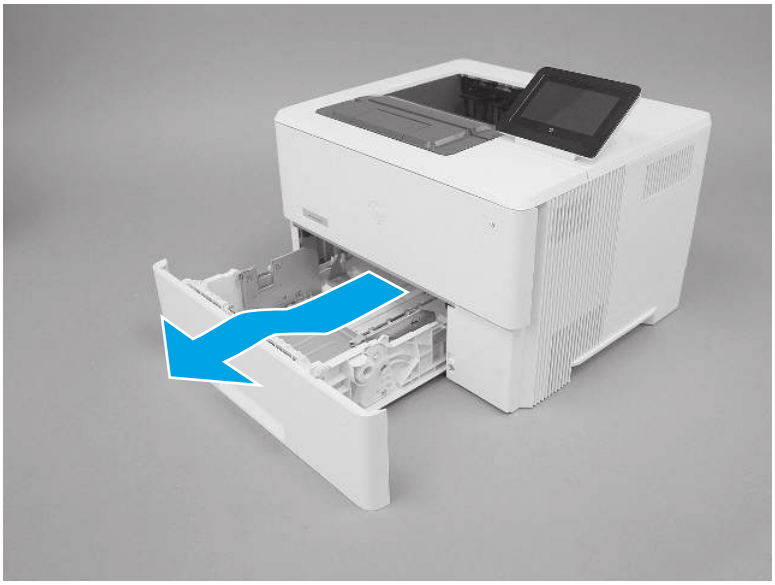
a. Pull the tray straight out of the printer until it stops.

Figure 4-542 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-543 Release and remove the tray

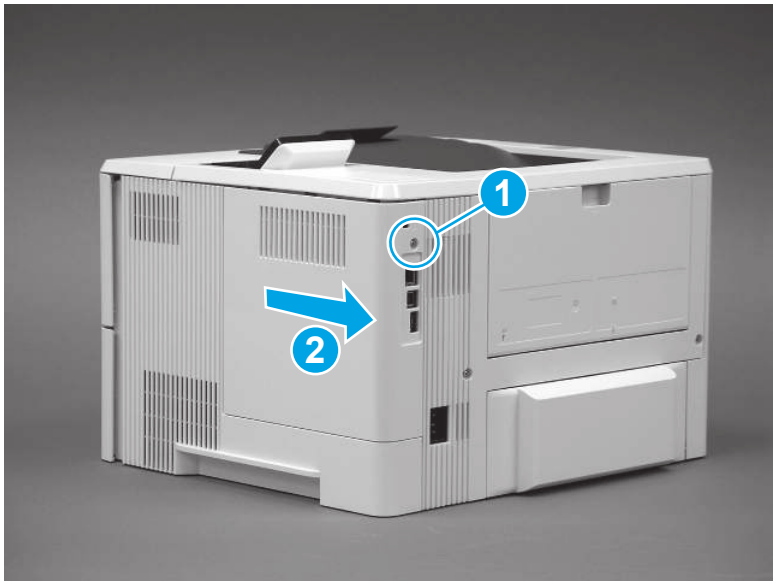


3. Remove the formatter cover.

- Do one of the following:

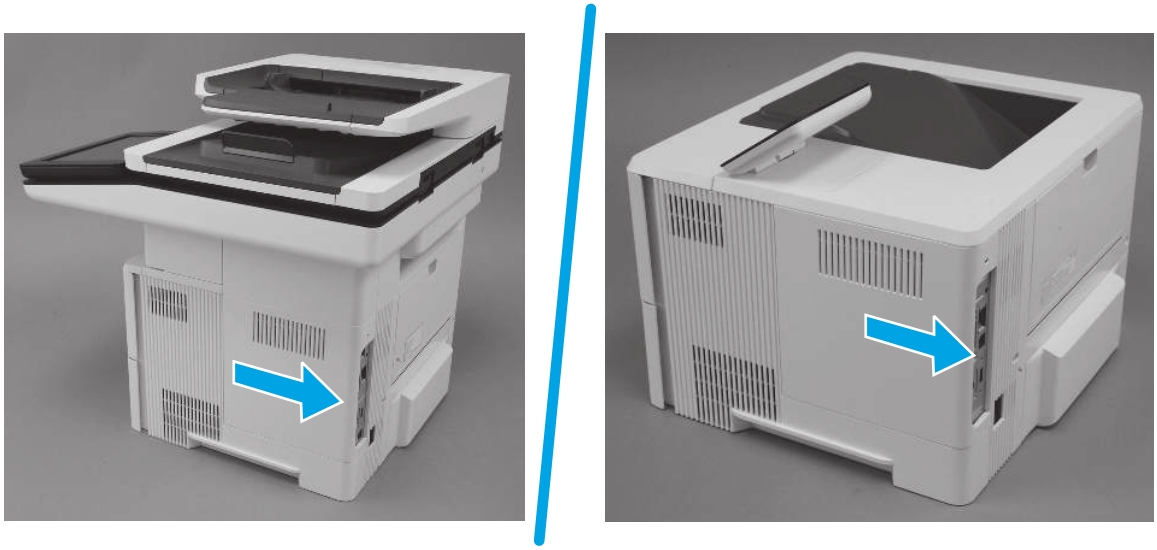
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-544 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-545 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

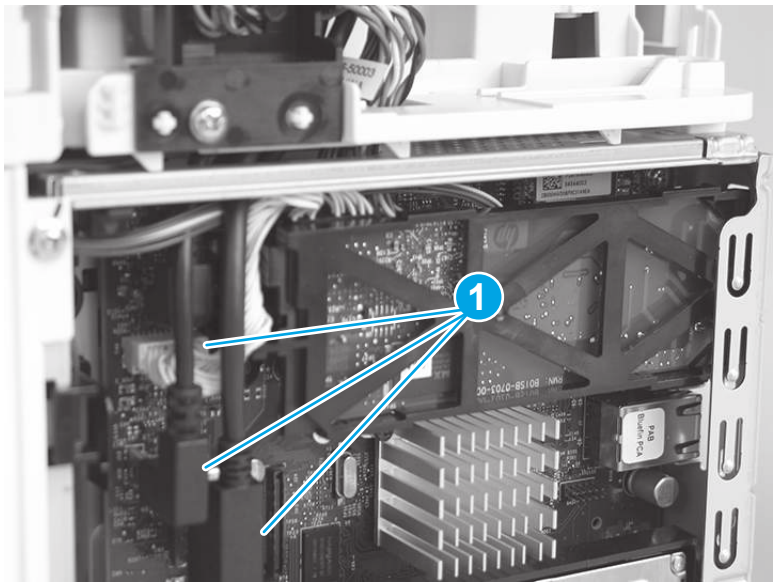


4. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

CAUTION: ESD-sensitive part.

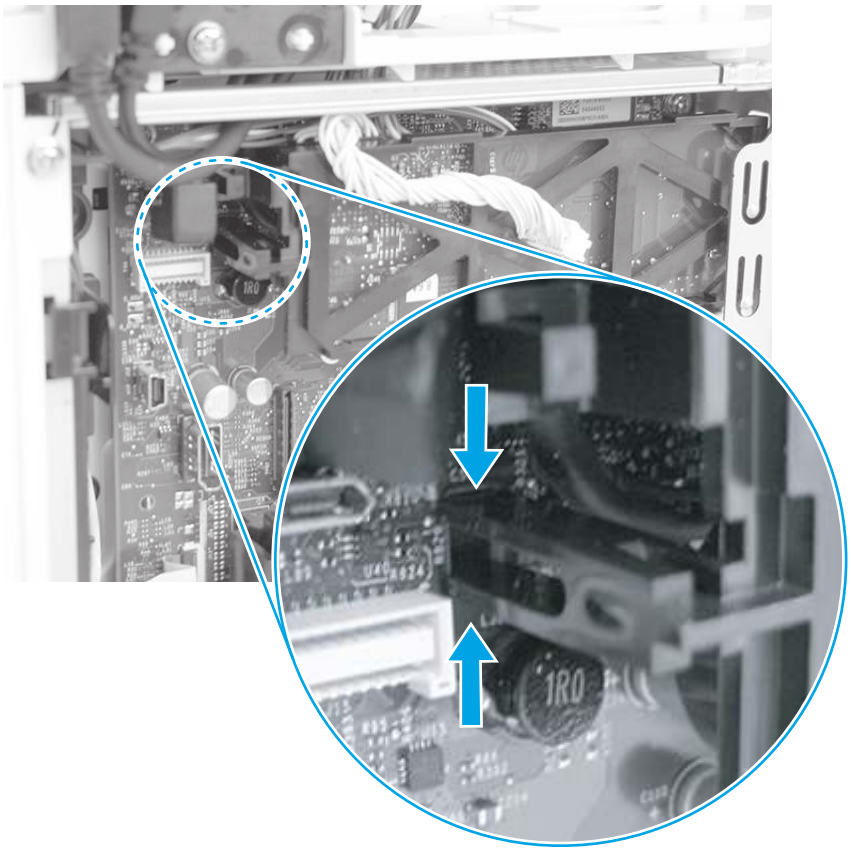
a. Disconnect three connectors (callout 1).

Figure 4-546 Disconnect three connectors



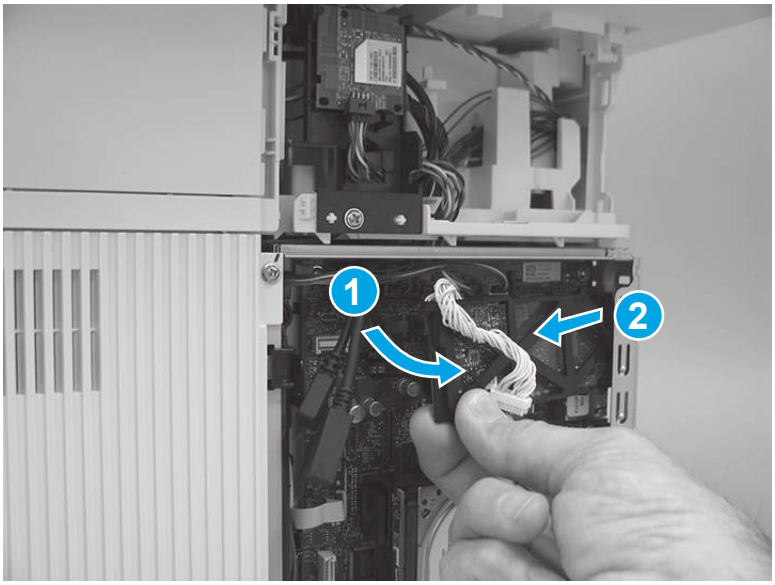
b. Pinch the retainer to release it.

Figure 4-547 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-548 Remove the fax PCA

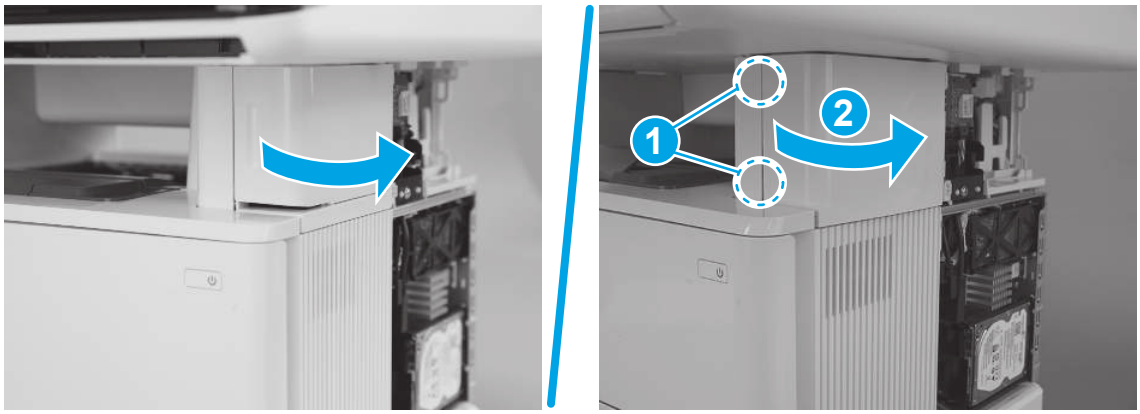


5. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-549 **Open the door or release the cover**



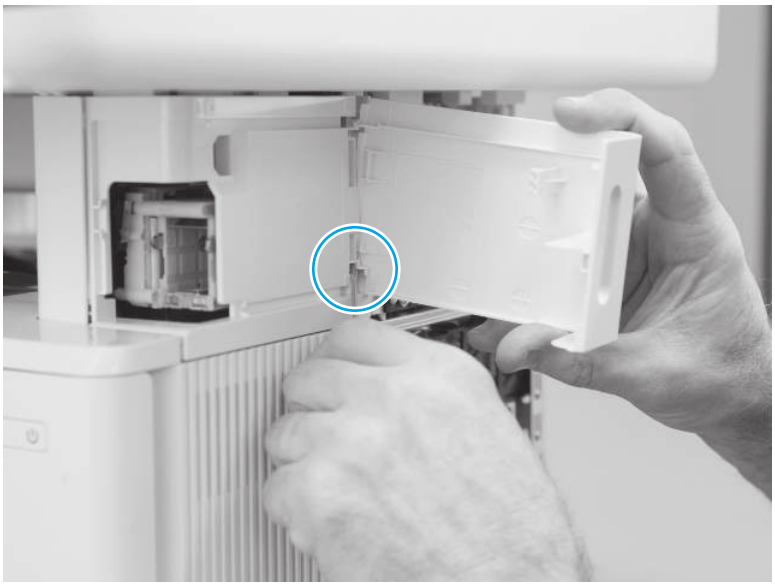
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-550 **Release the upper hinge or remove the cover**

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-551 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-552 **Remove the door**

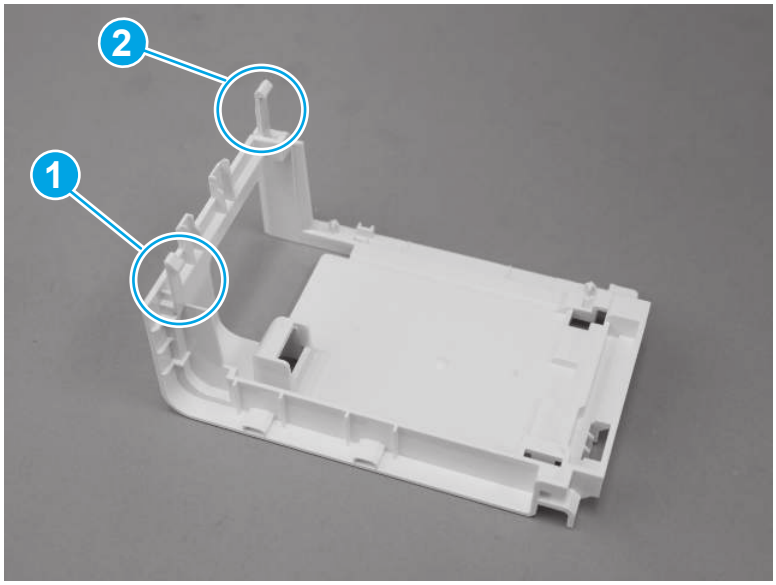
6. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

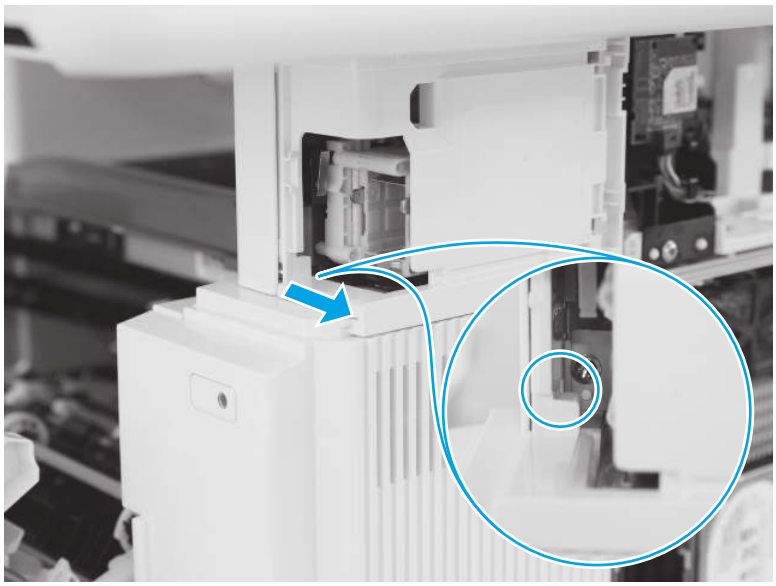
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-553 Locate the tabs



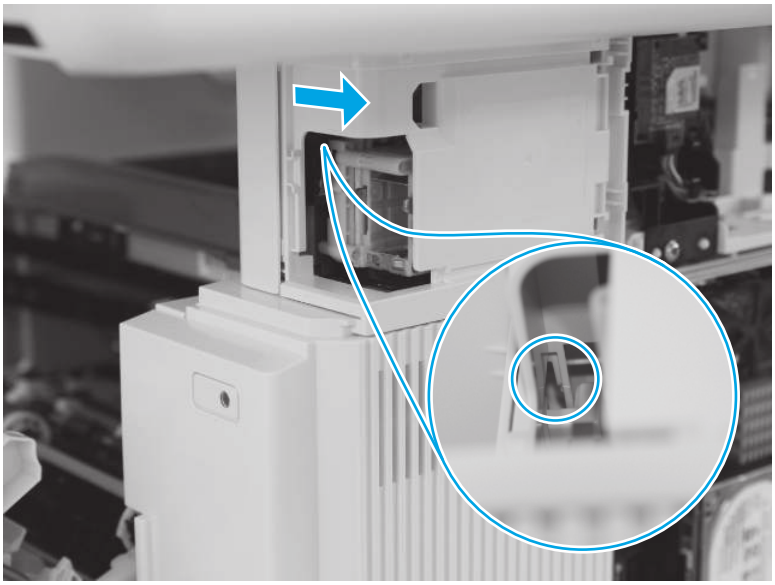
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-554 Release one tab



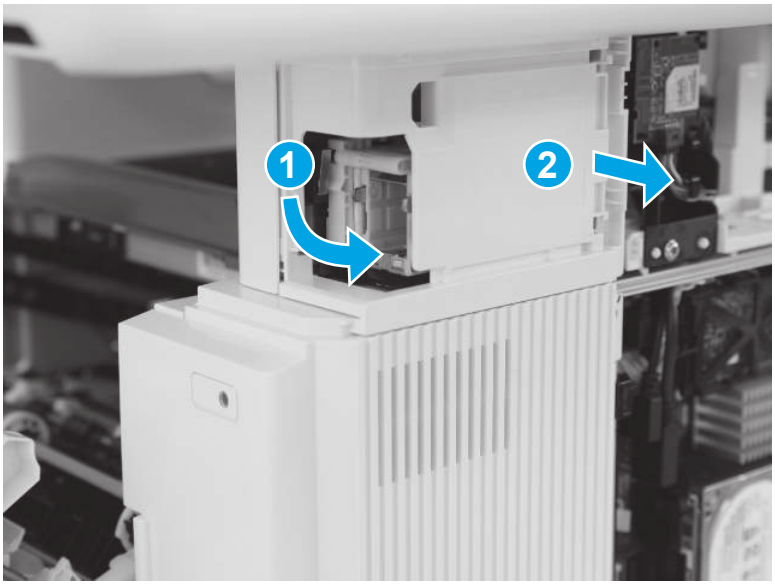
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-555 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

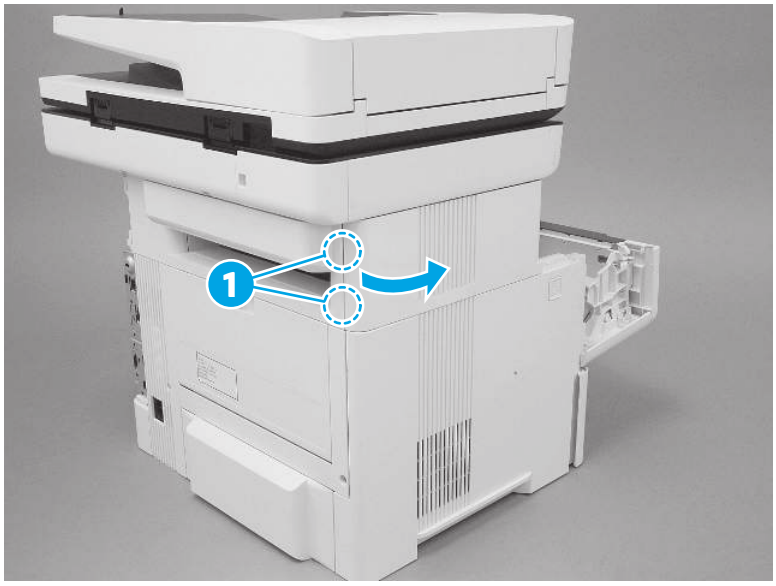
Figure 4-556 Remove the cover



7. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-557 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

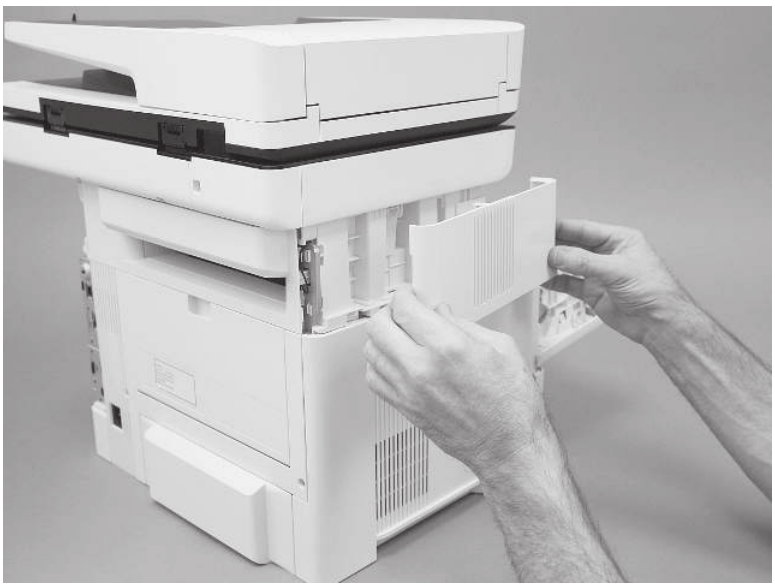
Figure 4-558 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-559 Slide the cover

d. Remove the cover.

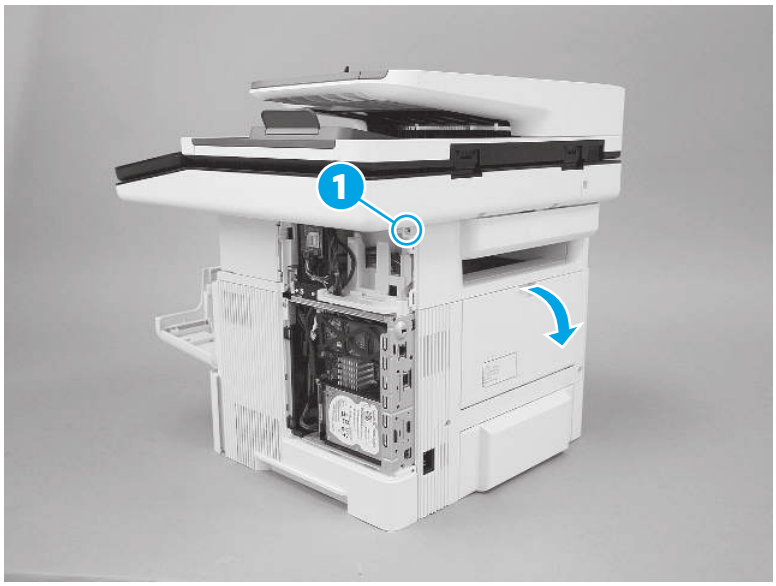
Figure 4-560 Remove the cover



8. Remove the top-rear cover (M527/E52545/M528/E52645).

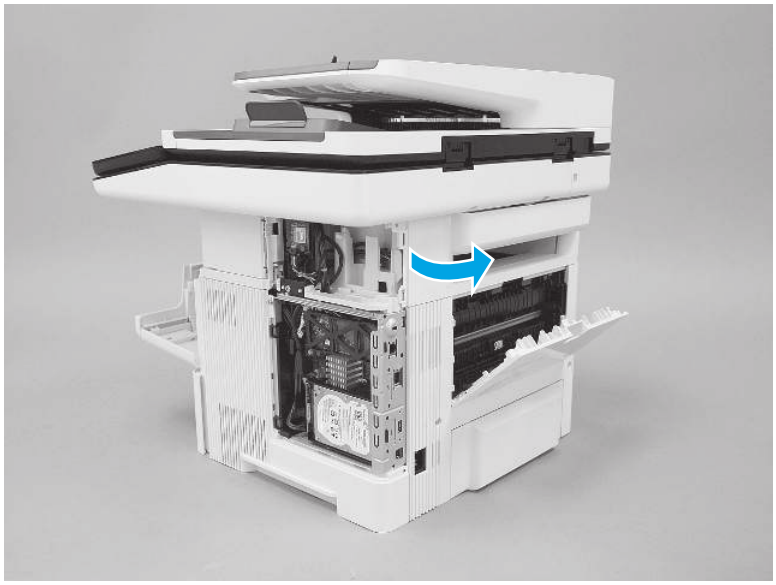
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-561 Remove one screw



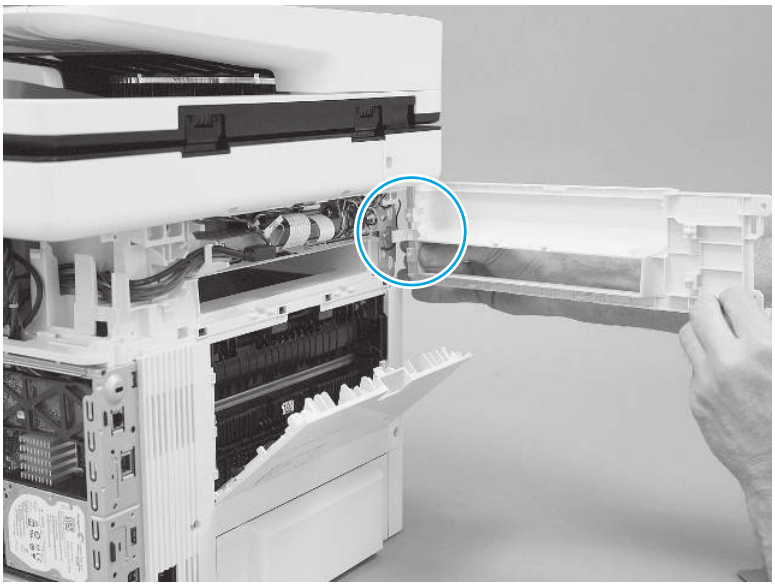
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-562 Rotate the cover



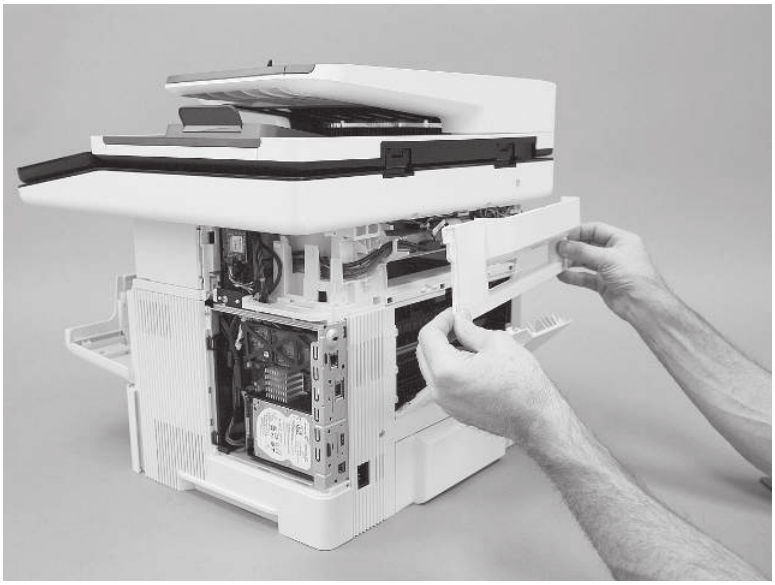
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-563 Release one boss



d. Remove the cover.

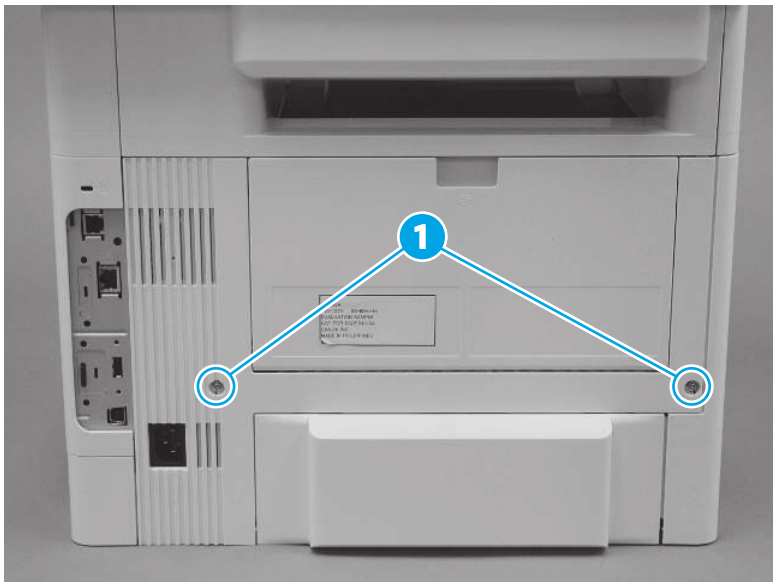
Figure 4-564 Remove the cover



9. Remove the rear door assembly.

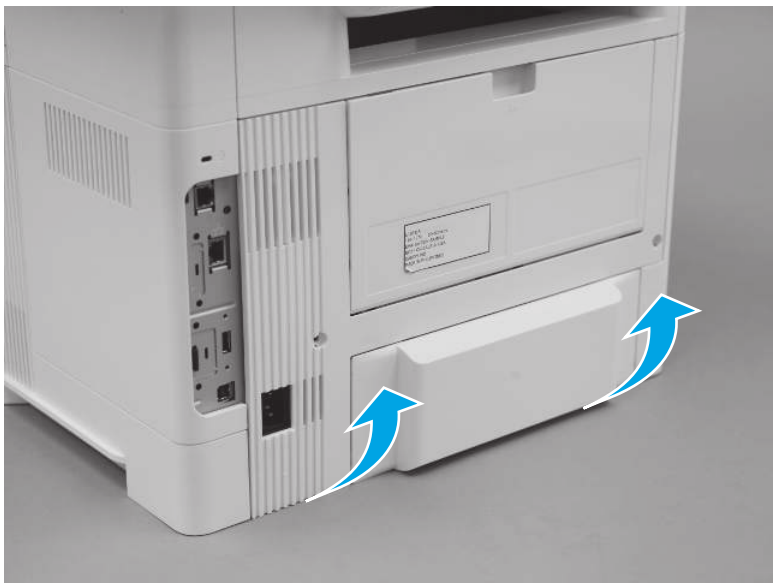
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-565 Remove two screws



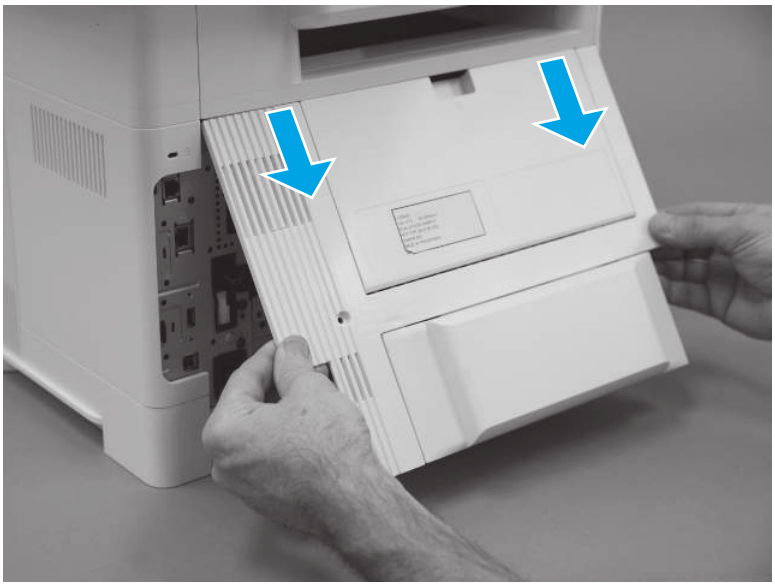
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-566 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-567 Remove the cover



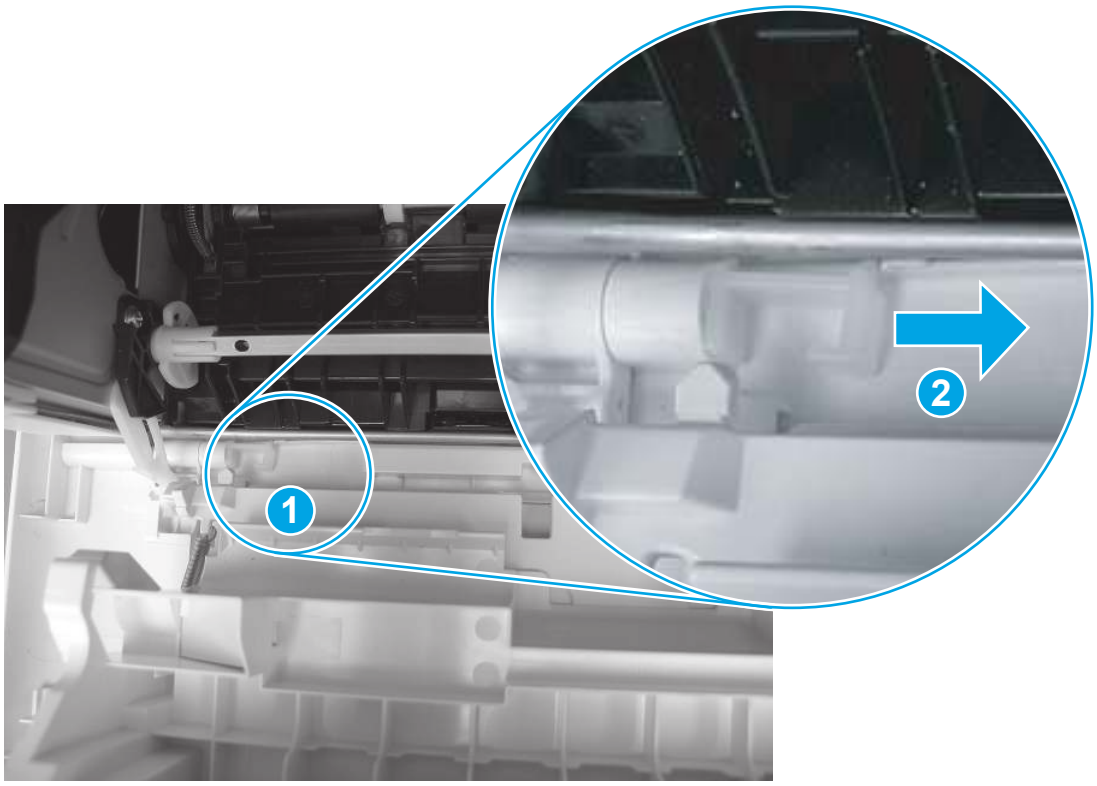
10. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

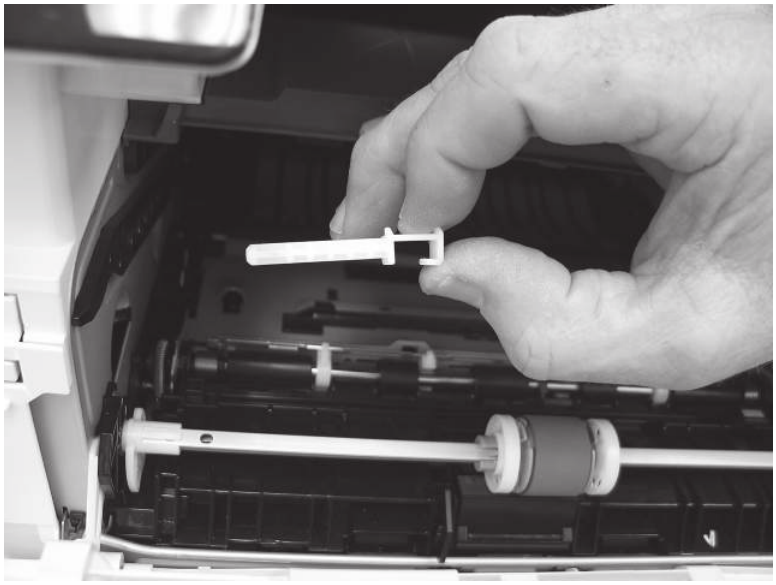
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-568 Release the support shaft



b. Remove the support shaft.

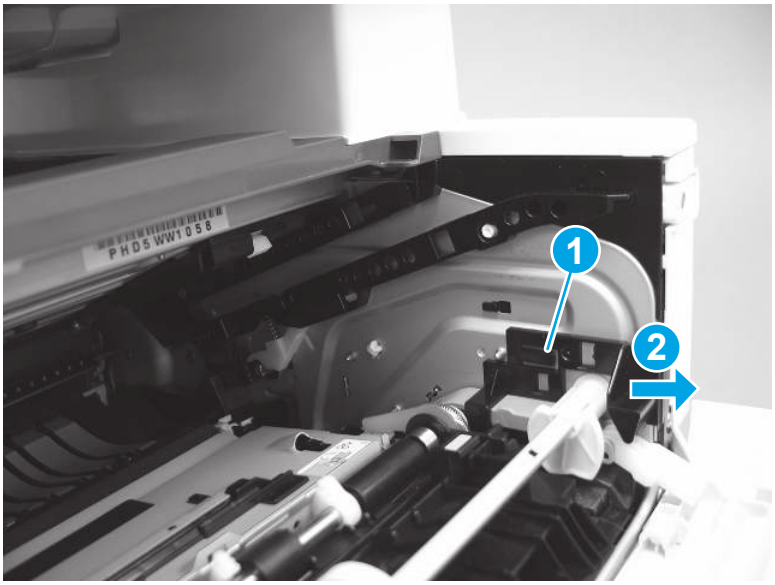
Figure 4-569 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

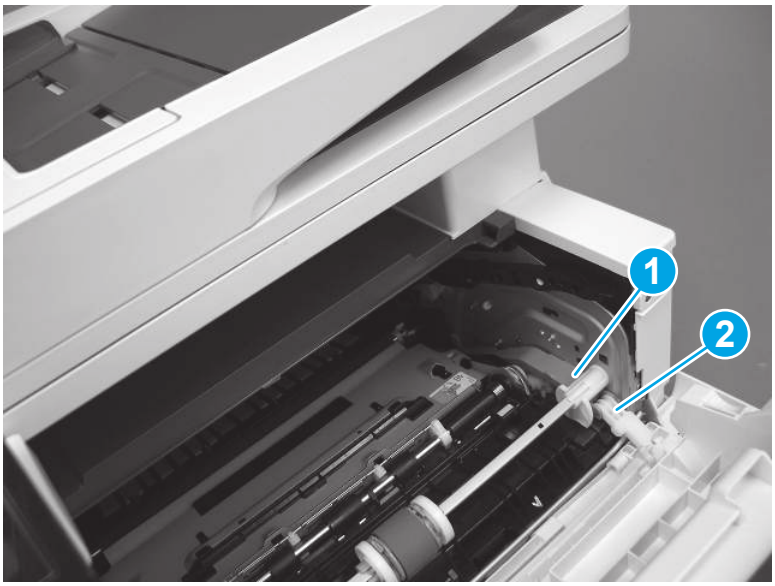
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-570 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-571 Release the pressure-release link



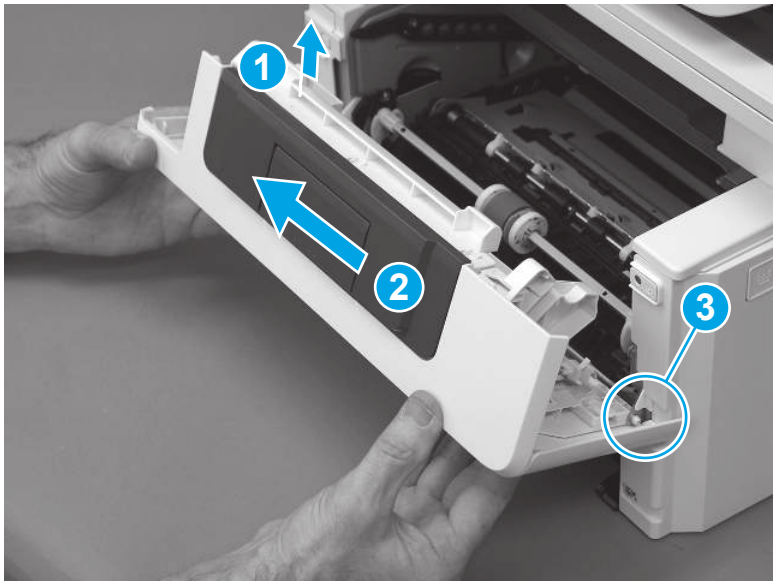
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

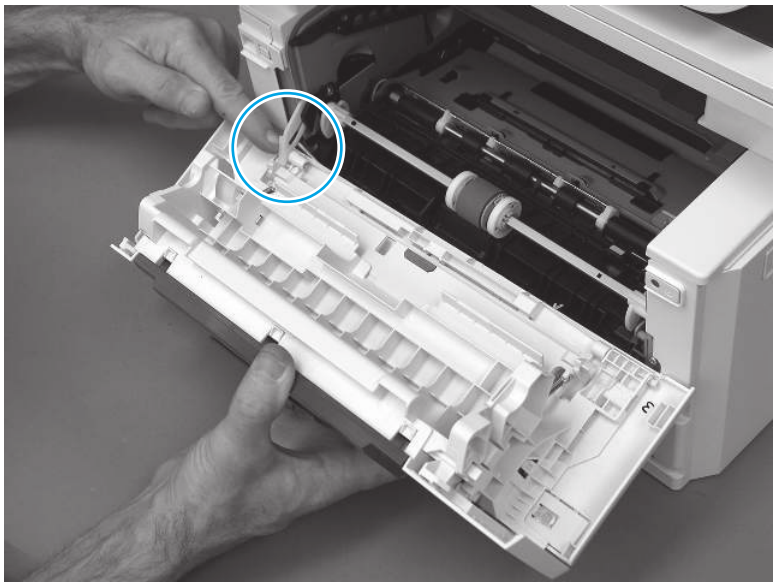
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-572 Release the door



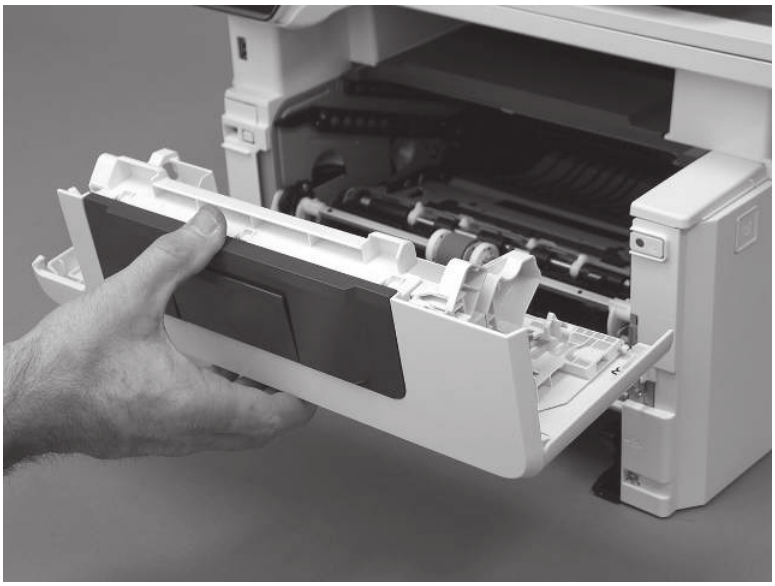
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-573 Release the left-side retainer arm



g. Remove the door.

Figure 4-574 Remove the door



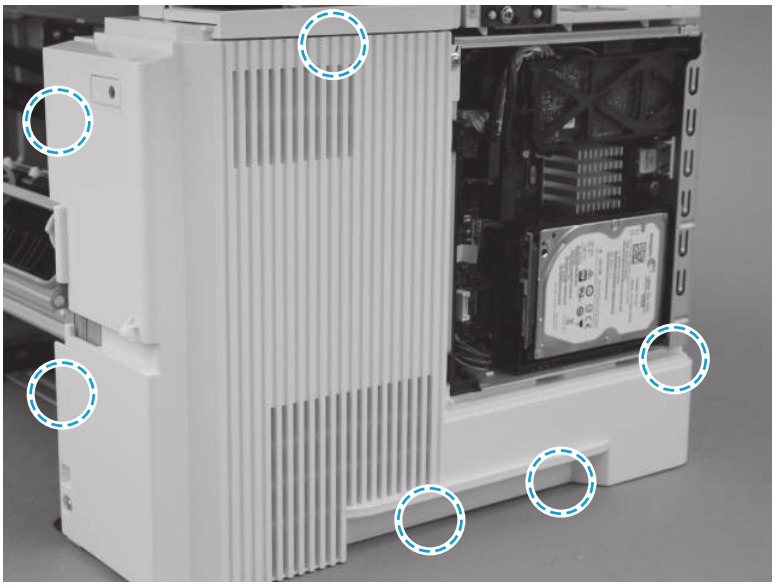
11. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

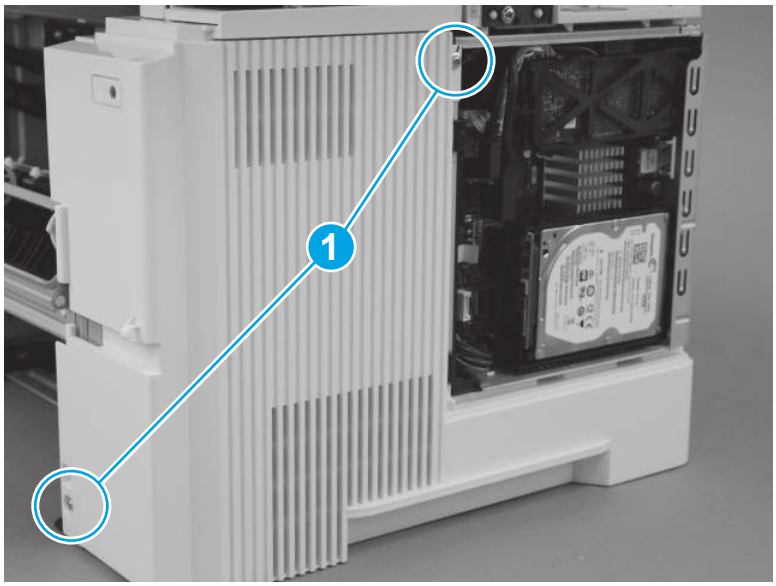
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-575 Locate the tabs and bosses



b. Remove two screws (callout 1).

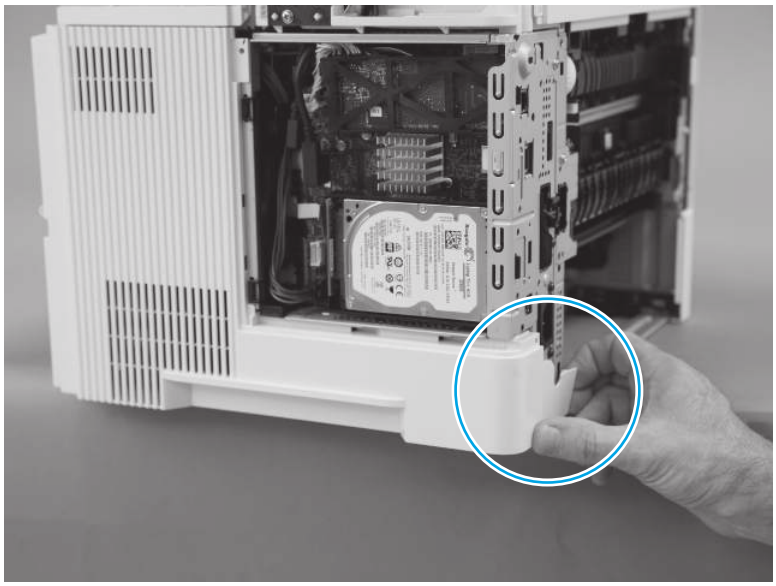
Figure 4-576 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

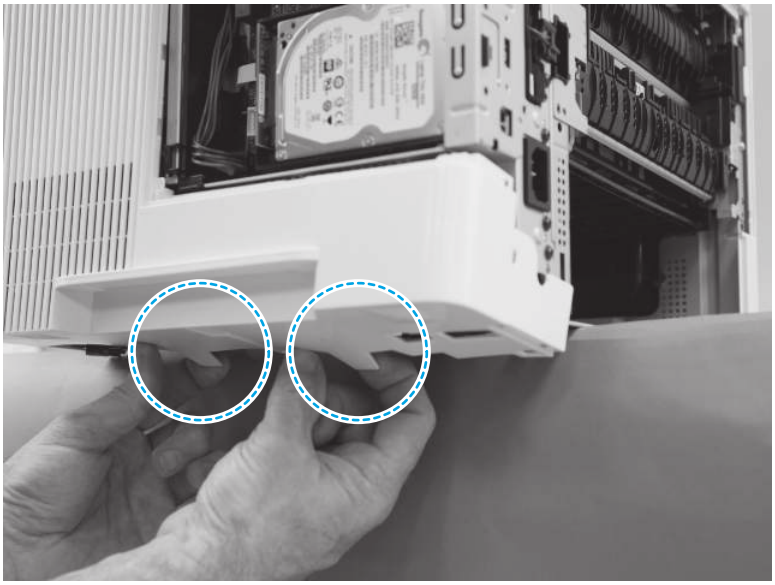
Figure 4-577 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-578 Release two bosses

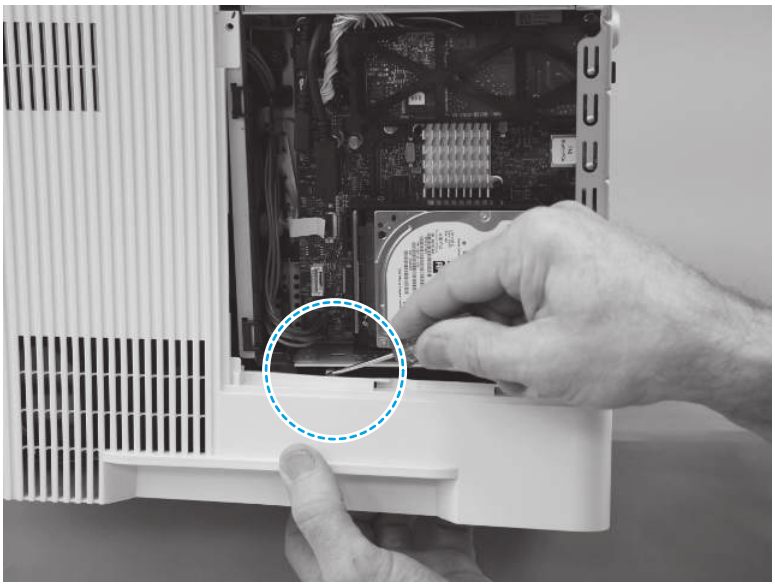


e. Near the formatter, release one tab.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-579 Release one tab

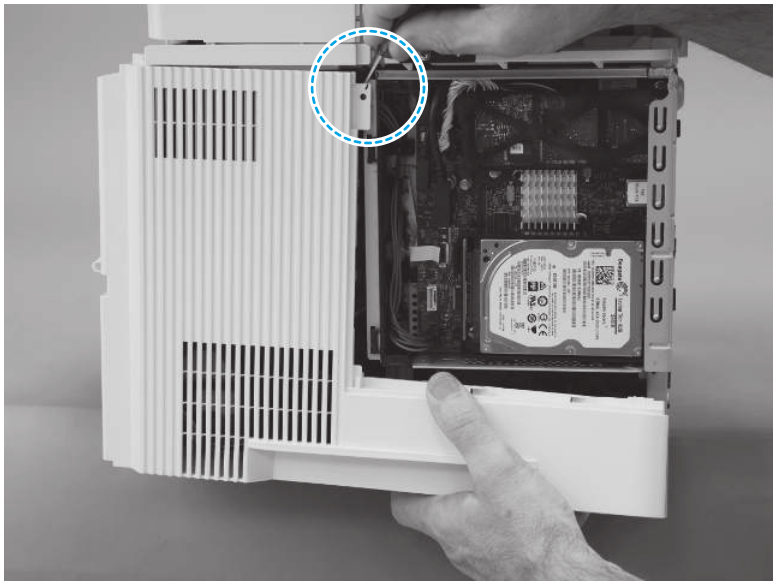


f. At the top rear edge of the cover, release one tab.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

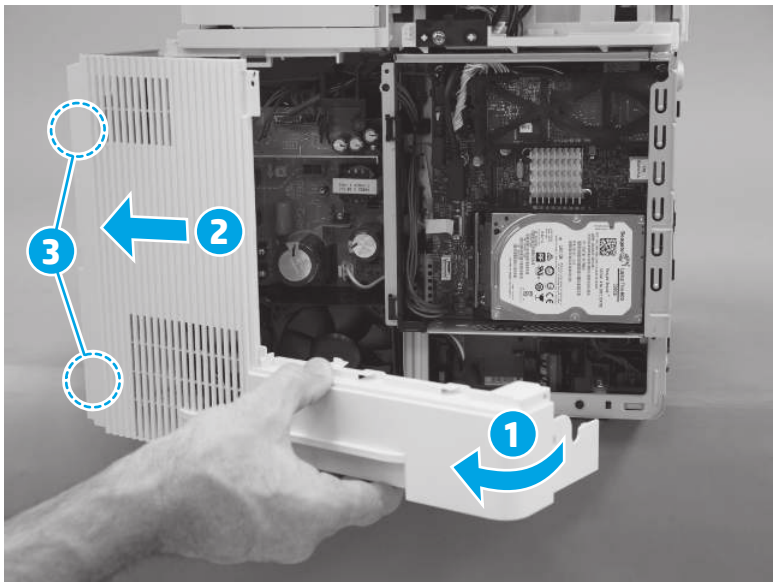
Figure 4-580 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-581 Remove the cover



12. Remove the left cover.

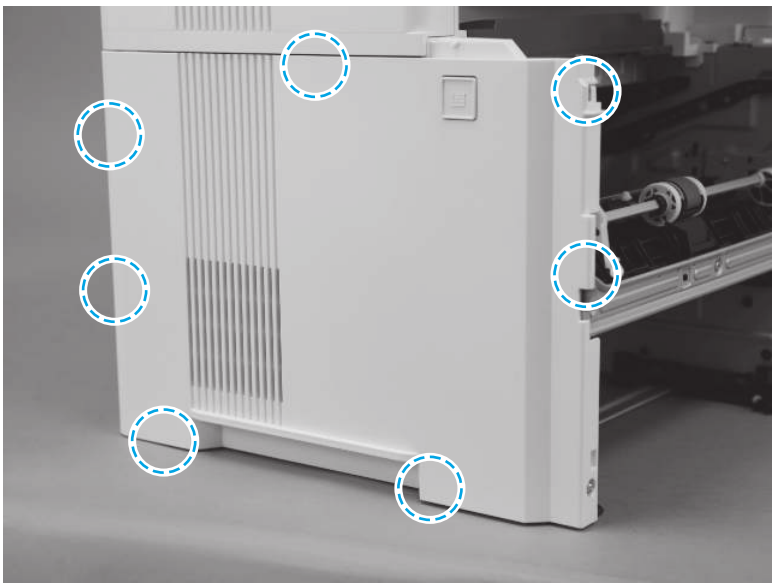
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

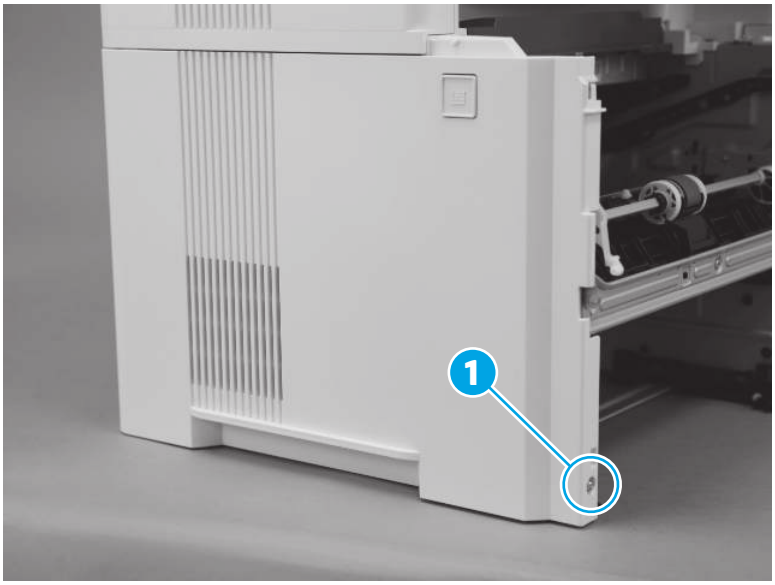
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-582 Locate of the tabs and bosses



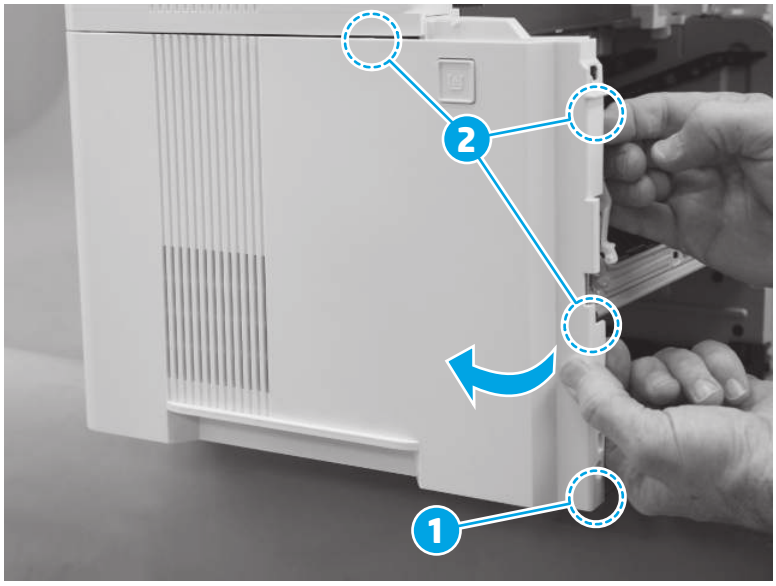
b. Remove one screw (callout 1).

Figure 4-583 Remove one screw



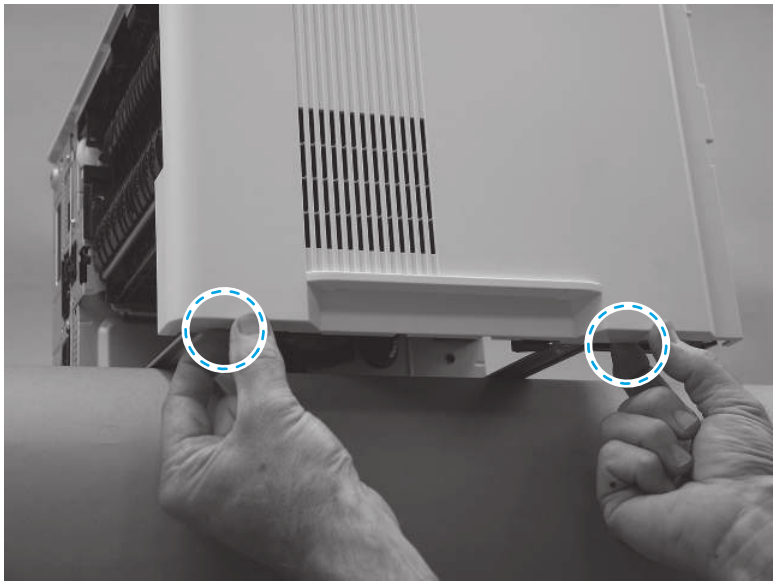
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-584 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

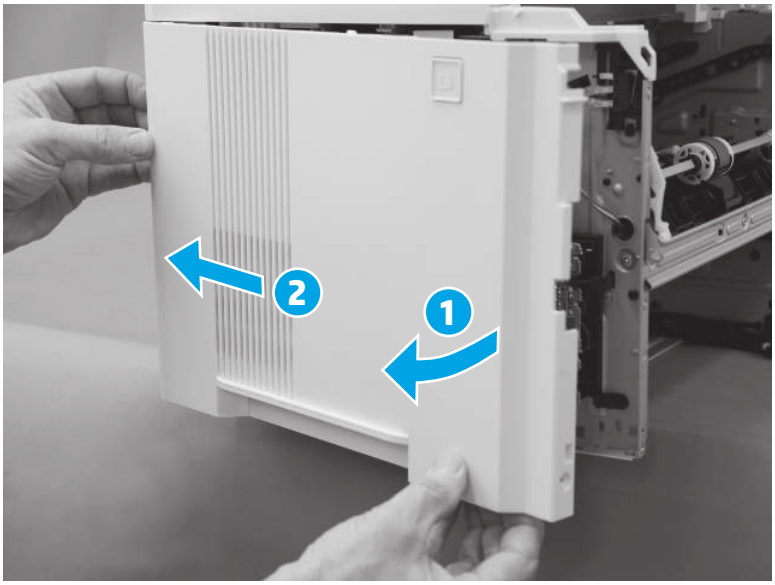
Figure 4-585 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-586 Remove the cover



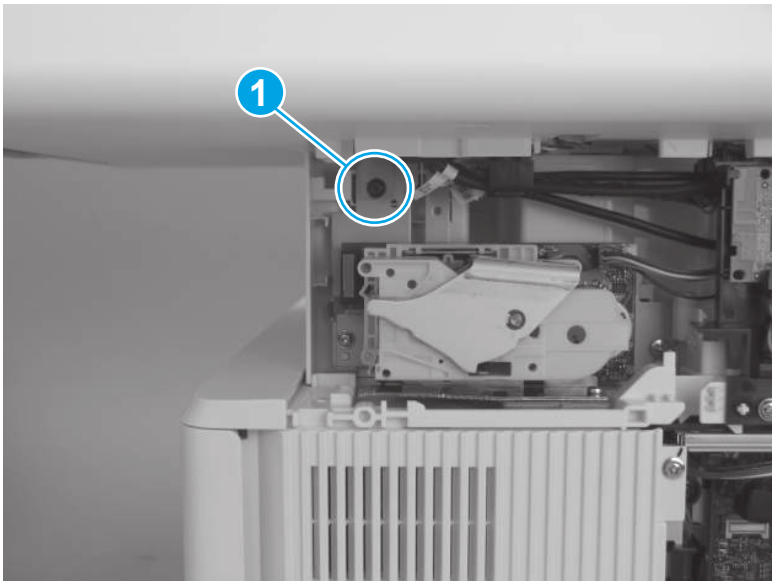
13. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-587 Remove one screw

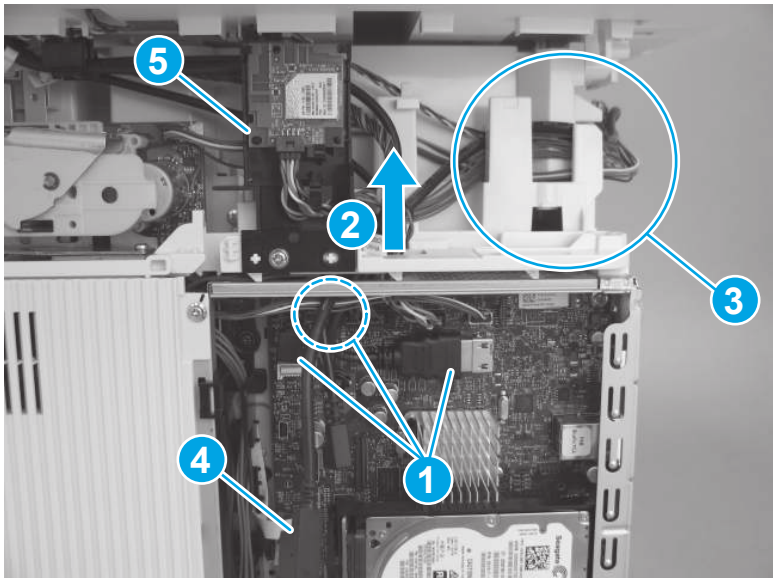


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

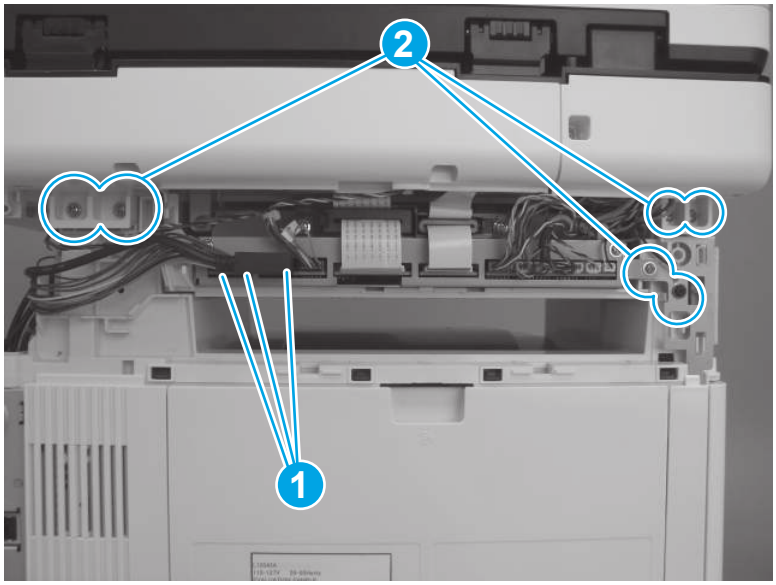
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-588 Disconnect cables and connectors



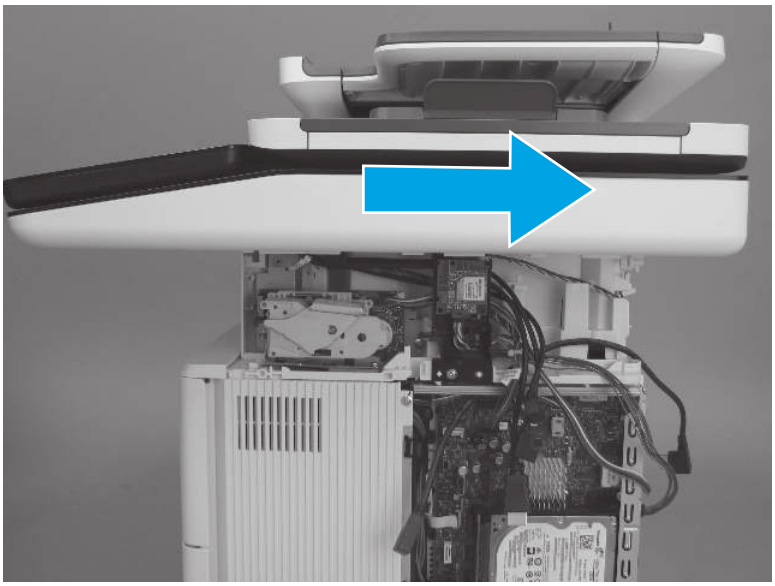
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-589 Disconnect connectors and remove screws



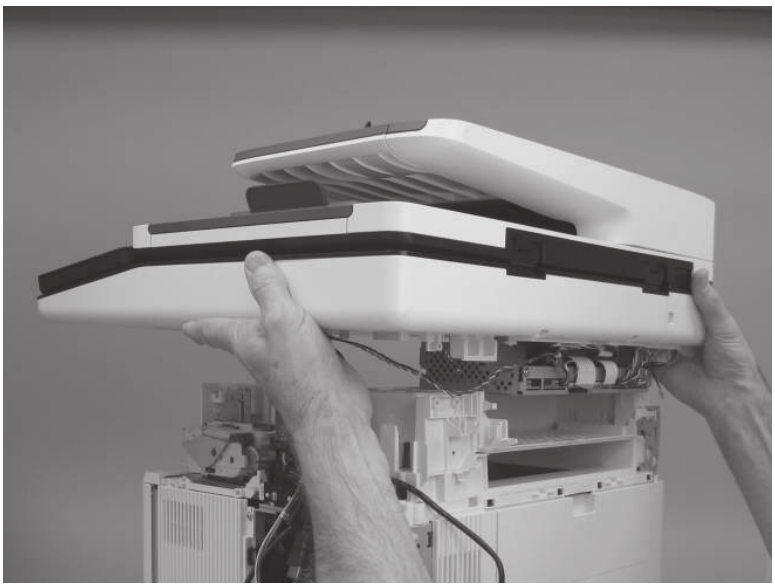
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-590 **Slide the ISA towards the back of the printer**



e. Remove the ISA.

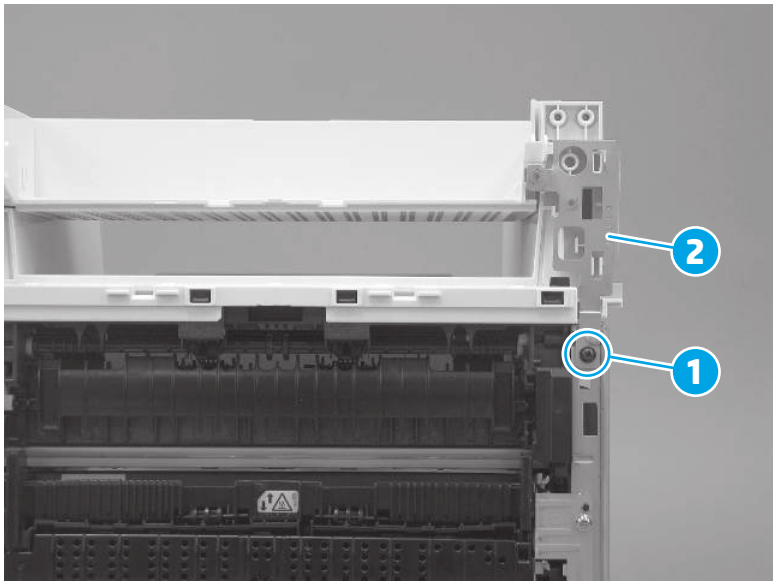
Figure 4-591 **Remove the ISA**



14. Remove the top cover (M527/E52545/M528/E52645).

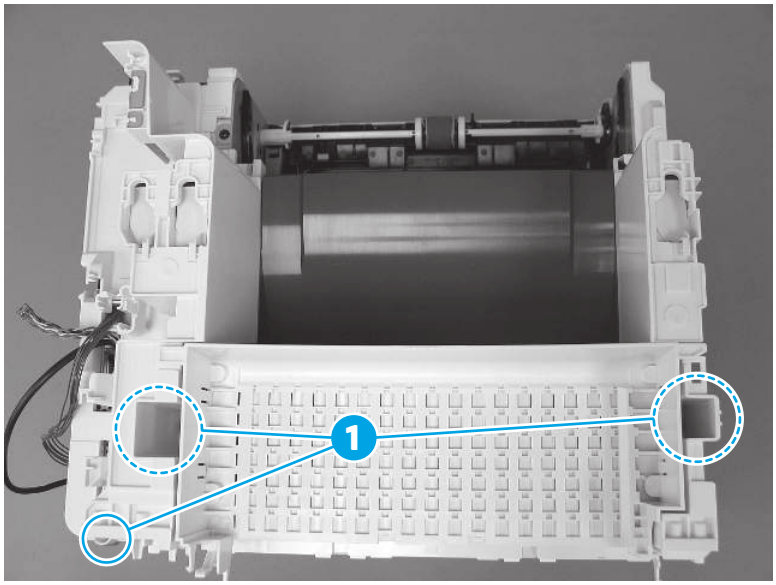
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-592 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

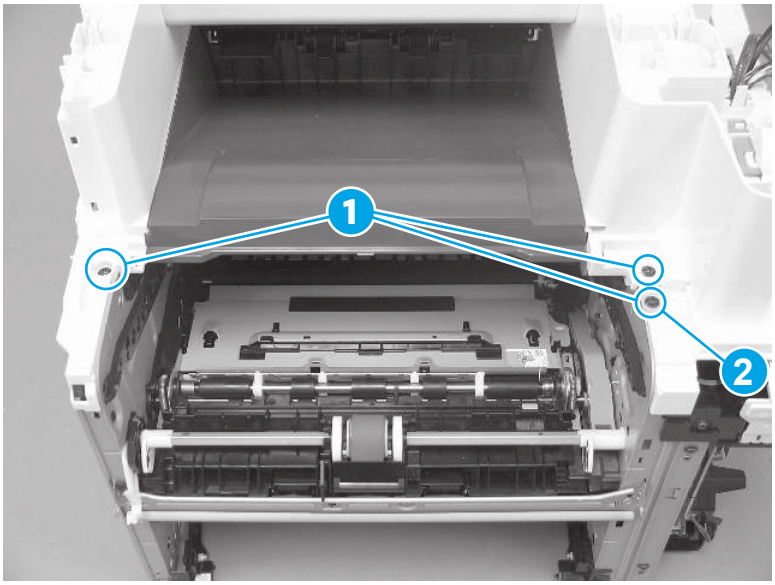
Figure 4-593 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

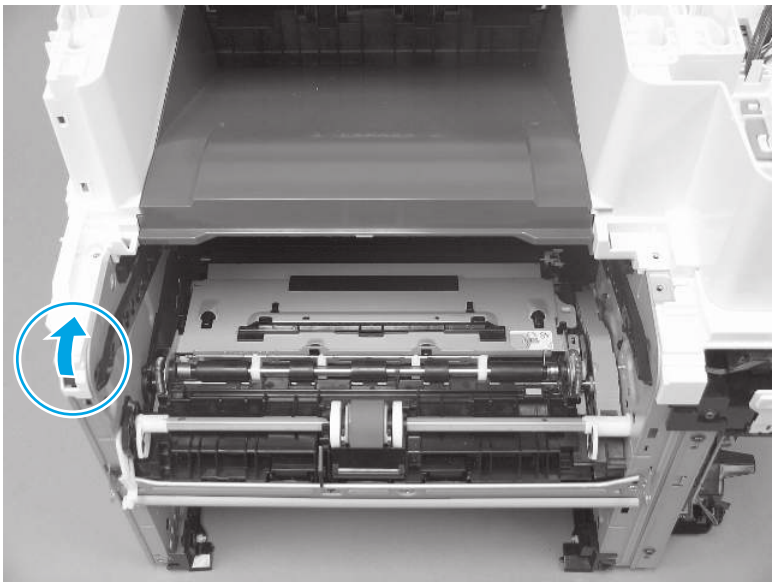
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-594 Remove three screws



d. At the front left of the printer, release one boss.

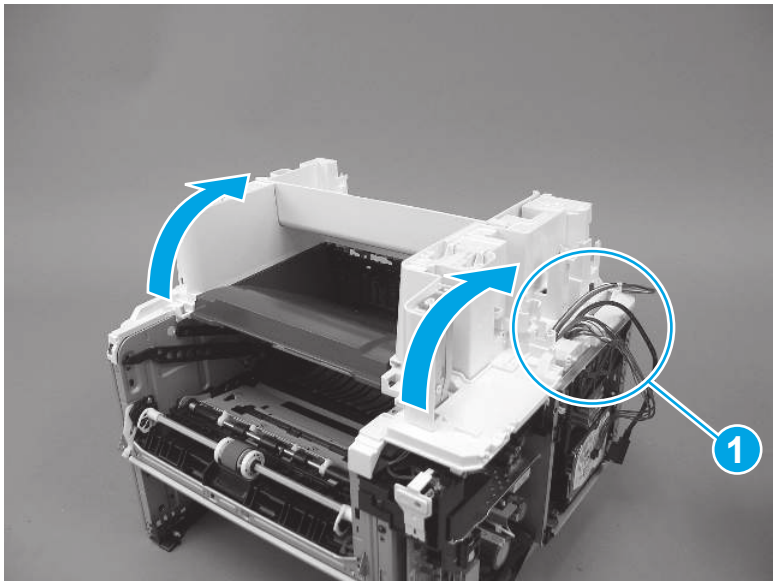
Figure 4-595 Release one boss



e. Rotate the front of the cover up and away from the printer.

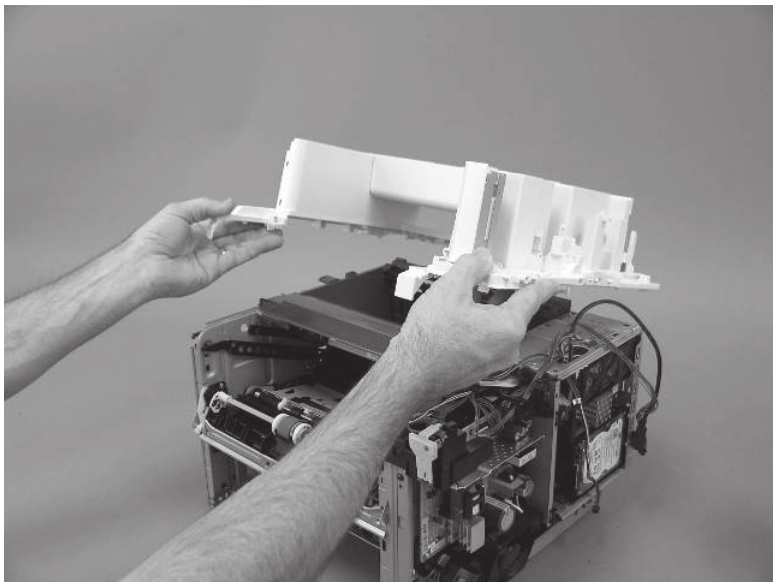
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-596 Rotate the front of the cover up



f. Remove the cover.

Figure 4-597 Remove the cover

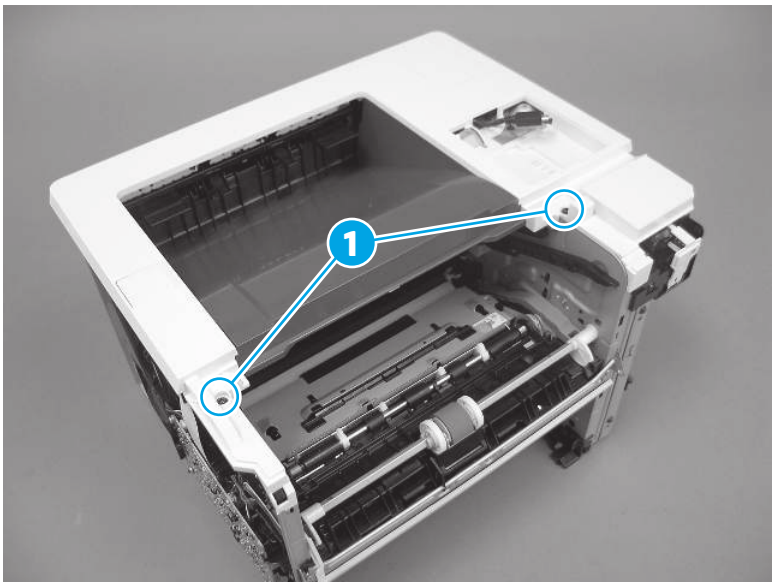


15. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

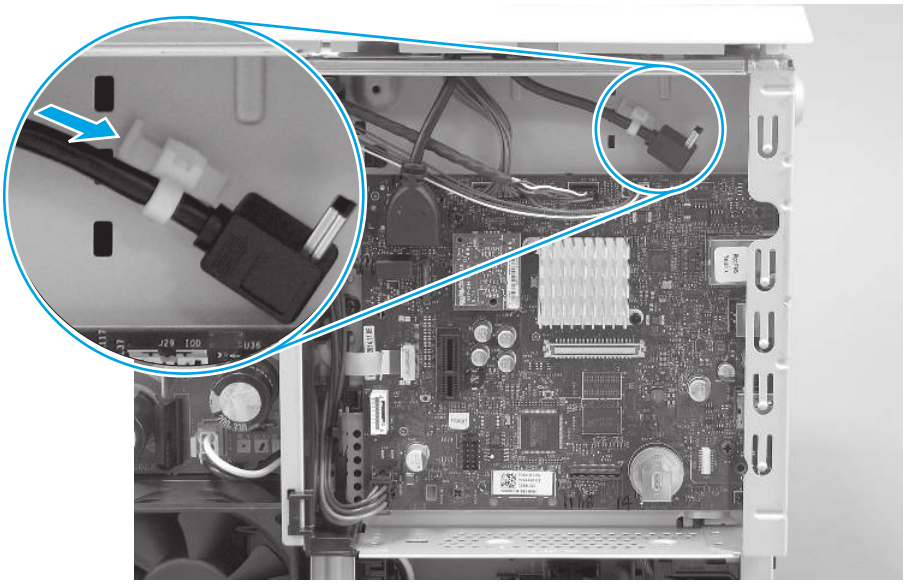
Figure 4-598 **Remove two screws**



b. **M506/E50045/ only:** Release one cable retainer from the chassis.

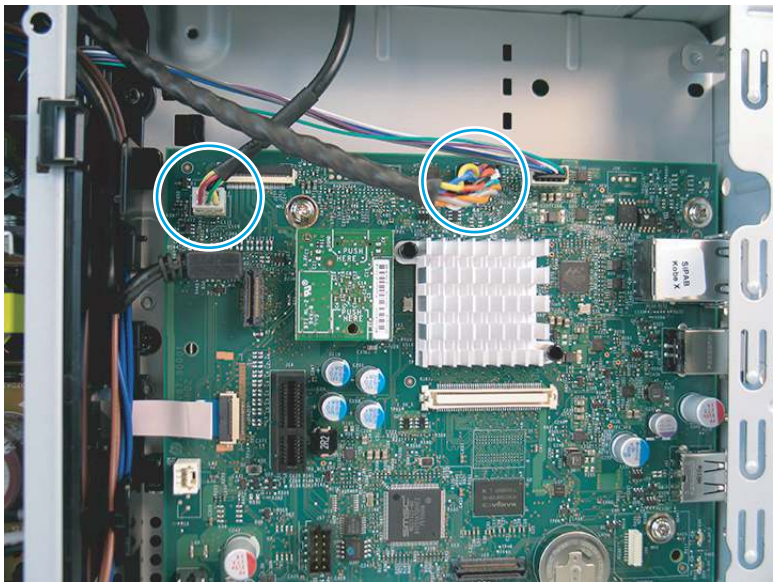
TIP: Depress the tab on the retainer to release it.

Figure 4-599 **Release one cable retainer**



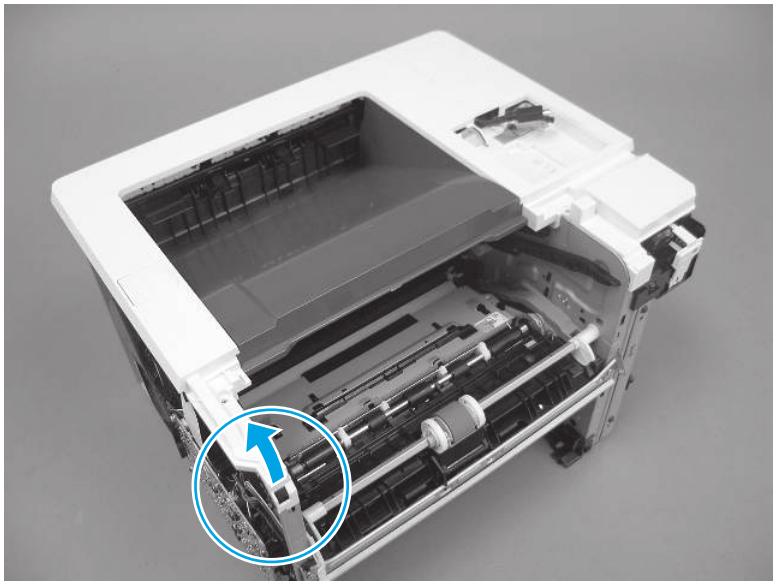
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-600 **Disconnect two connectors**



d. Release one boss.

Figure 4-601 **Release one boss**

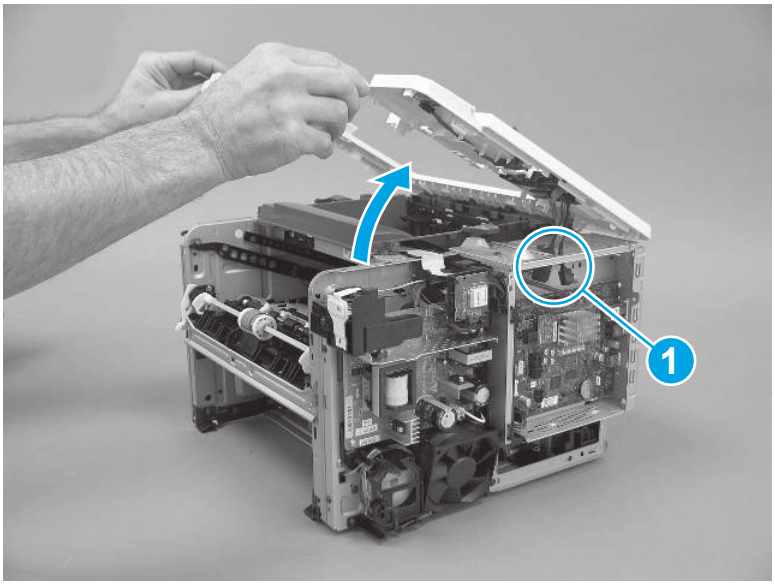


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-602 Remove the cover (M506/E50045)



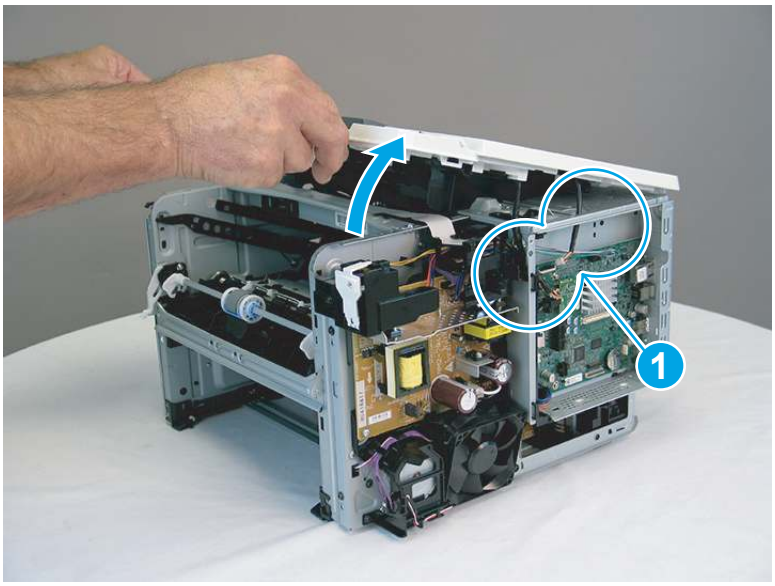
f. **M507/E50145only:** Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only:** As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only:** Disconnect the control panel before removing the cover.

Figure 4-603 Remove the cover (M507/E50145)

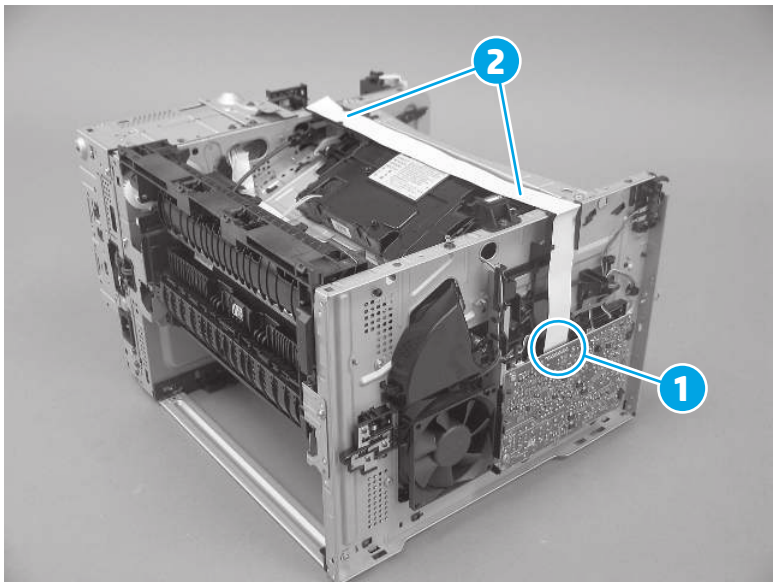


16. Remove the laser/scanner assembly.

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Disconnect one flat-flexible cable (FFC; callout 1), release the FFC from the retainers (callout 2), and then move it out of the way.

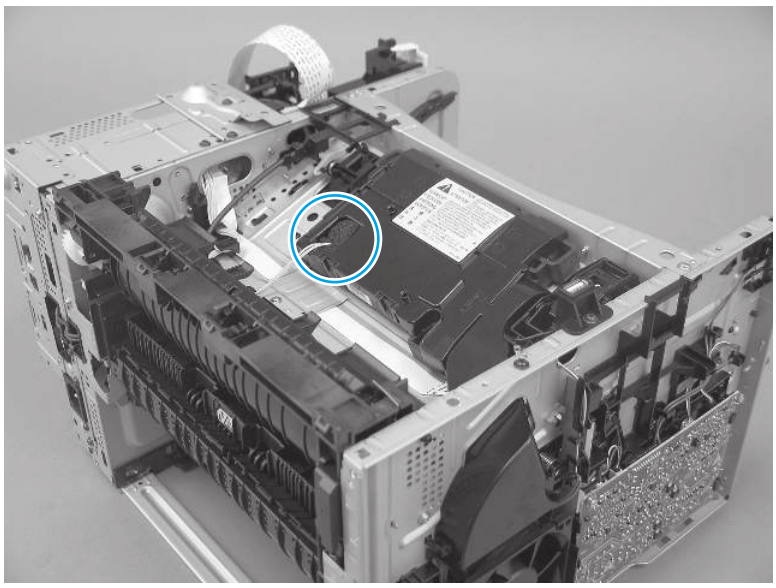
Figure 4-604 Disconnect one FFC



b. Remove the antistatic foam pad.

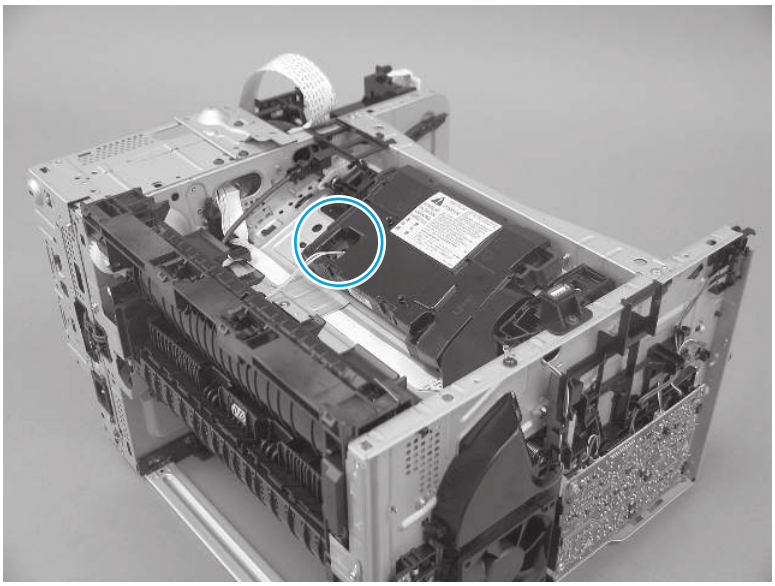
Reinstallation tip: Set the antistatic foam pad aside. It must be installed on the replacement laser/scanner.

Figure 4-605 Remove the antistatic foam pad



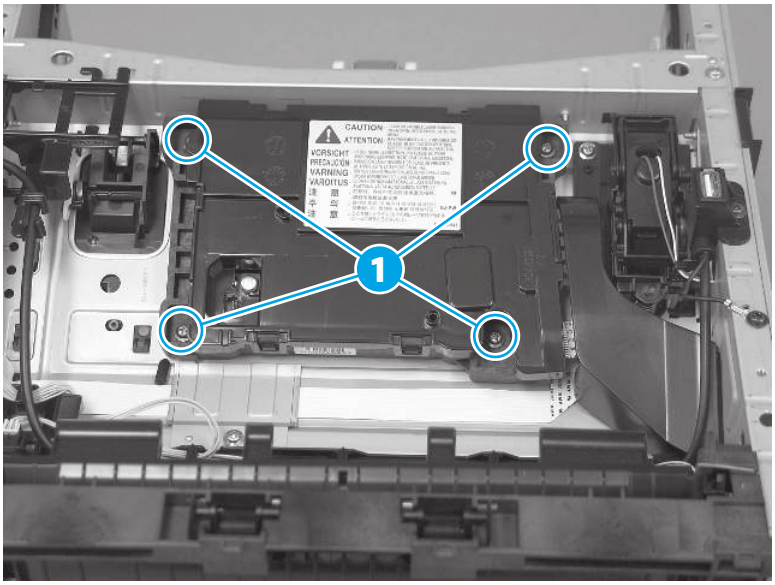
c. Disconnect one connector.

Figure 4-606 Disconnect one connector



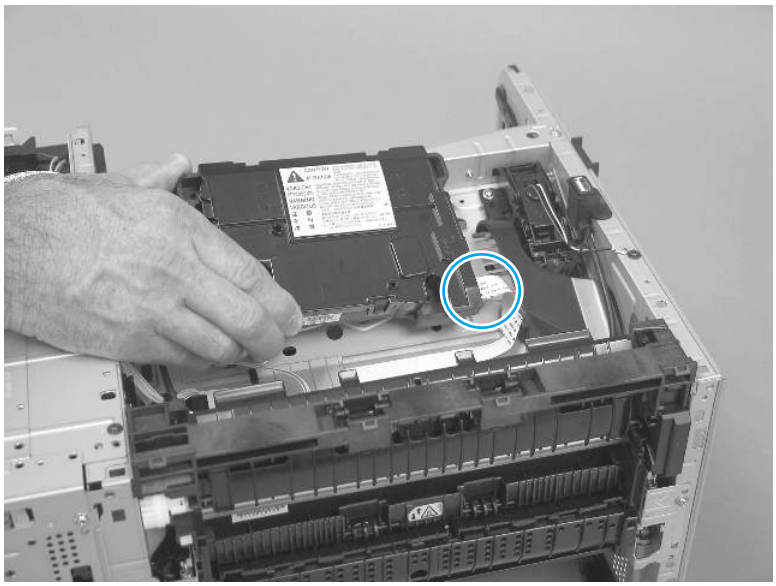
d. Remove four screws (callout 1).

Figure 4-607 Remove four screws



e. Disconnect one FFC, and then remove the laser/scanner.

Figure 4-608 Remove the laser/scanner



17. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Formatter case

Learn how to remove and replace the formatter case.

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the formatter case (M501).

M506/E50045

View a video of how to remove and replace the formatter case (M506/E50045).

M507/E50145

View a video of how to remove and replace the formatter case (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the formatter case (M527/E52545/M528/E52645).

Mean time to repair: 7 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-36 Part information

Part number	Part description
RL2-0895-000CN	Case, formatter (M527/E52545/M528/E52645)
RL2-0885-000CN	Case, formatter (M506/E50045/M507/E50145)
RL2-0888-000CN	Case, formatter (M501)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

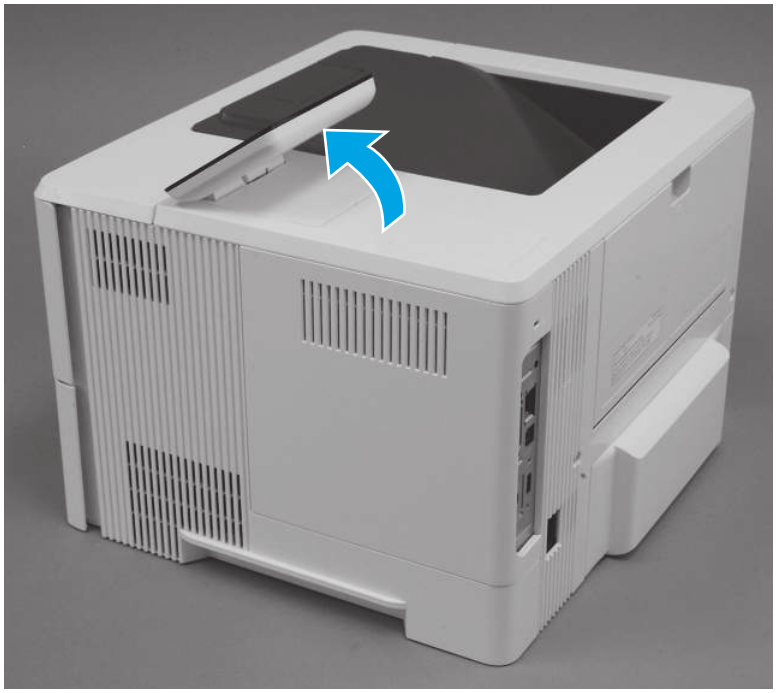
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

   a. Tilt the control panel to the fully raised position.

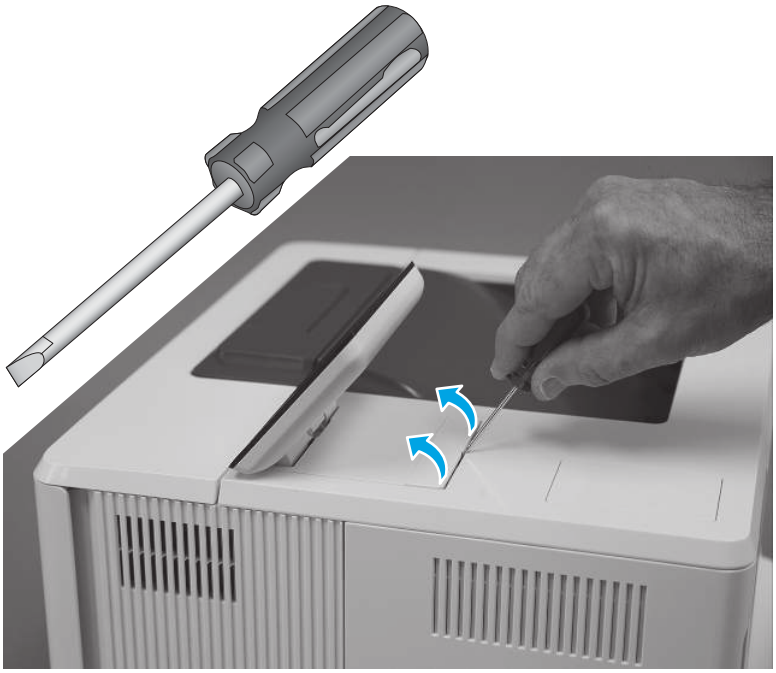
   Figure 4-609 **Tilt the control panel up**

   b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

   TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

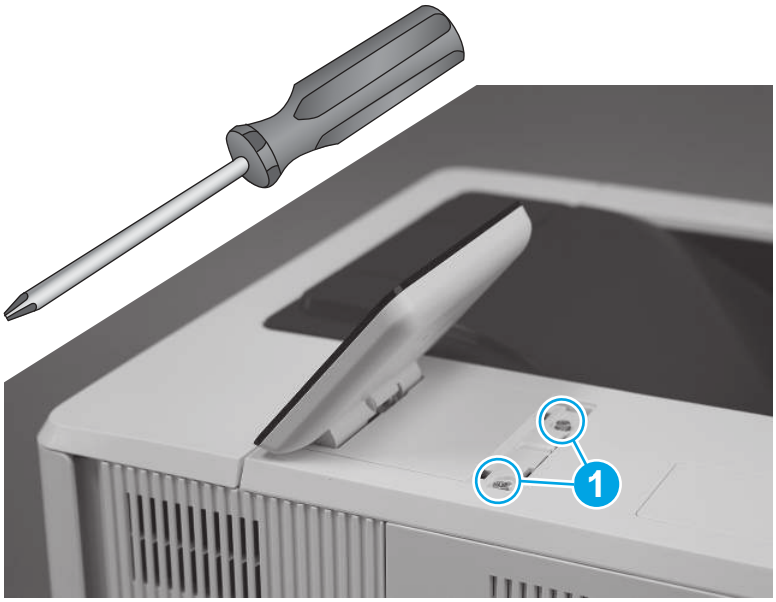
Figure 4-610 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

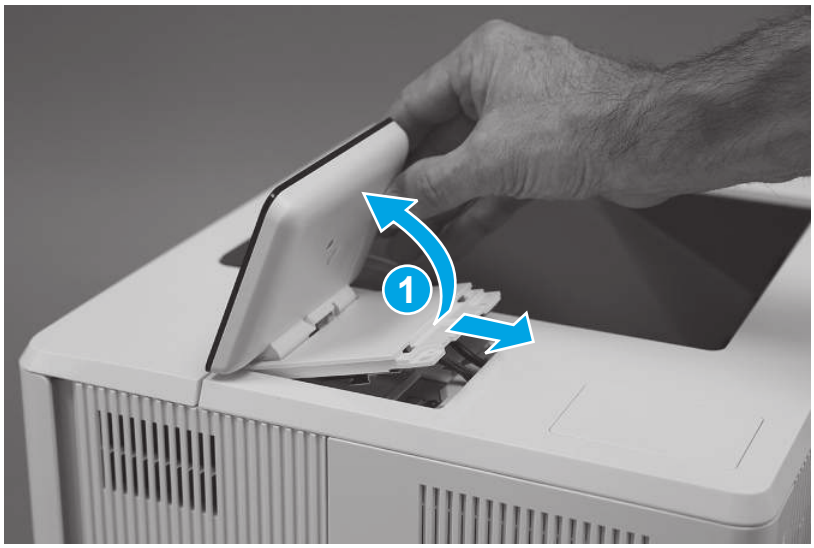
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-611 Remove two screws



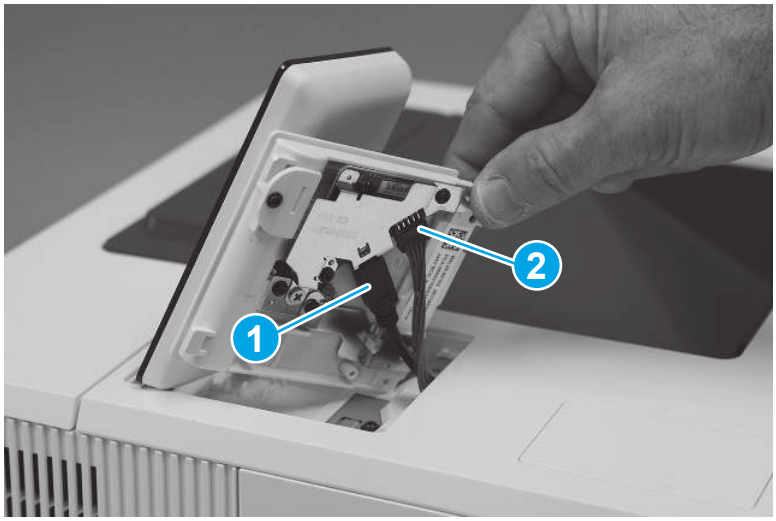
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-612 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-613 Remove the control panel (M506/E50045)



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-614 Disconnect one FFC (M507/E50145)

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ CAUTION: ESD sensitive part.

Figure 4-615 Remove the control panel (M507/E50145)

2. Remove the tray.

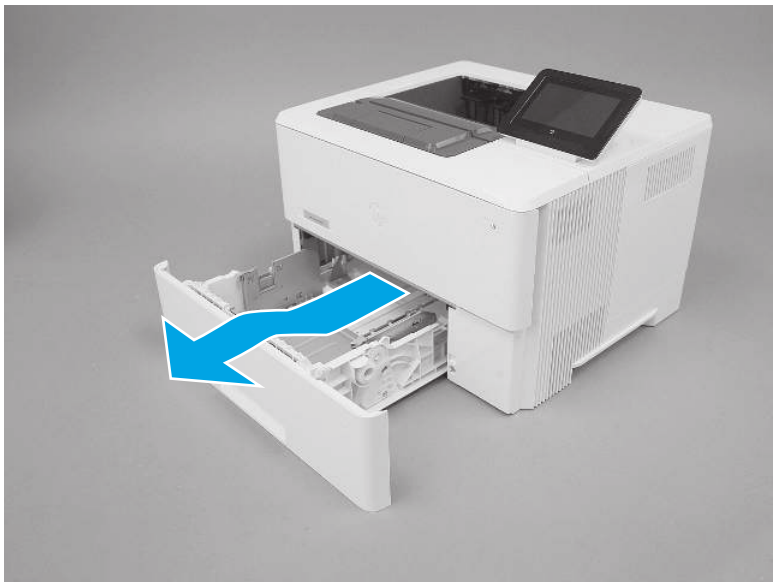
a. Pull the tray straight out of the printer until it stops.

Figure 4-616 Pull the tray out until it stops

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-617 Release and remove the tray

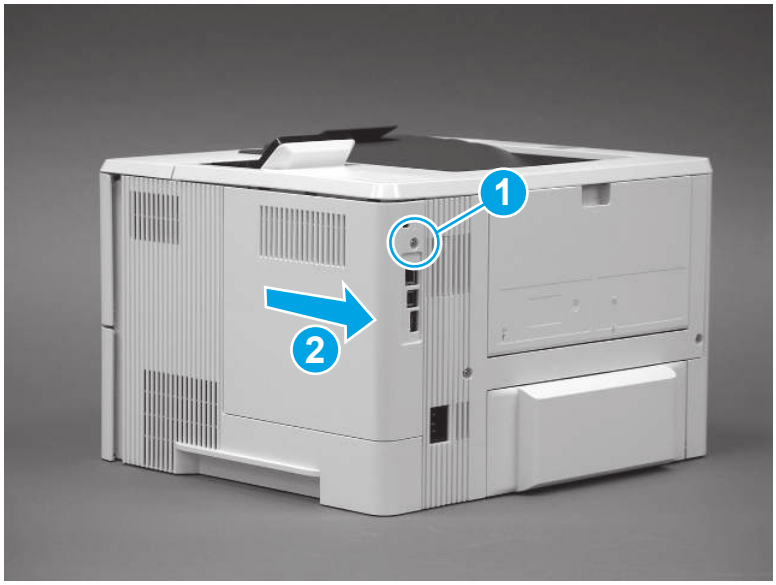


3. Remove the formatter cover.

- Do one of the following:

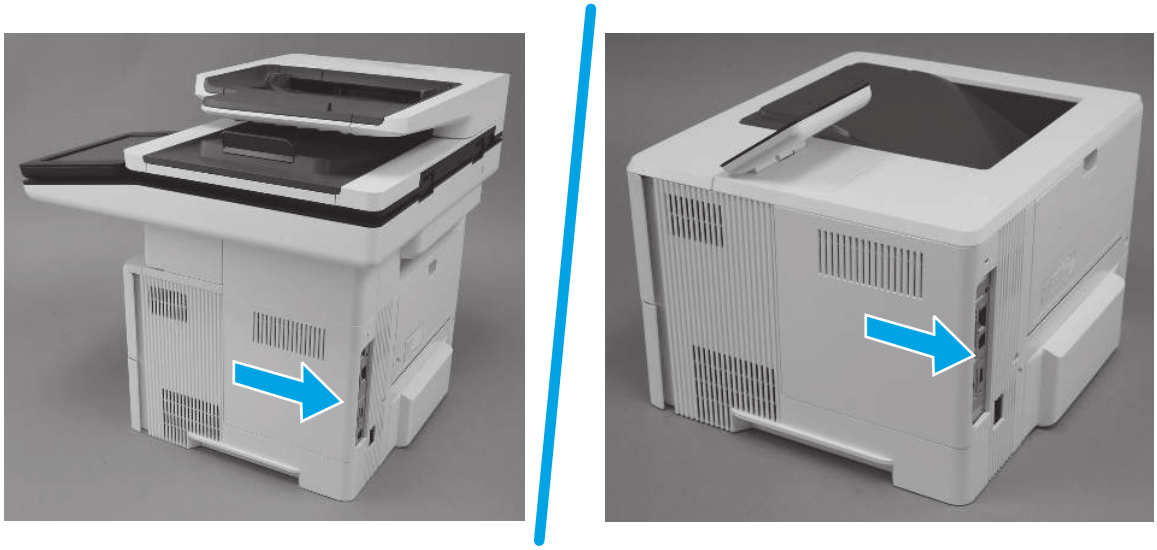
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-618 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-619 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

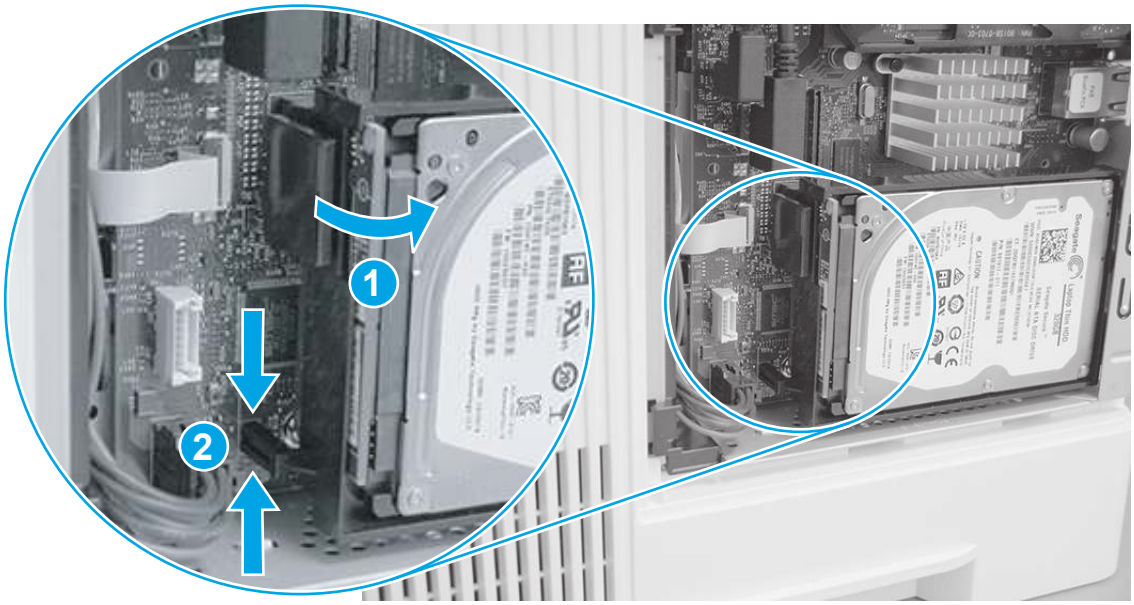


4. Remove the hard-disk drive (HDD models).

CAUTION: ESD sensitive part.

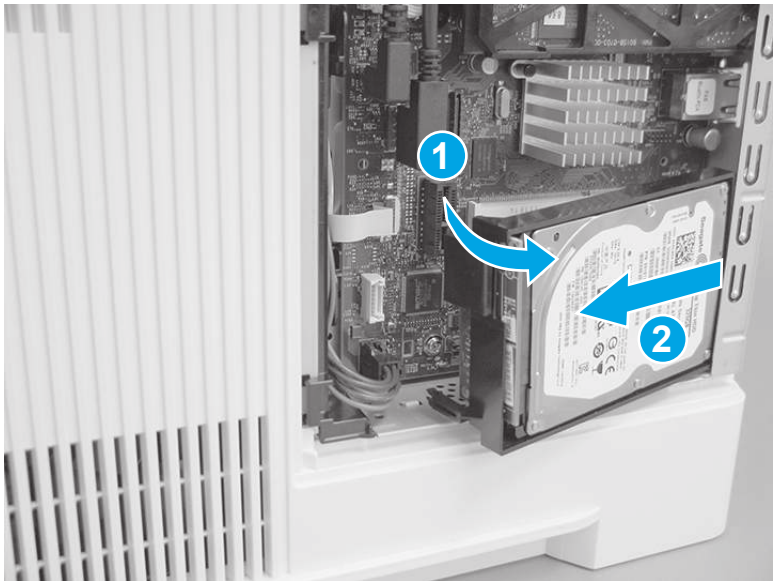
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-620 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-621 Remove the HDD

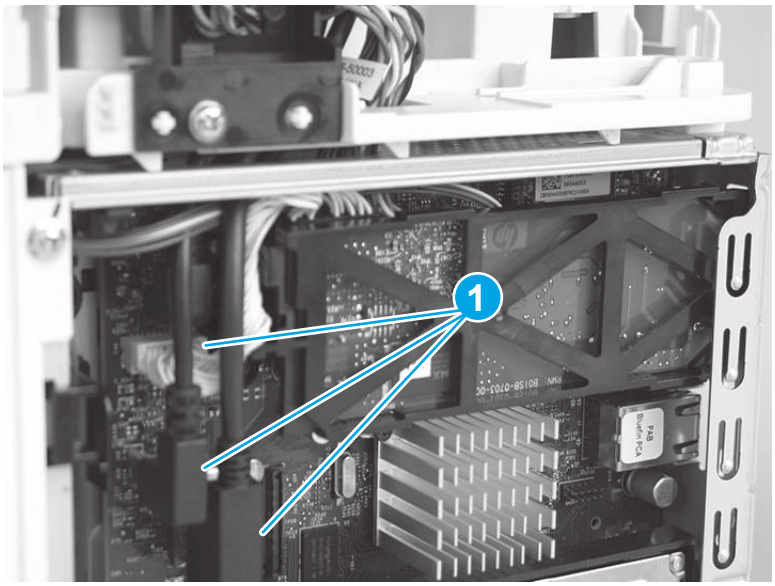


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

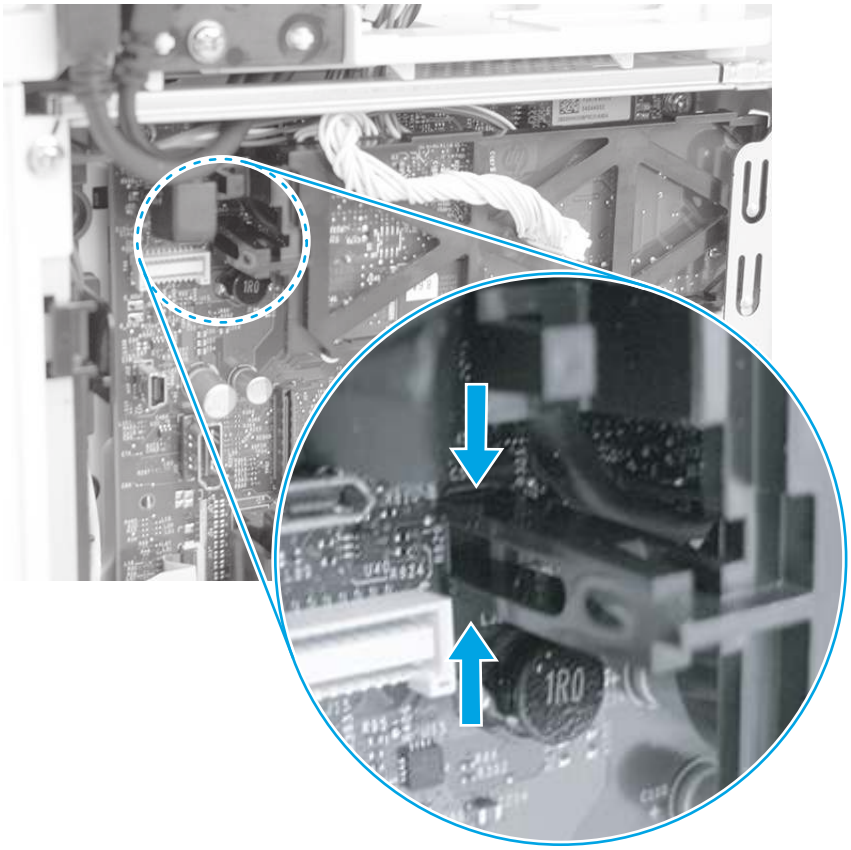
a. Disconnect three connectors (callout 1).

Figure 4-622 Disconnect three connectors



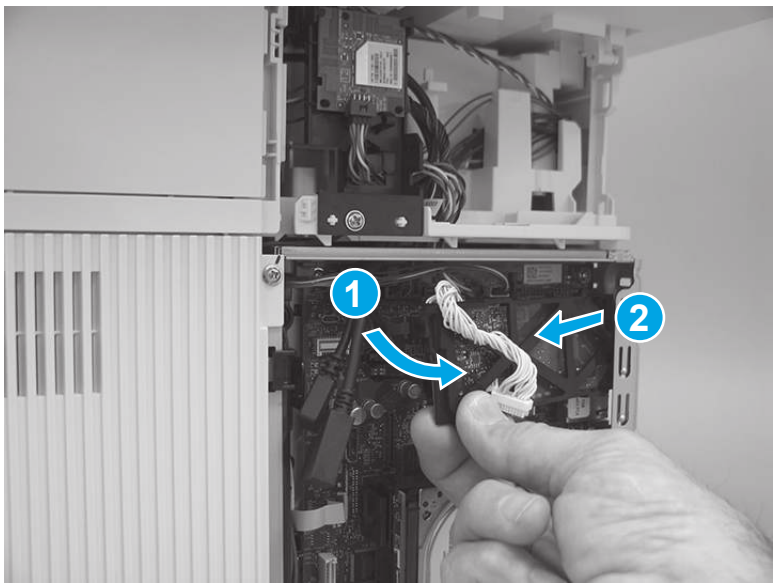
b. Pinch the retainer to release it.

Figure 4-623 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-624 Remove the fax PCA

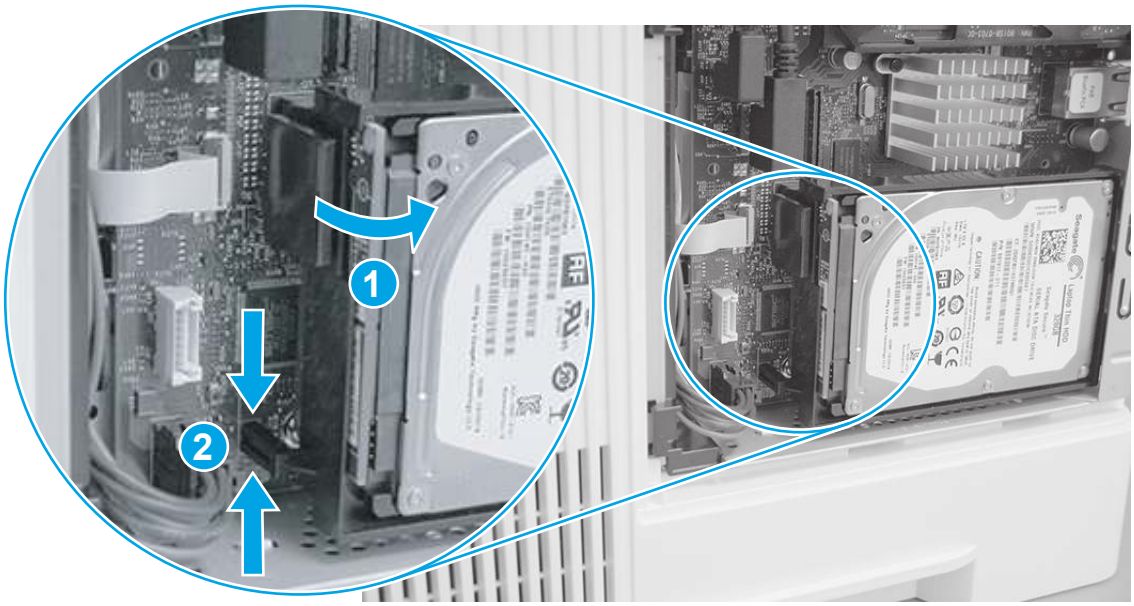


6. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

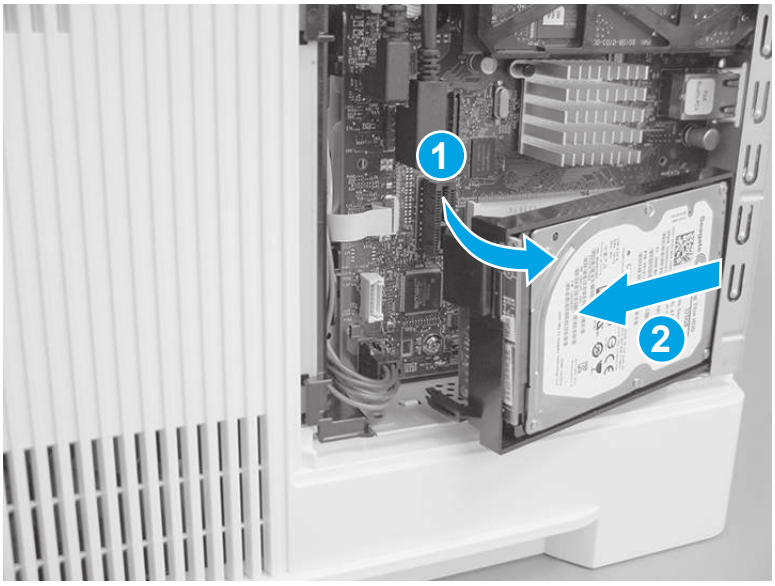
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-625 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-626 Remove the HDD

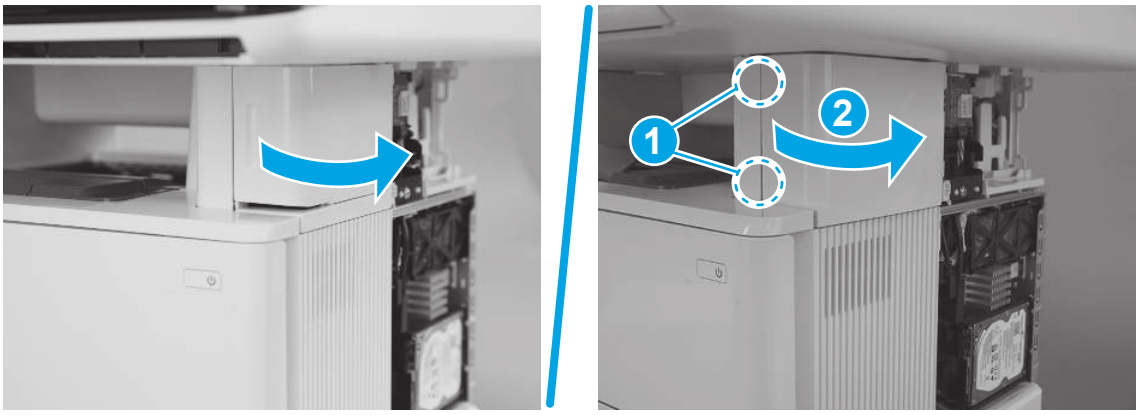


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-627 Open the door or release the cover



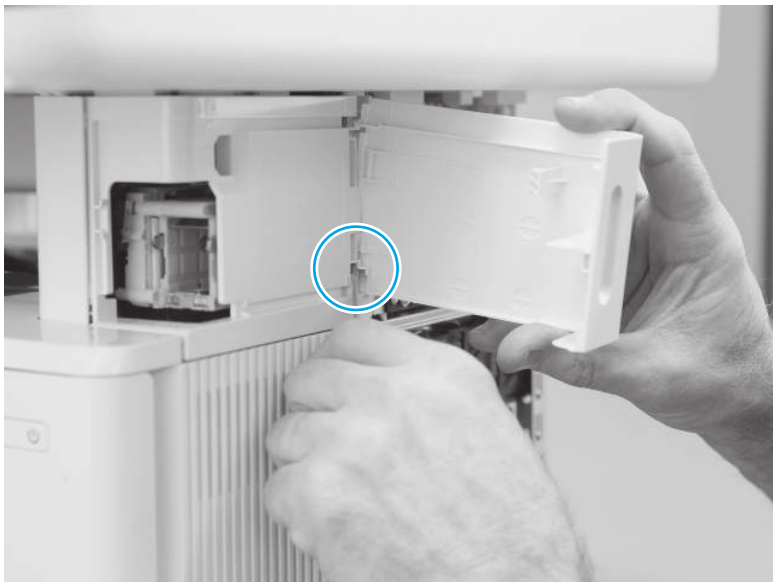
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-628 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-629 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-630 **Remove the door**

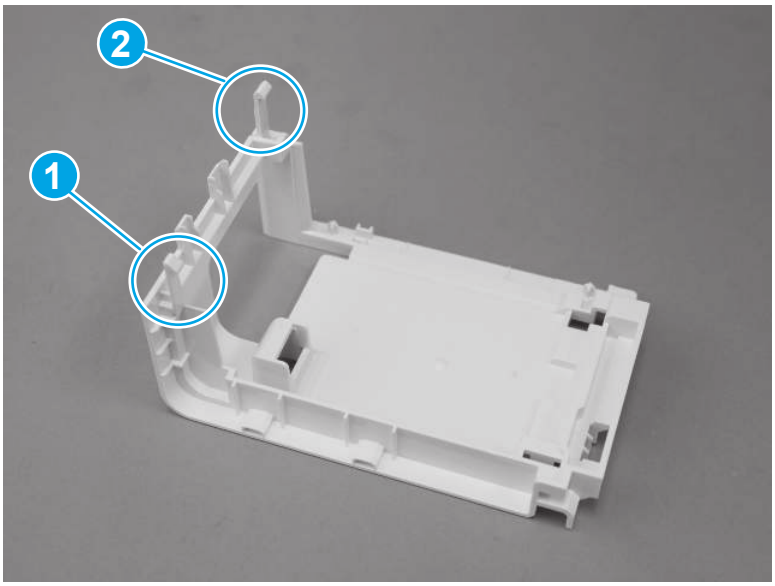
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

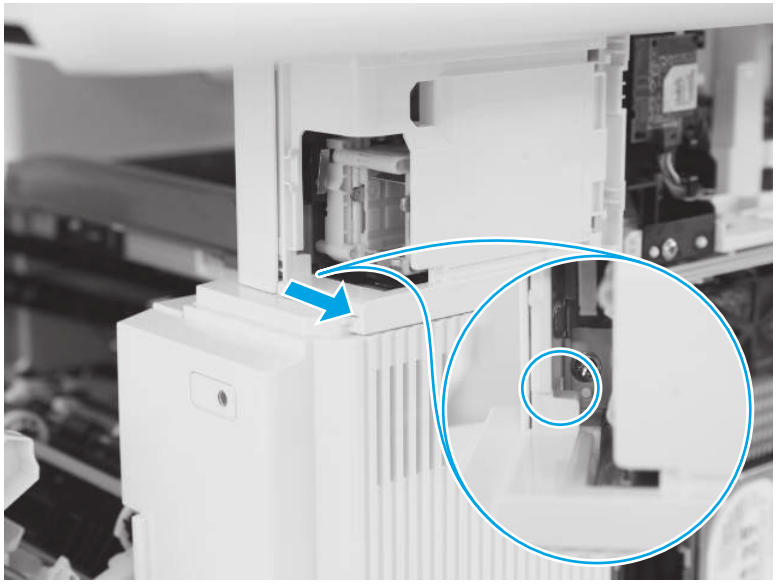
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-631 **Locate the tabs**



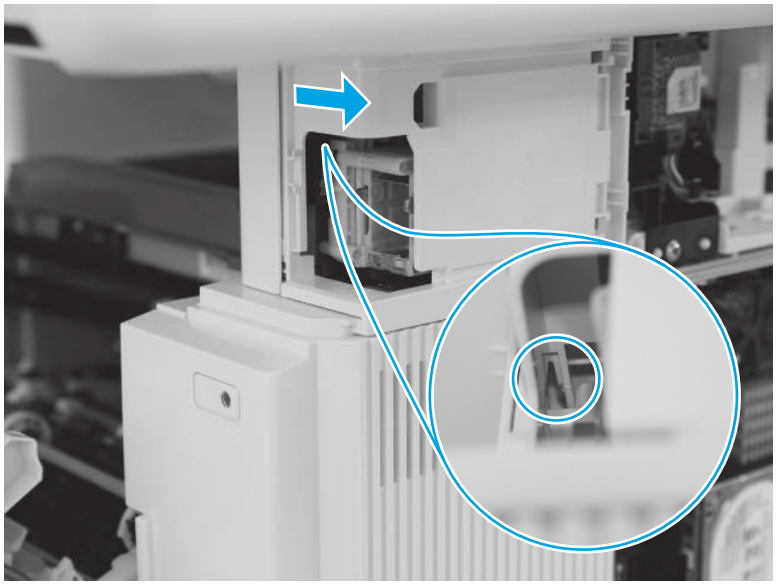
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-632 Release one tab



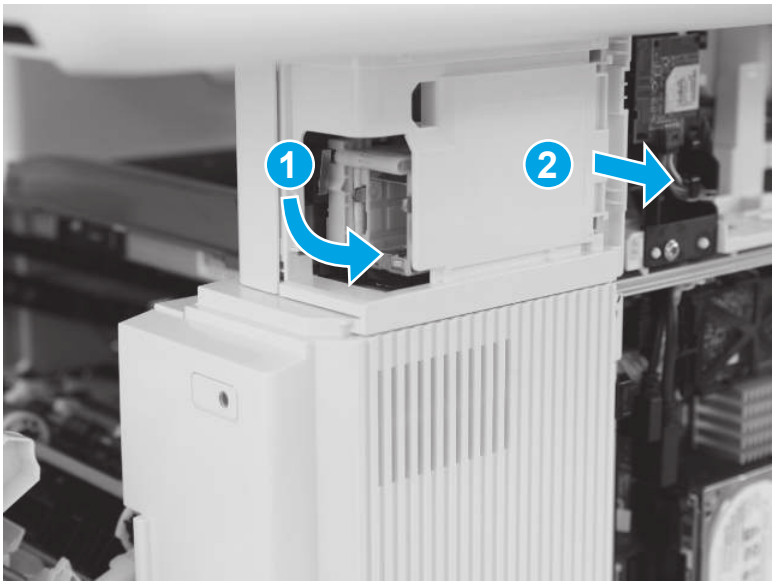
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-633 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

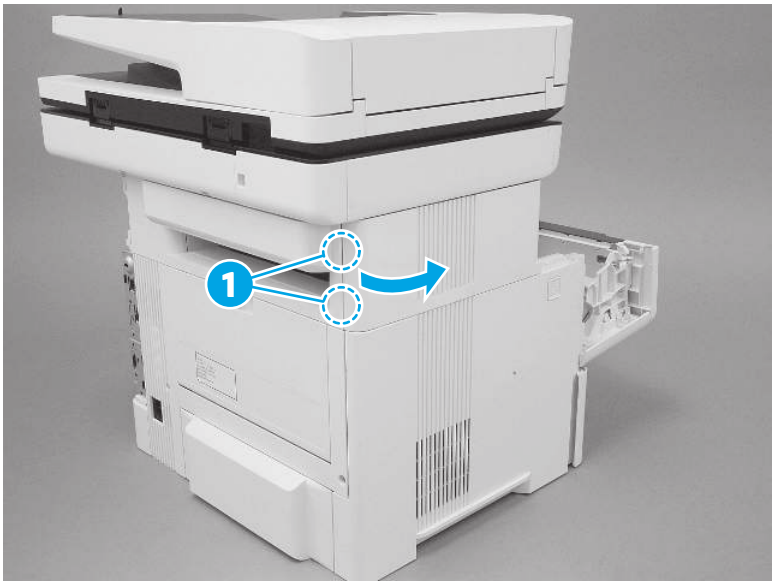
Figure 4-634 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-635 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

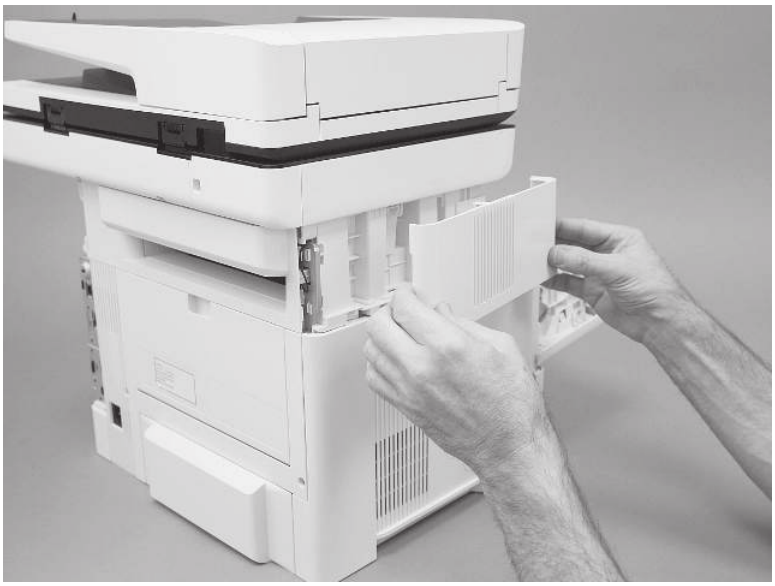
Figure 4-636 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-637 Slide the cover

d. Remove the cover.

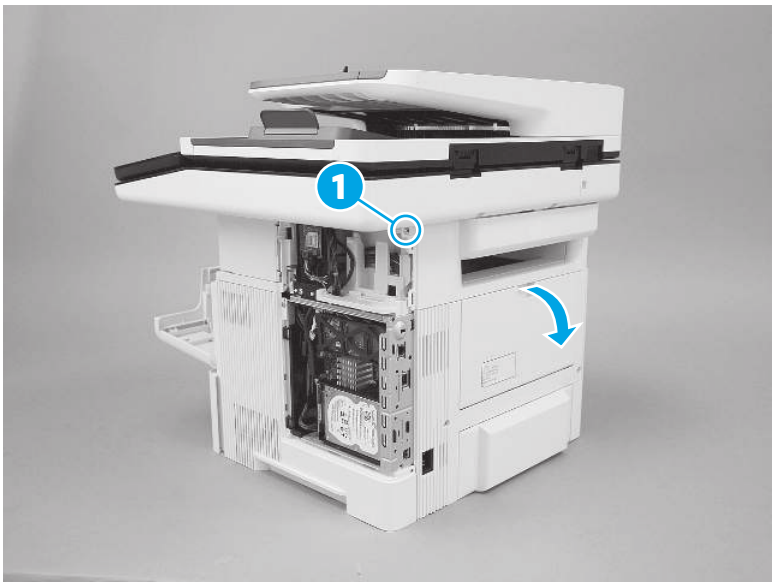
Figure 4-638 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

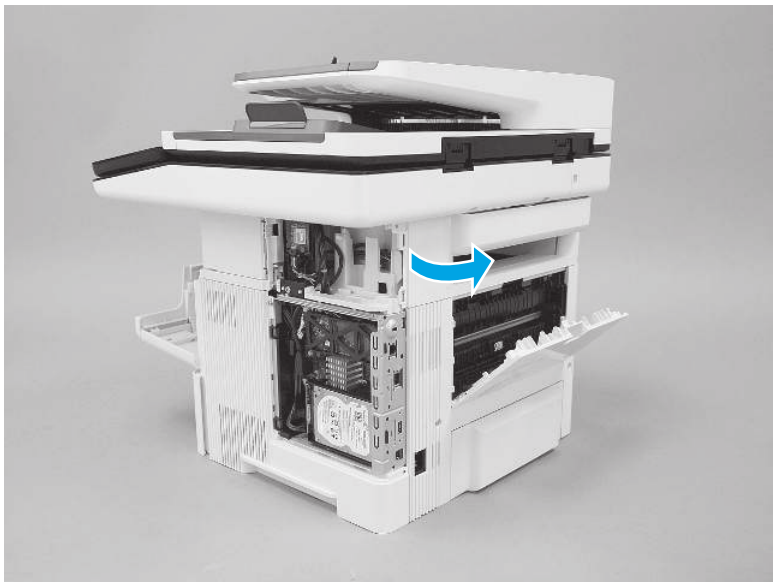
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-639 Remove one screw



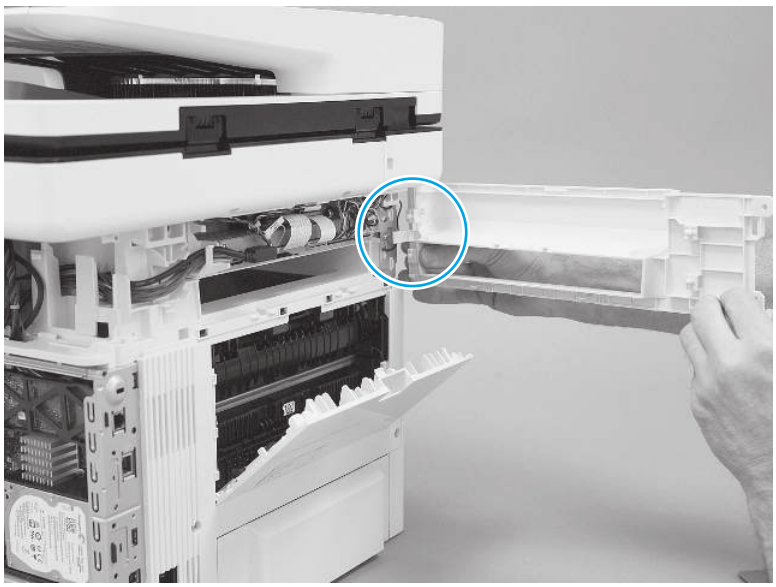
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-640 Rotate the cover



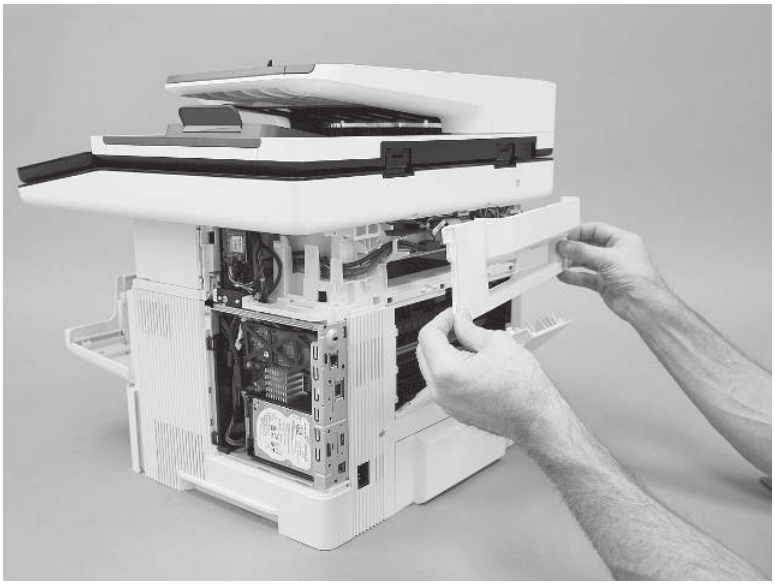
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-641 Release one boss



d. Remove the cover.

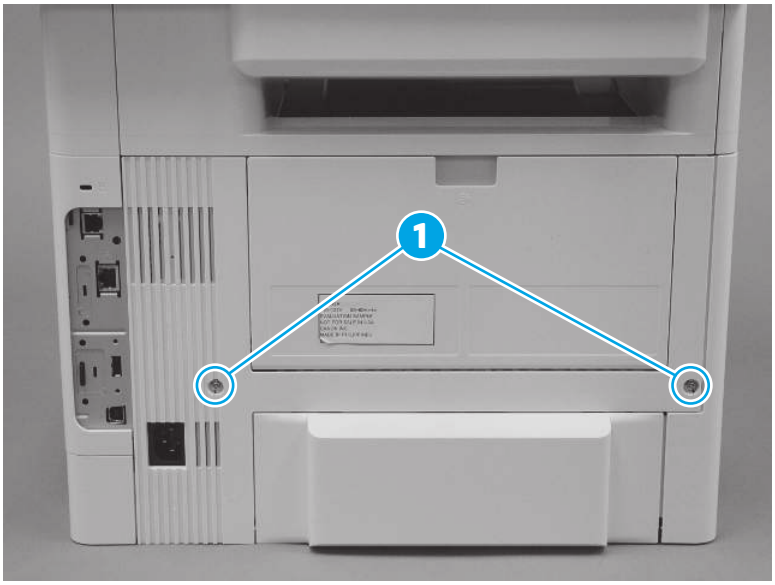
Figure 4-642 Remove the cover



11. Remove the rear door assembly.

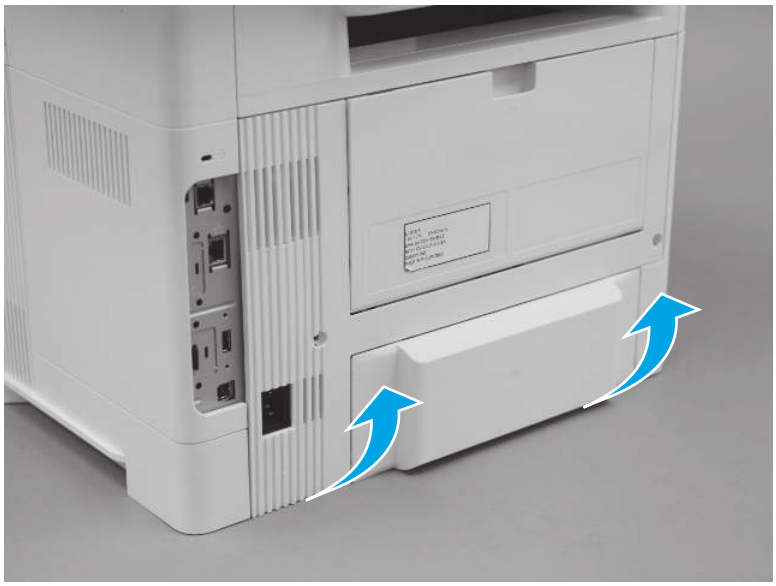
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-643 Remove two screws



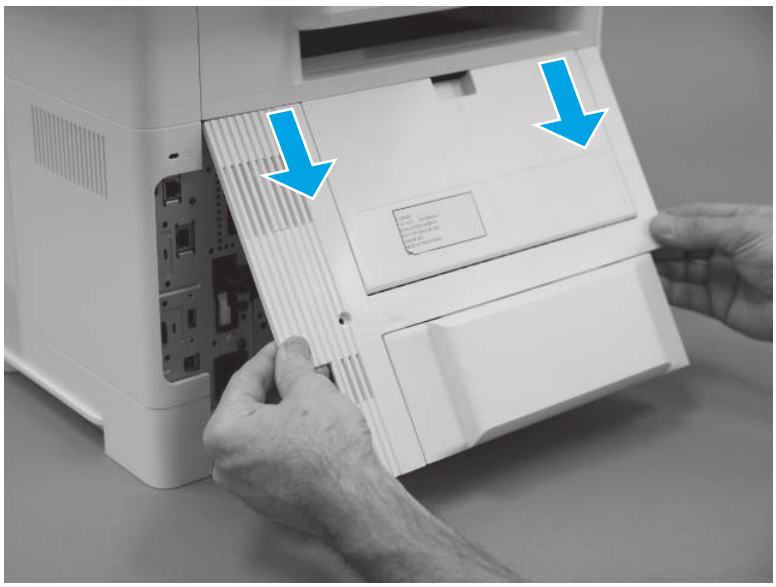
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-644 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-645 Remove the cover



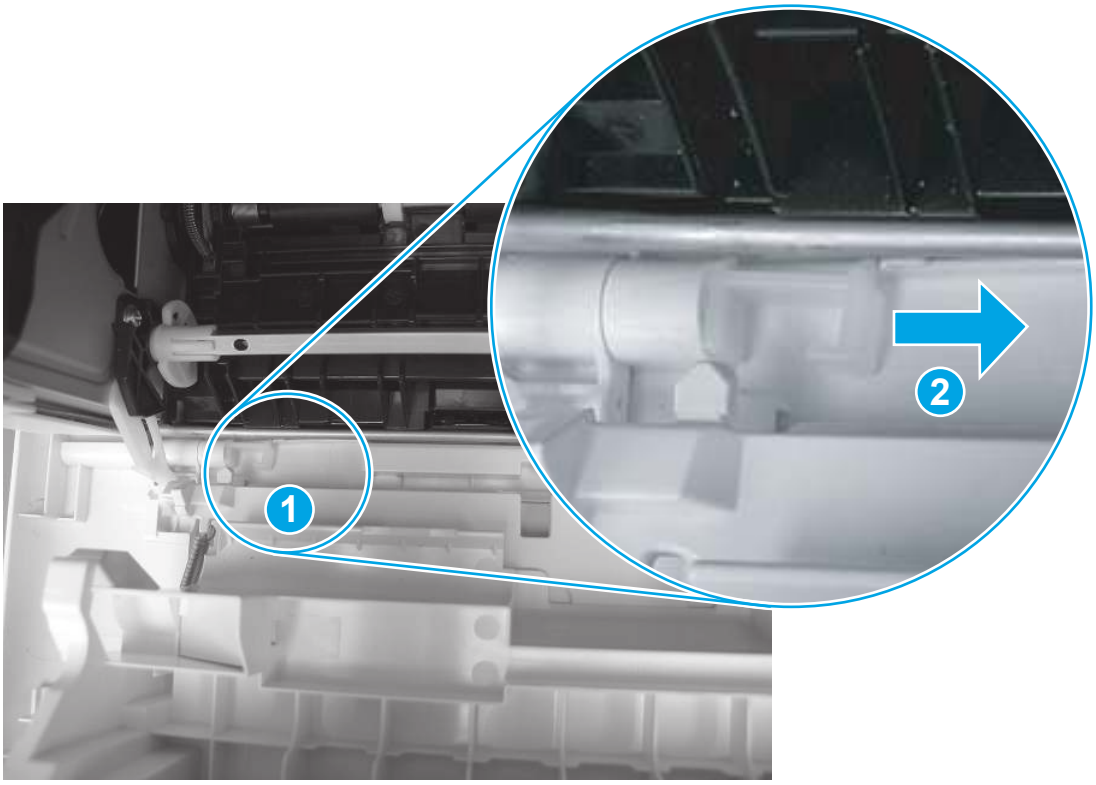
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

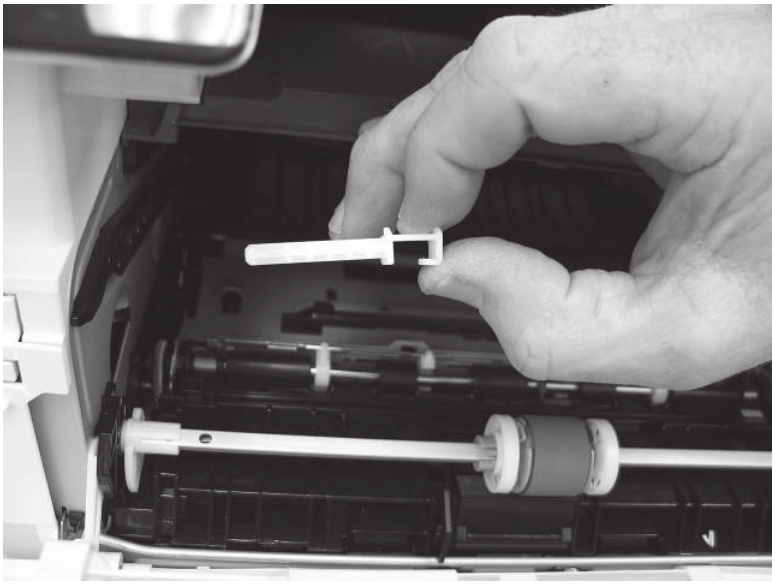
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-646 Release the support shaft



b. Remove the support shaft.

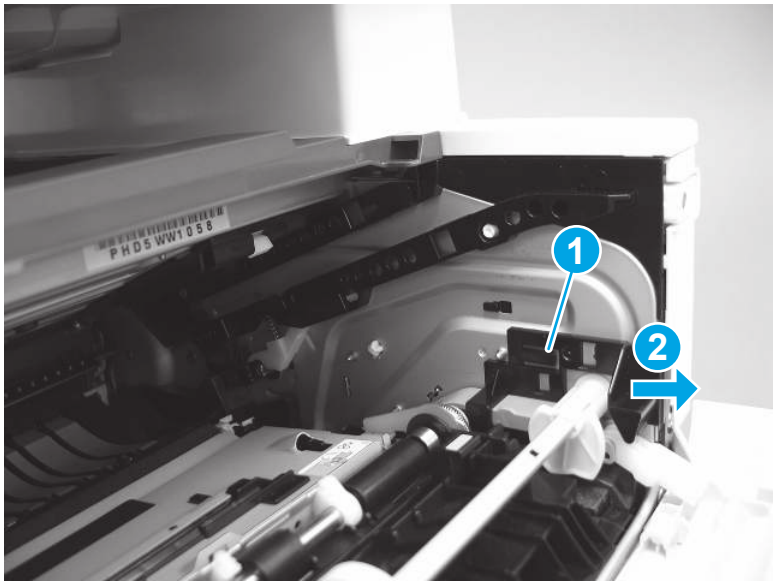
Figure 4-647 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

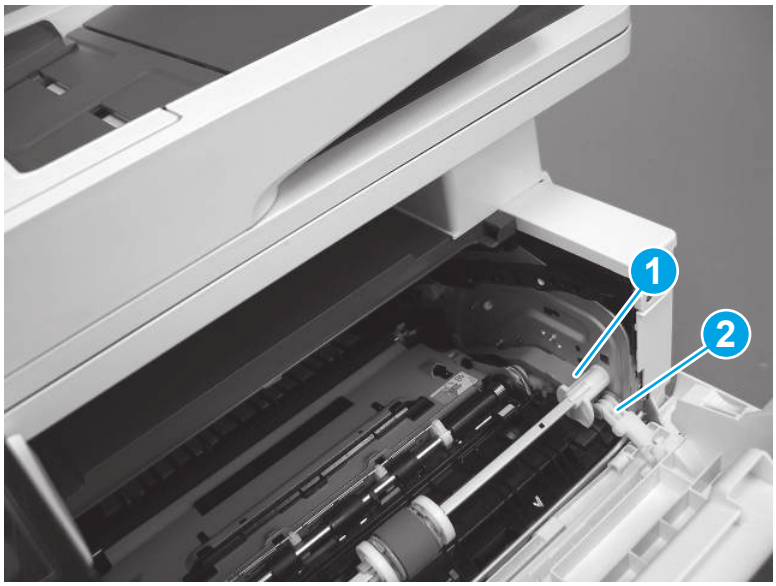
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-648 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-649 Release the pressure-release link



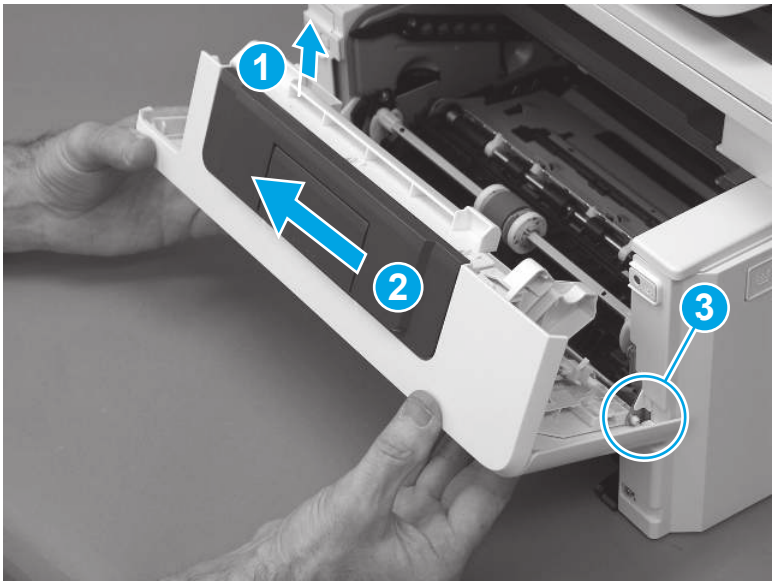
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

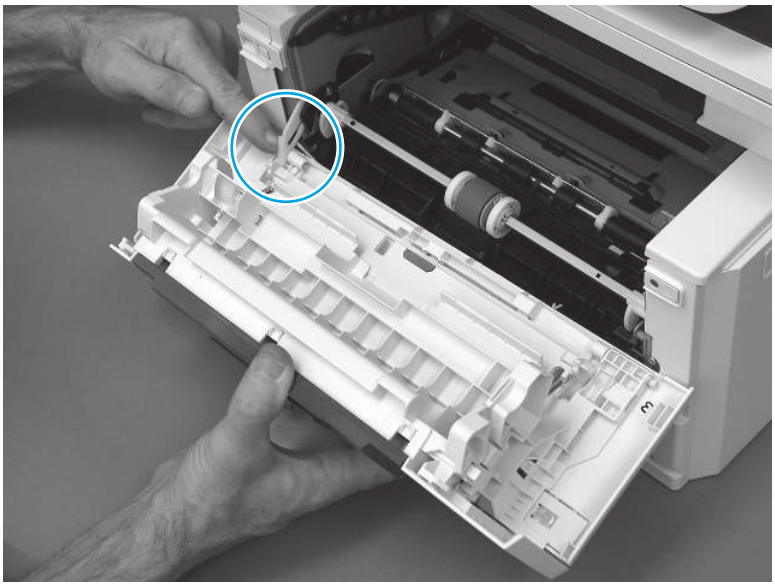
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-650 Release the door



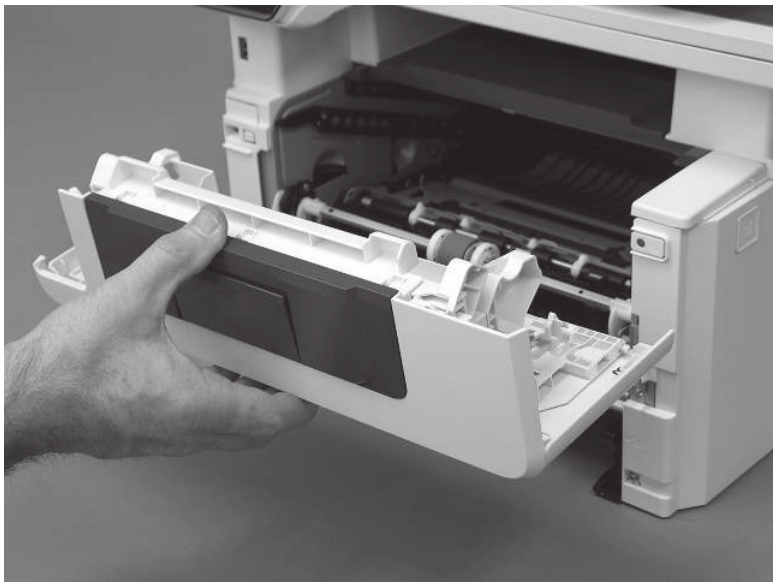
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-651 Release the left-side retainer arm



g. Remove the door.

Figure 4-652 **Remove the door**



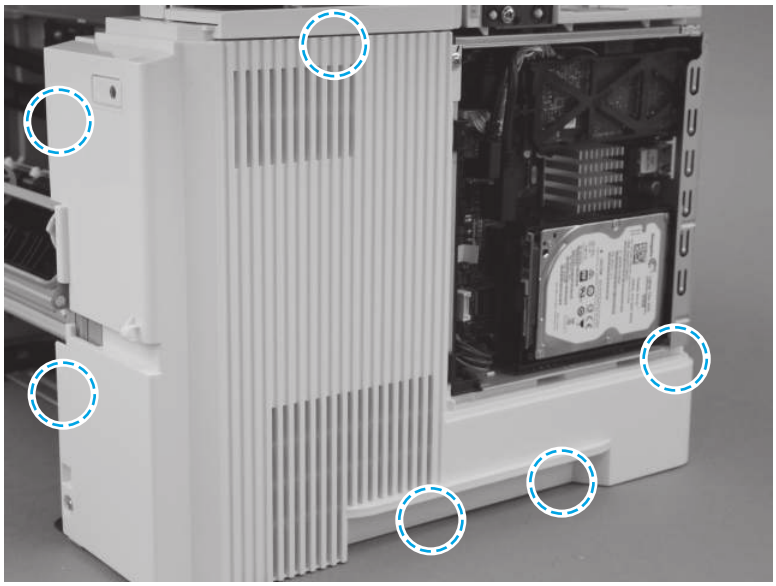
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

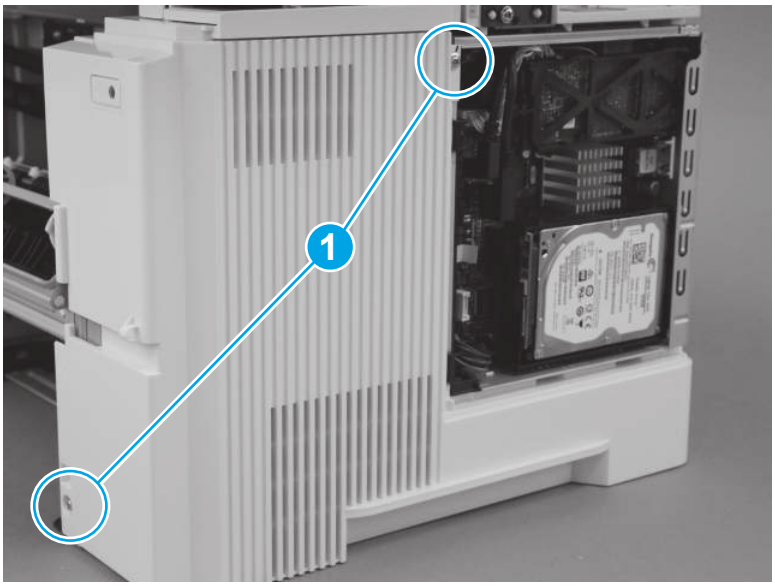
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-653 **Locate the tabs and bosses**



b. Remove two screws (callout 1).

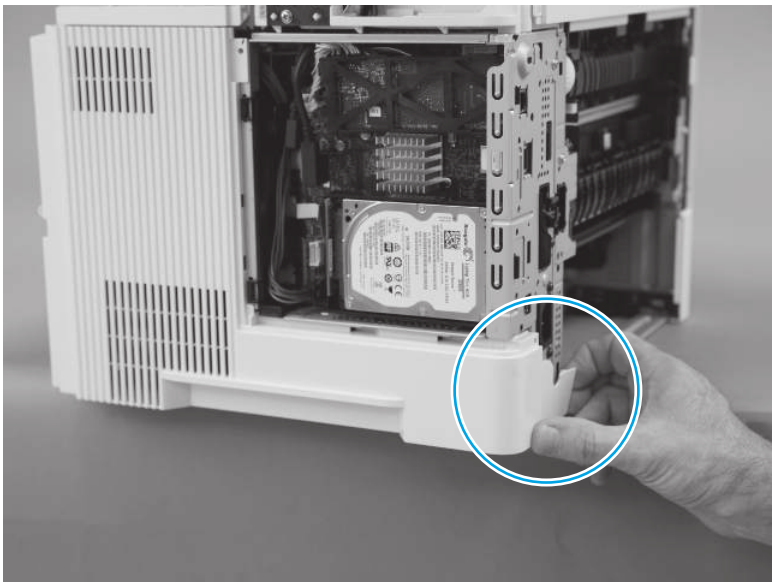
Figure 4-654 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

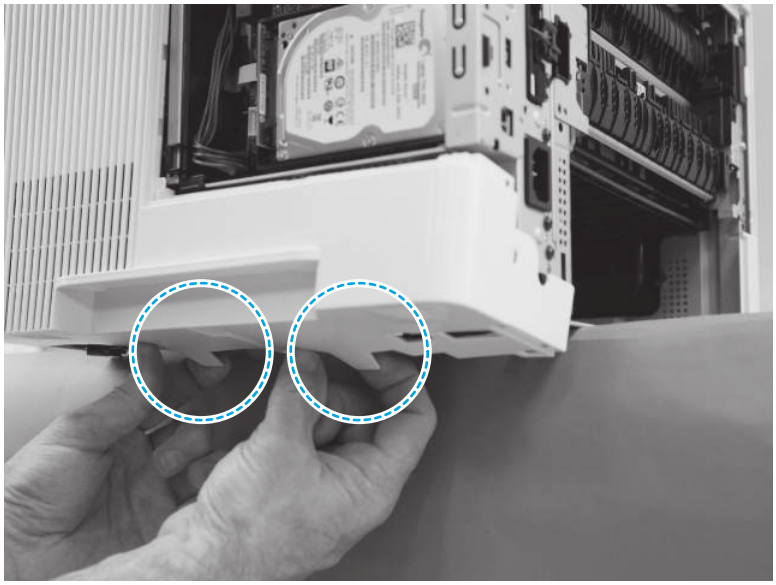
Figure 4-655 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-656 Release two bosses

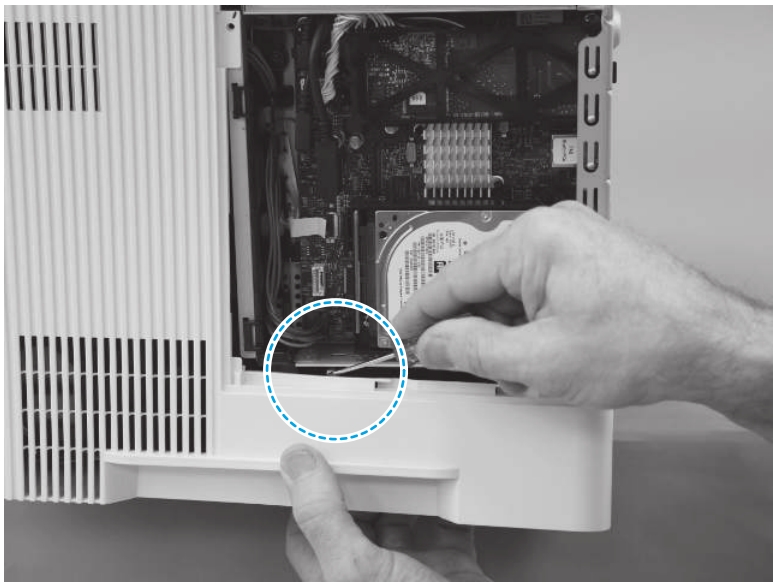


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-657 Release one tab

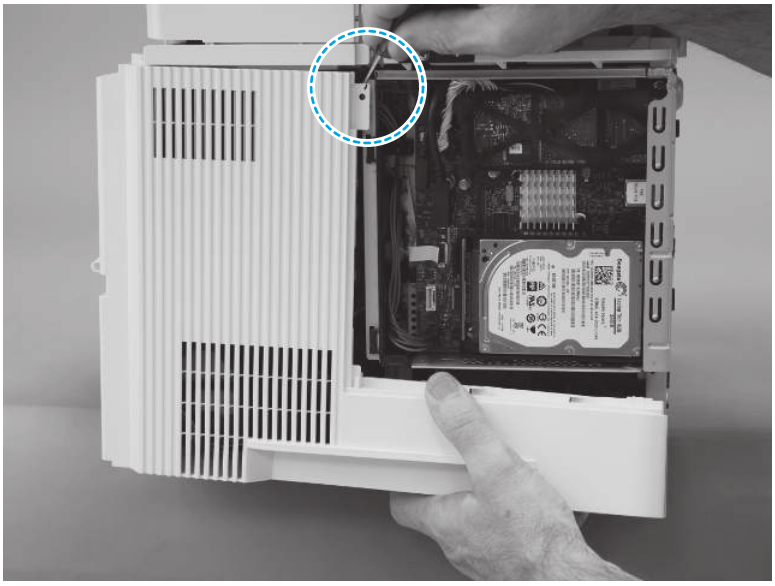


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

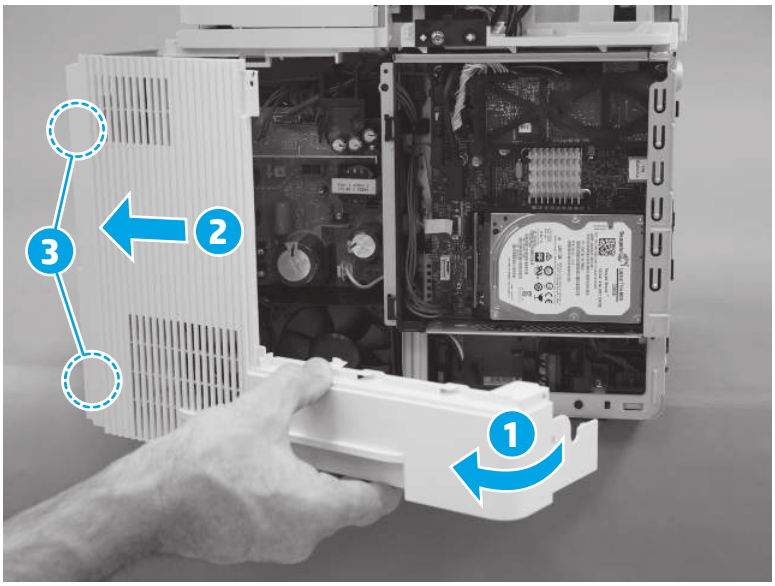
Figure 4-658 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-659 Remove the cover



14. Remove the left cover.

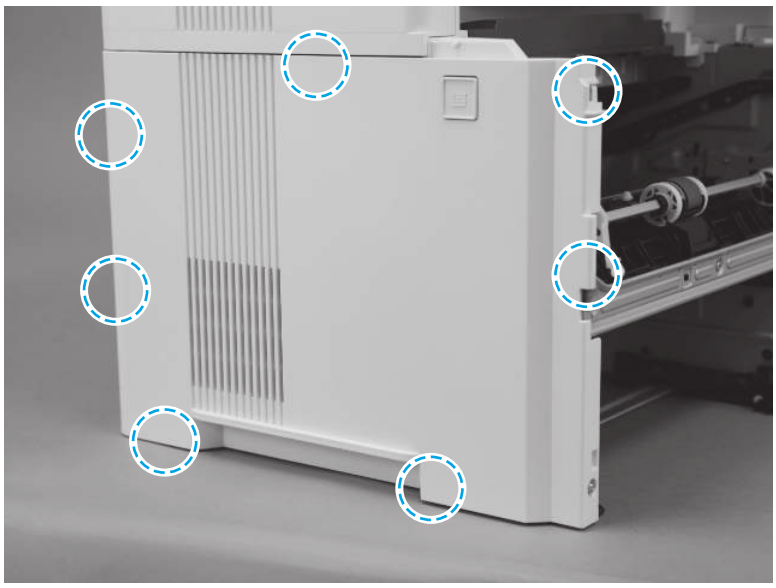
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

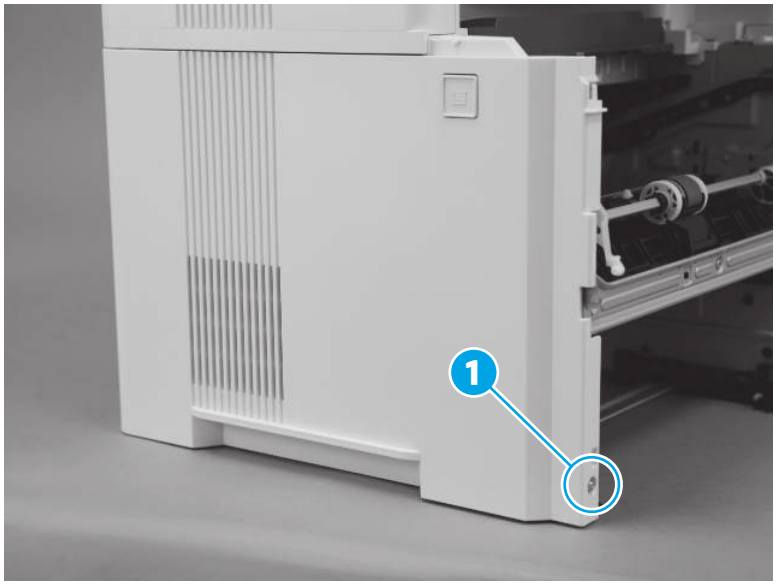
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-660 Locate of the tabs and bosses



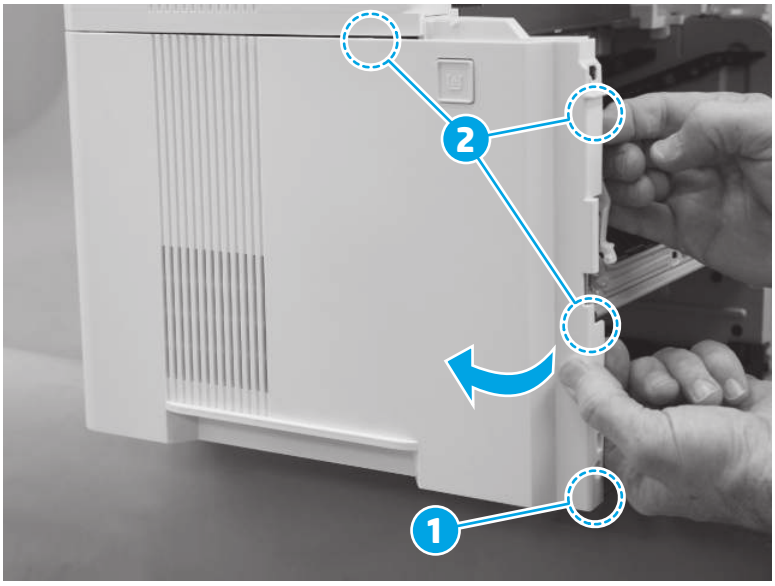
b. Remove one screw (callout 1).

Figure 4-661 Remove one screw



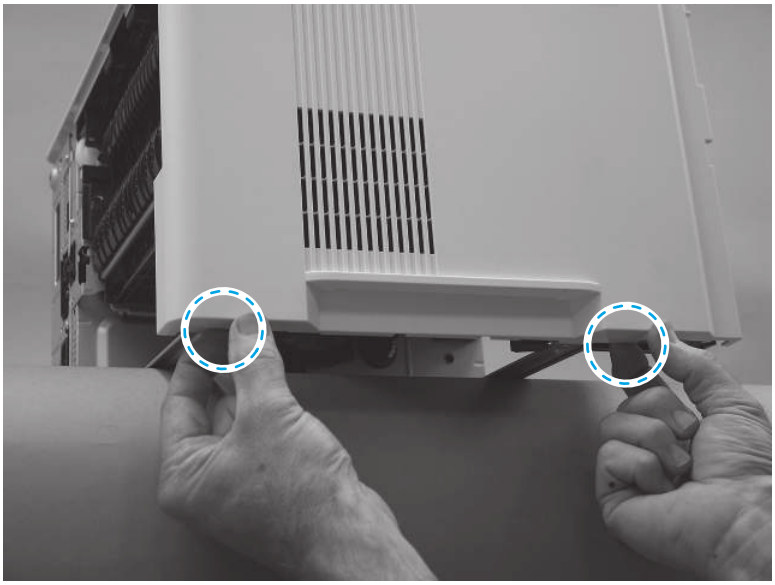
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-662 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

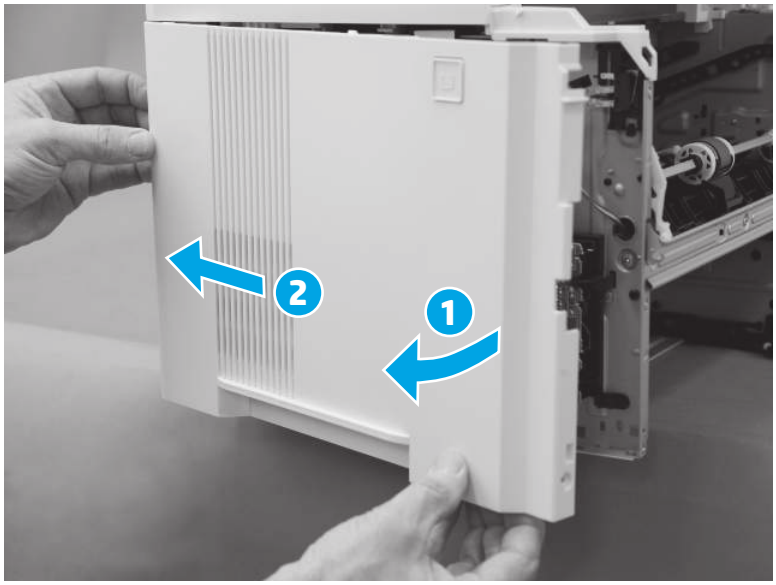
Figure 4-663 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-664 Remove the cover



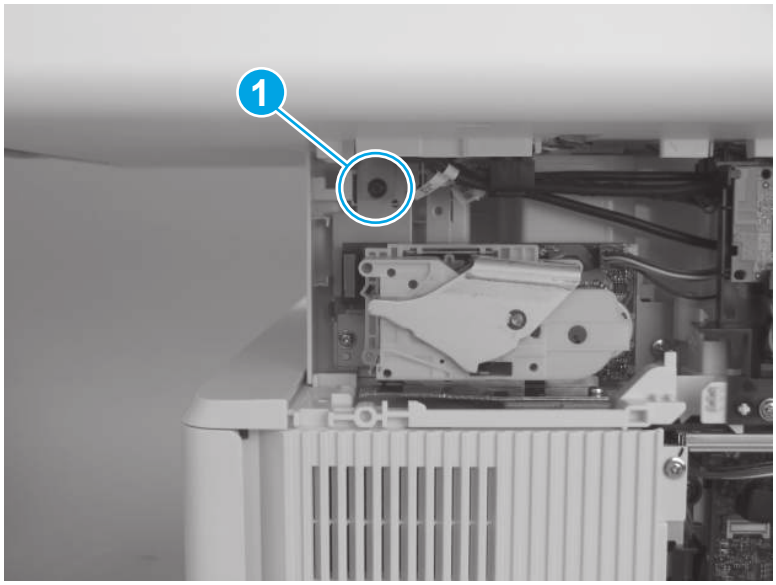
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-665 Remove one screw

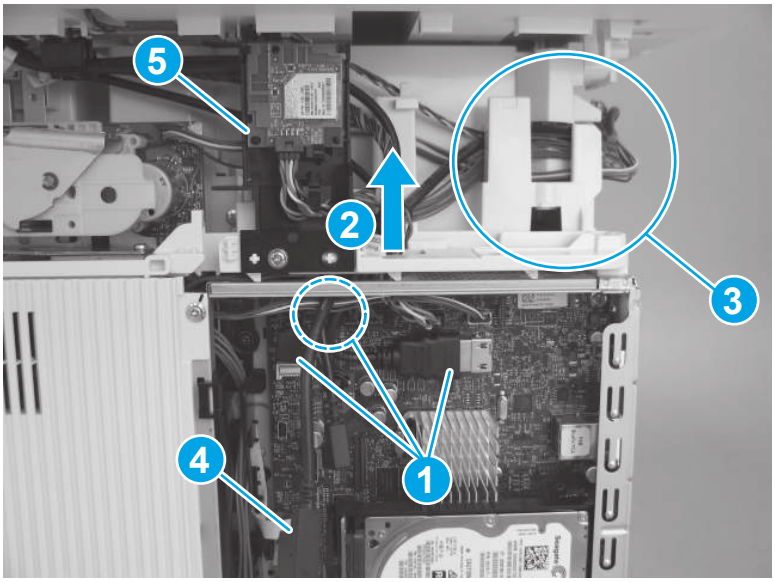


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

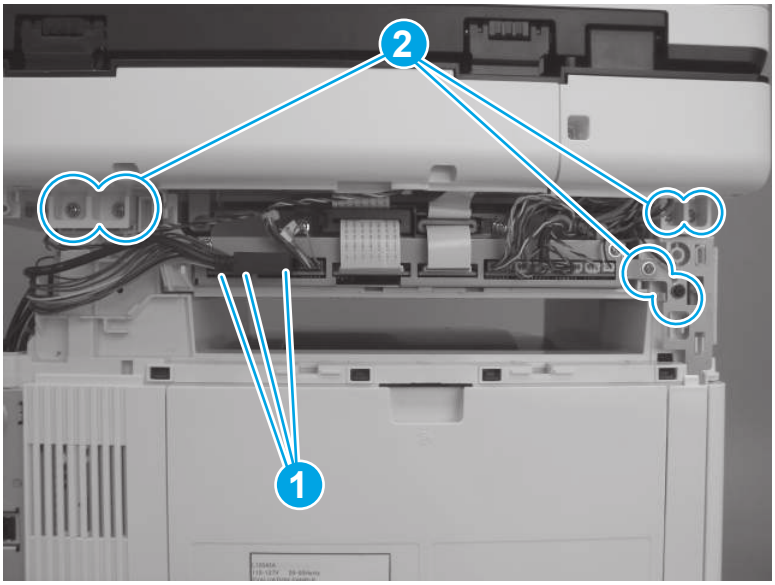
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-666 Disconnect cables and connectors



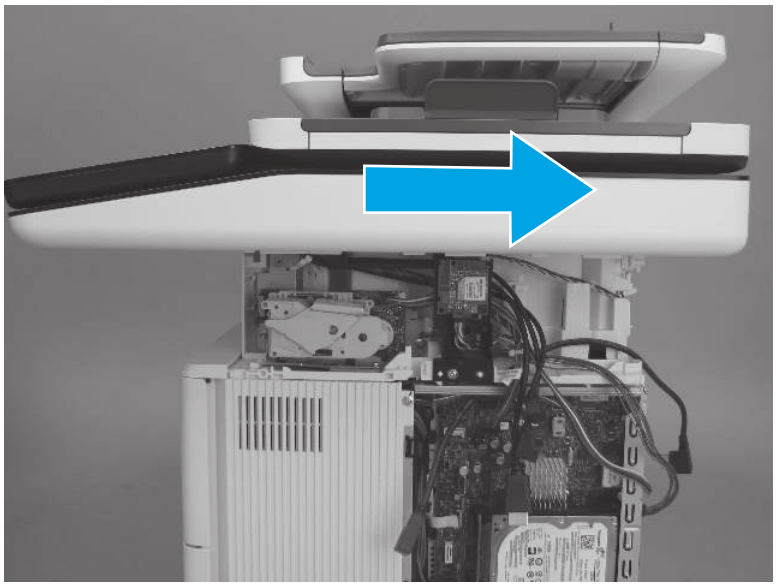
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-667 Disconnect connectors and remove screws



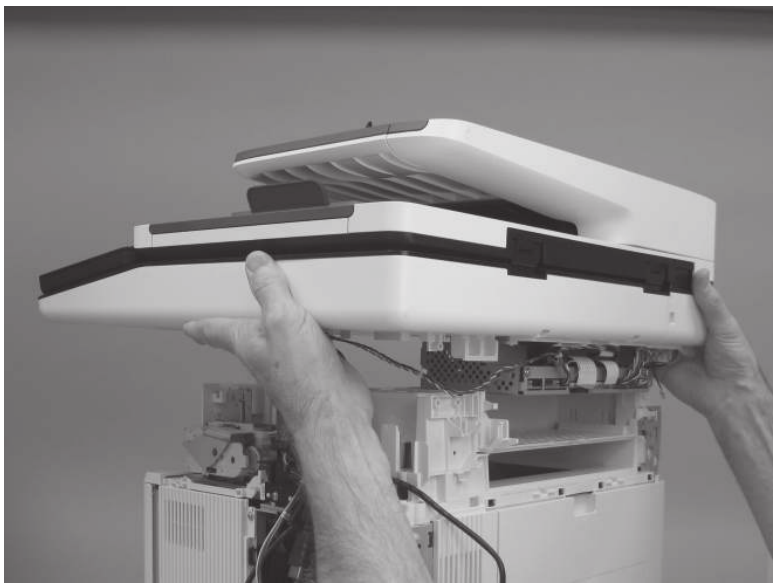
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-668 Slide the ISA towards the back of the printer



e. Remove the ISA.

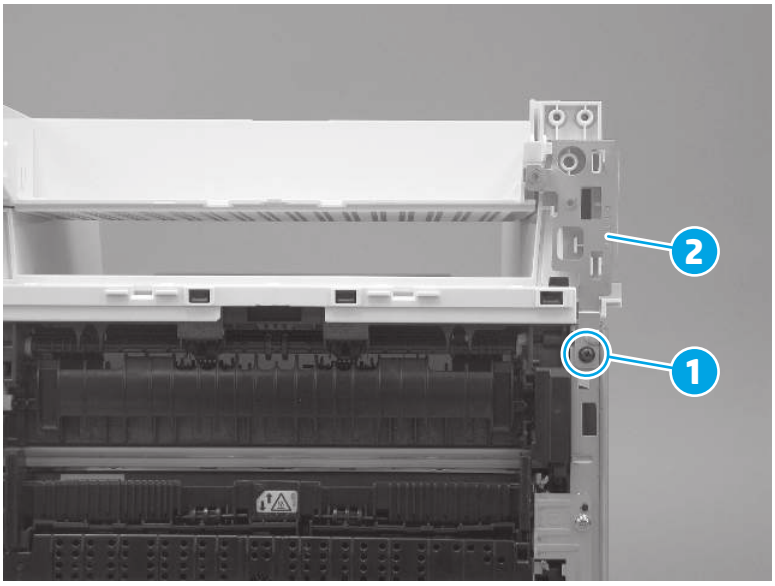
Figure 4-669 Remove the ISA



16. Remove the top cover (M527/E52545/M528/E52645).

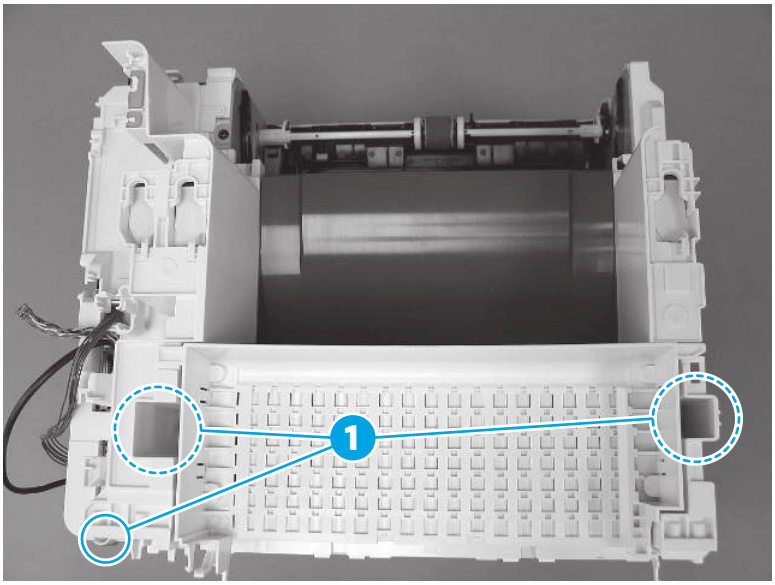
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-670 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

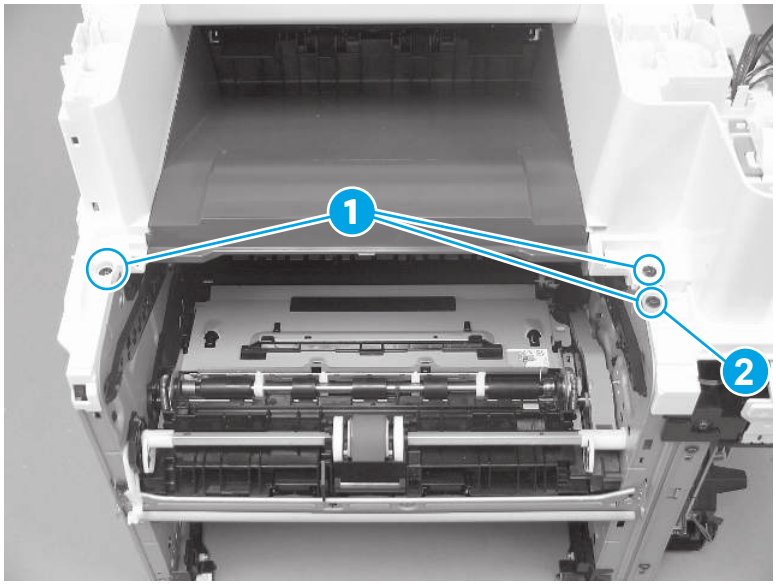
Figure 4-671 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

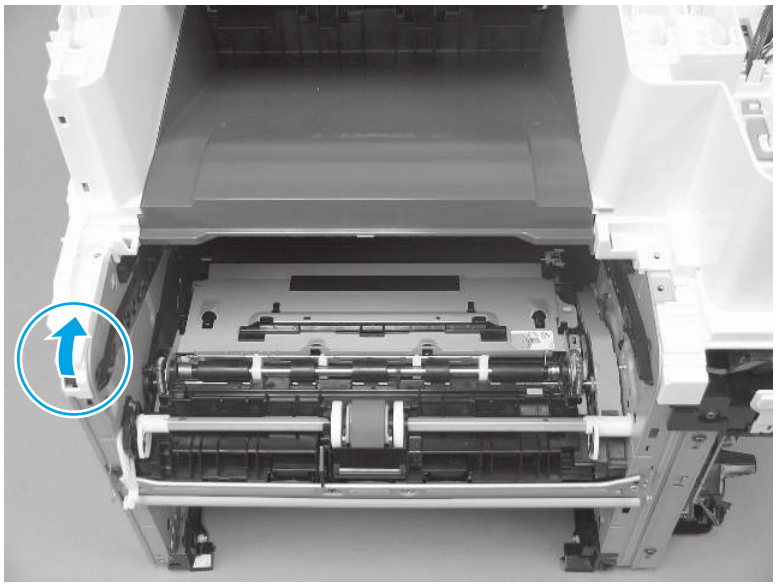
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-672 Remove three screws



d. At the front left of the printer, release one boss.

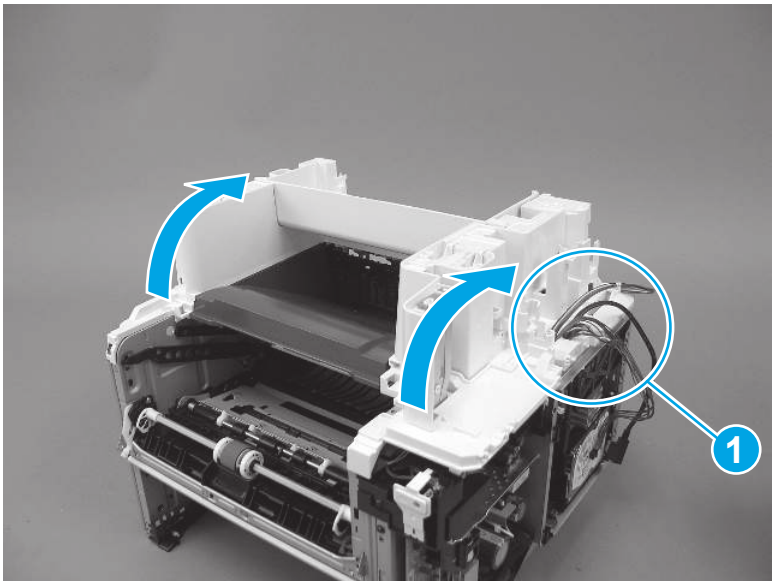
Figure 4-673 Release one boss



e. Rotate the front of the cover up and away from the printer.

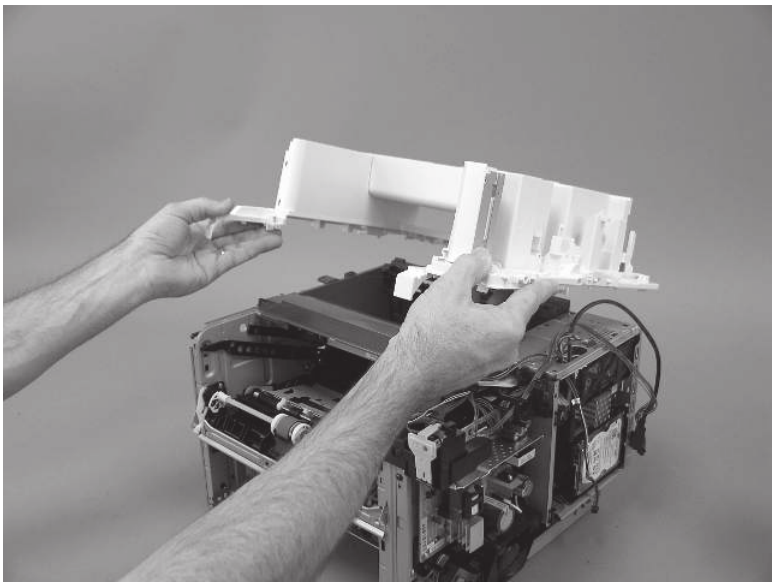
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-674 Rotate the front of the cover up



f. Remove the cover.

Figure 4-675 Remove the cover

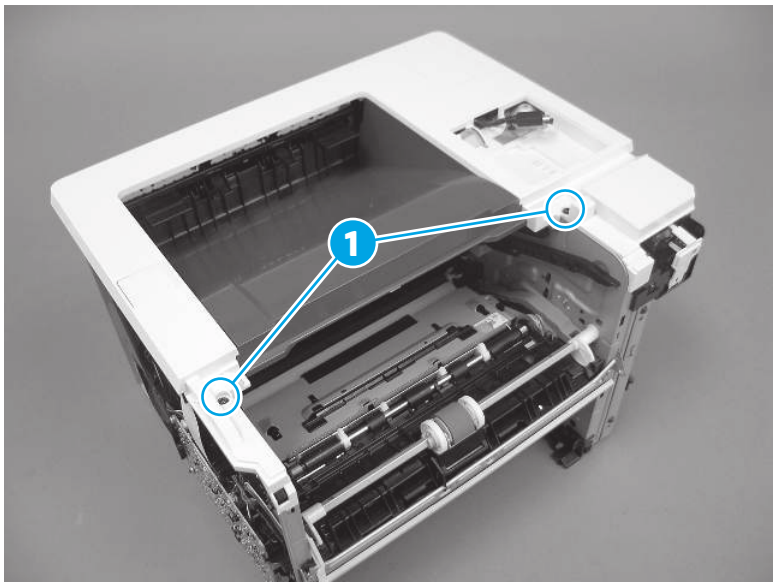


17. Remove the top cover (M501/M506/E50045/M507/E50145).

    The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

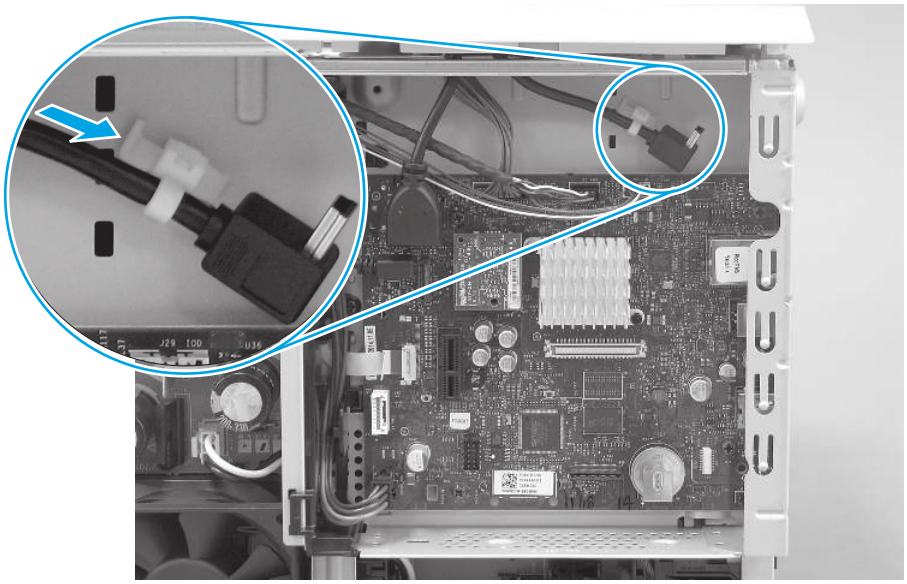
Figure 4-676 Remove two screws



b. **M506/E50045/ only**: Release one cable retainer from the chassis.

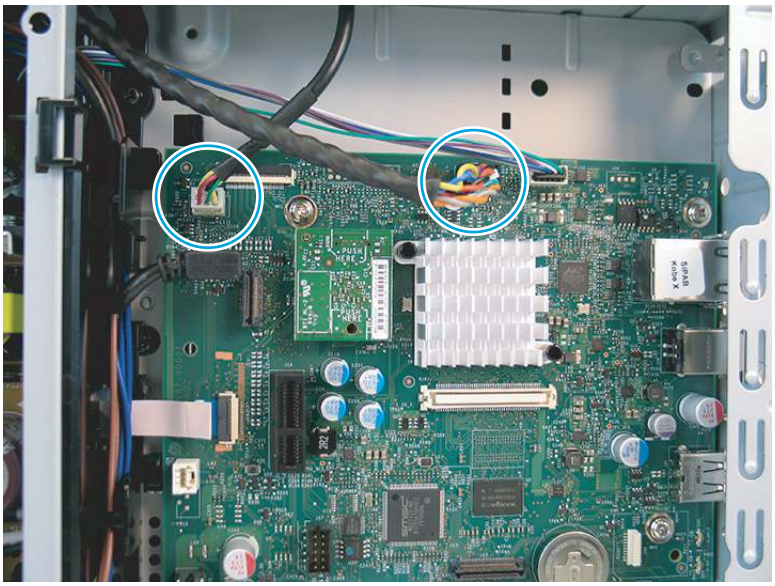
TIP: Depress the tab on the retainer to release it.

Figure 4-677 Release one cable retainer



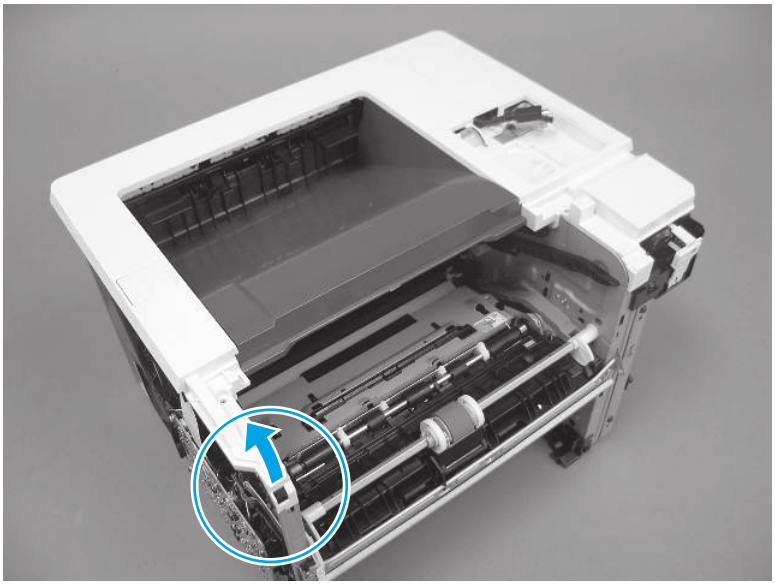
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-678 **Disconnect two connectors**



d. Release one boss.

Figure 4-679 **Release one boss**

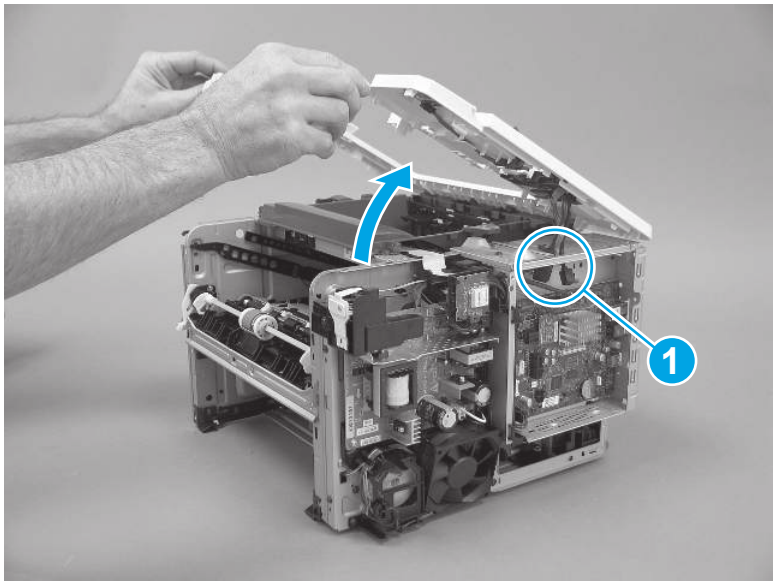


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-680 Remove the cover (M506/E50045)



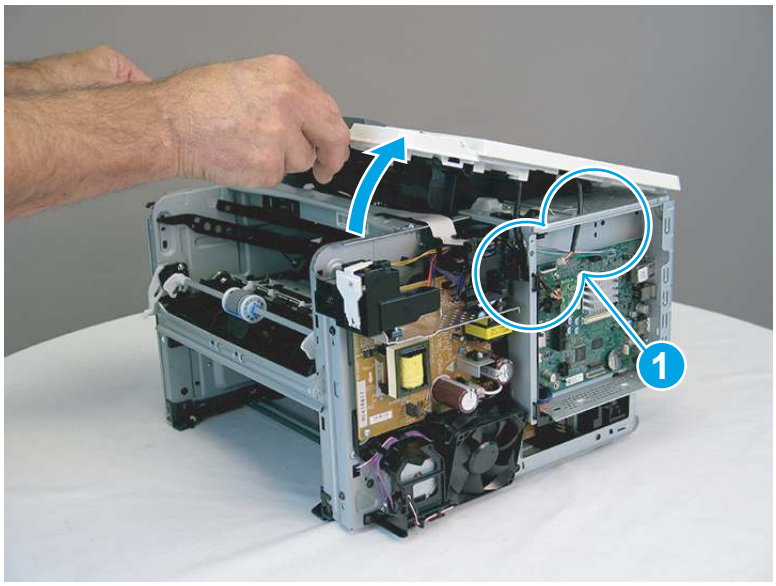
f. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-681 Remove the cover (M507/E50145)

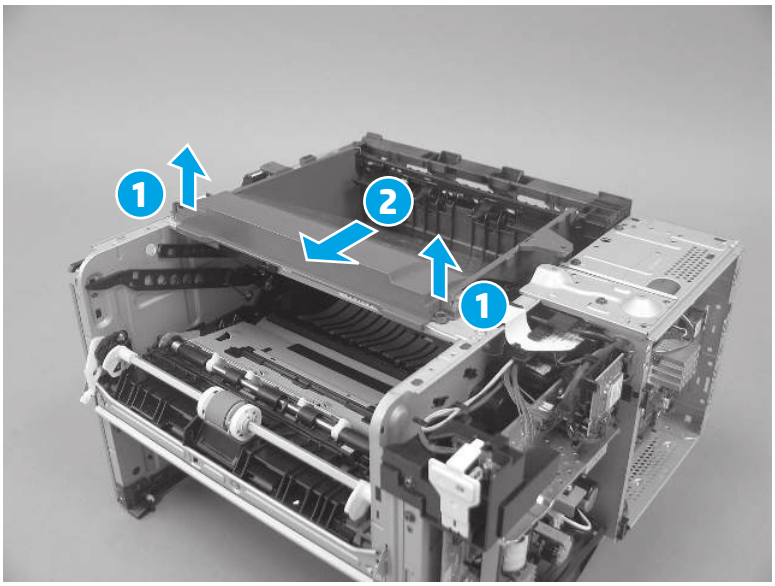


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

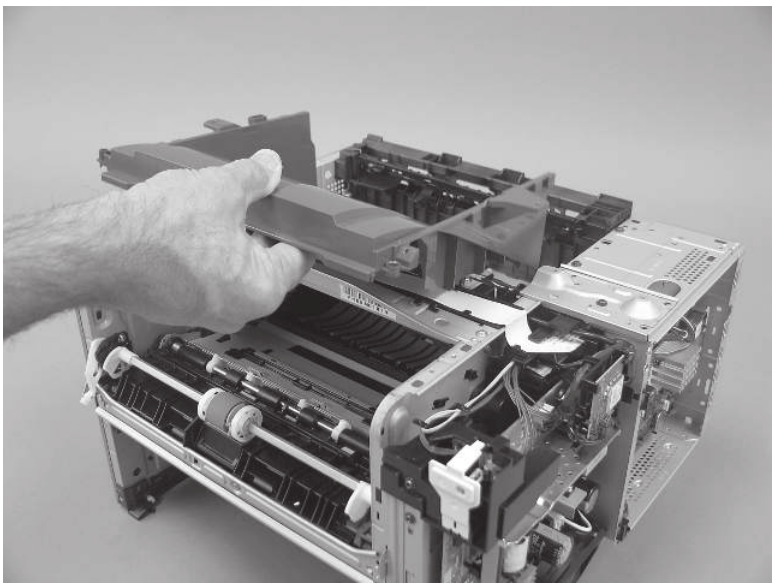
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-682 Release two tabs



b. Remove the bin.

Figure 4-683 Remove he bin

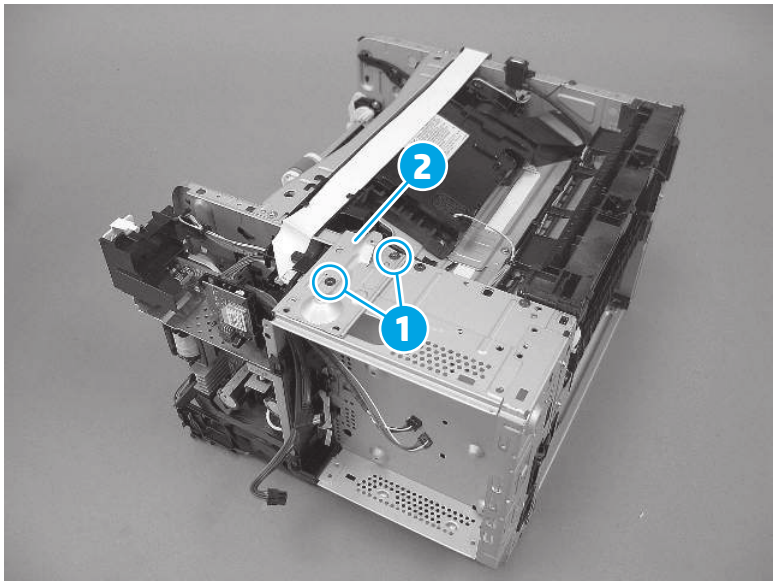


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

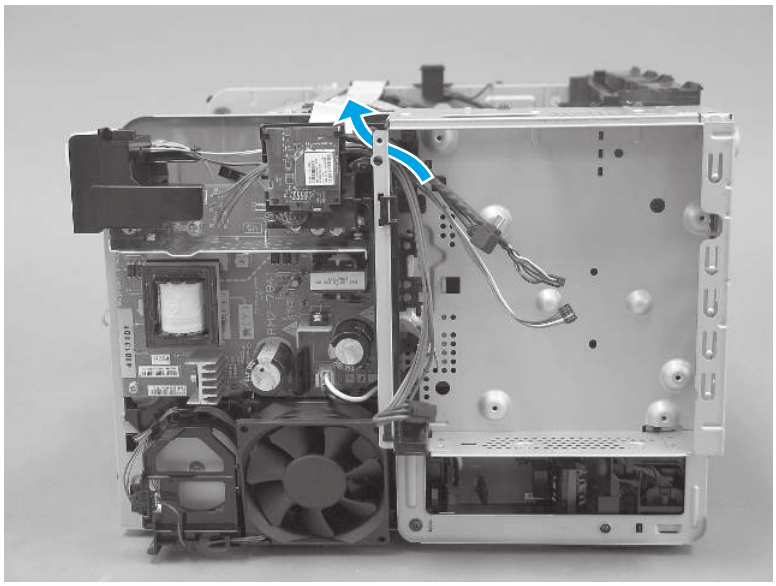
Figure 4-684 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

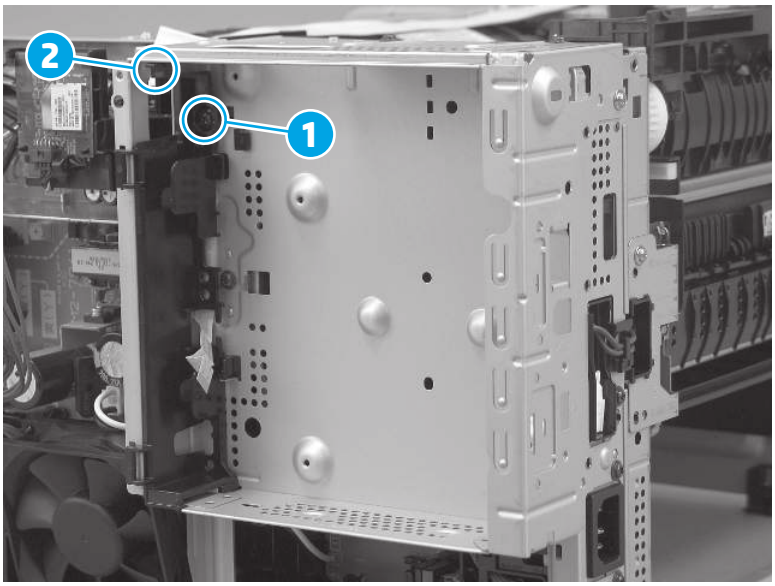
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-685 **Pass all cables and wire harnesses through the opening**



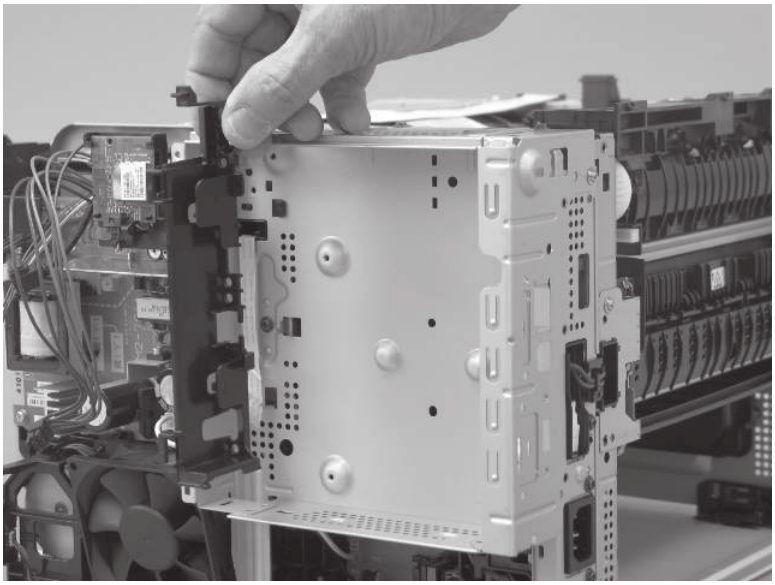
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-686 Remove one screw



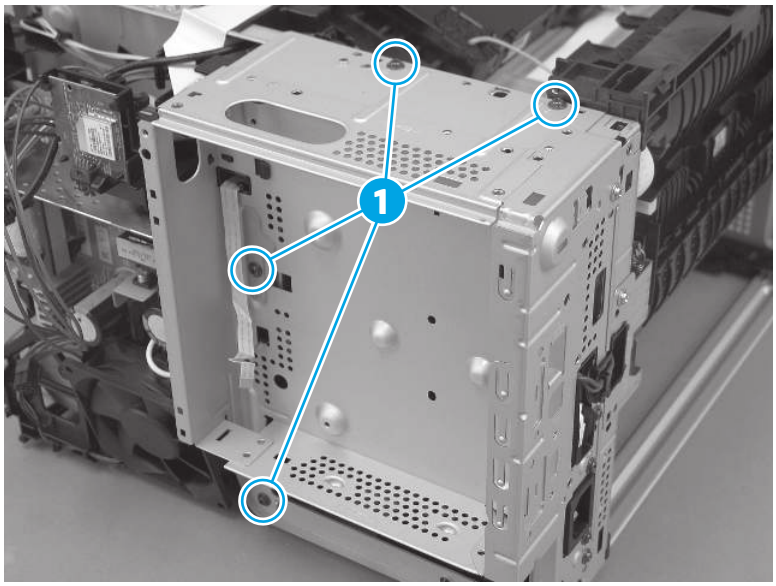
d. Remove the guide.

Figure 4-687 Remove the guide



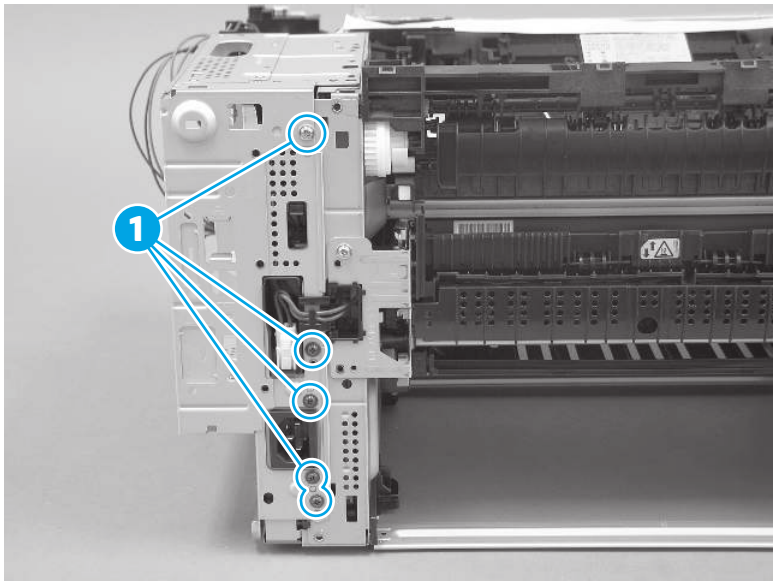
e. Remove four screws (callout 1).

Figure 4-688 Remove four screws



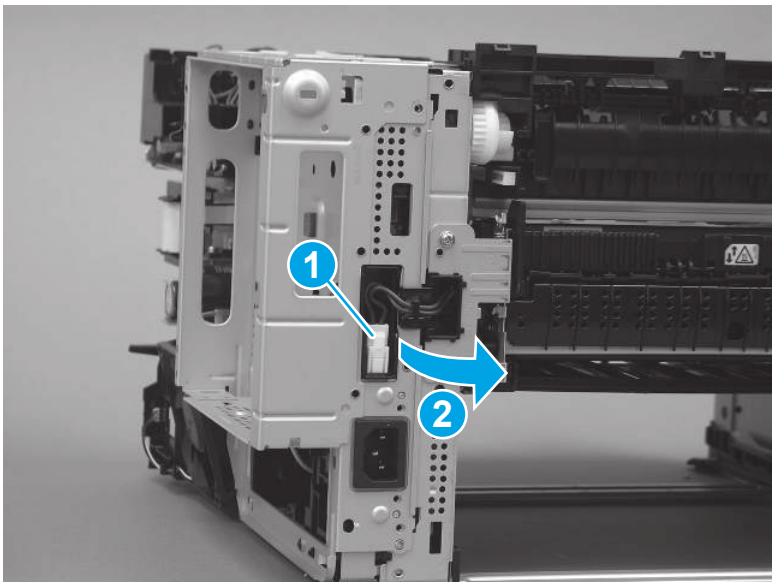
f. Remove five screws (callout 1).

Figure 4-689 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

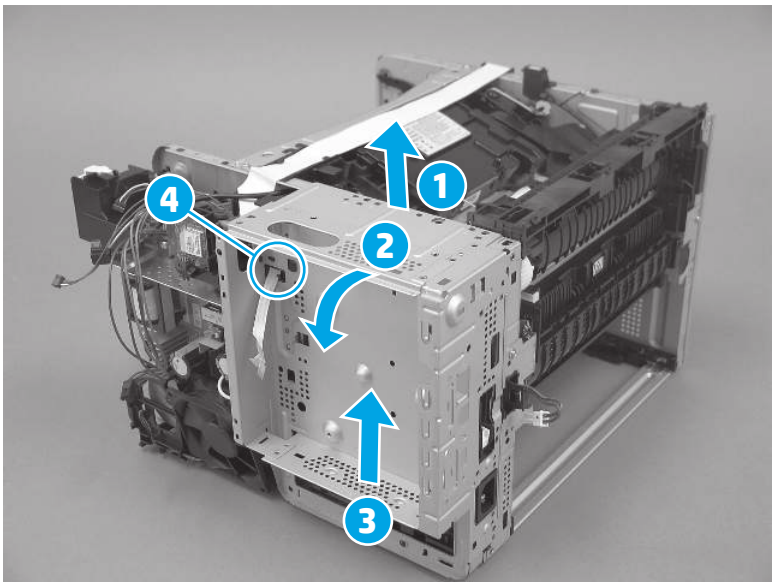
Figure 4-690 Disconnect one connector



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

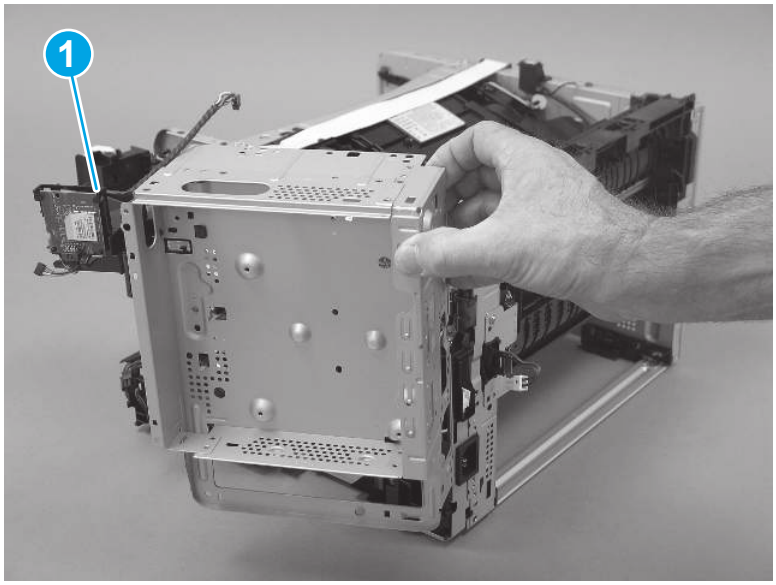
Figure 4-691 Release the formatter case



i. Remove the formatter case.

NOTE: **WiFi models only:** If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

Figure 4-692 Remove the formatter case



20. Unpack the replacement assembly.

    a. Dispose of the defective part.

    NOTE: HP recommends responsible disposal of the defective part.

    http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

    b. Unpack the replacement part from the packaging.

    CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

    If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

    IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

    c. To install an assembly, reverse the removal steps.

    NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fan (FM1)

Learn how to remove and replace the fan (FM1).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the fan (FM1).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-37 Part information

Part number	Part description
RK2-8068-000CN	Fan (FM1)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

1. Remove the tray.

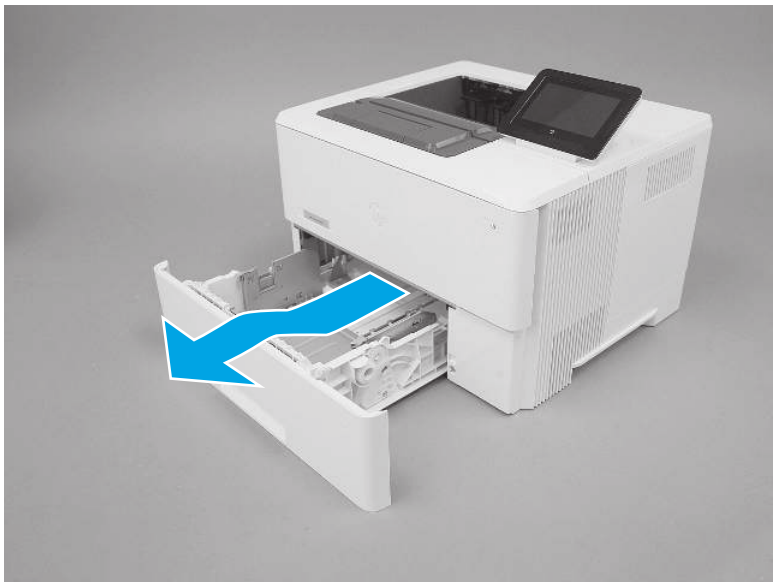
a. Pull the tray straight out of the printer until it stops.

Figure 4-693 Pull the tray out until it stops

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-694 Release and remove the tray



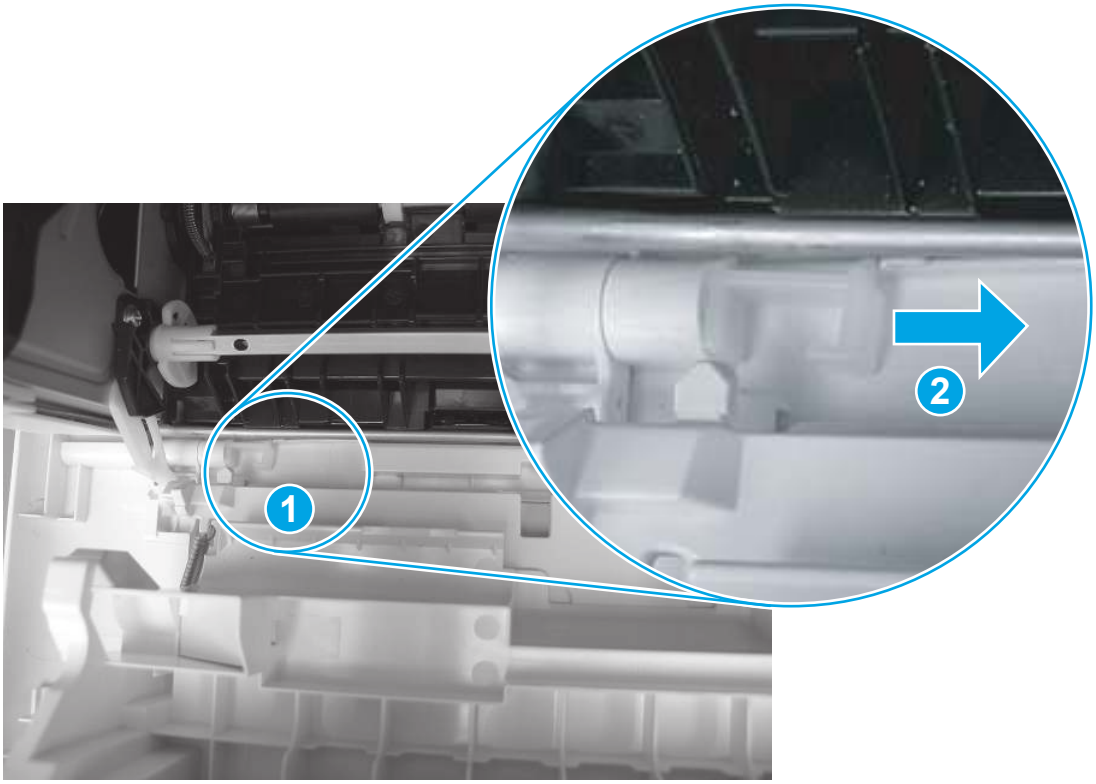
2. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

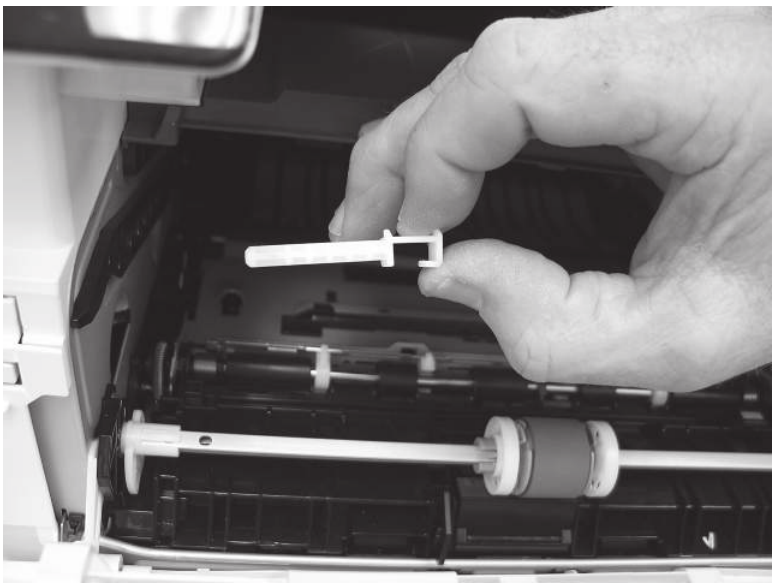
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-695 Release the support shaft



b. Remove the support shaft.

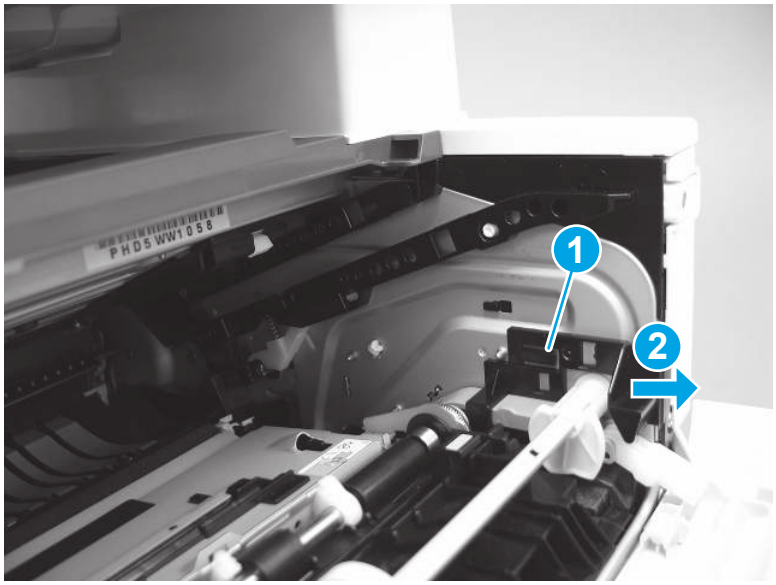
Figure 4-696 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

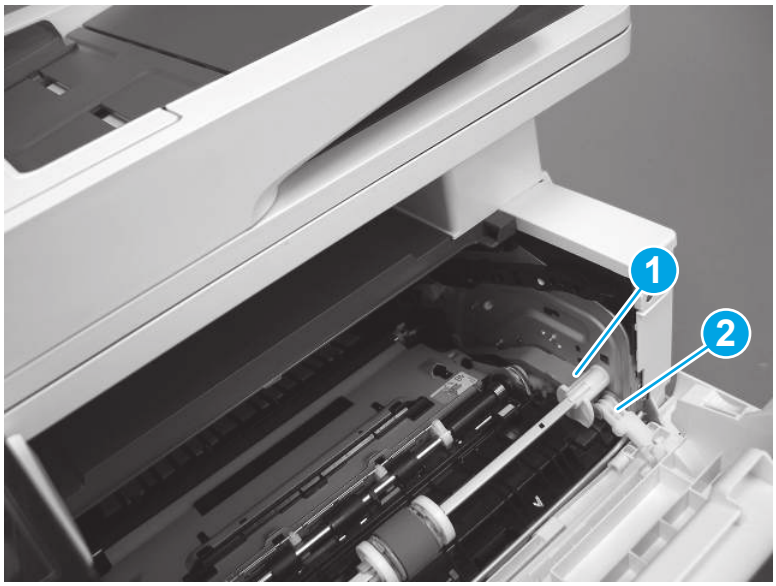
⚠ **CAUTION:** Be careful, the tab (callout 1) can be easily broken.

Figure 4-697 **Remove the guide**



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-698 **Release the pressure-release link**



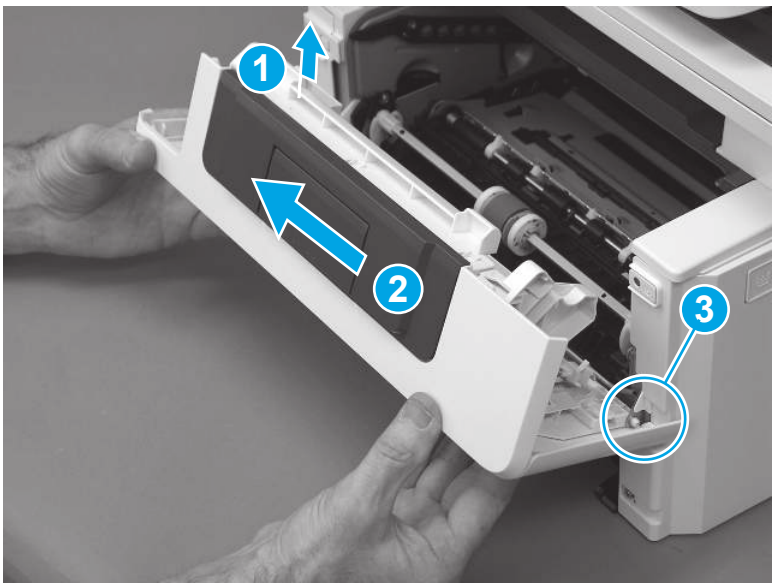
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ **CAUTION:** The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

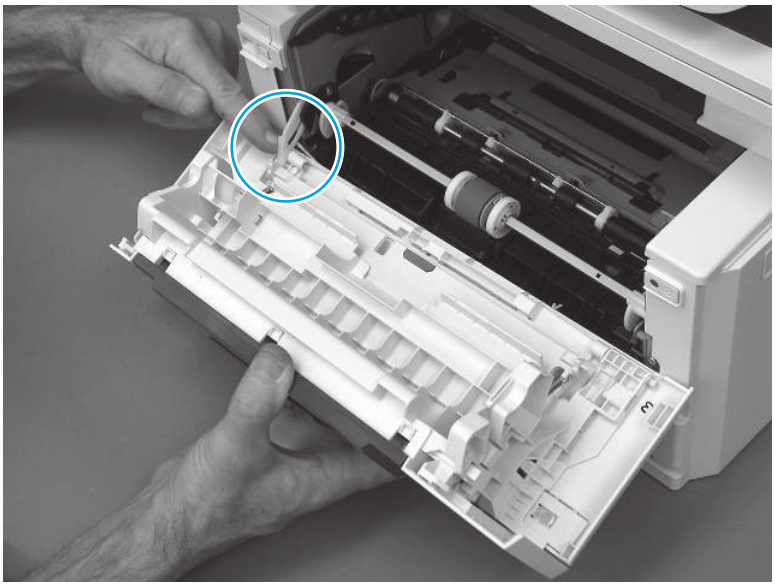
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-699 Release the door



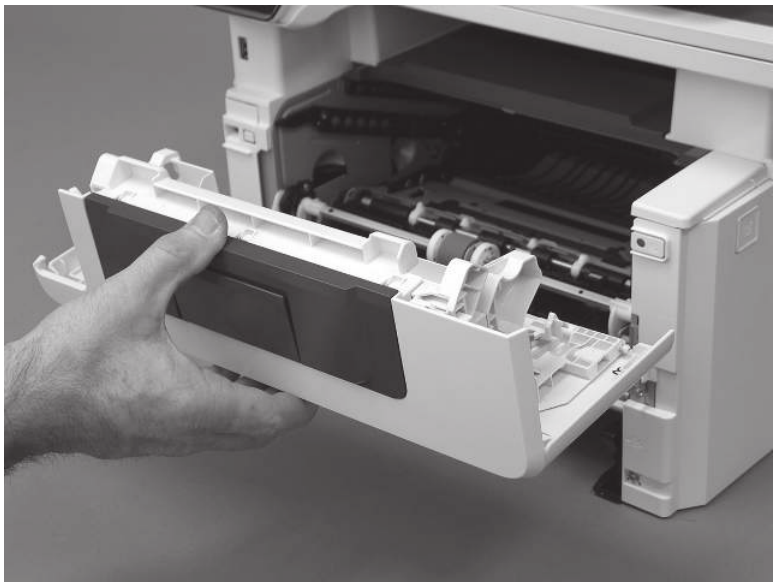
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-700 Release the left-side retainer arm



g. Remove the door.

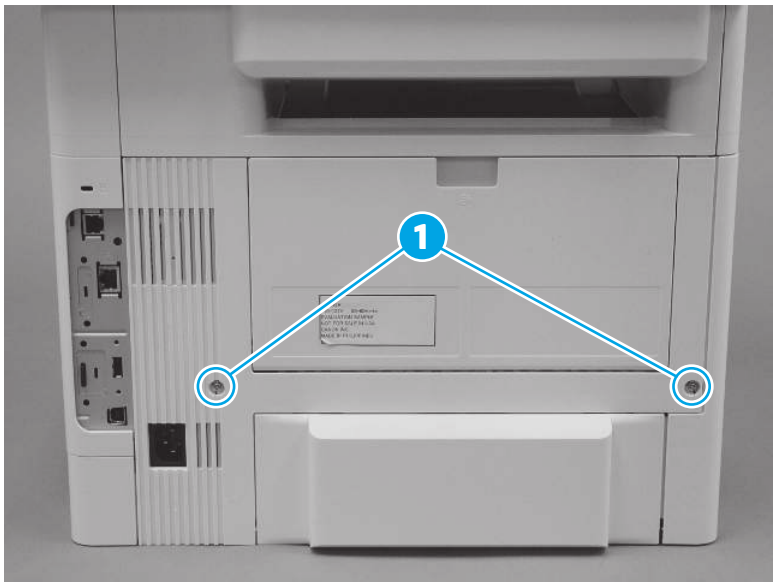
Figure 4-701 **Remove the door**



3. Remove the rear door assembly.

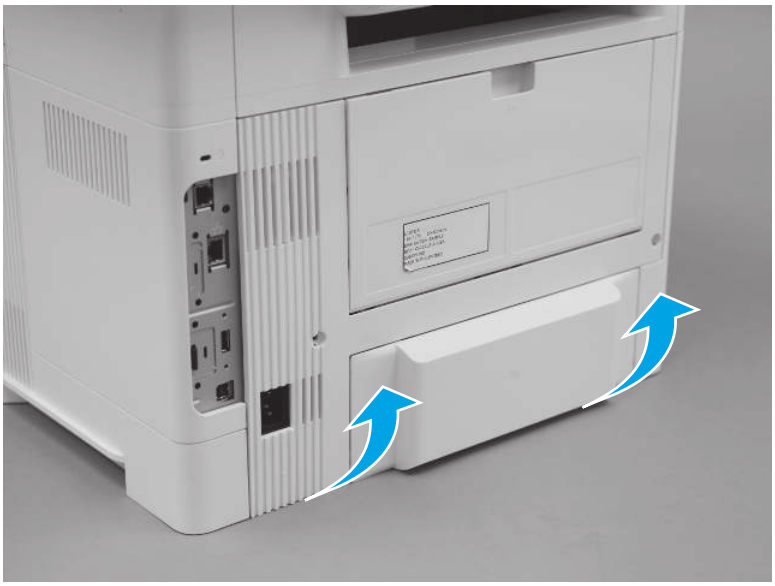
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-702 **Remove two screws**



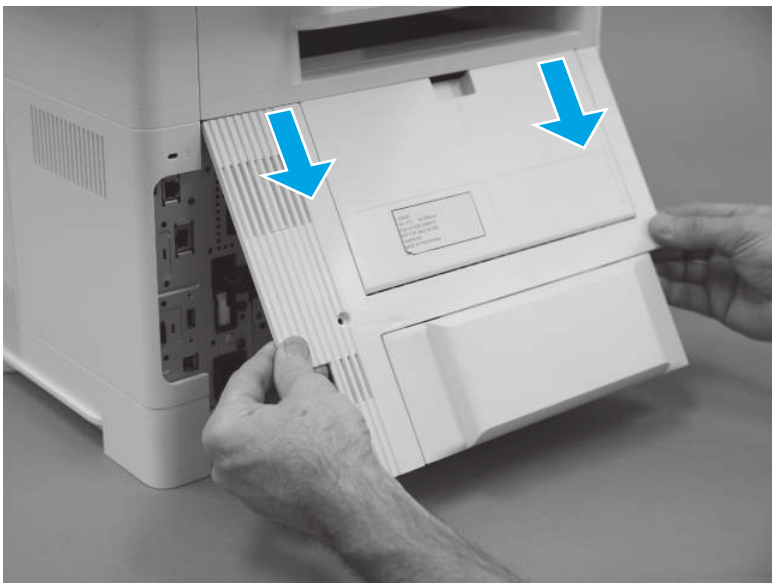
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-703 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-704 Remove the cover



4. Remove the left cover.

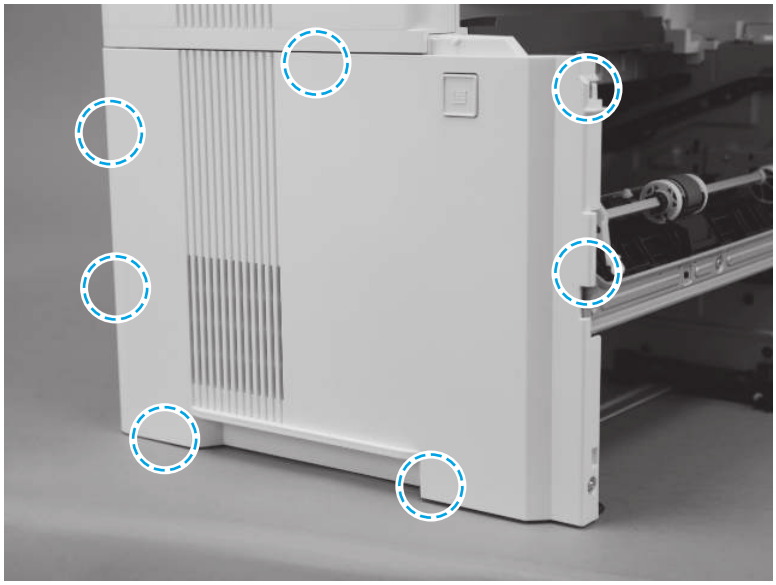
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

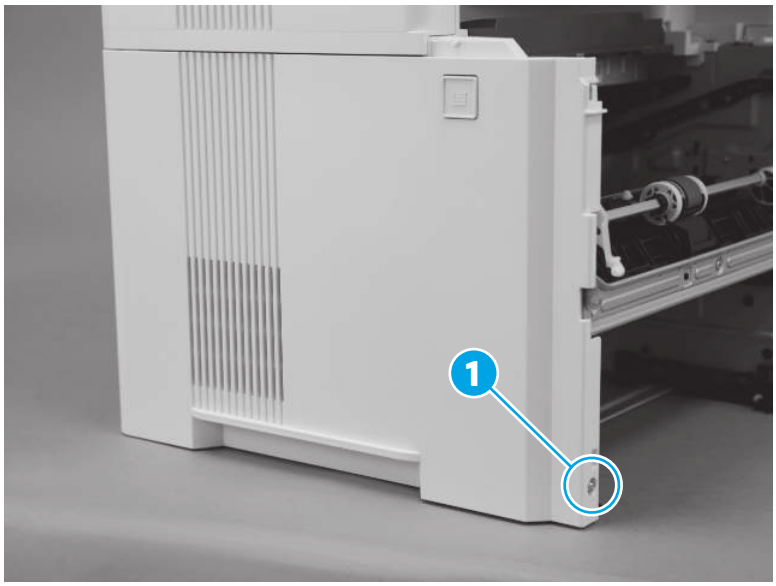
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-705 Locate of the tabs and bosses



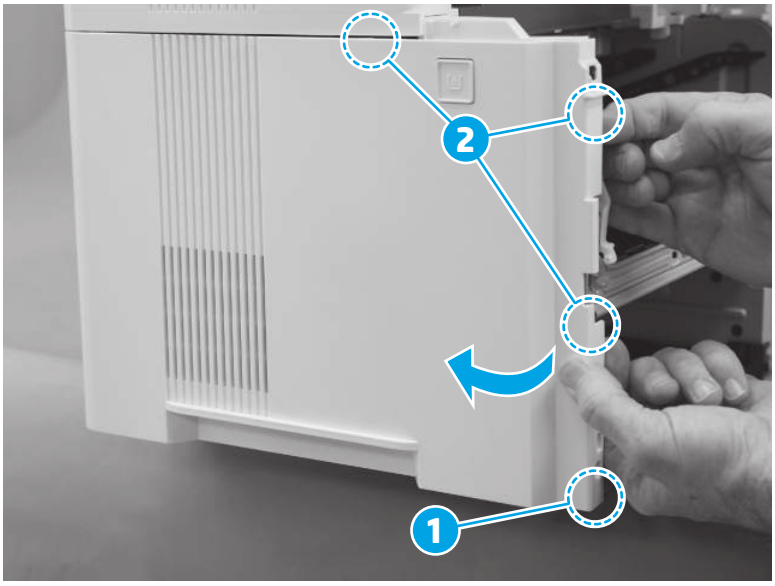
b. Remove one screw (callout 1).

Figure 4-706 Remove one screw



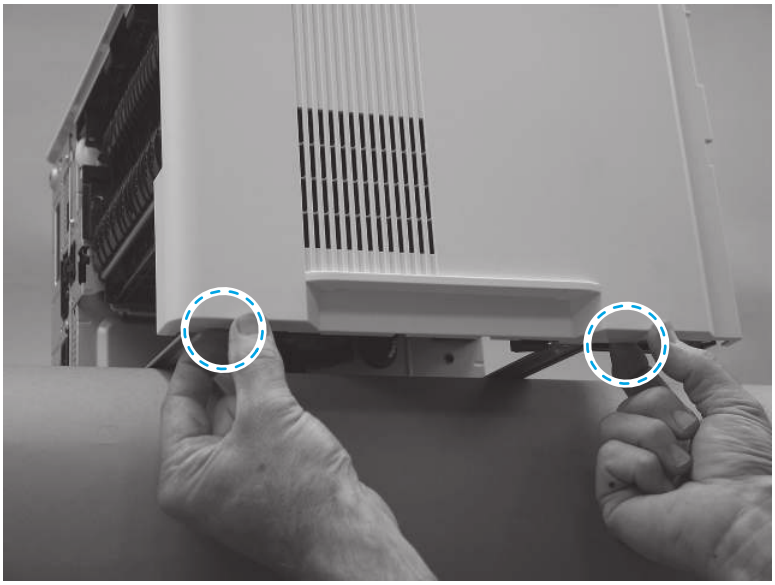
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-707 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

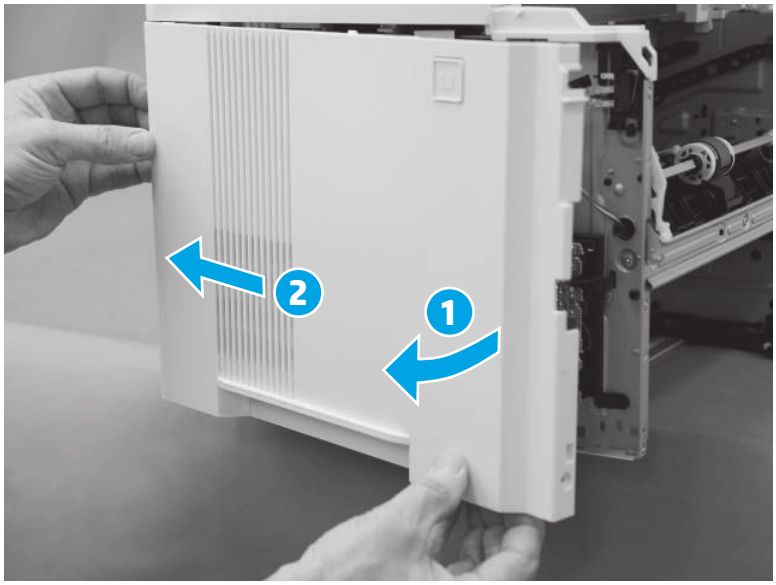
Figure 4-708 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-709 Remove the cover

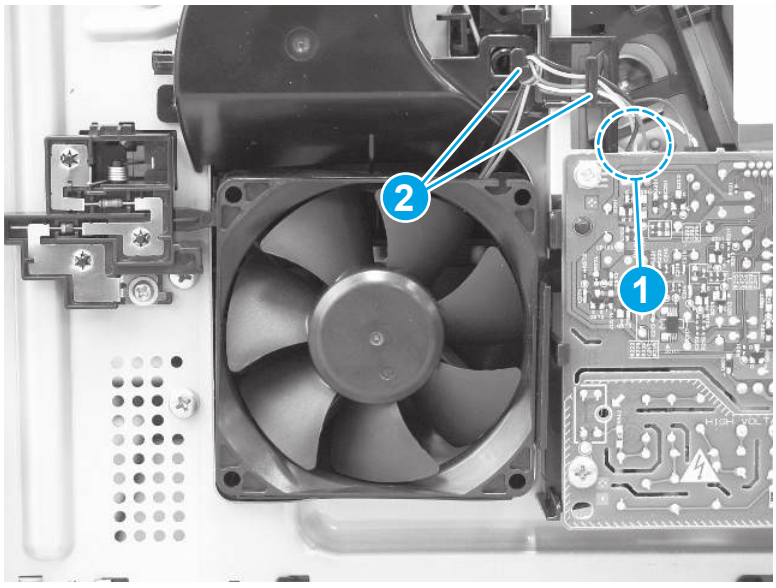


5. Remove the fan (FM1).

   a. At the left side of the printer, disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

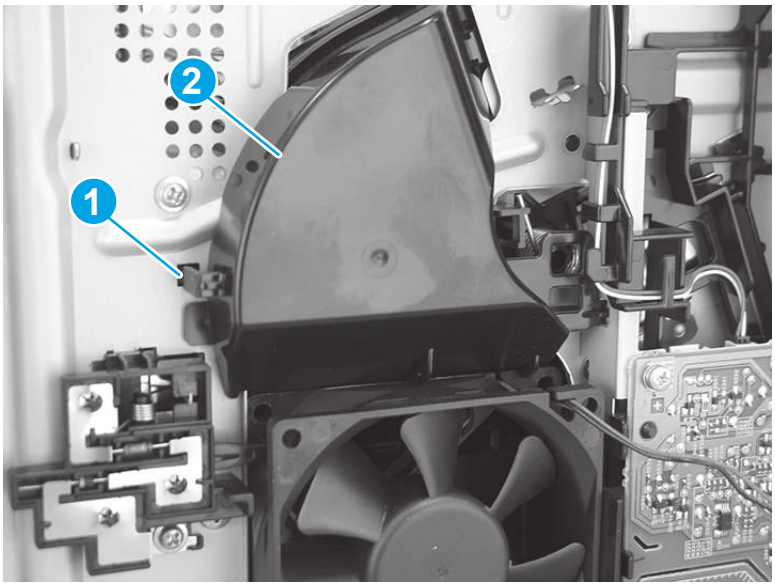
   Reinstallation tip: It might be easier to connect the connector first, and then install the wire harness in the retainer.

Figure 4-710 Disconnect one connector



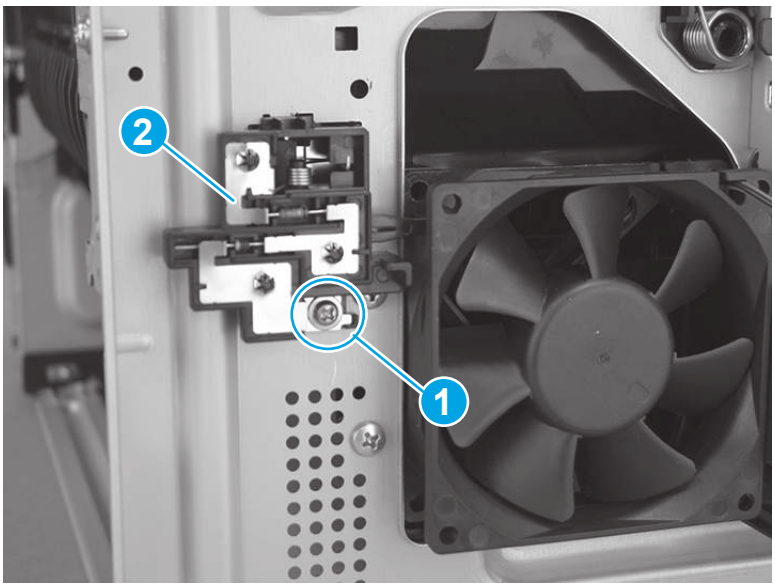
b. Release one tab (callout 1), and then remove the fan duct (callout 2).

Figure 4-711 Remove the fan duct



c. Remove one screw (callout 1), and then remove the film bias assembly (callout 2).

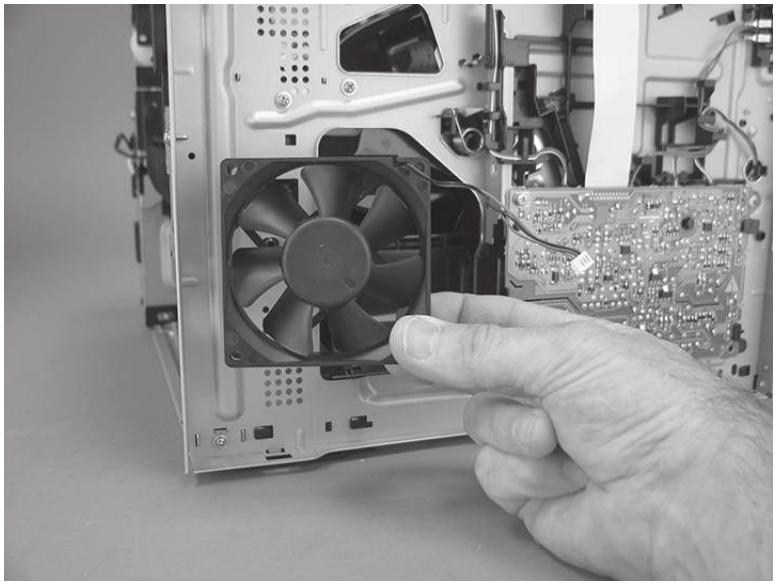
Figure 4-712 Remove the film bias assembly



d. Remove the fan (callout 2).

⚠ CAUTION: When reinstalled the fan must draw air into the printer. Make sure that the two arrows embossed on the top of the fan body (near the wire harness) face upward and into the printer.

Figure 4-713 Remove the fan



6. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fan (FM2)

Learn how to remove and replace the fan (FM2).

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the fan (FM2) (M501).

M506/E50045

View a video of how to remove and replace the fan (FM2) (M506/E50045).

M507/E50145

View a video of how to remove and replace the fan (FM2) (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the fan (FM2) (M527/E52545/M528/E52645).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-38 Part information

Part number	Part description
RK2-8068-000CN	Fan (FM2)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

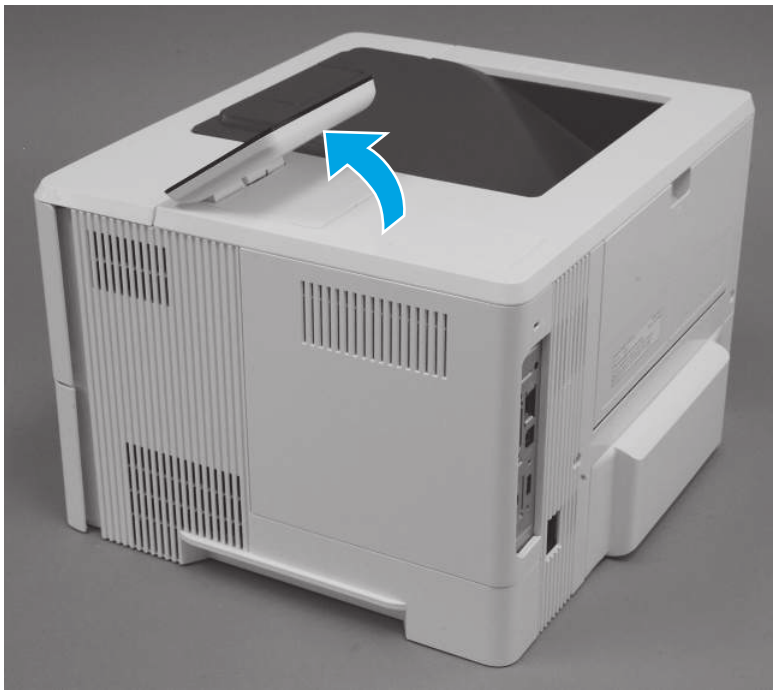
Post service test

No post service test is available for this assembly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

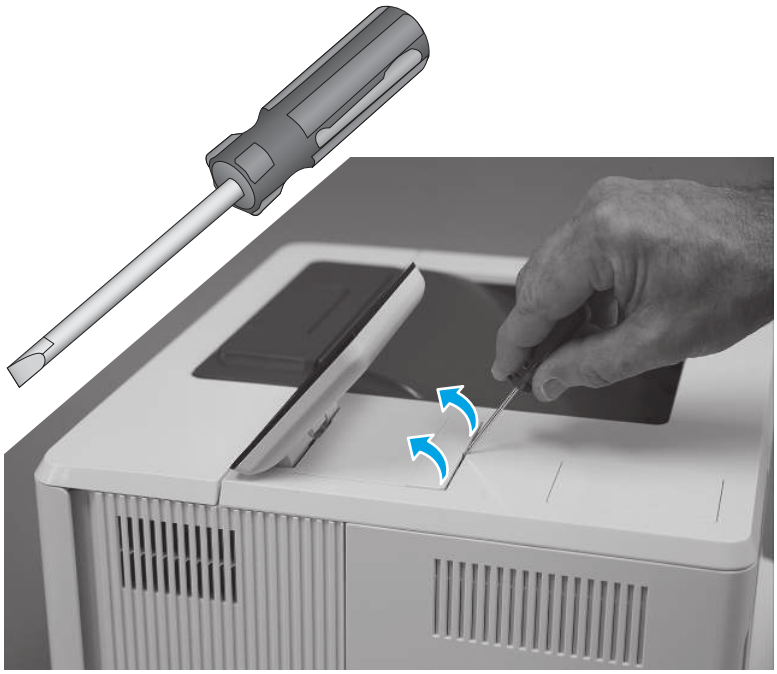
Figure 4-714 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

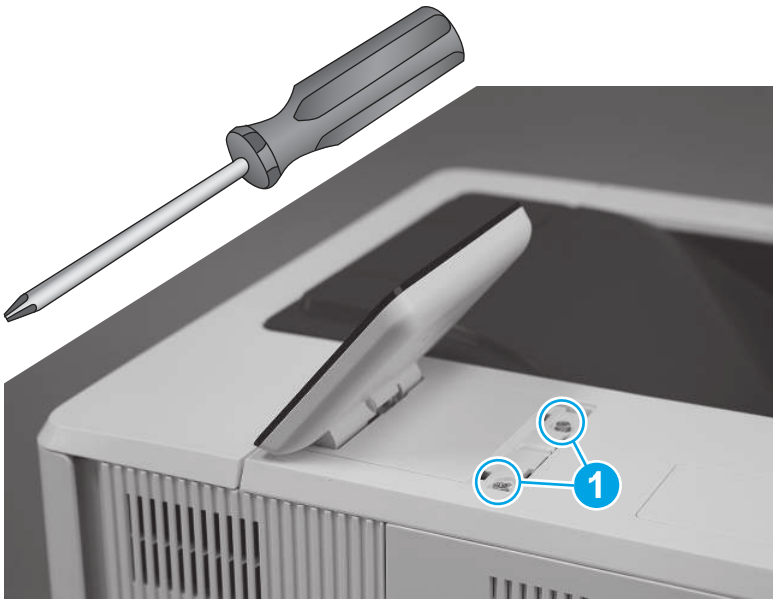
Figure 4-715 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

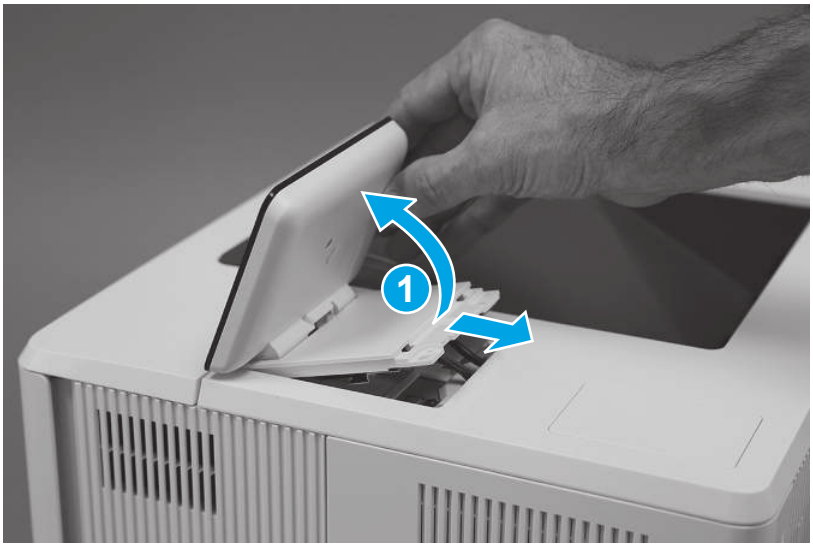
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-716 Remove two screws



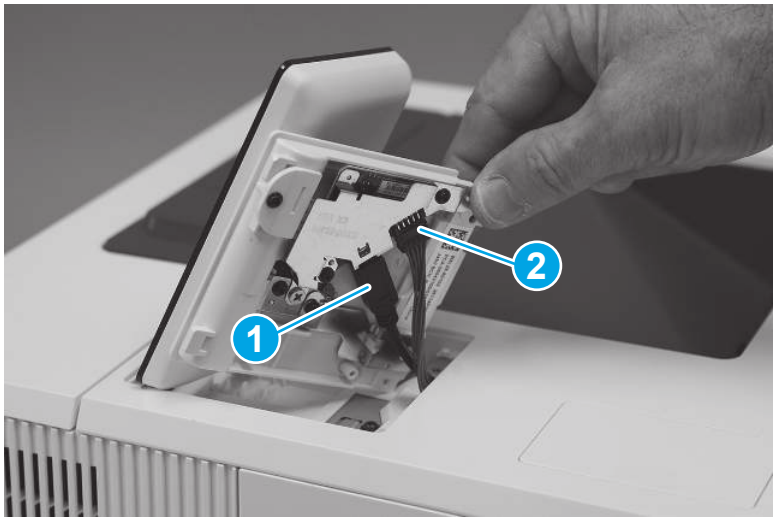
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-717 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-718 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-719 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-720 **Remove the control panel (M507/E50145)**

2. Remove the tray.

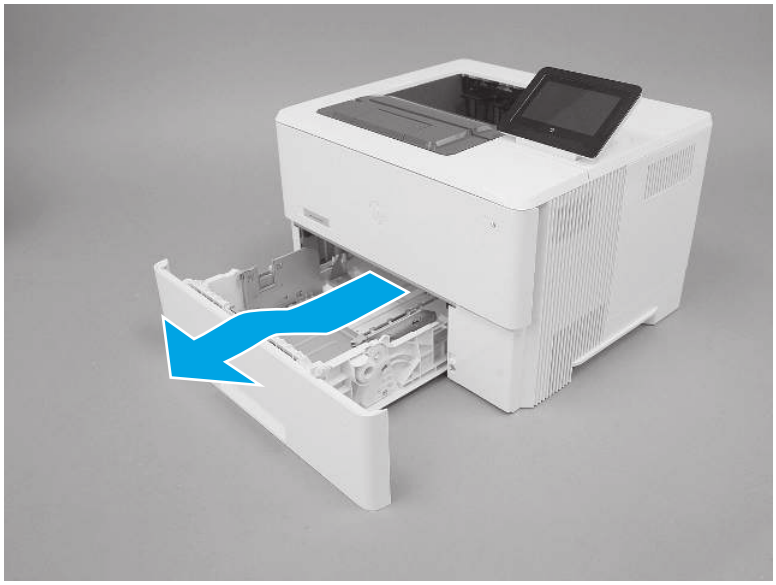
a. Pull the tray straight out of the printer until it stops.

Figure 4-721 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-722 Release and remove the tray

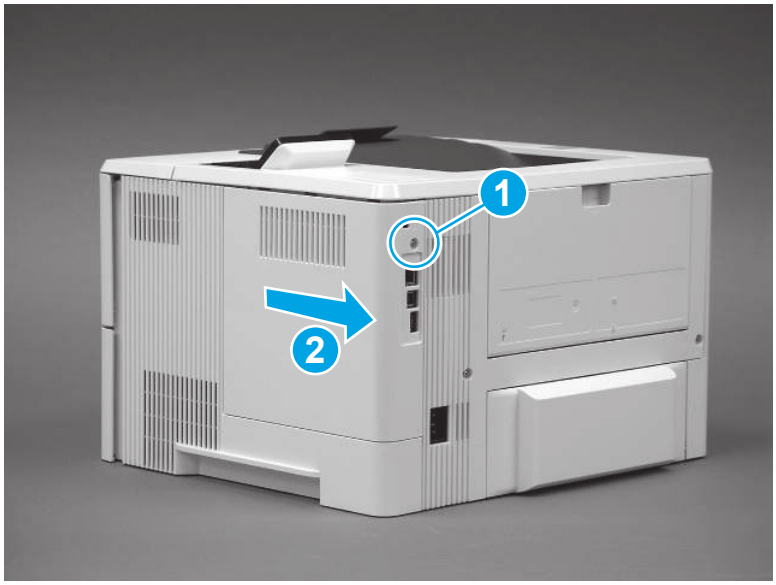


3. Remove the formatter cover.

- Do one of the following:

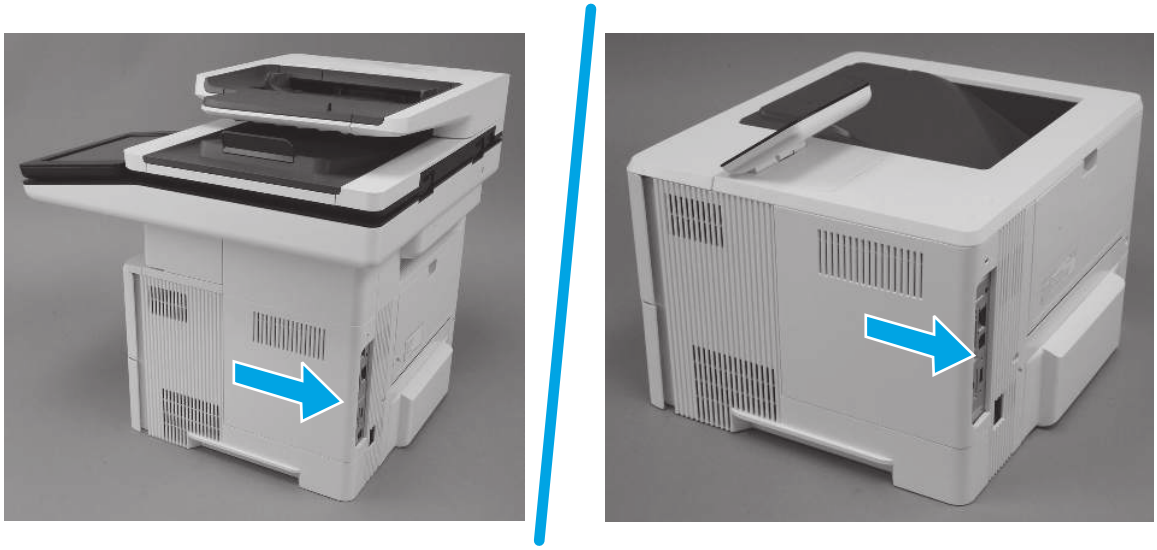
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-723 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-724 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

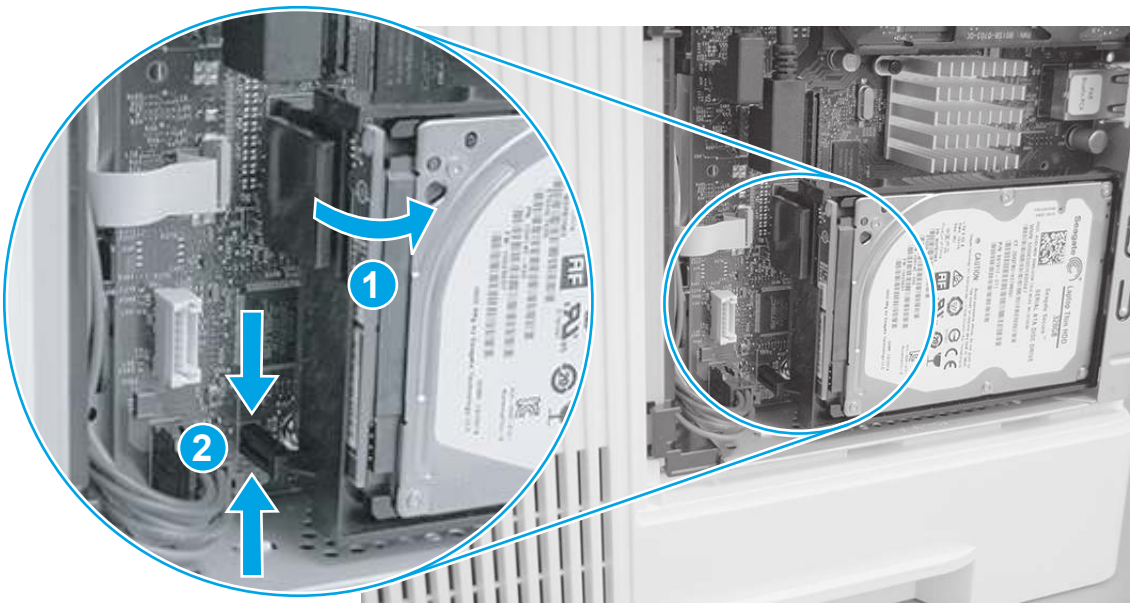


4. Remove the hard-disk drive (HDD models).

CAUTION: ESD sensitive part.

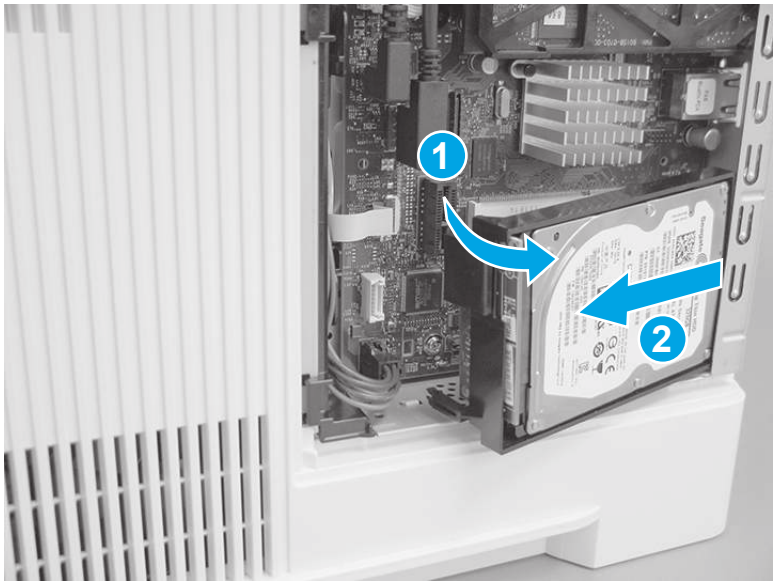
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-725 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-726 Remove the HDD

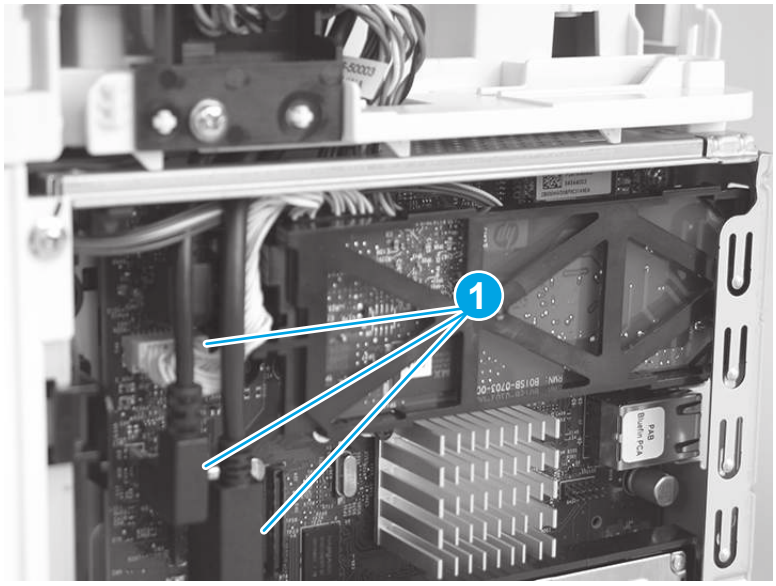


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

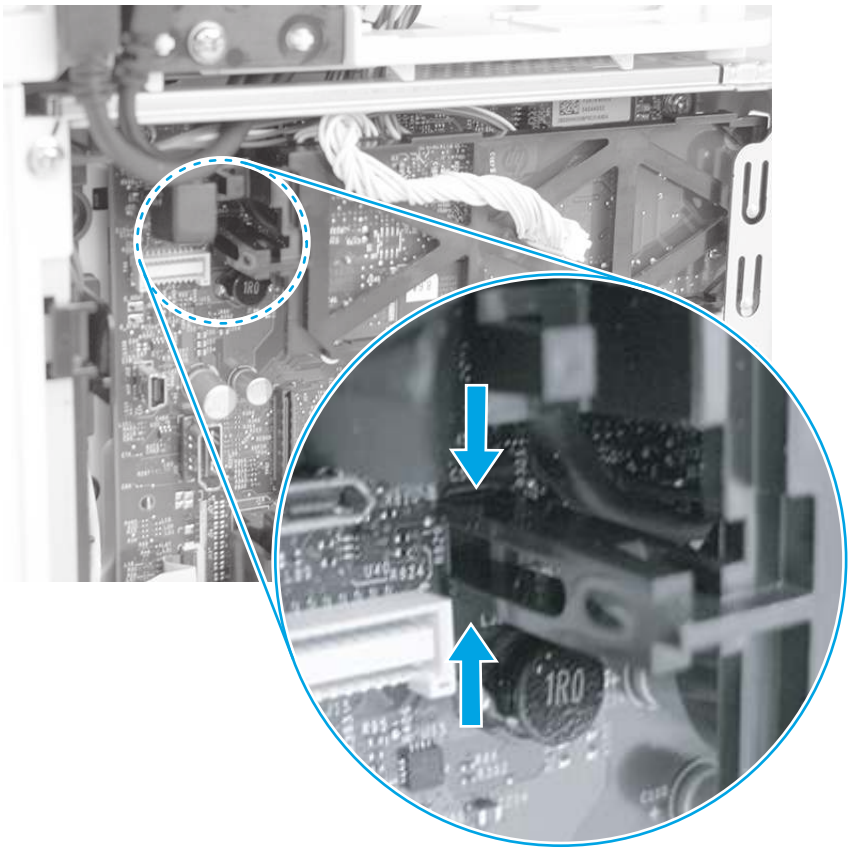
a. Disconnect three connectors (callout 1).

Figure 4-727 Disconnect three connectors



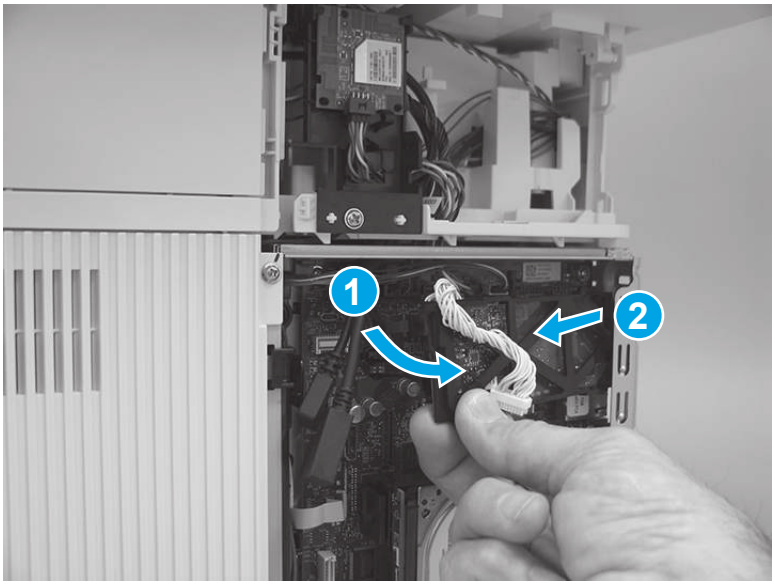
b. Pinch the retainer to release it.

Figure 4-728 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-729 Remove the fax PCA



6. Remove the formatter.

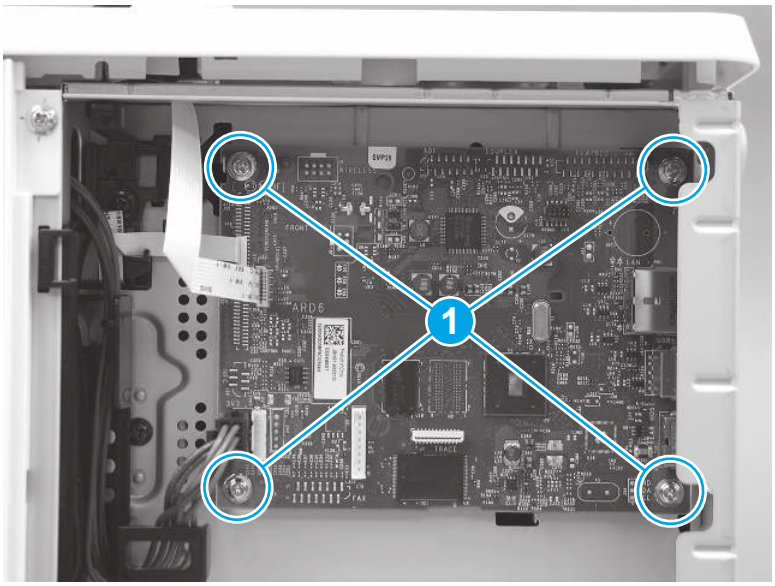
⚠ **CAUTION:** Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

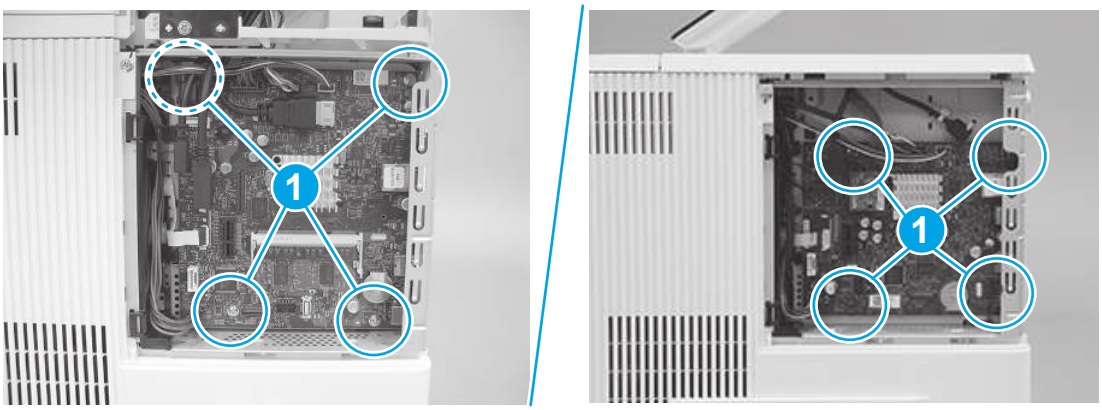
Figure 4-730 Remove the formatter (M501)



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-731 Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

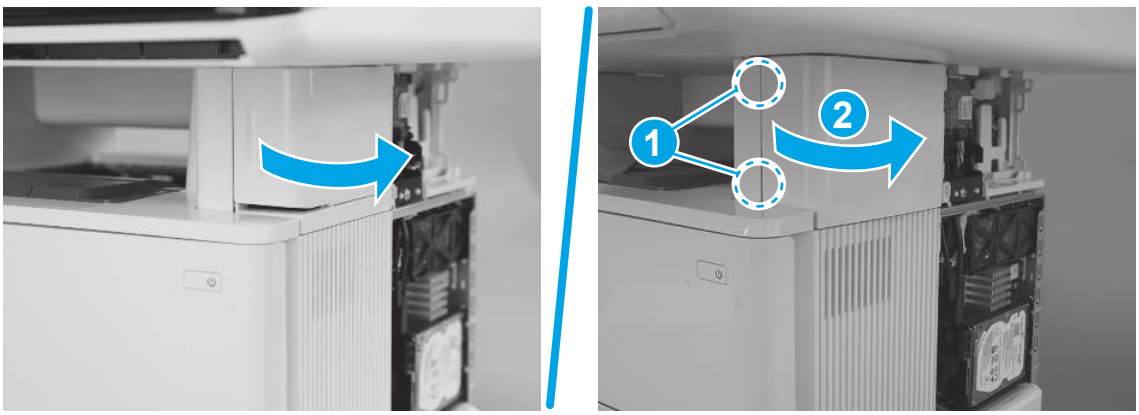


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

      - **Stapler models**: Open the stapler door.
      - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-732 Open the door or release the cover



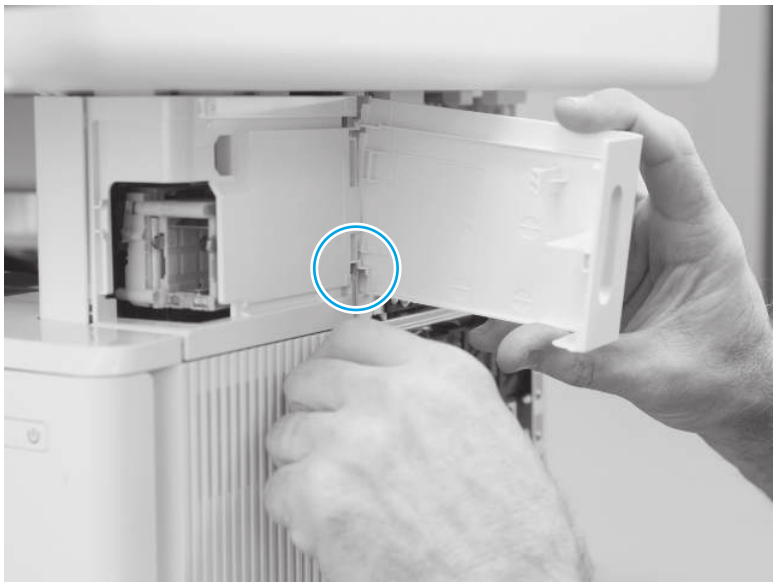
   b. Do one of the following:

      - **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
      - **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-733 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-734 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-735 **Remove the door**

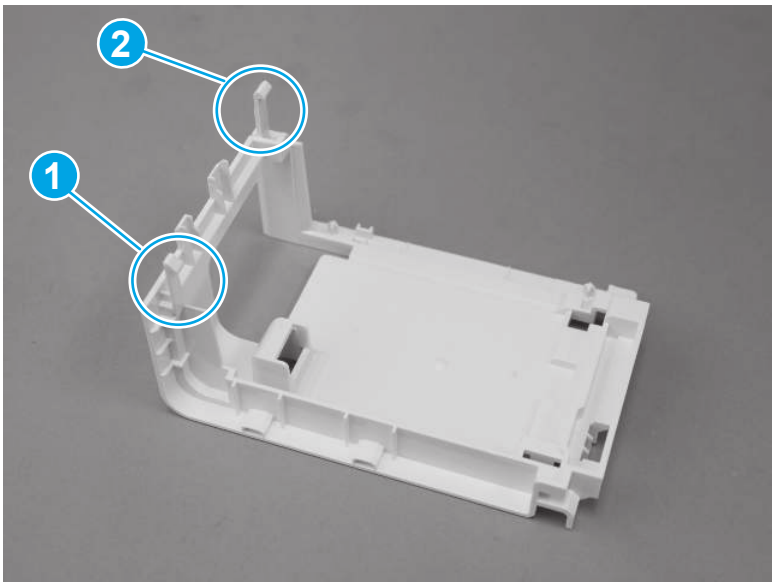
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

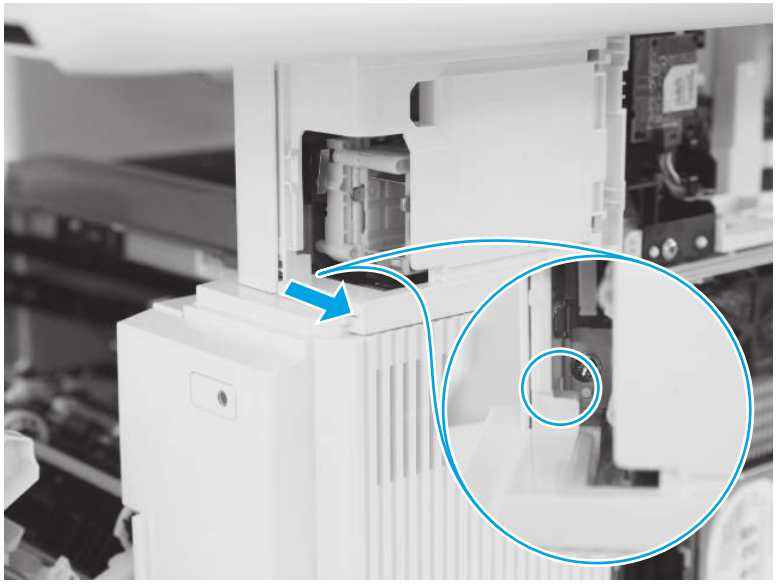
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-736 **Locate the tabs**



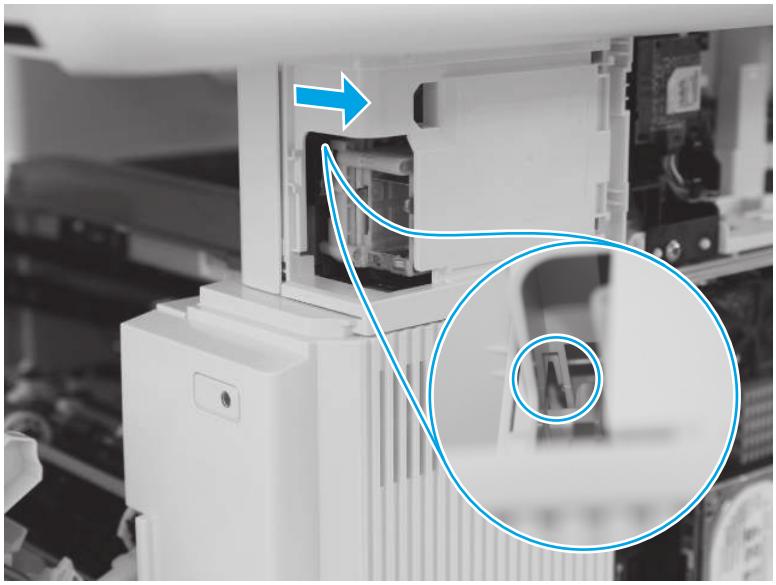
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-737 Release one tab



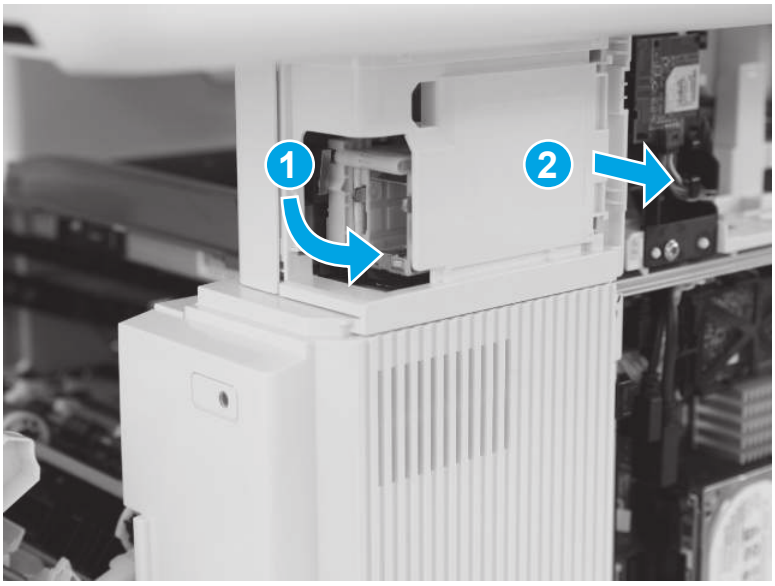
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-738 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

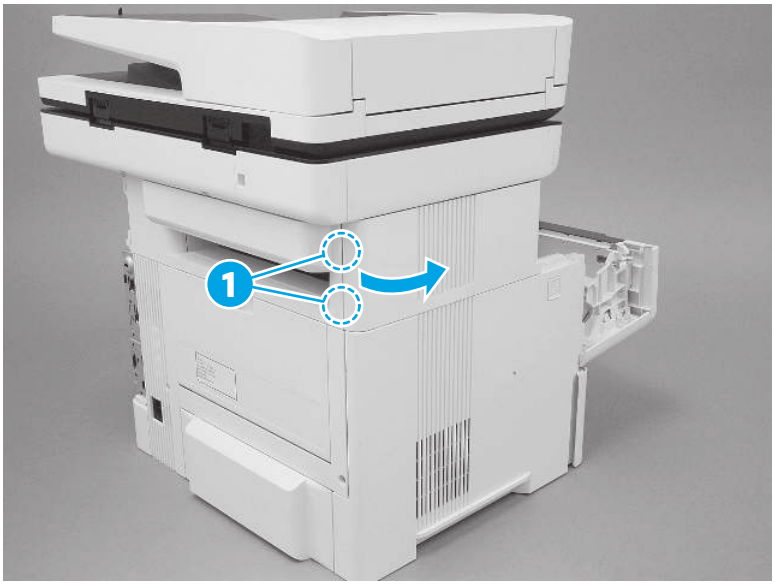
Figure 4-739 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-740 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

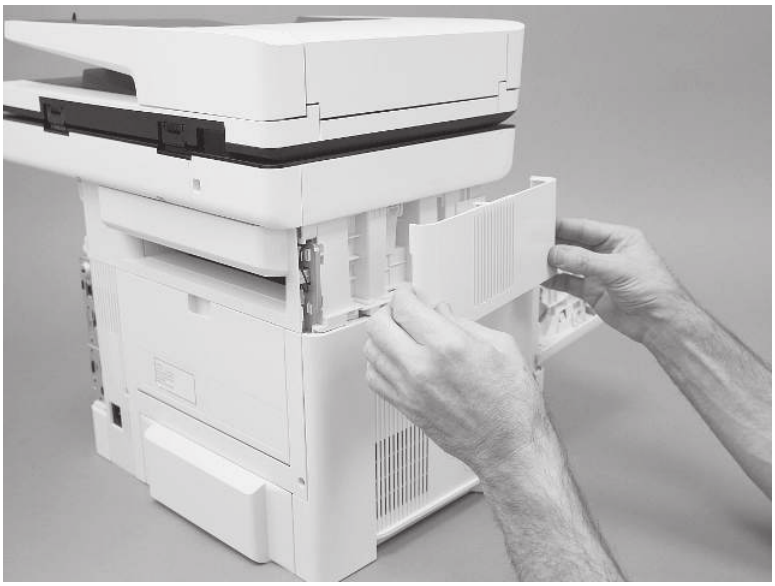
Figure 4-741 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-742 Slide the cover

d. Remove the cover.

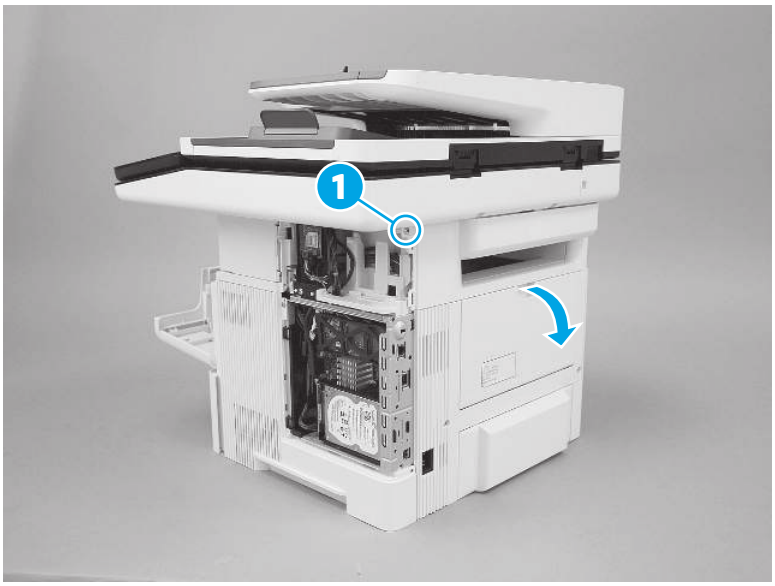
Figure 4-743 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

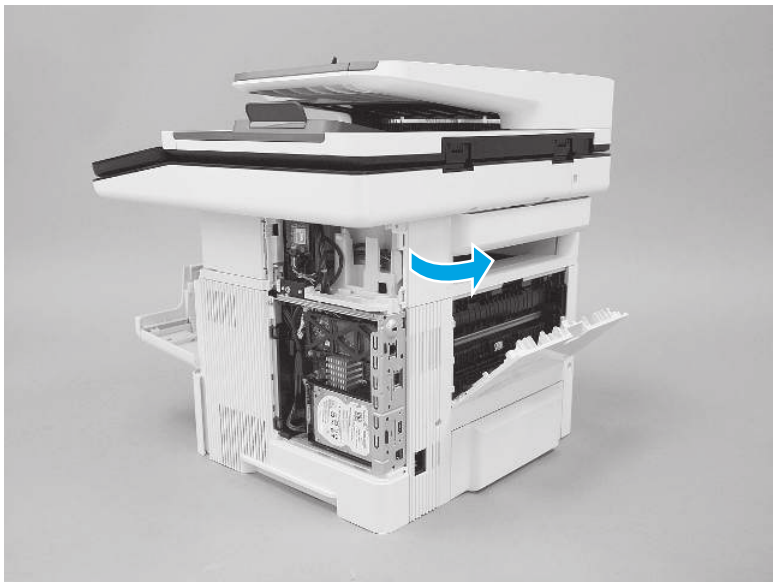
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-744 Remove one screw



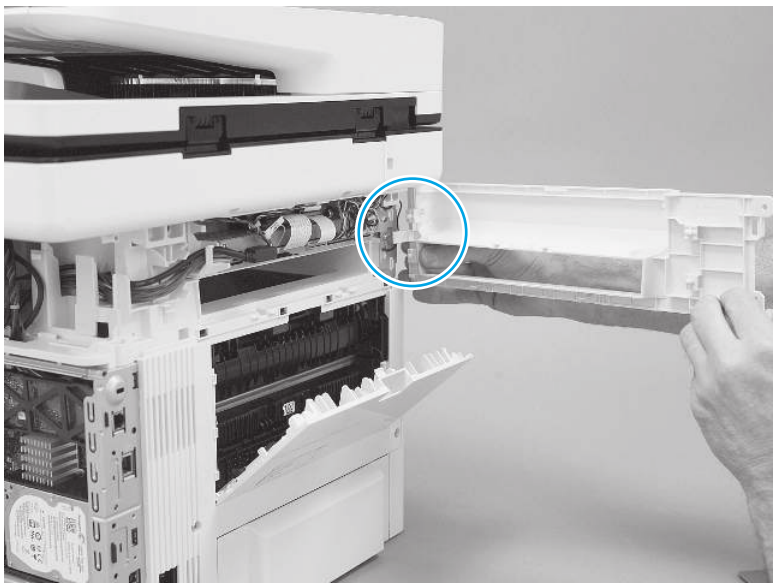
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-745 Rotate the cover



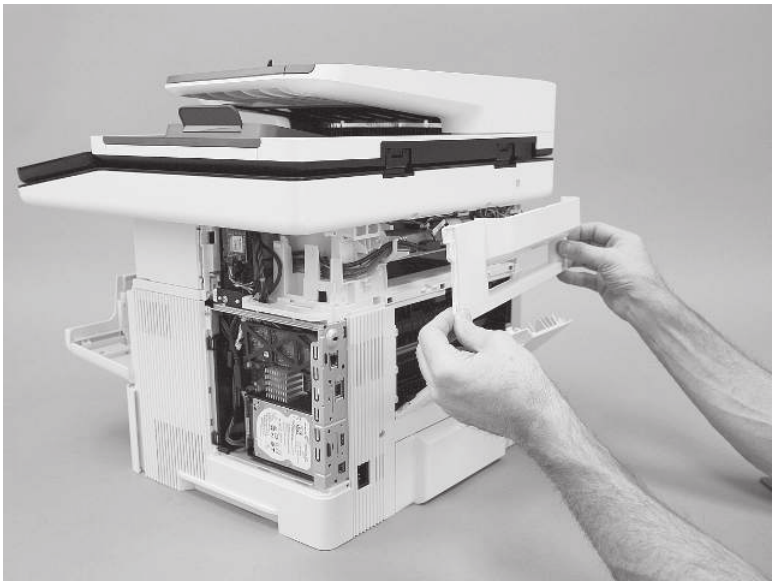
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-746 Release one boss



d. Remove the cover.

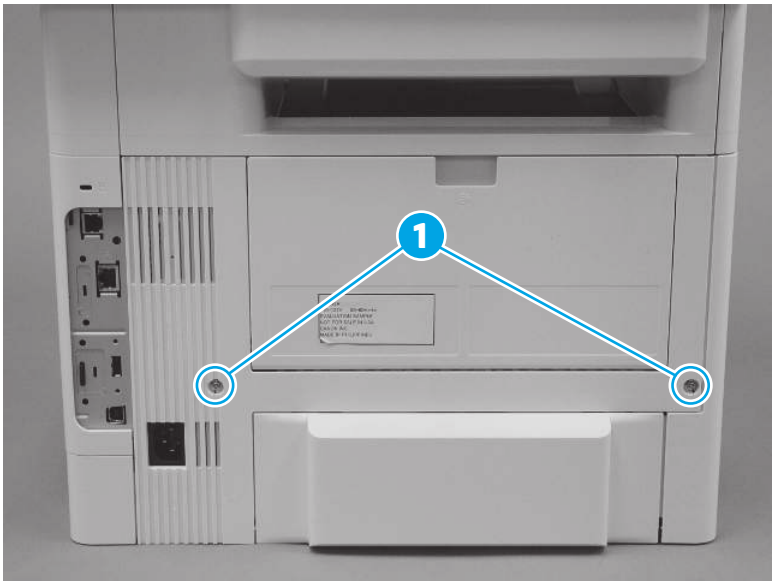
Figure 4-747 Remove the cover



11. Remove the rear door assembly.

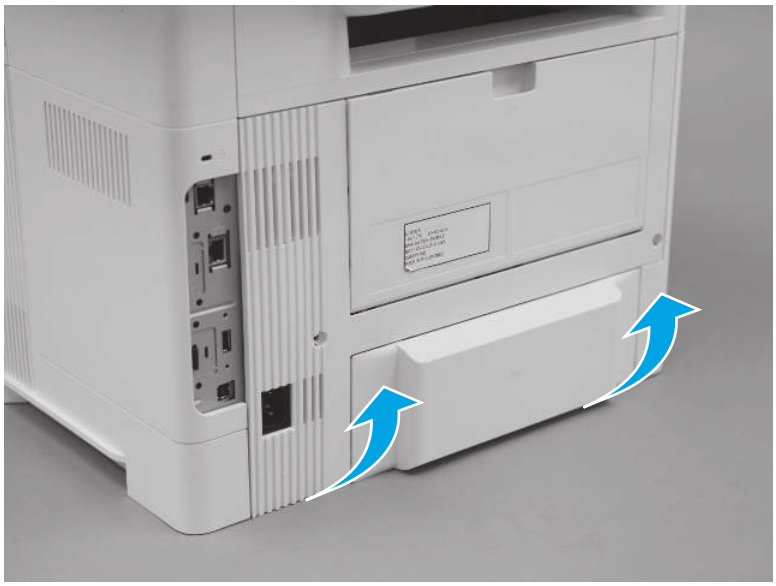
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-748 Remove two screws



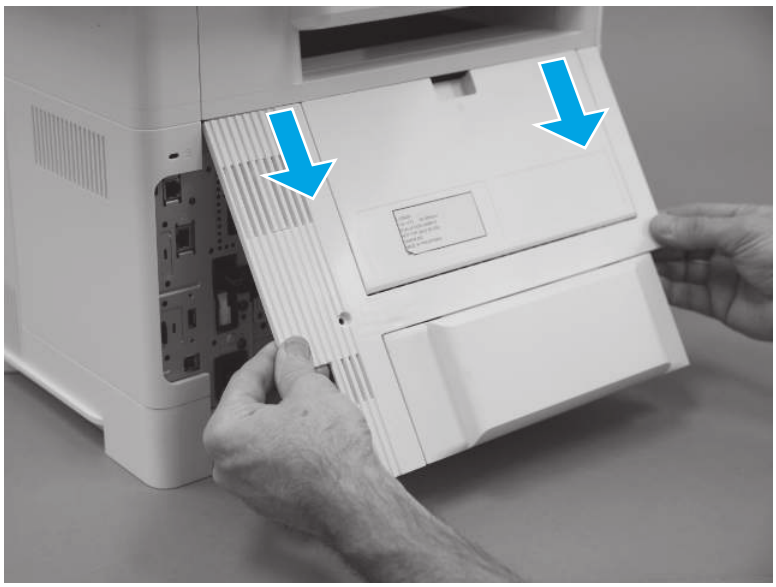
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-749 **Rotate the bottom of the cover**



c. Pull down on the assembly to remove it.

Figure 4-750 **Remove the cover**



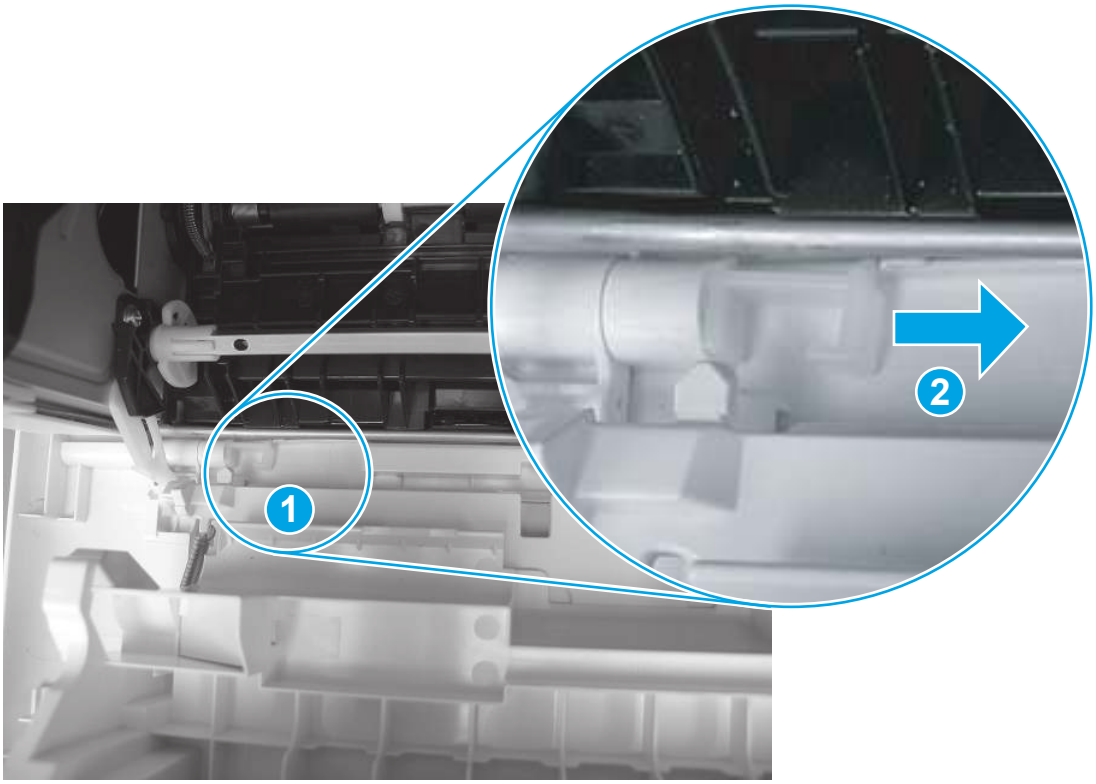
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

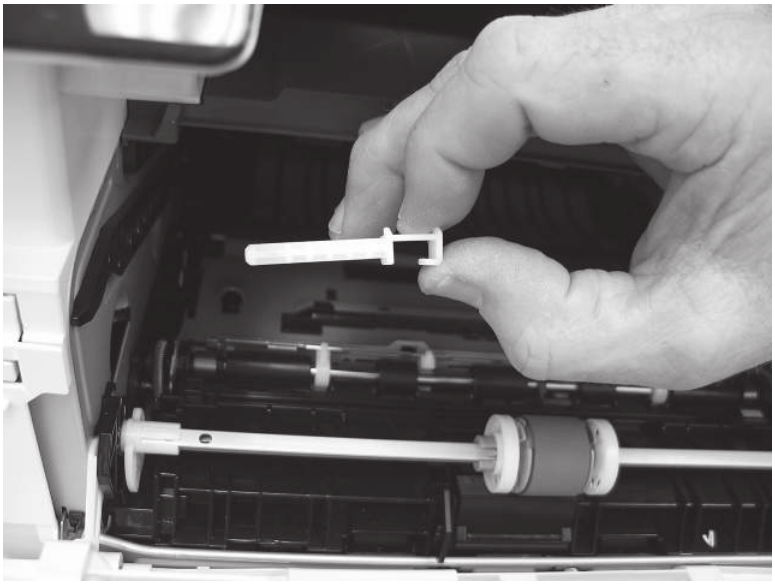
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-751 Release the support shaft



b. Remove the support shaft.

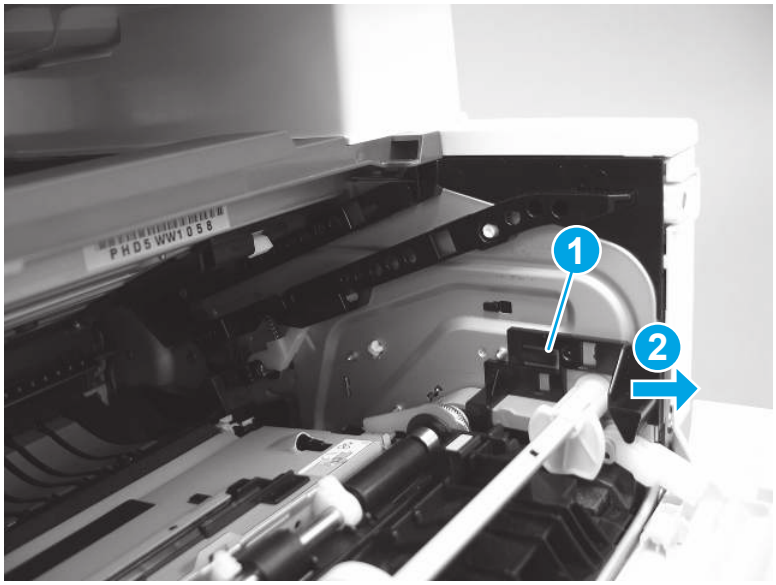
Figure 4-752 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

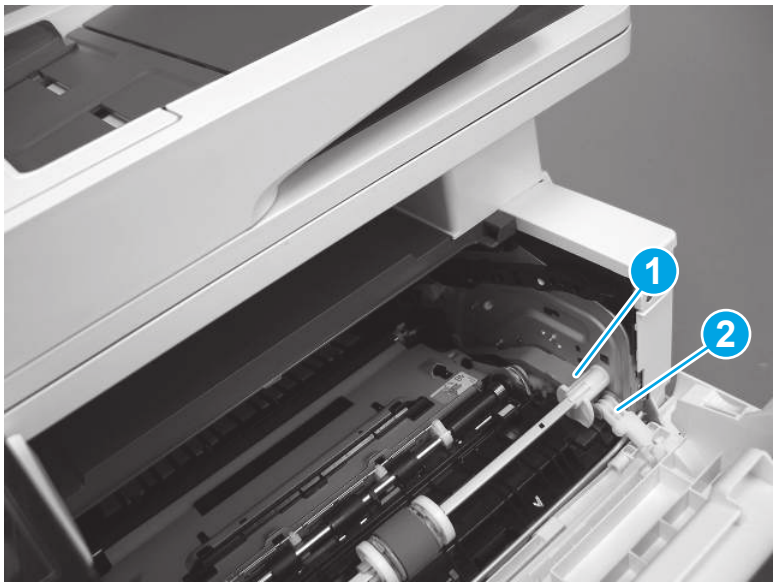
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-753 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-754 Release the pressure-release link



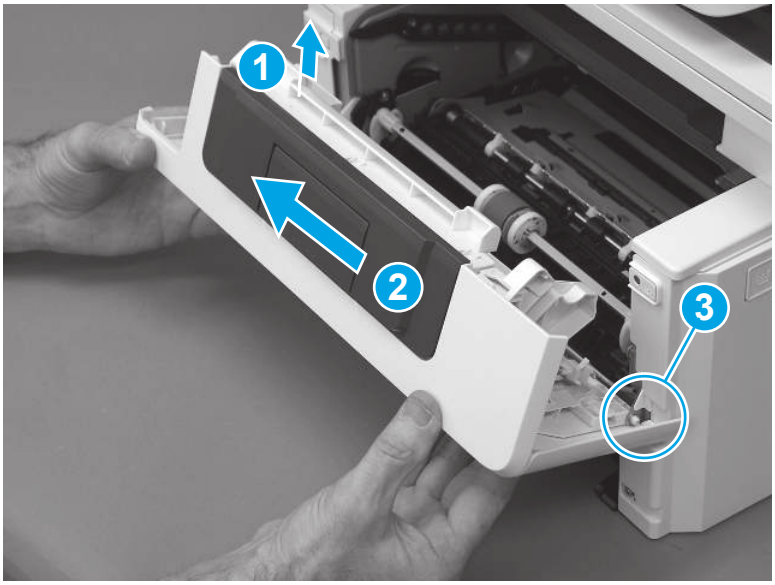
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

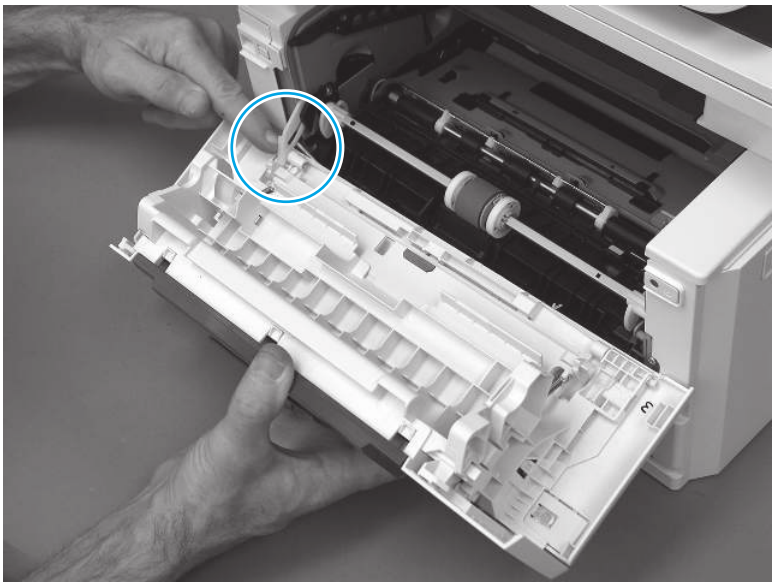
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-755 Release the door



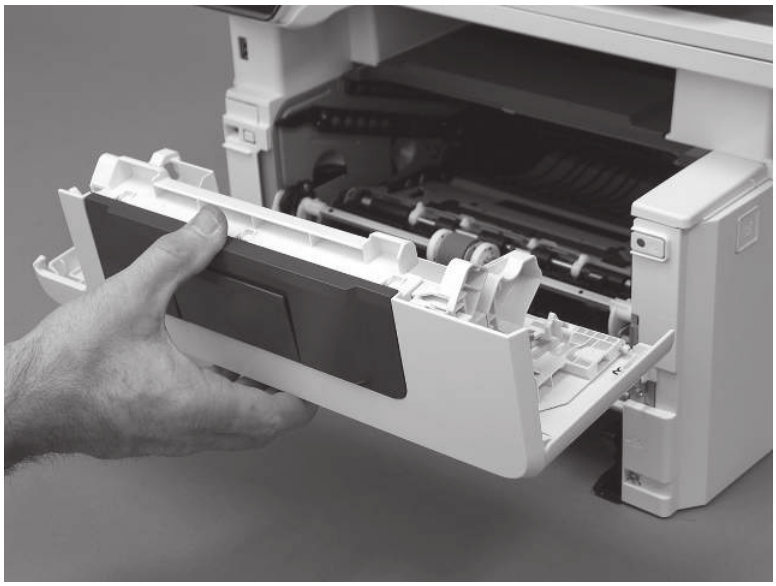
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-756 Release the left-side retainer arm



g. Remove the door.

Figure 4-757 Remove the door



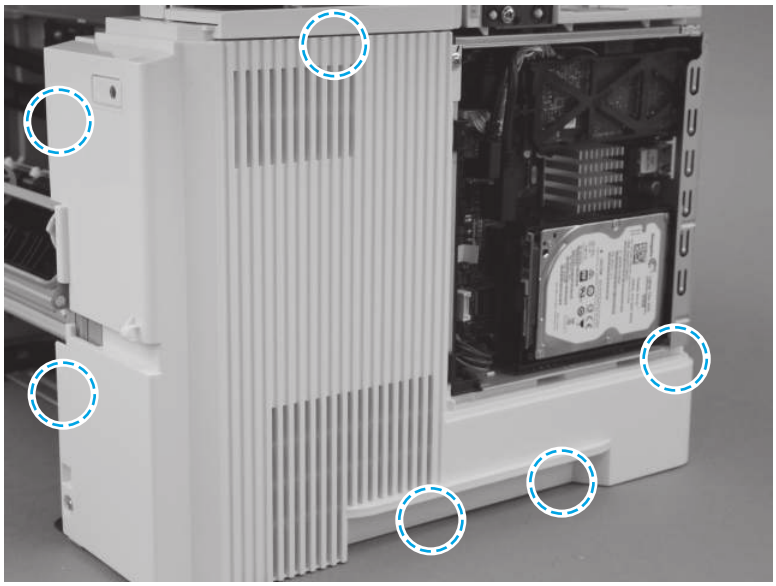
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

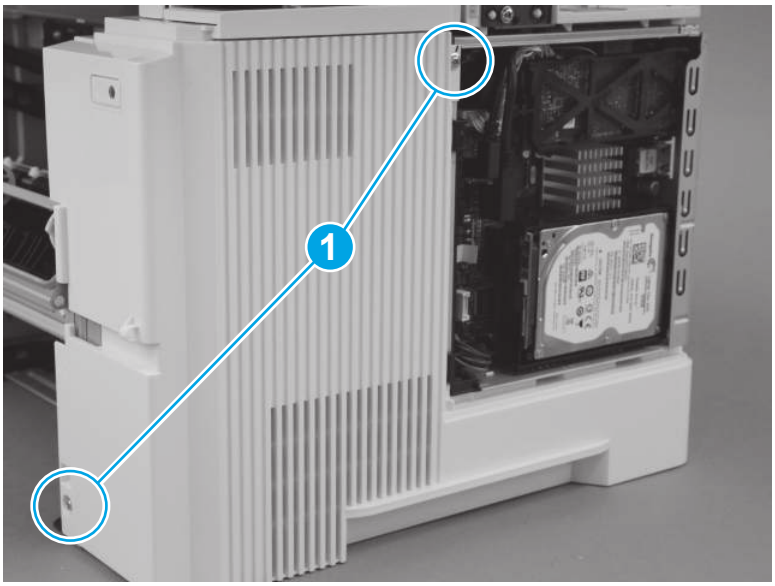
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-758 Locate the tabs and bosses



b. Remove two screws (callout 1).

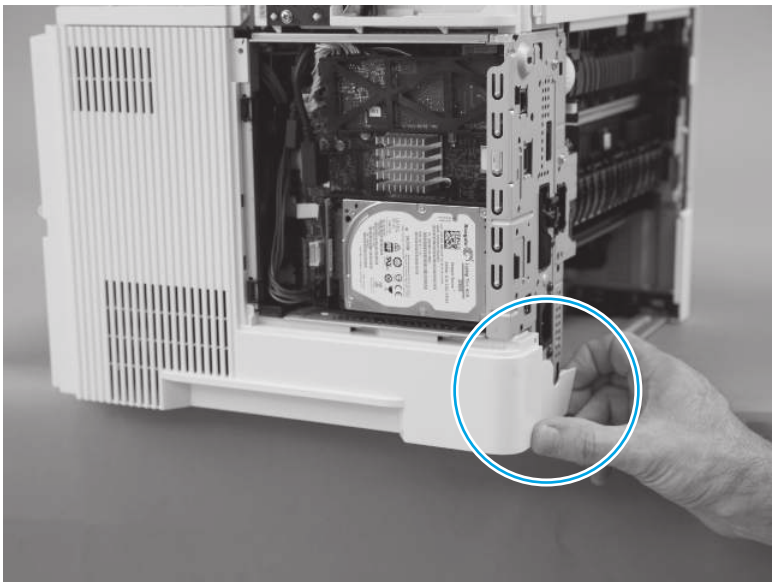
Figure 4-759 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

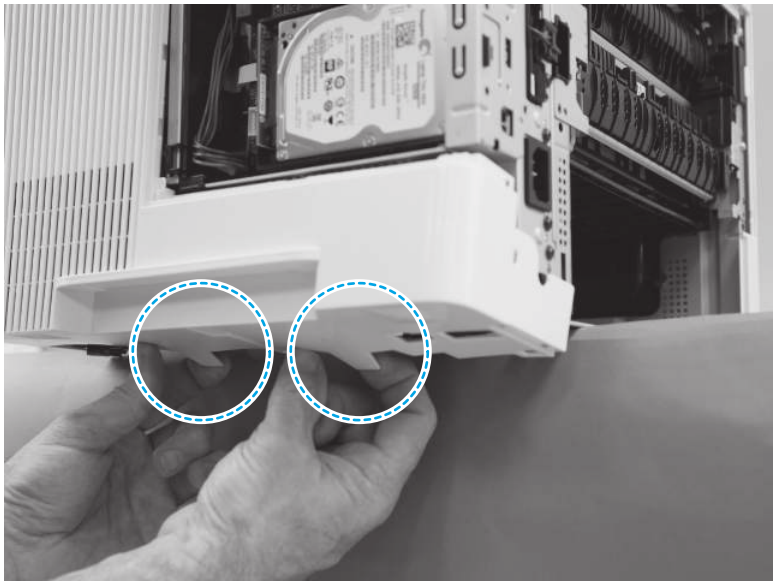
Figure 4-760 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-761 Release two bosses

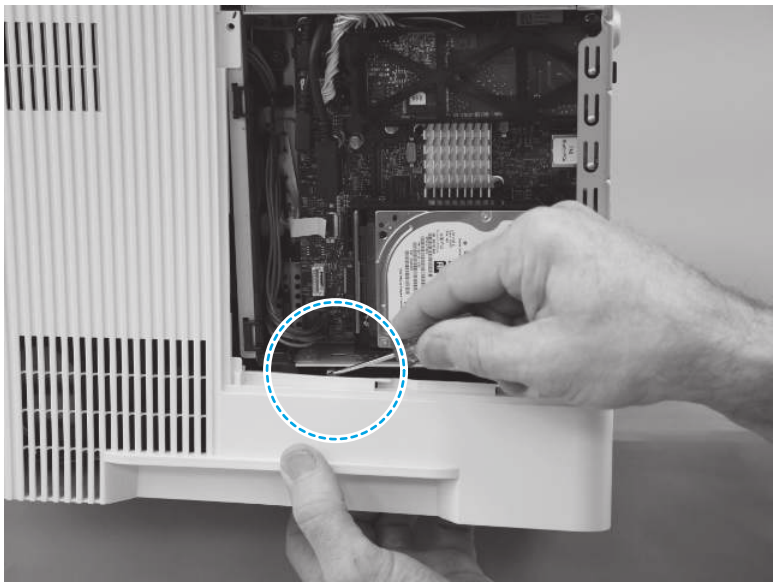


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-762 Release one tab

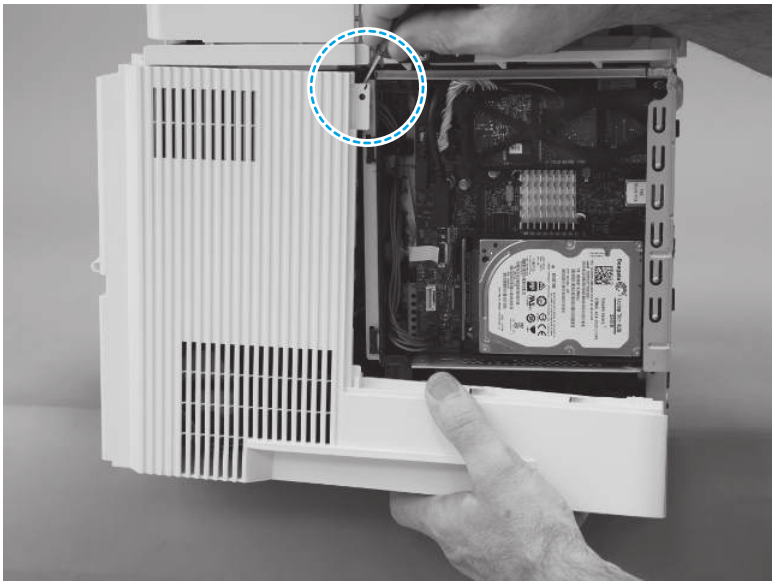


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

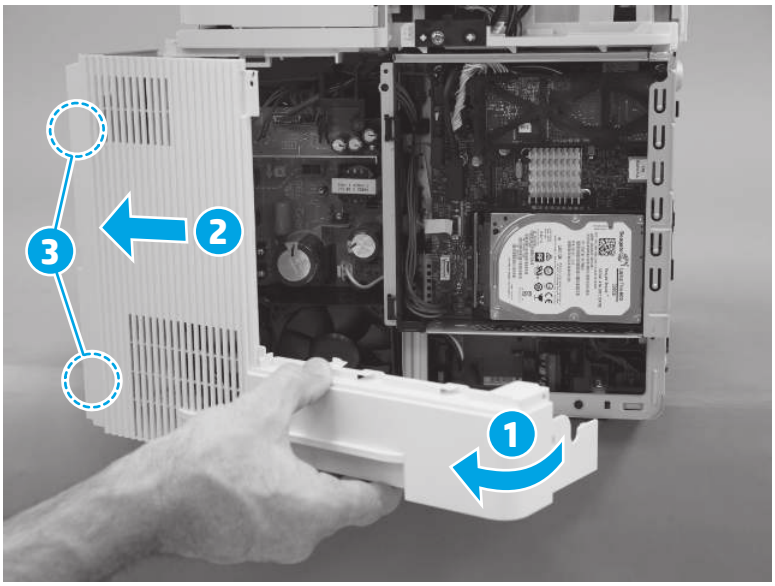
Figure 4-763 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-764 Remove the cover



14. Remove the left cover.

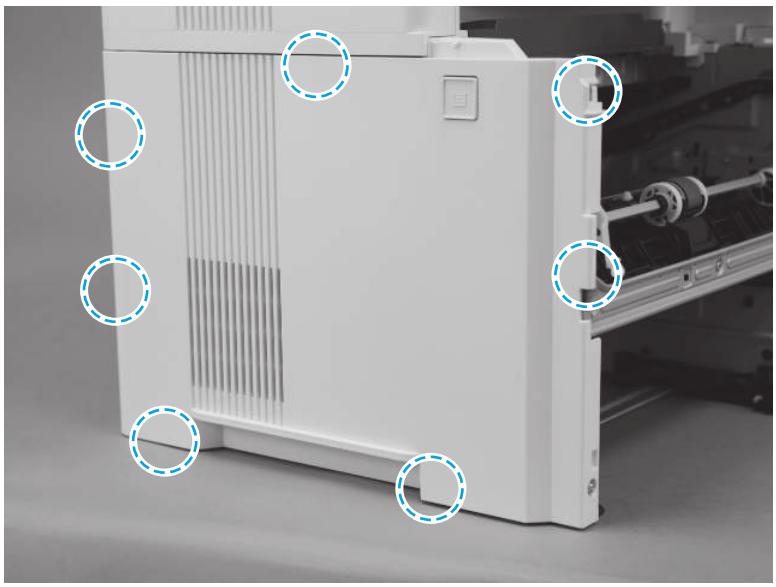
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

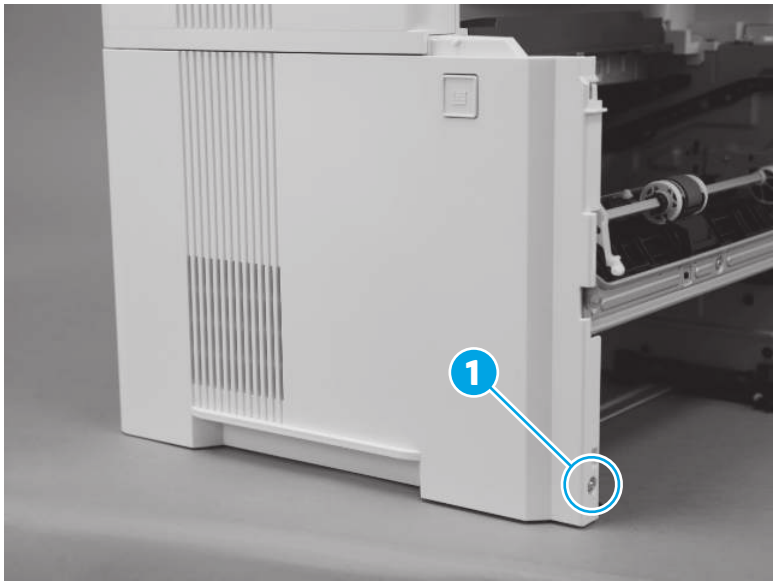
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-765 Locate of the tabs and bosses



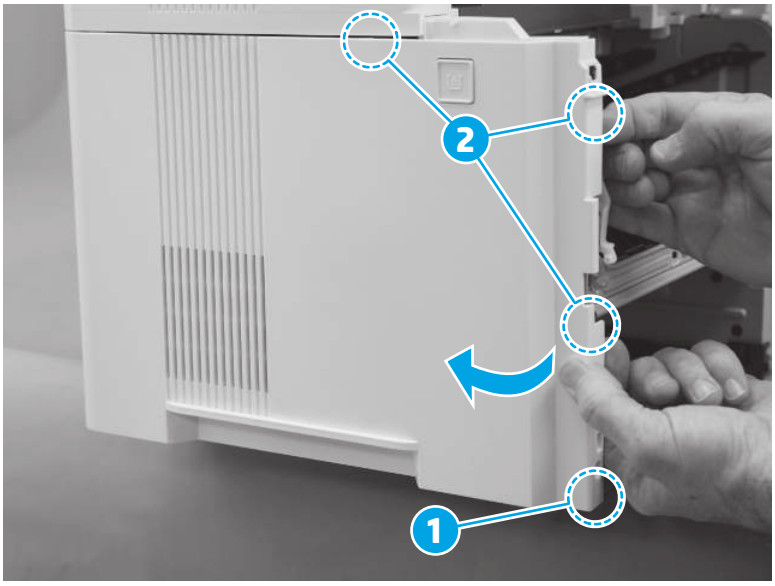
b. Remove one screw (callout 1).

Figure 4-766 Remove one screw



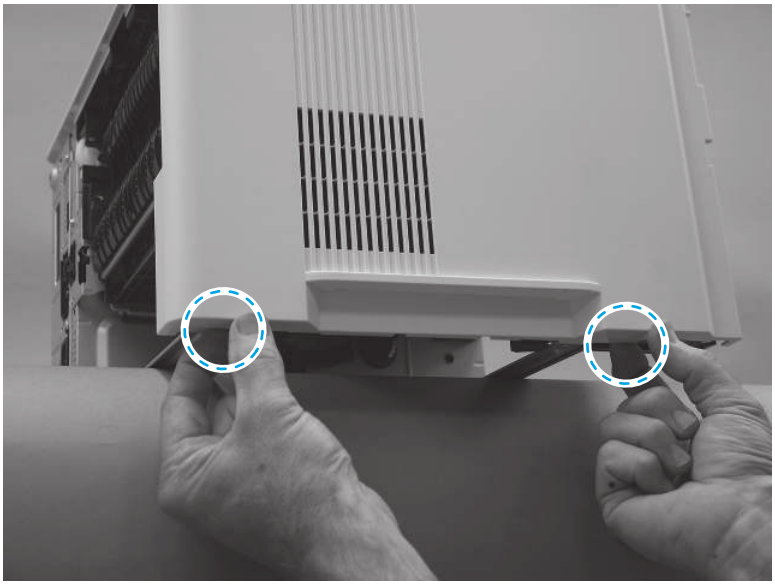
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-767 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

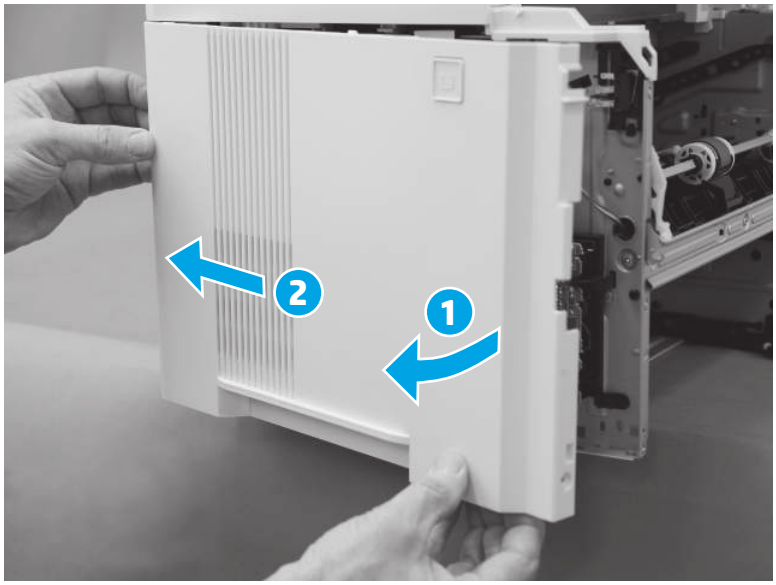
Figure 4-768 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-769 Remove the cover



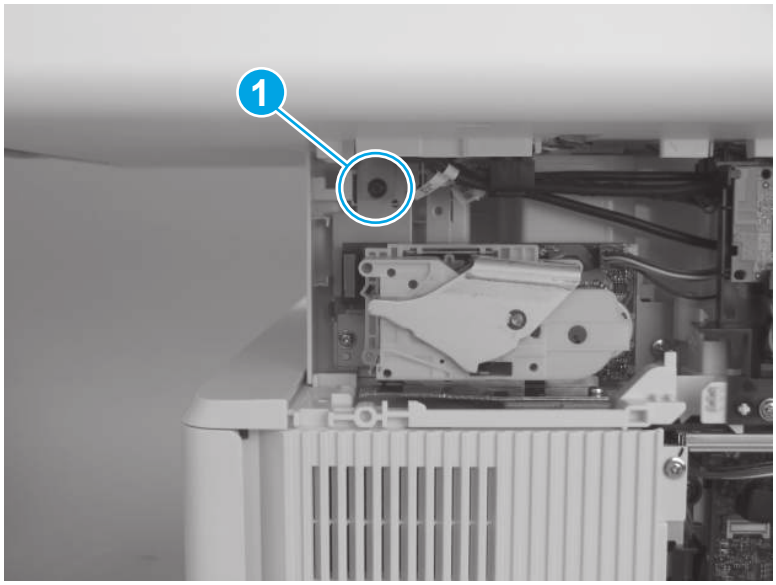
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-770 Remove one screw

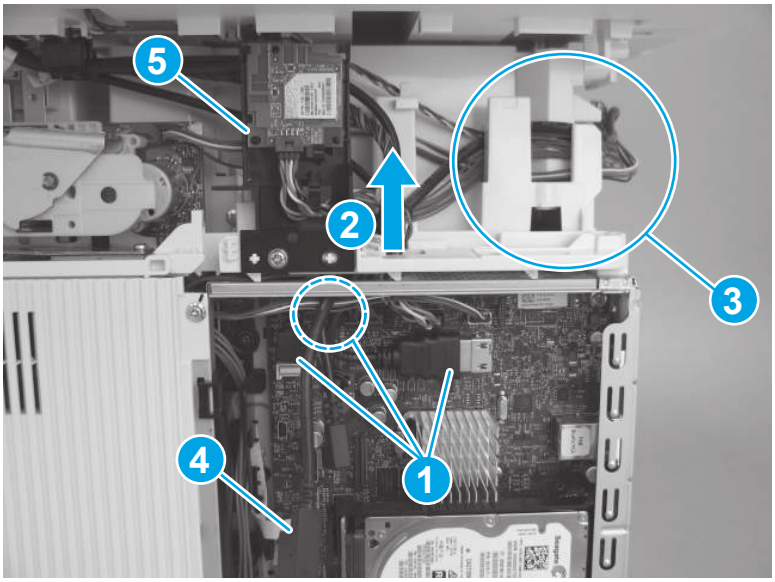


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

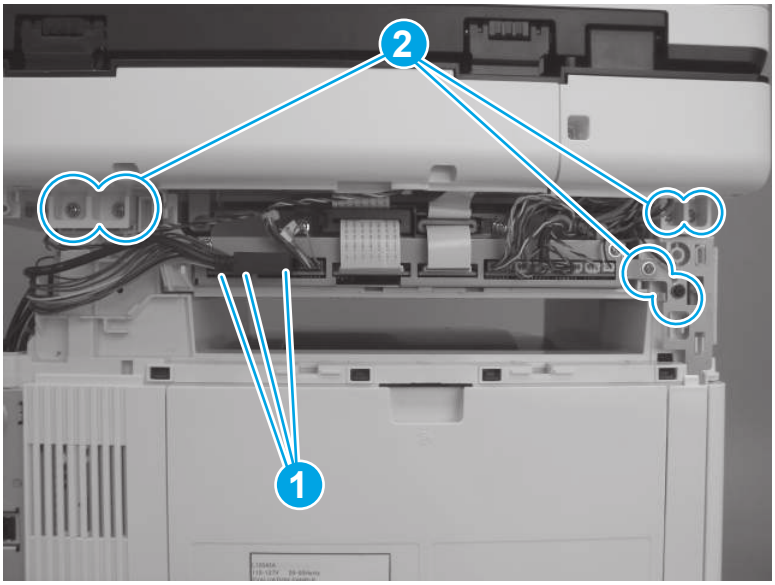
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-771 Disconnect cables and connectors



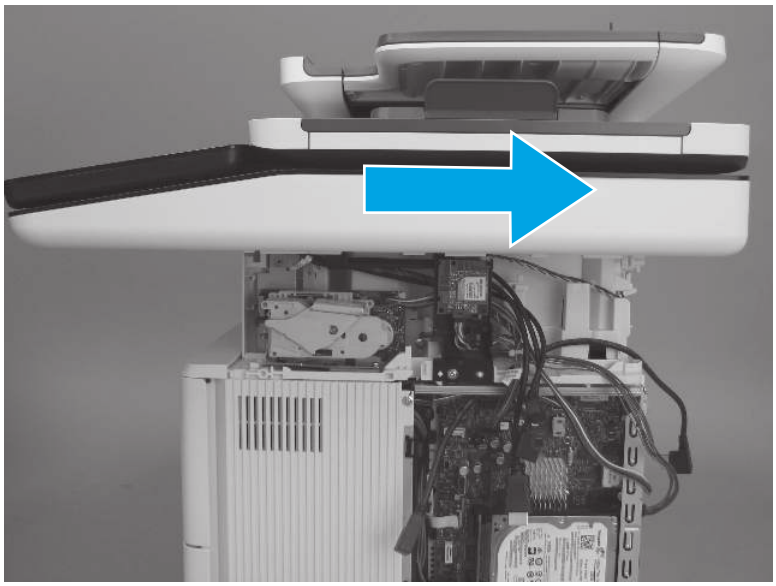
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-772 Disconnect connectors and remove screws



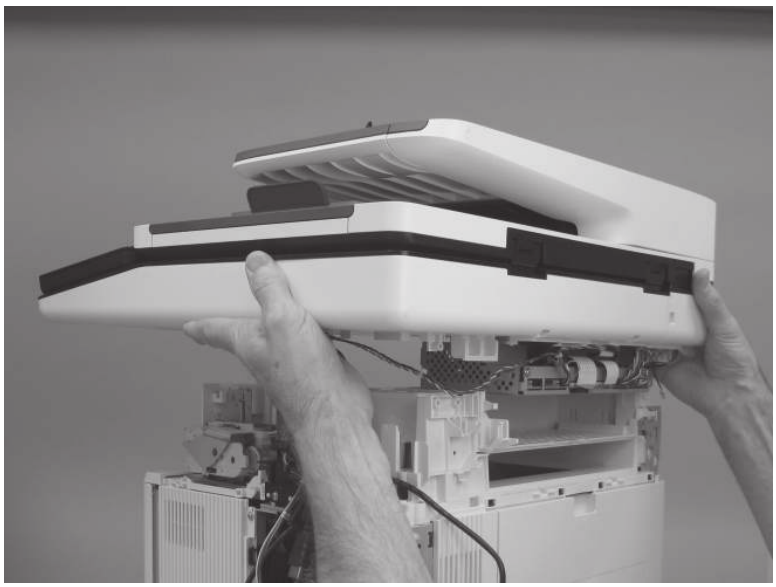
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-773 Slide the ISA towards the back of the printer



e. Remove the ISA.

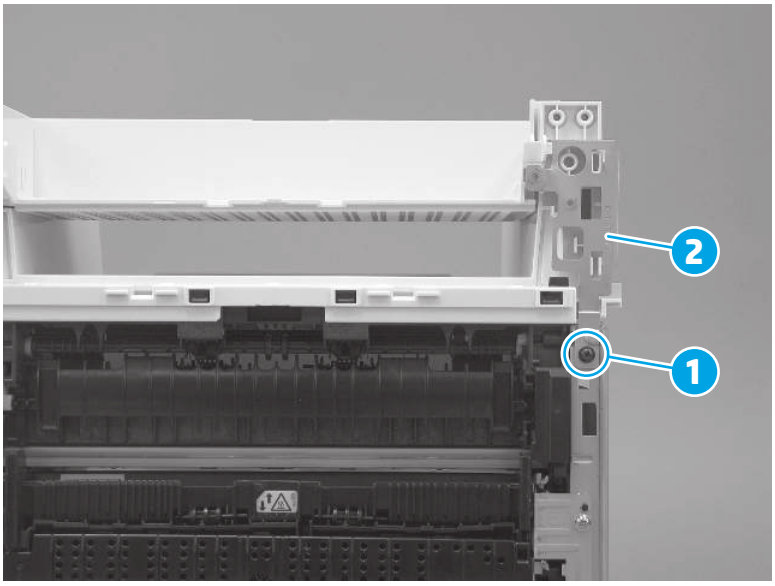
Figure 4-774 Remove the ISA



16. Remove the top cover (M527/E52545/M528/E52645).

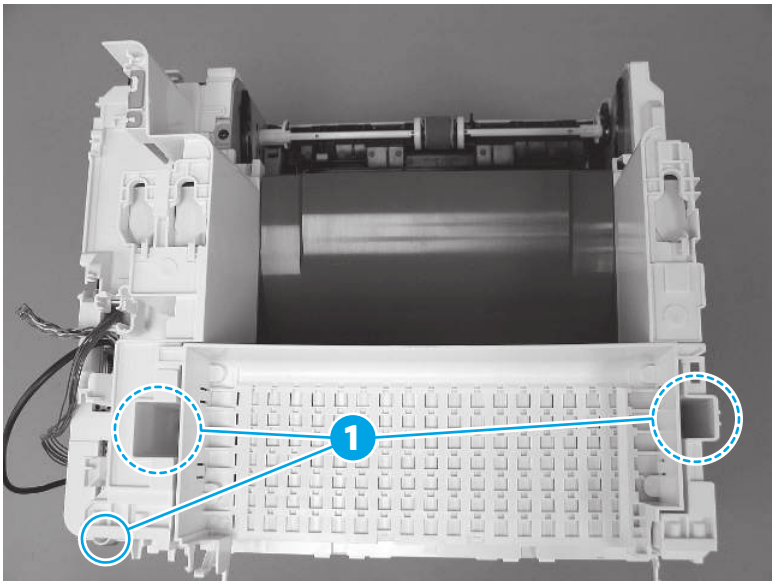
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-775 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

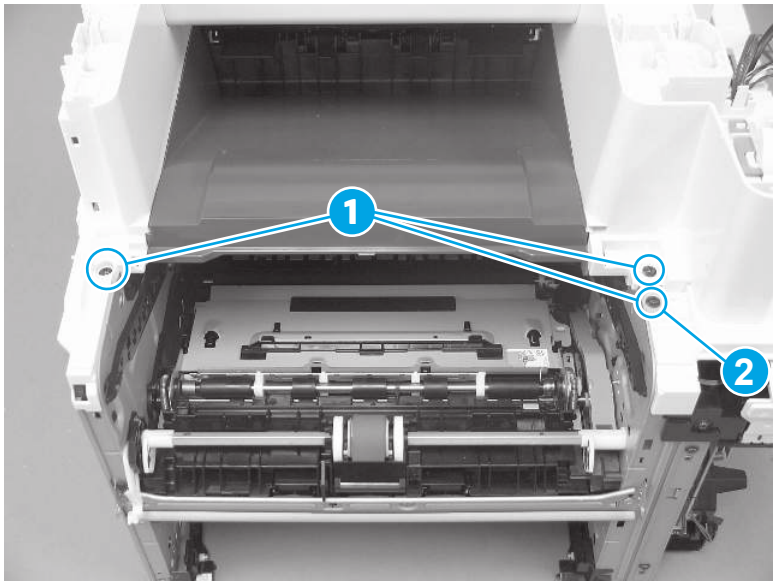
Figure 4-776 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

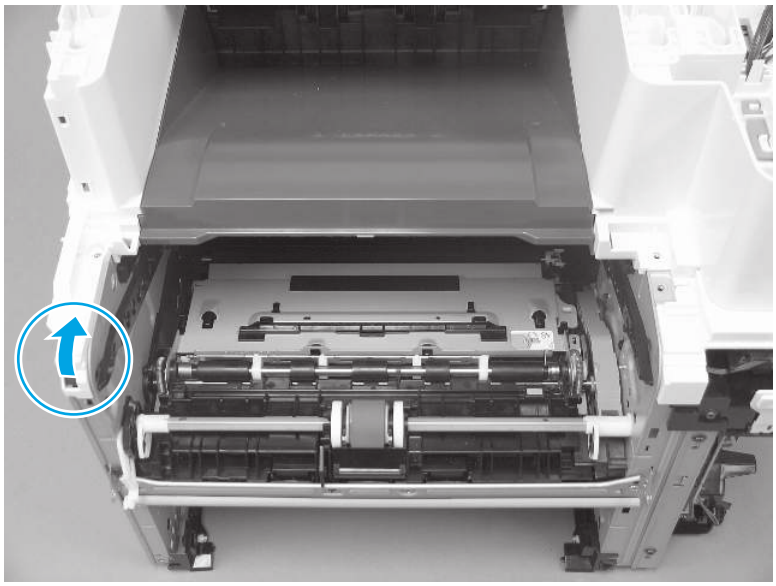
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-777 Remove three screws



d. At the front left of the printer, release one boss.

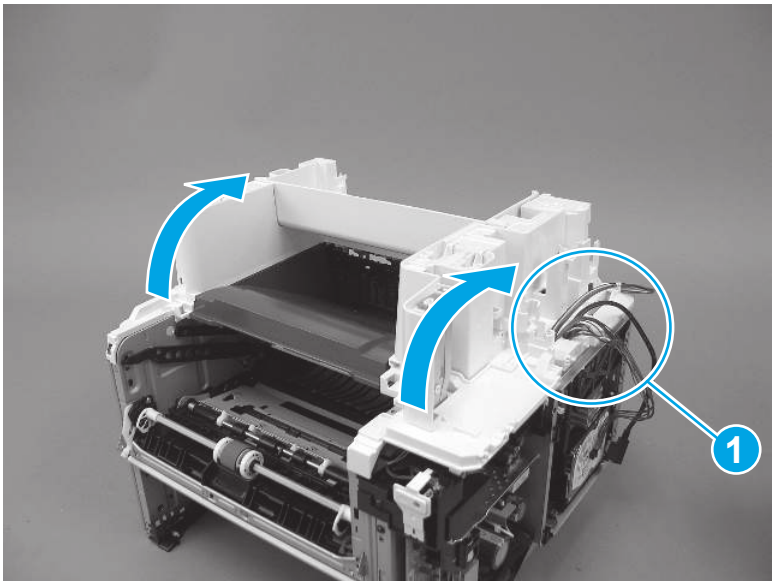
Figure 4-778 Release one boss



e. Rotate the front of the cover up and away from the printer.

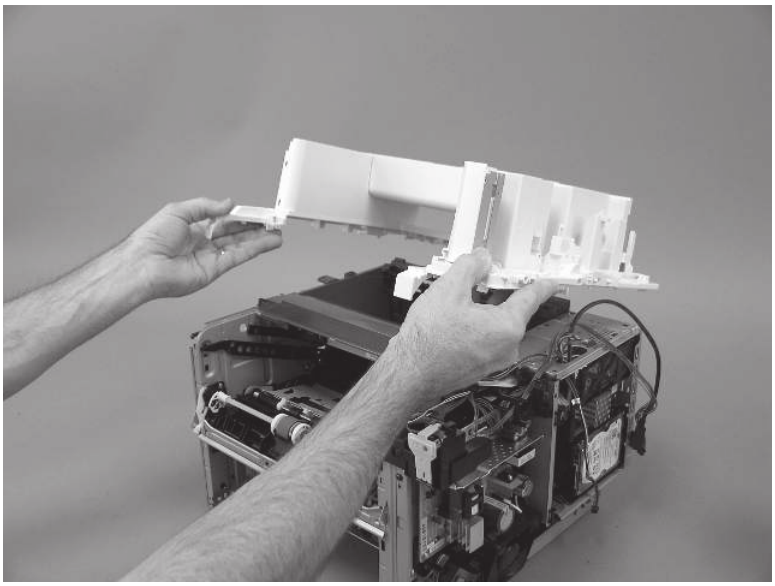
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-779 Rotate the front of the cover up



f. Remove the cover.

Figure 4-780 Remove the cover

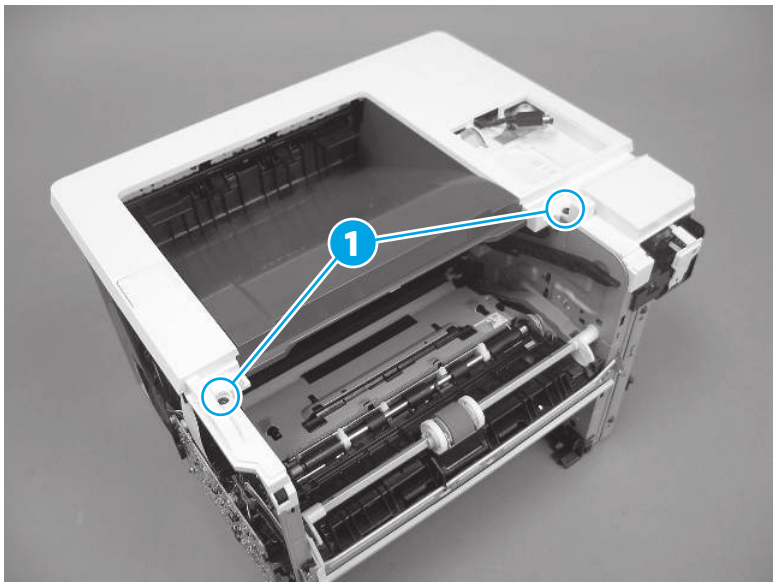


17. Remove the top cover (M501/M506/E50045/M507/E50145).

    The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

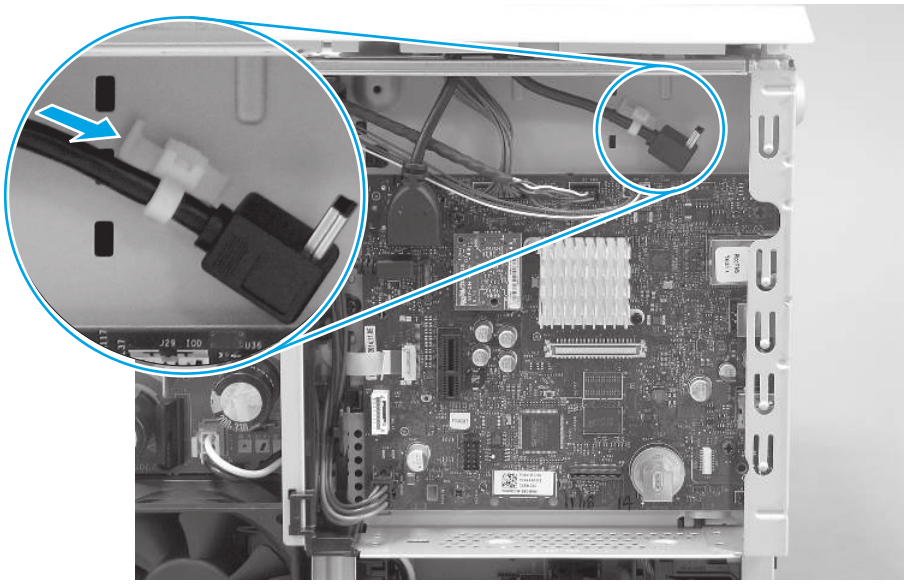
Figure 4-781 **Remove two screws**



b. **M506/E50045/ only**: Release one cable retainer from the chassis.

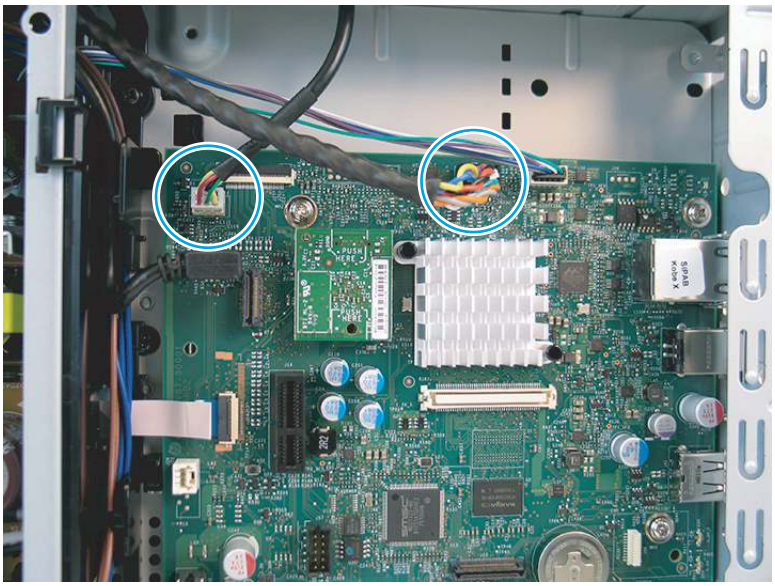
TIP: Depress the tab on the retainer to release it.

Figure 4-782 **Release one cable retainer**



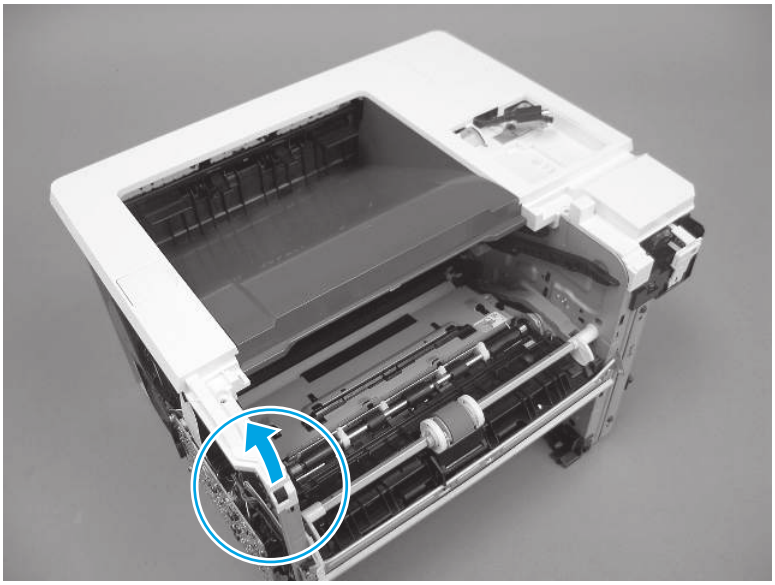
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-783 **Disconnect two connectors**



d. Release one boss.

Figure 4-784 **Release one boss**

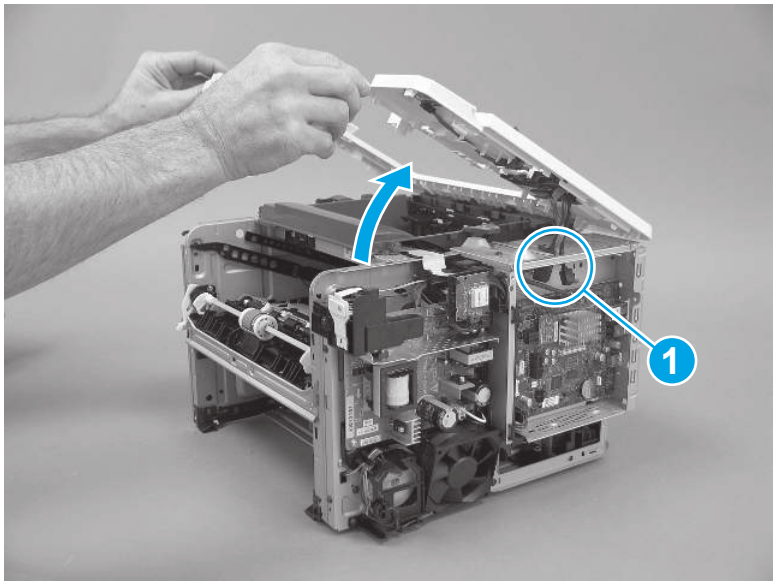


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-785 Remove the cover (M506/E50045)



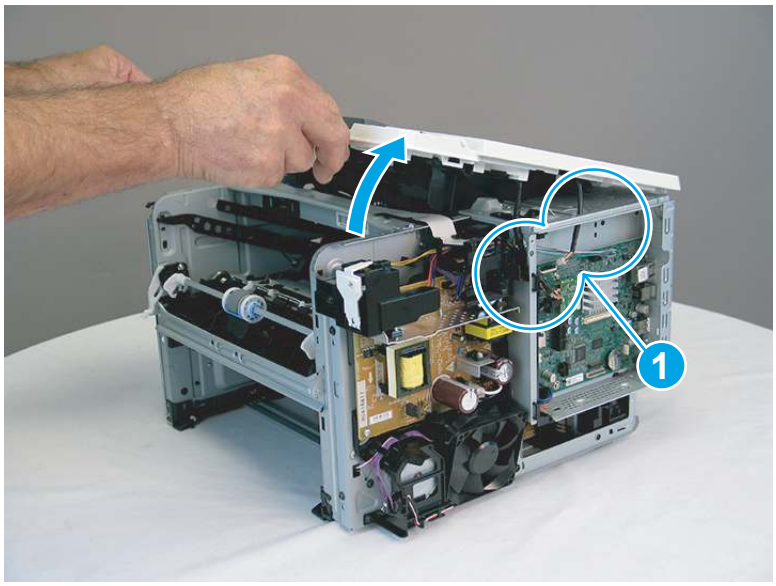
f. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-786 Remove the cover (M507/E50145)

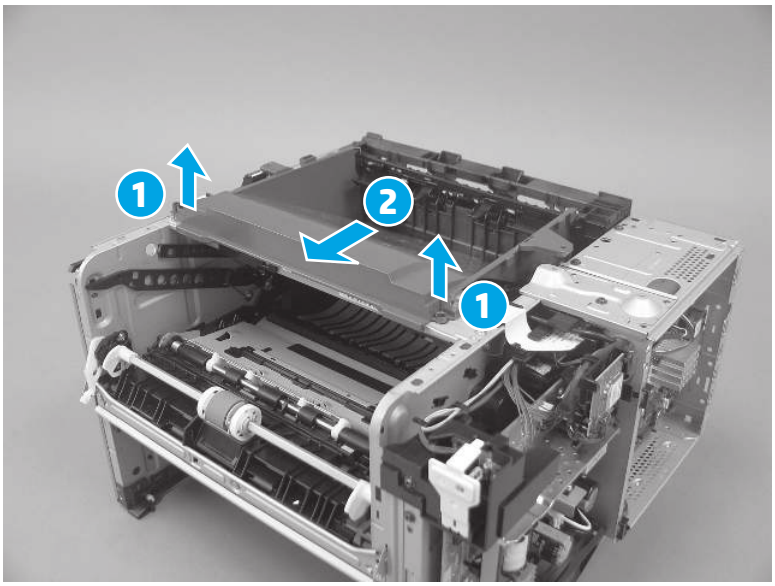


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

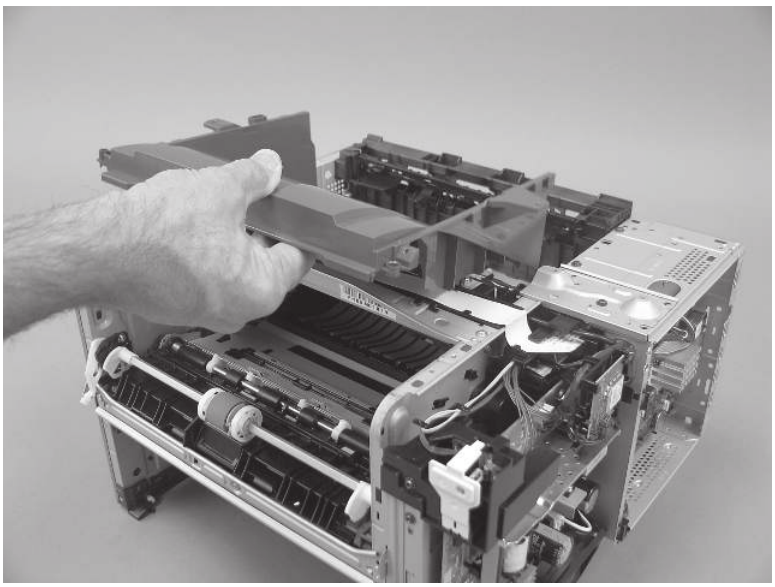
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-787 Release two tabs



b. Remove the bin.

Figure 4-788 Remove he bin

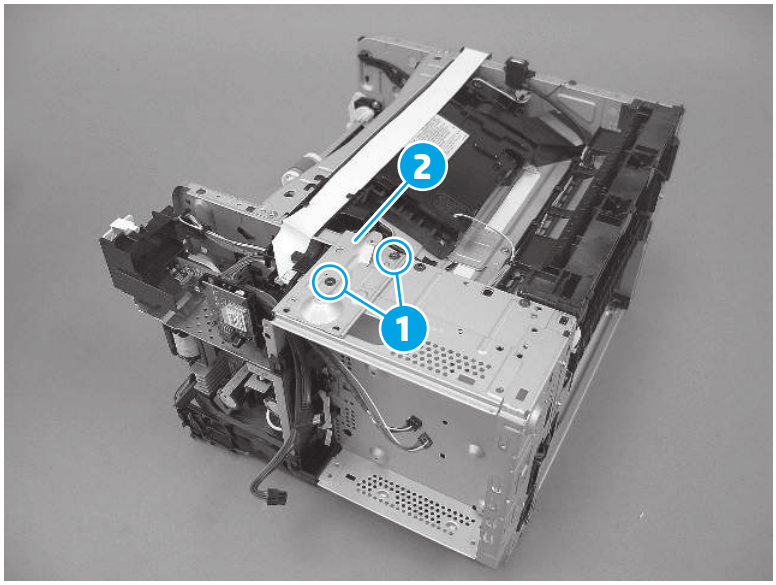


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only:** Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only:** The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

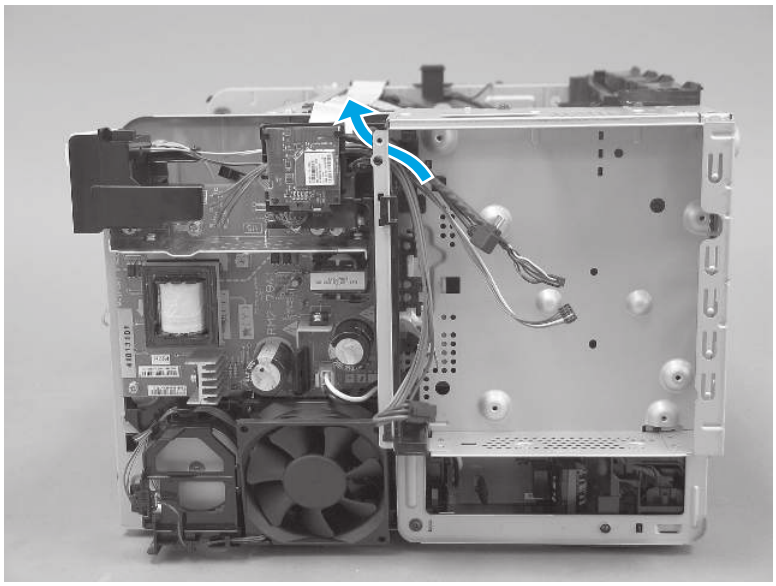
Figure 4-789 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

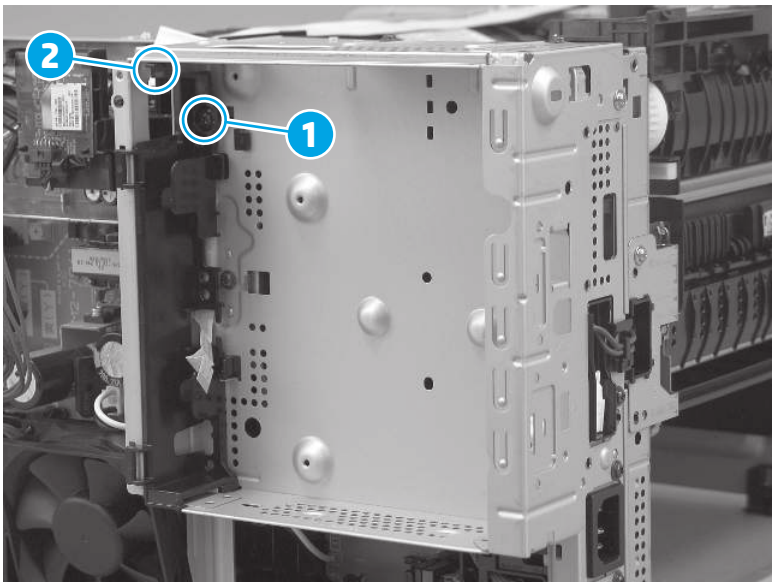
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-790 **Pass all cables and wire harnesses through the opening**



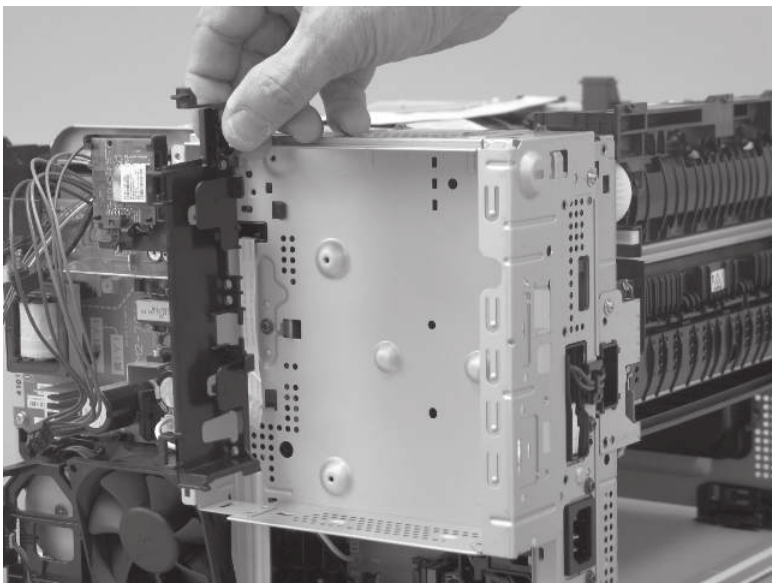
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-791 Remove one screw



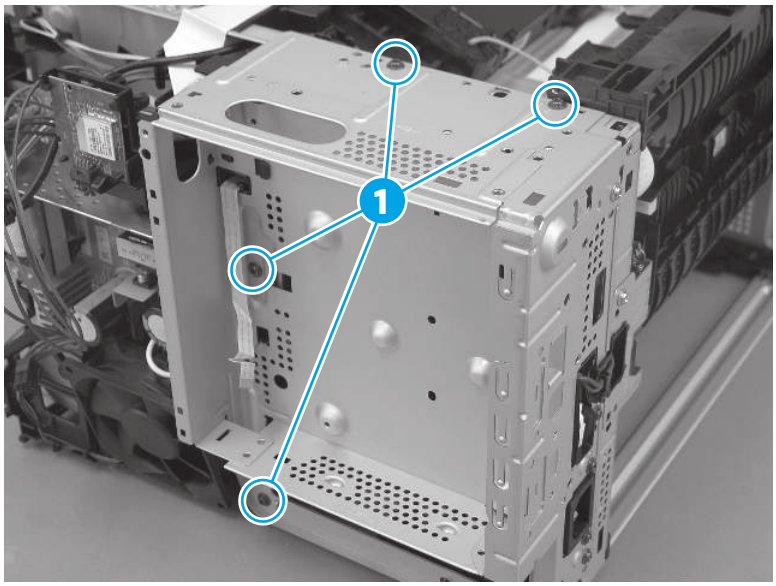
d. Remove the guide.

Figure 4-792 Remove the guide



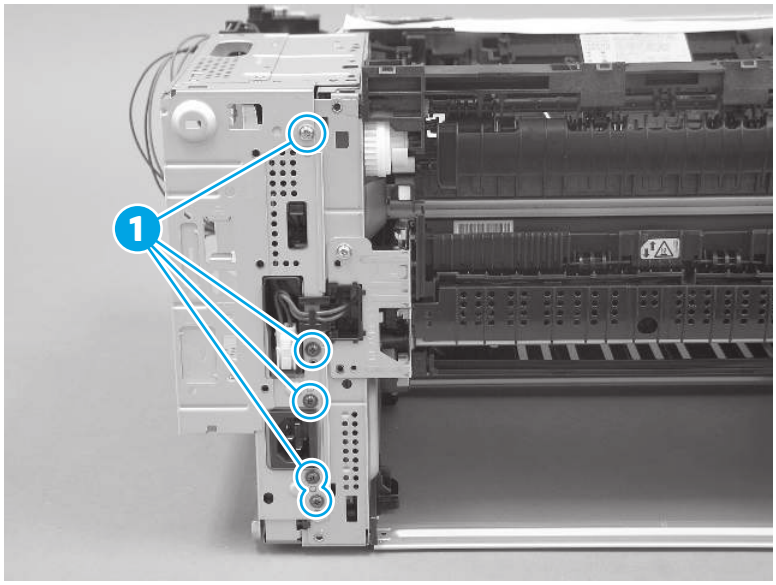
e. Remove four screws (callout 1).

Figure 4-793 Remove four screws



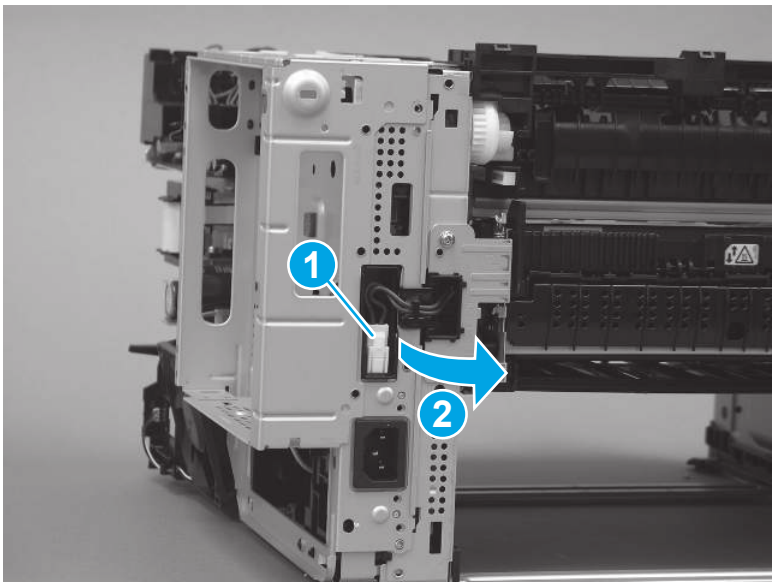
f. Remove five screws (callout 1).

Figure 4-794 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

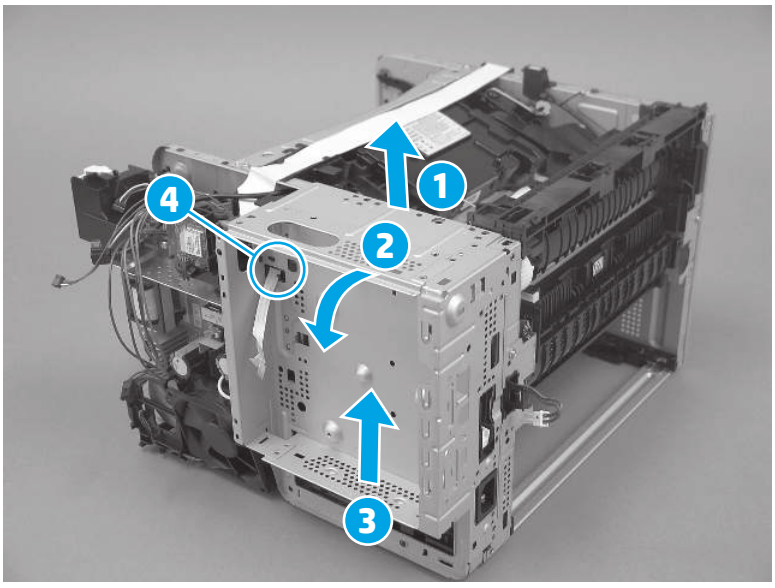
Figure 4-795 Disconnect one connector



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

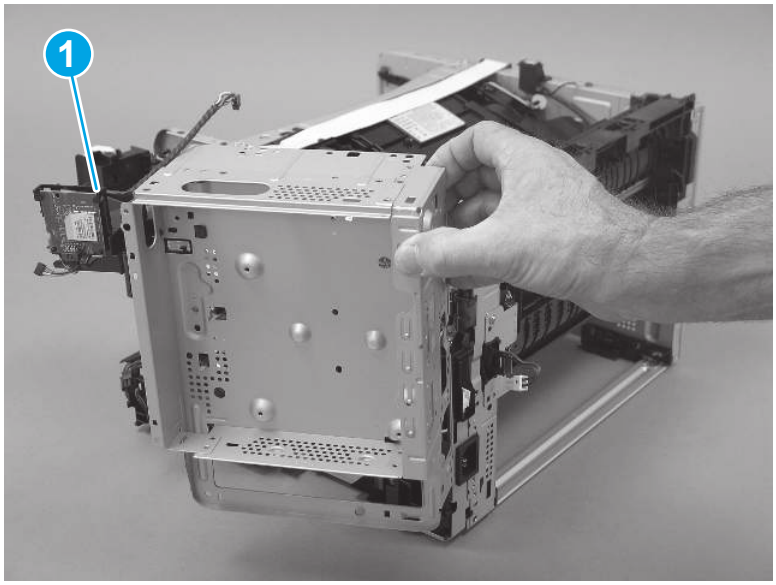
Figure 4-796 Release the formatter case



i. Remove the formatter case.

NOTE: **WiFi models only:** If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

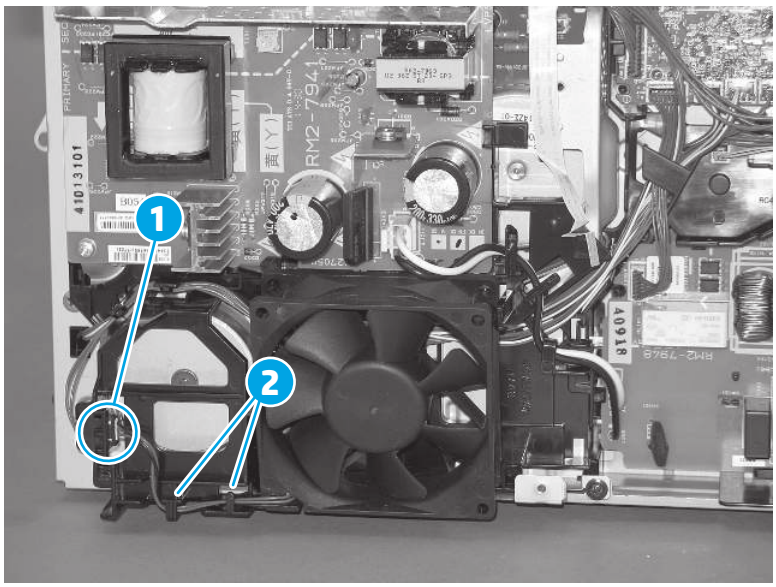
Figure 4-797 Remove the formatter case



20. Remove the fan (FM2).

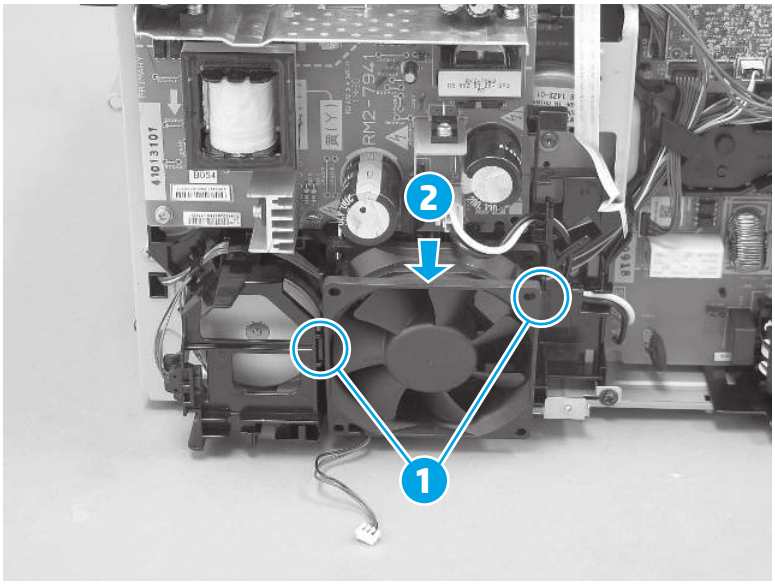
    a. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-798 Disconnect one connector



b. Release two tabs (callout 1), and then rotate the top of the fan out and away from the printer (callout 2).

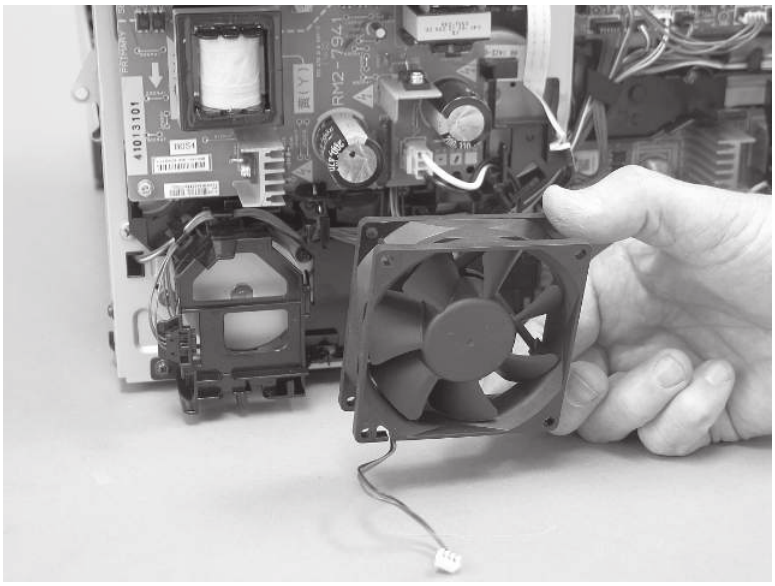
Figure 4-799 Release two tabs



c. Remove the fan.

⚠ CAUTION: When reinstalled the fan must draw air into the printer. Make sure that the two arrows embossed on the right side of the fan body face downward and into the printer.

Figure 4-800 Remove the fan



21. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Fuser power supply (FPS)

Learn how to remove and replace the fuser power supply (FPS).

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the FPS (M501).

M506/E50045

View a video of how to remove and replace the FPS (M506/E50045).

M507/E50145

View a video of how to remove and replace the FPS (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the FPS (M527/E52545/M528/E52645).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-39 Part information

Part number	Part description
RM2-7948-000CN	Fixing (fuser) power supply (FPS; 110V-127V)
RM2-7949-000CN	Fixing (fuser) power supply (FPS; 220V-240V)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

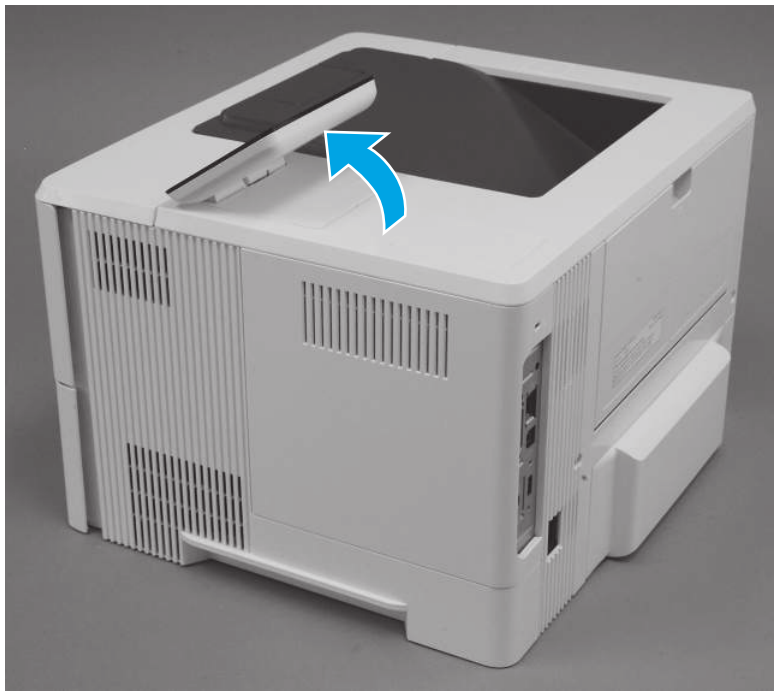
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).
   a. Tilt the control panel to the fully raised position.

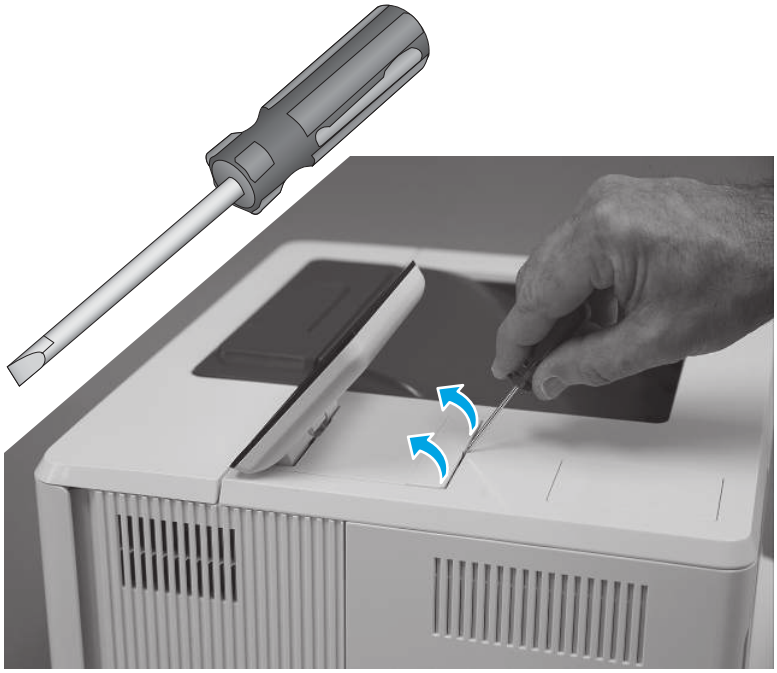
Figure 4-801 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

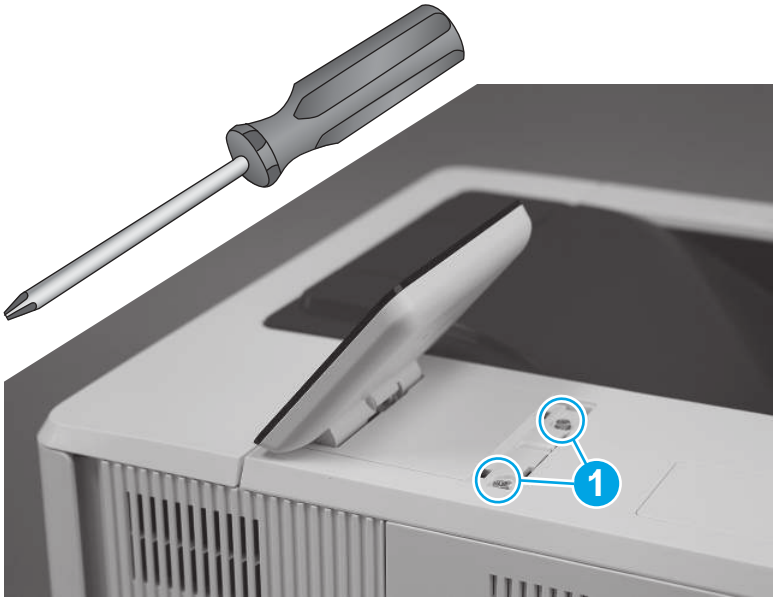
Figure 4-802 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

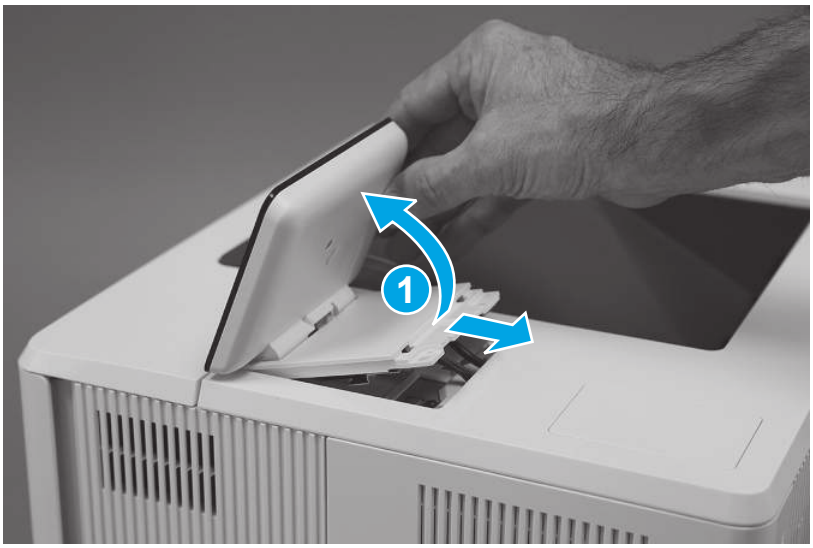
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-803 Remove two screws



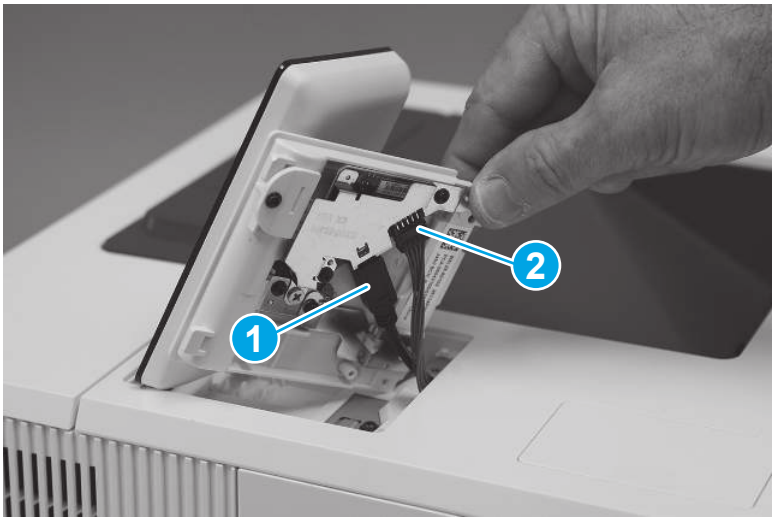
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-804 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-805 Remove the control panel (M506/E50045)



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-806 Disconnect one FFC (M507/E50145)

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

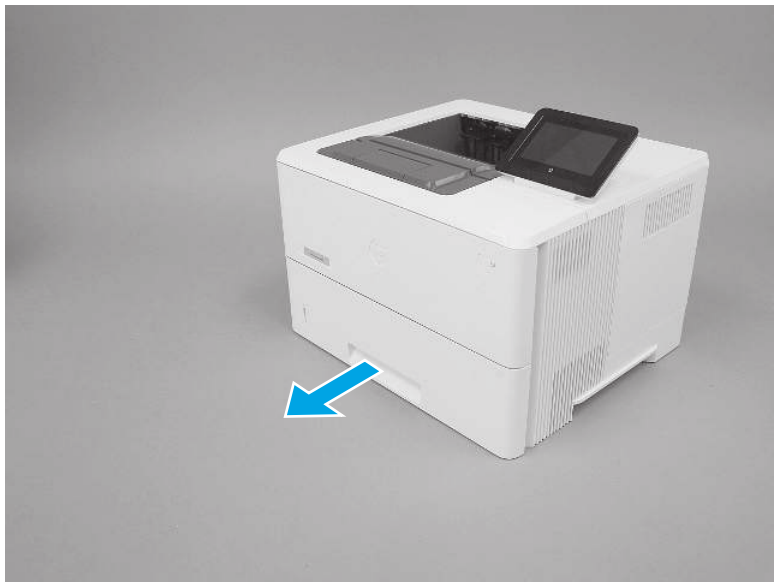
⚠ **CAUTION:** ESD sensitive part.

Figure 4-807 Remove the control panel (M507/E50145)

2. Remove the tray.

a. Pull the tray straight out of the printer until it stops.

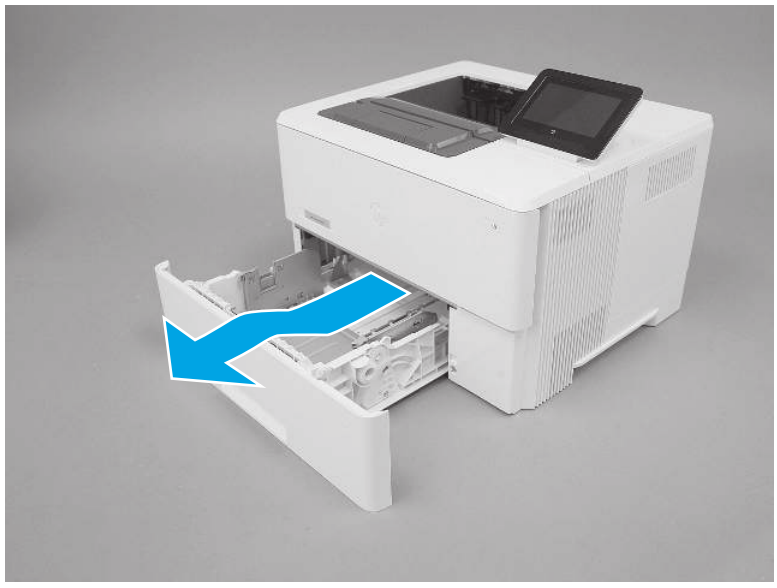
Figure 4-808 **Pull the tray out until it stops**



b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-809 **Release and remove the tray**

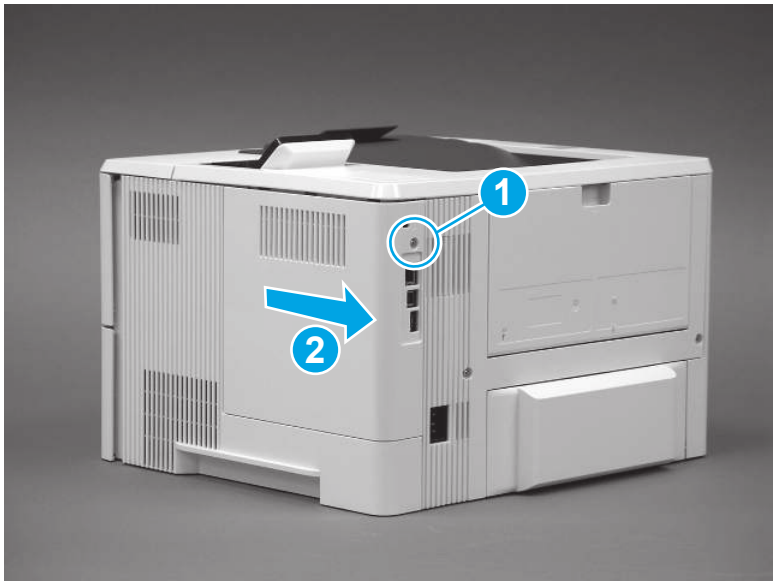


3. Remove the formatter cover.

- Do one of the following:

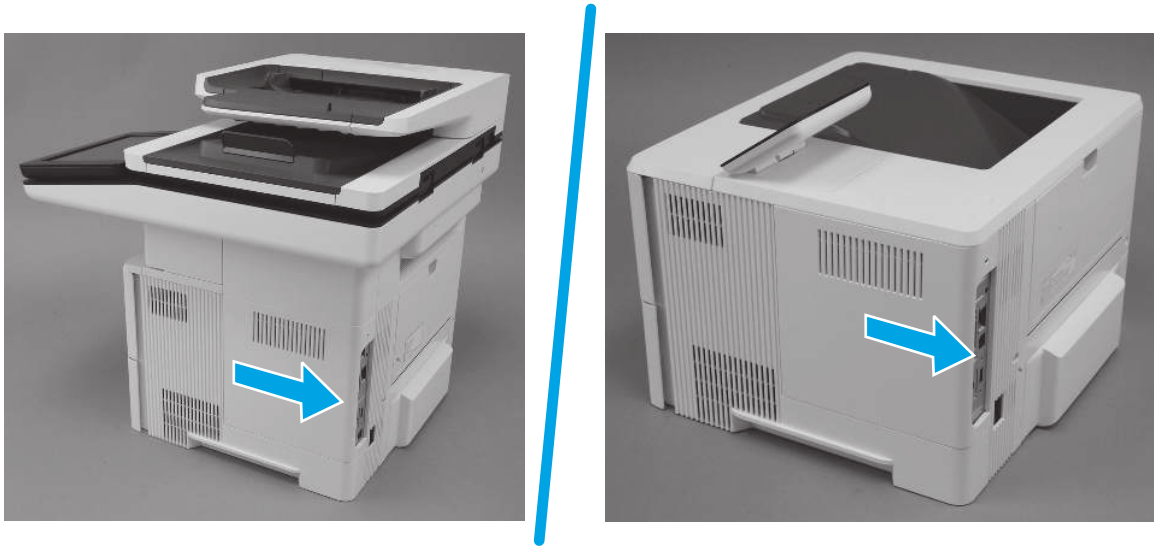
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-810 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-811 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

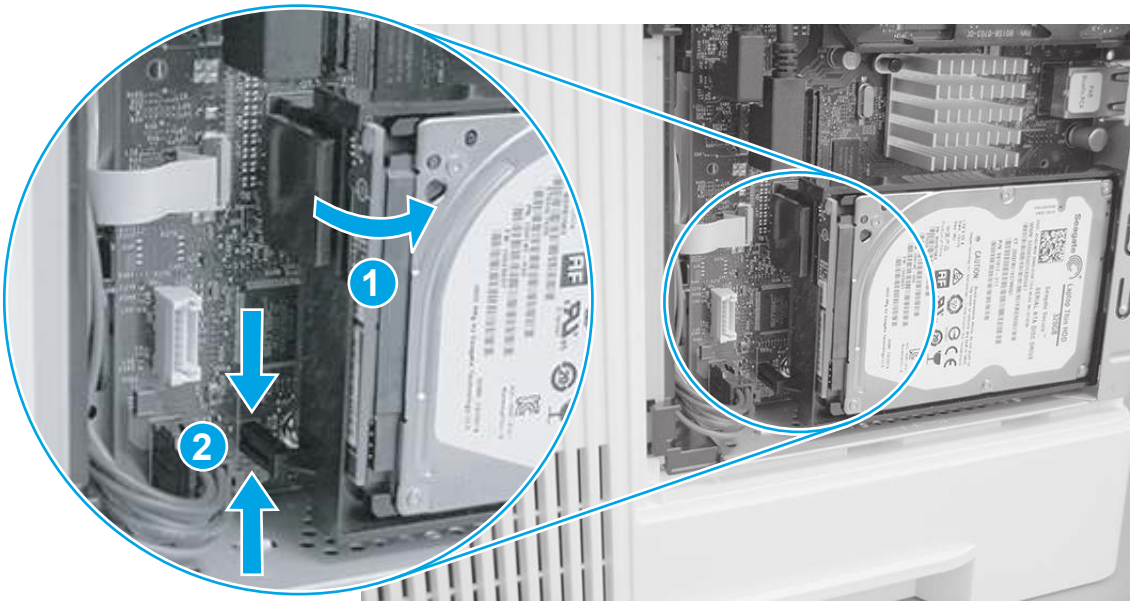


4. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

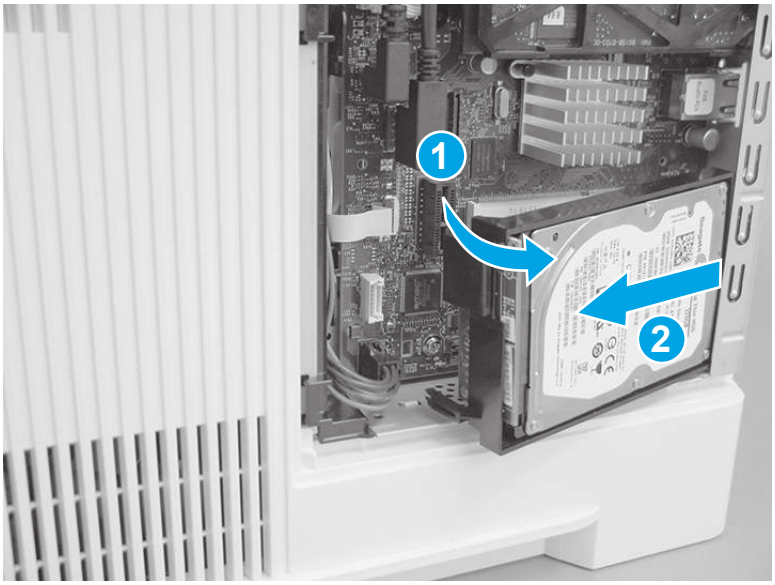
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-812 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-813 Remove the HDD

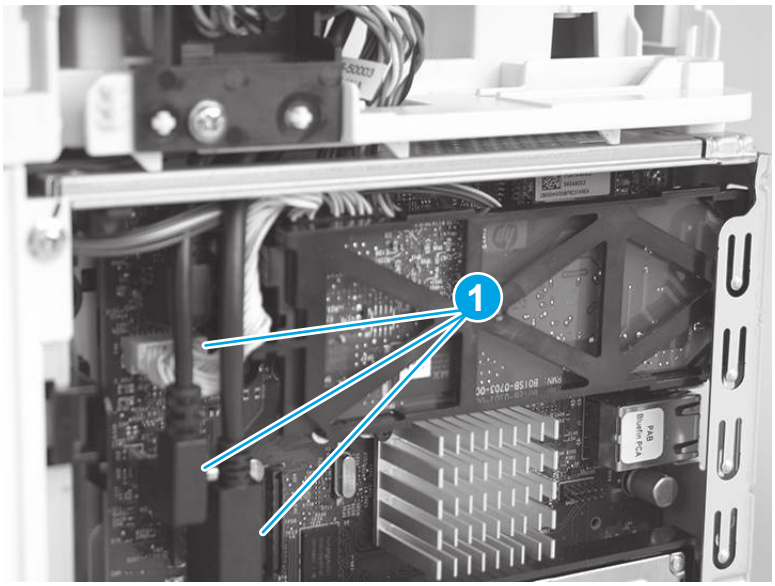


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

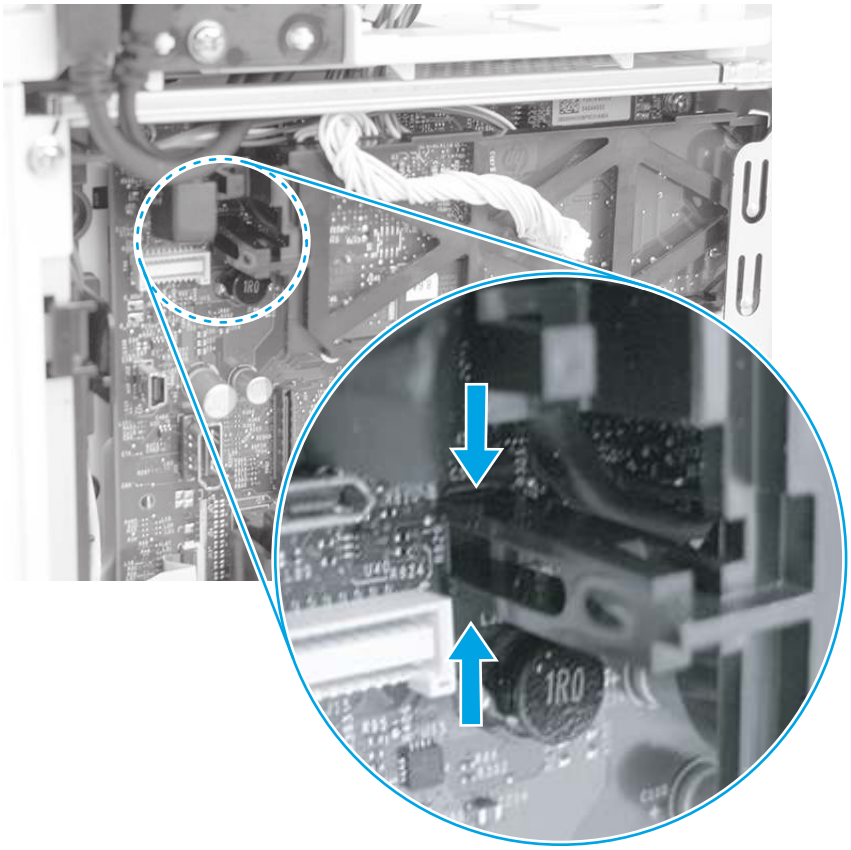
a. Disconnect three connectors (callout 1).

Figure 4-814 Disconnect three connectors



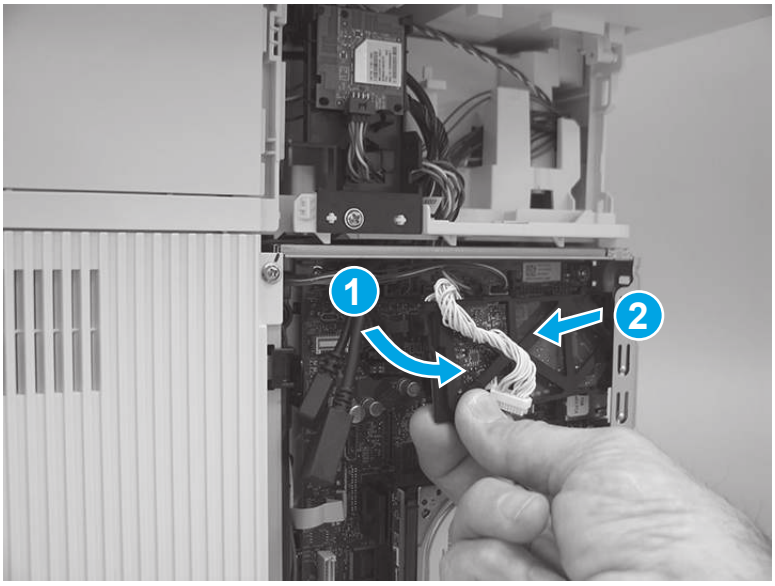
b. Pinch the retainer to release it.

Figure 4-815 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-816 Remove the fax PCA



6. Remove the formatter.

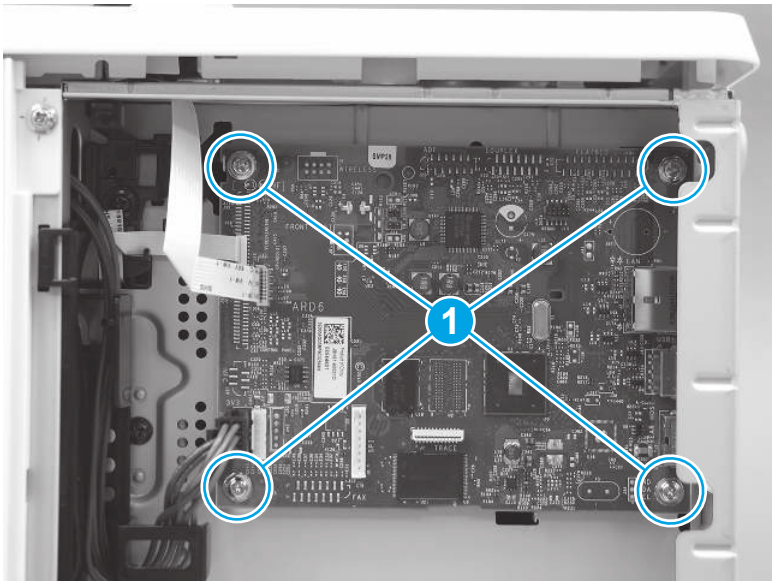
⚠ CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

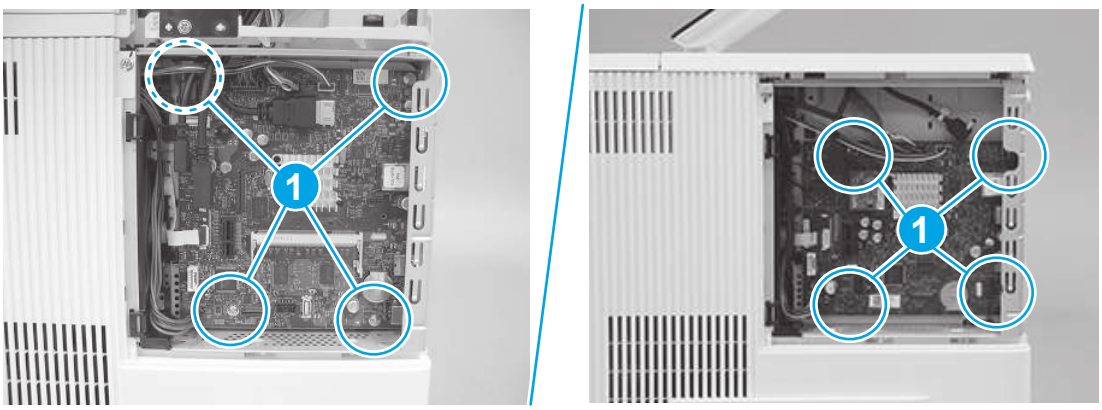
Figure 4-817 **Remove the formatter (M501)**



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-818 **Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

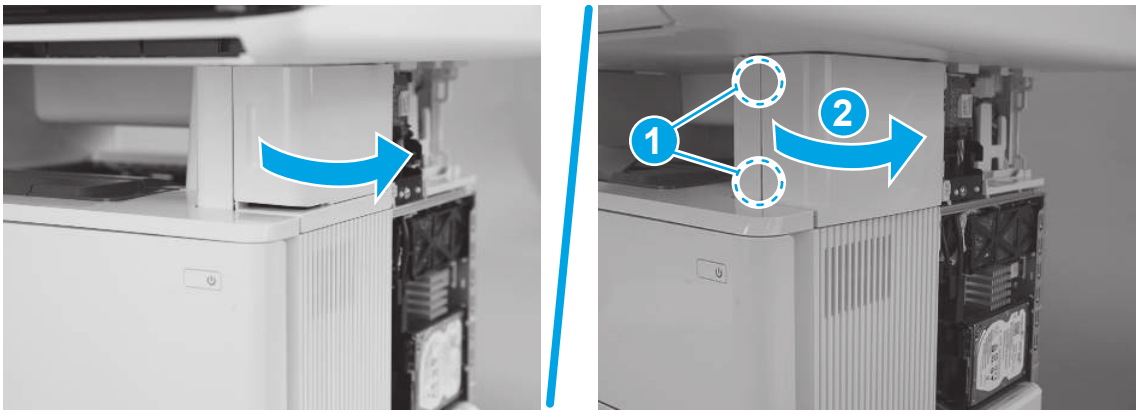


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-819 Open the door or release the cover



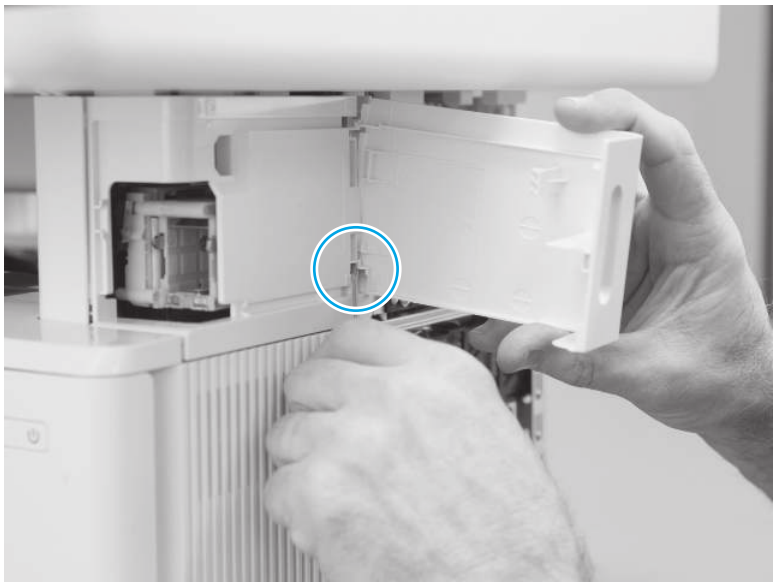
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-820 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-821 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-822 **Remove the door**

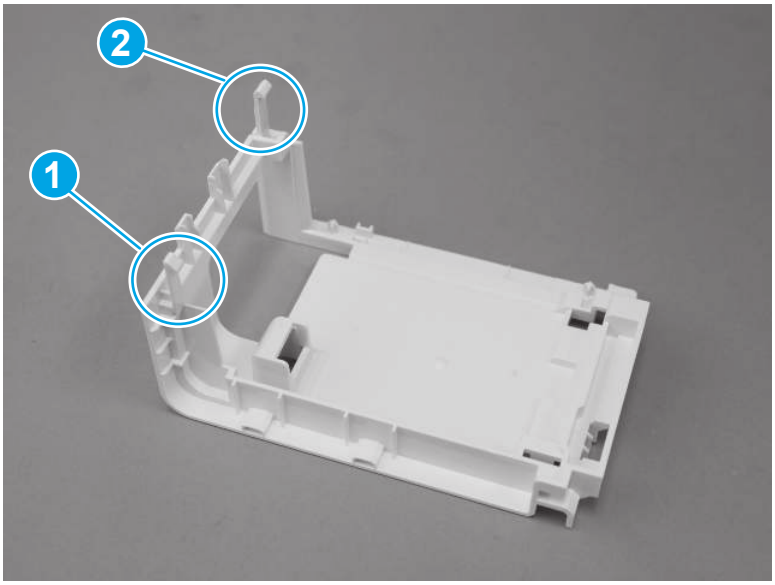
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

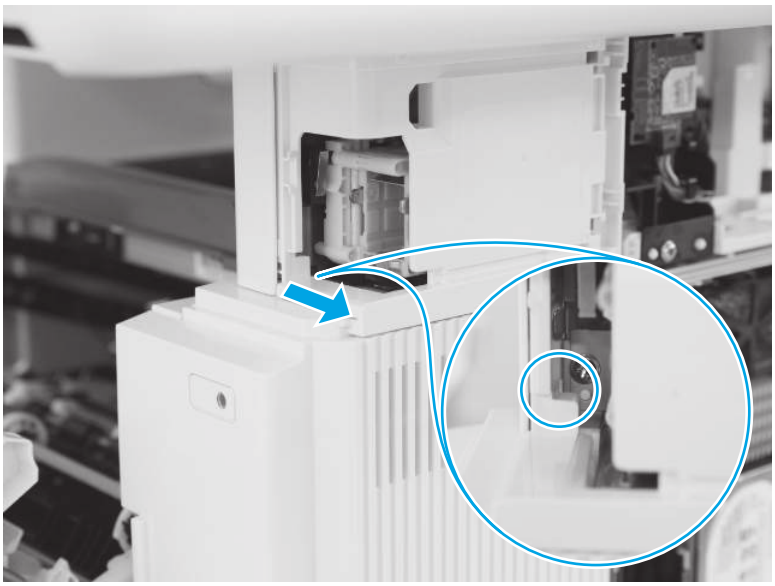
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-823 Locate the tabs



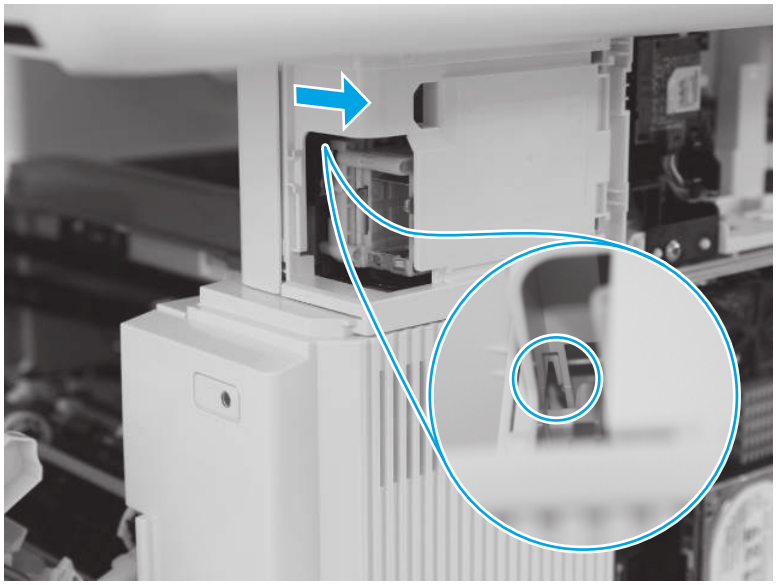
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-824 Release one tab



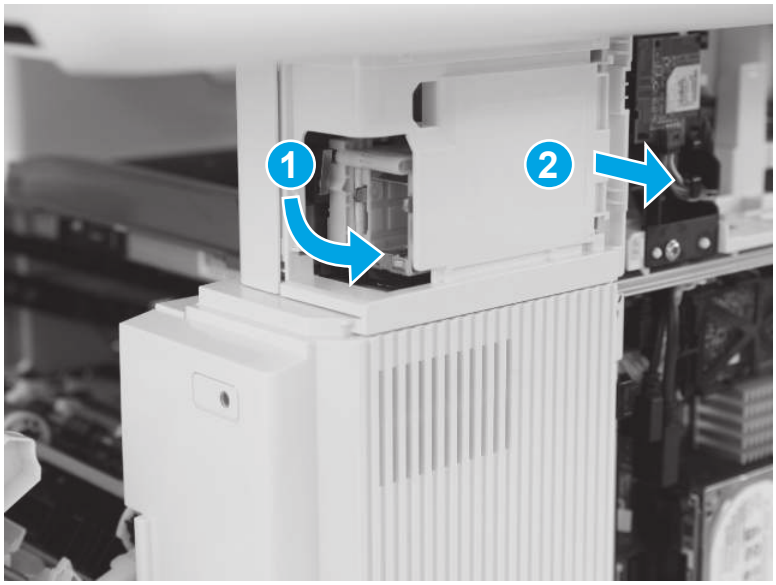
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-825 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

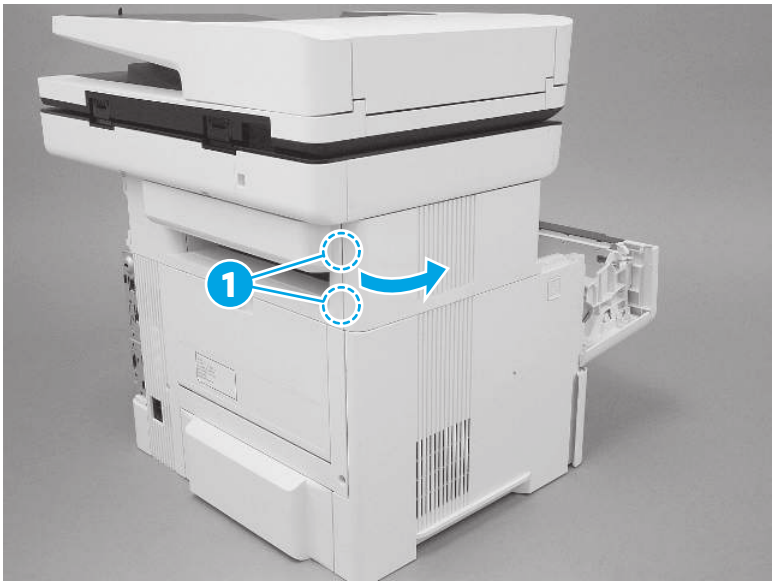
Figure 4-826 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-827 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

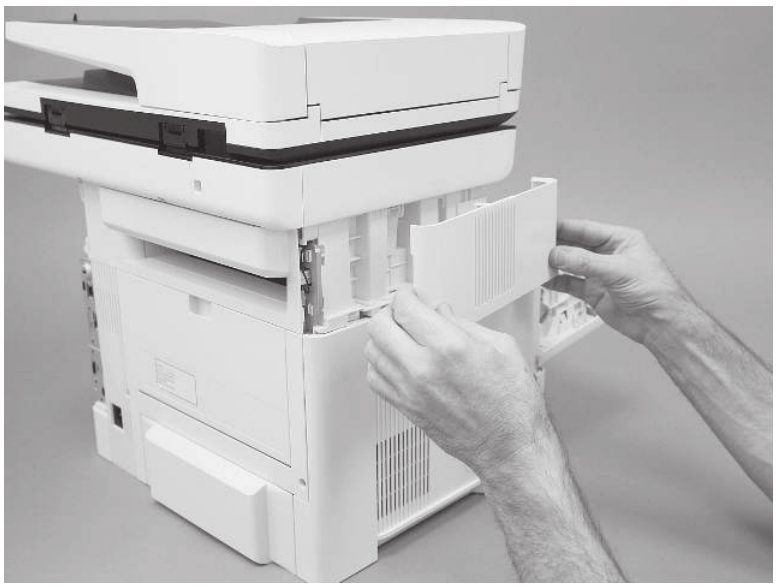
Figure 4-828 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-829 Slide the cover

d. Remove the cover.

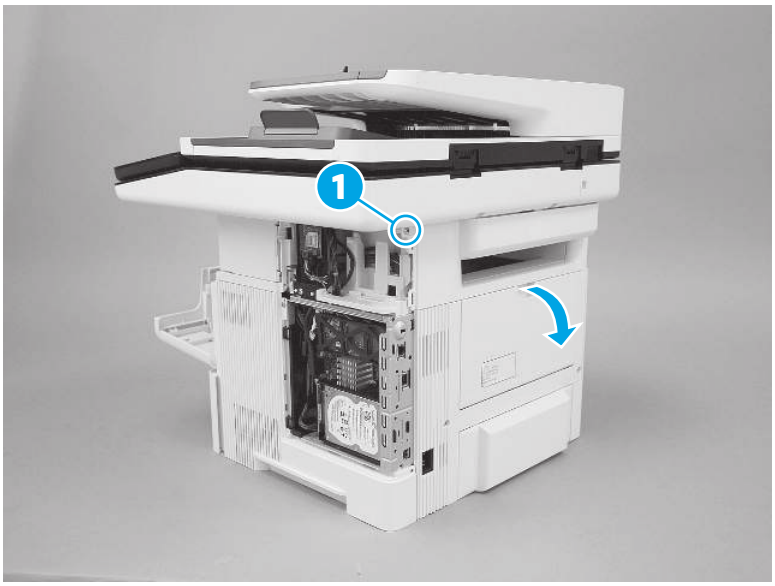
Figure 4-830 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

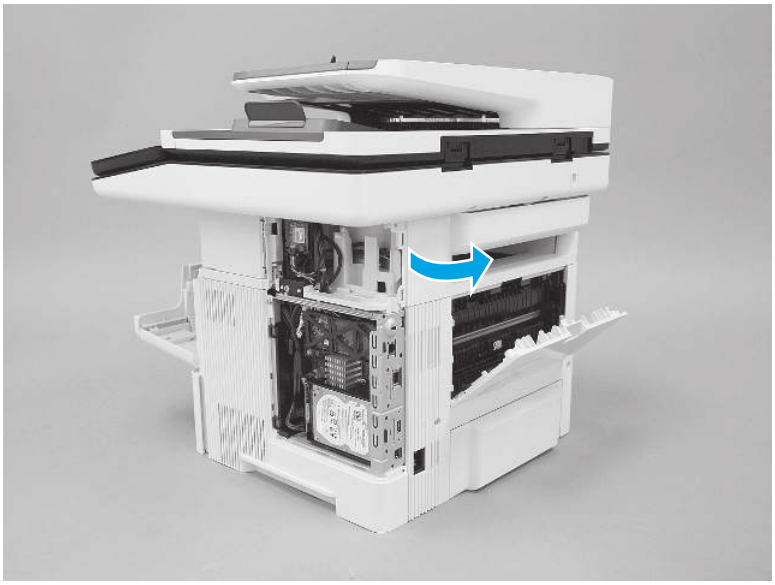
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-831 Remove one screw



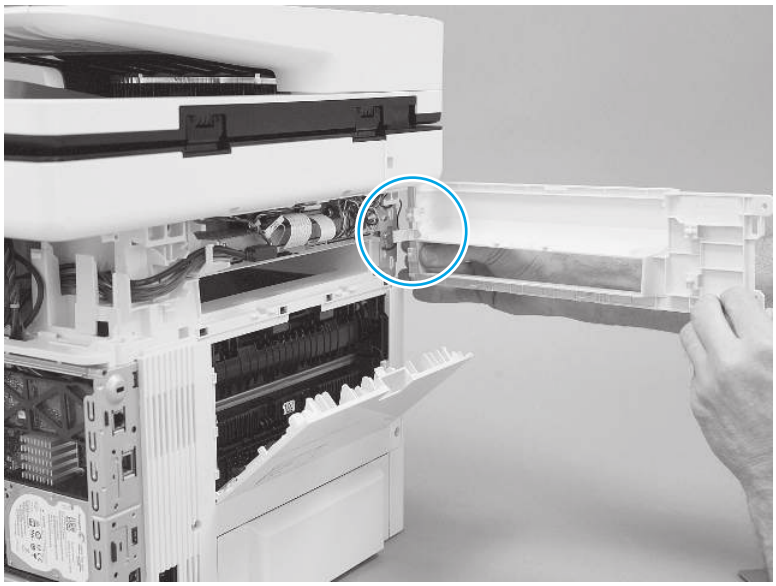
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-832 Rotate the cover



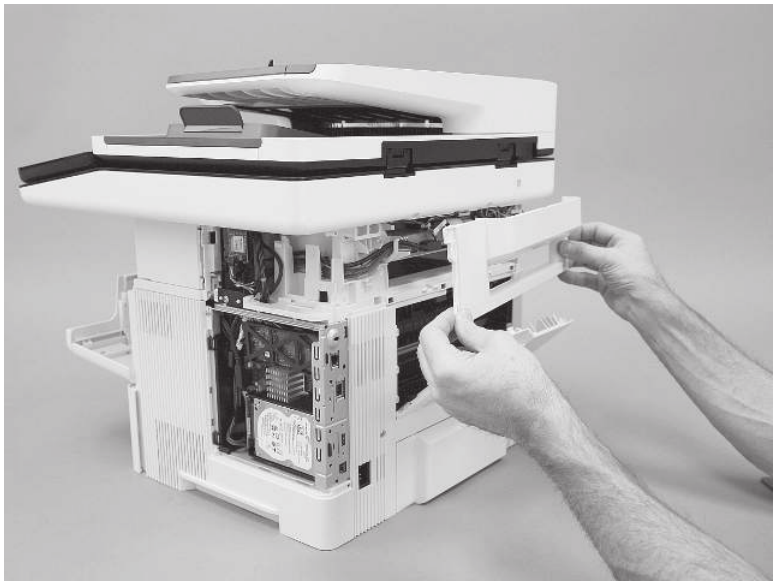
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-833 Release one boss



d. Remove the cover.

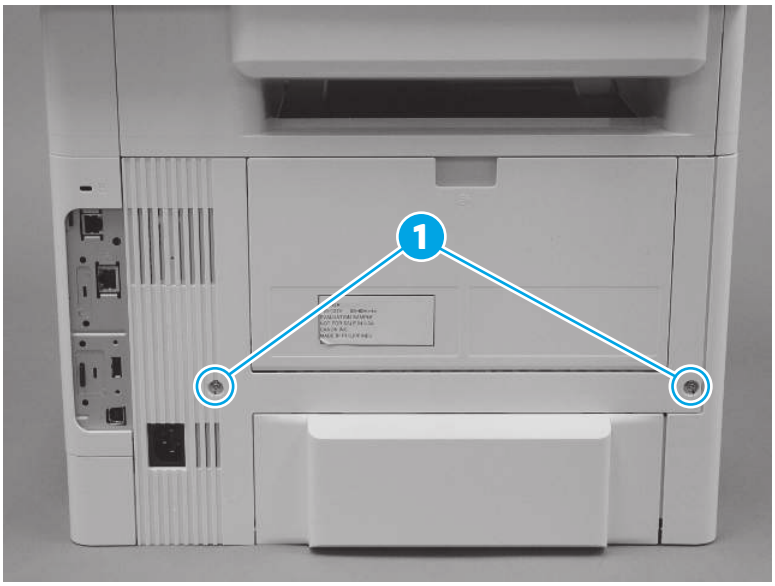
Figure 4-834 Remove the cover



11. Remove the rear door assembly.

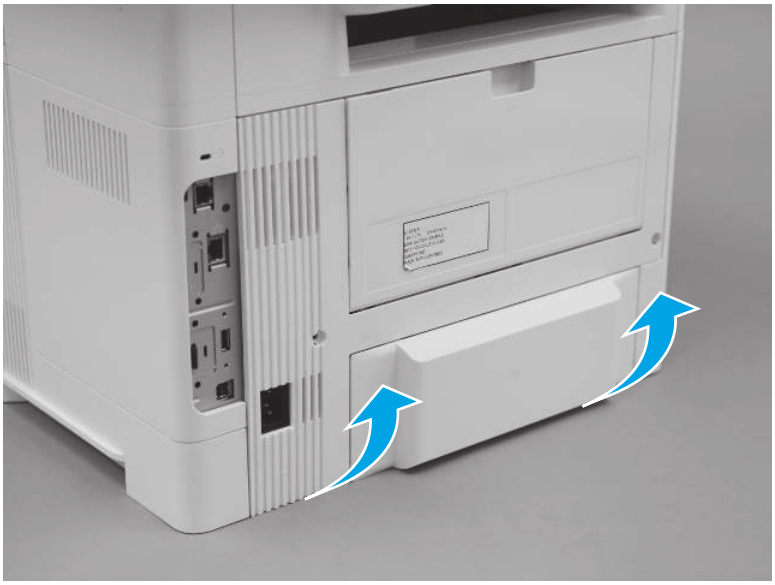
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-835 Remove two screws



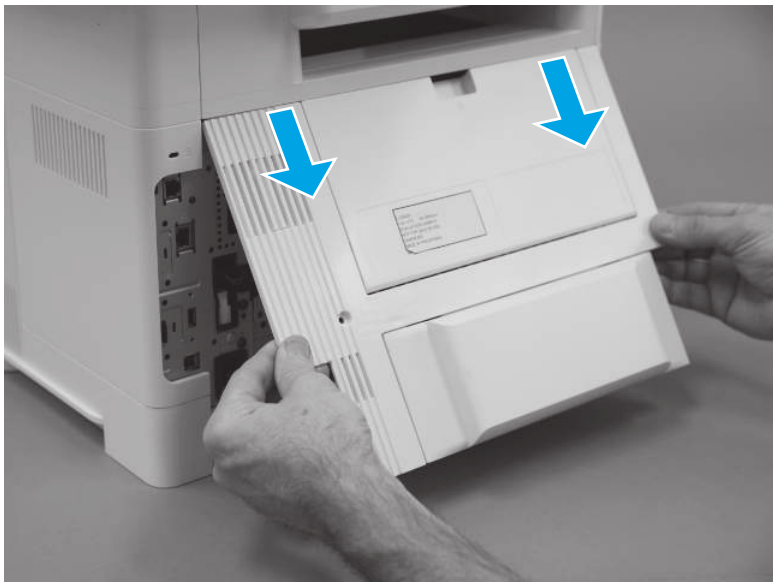
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-836 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-837 **Remove the cover**



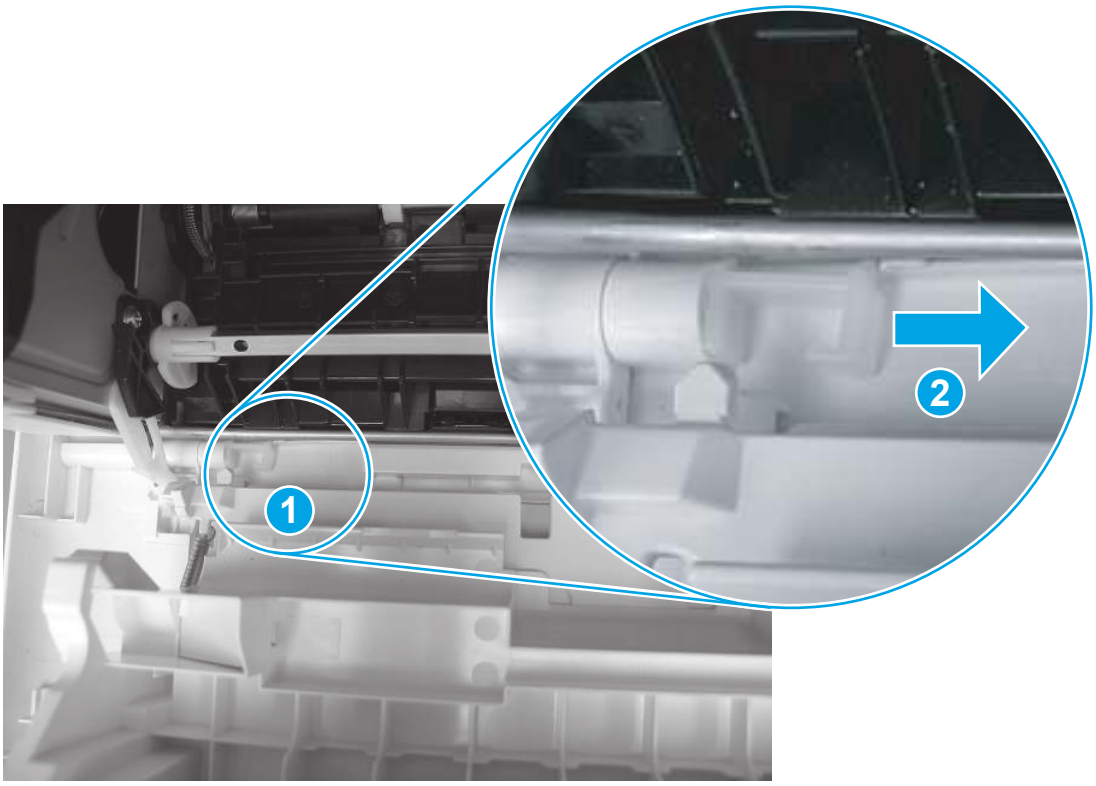
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

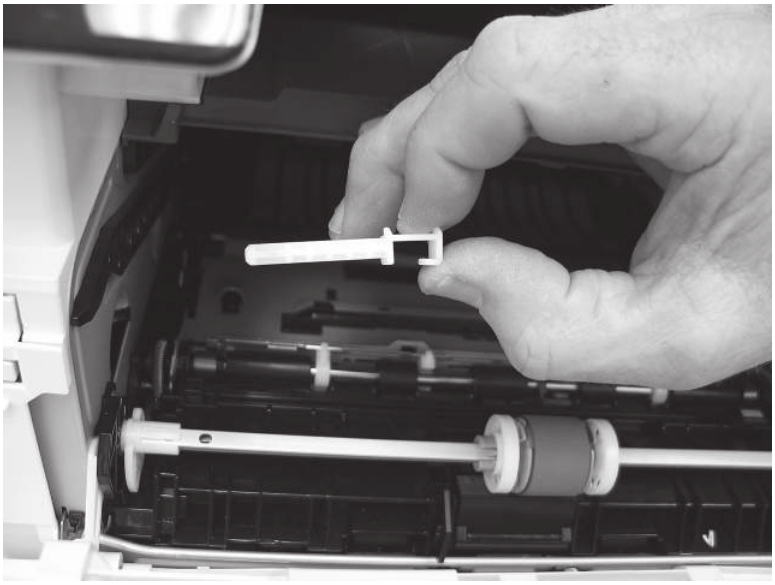
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-838 Release the support shaft



b. Remove the support shaft.

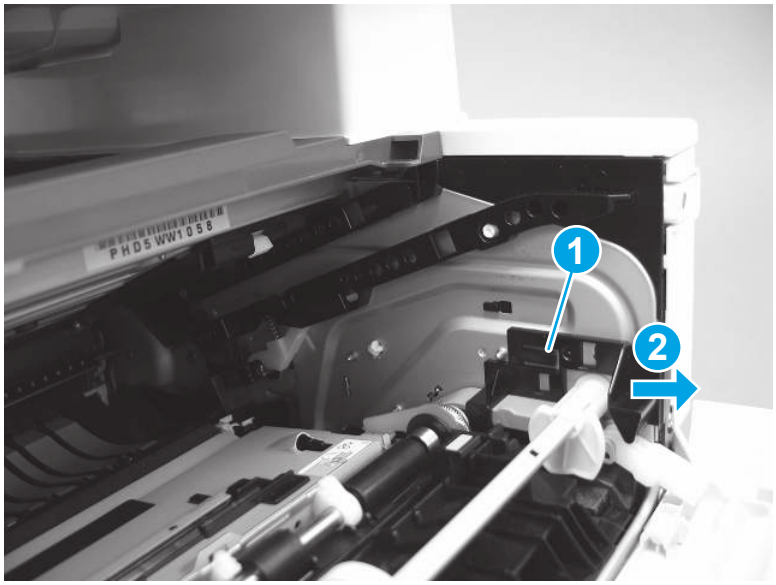
Figure 4-839 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

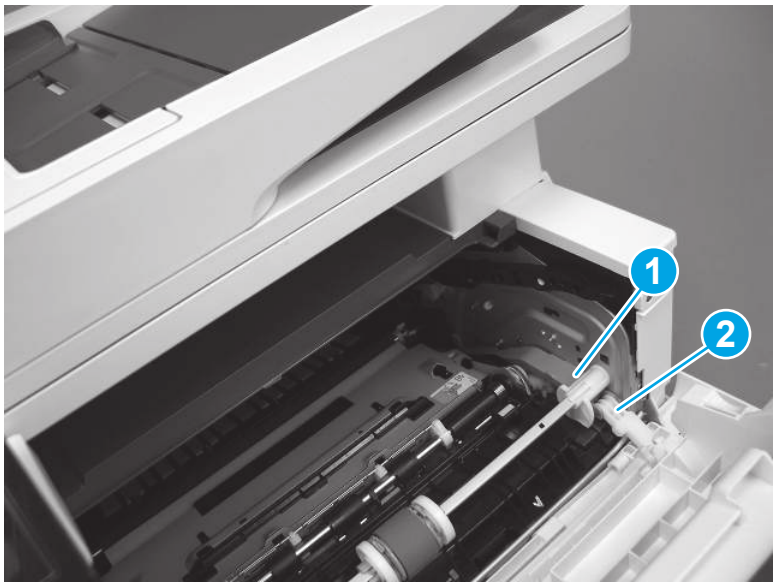
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-840 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-841 Release the pressure-release link



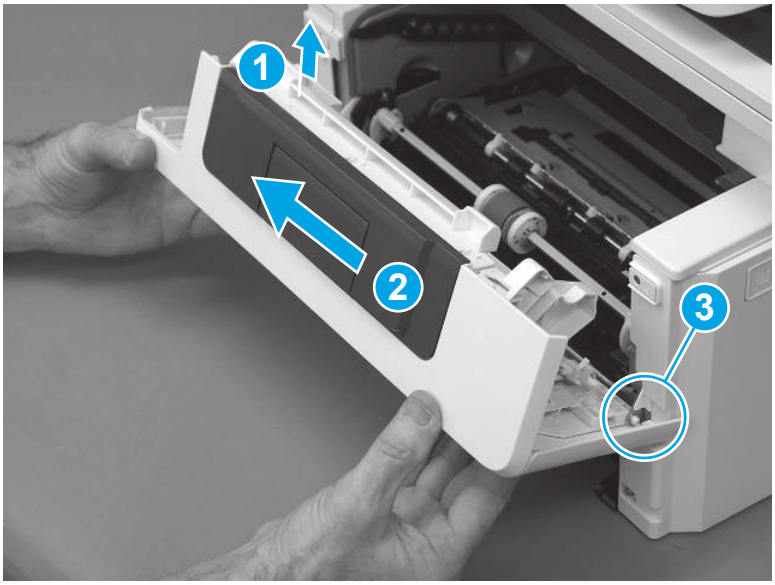
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

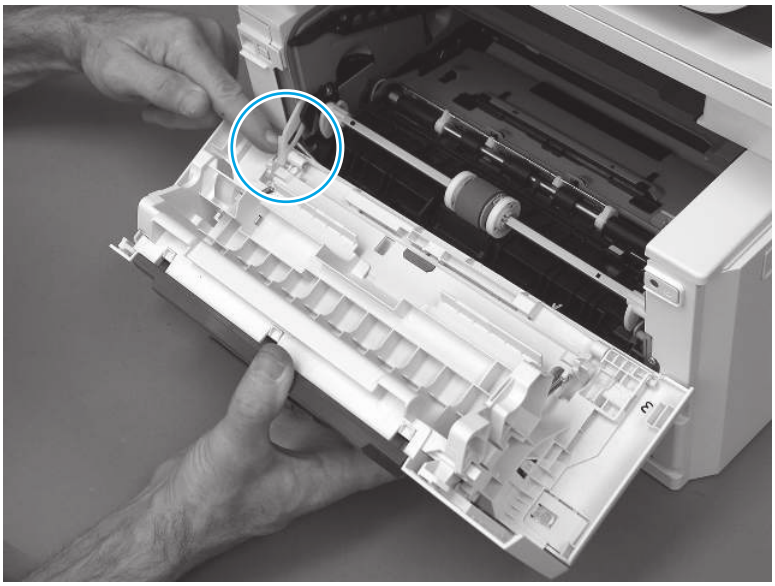
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-842 Release the door



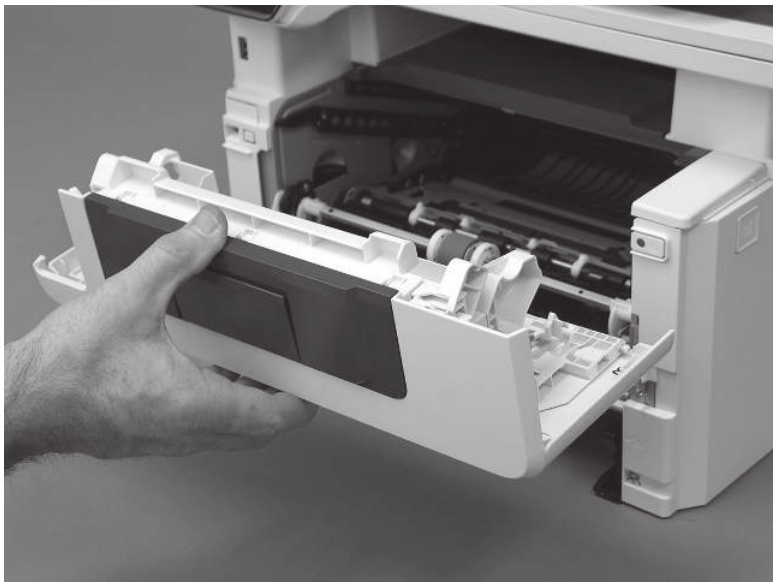
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-843 Release the left-side retainer arm



g. Remove the door.

Figure 4-844 Remove the door



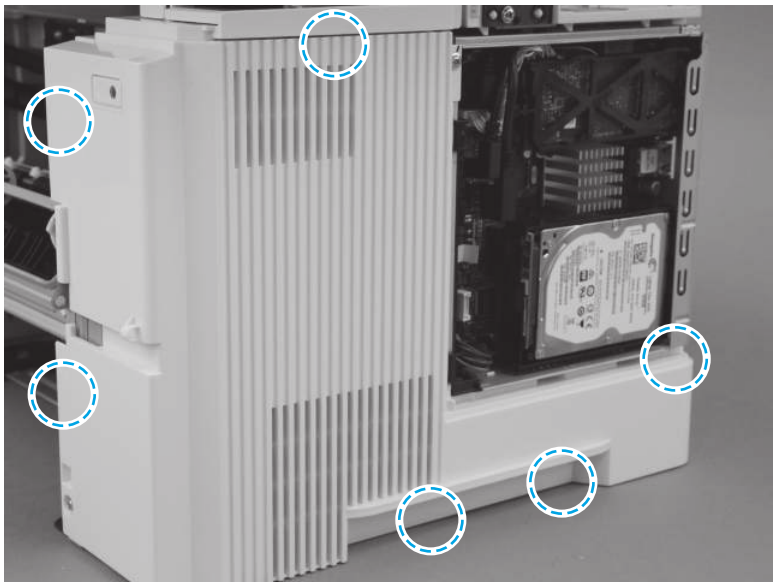
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

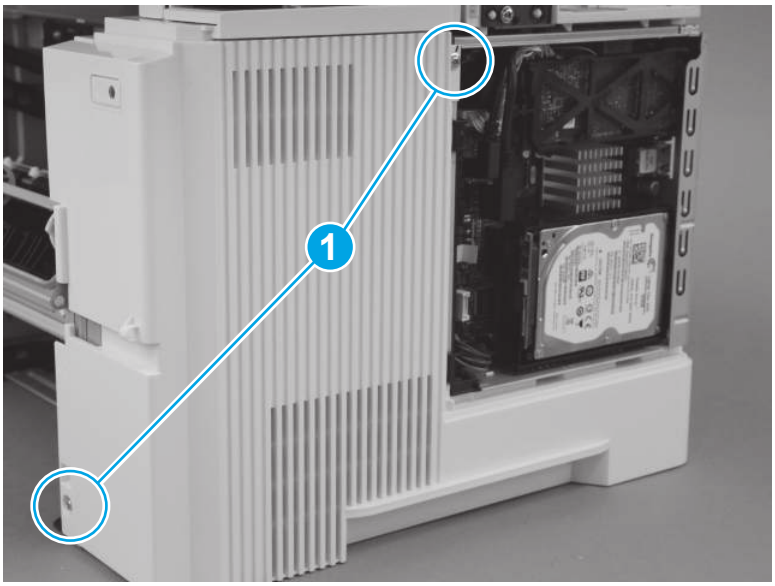
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-845 Locate the tabs and bosses



b. Remove two screws (callout 1).

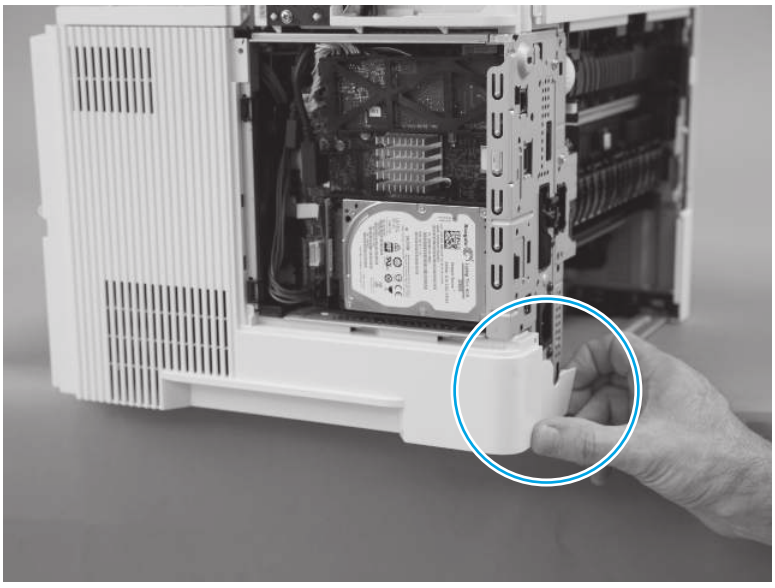
Figure 4-846 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

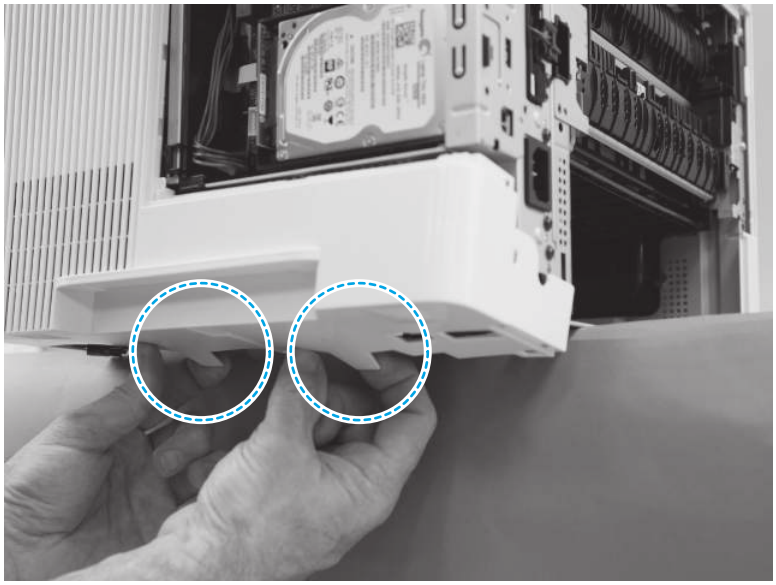
Figure 4-847 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-848 Release two bosses

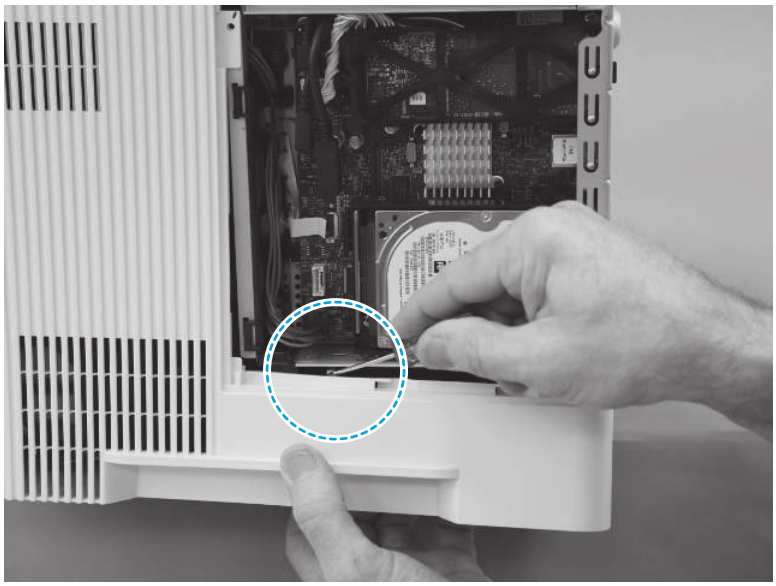


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-849 Release one tab

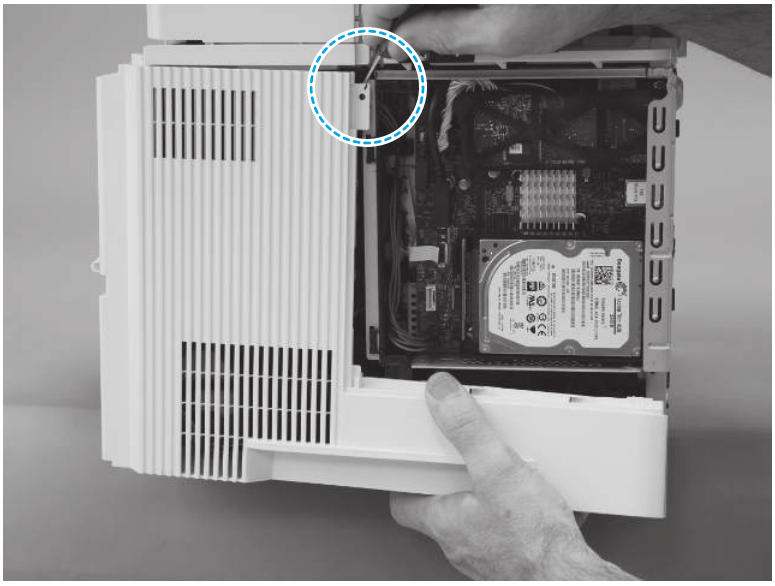


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

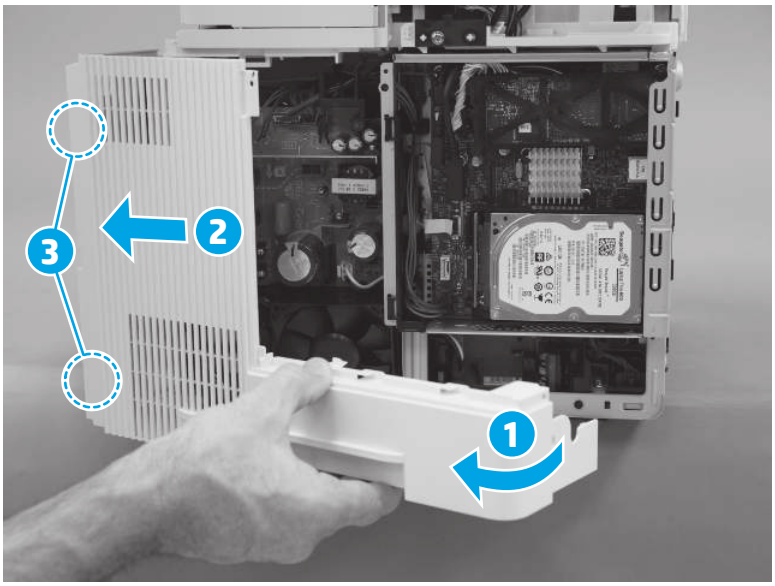
Figure 4-850 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-851 Remove the cover



14. Remove the left cover.

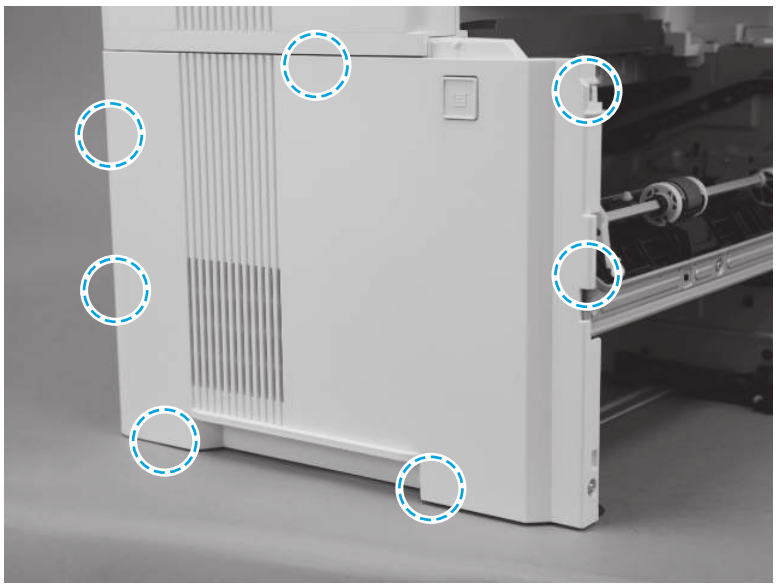
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

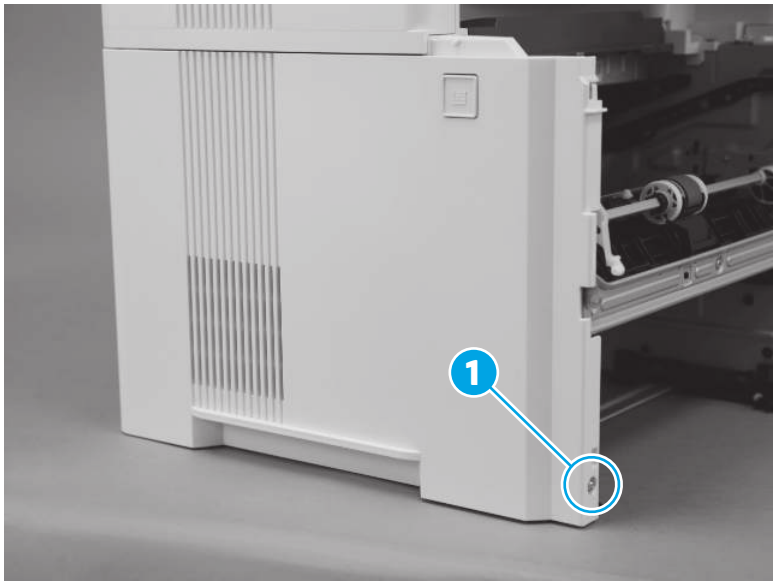
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-852 Locate of the tabs and bosses



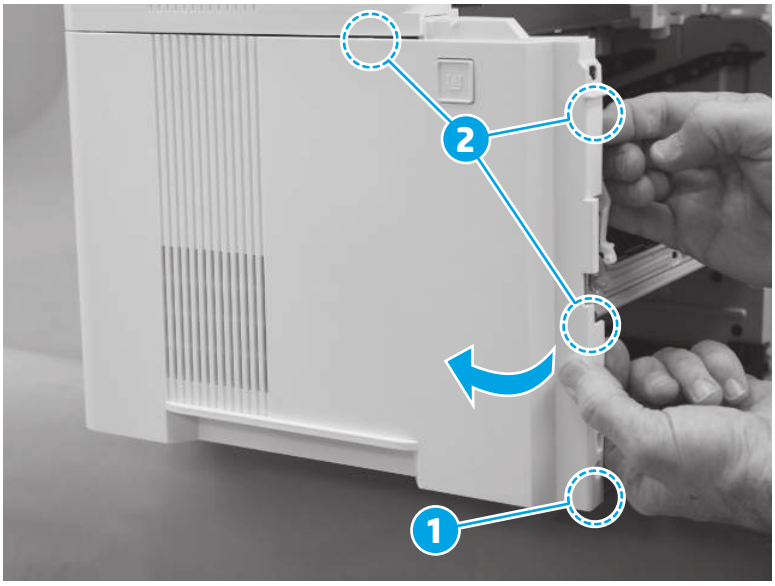
b. Remove one screw (callout 1).

Figure 4-853 Remove one screw



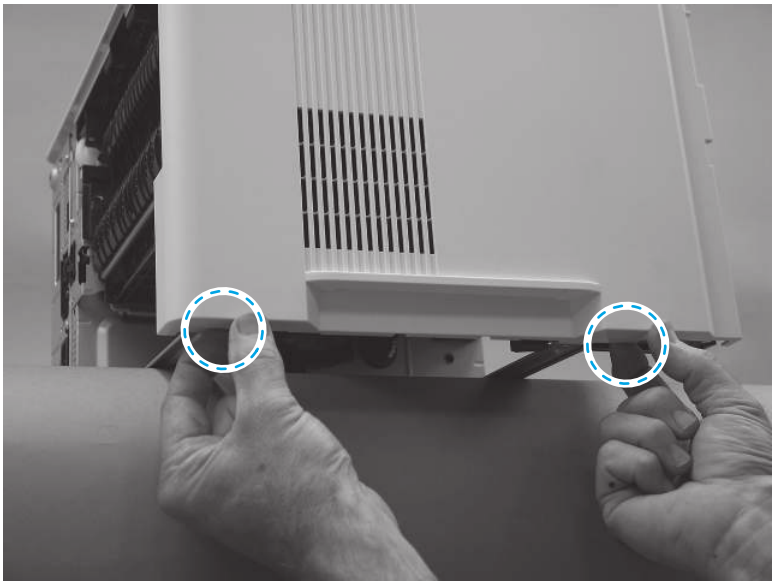
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-854 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

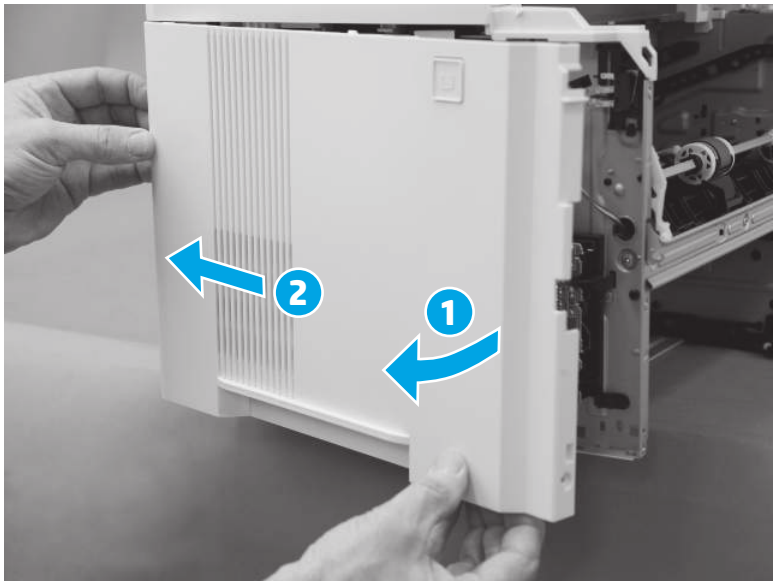
Figure 4-855 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-856 Remove the cover



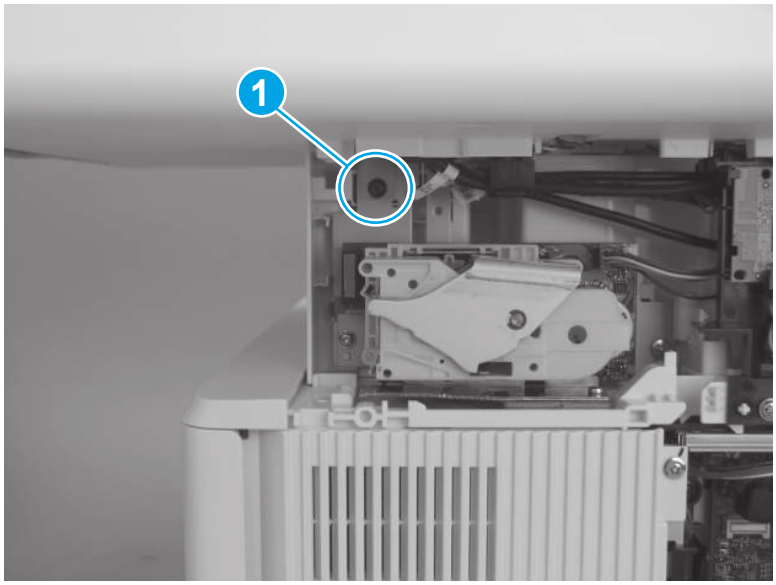
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-857 Remove one screw

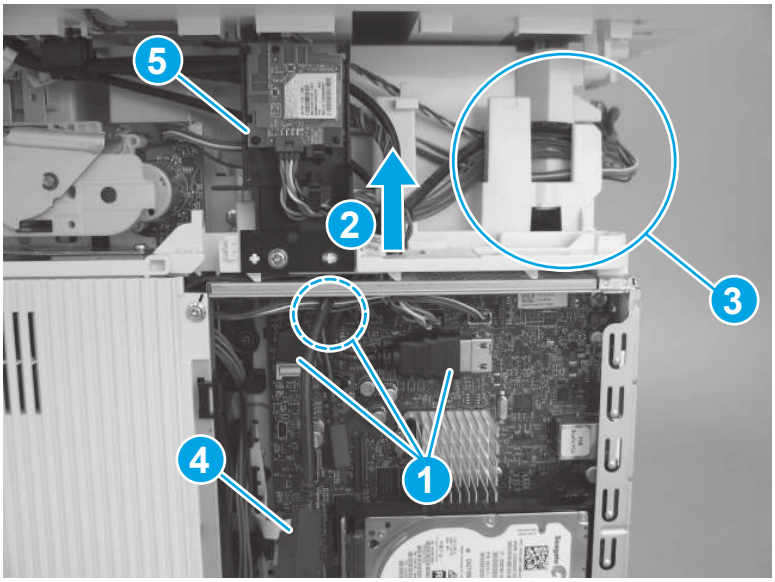


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

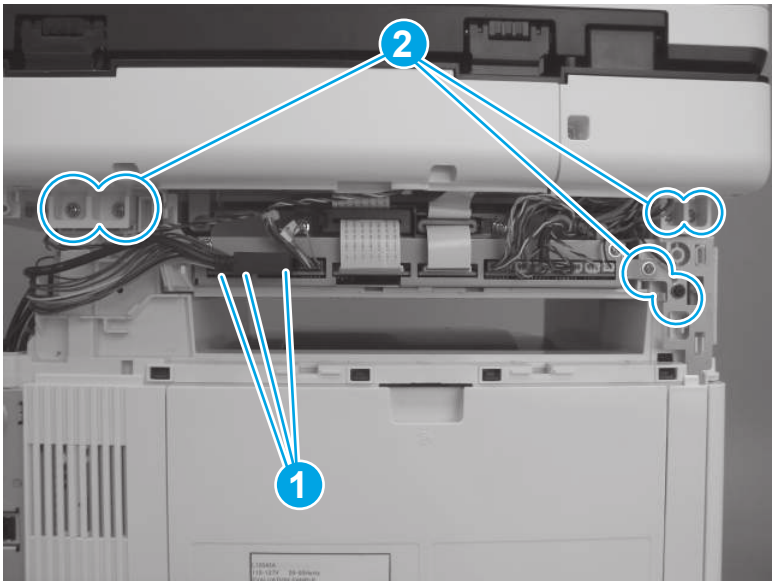
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-858 Disconnect cables and connectors



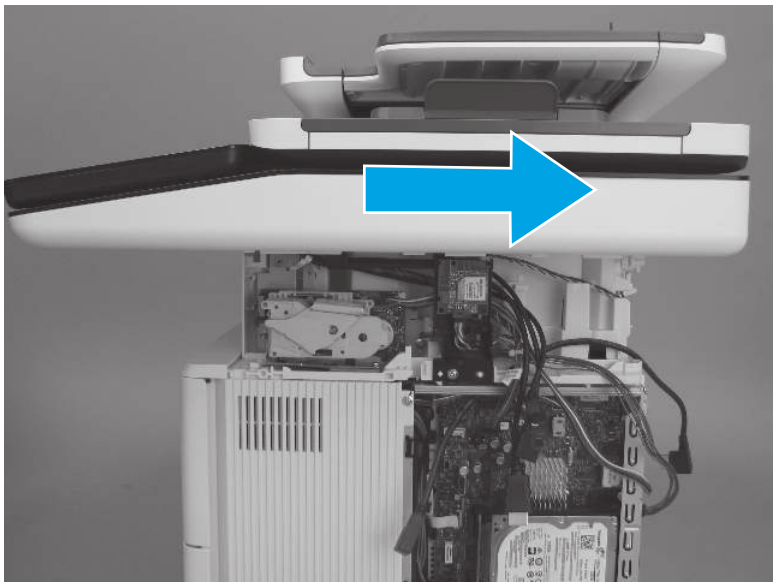
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-859 Disconnect connectors and remove screws



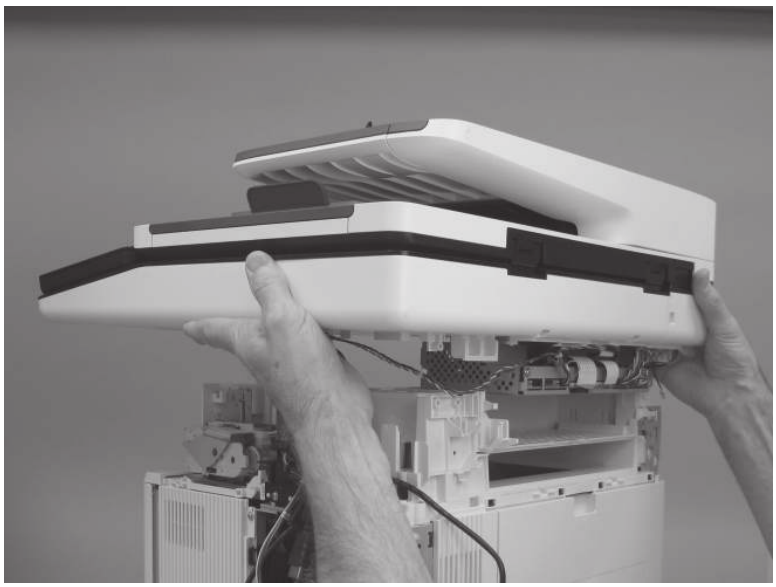
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-860 **Slide the ISA towards the back of the printer**



e. Remove the ISA.

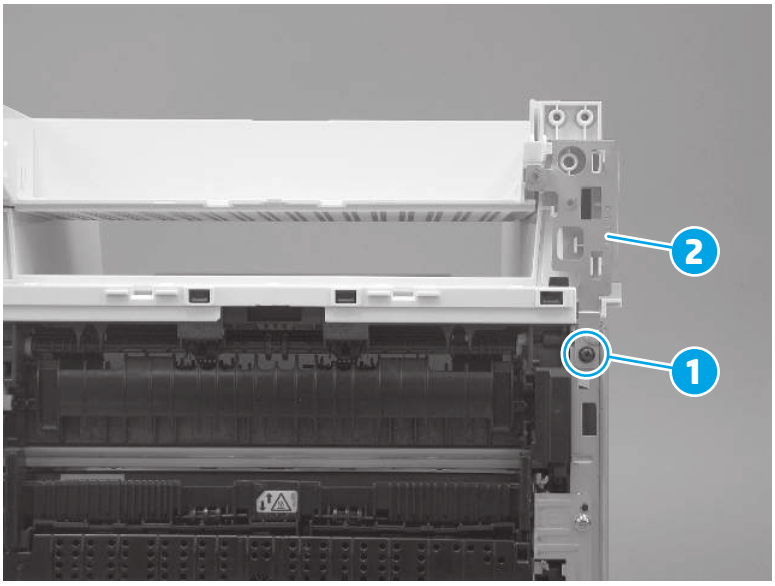
Figure 4-861 **Remove the ISA**



16. Remove the top cover (M527/E52545/M528/E52645).

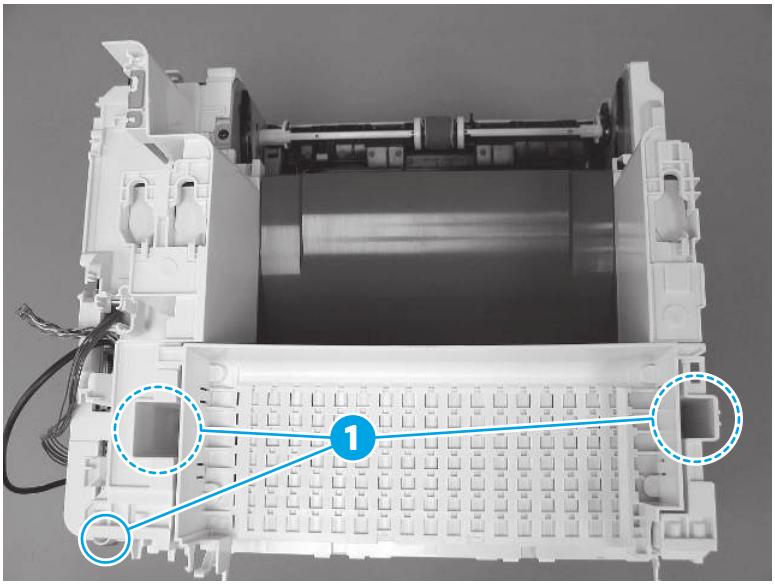
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-862 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

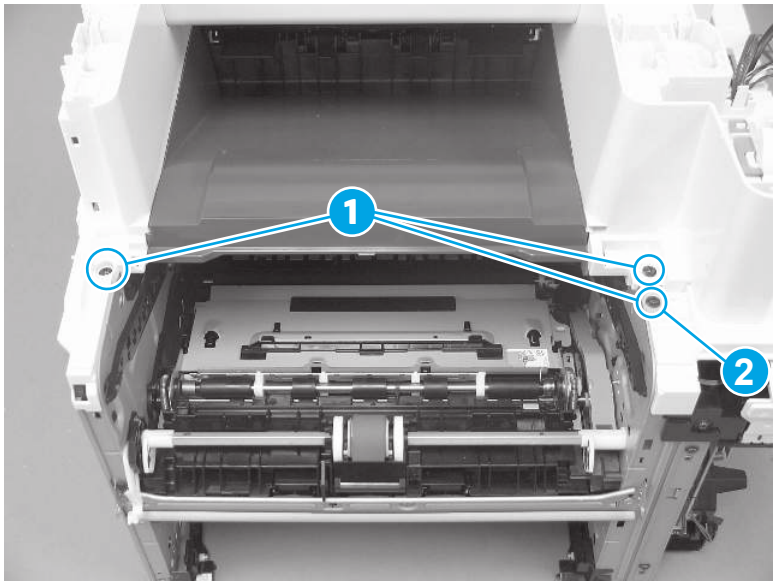
Figure 4-863 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

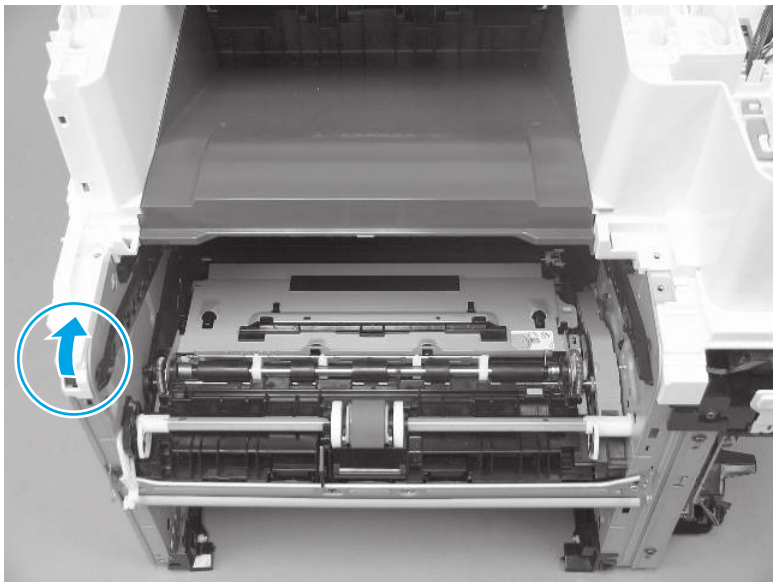
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-864 Remove three screws



d. At the front left of the printer, release one boss.

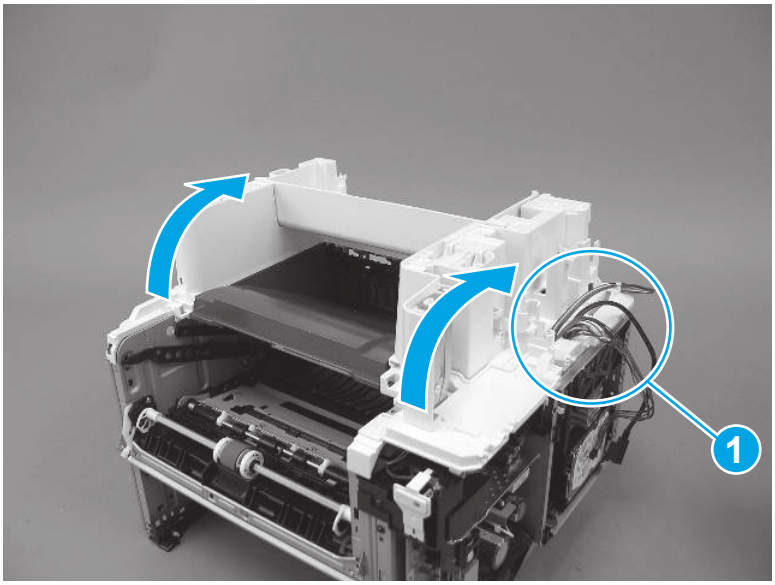
Figure 4-865 Release one boss



e. Rotate the front of the cover up and away from the printer.

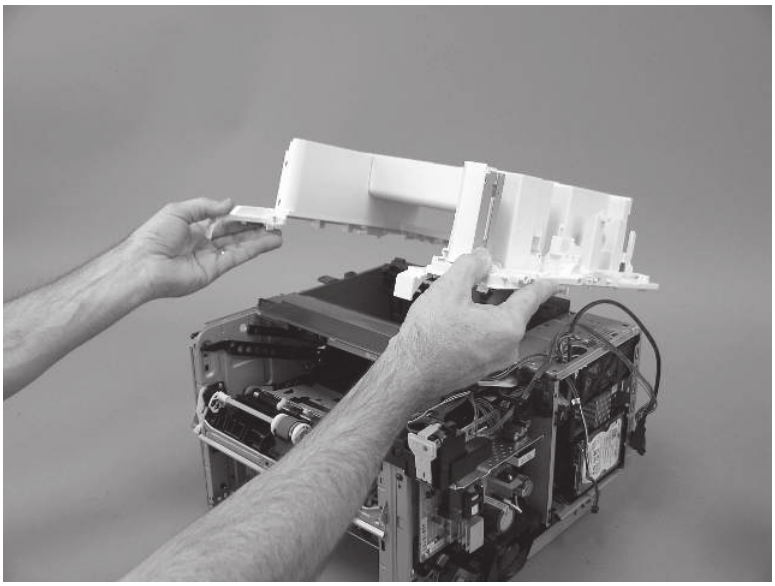
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-866 Rotate the front of the cover up



f. Remove the cover.

Figure 4-867 Remove the cover

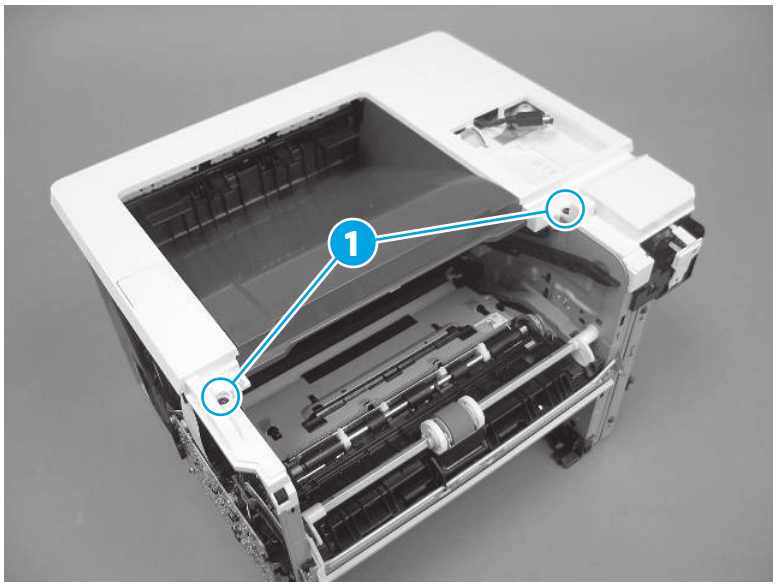


17. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

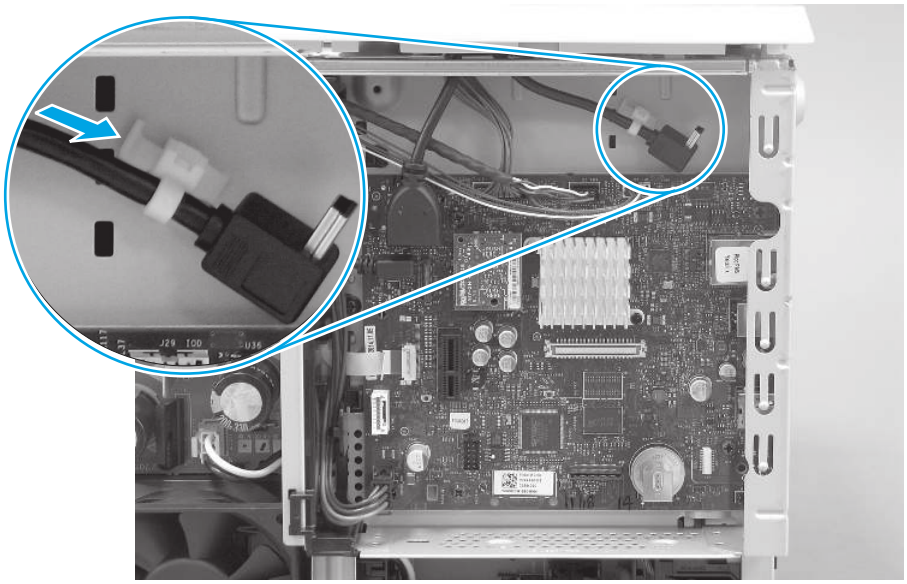
Figure 4-868 **Remove two screws**



b. **M506/E50045/ only**: Release one cable retainer from the chassis.

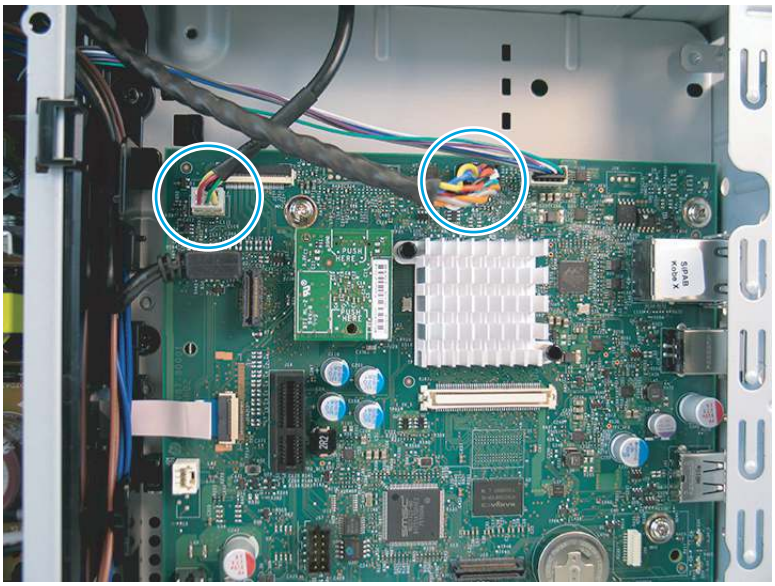
TIP: Depress the tab on the retainer to release it.

Figure 4-869 **Release one cable retainer**



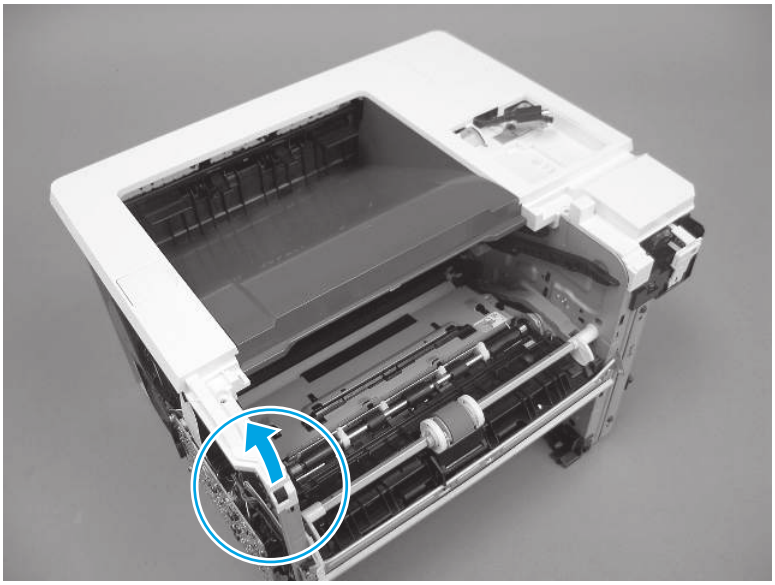
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-870 **Disconnect two connectors**



d. Release one boss.

Figure 4-871 **Release one boss**

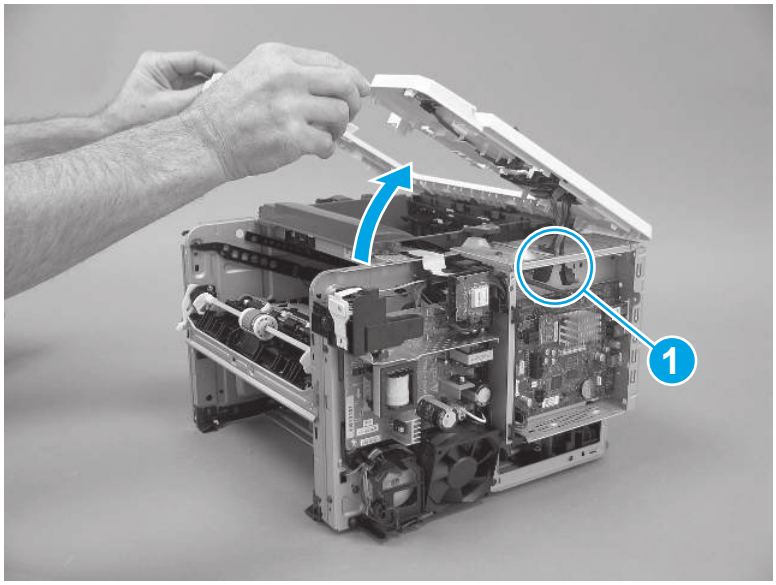


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-872 Remove the cover (M506/E50045)



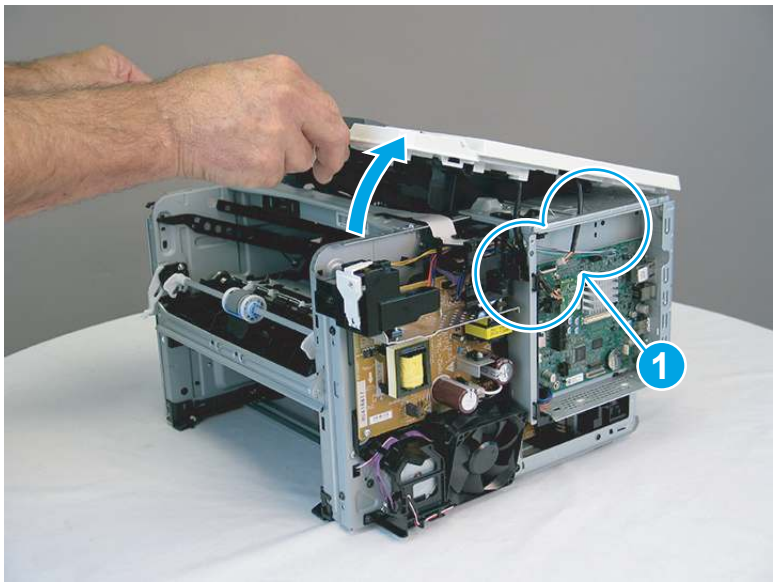
f. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-873 Remove the cover (M507/E50145)

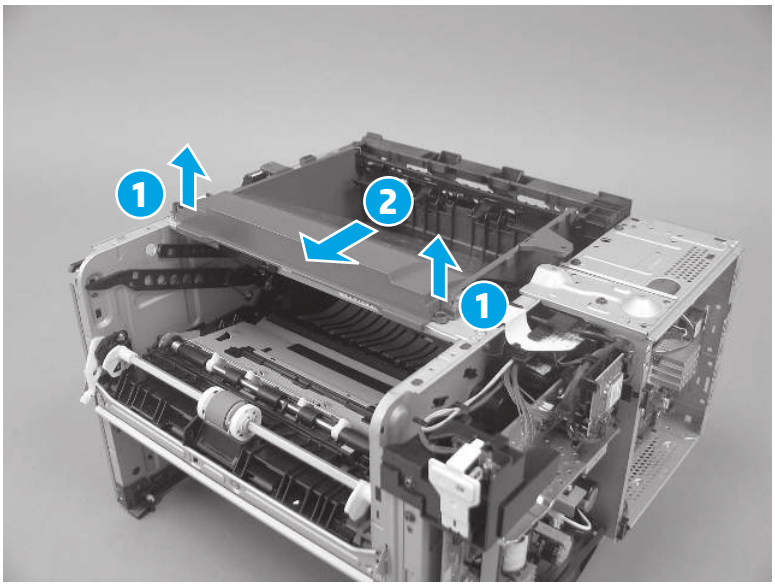


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

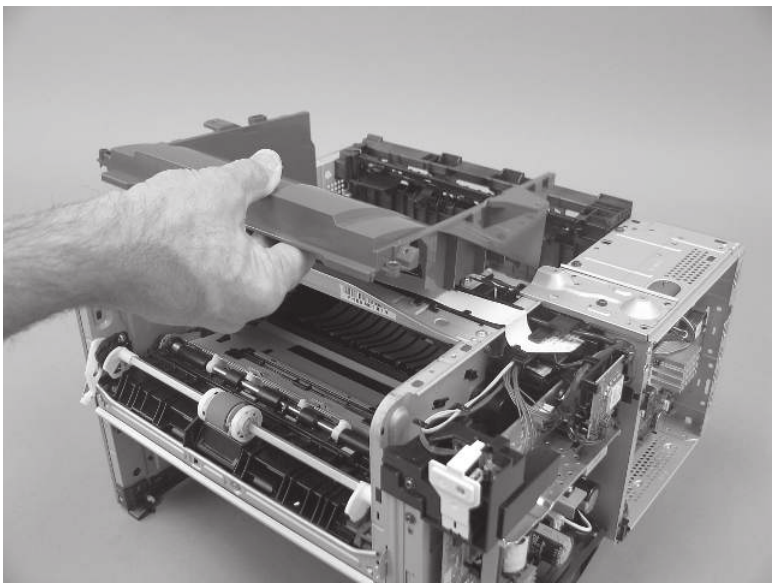
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-874 Release two tabs



b. Remove the bin.

Figure 4-875 Remove he bin

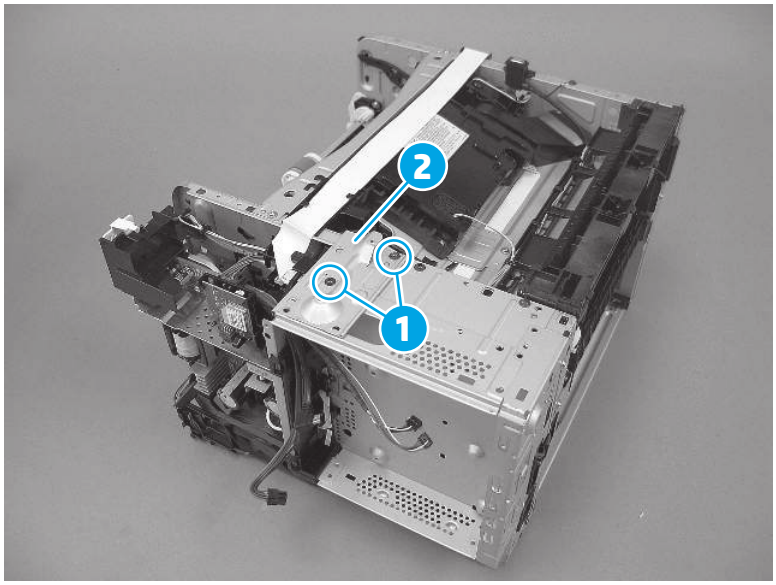


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

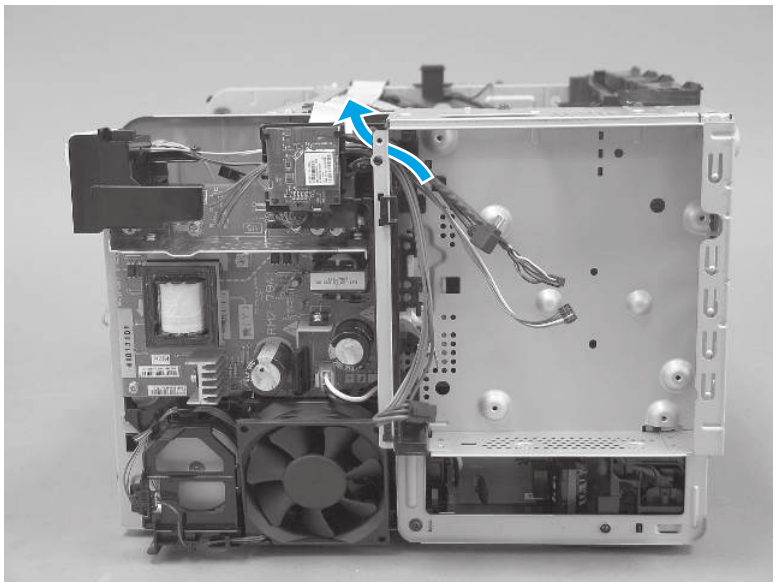
Figure 4-876 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

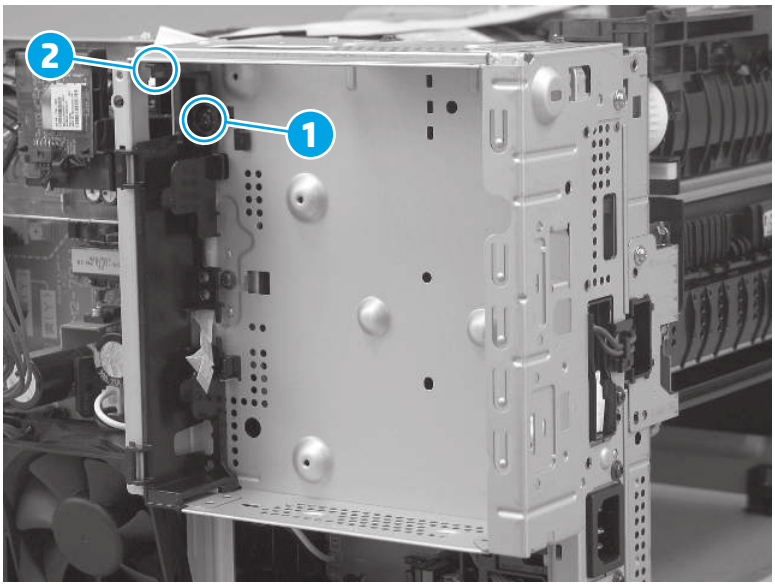
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-877 **Pass all cables and wire harnesses through the opening**



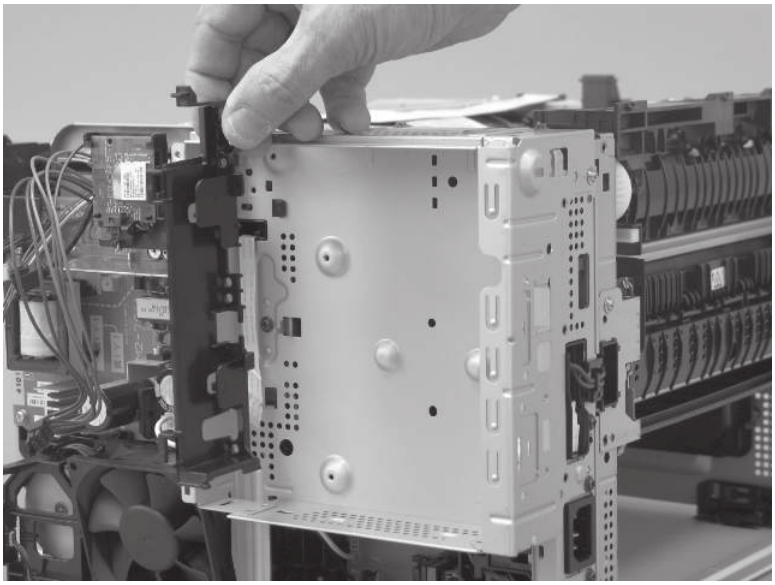
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-878 Remove one screw



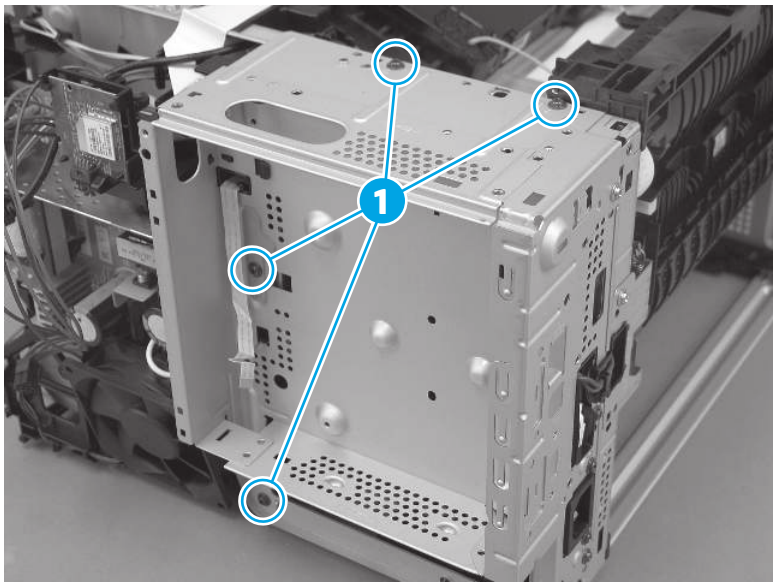
d. Remove the guide.

Figure 4-879 Remove the guide



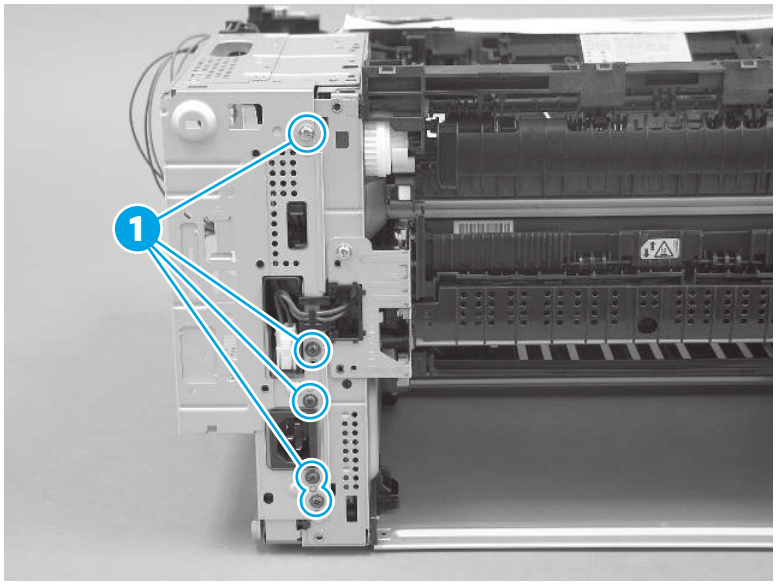
e. Remove four screws (callout 1).

Figure 4-880 Remove four screws



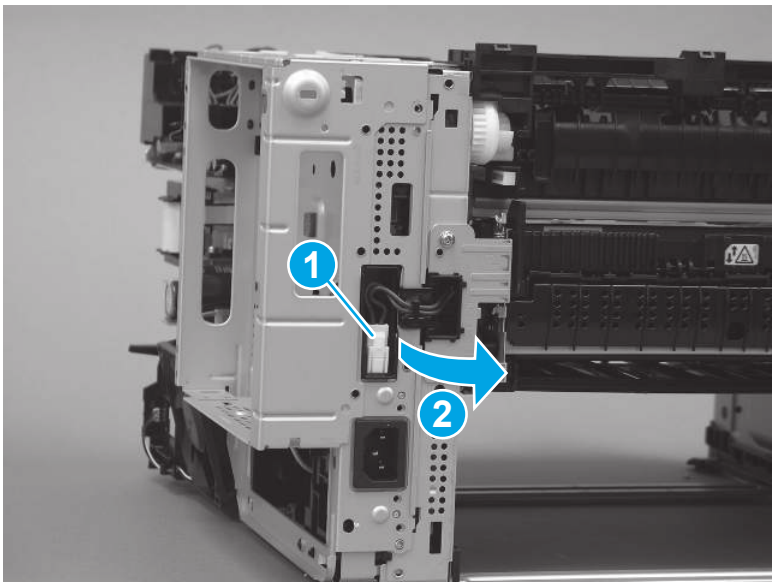
f. Remove five screws (callout 1).

Figure 4-881 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

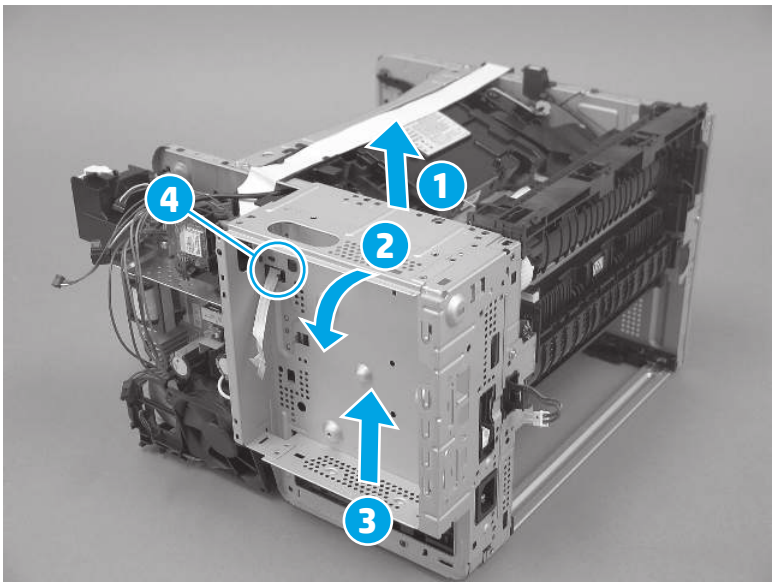
Figure 4-882 Disconnect one connector



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

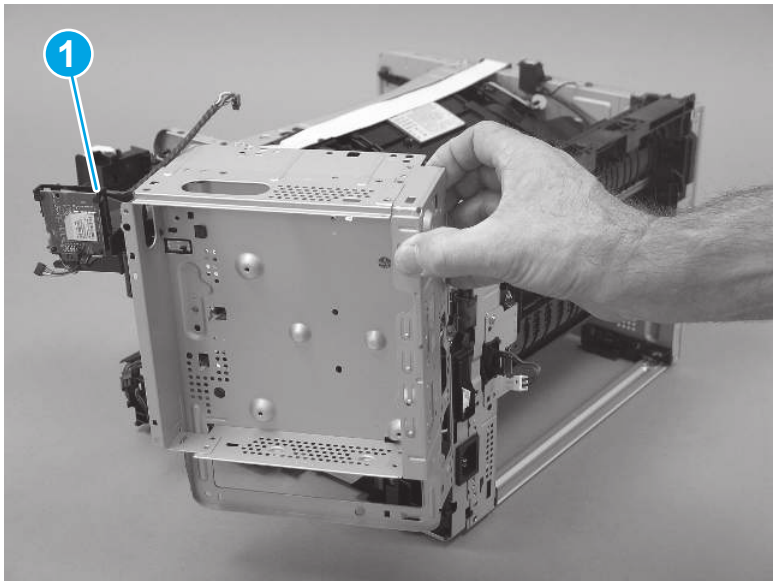
Figure 4-883 Release the formatter case



i. Remove the formatter case.

NOTE: **WiFi models only:** If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

Figure 4-884 Remove the formatter case

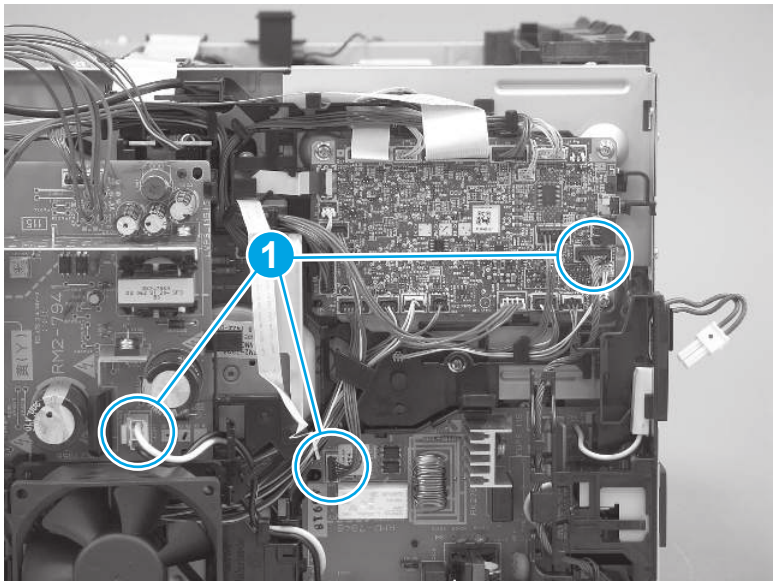


20. Remove the fuser power supply (FPS).

TIP: The FPS includes the optional paper feeder connector (Jetlink accessory tray connector) .

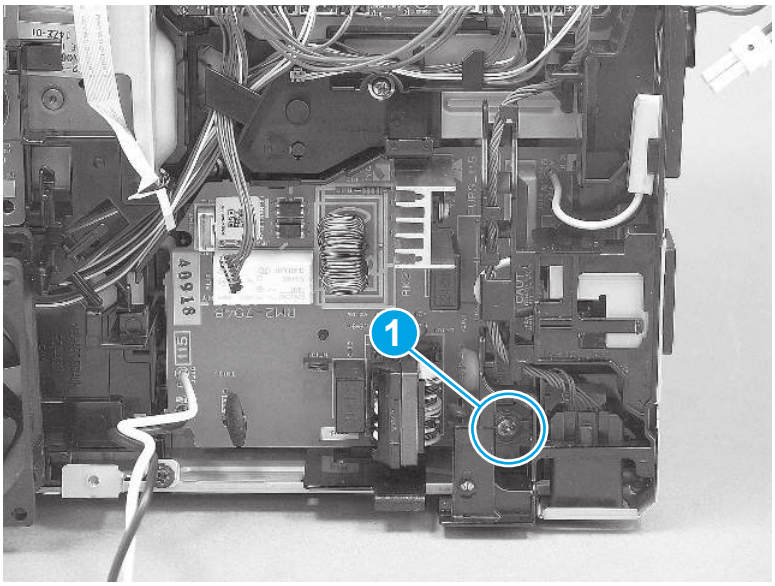
a. Disconnect three connectors (callout 1).

Figure 4-885 Disconnect three connectors

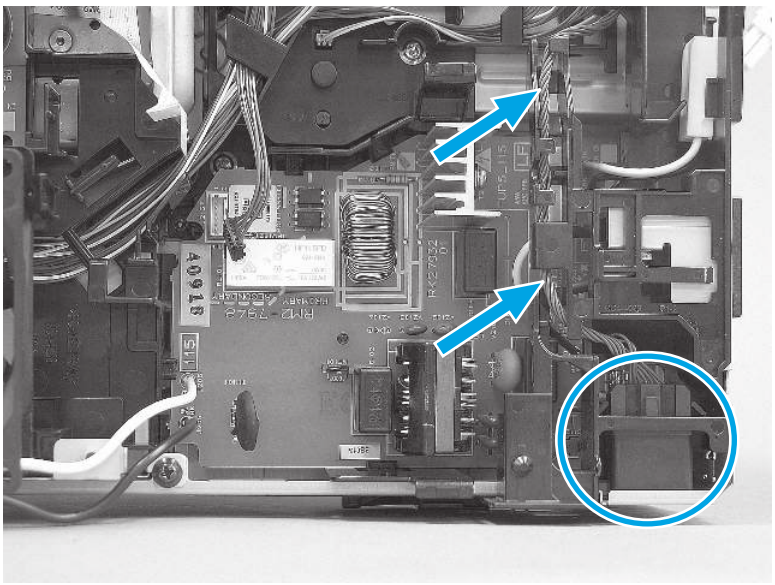


b. Remove one screw (callout 1).

Figure 4-886 Remove one screw



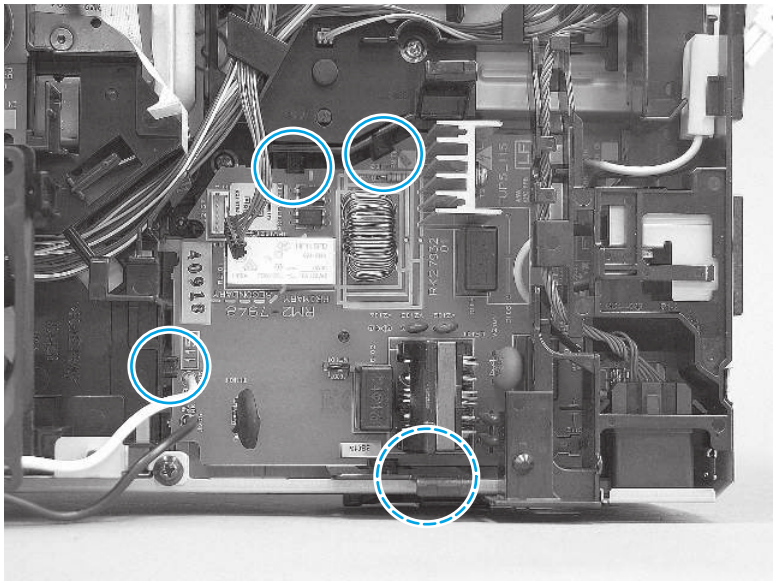
c. Disconnect the tray accessory connector (circle callout) and release the wire harness from the guide.



d. Release four tabs.

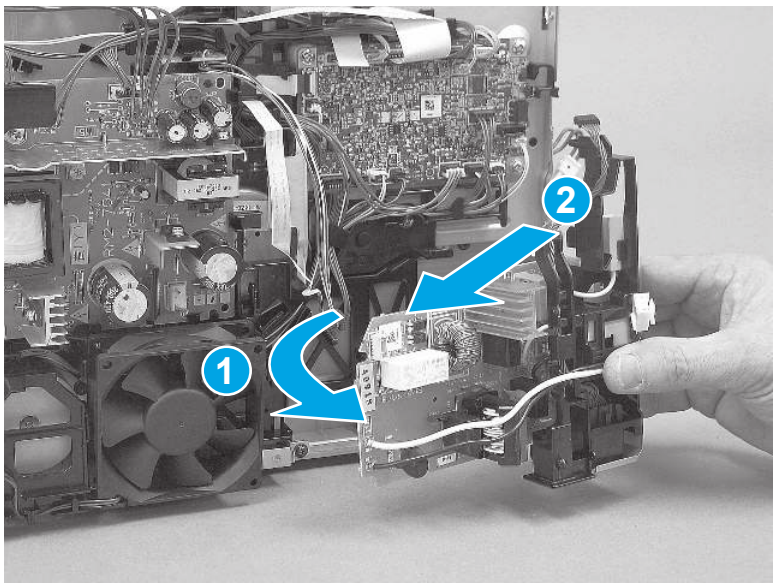
TIP: It might be easier to release the upper two tabs by using a small flat-blade screw driver.

Figure 4-887 Release four tabs



e. Rotate the left end of the assembly out and away from the printer (callout 1), slide the assembly to the left to release the right side alignment pins (callout 2), and then remove the assembly.

Figure 4-888 Remove the assembly



21. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: DC controller

Learn how to remove and replace the DC controller.

CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Some figure might show assemblies removed or installed that have not yet been removed at that specific step. However, the procedures are correct for this printer and the target assembly. **Always** thoroughly read the instructions that accompany each figure.

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the DCC (M501).

M506/E50045

View a video of how to remove and replace the DCC (M506M506/E5004).

M507/E50145

View a video of how to remove and replace the DCC (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the DCC (M527/E52545/M528/E52645).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-40 Part information

Part number	Part description
RM3-7475-010CN	DC controller (M527/E52545/M528/E52645)
RM2-8600-000CN	DC controller (simplex; M506/E50045/M507/E50145)
RM2-8612-000CN	DC controller (duplex; M506/M507/E50145)
RM2-8710-000CN	DC controller (simplex; M501)
RM2-7950-000CN	DC controller (duplex; M501)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

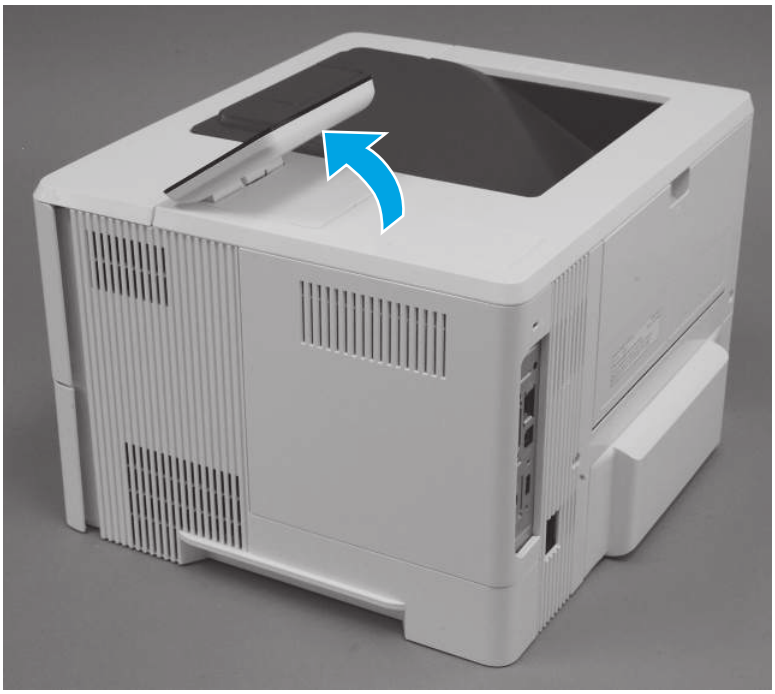
Make sure that the printer initializes to a **Ready** state.

Print a configuration page to make sure that the printer is functioning correctly.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

Figure 4-889 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

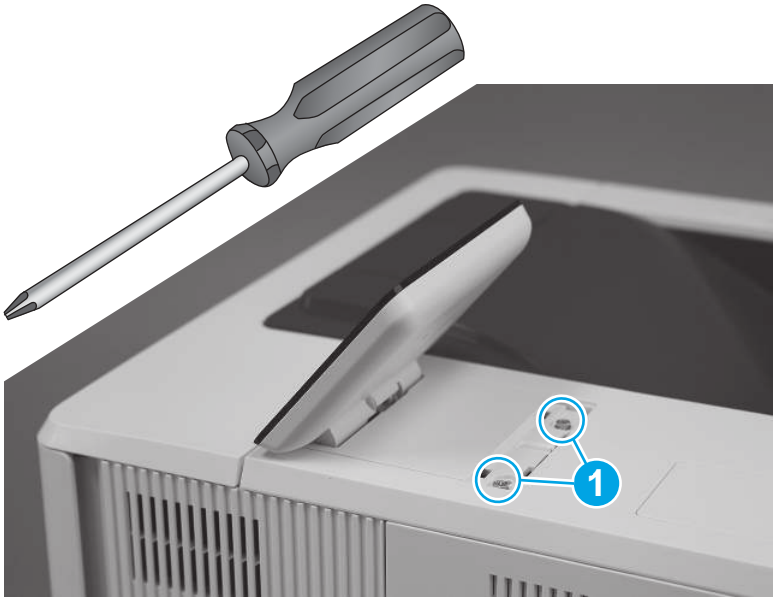
TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

Figure 4-890 Remove the cover

c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

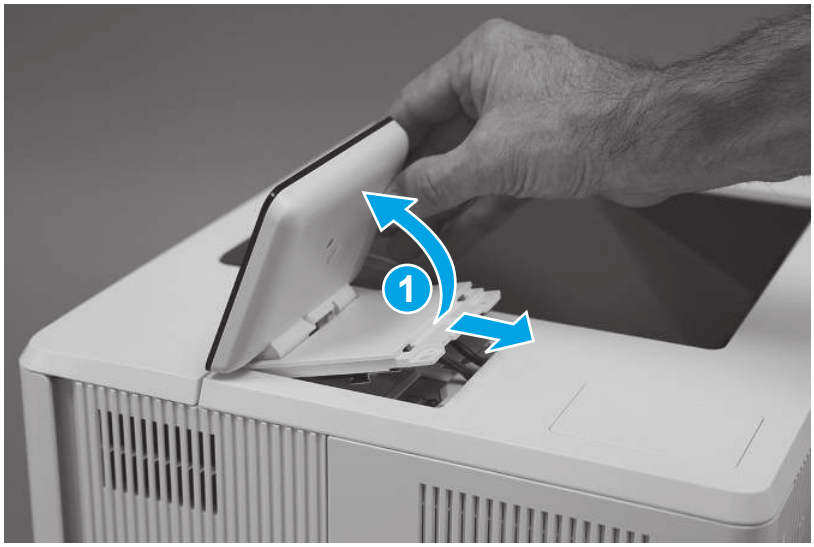
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-891 Remove two screws



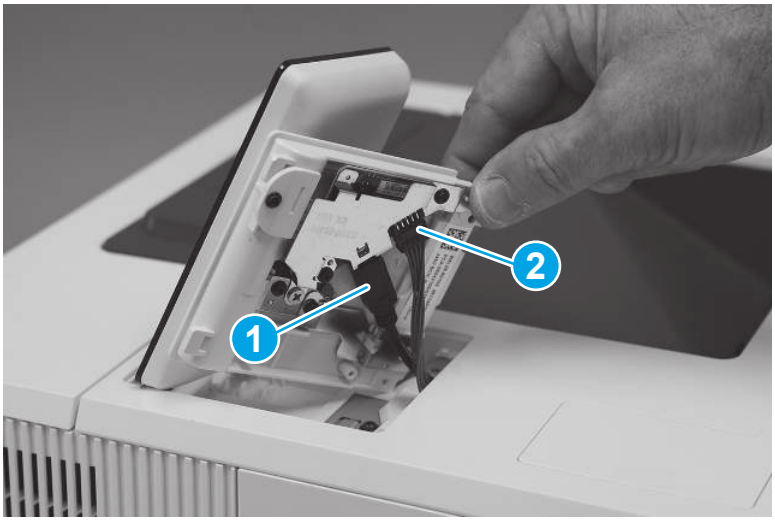
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-892 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-893 Remove the control panel (M506/E50045)



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-894 Disconnect one FFC (M507/E50145)

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-895 Remove the control panel (M507/E50145)

2. Remove the tray.

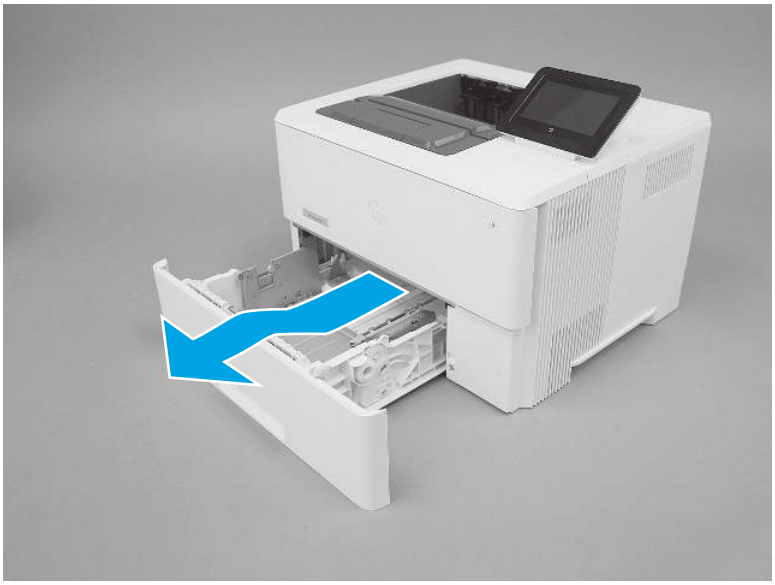
a. Pull the tray straight out of the printer until it stops.

Figure 4-896 Pull the tray out until it stops

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-897 Release and remove the tray

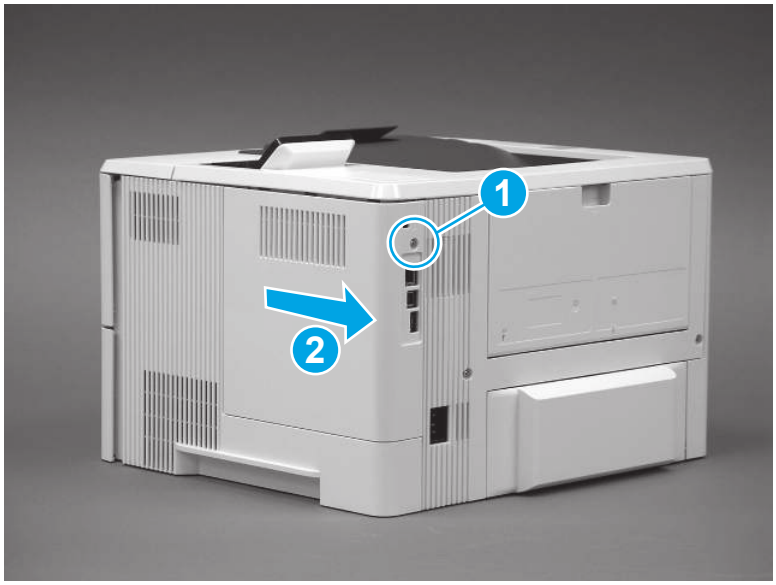


3. Remove the formatter cover.

- Do one of the following:

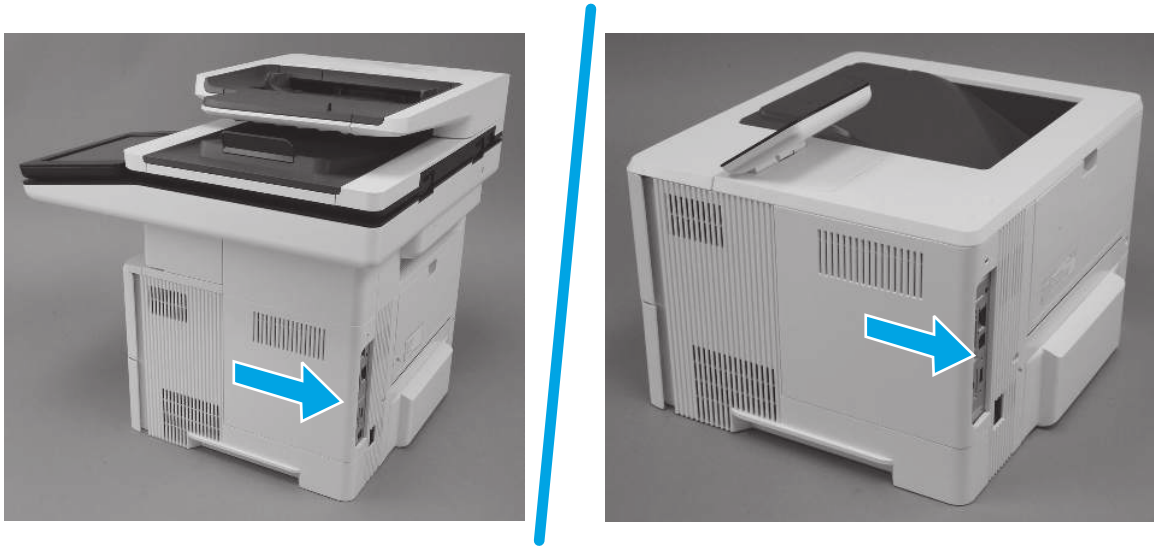
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-898 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-899 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

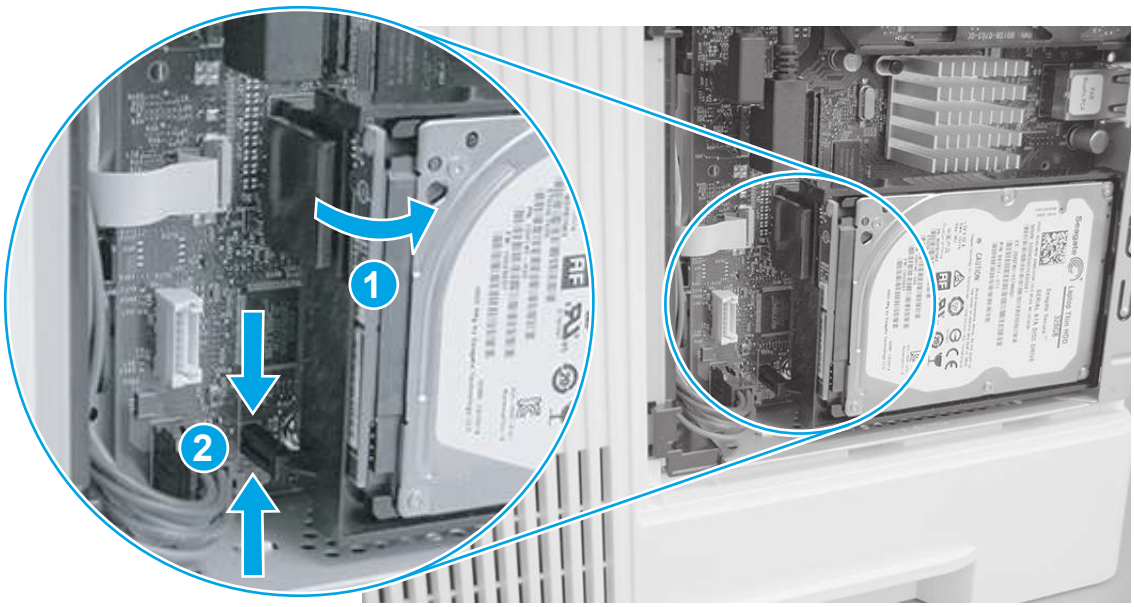


4. Remove the hard-disk drive (HDD models).

CAUTION: ESD sensitive part.

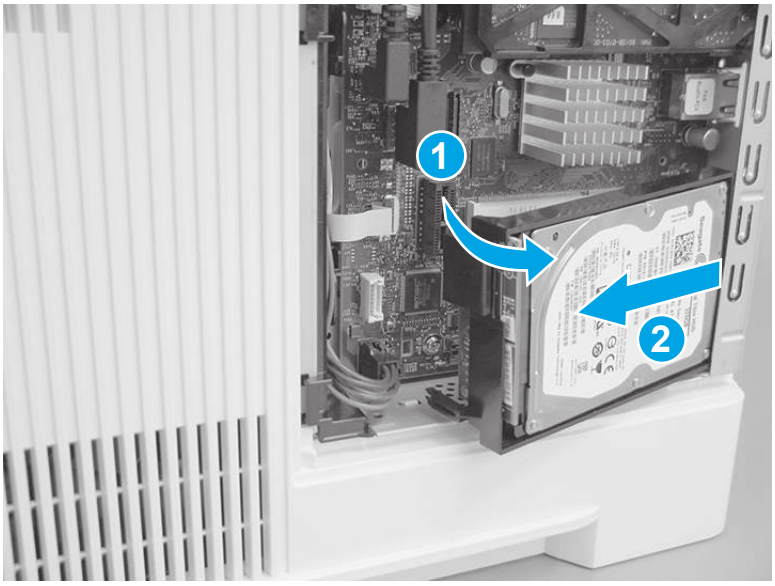
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-900 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-901 Remove the HDD

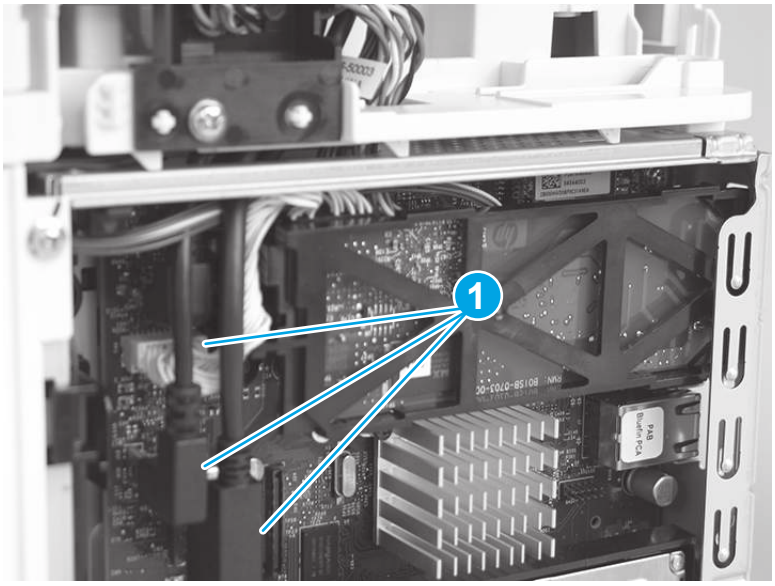


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

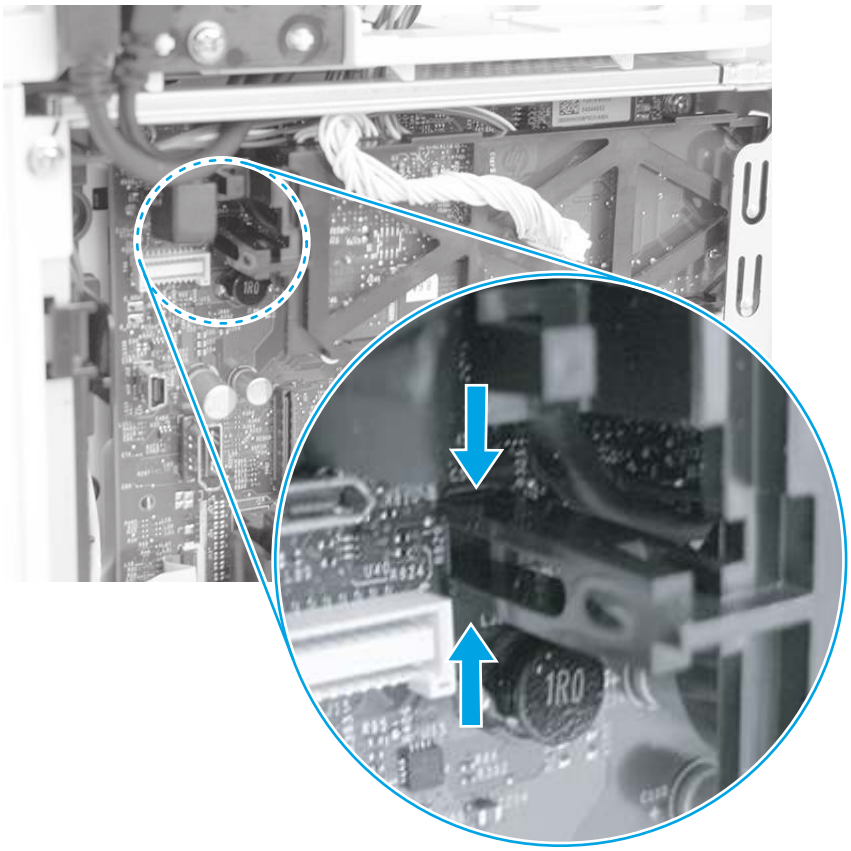
a. Disconnect three connectors (callout 1).

Figure 4-902 Disconnect three connectors



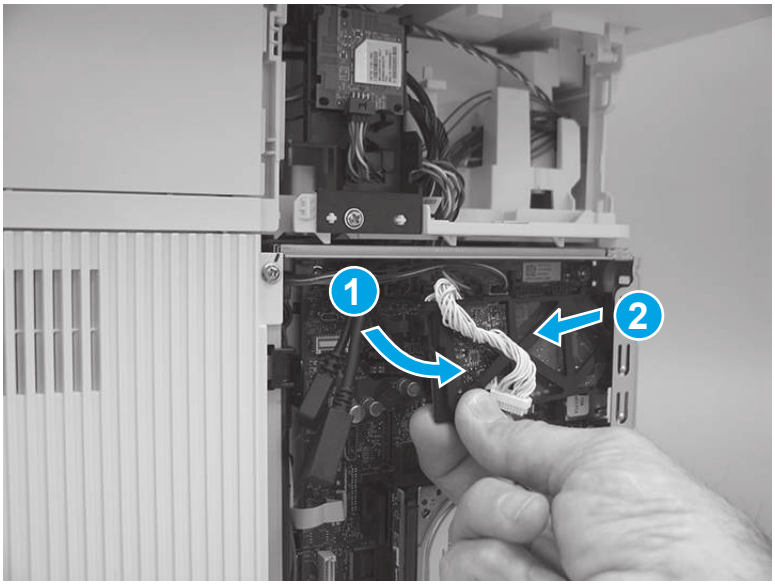
b. Pinch the retainer to release it.

Figure 4-903 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-904 Remove the fax PCA



6. Remove the formatter.

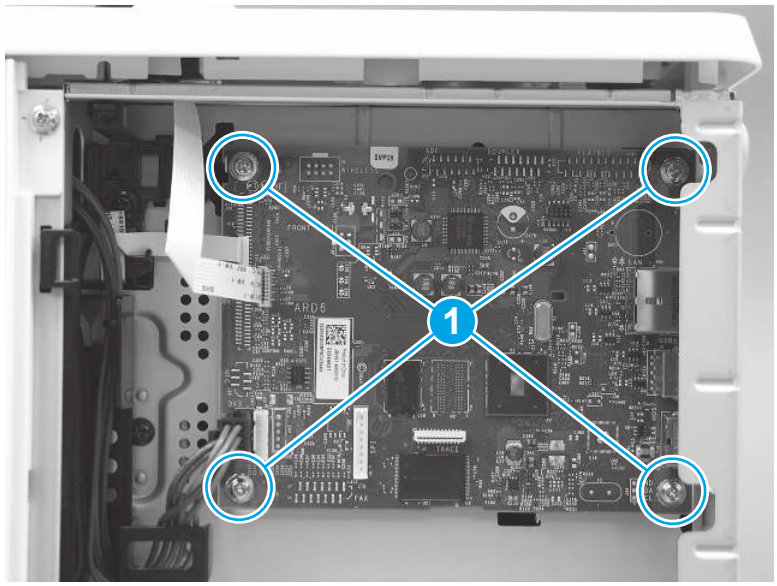
⚠ **CAUTION:** Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

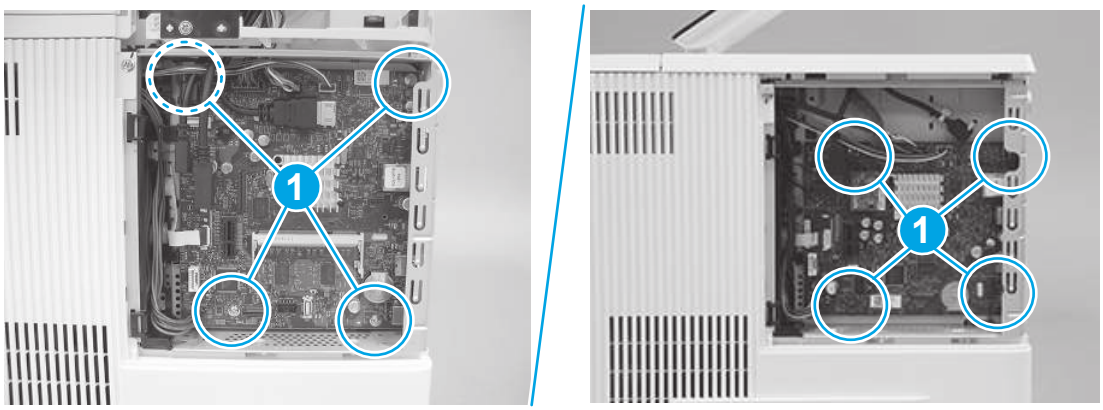
Figure 4-905 Remove the formatter (M501)



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-906 Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

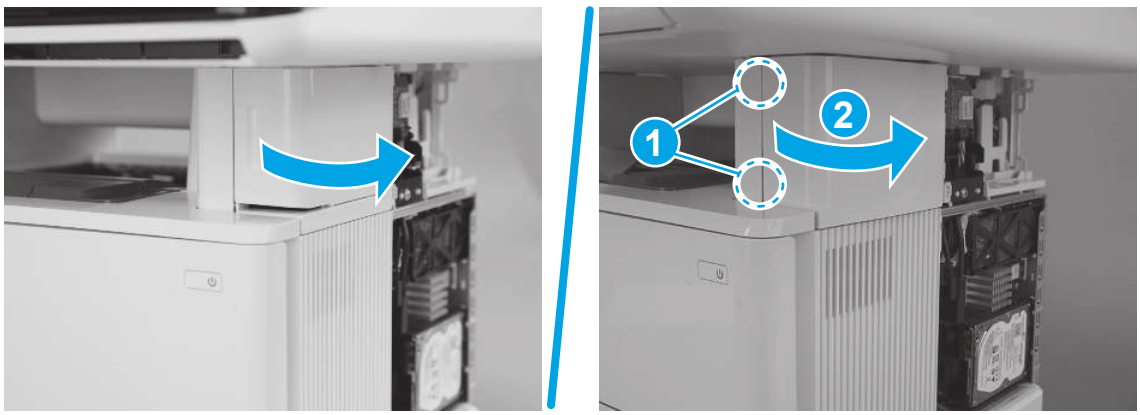


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-907 Open the door or release the cover



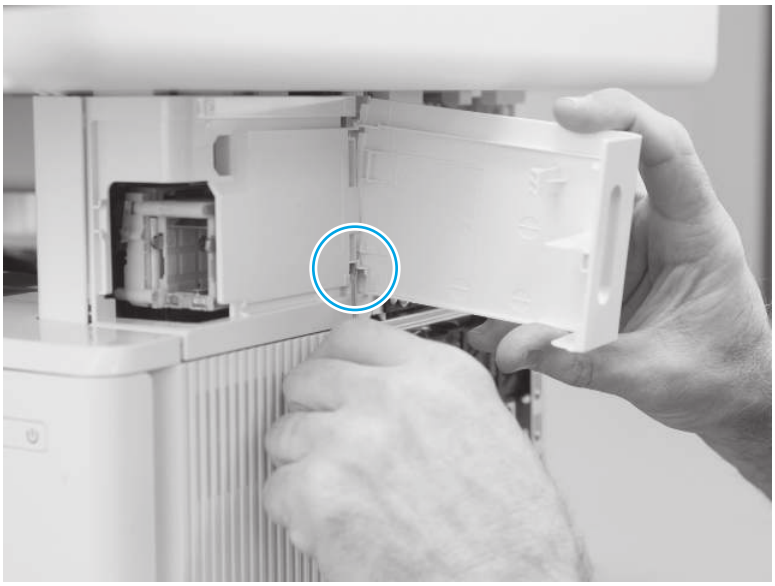
   b. Do one of the following:

   - **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
   - **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-908 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-909 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-910 **Remove the door**

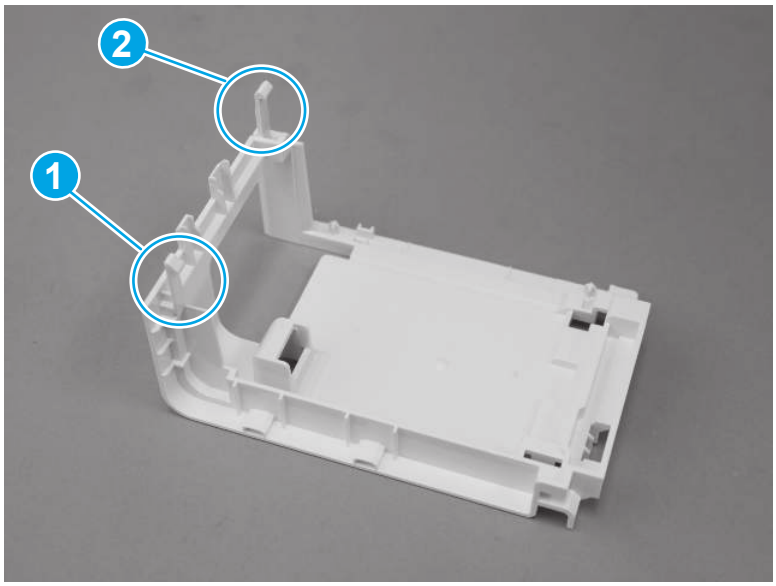
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

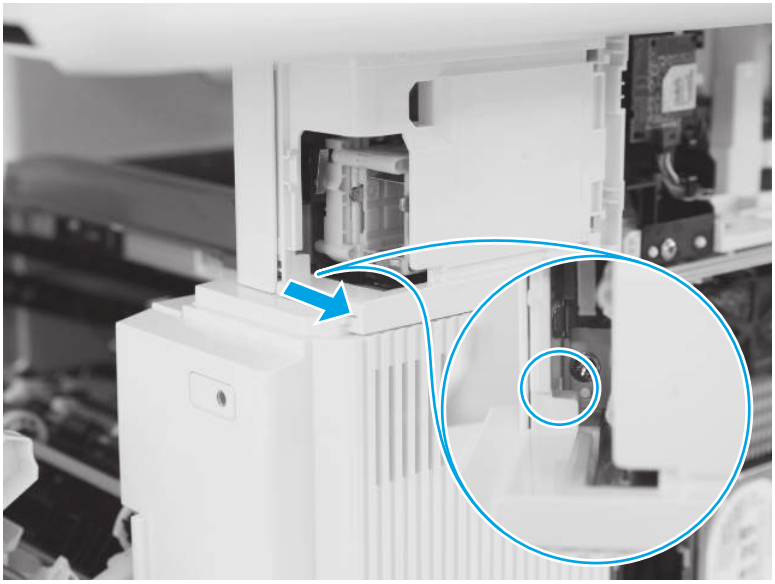
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-911 **Locate the tabs**



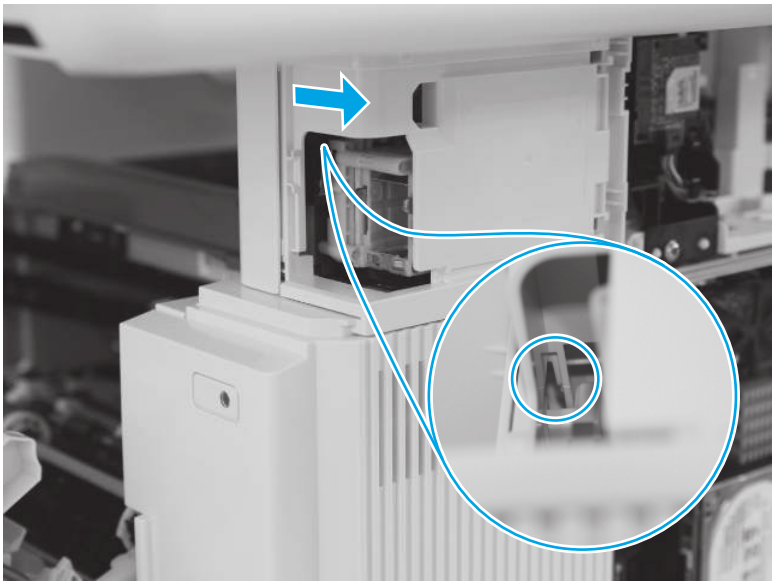
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-912 Release one tab



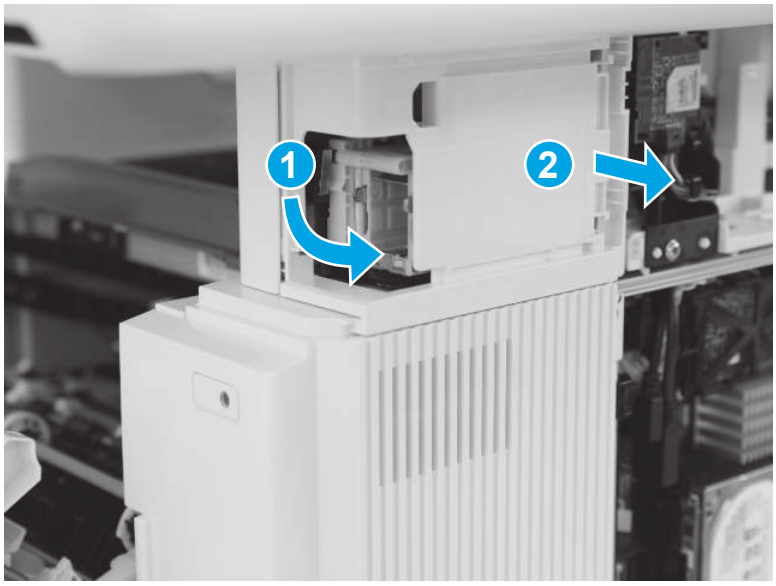
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-913 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

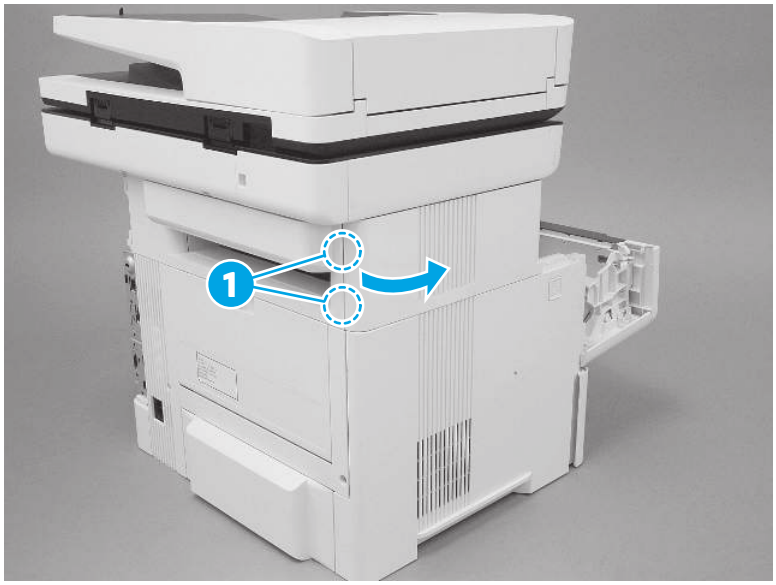
Figure 4-914 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-915 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

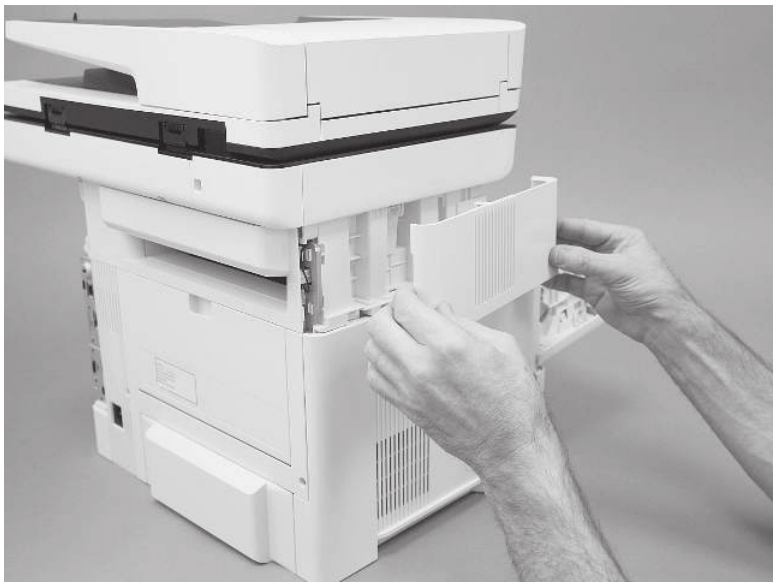
Figure 4-916 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-917 Slide the cover

d. Remove the cover.

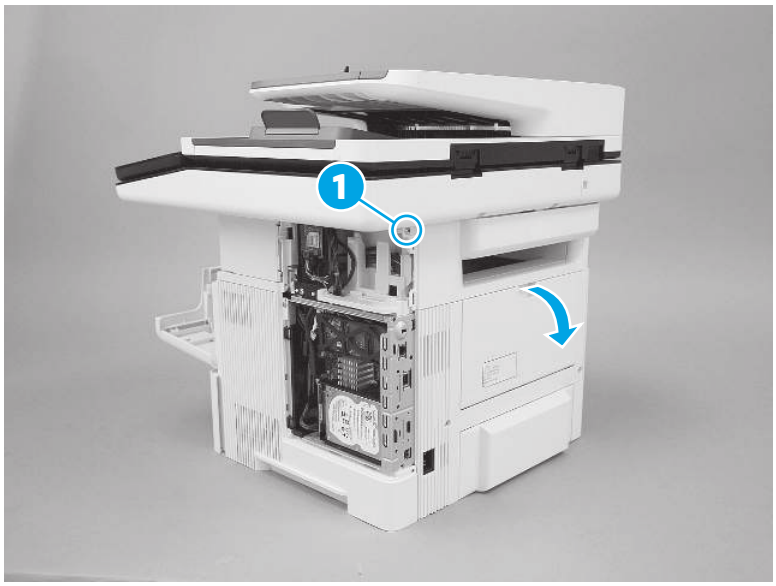
Figure 4-918 **Remove the cover**



10. Remove the top-rear cover (M527/E52545/M528/E52645).

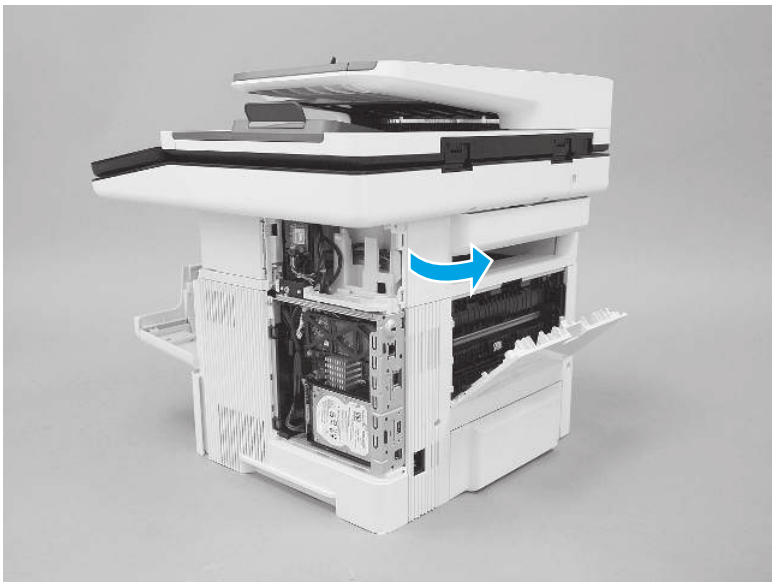
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-919 **Remove one screw**



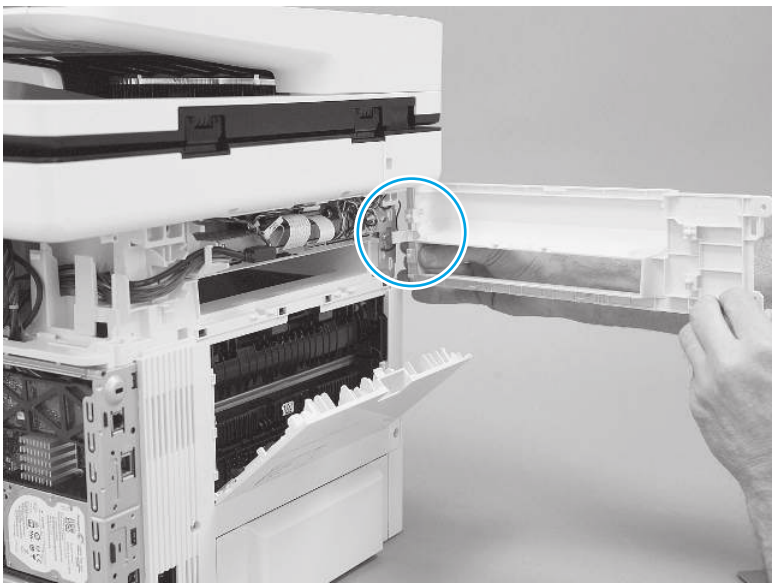
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-920 Rotate the cover



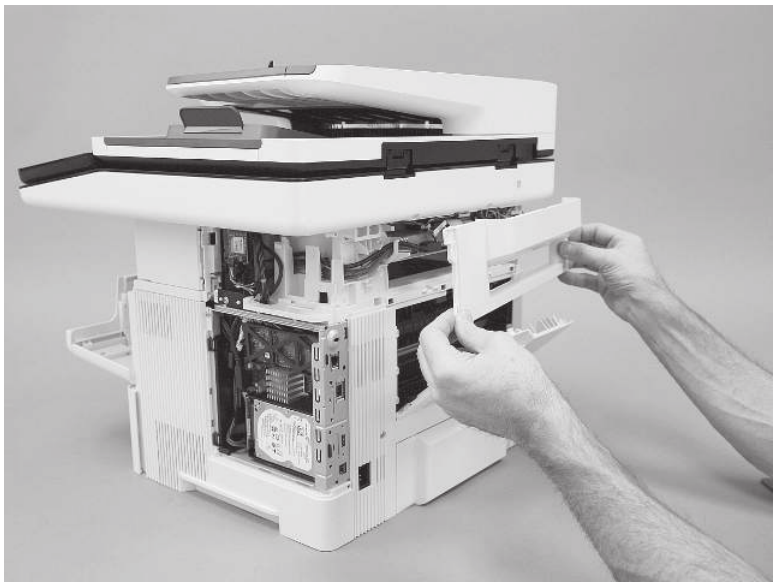
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-921 Release one boss



d. Remove the cover.

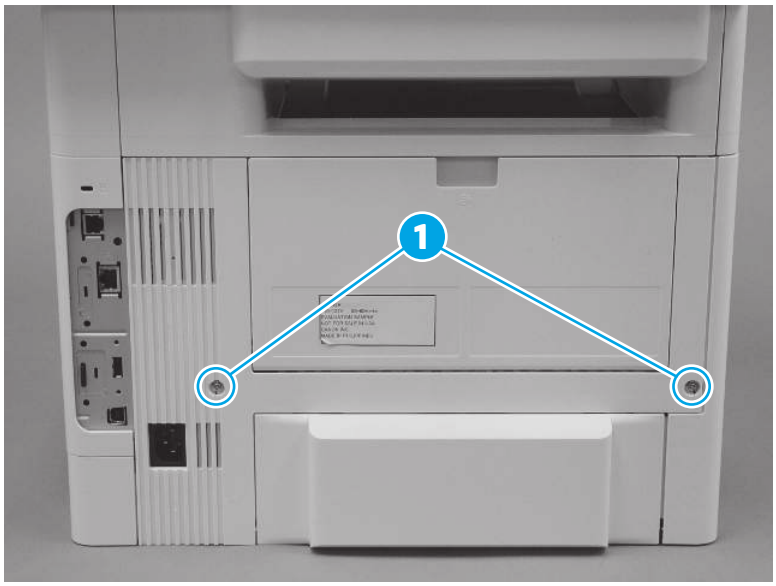
Figure 4-922 Remove the cover



11. Remove the rear door assembly.

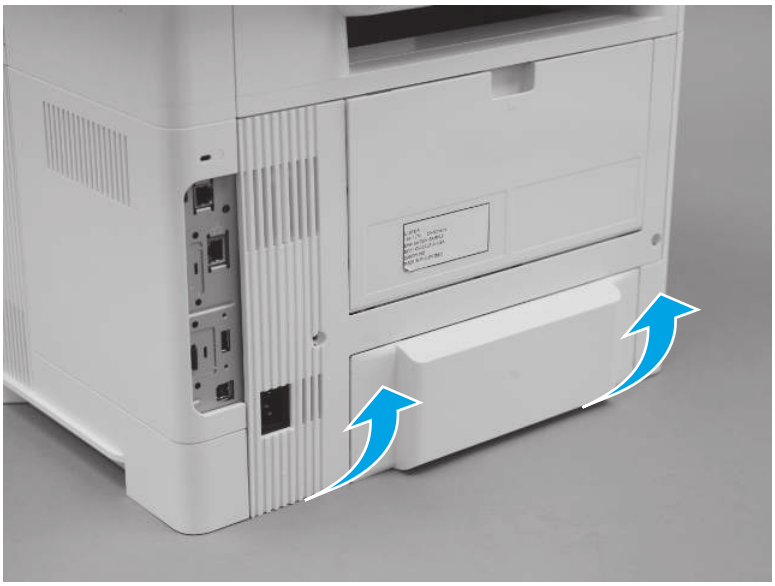
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-923 Remove two screws



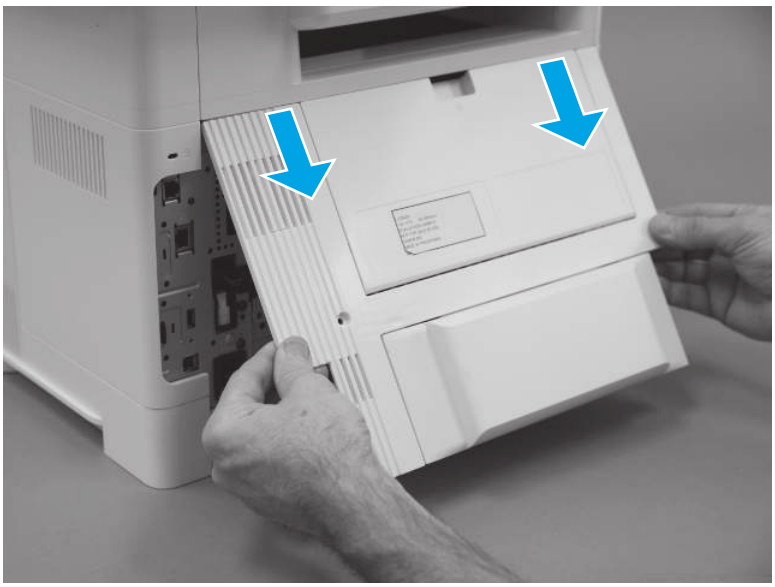
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-924 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-925 Remove the cover



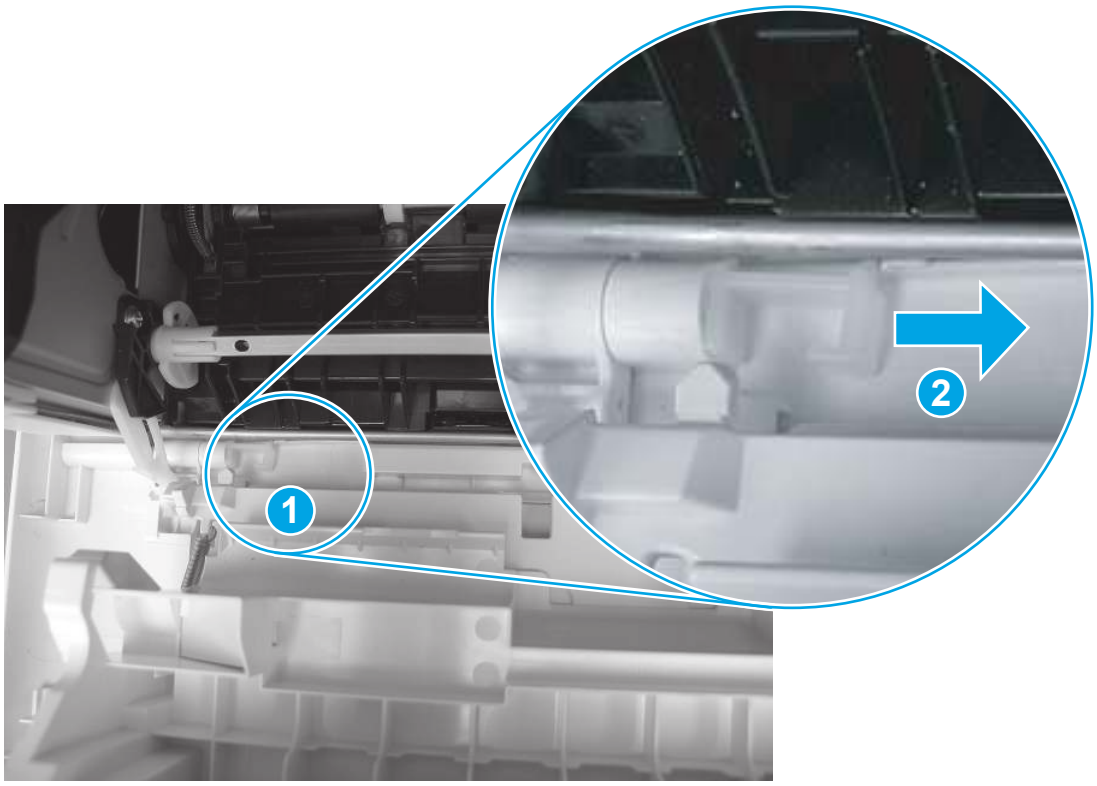
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

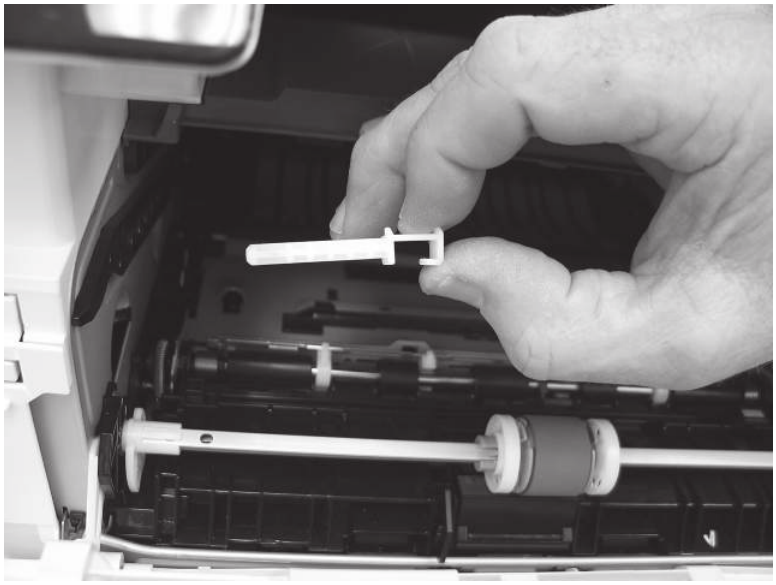
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-926 Release the support shaft



b. Remove the support shaft.

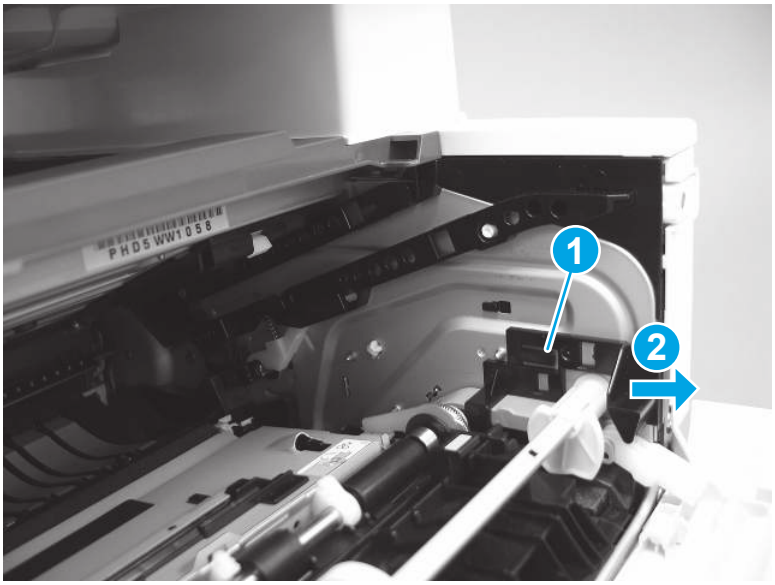
Figure 4-927 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

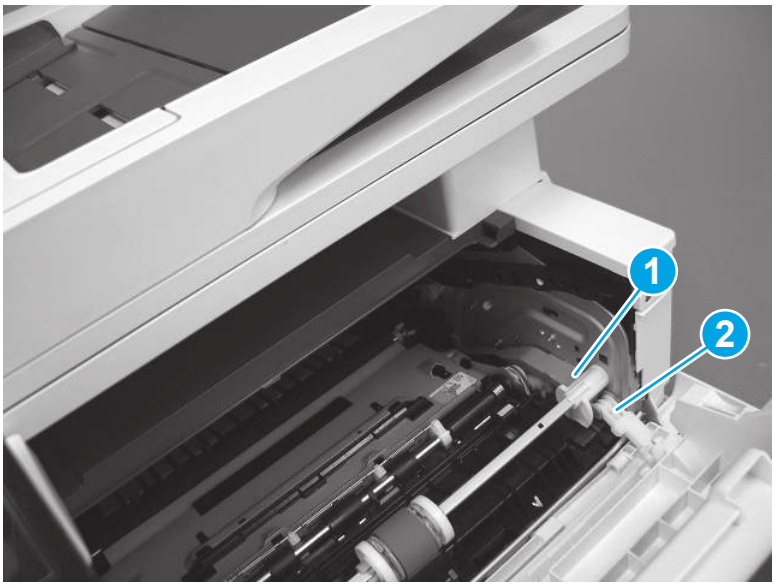
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-928 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-929 Release the pressure-release link



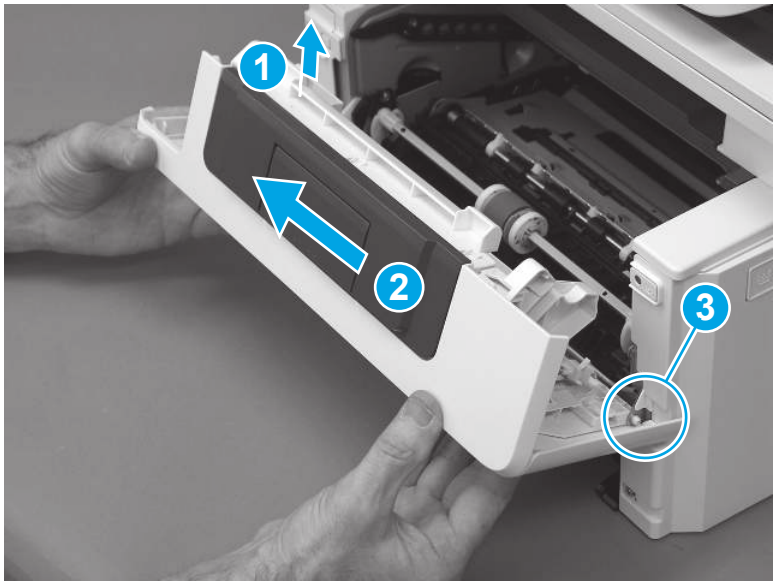
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

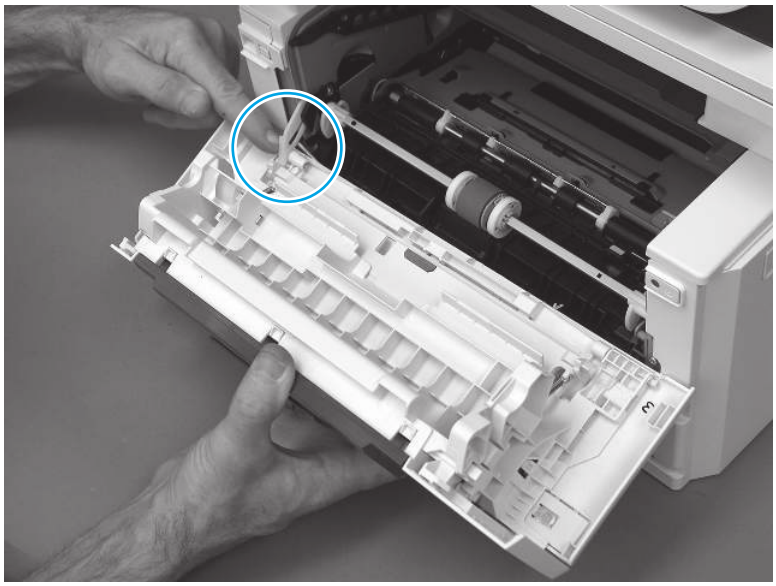
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-930 Release the door



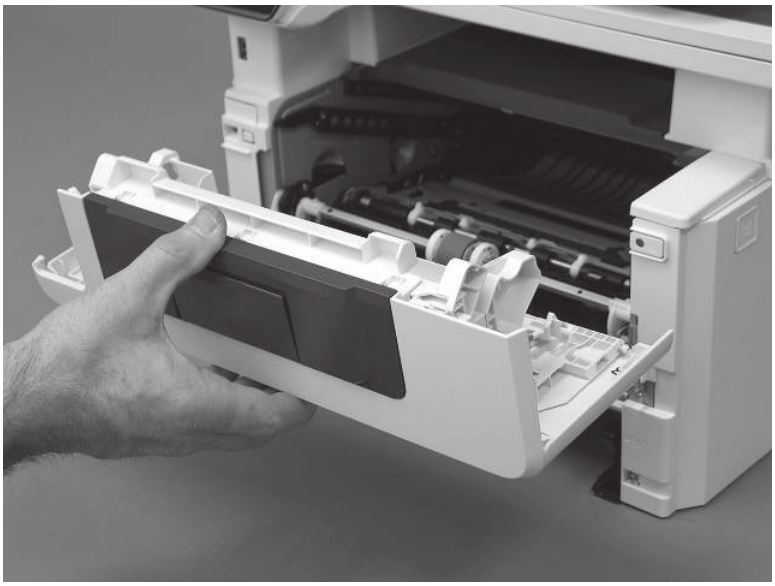
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-931 Release the left-side retainer arm



g. Remove the door.

Figure 4-932 Remove the door



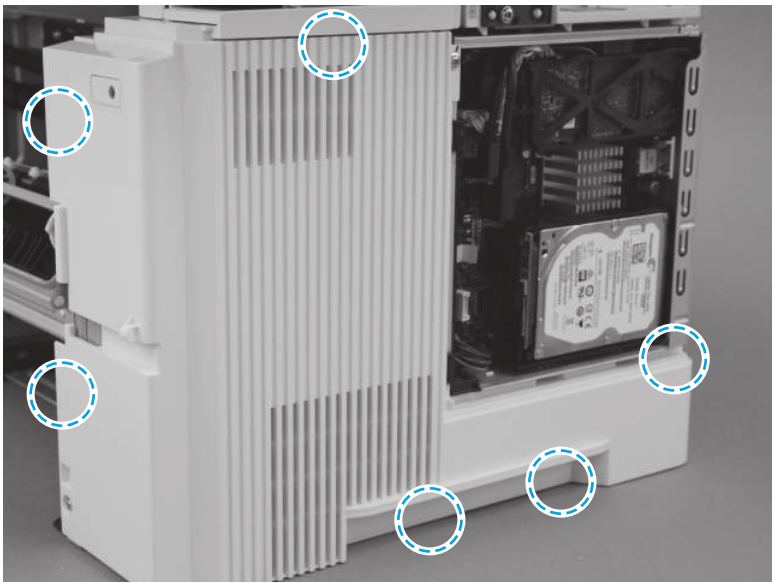
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

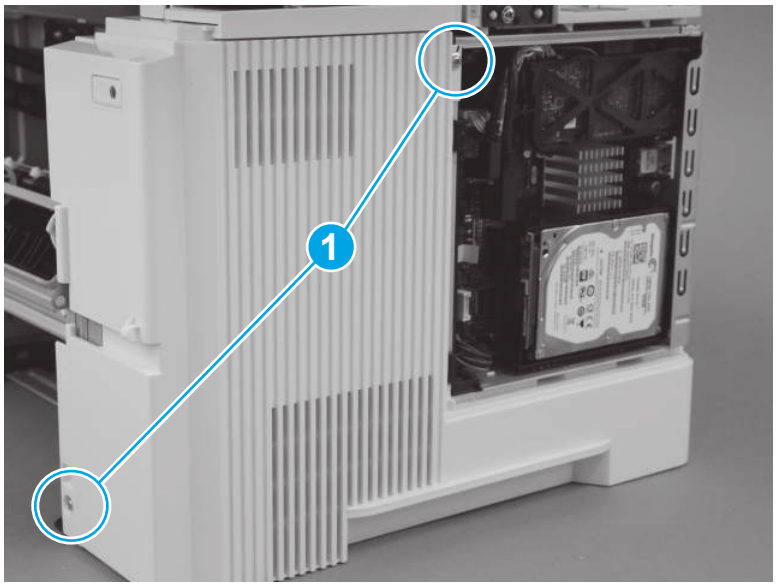
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-933 Locate the tabs and bosses



b. Remove two screws (callout 1).

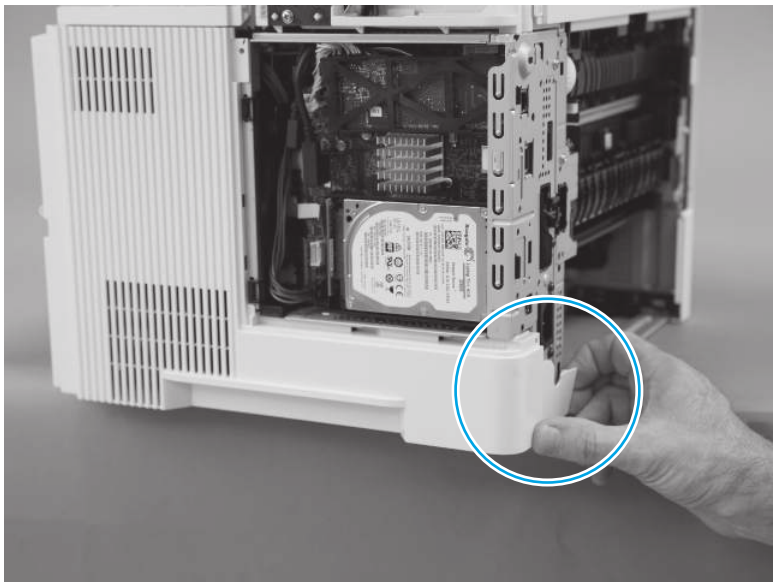
Figure 4-934 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

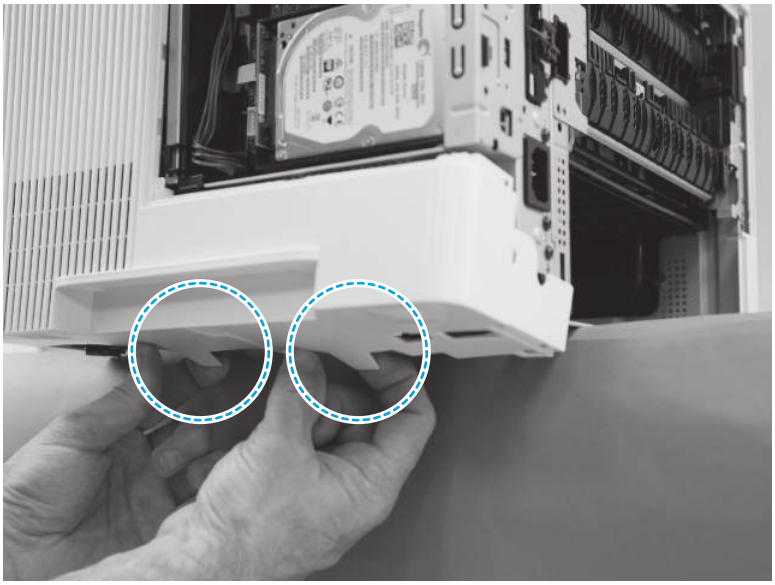
Figure 4-935 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-936 Release two bosses

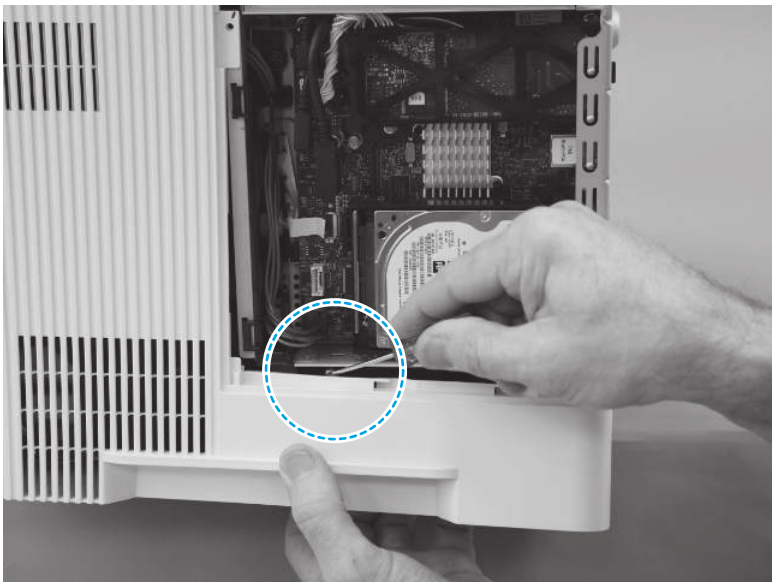


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-937 Release one tab

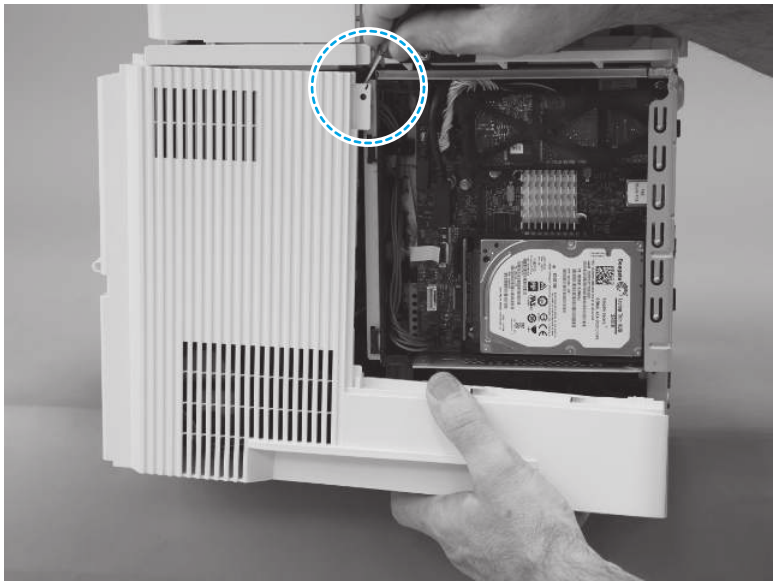


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

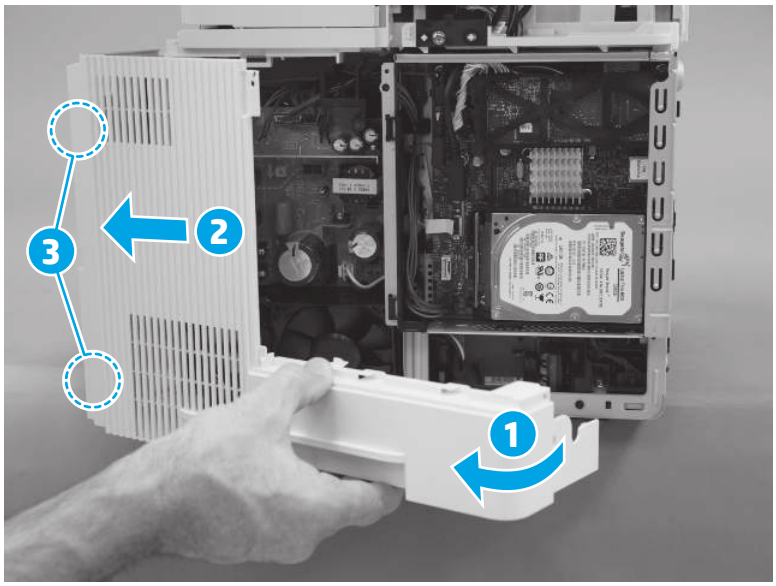
Figure 4-938 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-939 Remove the cover



14. Remove the left cover.

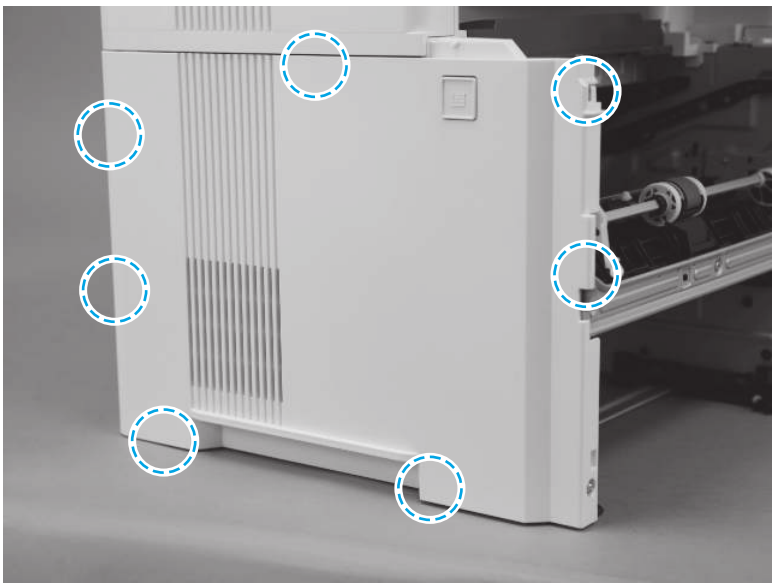
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

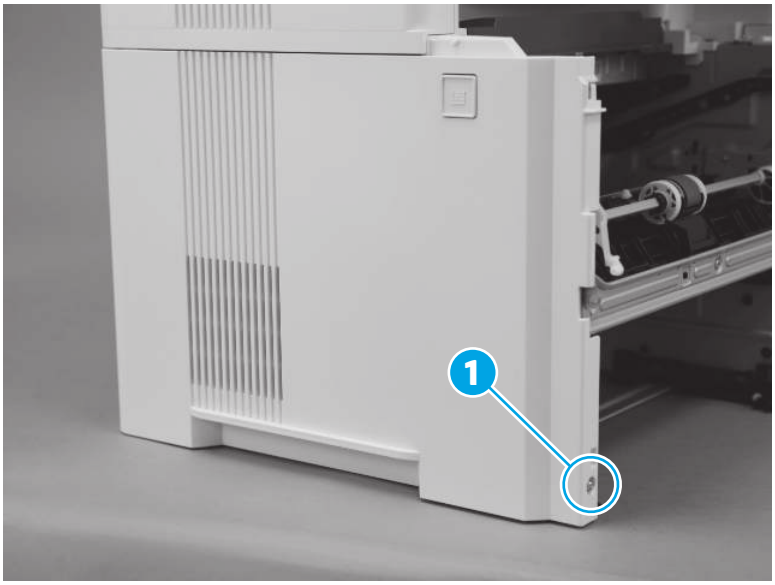
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-940 Locate of the tabs and bosses



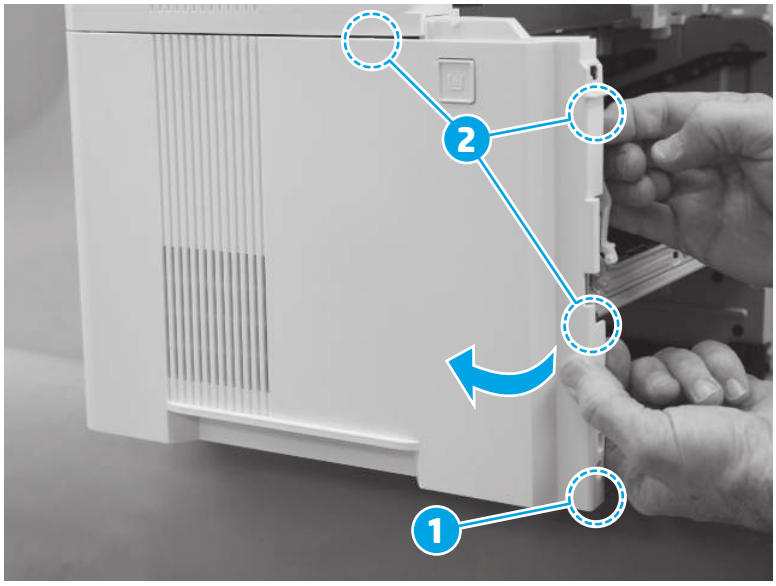
b. Remove one screw (callout 1).

Figure 4-941 Remove one screw



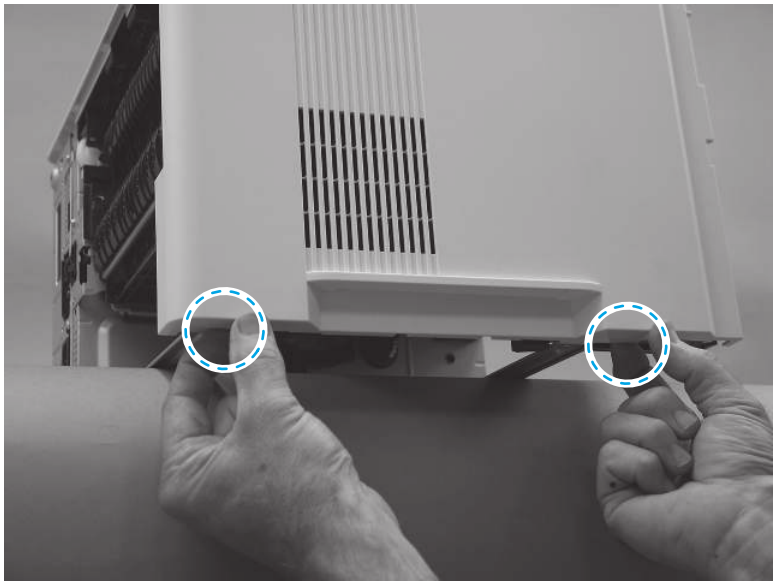
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-942 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

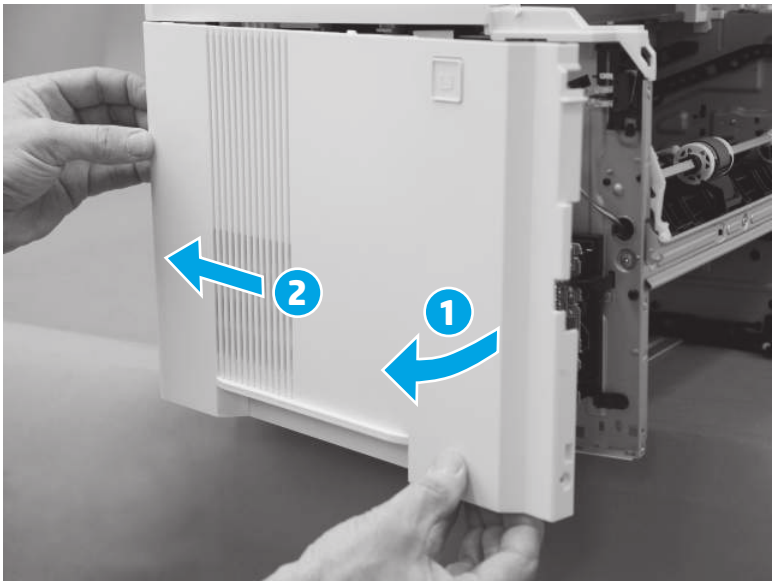
Figure 4-943 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-944 Remove the cover



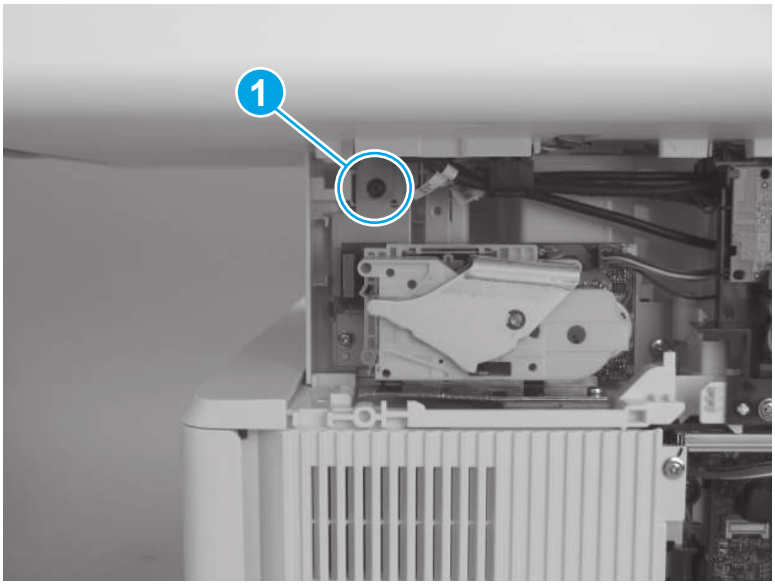
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-945 Remove one screw

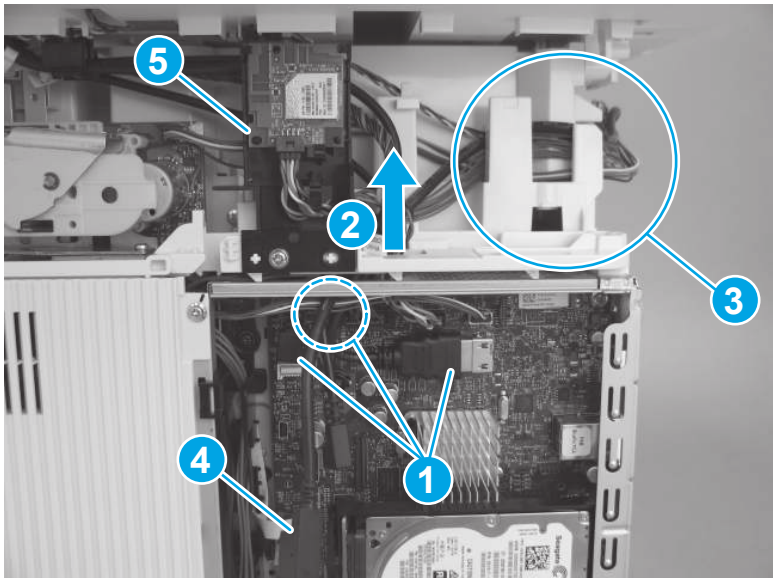


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

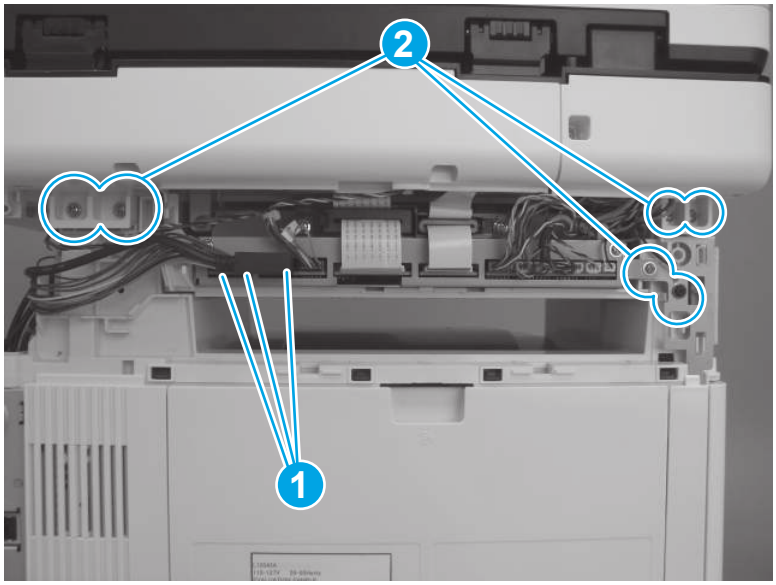
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-946 Disconnect cables and connectors



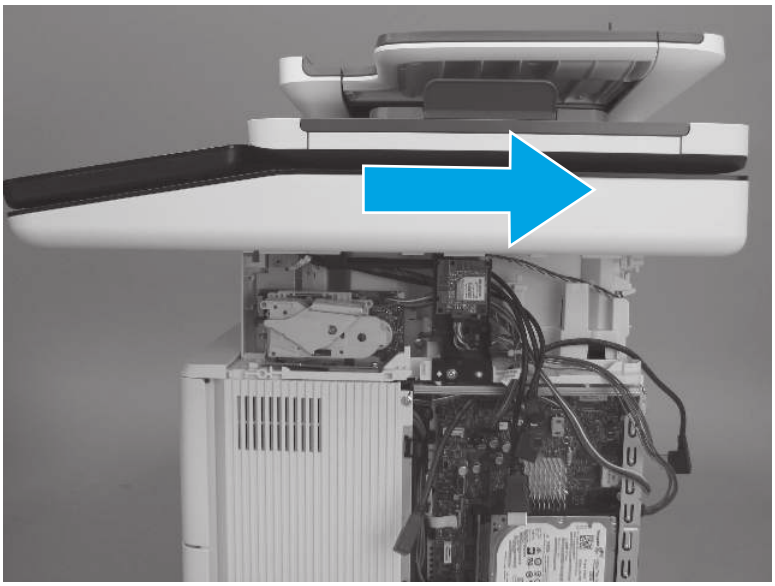
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-947 Disconnect connectors and remove screws



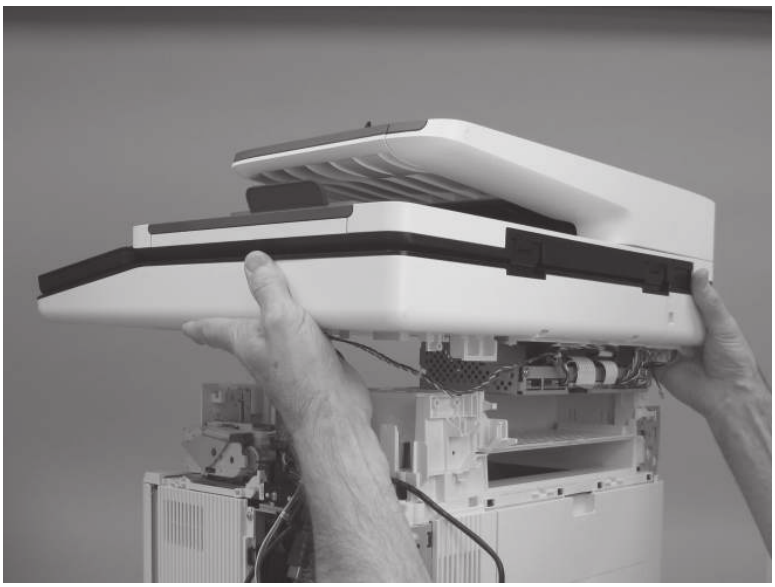
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-948 Slide the ISA towards the back of the printer



e. Remove the ISA.

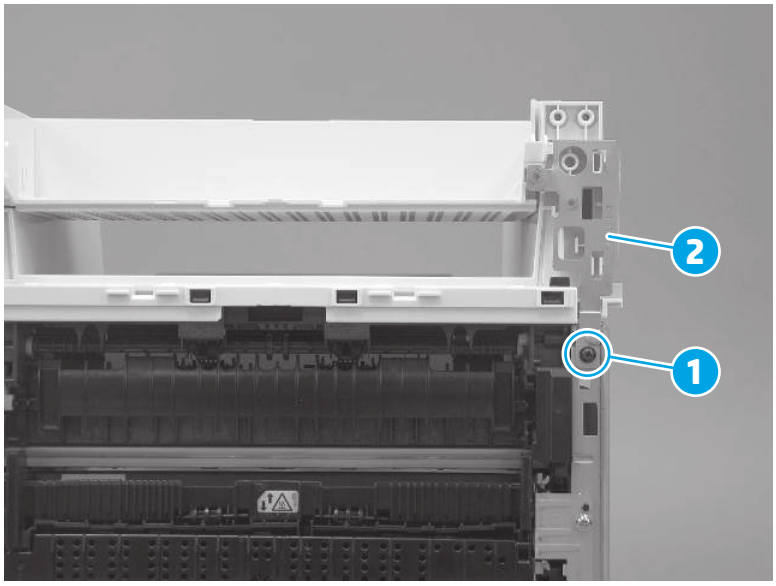
Figure 4-949 Remove the ISA



16. Remove the top cover (M527/E52545/M528/E52645).

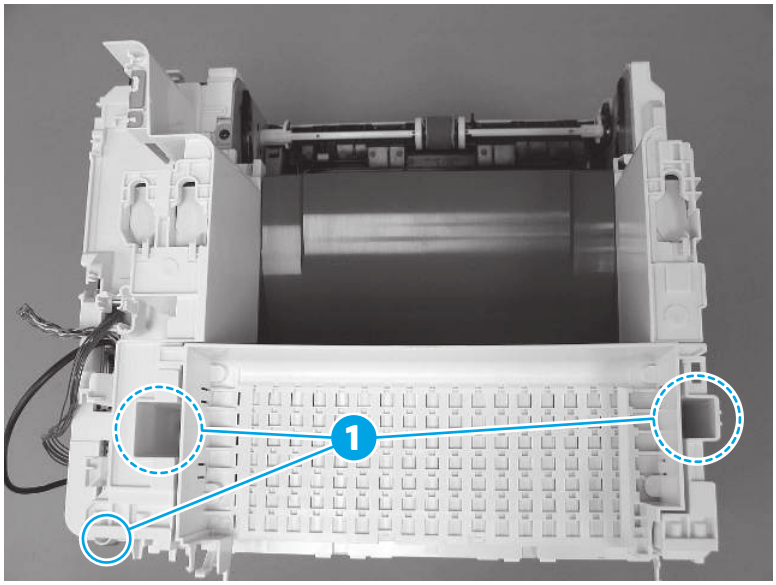
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-950 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

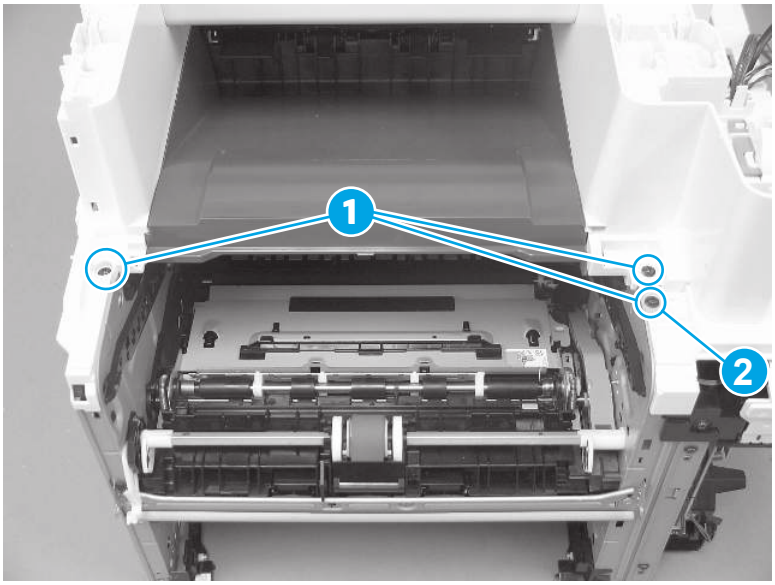
Figure 4-951 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

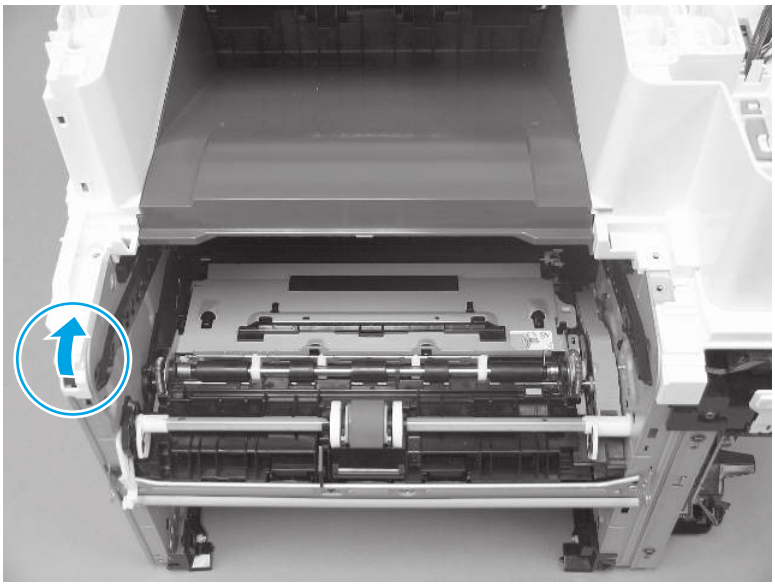
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-952 Remove three screws



d. At the front left of the printer, release one boss.

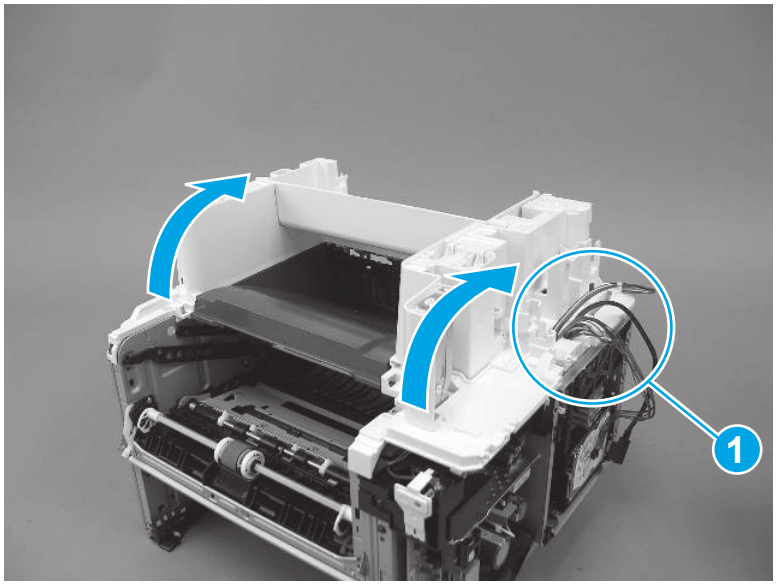
Figure 4-953 Release one boss



e. Rotate the front of the cover up and away from the printer.

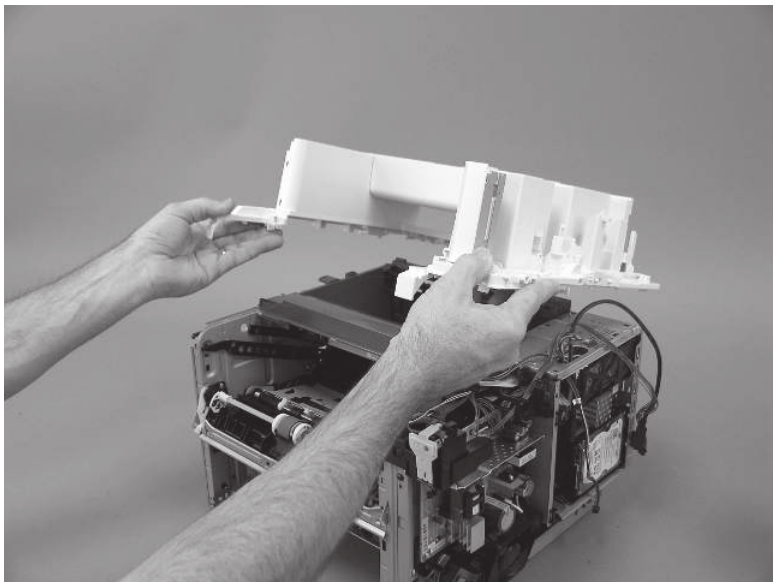
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-954 Rotate the front of the cover up



f. Remove the cover.

Figure 4-955 Remove the cover

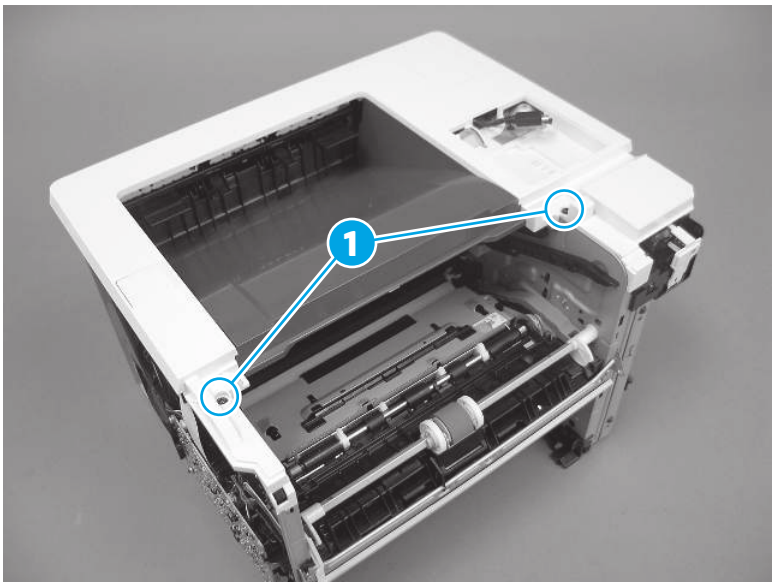


17. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

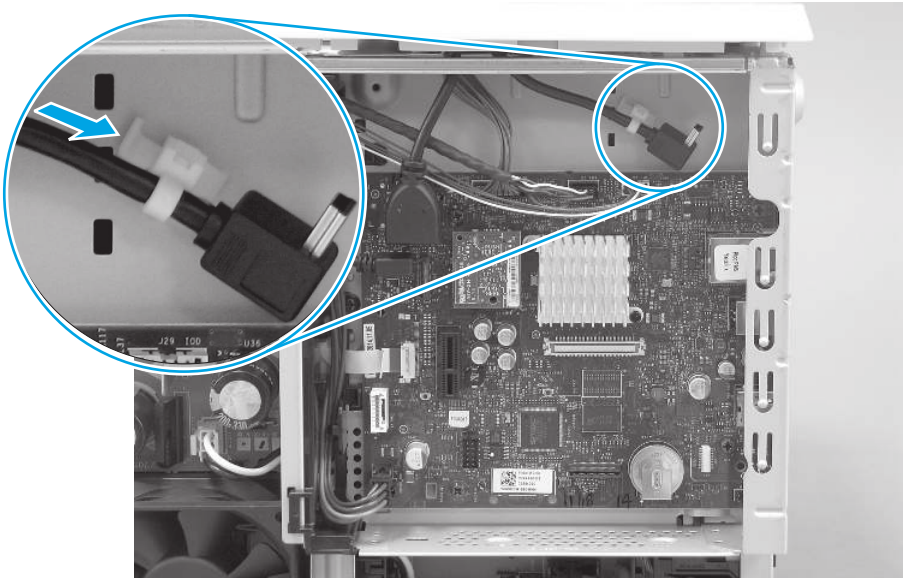
Figure 4-956 Remove two screws



b. **M506/E50045/ only:** Release one cable retainer from the chassis.

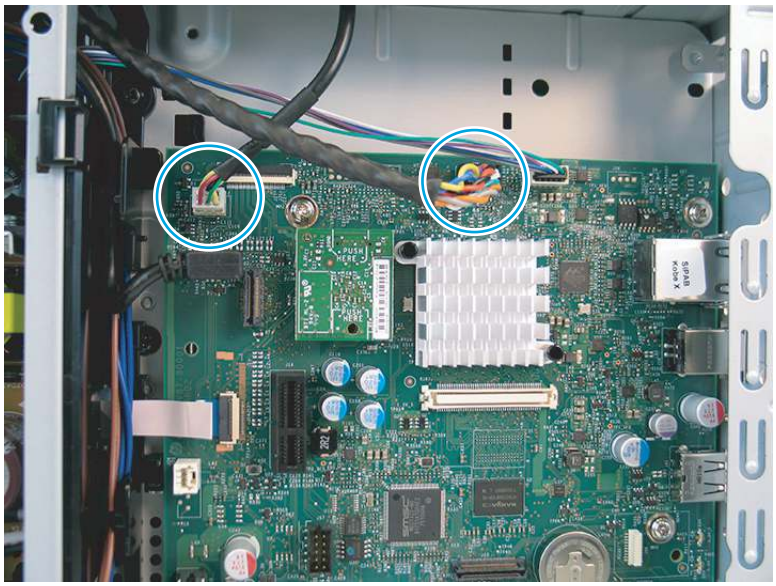
TIP: Depress the tab on the retainer to release it.

Figure 4-957 Release one cable retainer



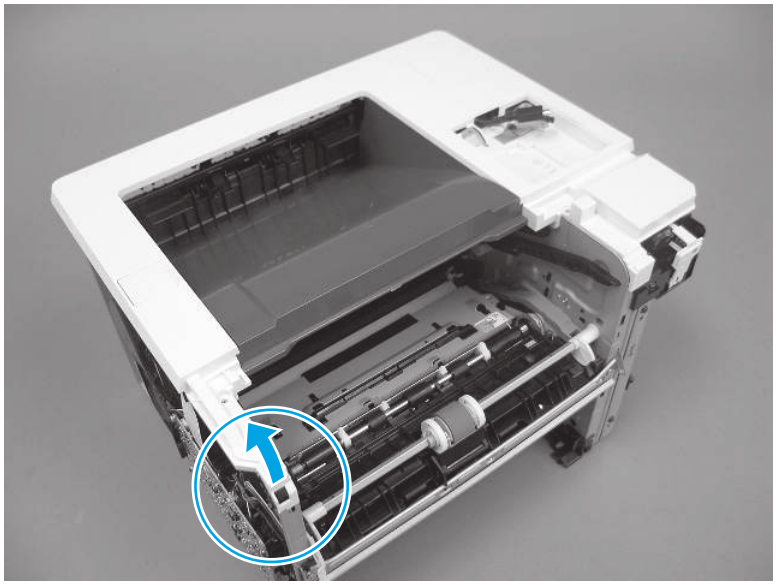
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-958 **Disconnect two connectors**



d. Release one boss.

Figure 4-959 **Release one boss**

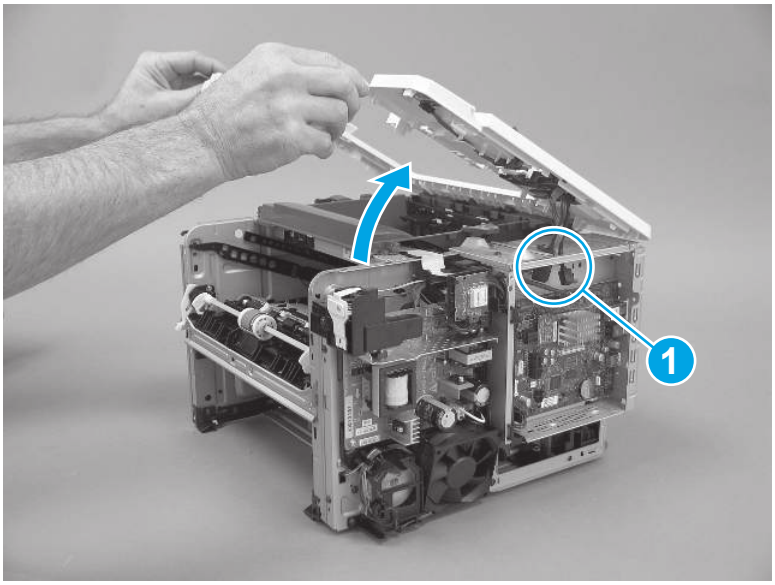


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

⚠ CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-960 Remove the cover (M506/E50045)



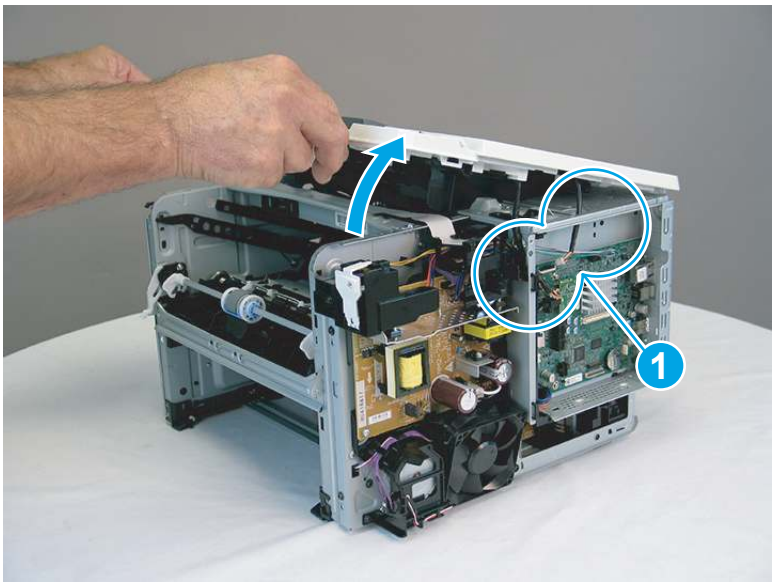
f. **M507/E50145only:** Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only:** As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only:** Disconnect the control panel before removing the cover.

Figure 4-961 Remove the cover (M507/E50145)

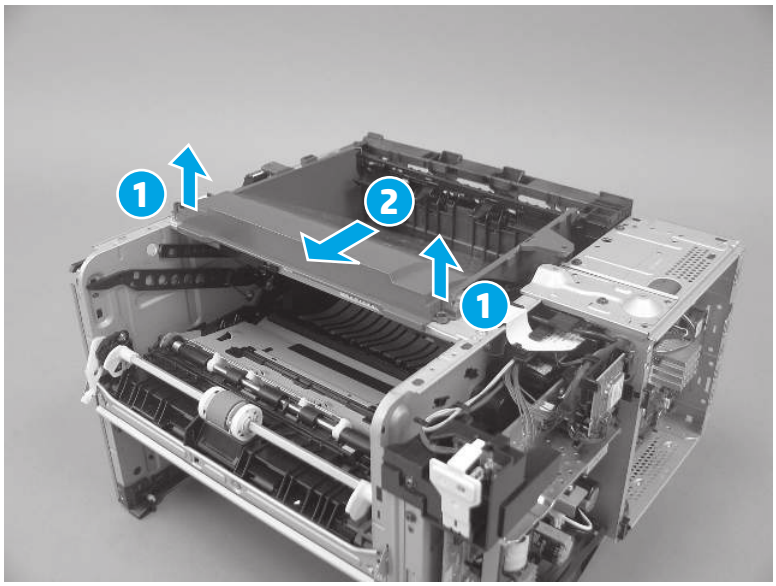


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

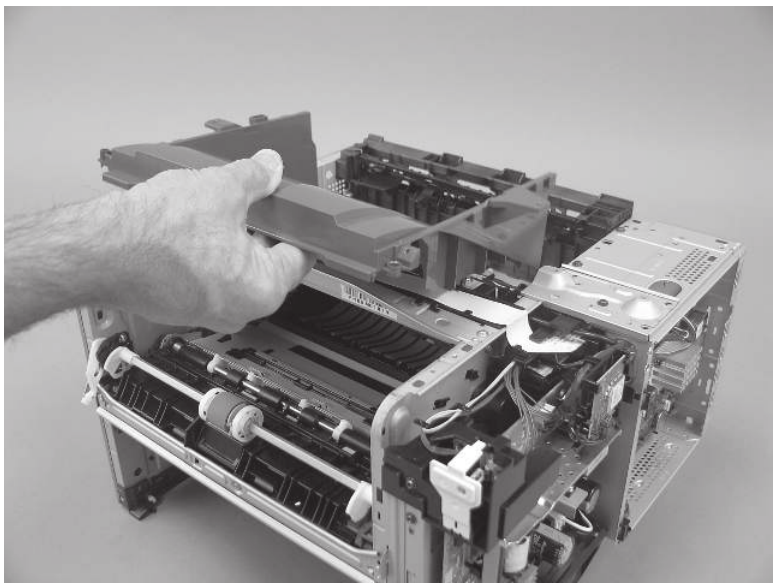
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-962 Release two tabs



b. Remove the bin.

Figure 4-963 Remove he bin

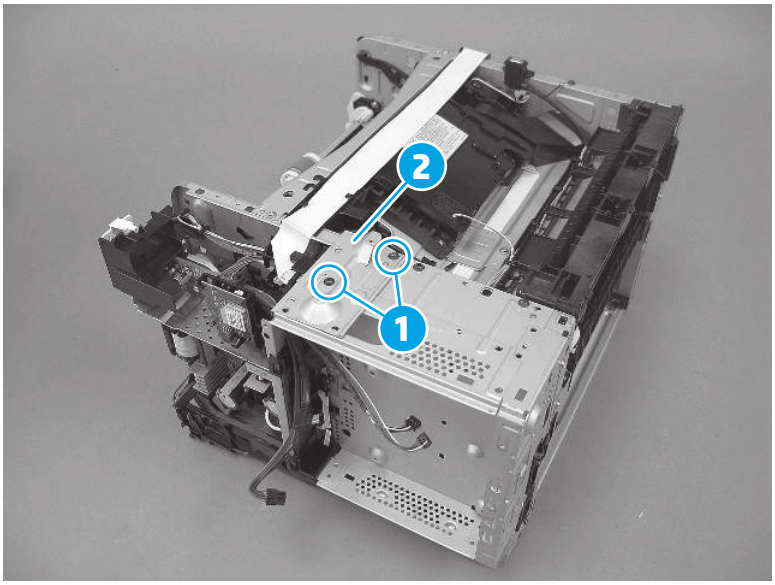


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

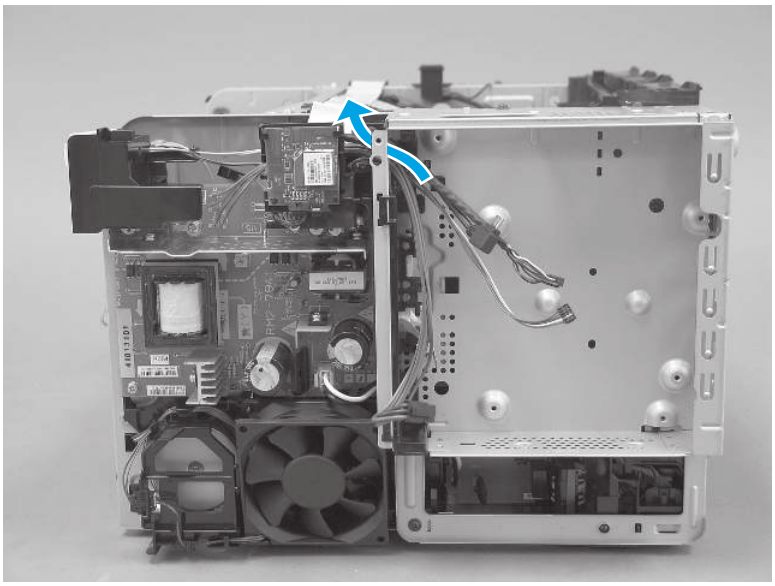
Figure 4-964 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

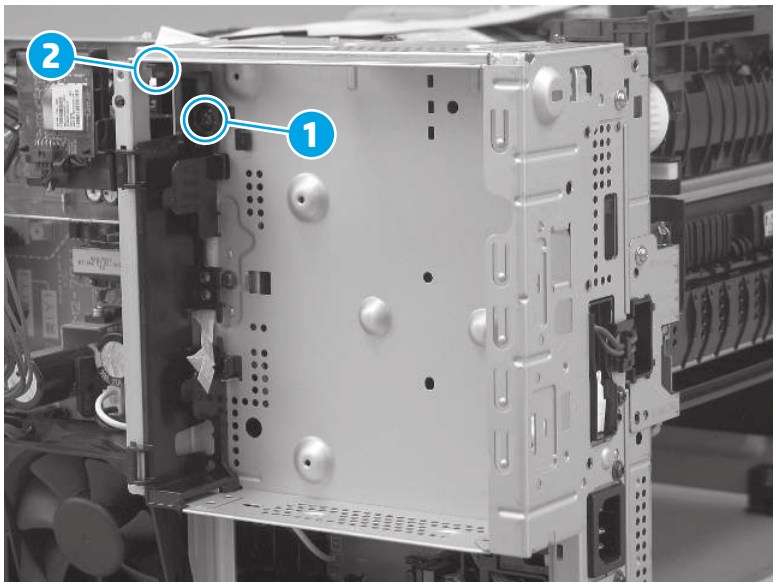
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-965 **Pass all cables and wire harnesses through the opening**



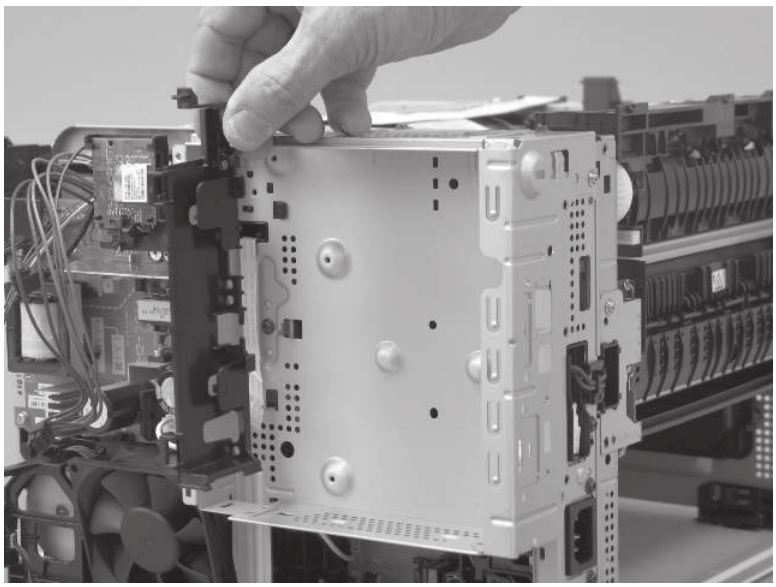
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-966 Remove one screw



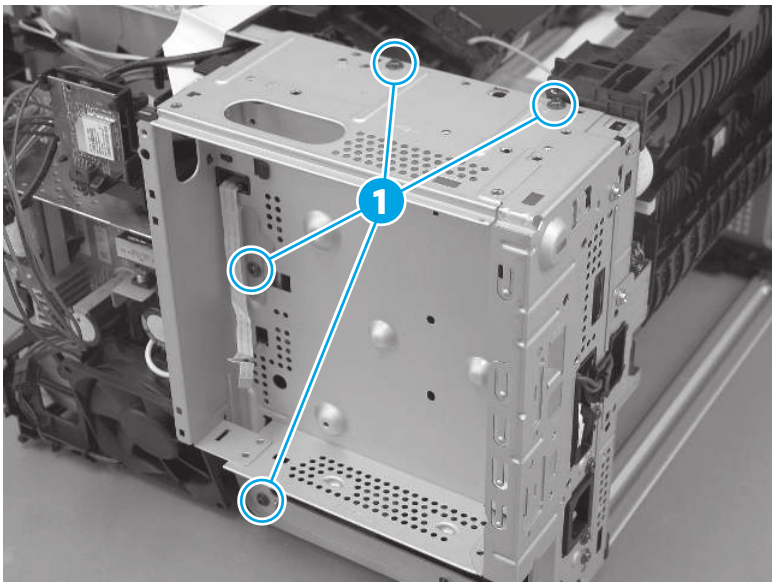
d. Remove the guide.

Figure 4-967 Remove the guide



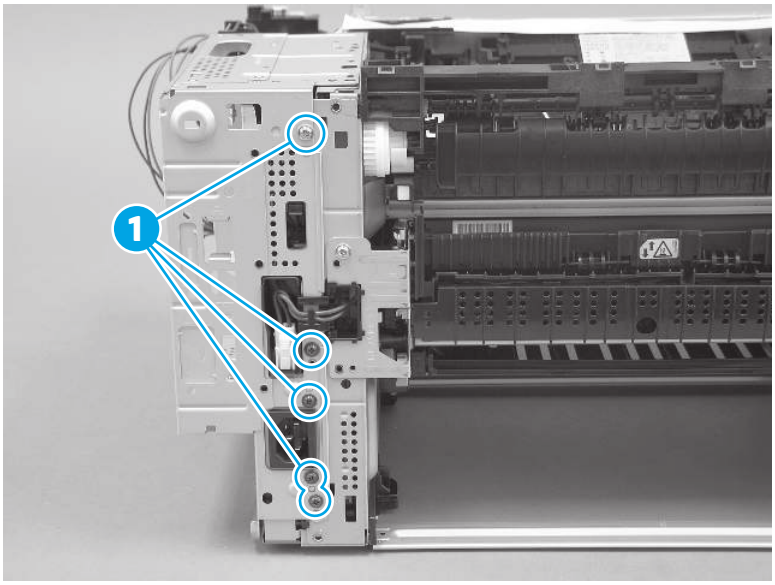
e. Remove four screws (callout 1).

Figure 4-968 Remove four screws



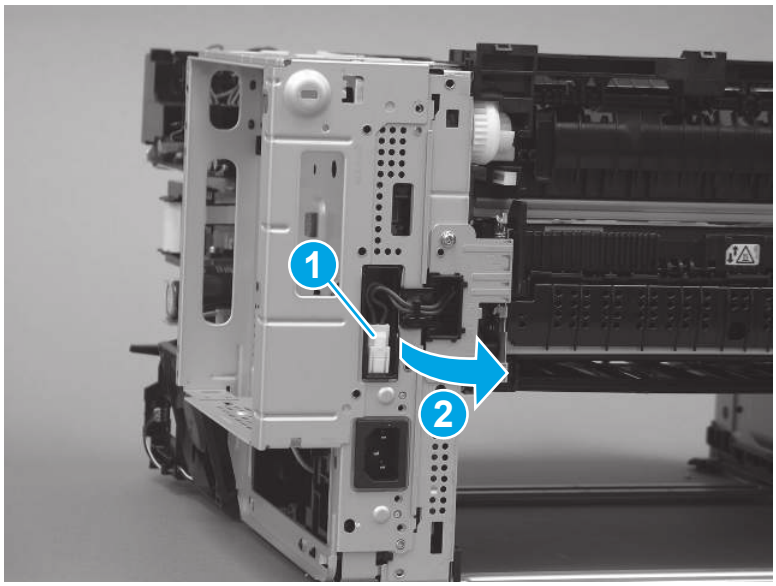
f. Remove five screws (callout 1).

Figure 4-969 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

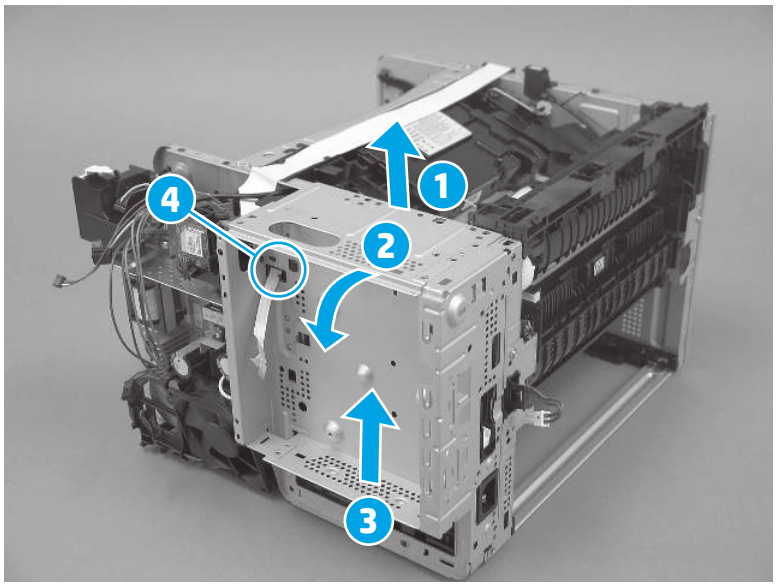
Figure 4-970 **Disconnect one connector**



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

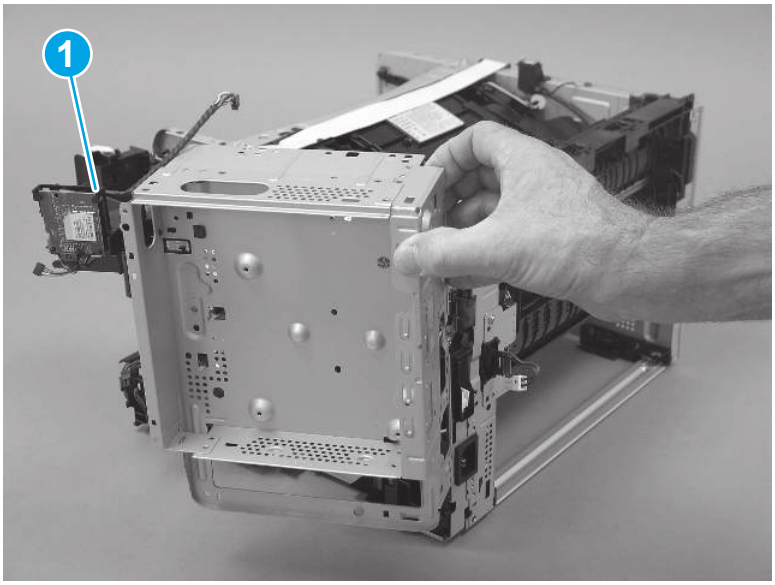
Figure 4-971 **Release the formatter case**



i. Remove the formatter case.

NOTE: **WiFi models only**: If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

Figure 4-972 Remove the formatter case



20. Remove the DC controller (DCC).

⚠ CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

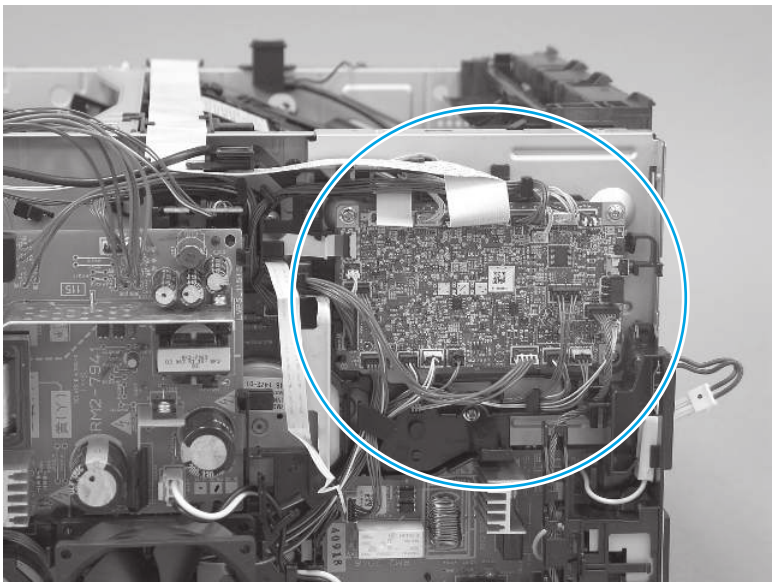
If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

a. Disconnect all of the connectors and flat-flexible cables (FFCs) on the DC controller (DCC).

NOTE: The number and type of connectors and FFCs depends on the printer model.

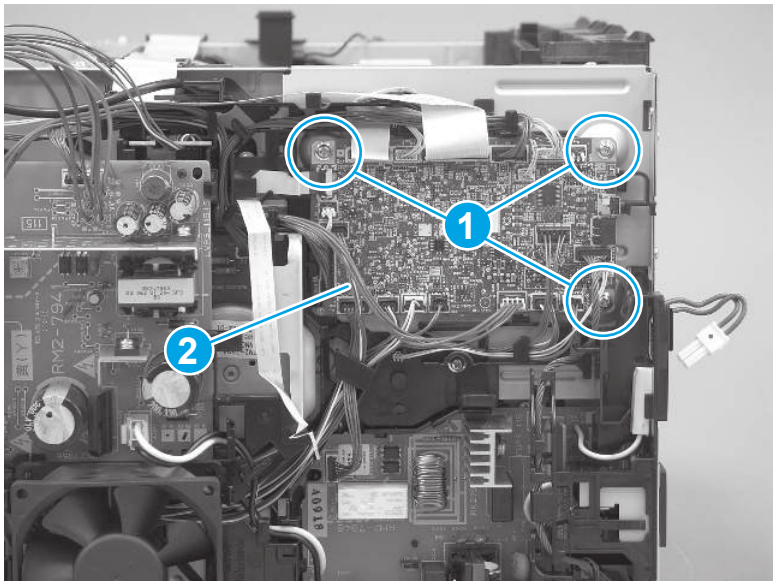
A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-973 Disconnect all connectors and FFCs



b. Remove three screws (callout 1), and then remove the DCC (callout 2).

Figure 4-974 Remove the DCC



21. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: High-voltage power supply

Learn how to remove and replace the high-voltage power supply (HVPS).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the HVPS.

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-41 Part information

Part number	Part description
RM2-7945-000CN	High-voltage power supply (HVPS)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

1. Remove the tray.

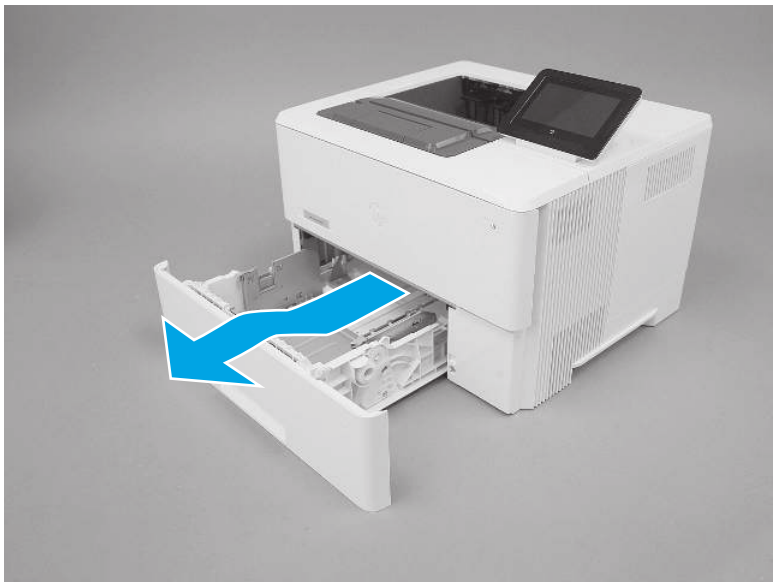
a. Pull the tray straight out of the printer until it stops.

Figure 4-975 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-976 **Release and remove the tray**



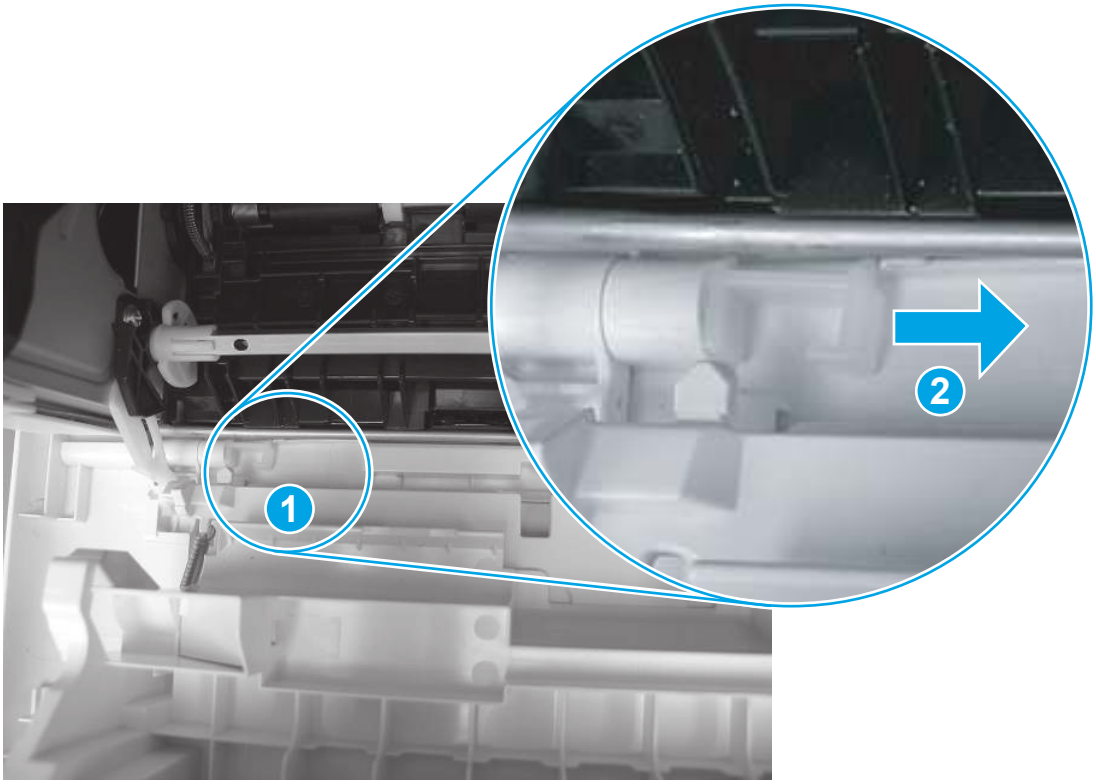
2. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

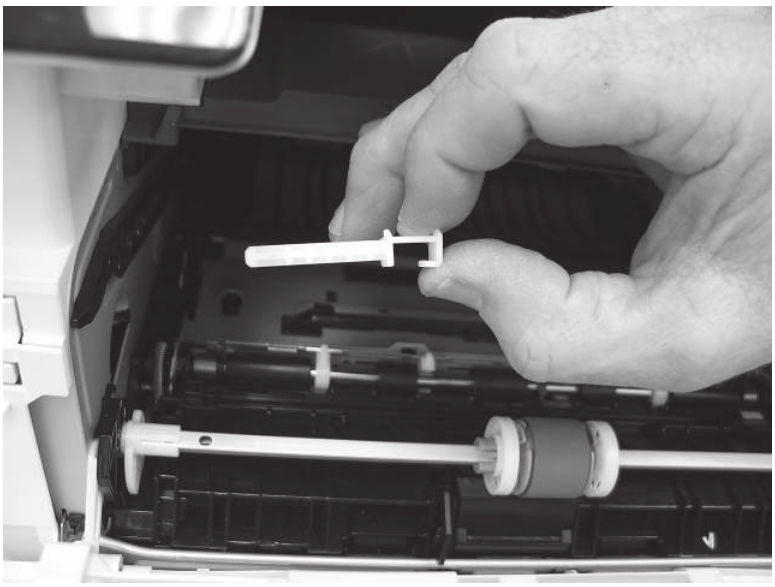
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-977 Release the support shaft



b. Remove the support shaft.

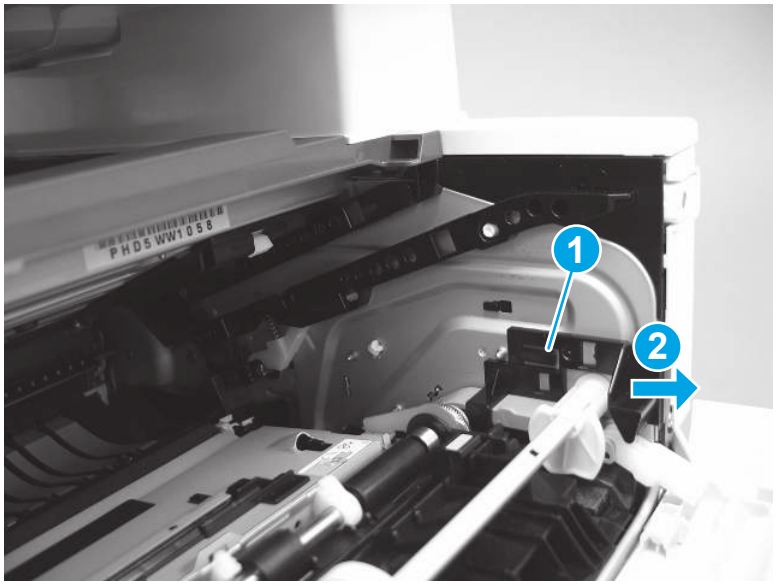
Figure 4-978 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

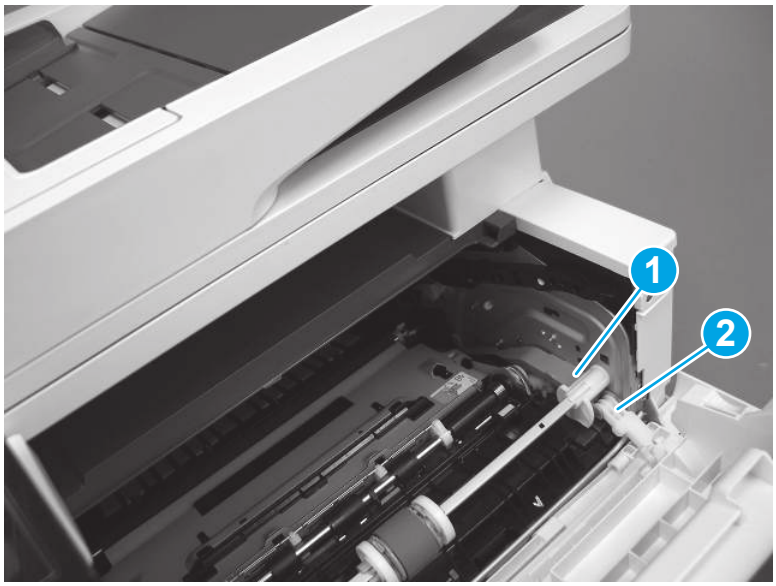
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-979 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-980 Release the pressure-release link



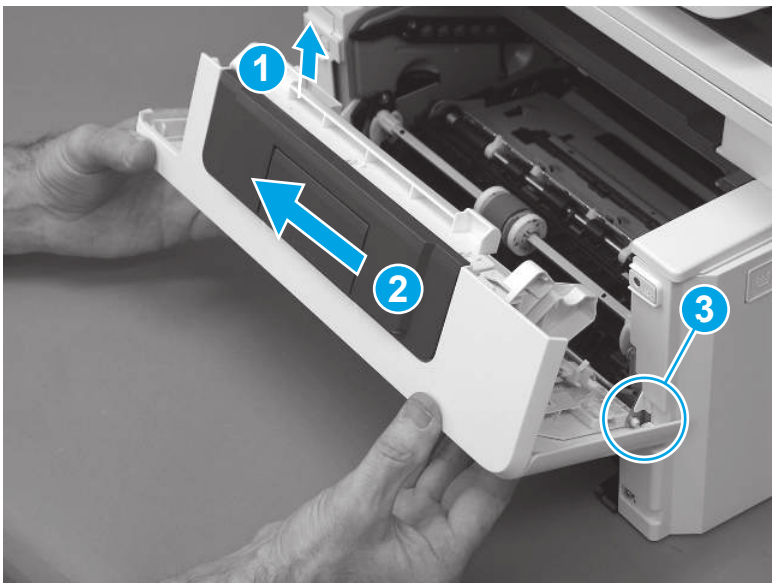
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

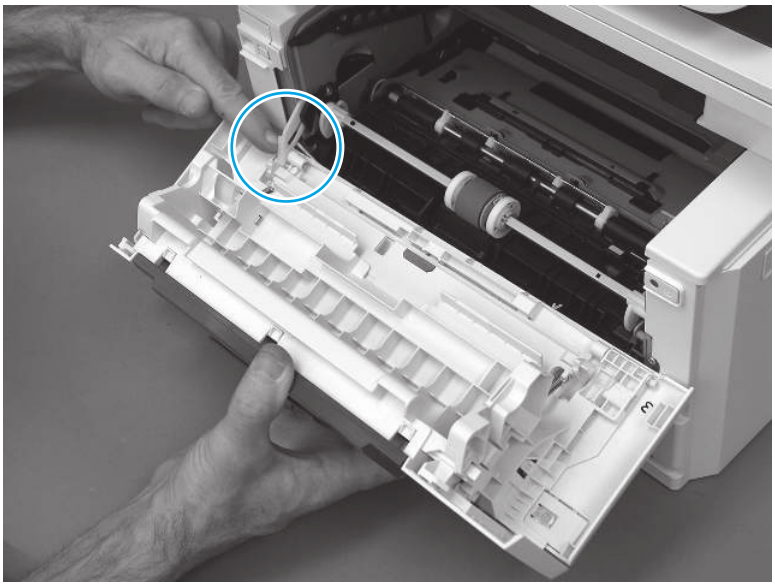
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-981 Release the door



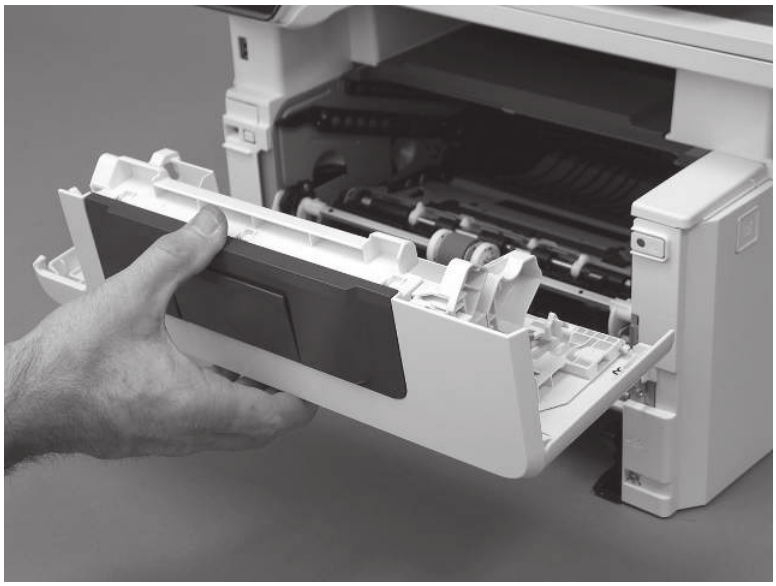
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-982 Release the left-side retainer arm



g. Remove the door.

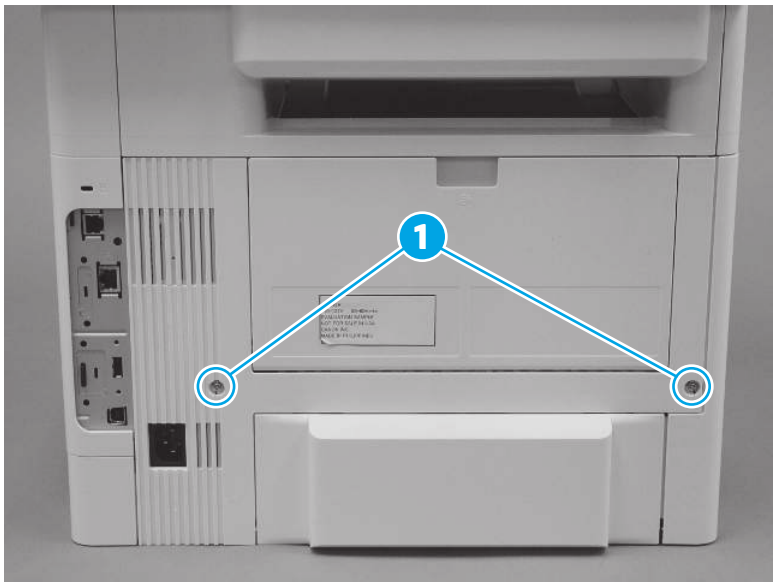
Figure 4-983 Remove the door



3. Remove the rear door assembly.

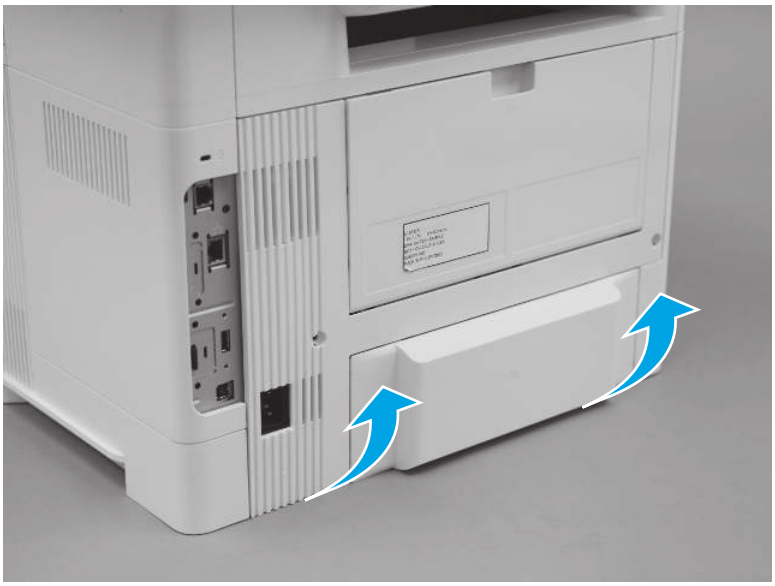
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-984 Remove two screws



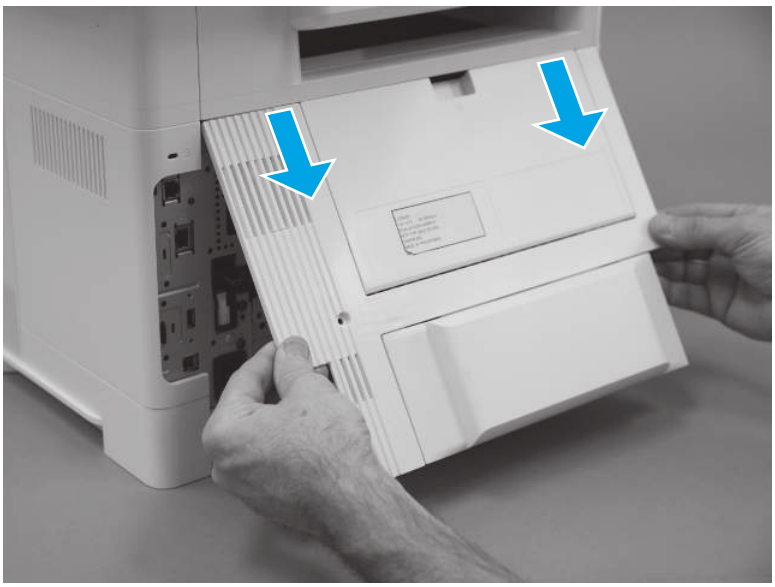
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-985 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-986 Remove the cover



4. Remove the left cover.

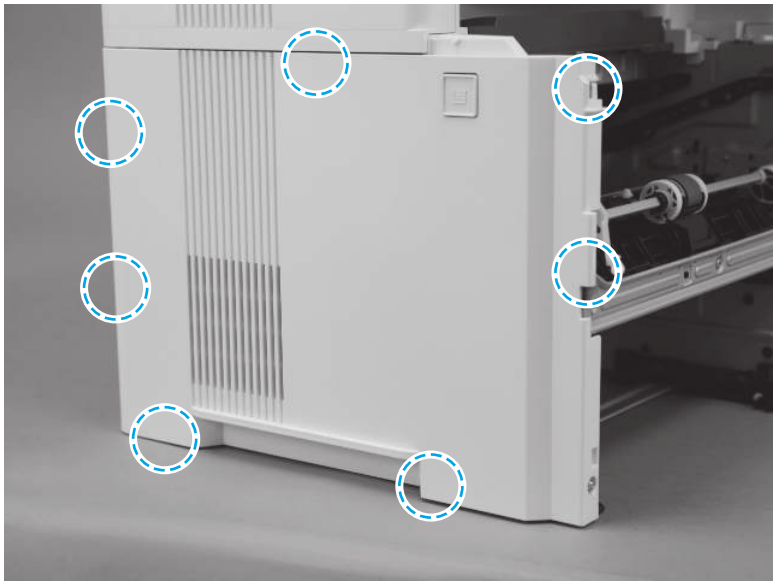
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

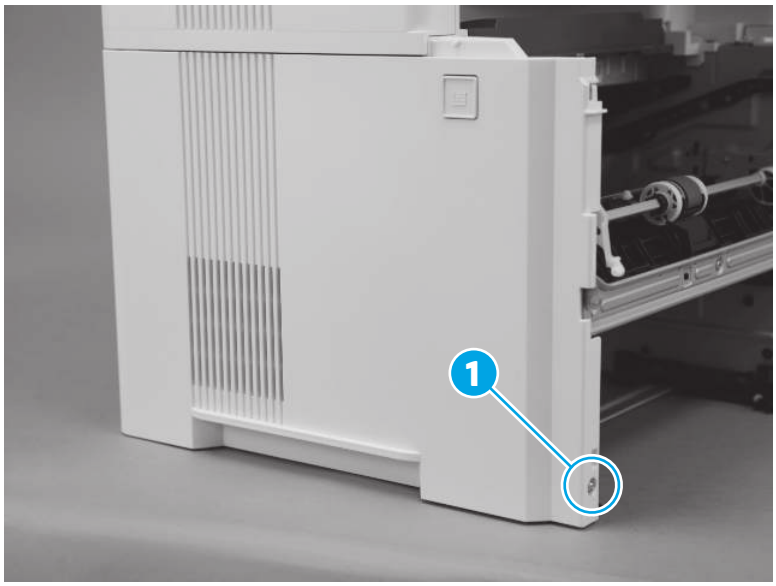
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-987 Locate of the tabs and bosses



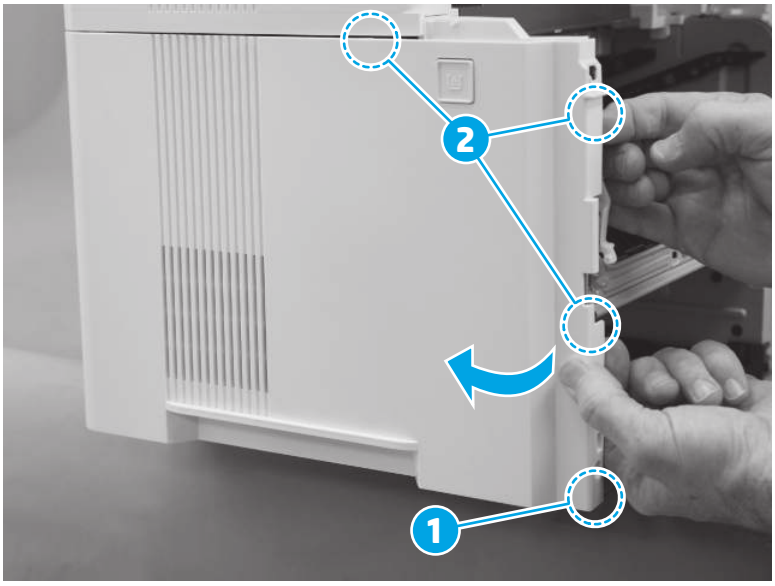
b. Remove one screw (callout 1).

Figure 4-988 Remove one screw



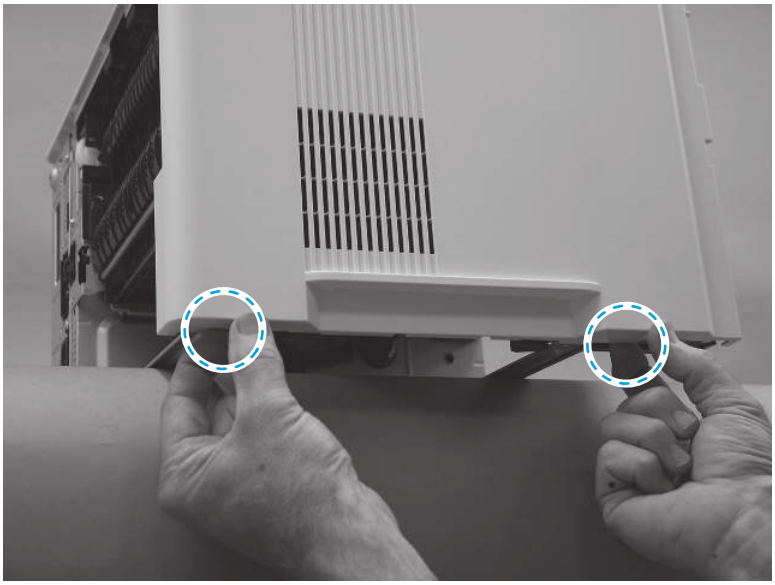
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-989 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

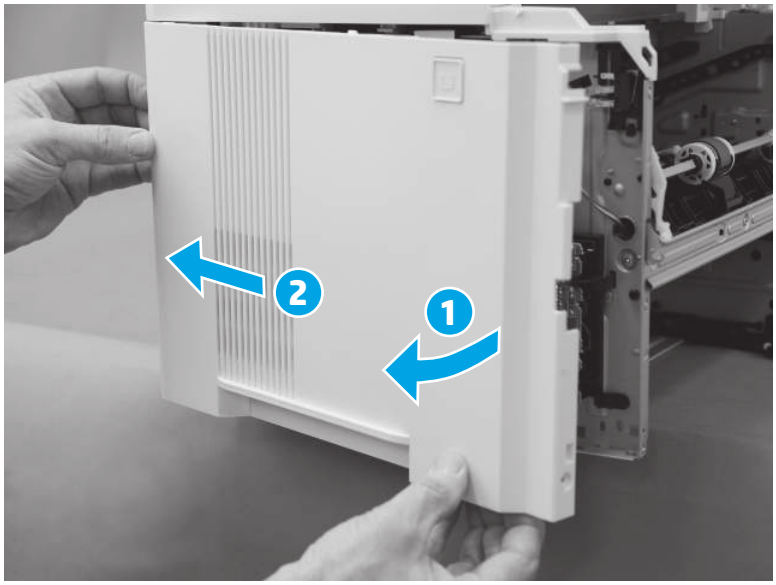
Figure 4-990 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-991 Remove the cover



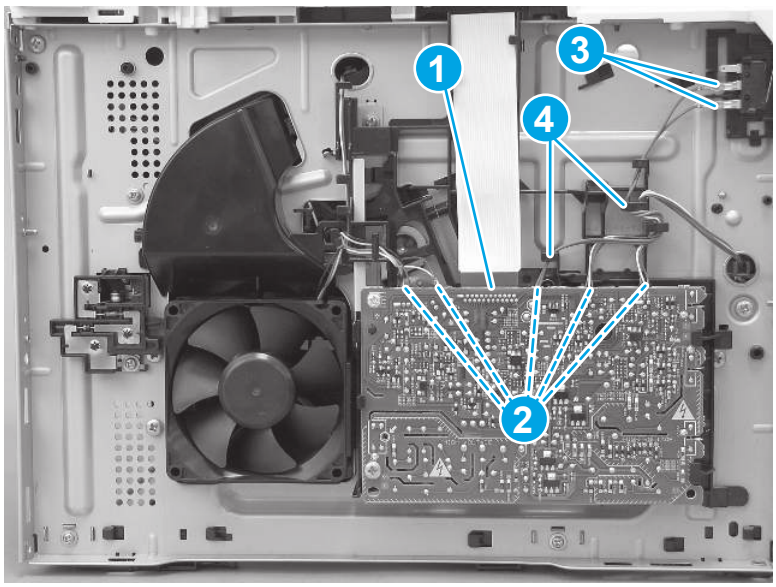
5. Remove the HVPS.

   a. Disconnect one FFC (callout 1), five connectors (callout 2), two wire-harness lugs (callout 3), and then release the wire harness from the retainers (callout 4).

   NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

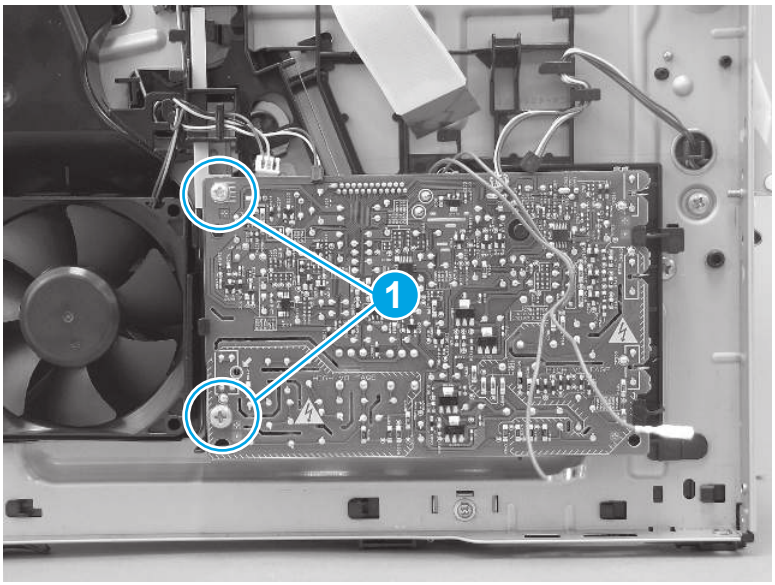
   The microswitch (callout 3) for the M506/E50045/M507/E50145 only has two wire-harness terminals.

Figure 4-992 Disconnect the connectors



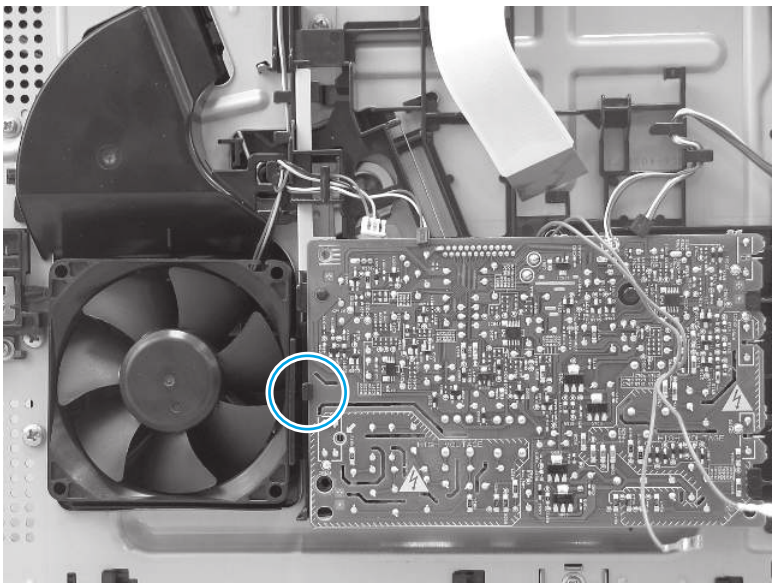
b. Remove two screws (callout 1).

Figure 4-993 Remove two screws



c. Release one tab.

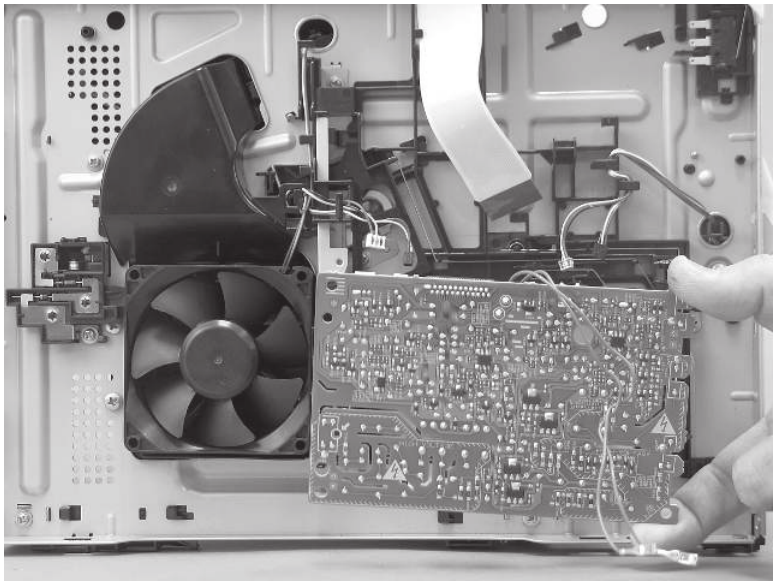
Figure 4-994 Release one tab



d. Remove the HVPS.

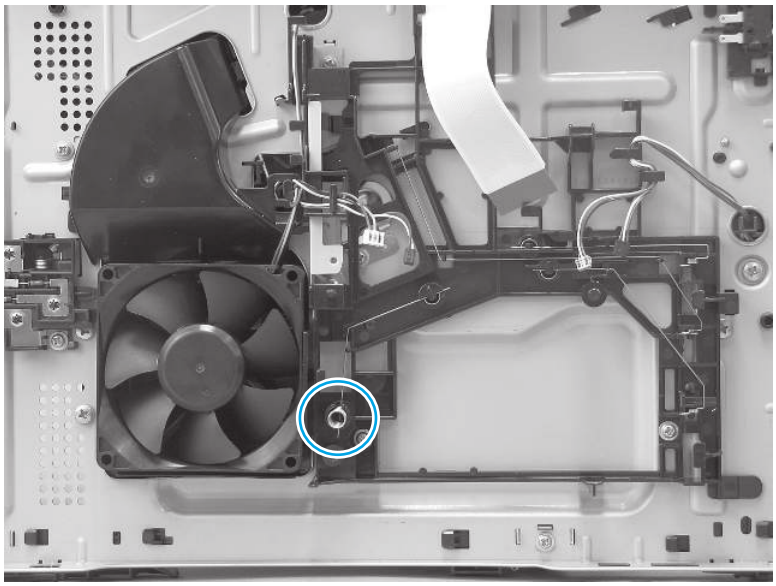
Reinstallation tip: When the HVPS is reinstalled, make sure that the springs on the holder are positioned in the slots on the PCA, and that the PCA is behind the tabs on the holder.

Figure 4-995 Remove the HVPS



e. One spring behind the HVPS is not captive. Do not lose the spring when removing the HVPS.

Figure 4-996 Check the spring



6. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Low-voltage power supply

Learn how to remove and replace the low-voltage power supply (LVPS).

To view a short video of this procedure, click the link below.

M501

View a video of how to remove and replace the LVPS (M051).

M506/E50045

View a video of how to remove and replace the LVPS (M506/E50045).

M507/E50145

View a video of how to remove and replace the LVPS (M507/E50145).

M527/E52545/M528/E52645

View a video of how to remove and replace the LVPS (M527/E52545/M528/E52645).

Mean time to repair: 12 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-42 Part information

Part number	Part description
RM2-7951-000CN	Low-voltage power supply (M527/E52545/M528/E52645; 110V-127V)
RM2-7952-000CN	Low-voltage power supply (M527/E52545/M528/E52645; 220V-240V)
RM2-7941-000CN	Low-voltage power supply (M501/M506/E50045/M507/E50145; 110V-127V)
RM2-7942-000CN	Low-voltage power supply (M501/M506/E50045/M507/E50145; 220V-240V)

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

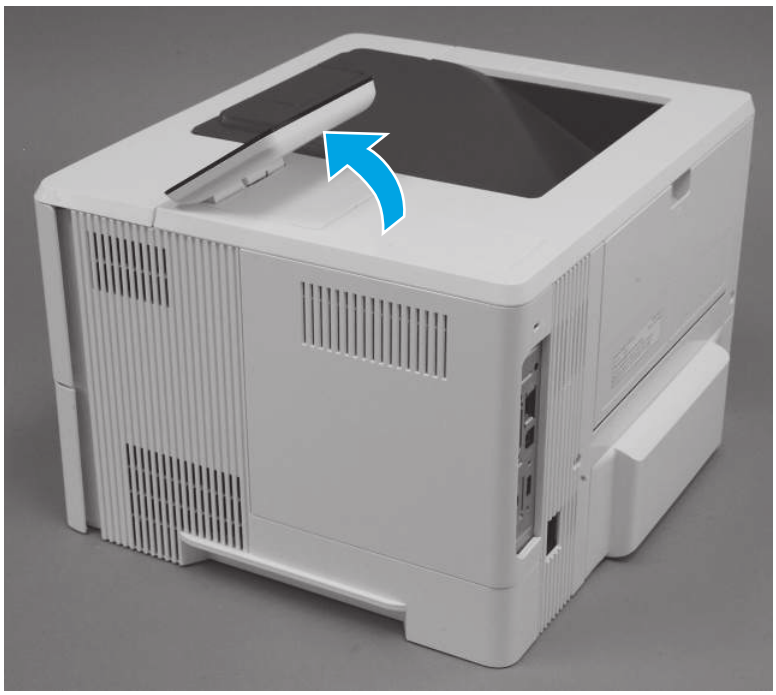
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).
   a. Tilt the control panel to the fully raised position.

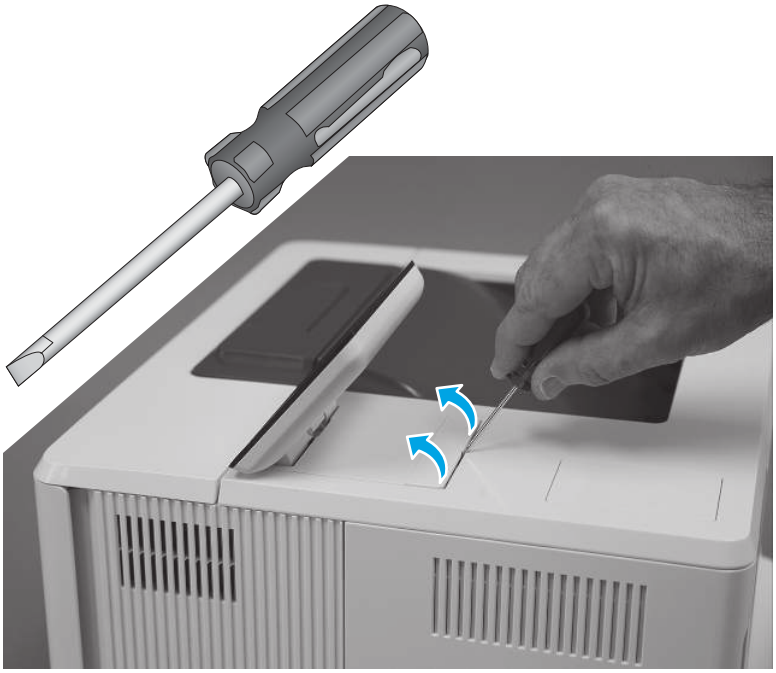
   Figure 4-997 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

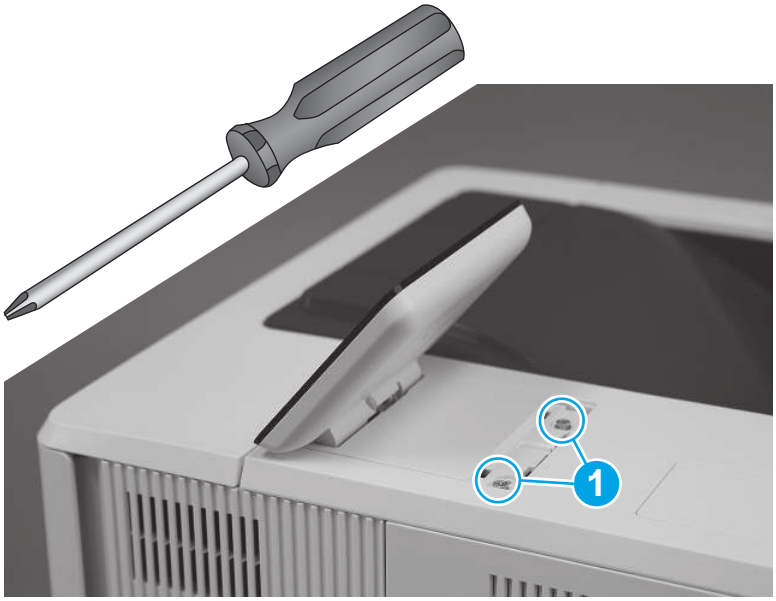
Figure 4-998 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

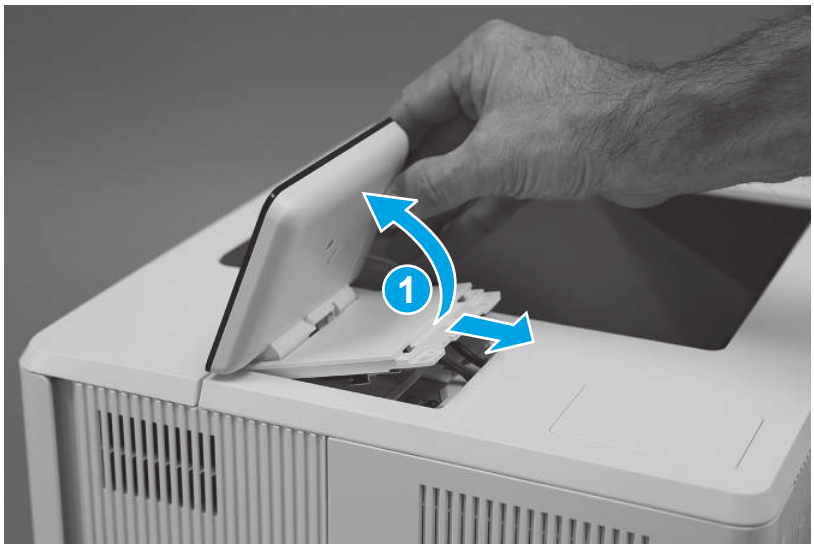
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-999 Remove two screws



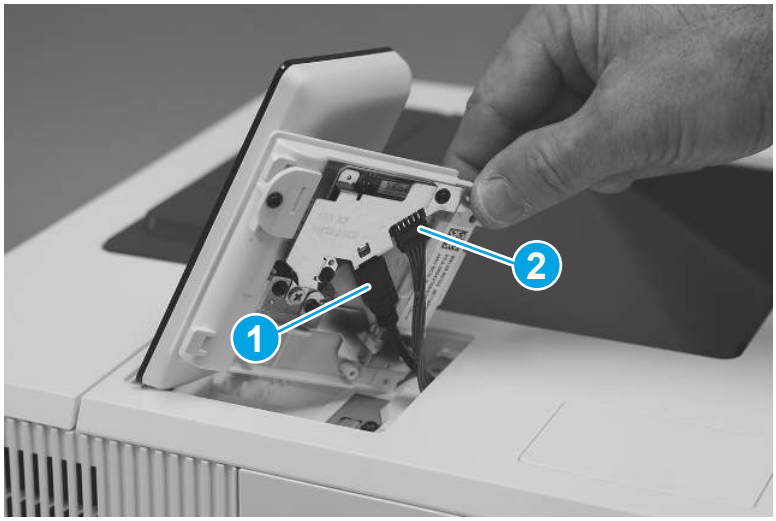
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-1000 **Turn the control panel over**



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-1001 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-1002 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-1003 **Remove the control panel (M507/E50145)**

2. Remove the tray.

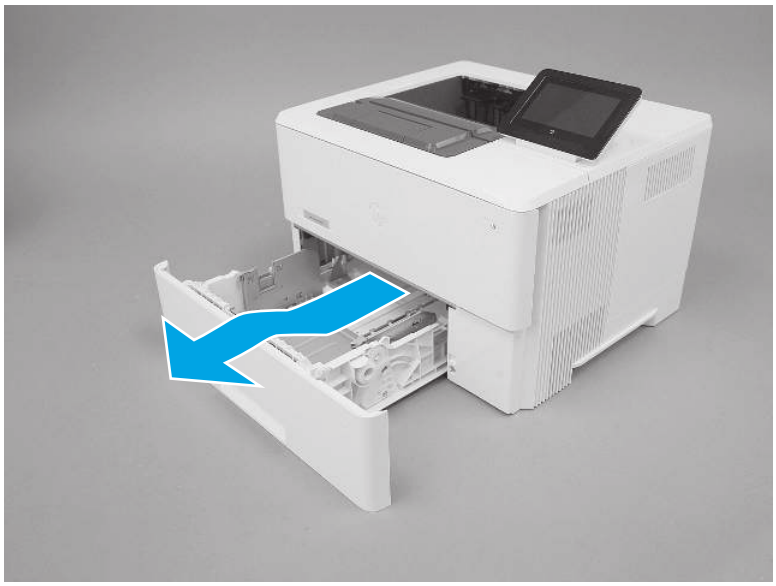
a. Pull the tray straight out of the printer until it stops.

Figure 4-1004 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1005 **Release and remove the tray**

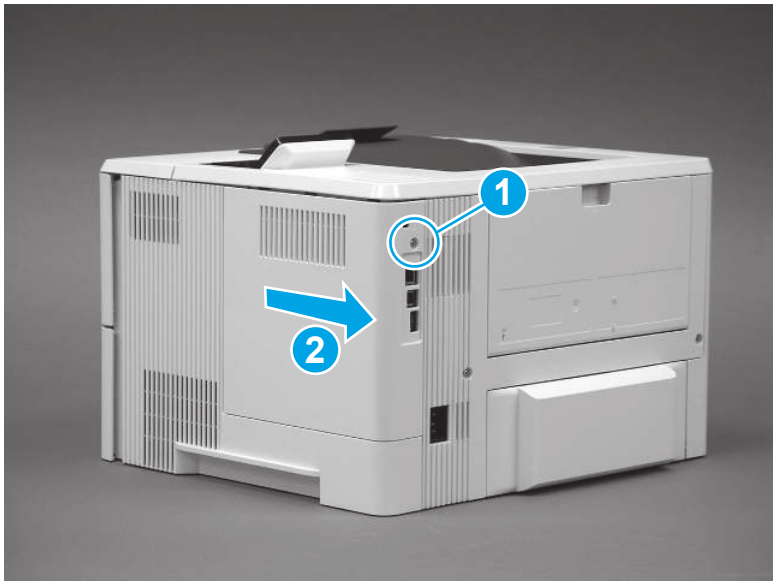


3. Remove the formatter cover.

- Do one of the following:

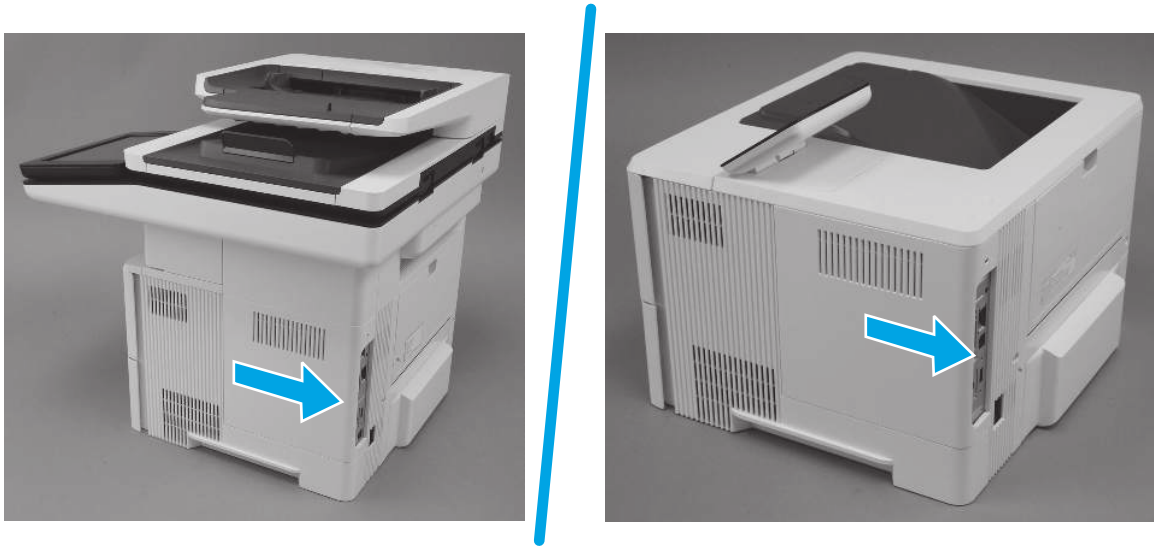
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1006 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-1007 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

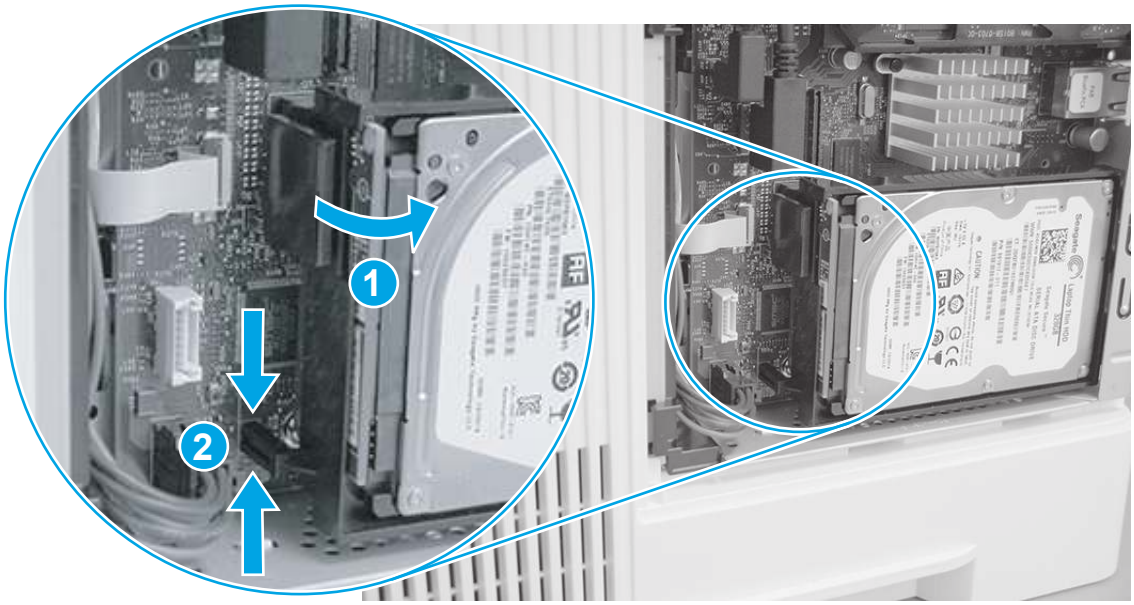


4. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

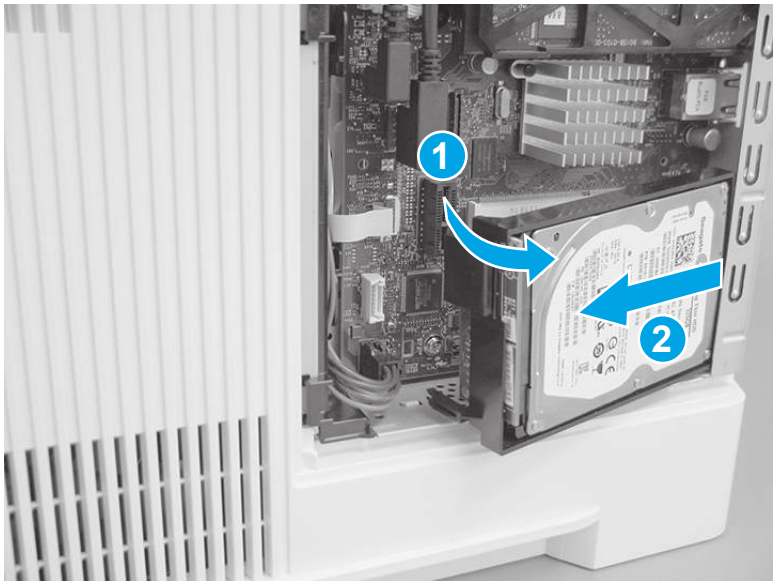
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-1008 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1009 Remove the HDD

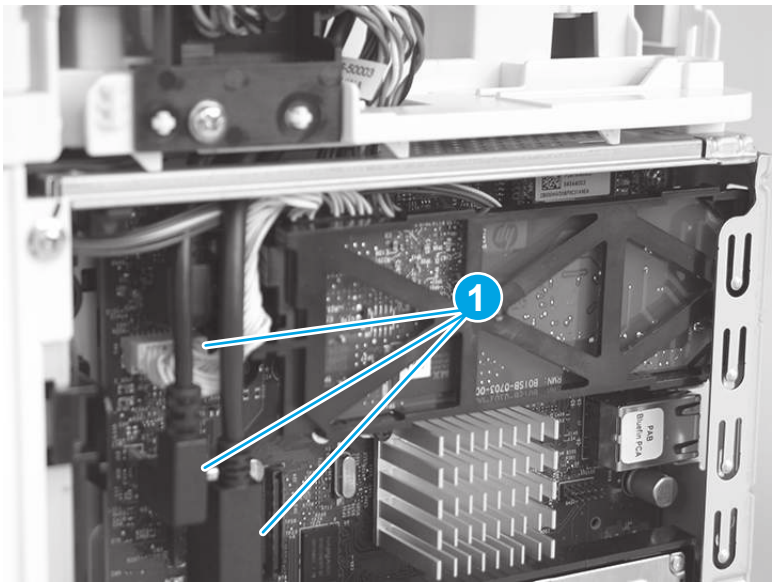


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

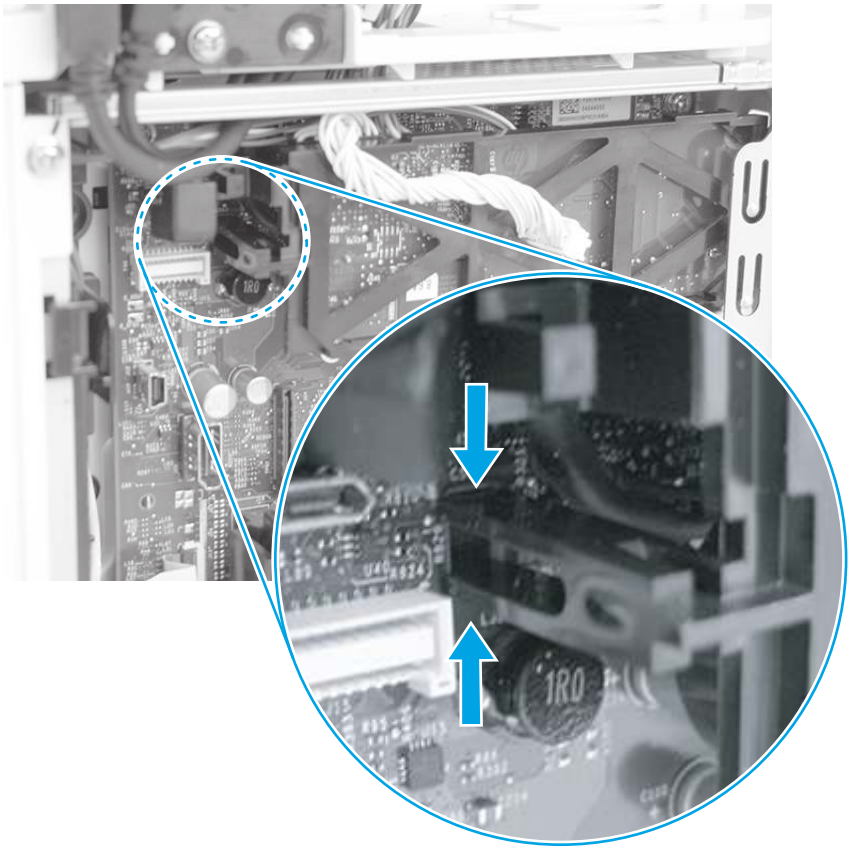
a. Disconnect three connectors (callout 1).

Figure 4-1010 Disconnect three connectors



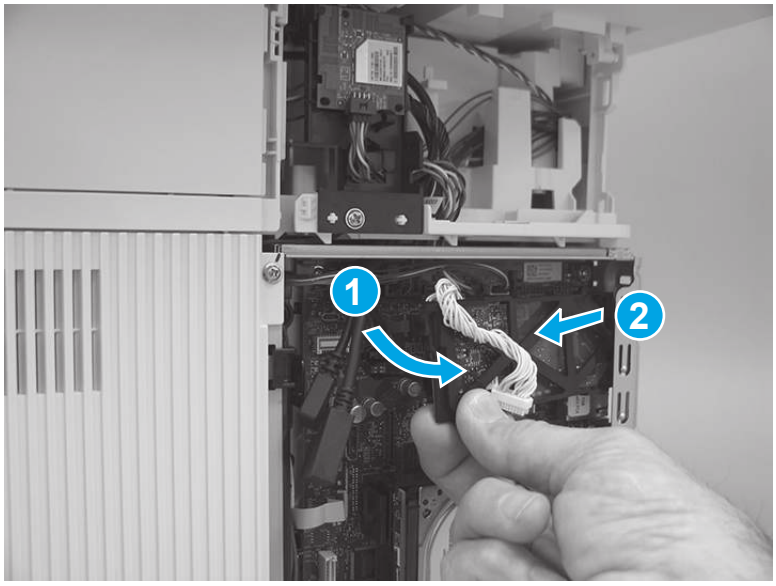
b. Pinch the retainer to release it.

Figure 4-1011 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1012 Remove the fax PCA



6. Remove the formatter.

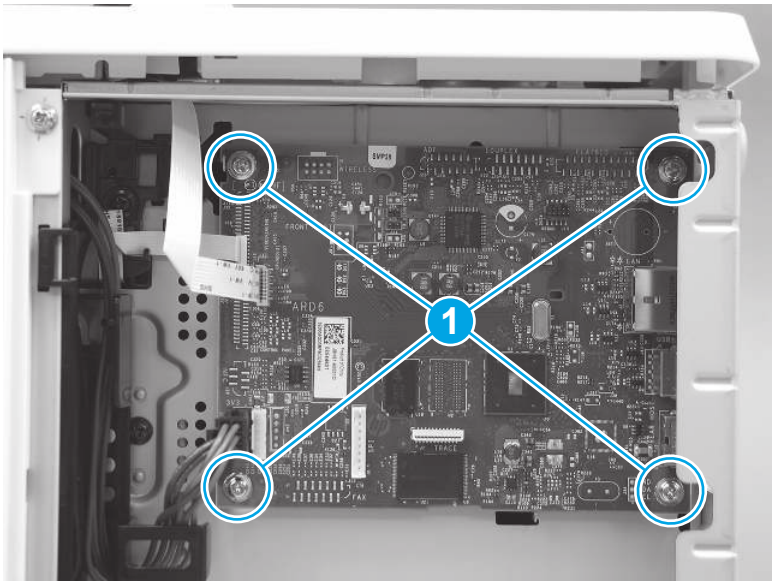
⚠ CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

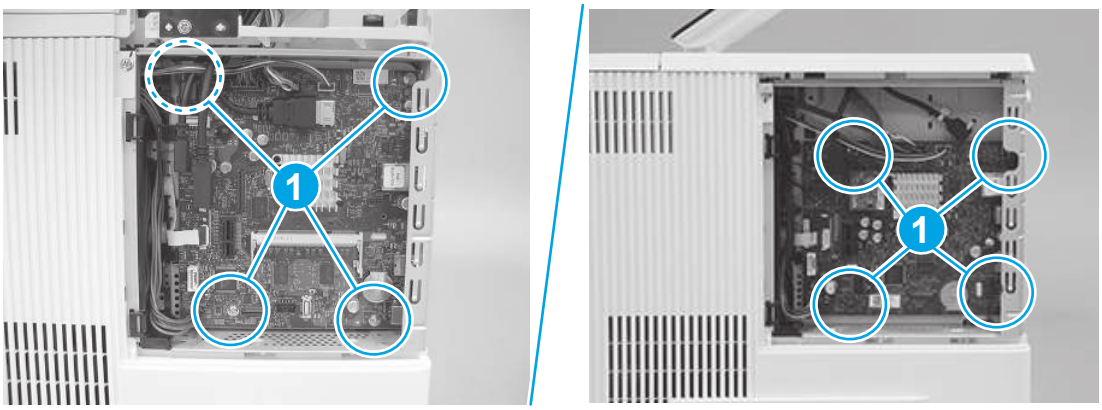
Figure 4-1013 **Remove the formatter (M501)**



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-1014 **Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

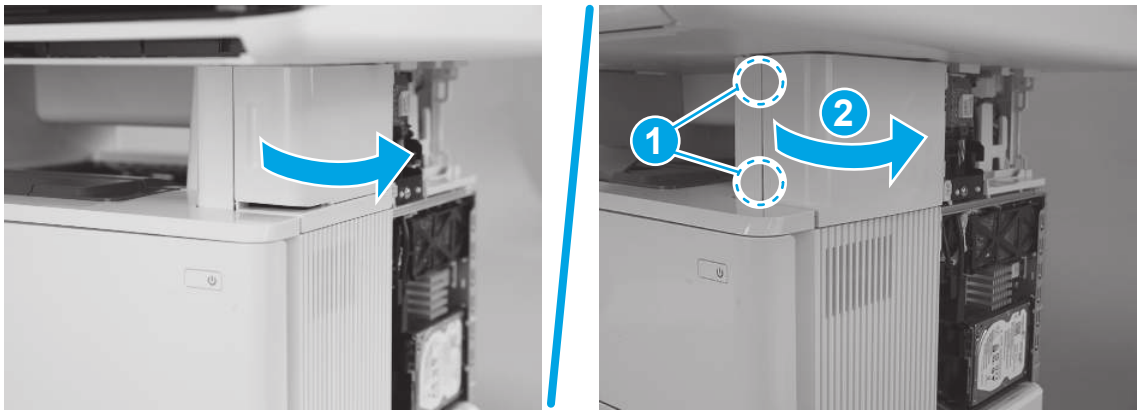


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-1015 Open the door or release the cover



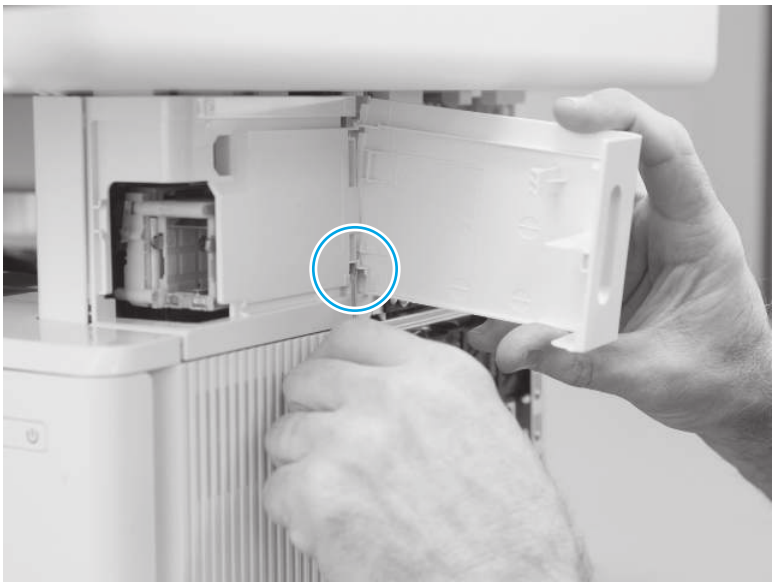
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-1016 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-1017 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-1018 **Remove the door**

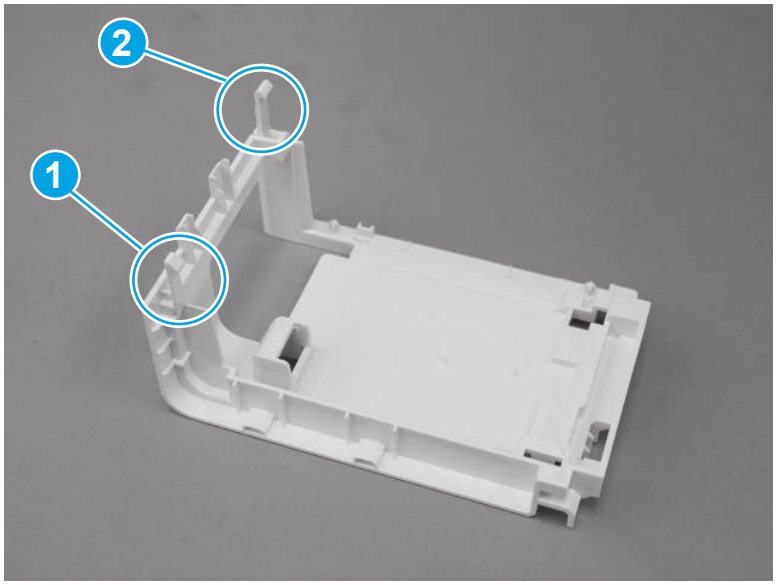
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

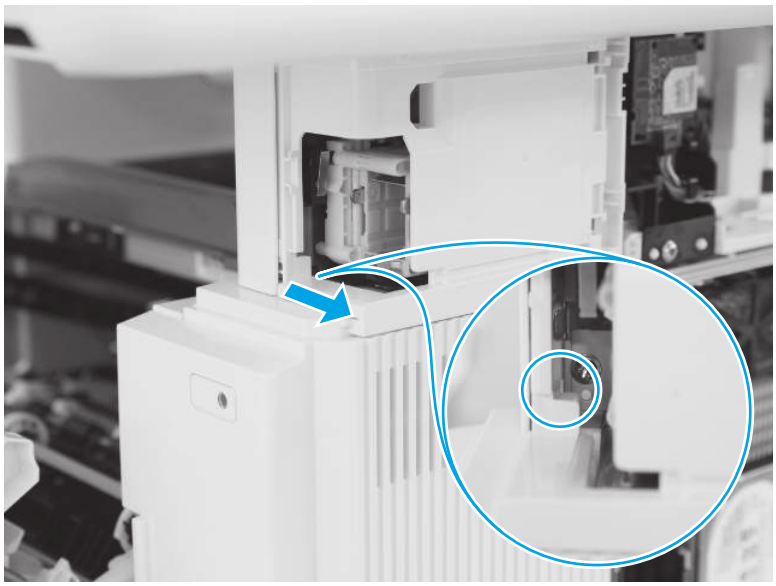
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-1019 Locate the tabs



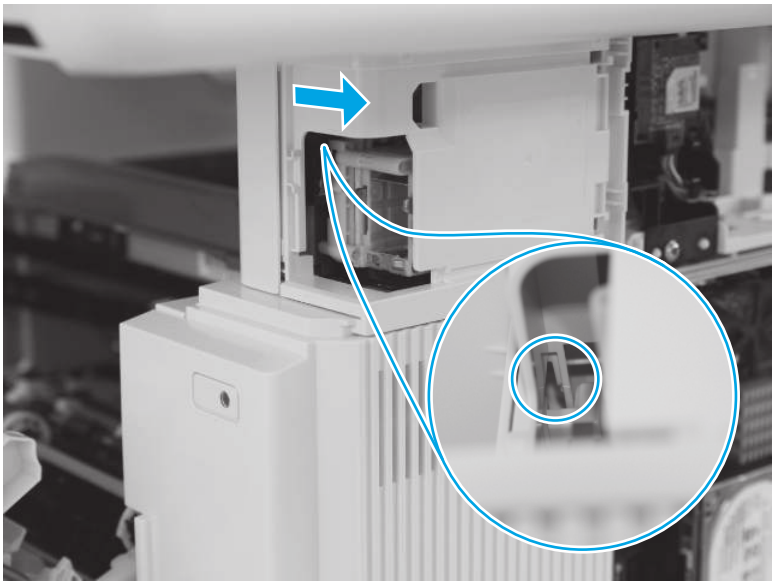
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-1020 Release one tab



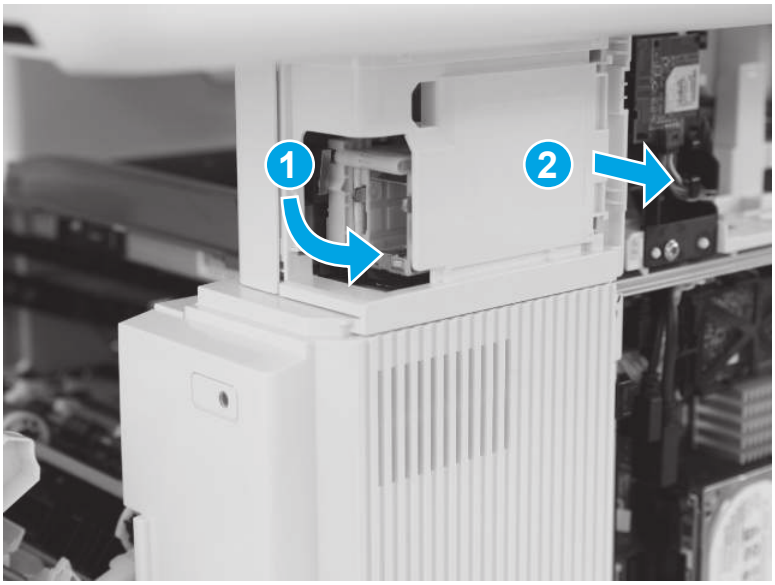
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-1021 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

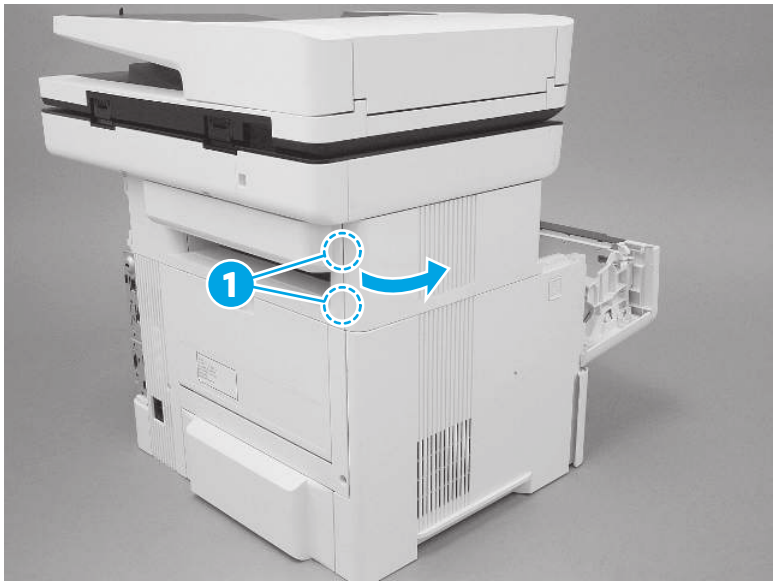
Figure 4-1022 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-1023 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

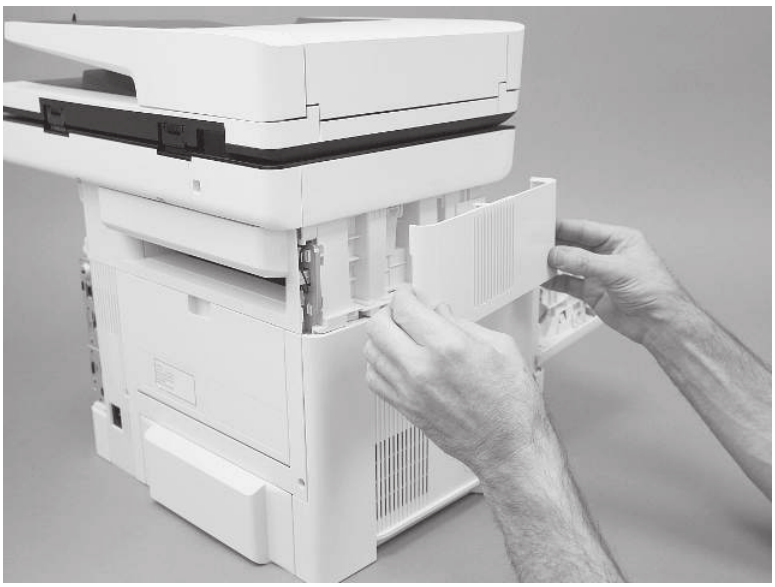
Figure 4-1024 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-1025 Slide the cover

d. Remove the cover.

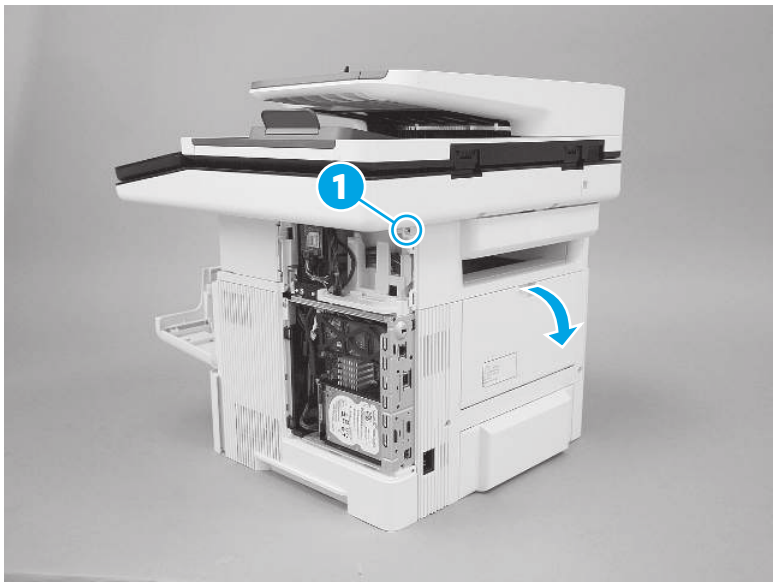
Figure 4-1026 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

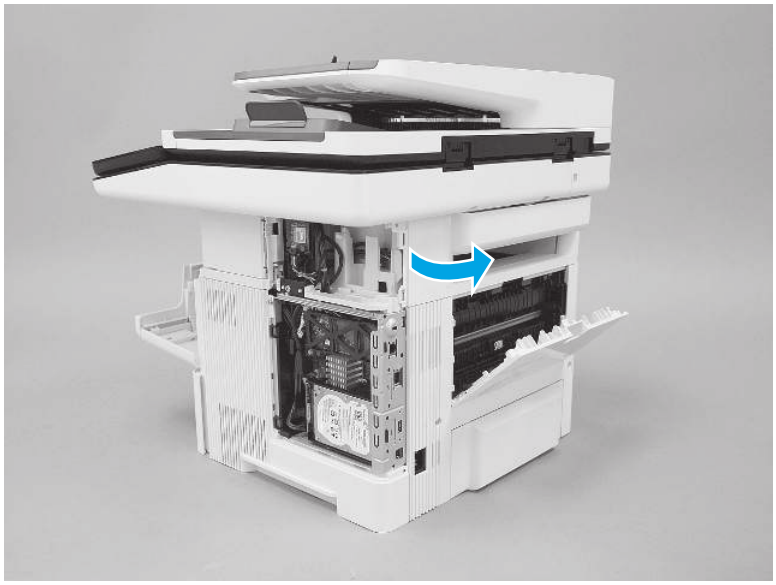
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-1027 Remove one screw



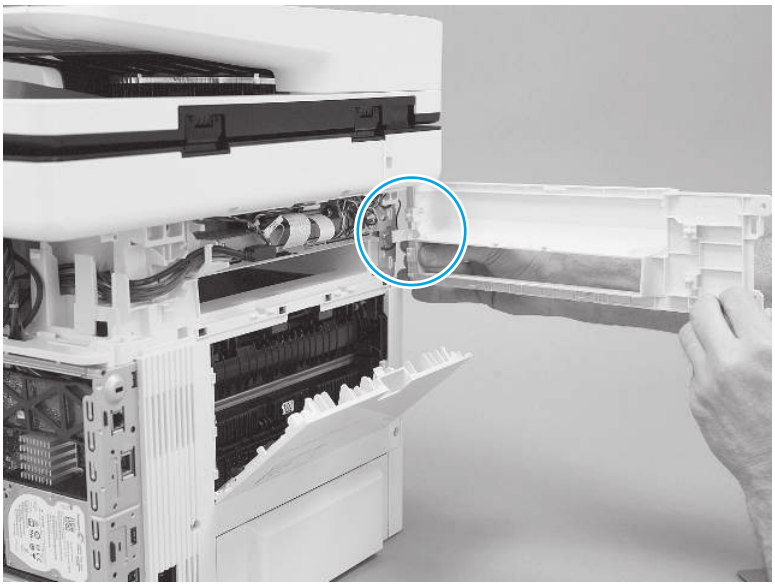
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-1028 Rotate the cover



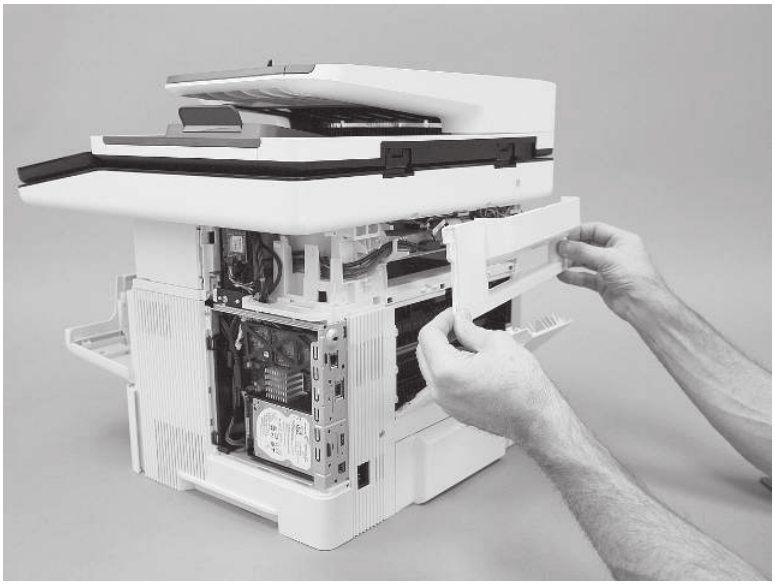
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-1029 Release one boss



d. Remove the cover.

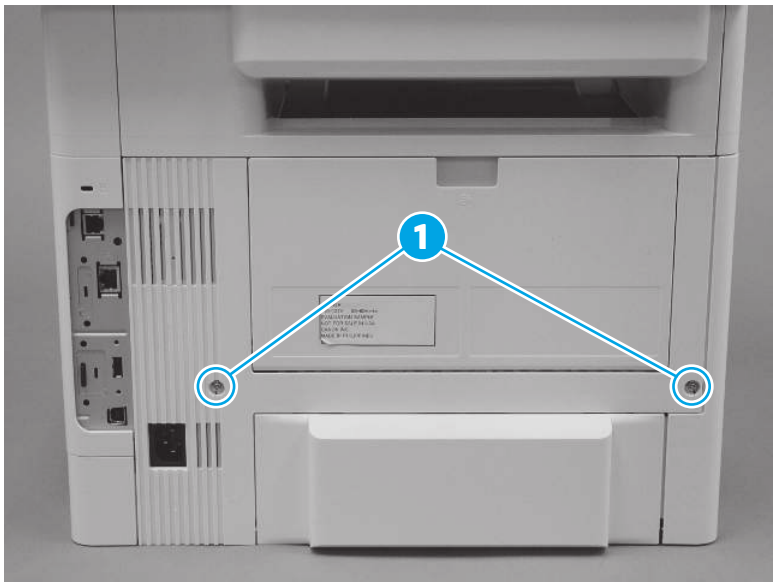
Figure 4-1030 Remove the cover



11. Remove the rear door assembly.

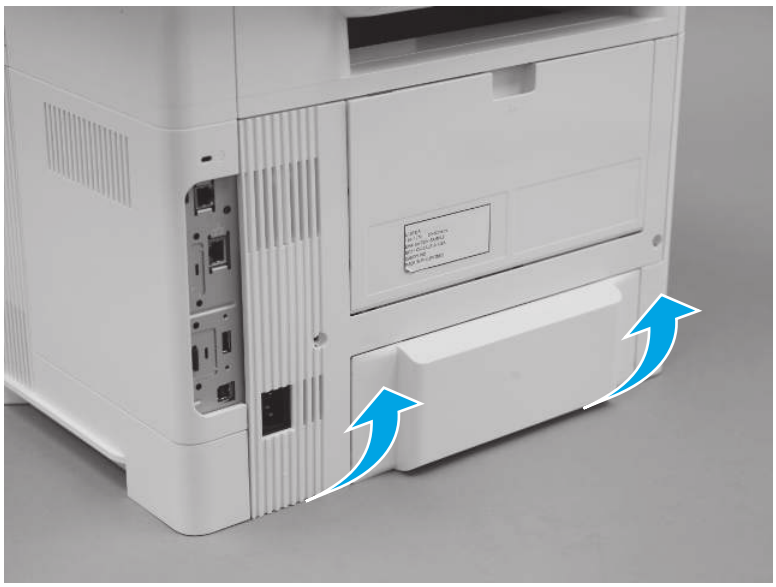
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-1031 Remove two screws



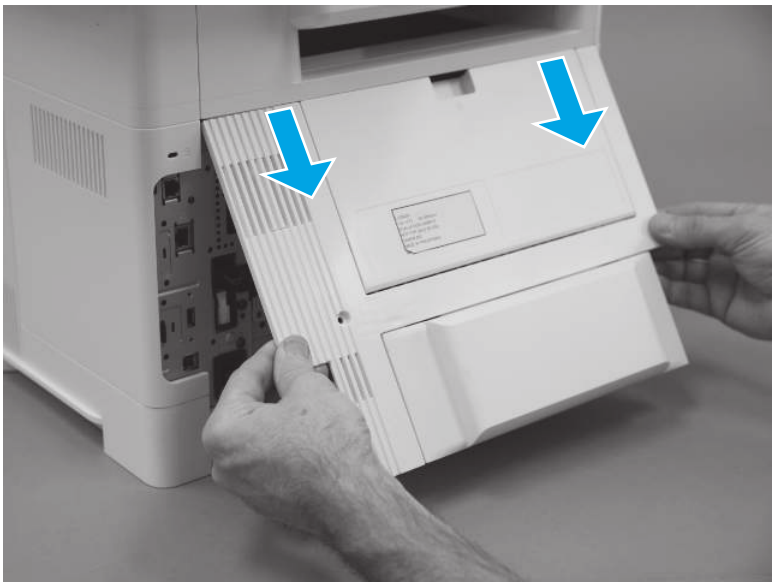
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-1032 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-1033 Remove the cover



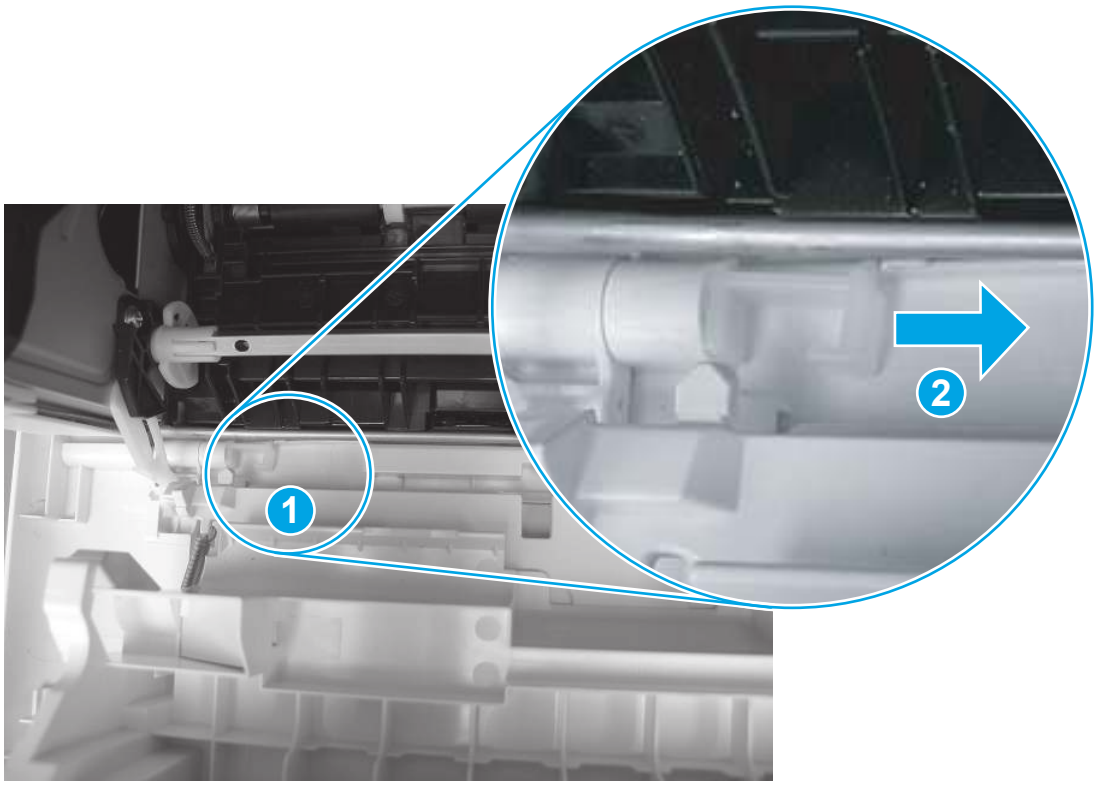
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

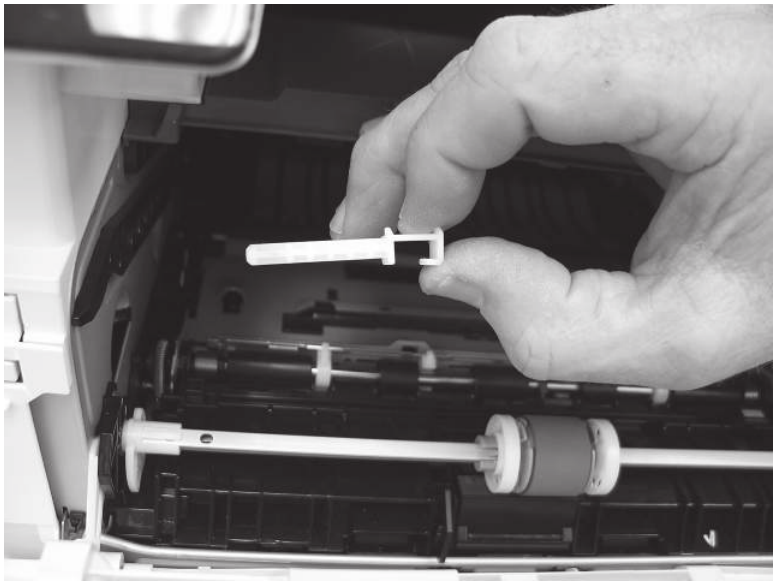
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-1034 Release the support shaft



b. Remove the support shaft.

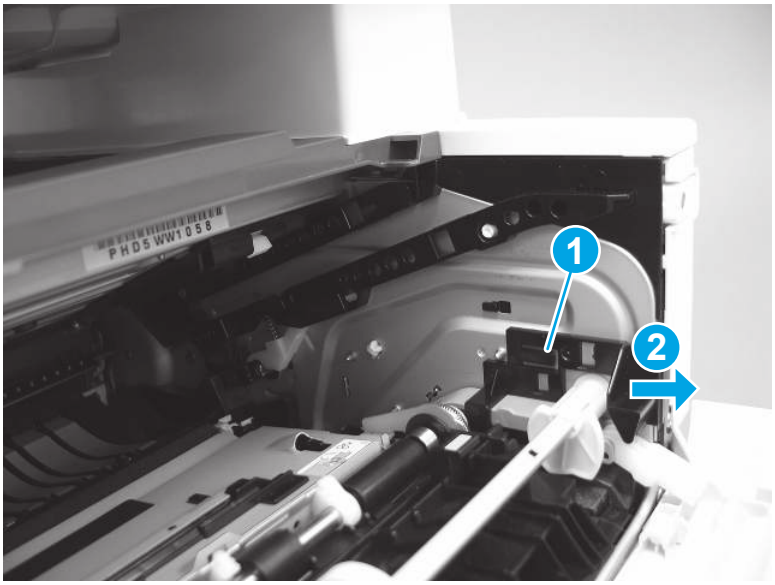
Figure 4-1035 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

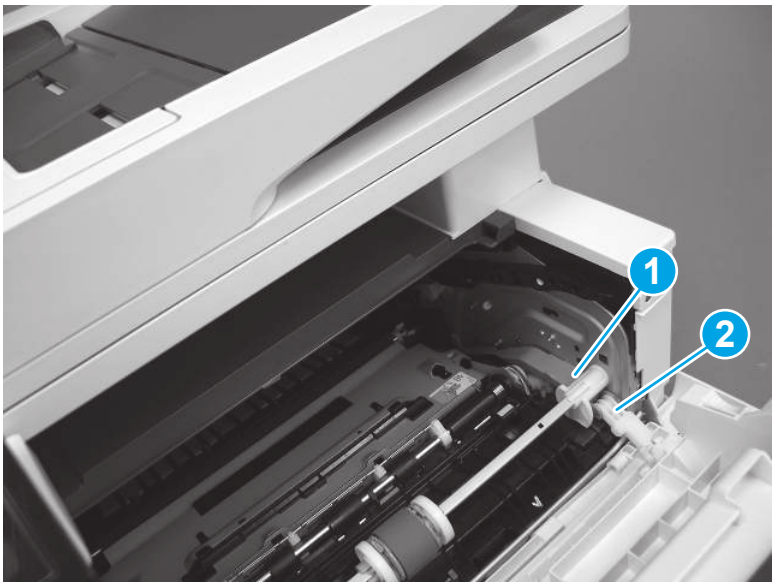
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-1036 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-1037 Release the pressure-release link



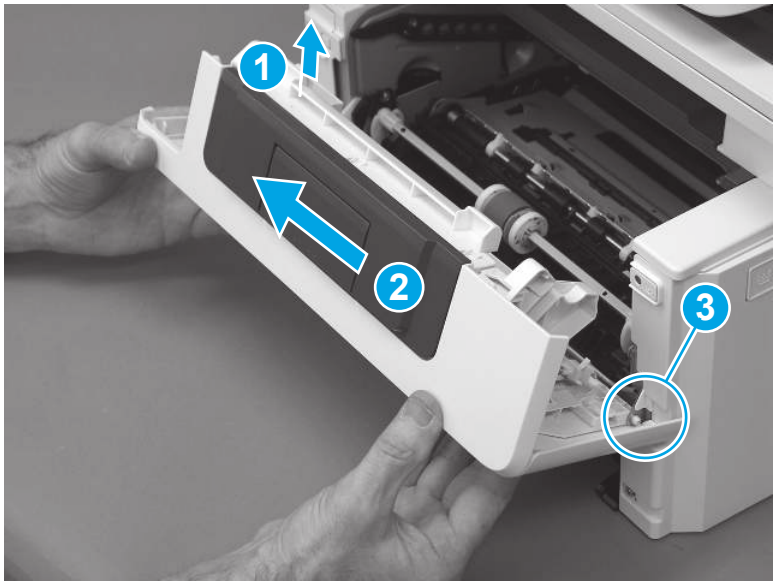
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

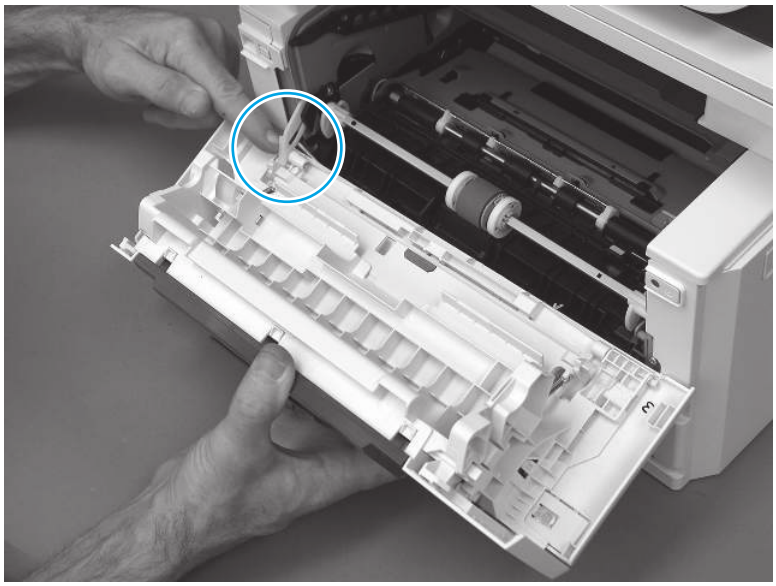
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-1038 Release the door



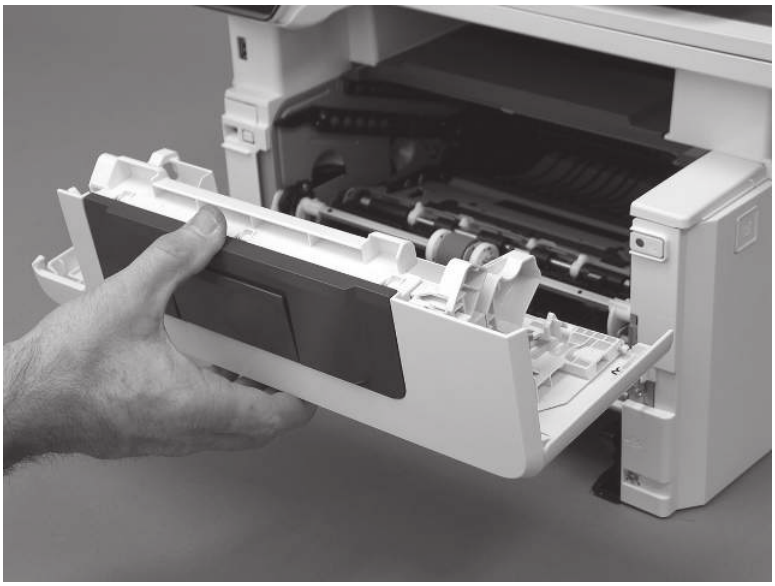
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-1039 Release the left-side retainer arm



g. Remove the door.

Figure 4-1040 Remove the door



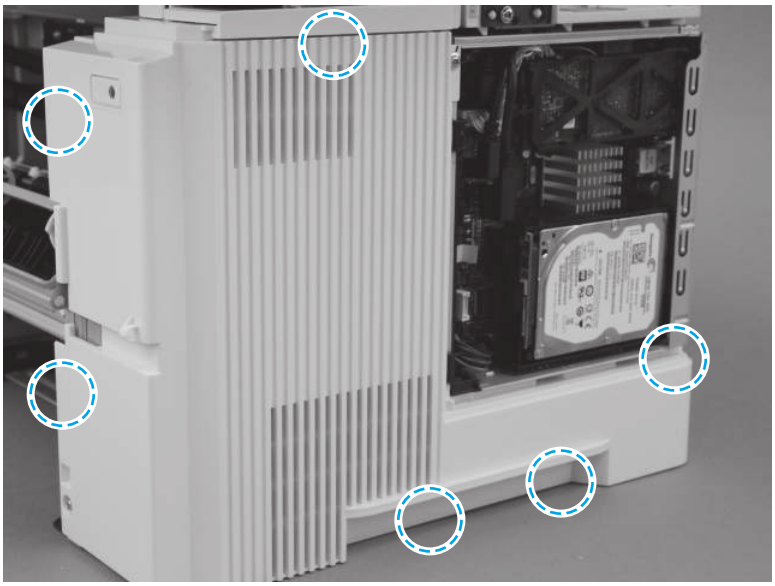
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

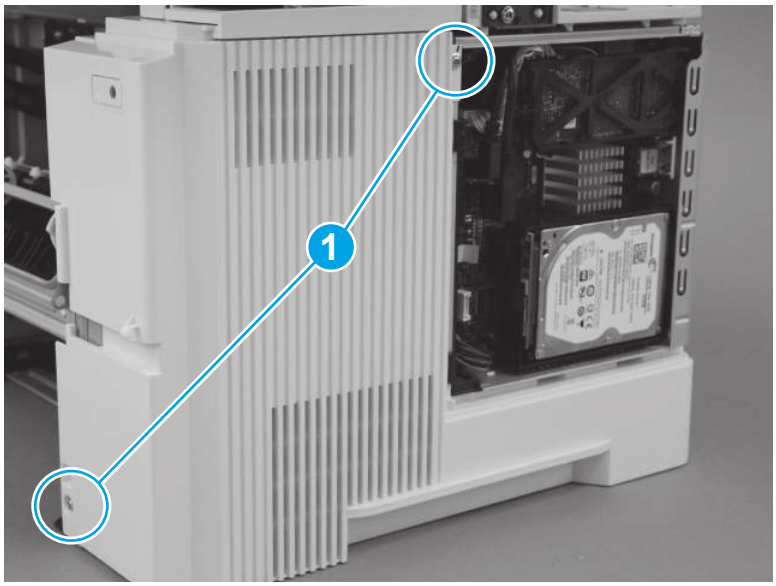
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1041 Locate the tabs and bosses



b. Remove two screws (callout 1).

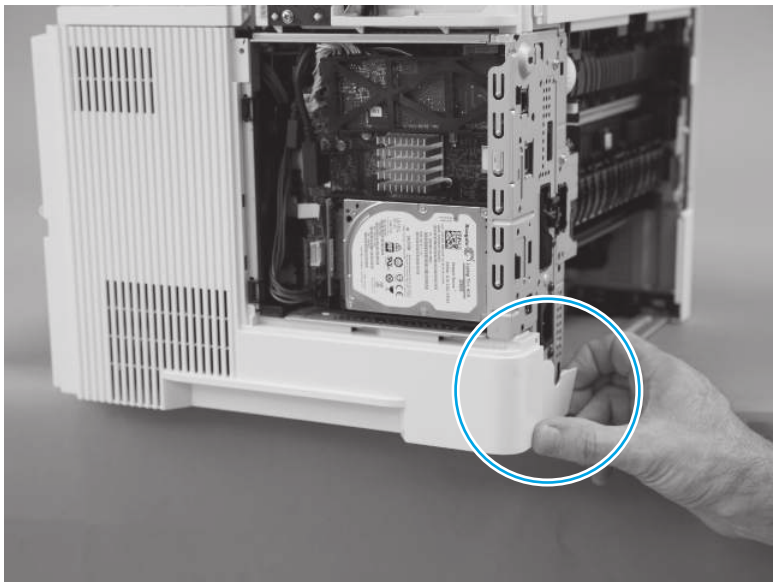
Figure 4-1042 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

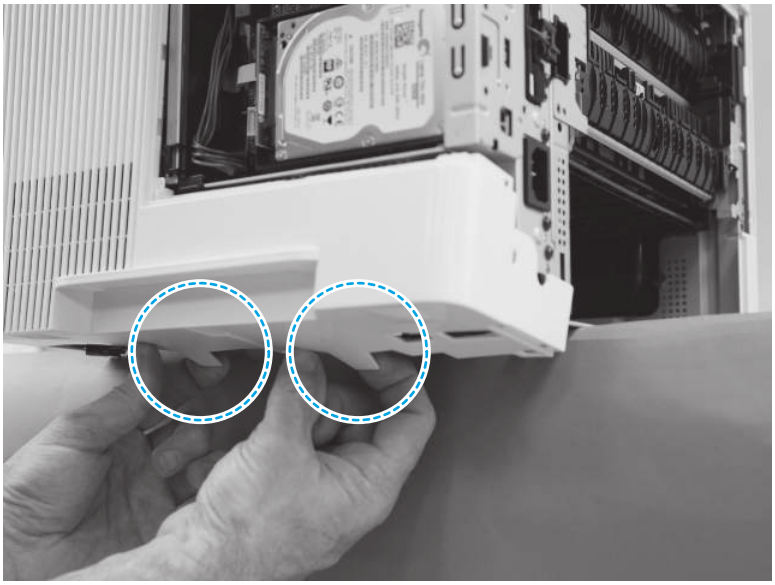
Figure 4-1043 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1044 Release two bosses

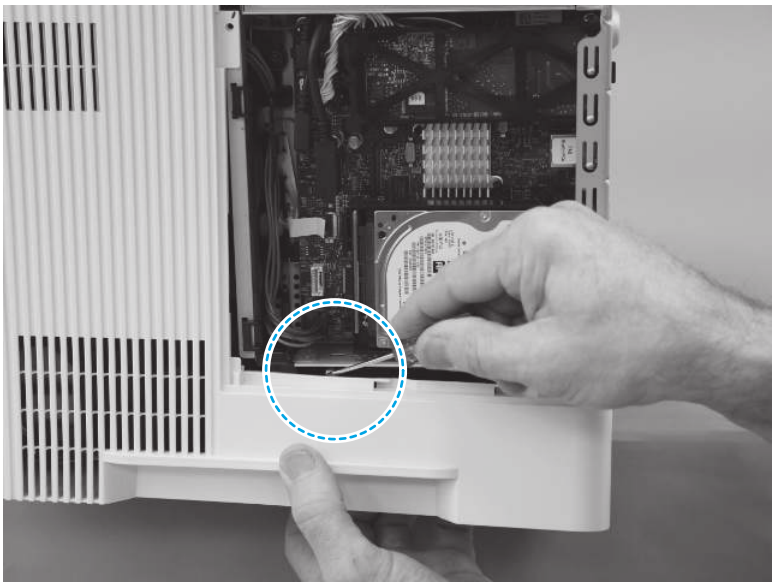


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-1045 Release one tab

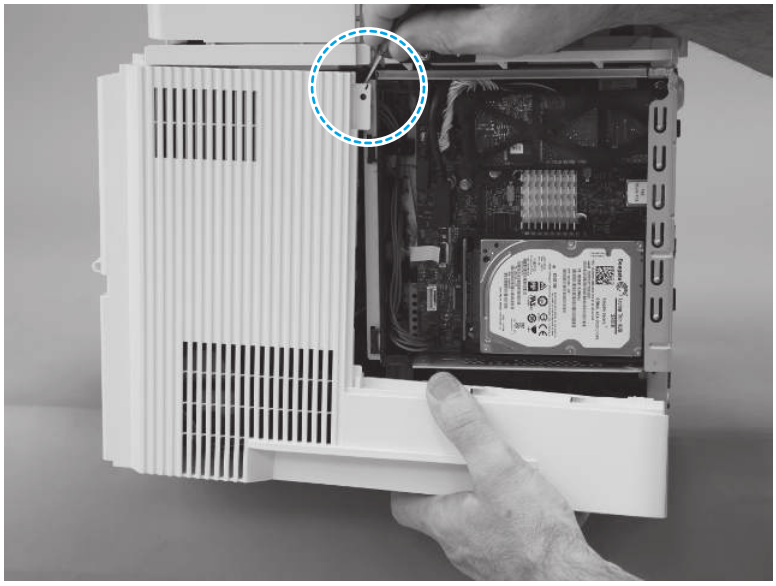


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

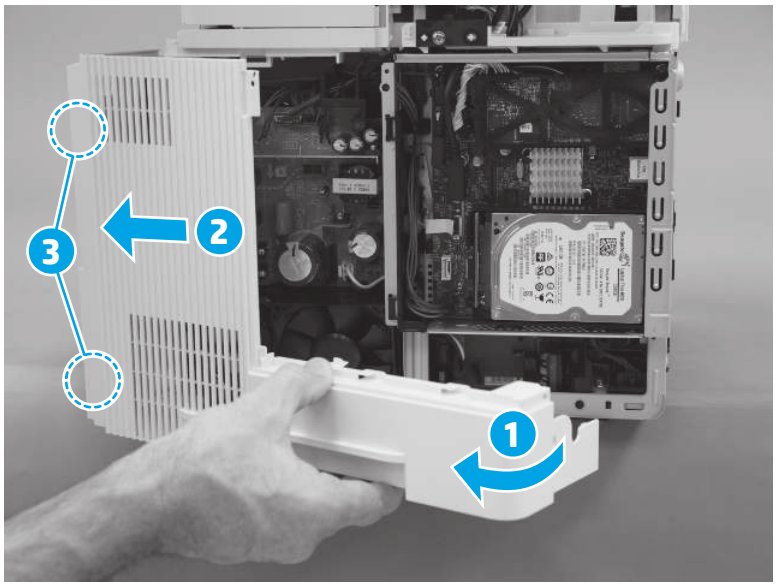
Figure 4-1046 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1047 Remove the cover



14. Remove the left cover.

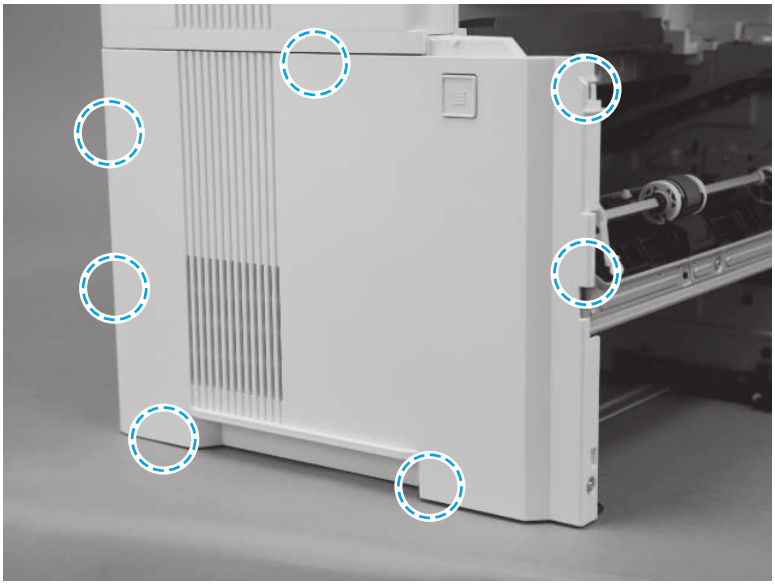
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

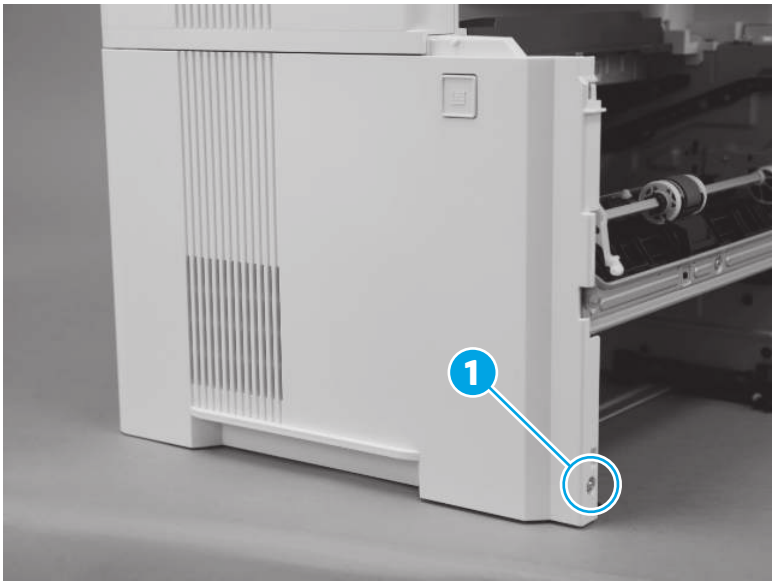
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1048 Locate of the tabs and bosses



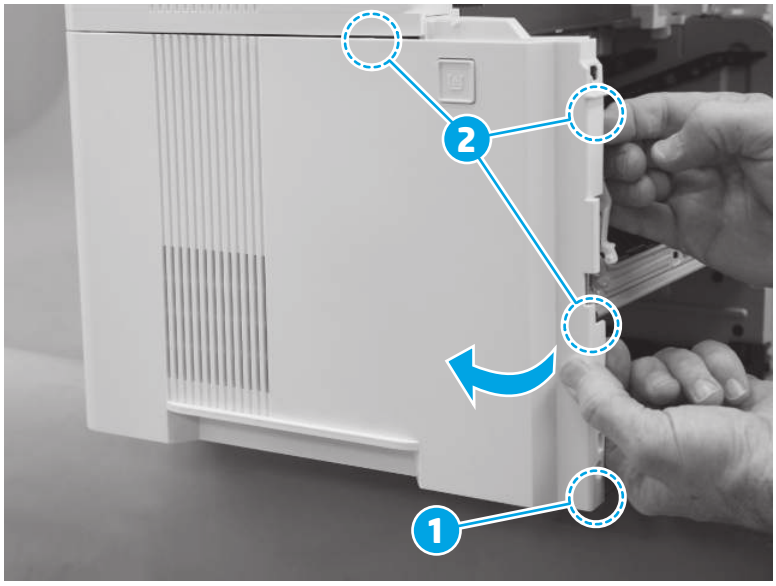
b. Remove one screw (callout 1).

Figure 4-1049 Remove one screw



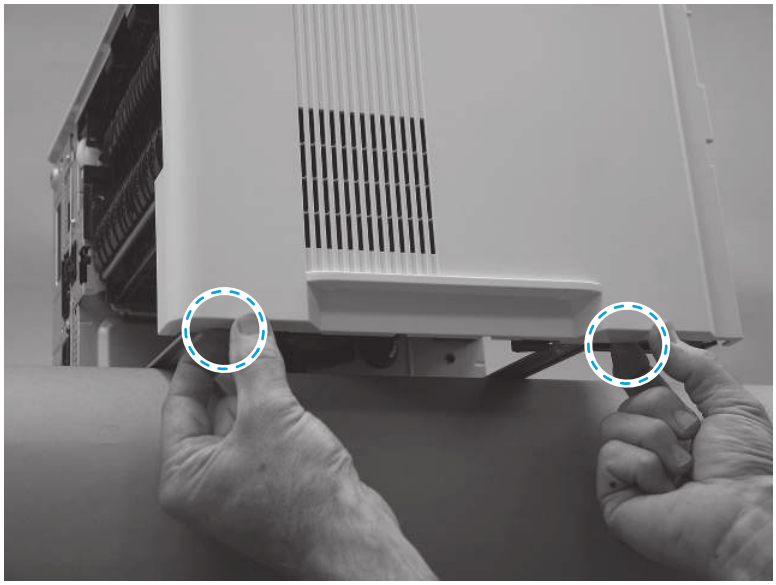
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-1050 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

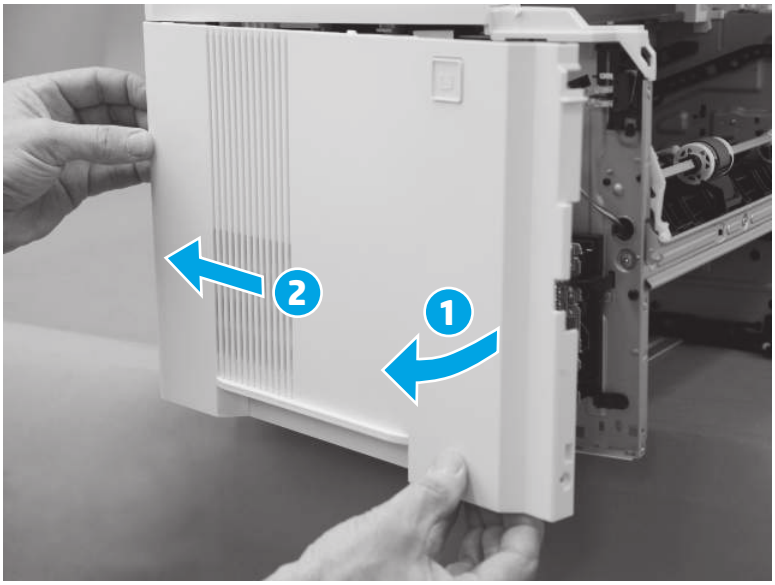
Figure 4-1051 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-1052 Remove the cover



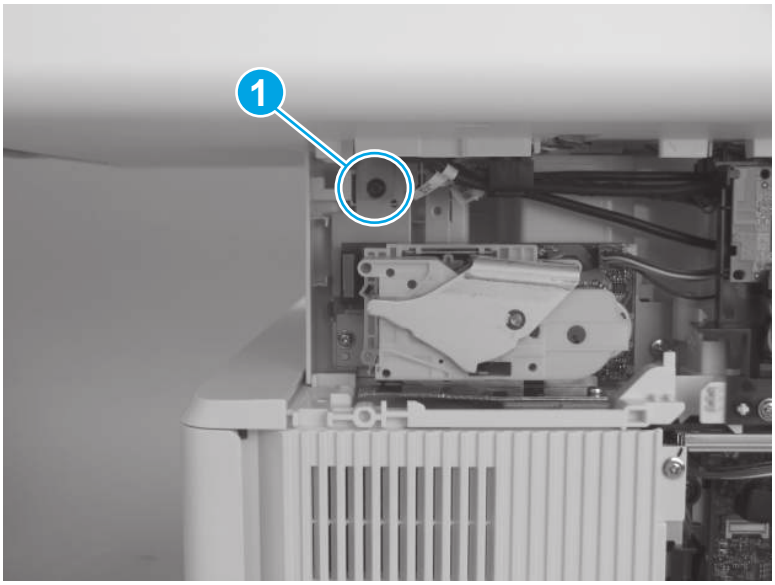
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-1053 Remove one screw

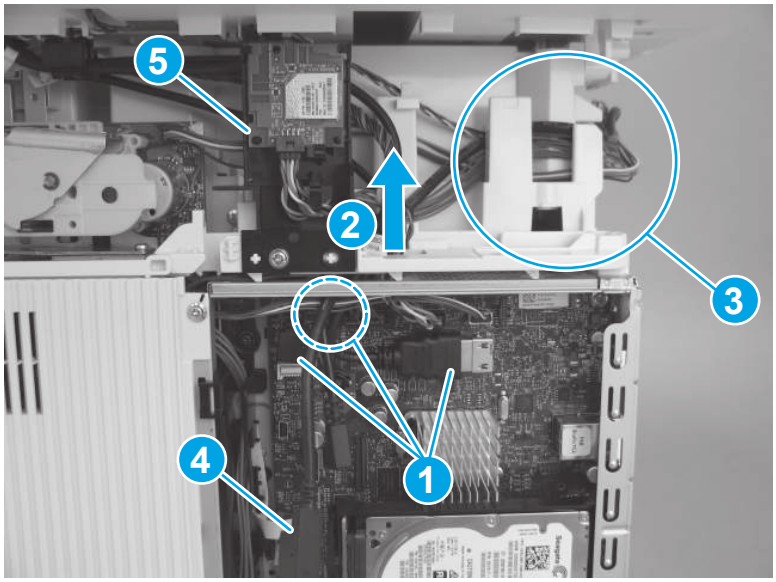


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

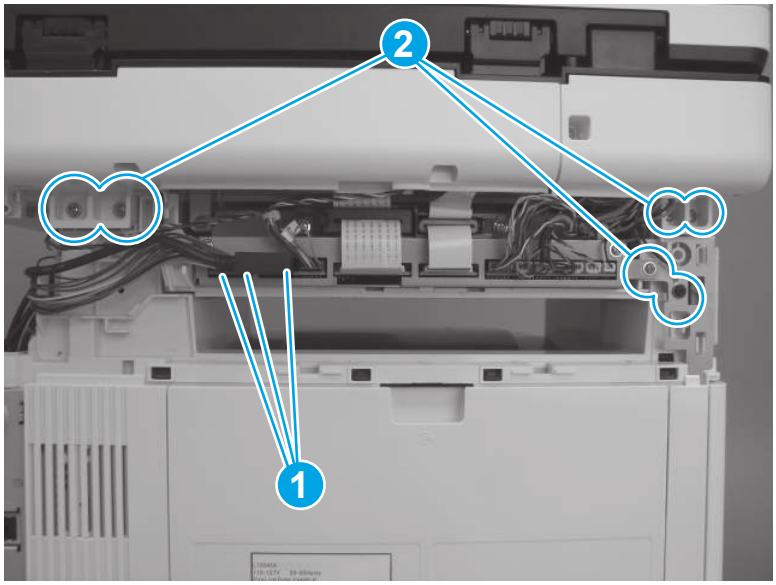
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-1054 Disconnect cables and connectors



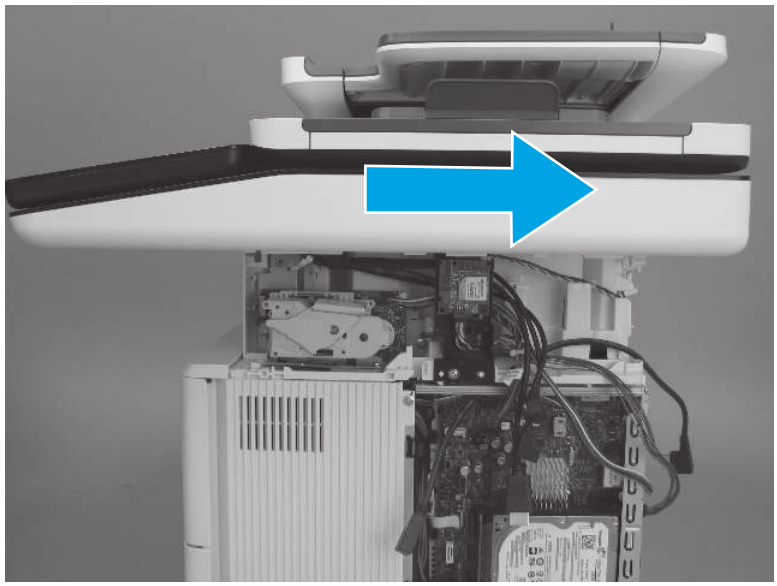
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-1055 Disconnect connectors and remove screws



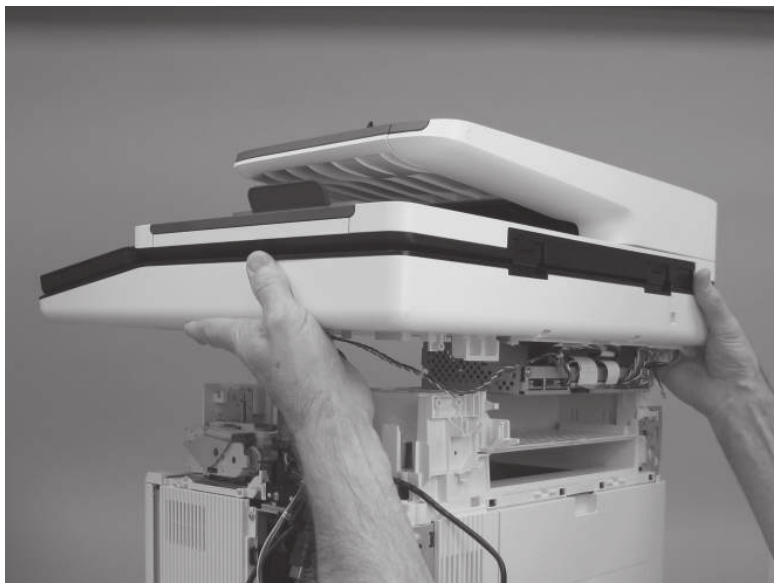
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-1056 **Slide the ISA towards the back of the printer**



e. Remove the ISA.

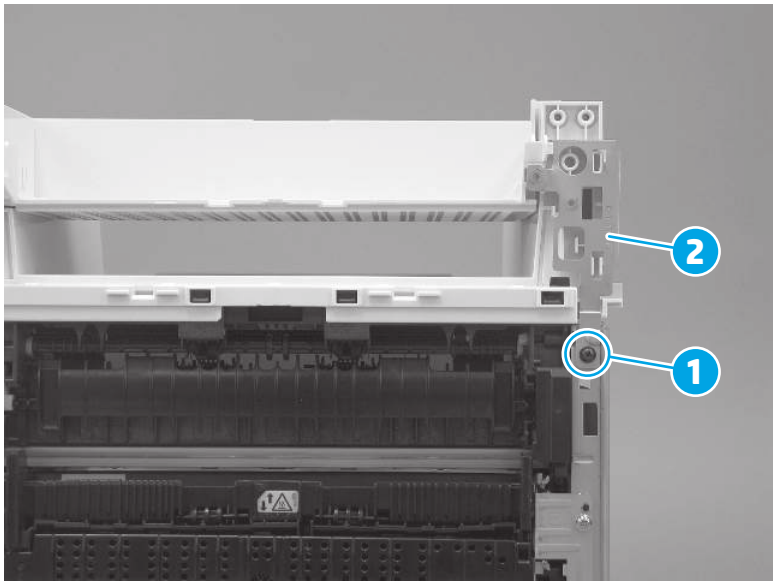
Figure 4-1057 **Remove the ISA**



16. Remove the top cover (M527/E52545/M528/E52645).

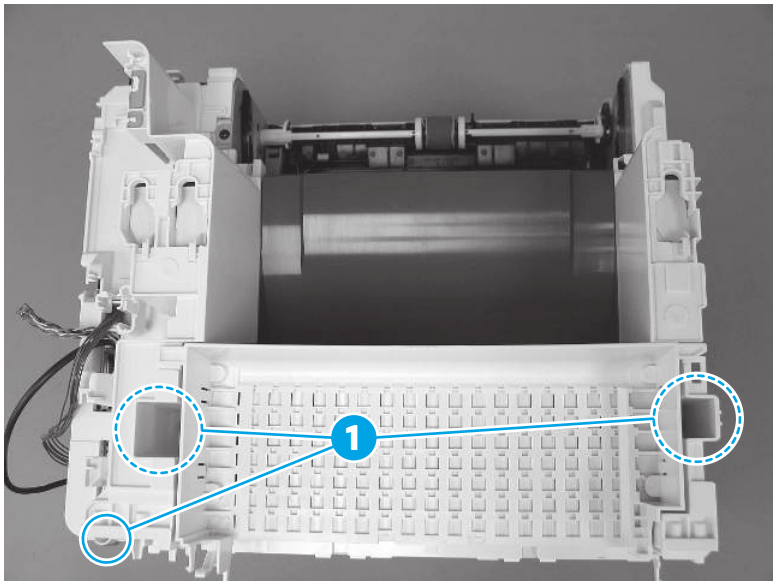
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-1058 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

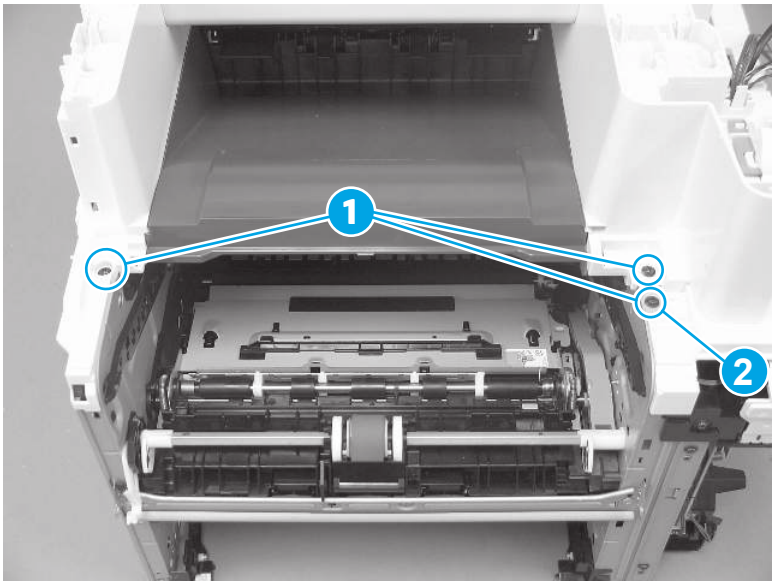
Figure 4-1059 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

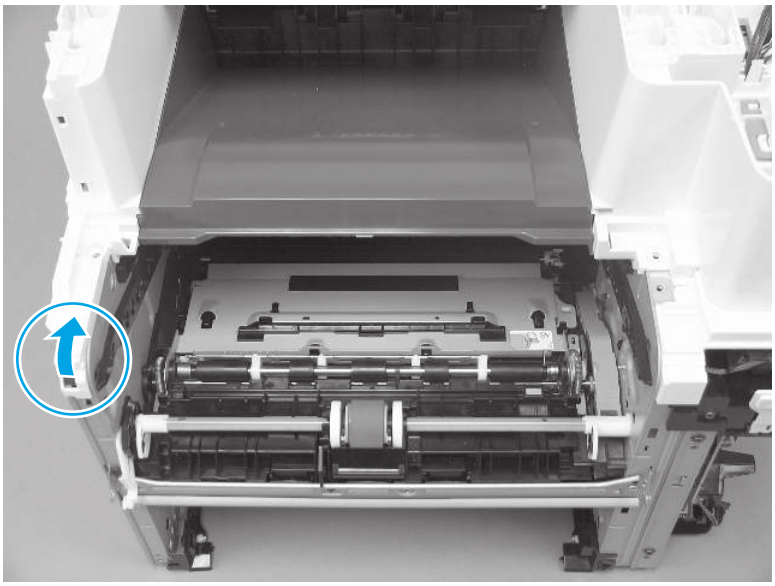
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-1060 Remove three screws



d. At the front left of the printer, release one boss.

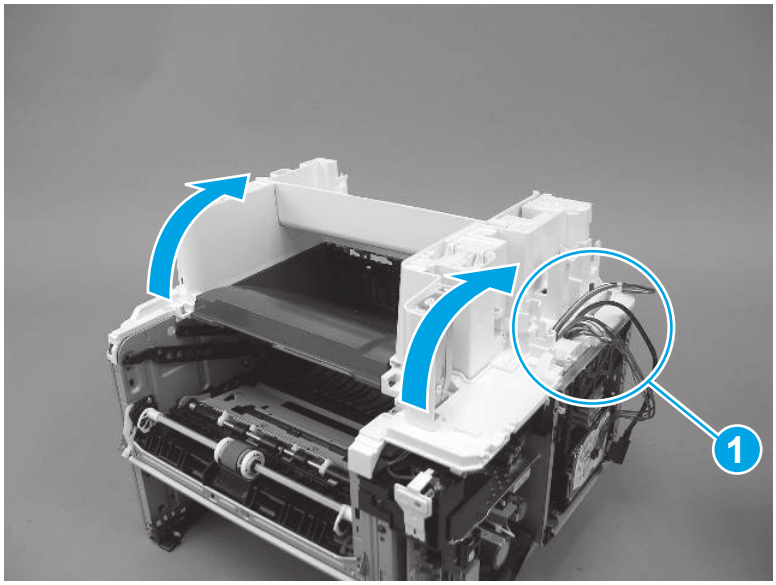
Figure 4-1061 Release one boss



e. Rotate the front of the cover up and away from the printer.

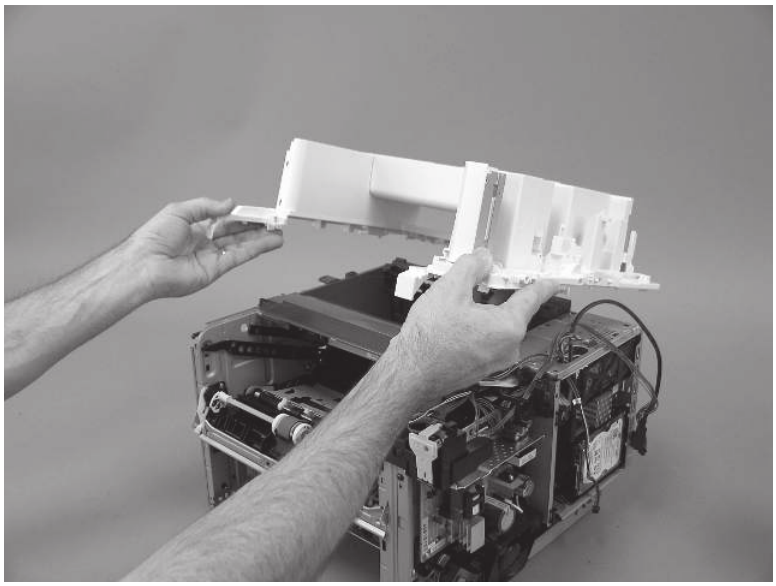
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-1062 Rotate the front of the cover up



f. Remove the cover.

Figure 4-1063 Remove the cover

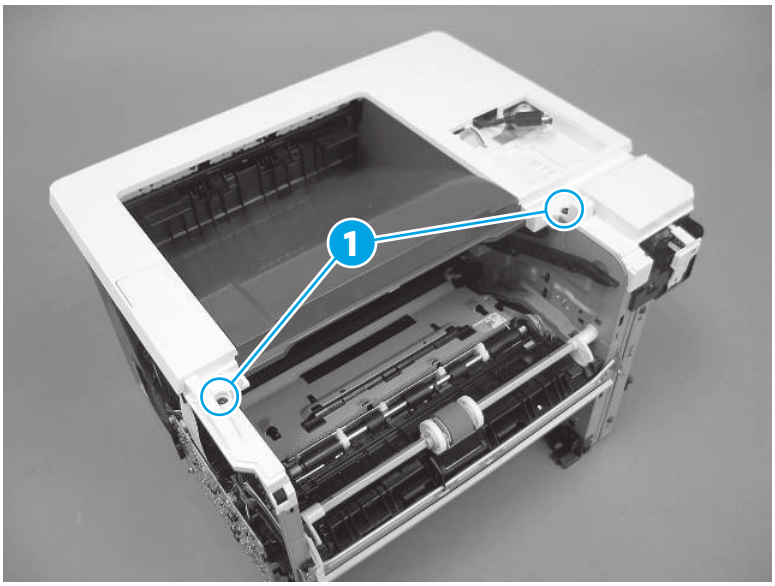


17. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

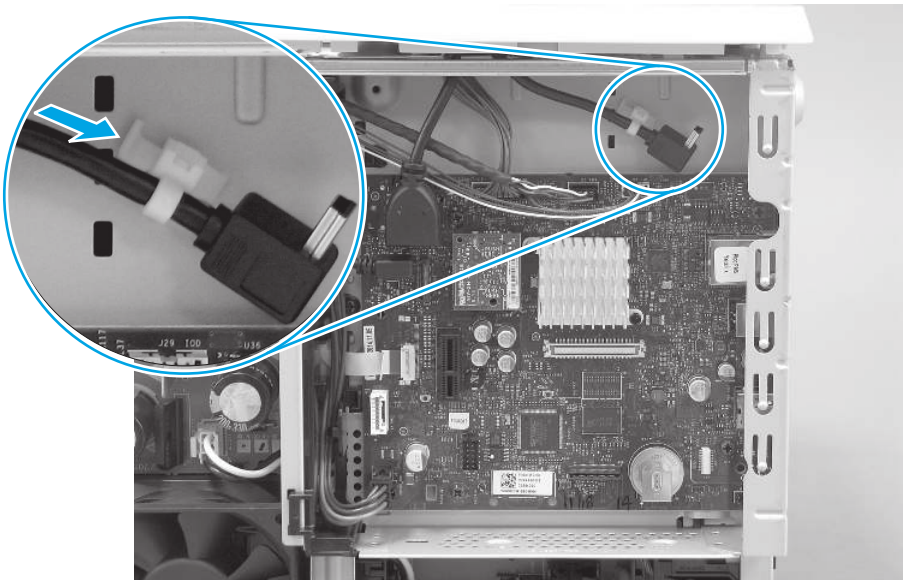
Figure 4-1064 **Remove two screws**



b. **M506/E50045/ only:** Release one cable retainer from the chassis.

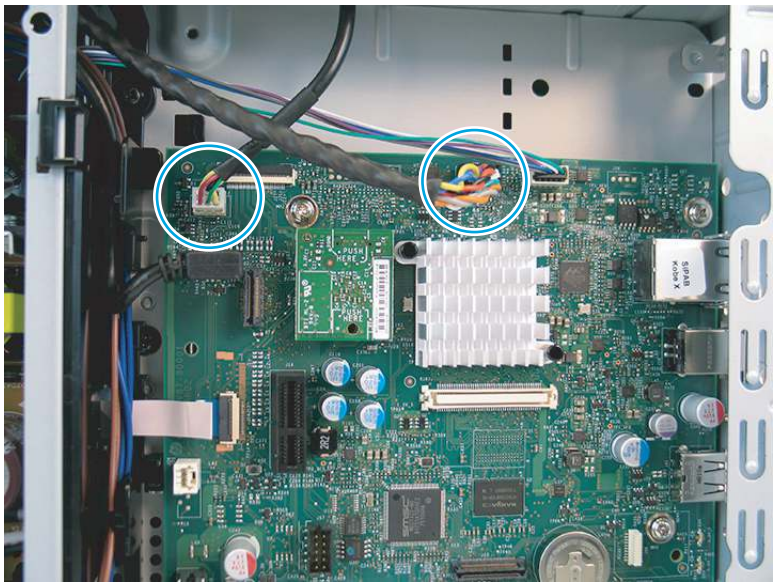
TIP: Depress the tab on the retainer to release it.

Figure 4-1065 **Release one cable retainer**



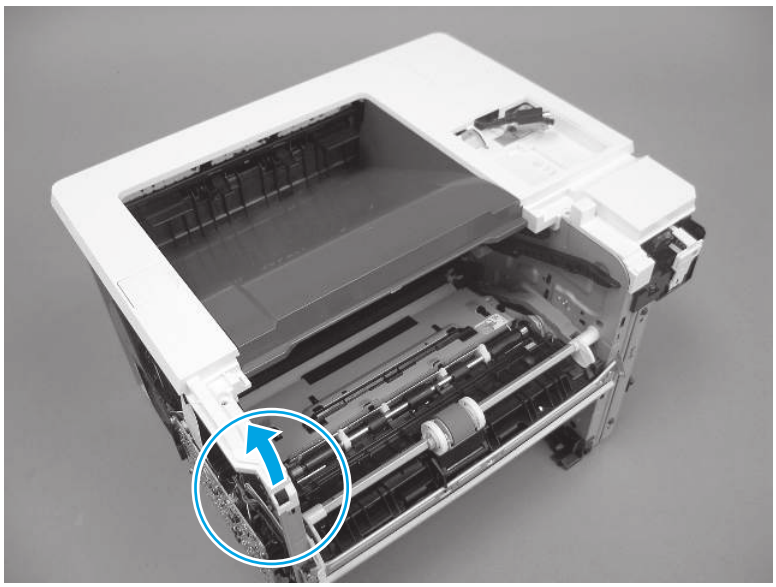
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-1066 Disconnect two connectors



d. Release one boss.

Figure 4-1067 Release one boss

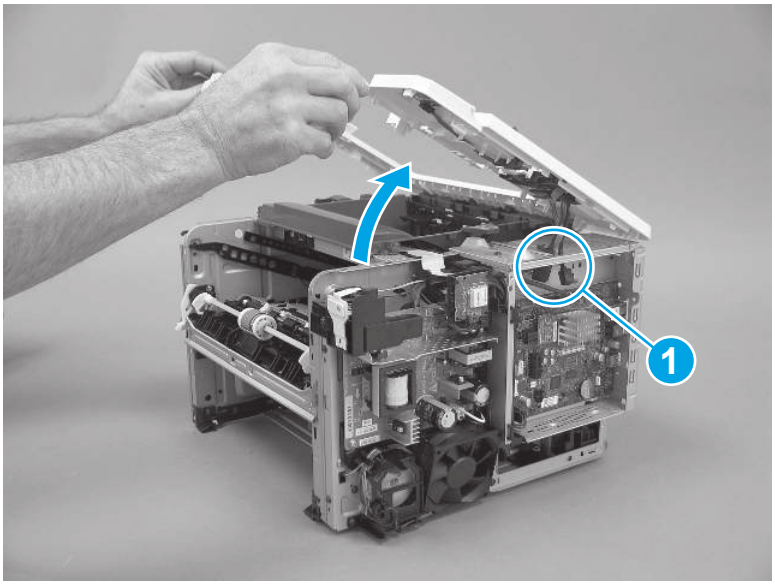


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

⚠ **CAUTION:** **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1068 Remove the cover (M506/E50045)



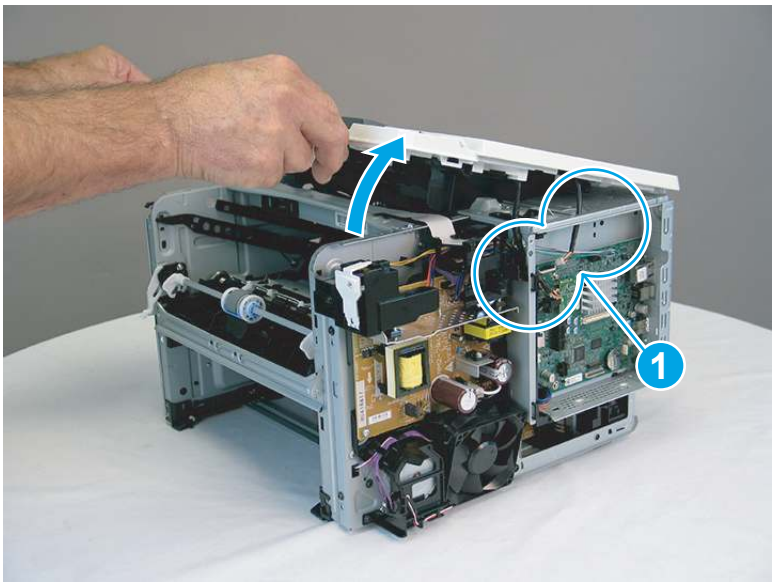
f. **M507/E50145only:** Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only:** As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only:** Disconnect the control panel before removing the cover.

Figure 4-1069 Remove the cover (M507/E50145)

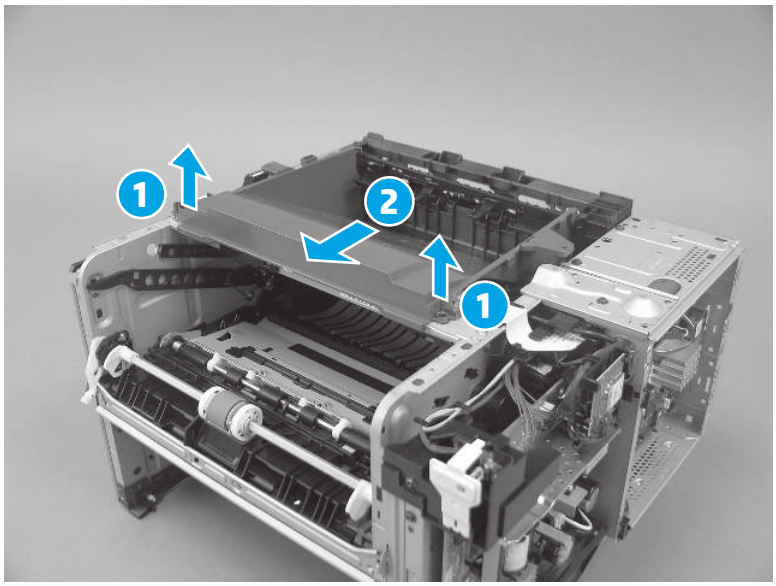


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

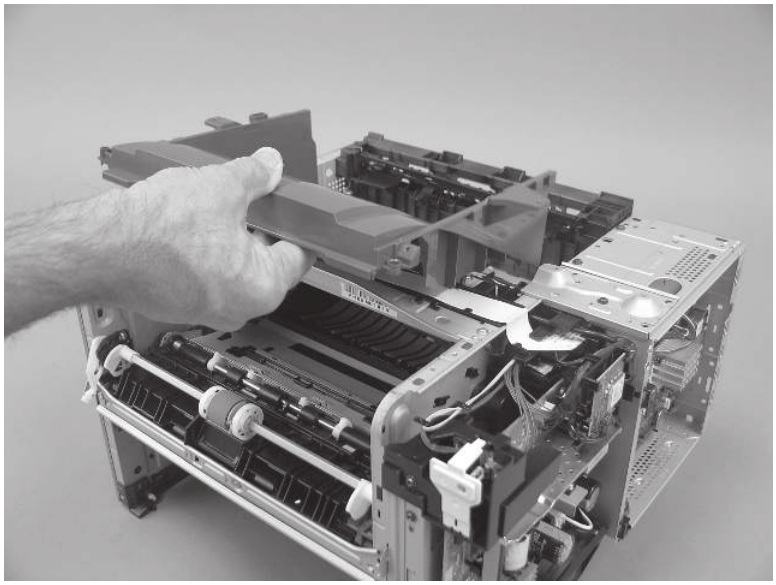
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-1070 Release two tabs



b. Remove the bin.

Figure 4-1071 Remove he bin

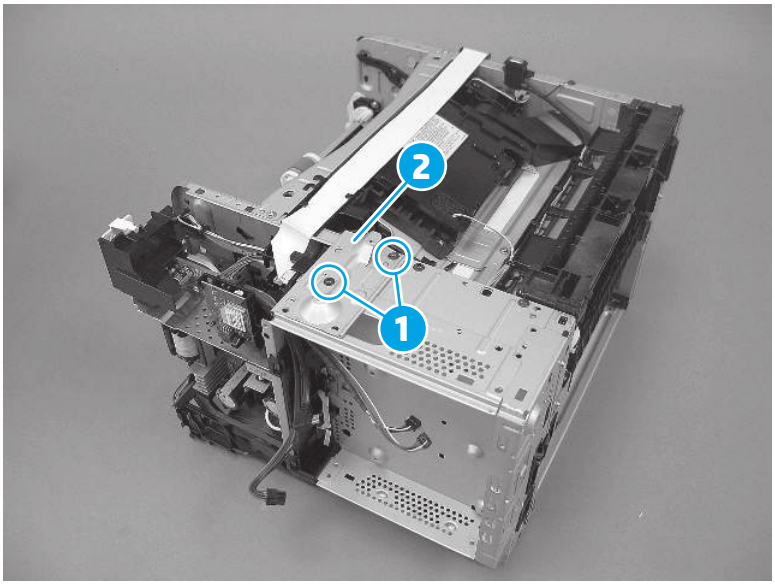


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

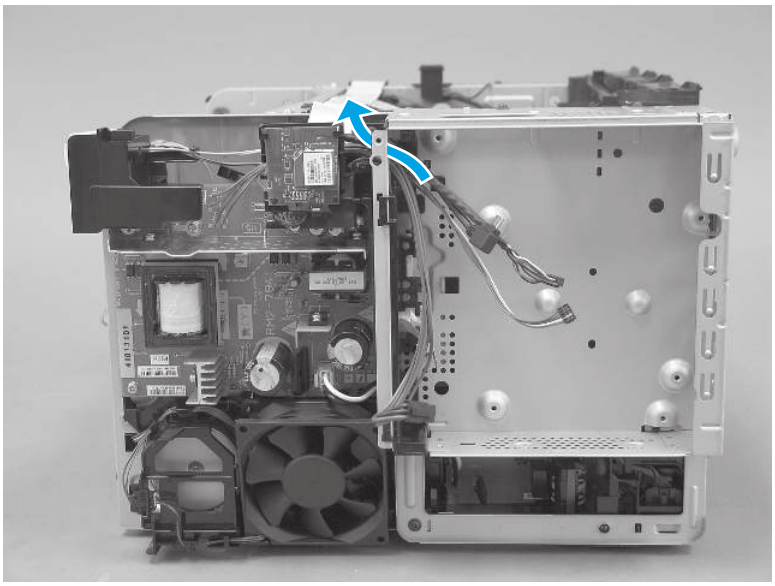
Figure 4-1072 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

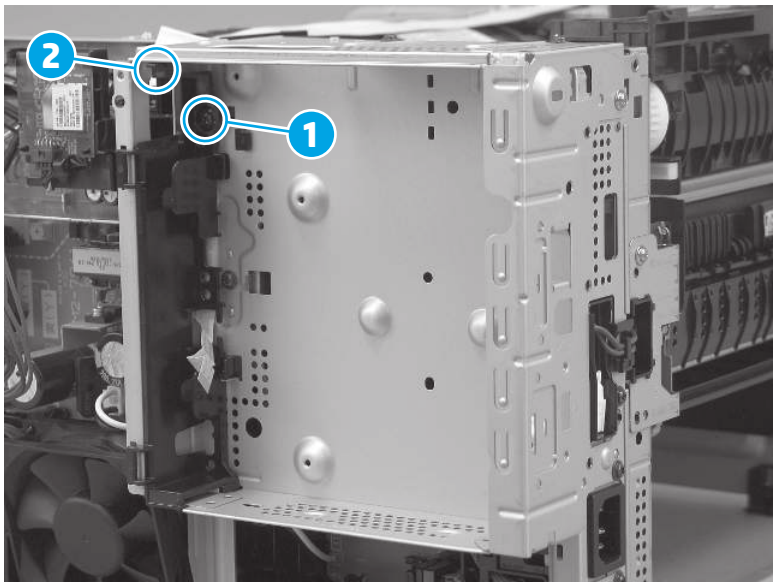
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-1073 **Pass all cables and wire harnesses through the opening**



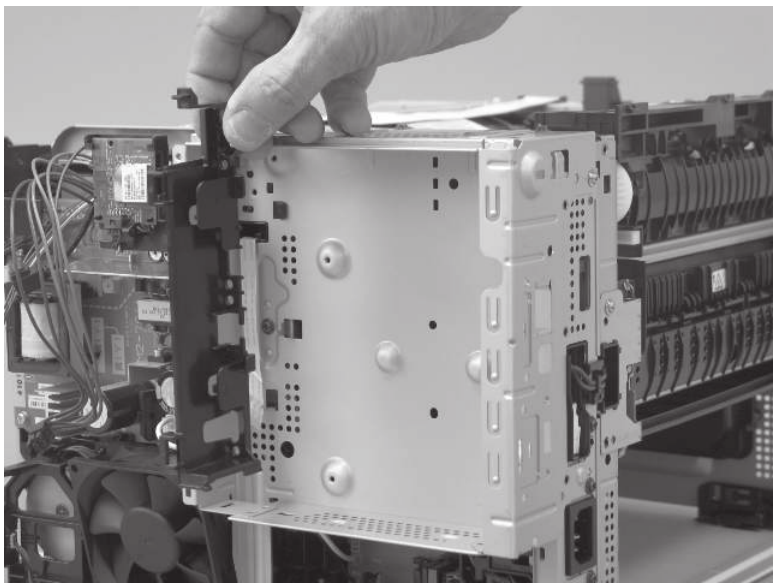
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-1074 Remove one screw



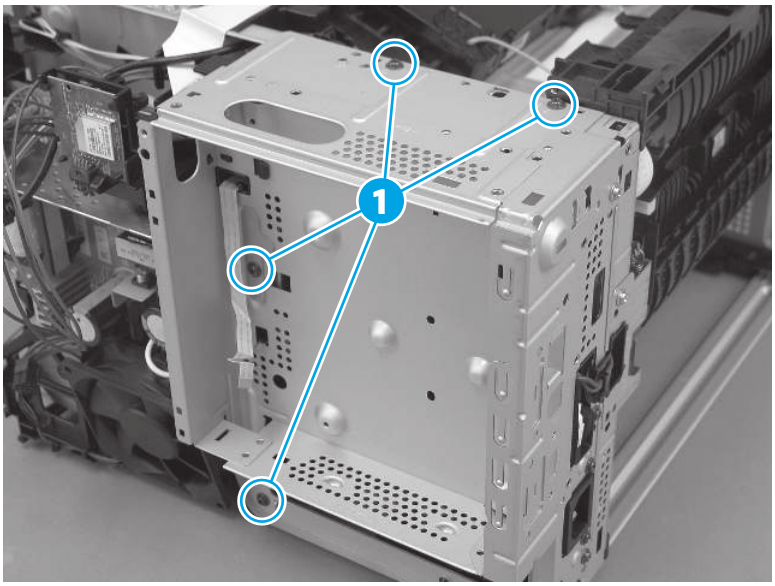
d. Remove the guide.

Figure 4-1075 Remove the guide



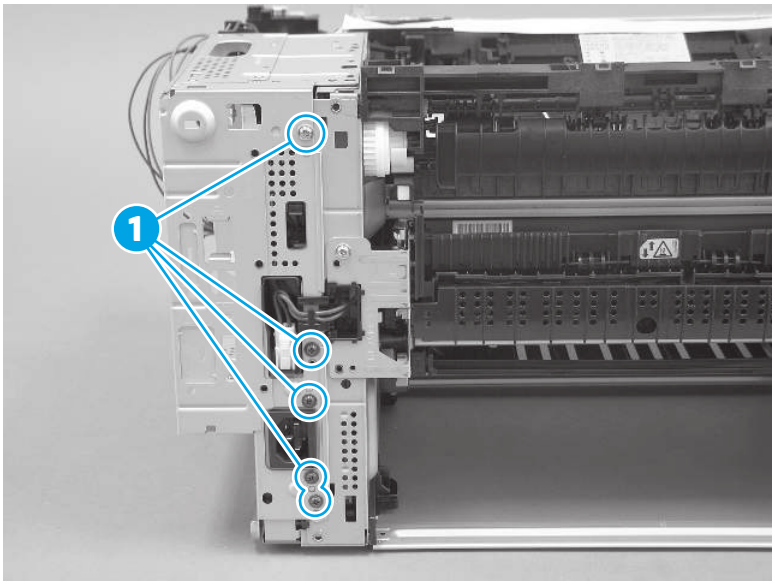
e. Remove four screws (callout 1).

Figure 4-1076 Remove four screws



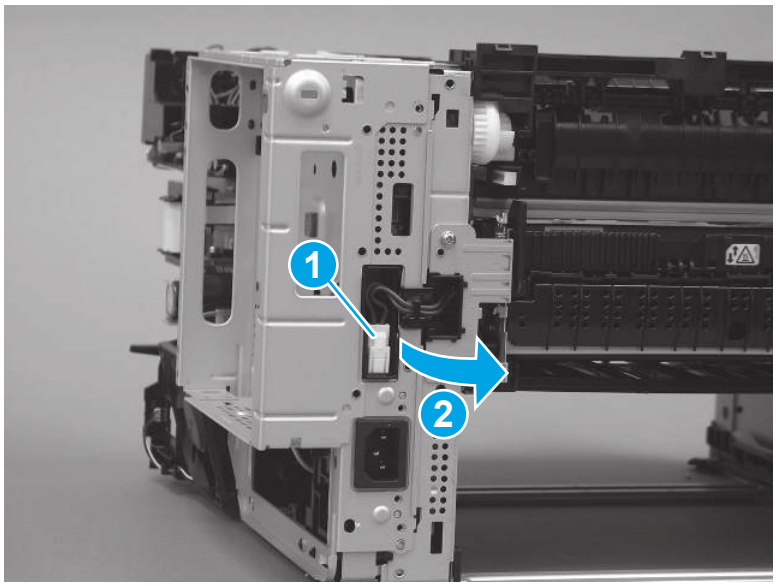
f. Remove five screws (callout 1).

Figure 4-1077 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

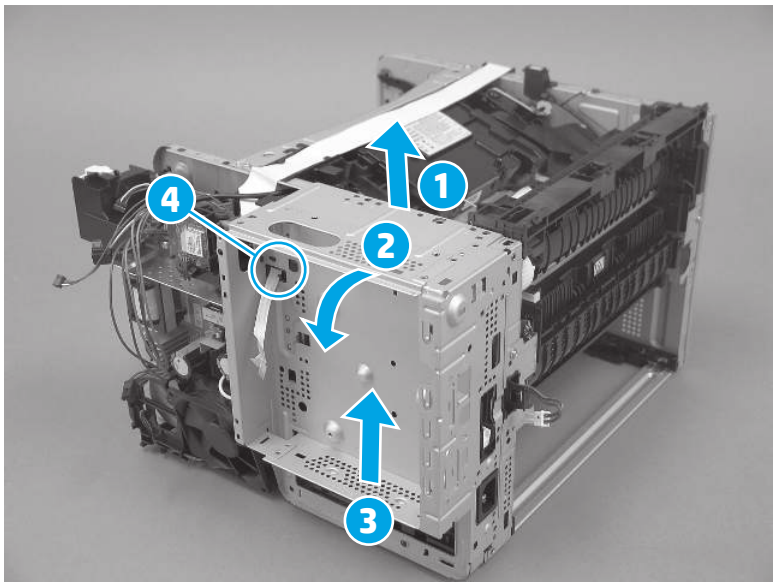
Figure 4-1078 **Disconnect one connector**



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

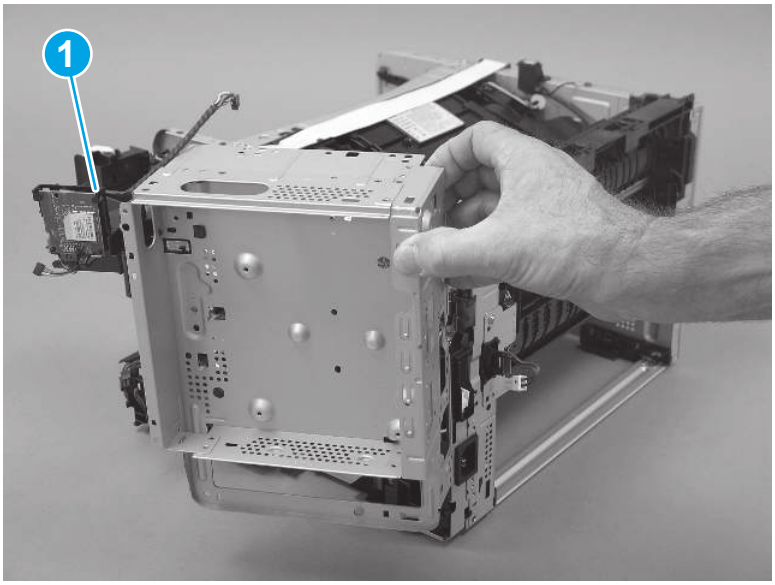
Figure 4-1079 **Release the formatter case**



i. Remove the formatter case.

NOTE: **WiFi models only**: If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

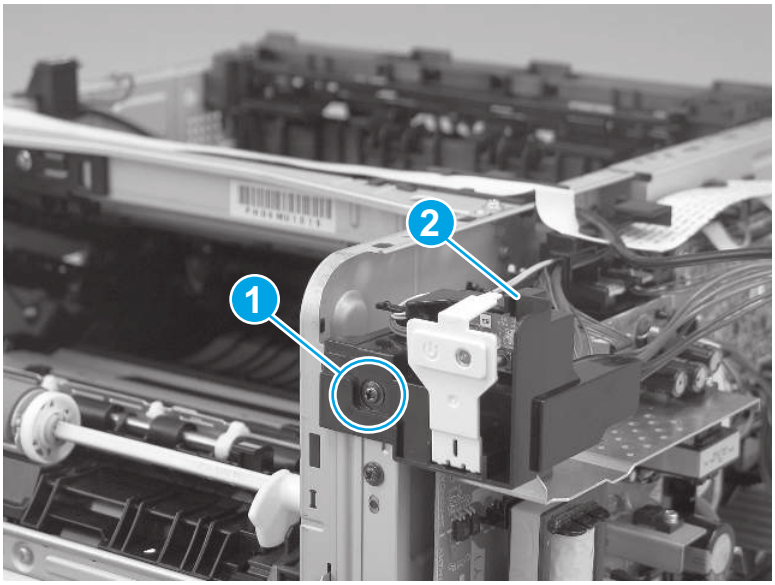
Figure 4-1080 Remove the formatter case



20. Remove the LVPS.

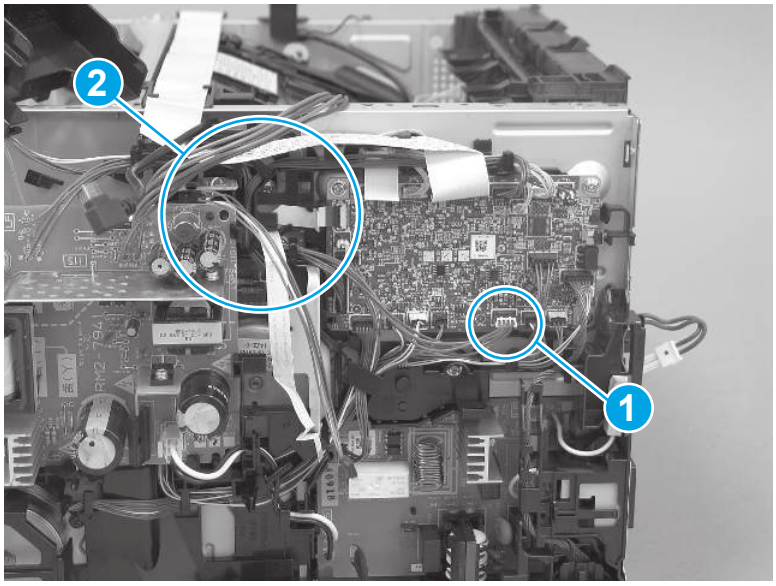
    a. Remove one screw (callout 1), and then move the power-switch assembly (callout 2) out of the way.

Figure 4-1081 Move the power-switch assembly



b. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

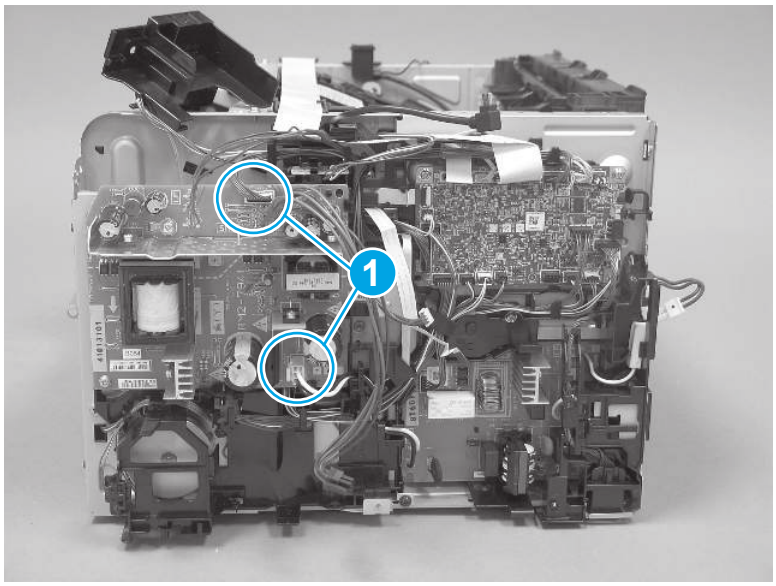
Figure 4-1082 Disconnect one connector



c. Disconnect two connectors (callout 1).

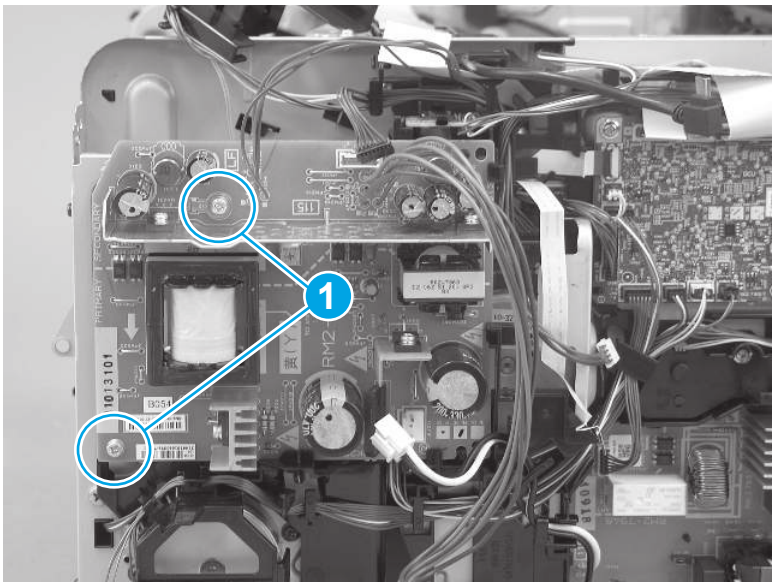
TIP: Squeeze the locking lever on the lower connector to release it.

Figure 4-1083 Disconnect two connectors



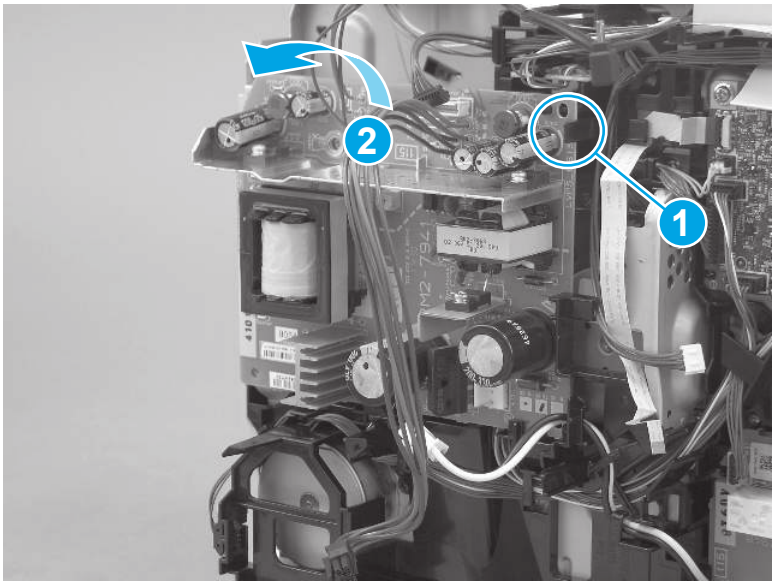
d. Remove two screws (callout 1).

Figure 4-1084 Remove two screws



e. Release one tab (callout 1), and then rotate the top of the LVPS out and away from the printer (callout 2).

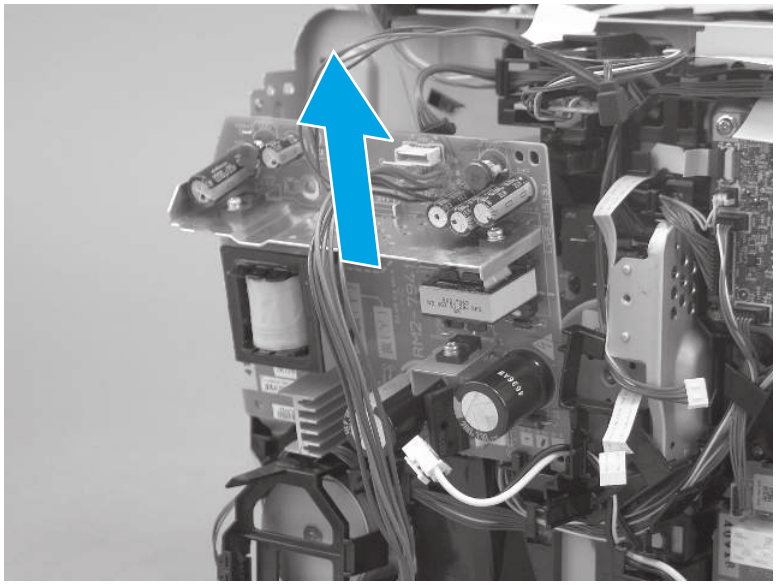
Figure 4-1085 Release one tab



f. Slide the LVPS up and away from the printer to release it.

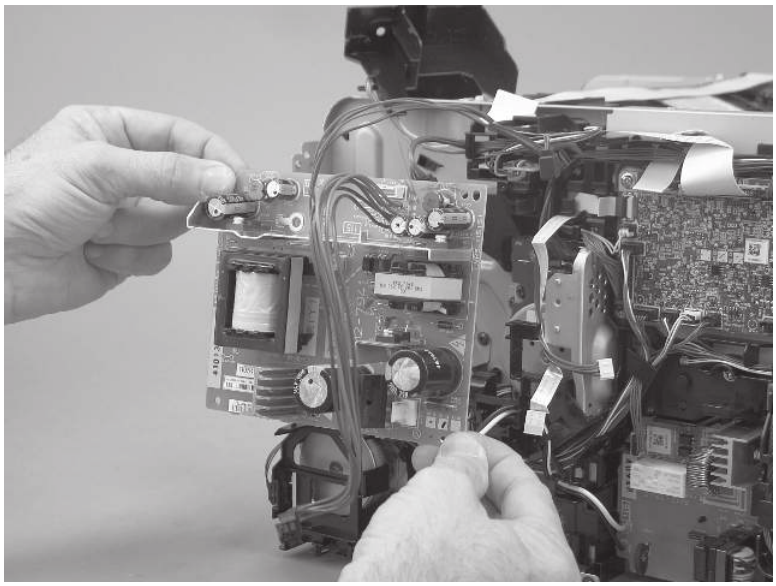
Reinstallation tip: Push down on the LVPS to make sure that it is fully seated on the holder.

Figure 4-1086 Release the LVPS



g. Remove the LVPS.

Figure 4-1087 Remove the LVPS



21. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not

available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Main Motor M1

Learn how to remove and replace the Main Motor M1.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

Mean time to repair: 60 minutes

Service level: Hard

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-43 Part information

Part number	Part description
RM2-8684-000CN	Main Motor M1

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

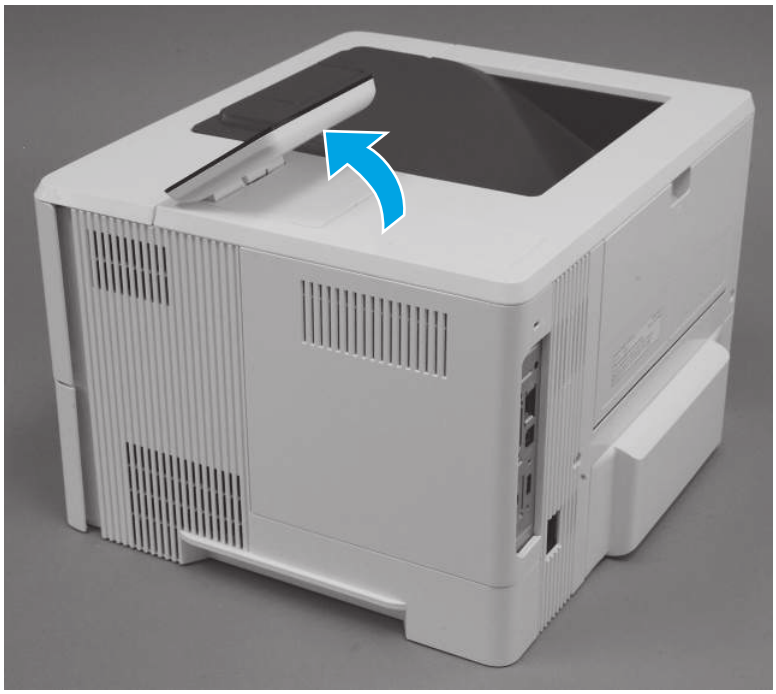
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).
   a. Tilt the control panel to the fully raised position.

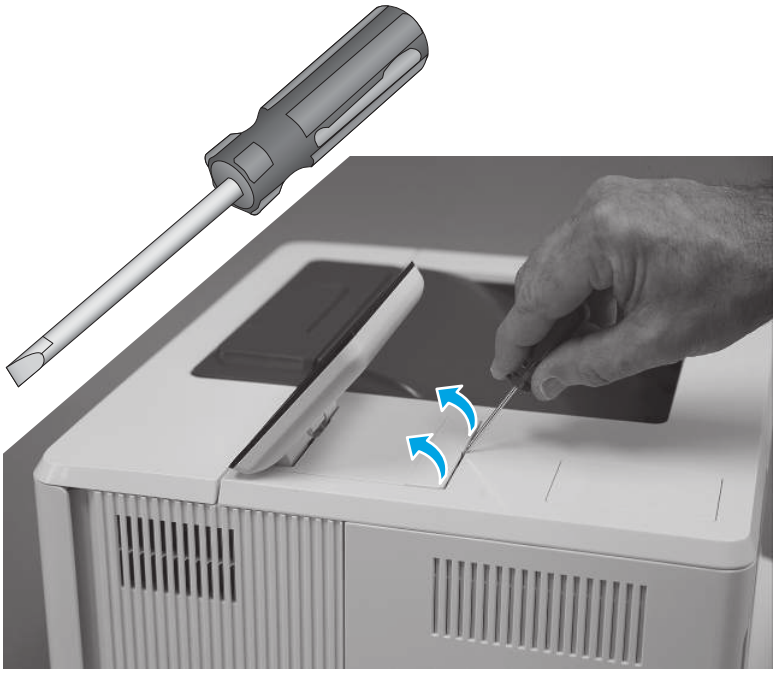
      Figure 4-1088 **Tilt the control panel up**

   b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

      TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

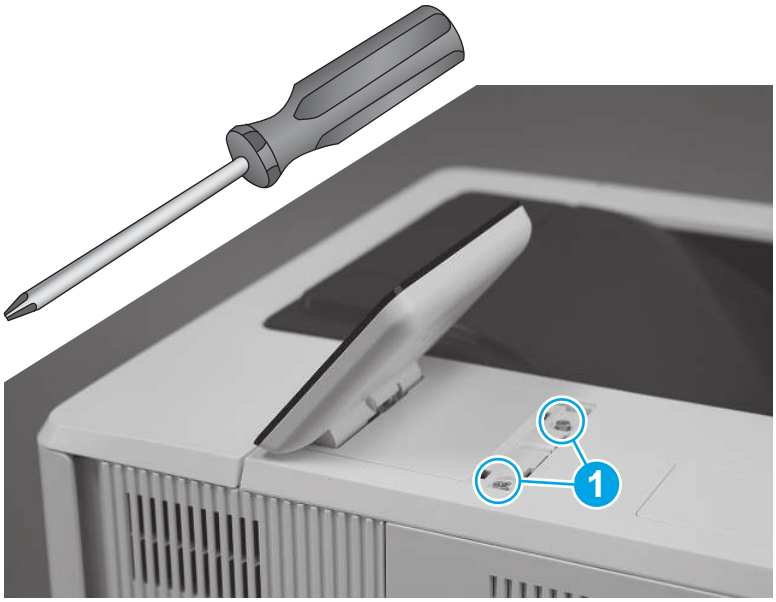
Figure 4-1089 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

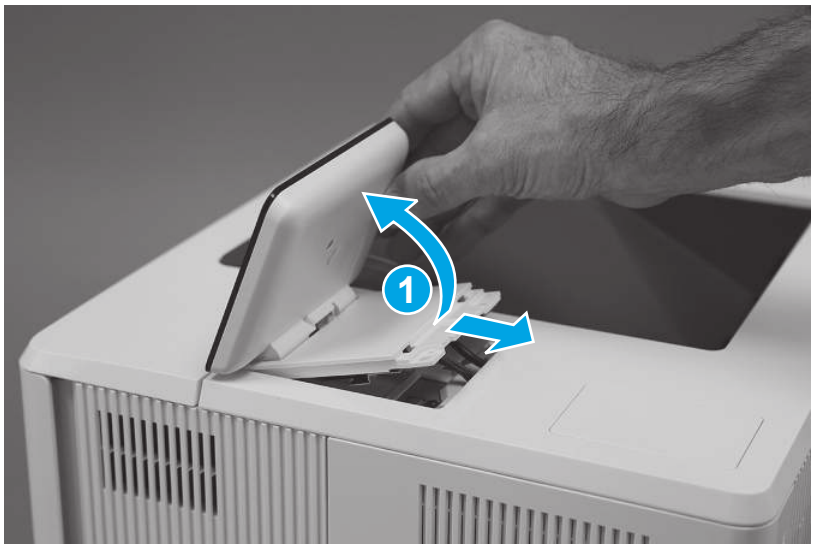
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-1090 Remove two screws



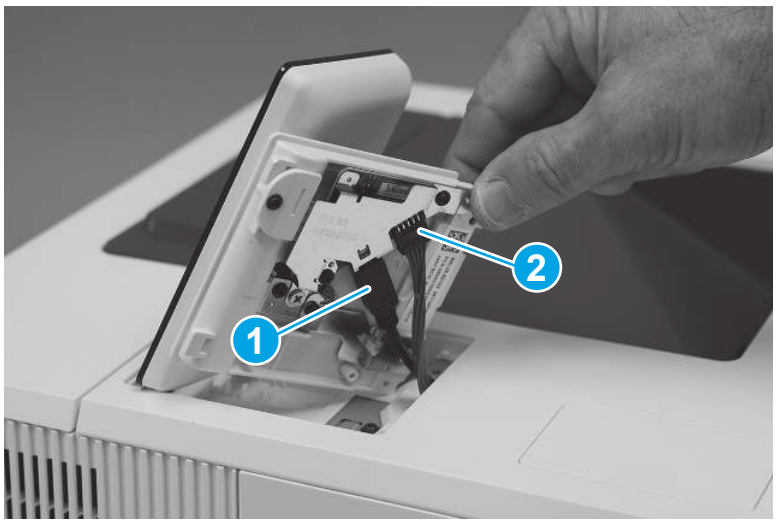
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-1091 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-1092 Remove the control panel (M506/E50045)



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

⚠ CAUTION: ESD ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-1093 Disconnect one FFC (M507/E50145)

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ CAUTION: ESD sensitive part.

Figure 4-1094 Remove the control panel (M507/E50145)

2. Remove the tray.

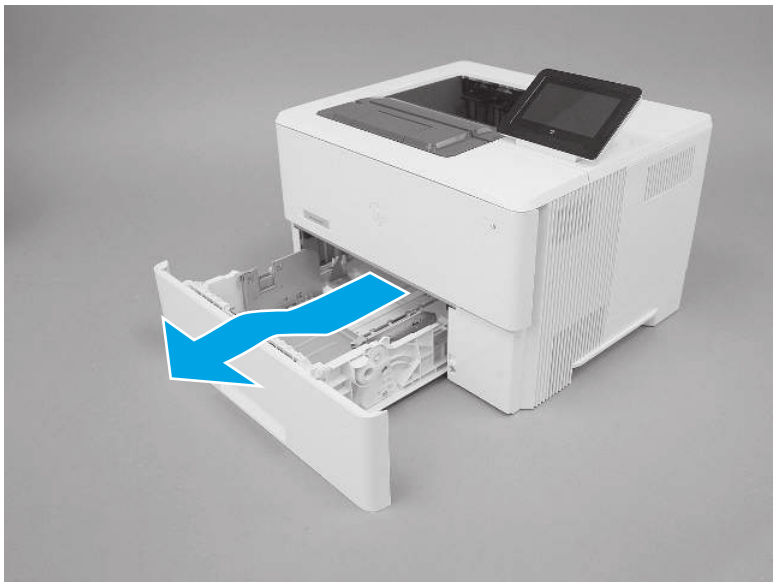
a. Pull the tray straight out of the printer until it stops.

Figure 4-1095 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1096 **Release and remove the tray**

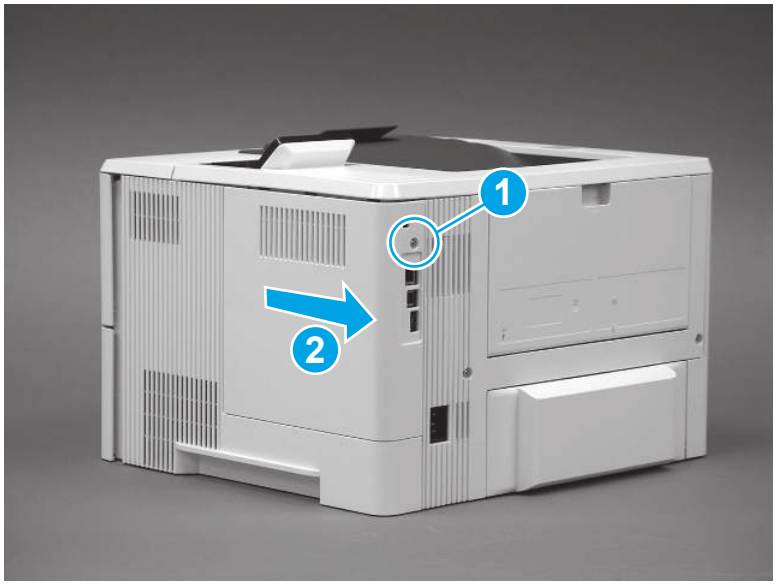


3. Remove the formatter cover.

- Do one of the following:

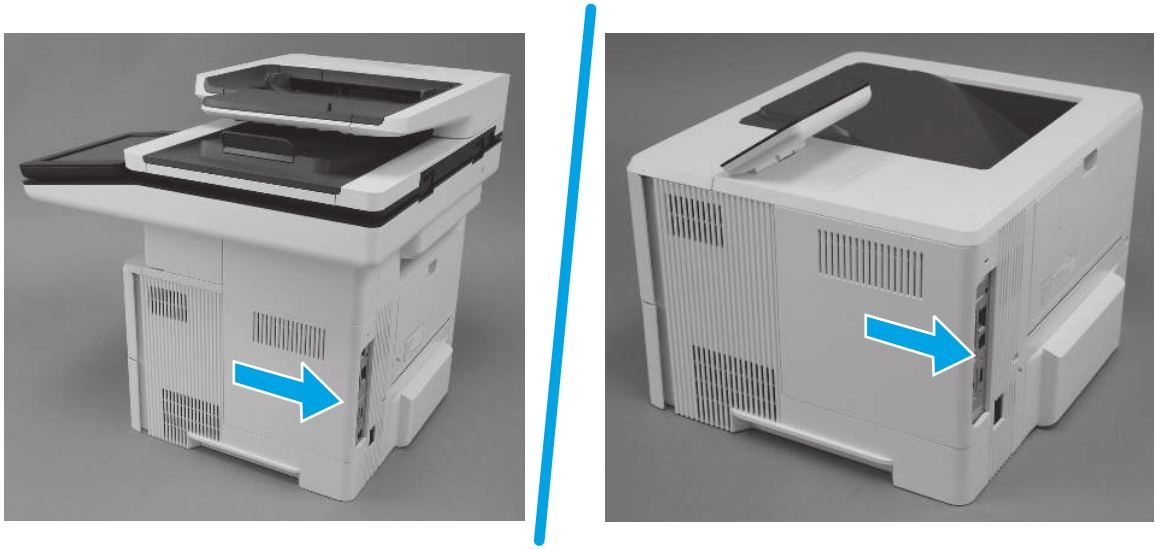
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1097 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-1098 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

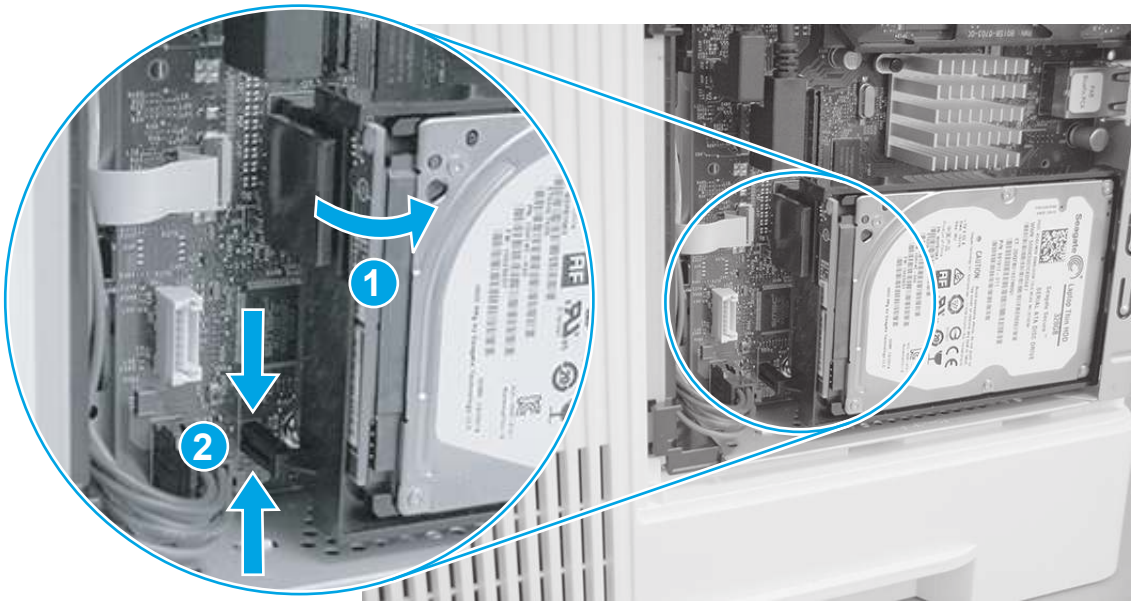


4. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

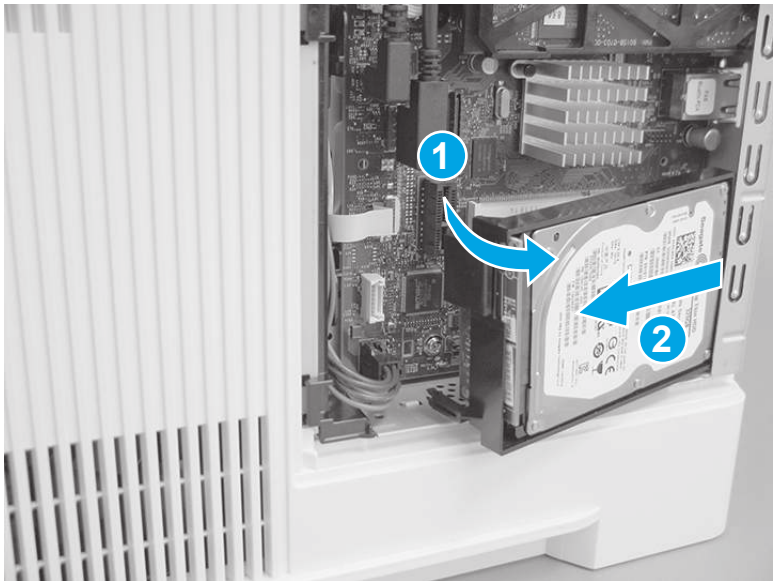
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-1099 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1100 Remove the HDD

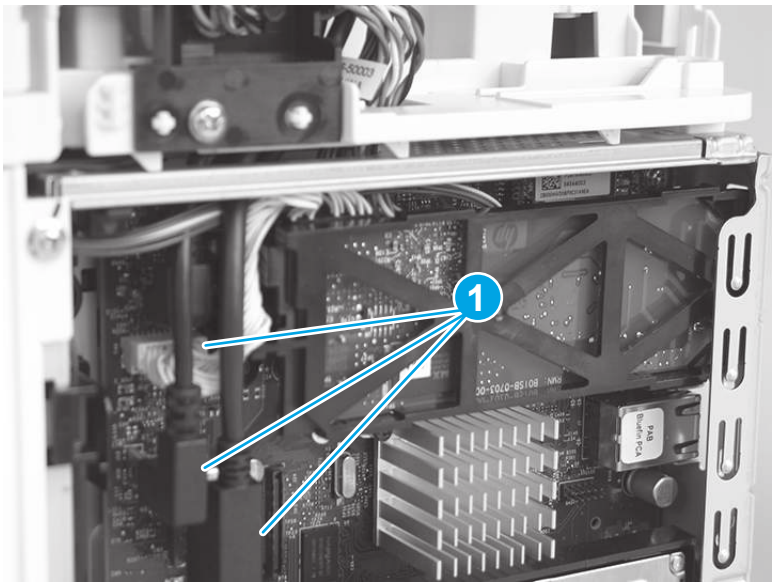


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

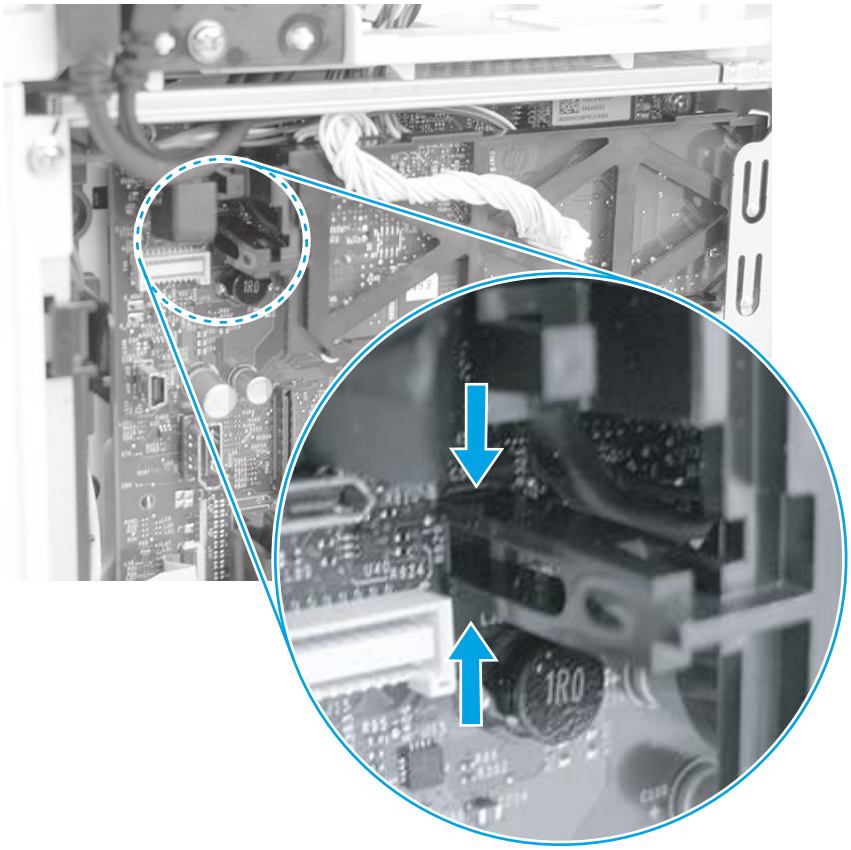
a. Disconnect three connectors (callout 1).

Figure 4-1101 Disconnect three connectors



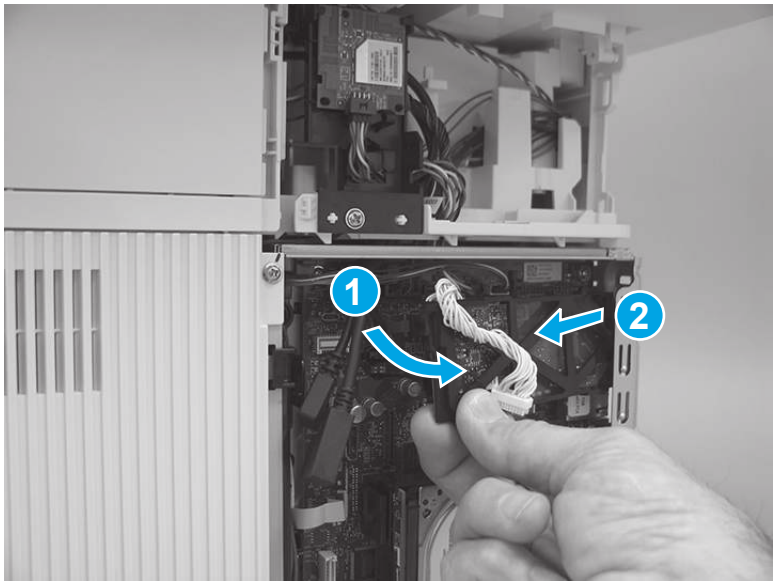
b. Pinch the retainer to release it.

Figure 4-1102 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1103 Remove the fax PCA



6. Remove the formatter.

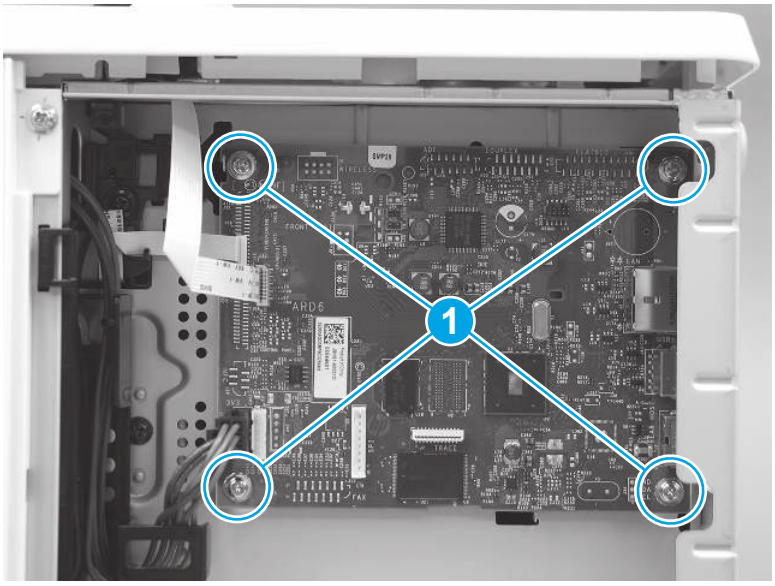
CAUTION: Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

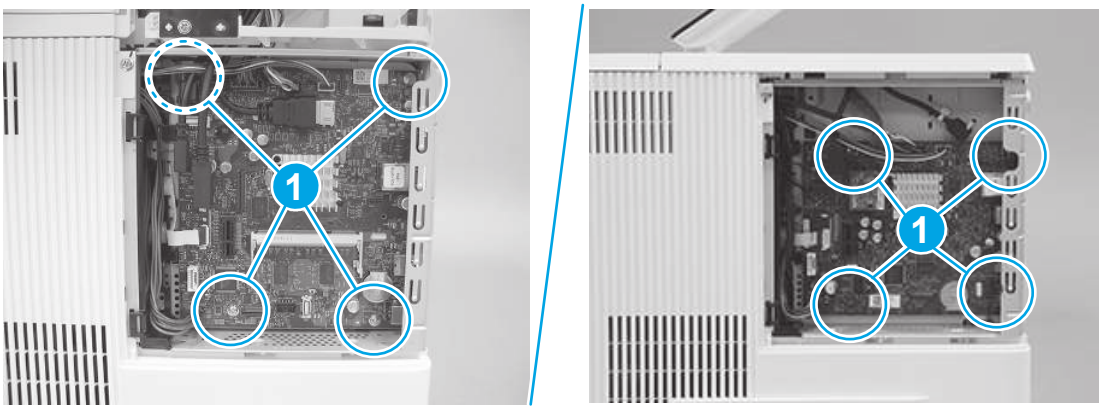
Figure 4-1104 **Remove the formatter (M501)**



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-1105 **Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)**

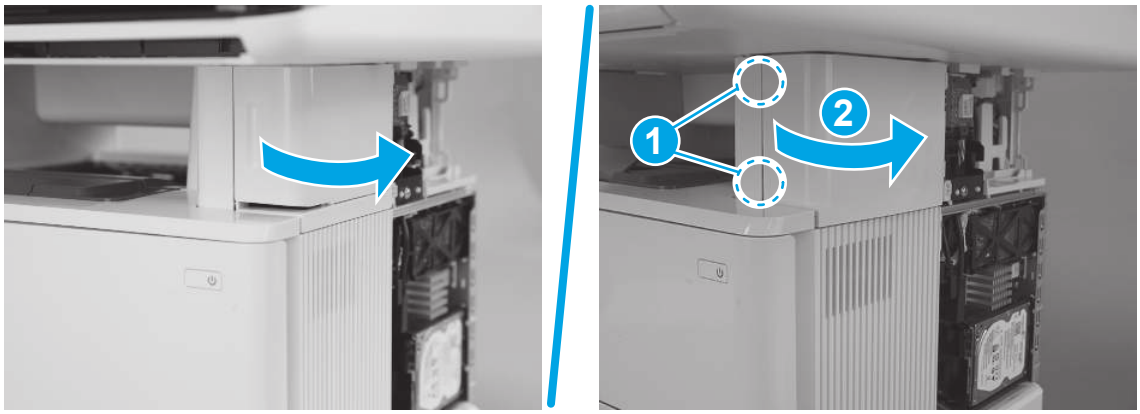


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

a. Do one of the following:

- **Stapler models**: Open the stapler door.
- **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-1106 Open the door or release the cover



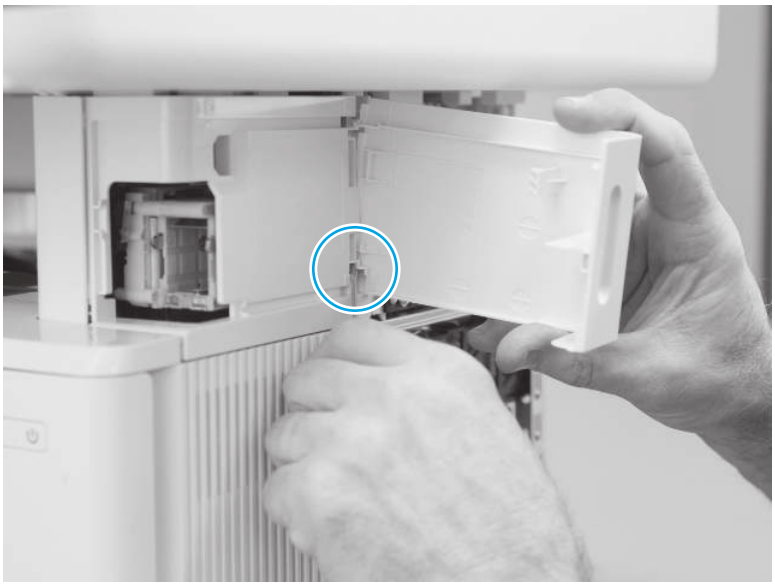
b. Do one of the following:

- **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
- **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-1107 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-1108 **Release the lower hinge**



d. **Stapler models**: Remove the door.

Figure 4-1109 **Remove the door**

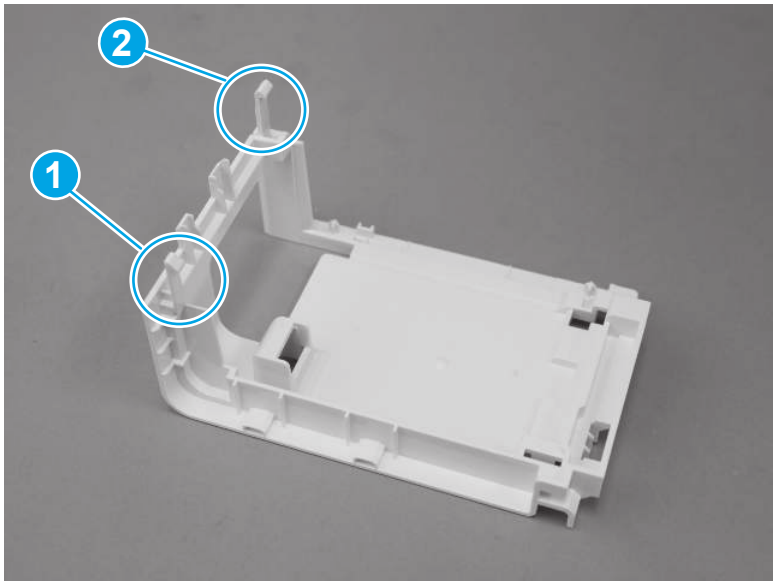
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

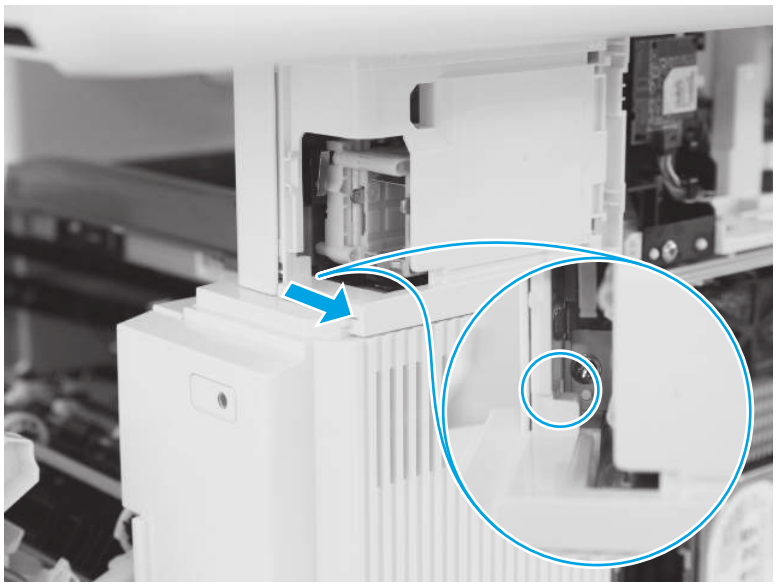
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-1110 Locate the tabs



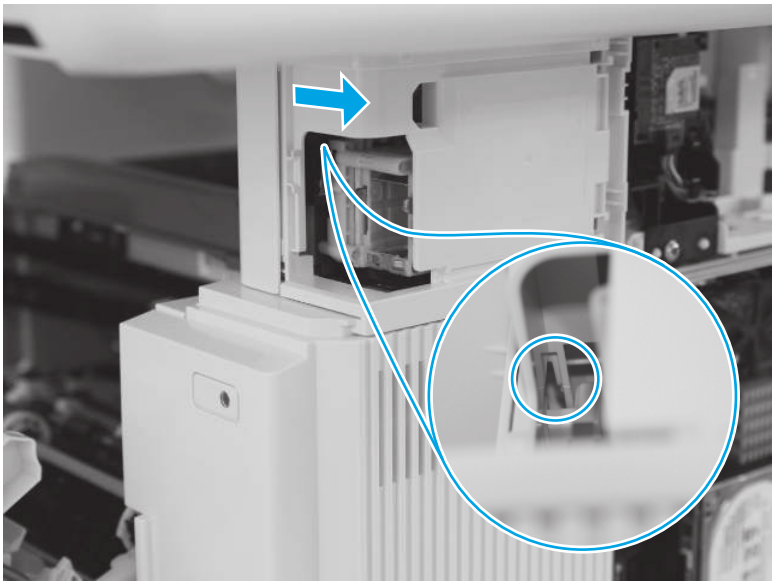
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-1111 Release one tab



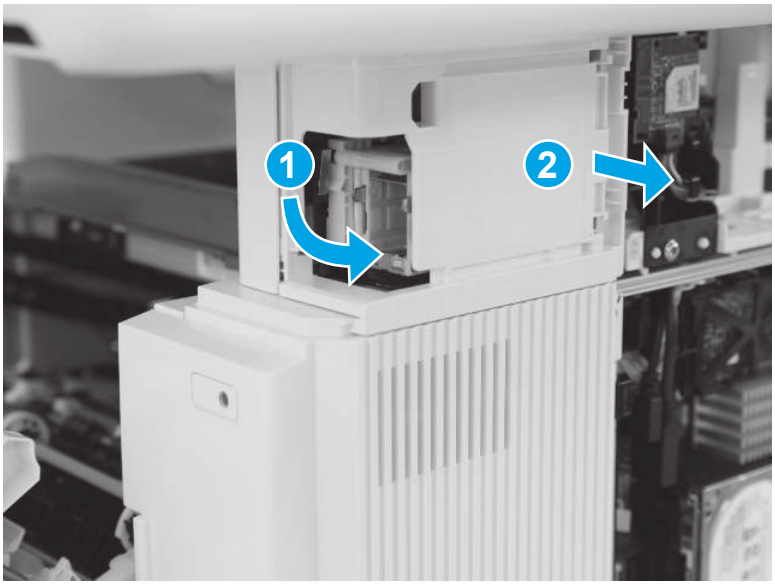
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-1112 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

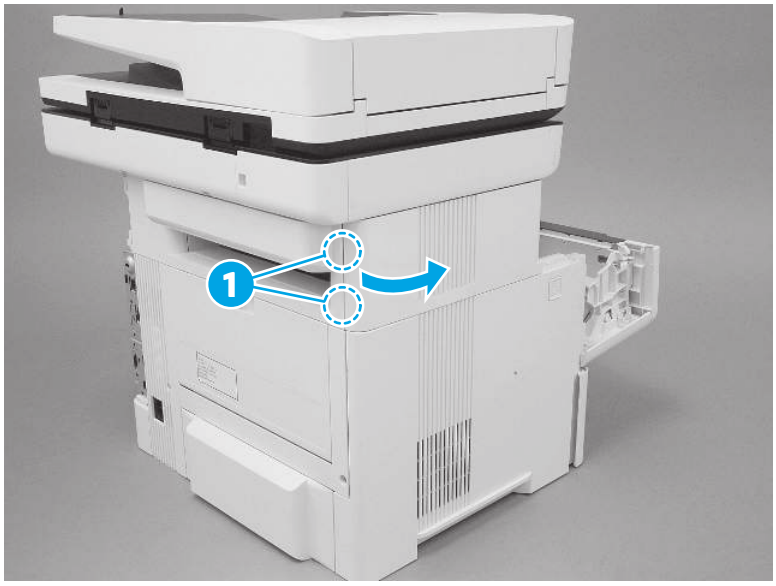
Figure 4-1113 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-1114 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

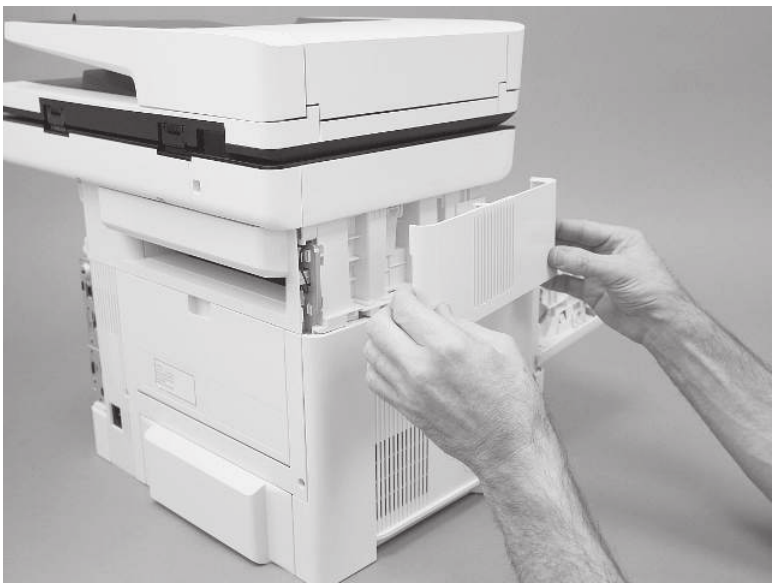
Figure 4-1115 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-1116 Slide the cover

d. Remove the cover.

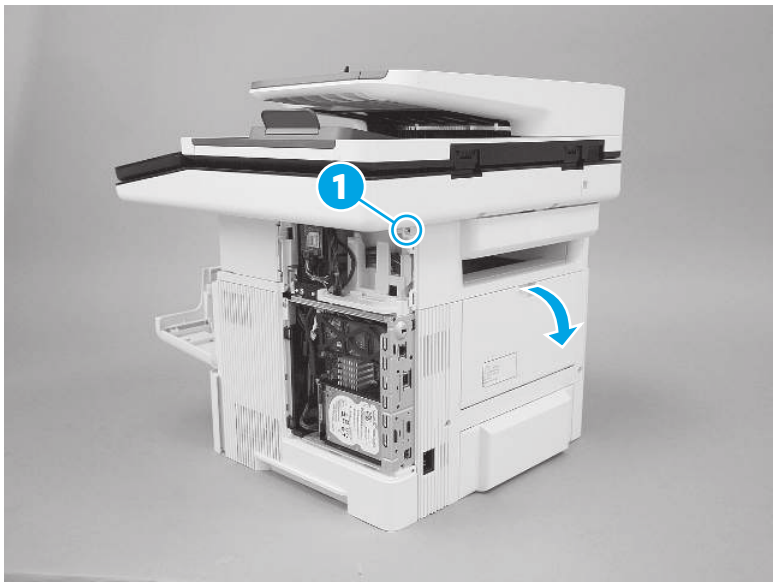
Figure 4-1117 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

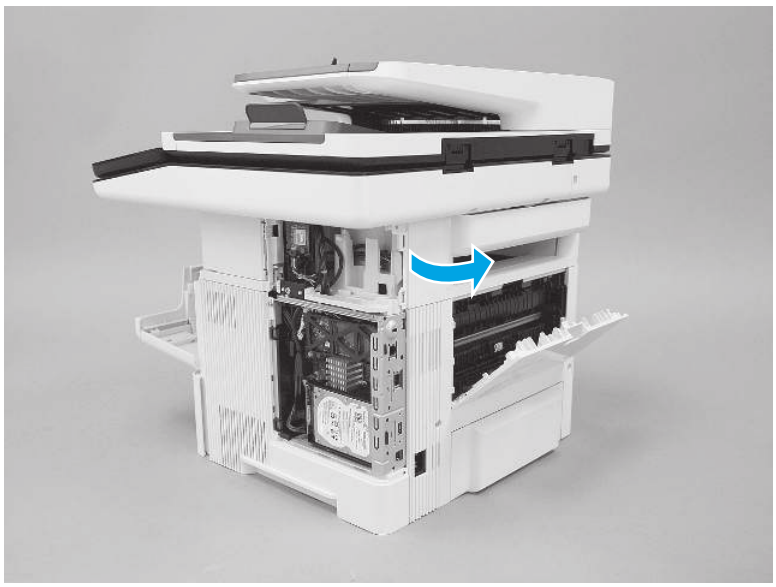
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-1118 Remove one screw



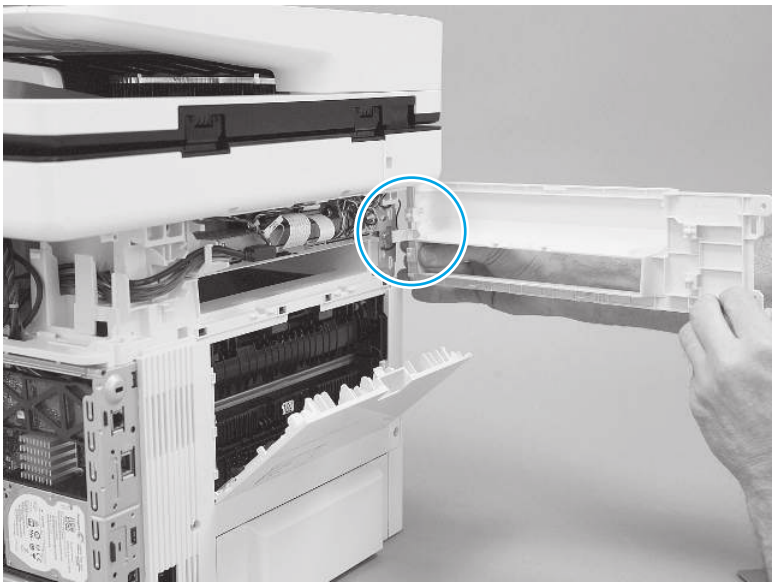
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-1119 Rotate the cover



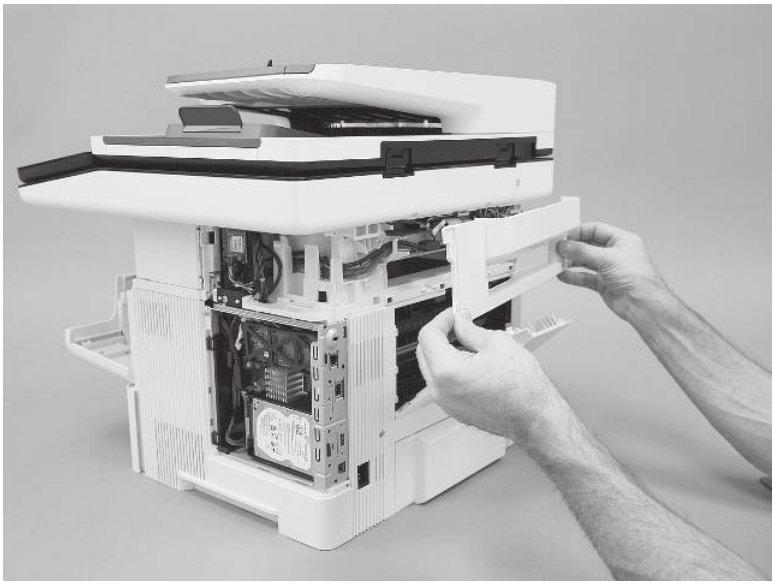
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-1120 Release one boss



d. Remove the cover.

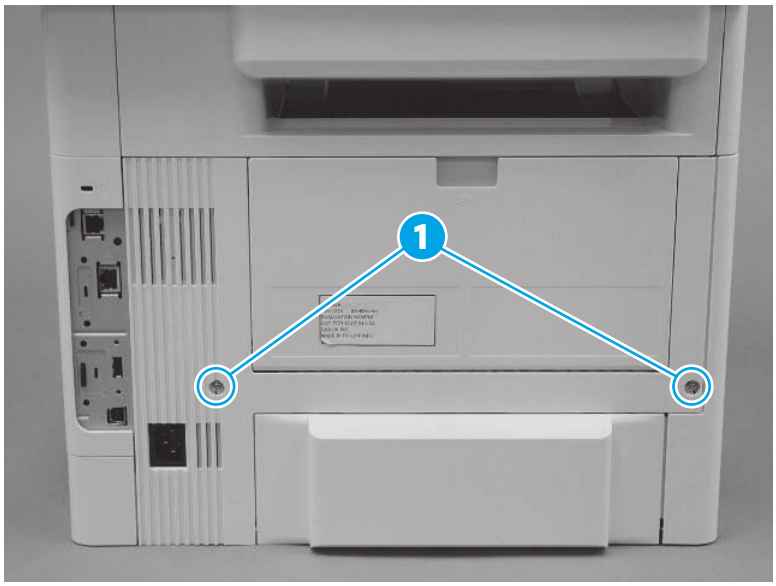
Figure 4-1121 Remove the cover



11. Remove the rear door assembly.

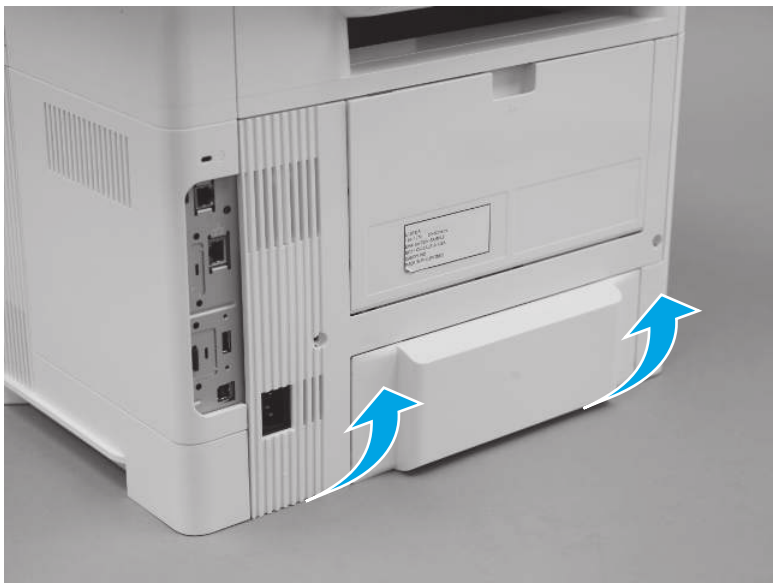
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-1122 Remove two screws



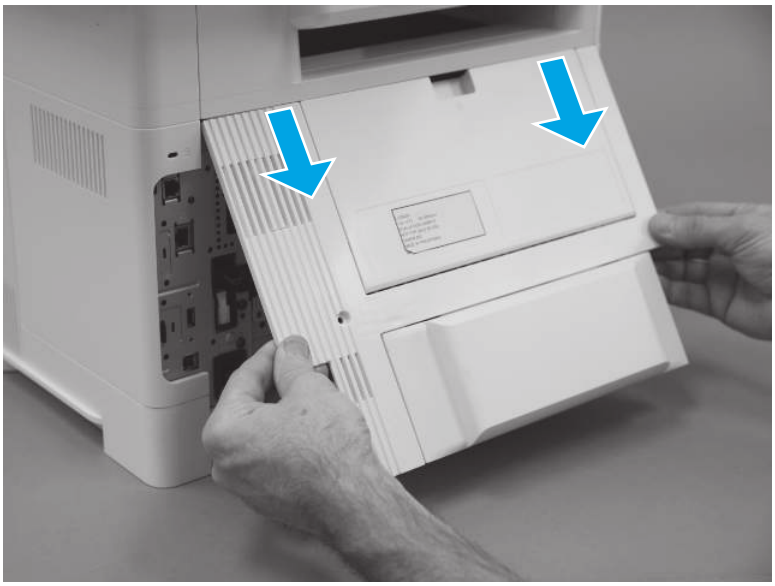
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-1123 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-1124 Remove the cover



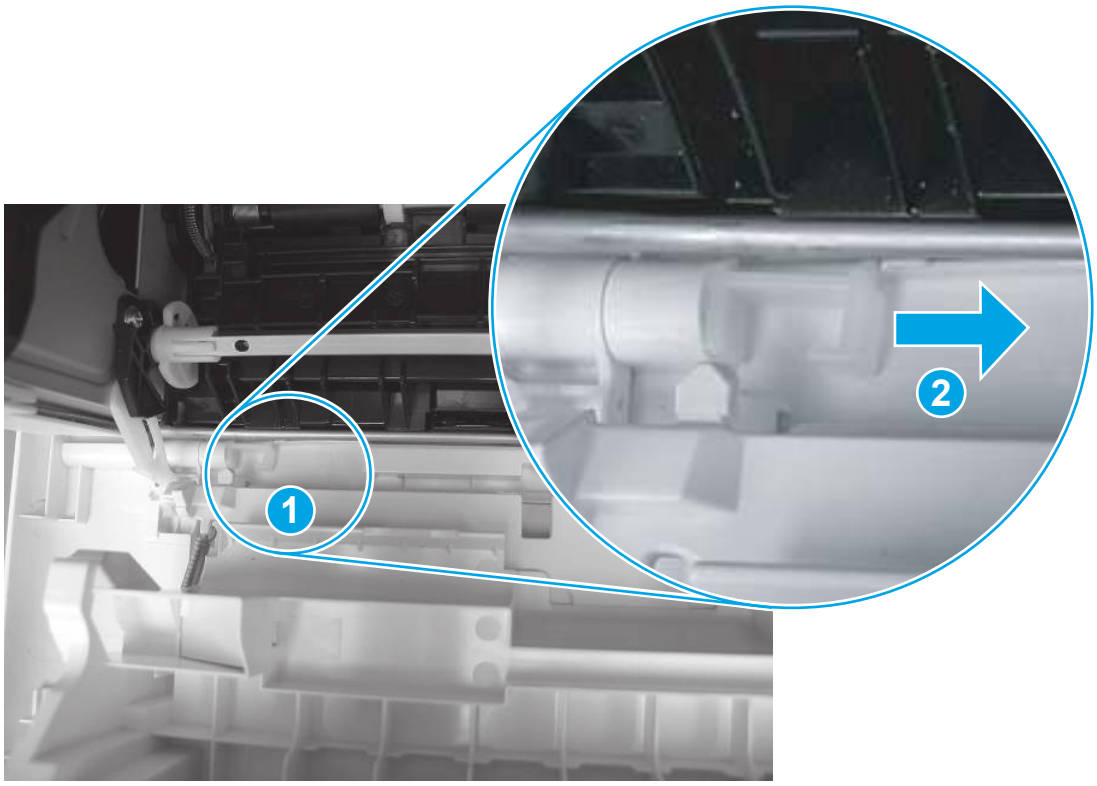
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

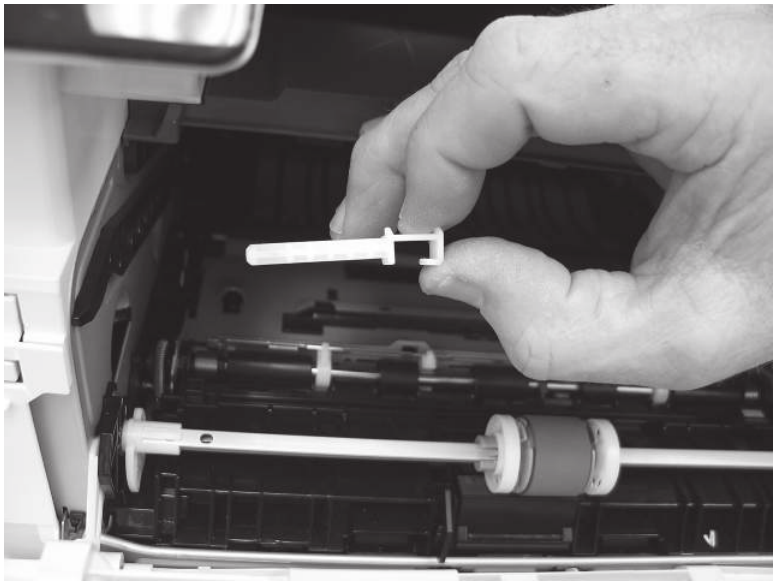
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-1125 Release the support shaft



b. Remove the support shaft.

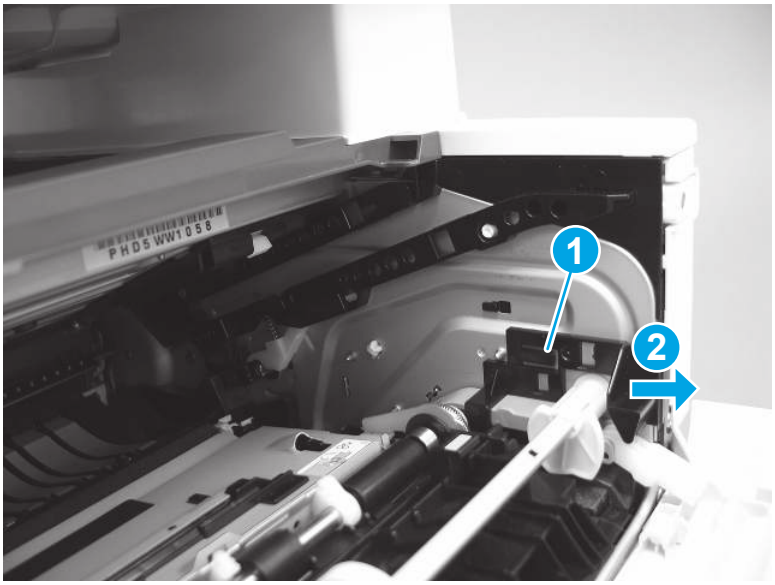
Figure 4-1126 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

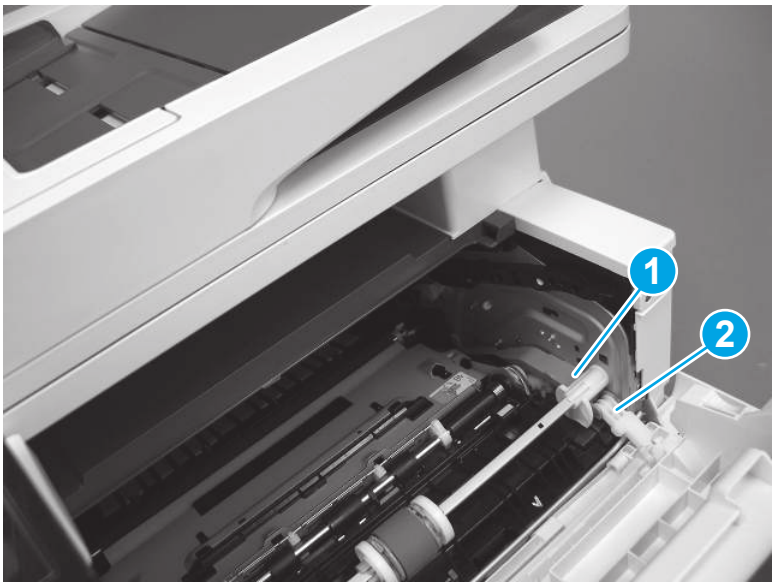
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-1127 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-1128 Release the pressure-release link



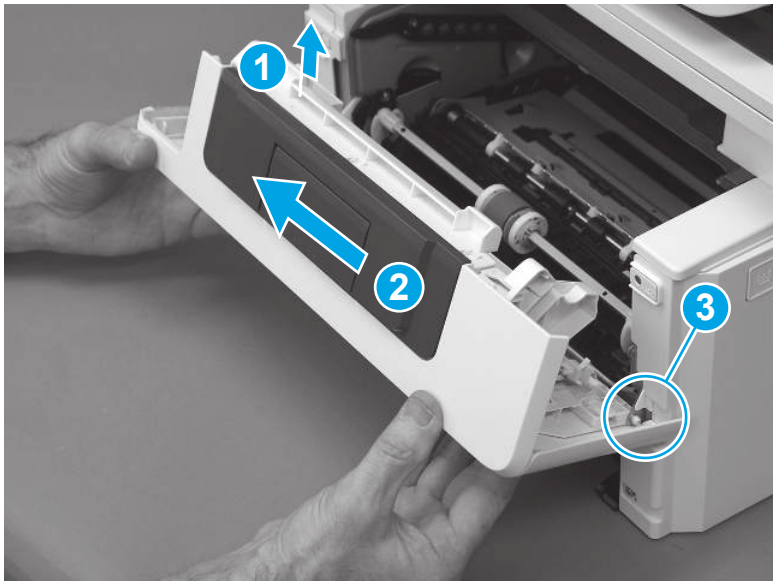
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

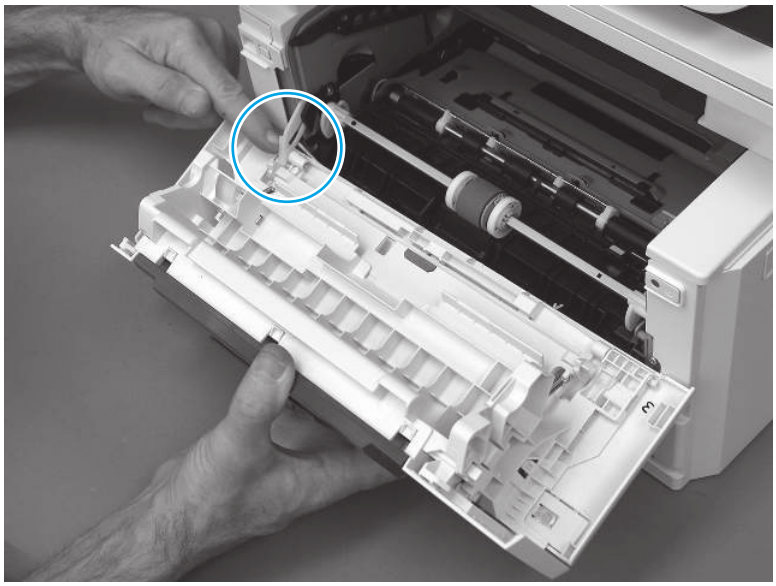
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-1129 Release the door



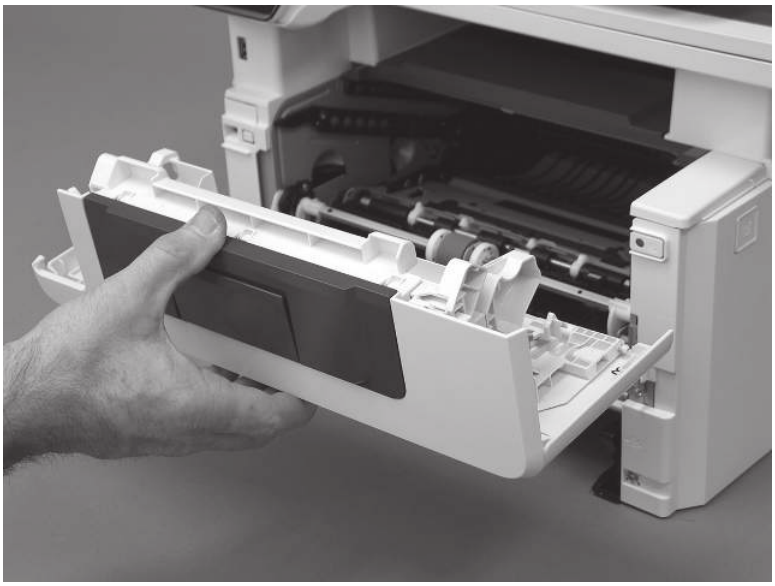
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-1130 Release the left-side retainer arm



g. Remove the door.

Figure 4-1131 Remove the door



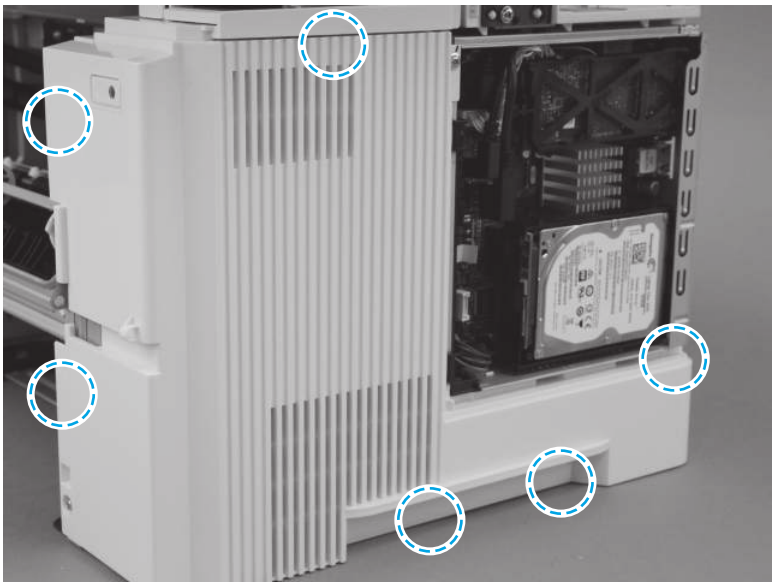
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

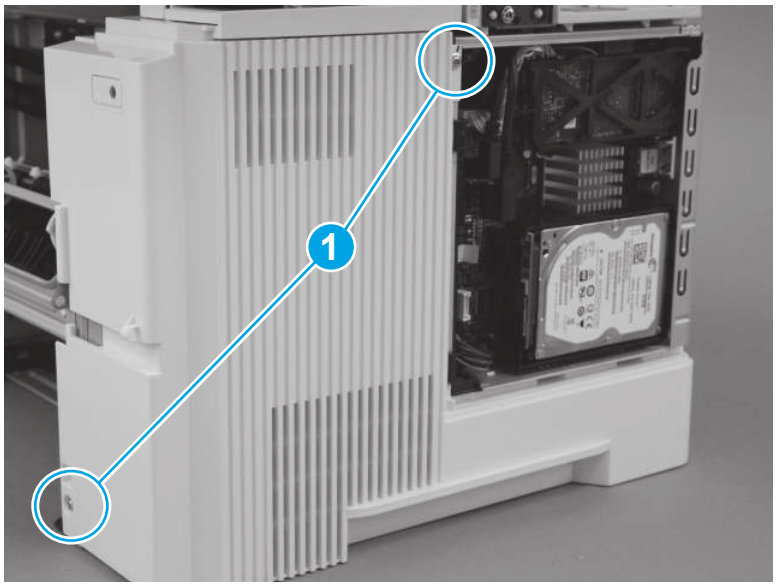
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1132 Locate the tabs and bosses



b. Remove two screws (callout 1).

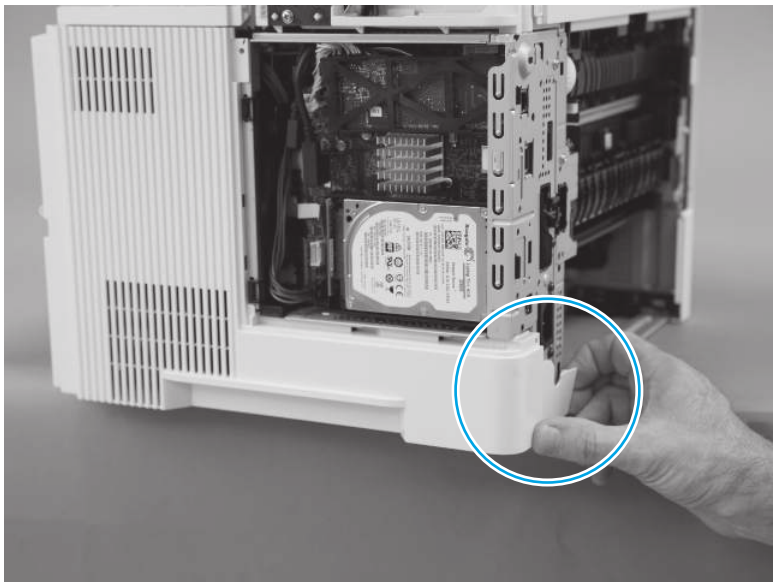
Figure 4-1133 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

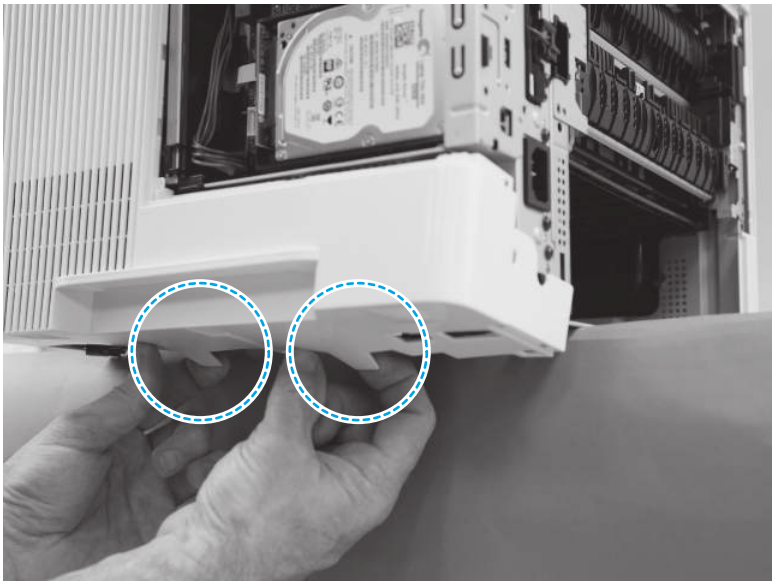
Figure 4-1134 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1135 Release two bosses

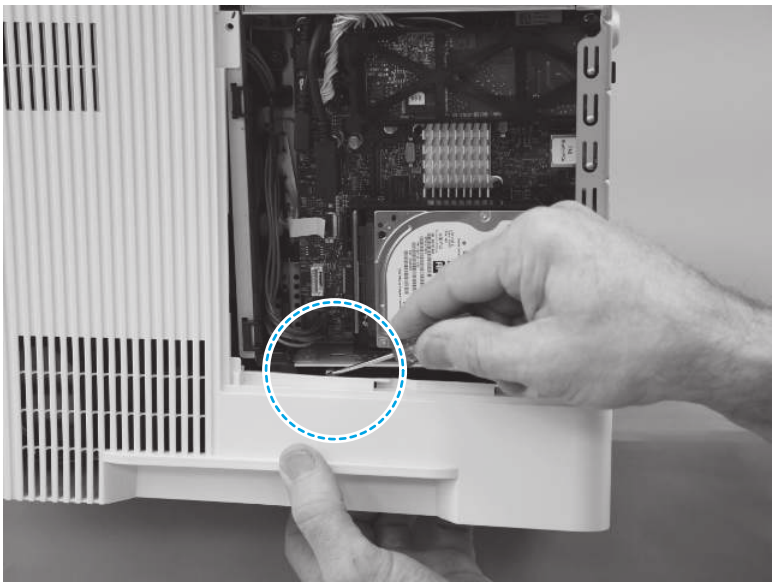


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-1136 Release one tab

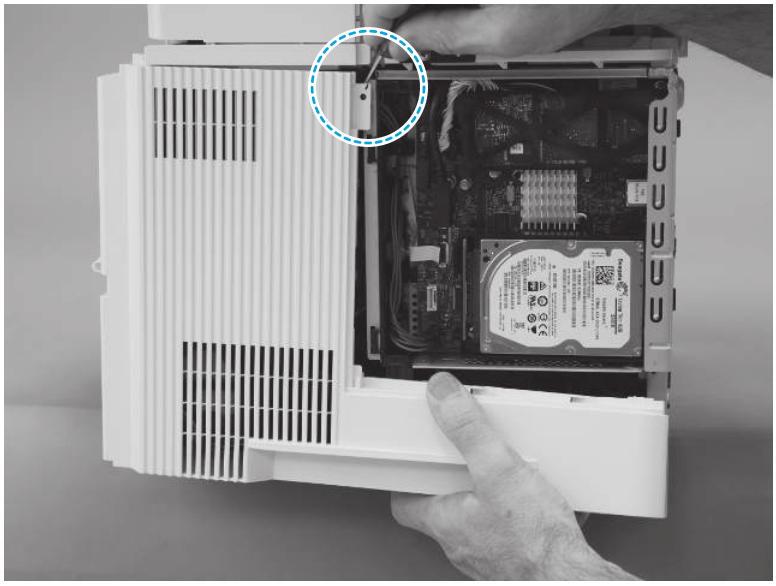


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

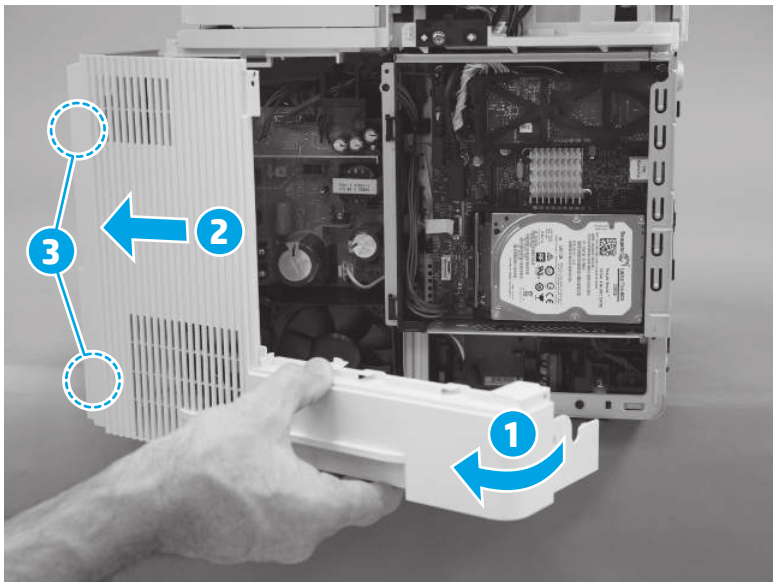
Figure 4-1137 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1138 Remove the cover



14. Remove the left cover.

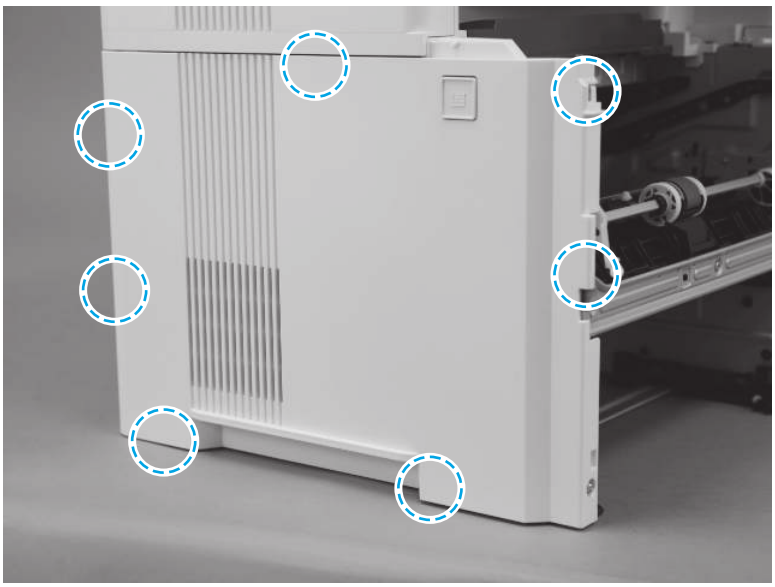
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

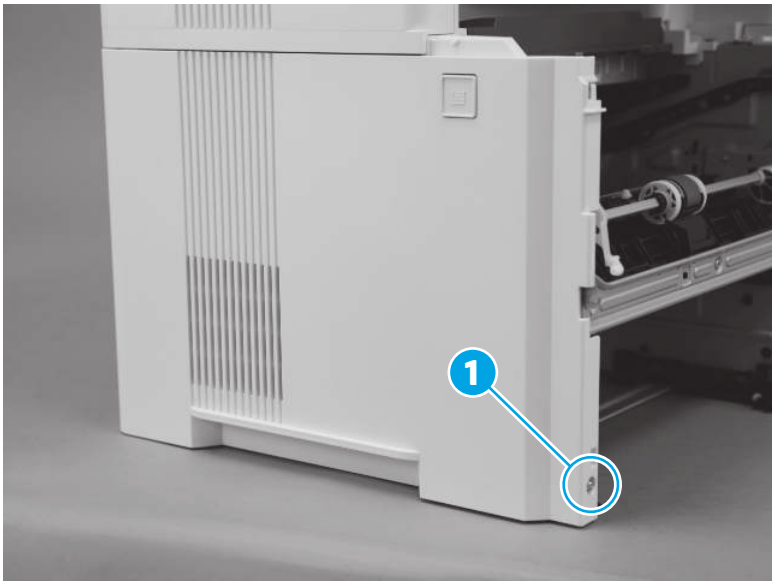
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1139 Locate of the tabs and bosses



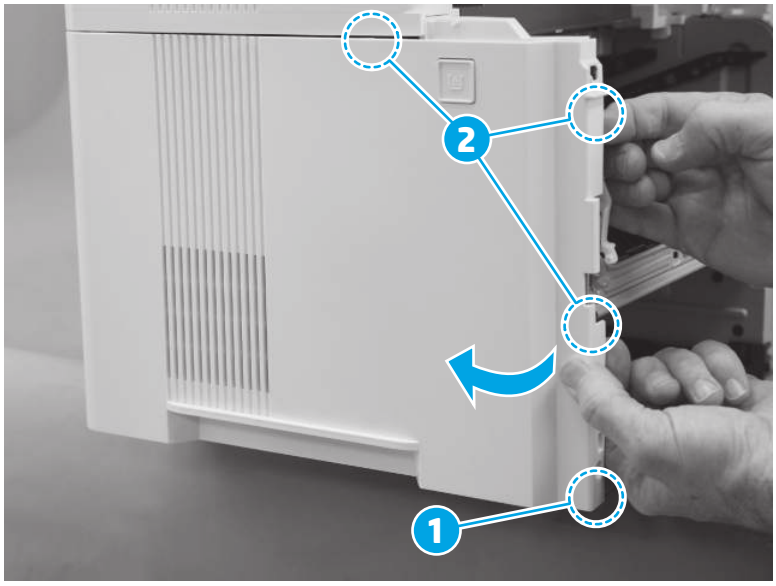
b. Remove one screw (callout 1).

Figure 4-1140 Remove one screw



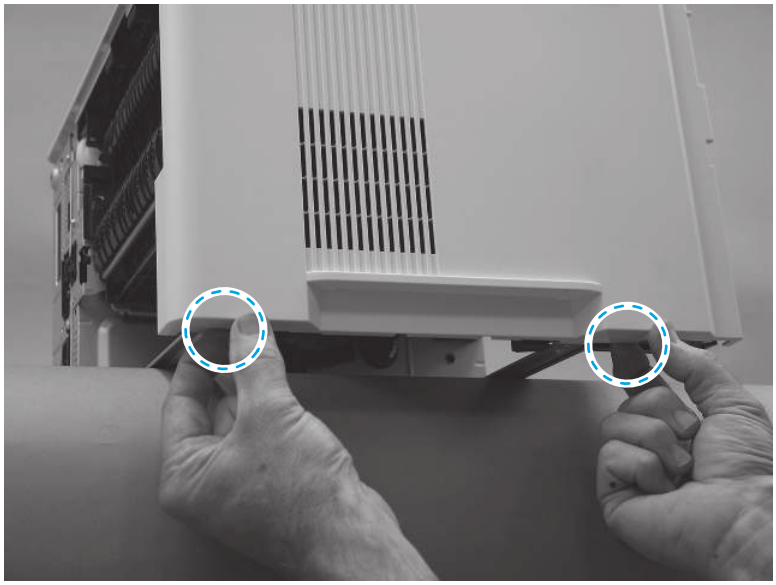
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-1141 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

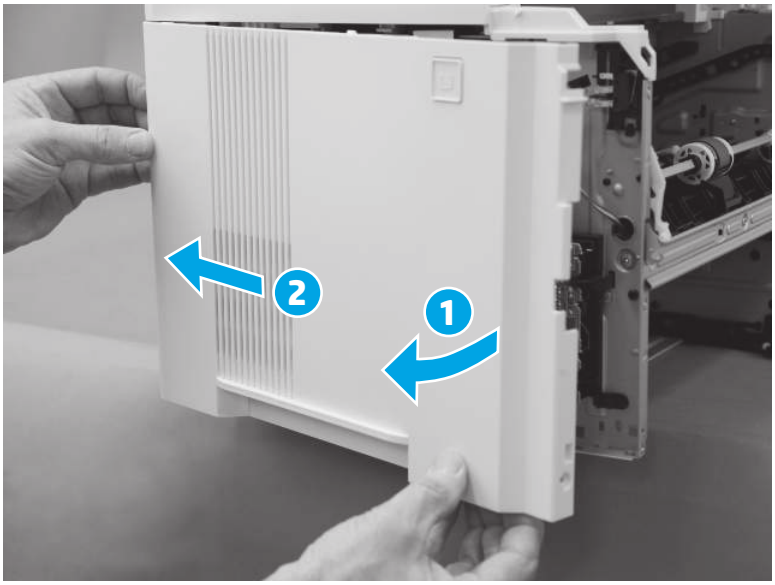
Figure 4-1142 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-1143 Remove the cover



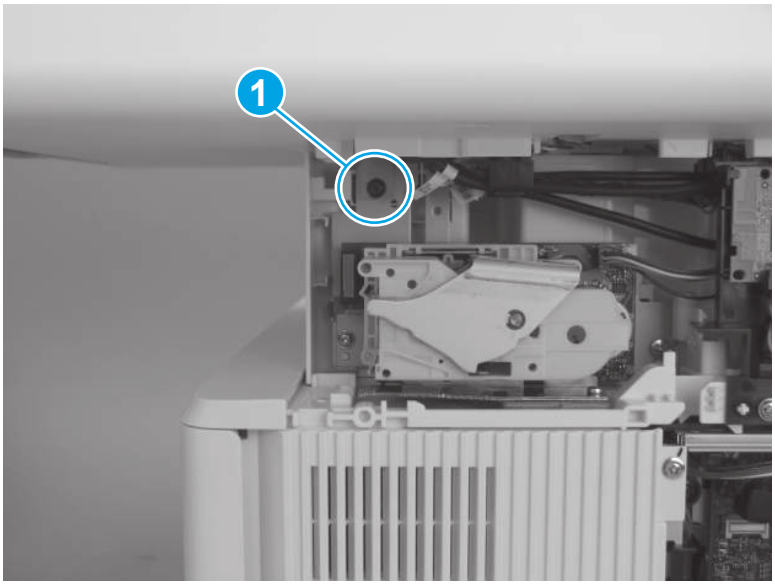
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-1144 Remove one screw

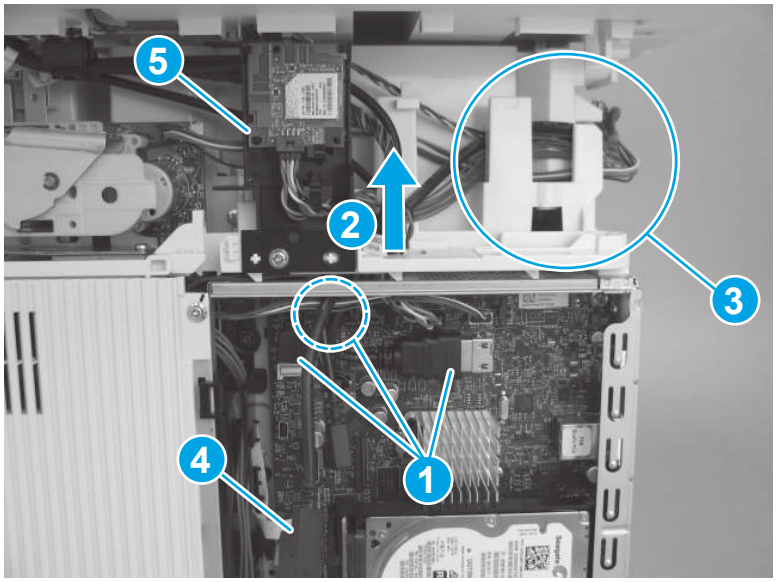


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

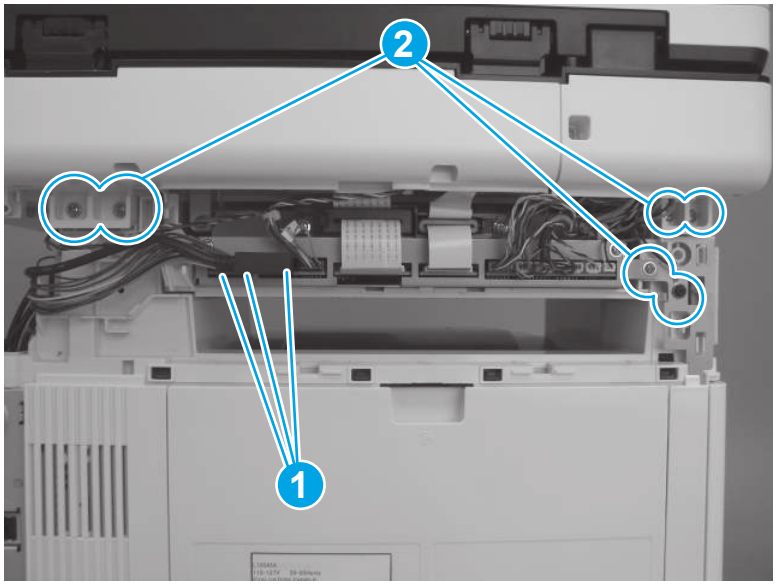
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-1145 Disconnect cables and connectors



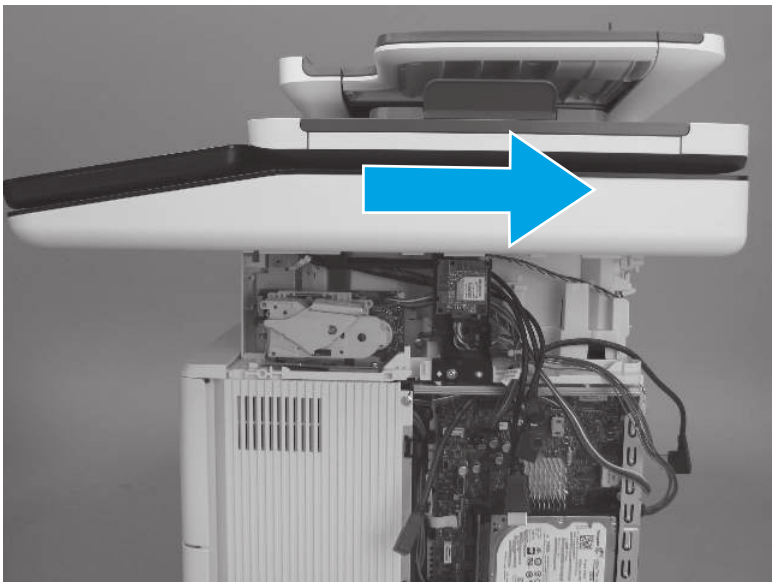
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-1146 Disconnect connectors and remove screws



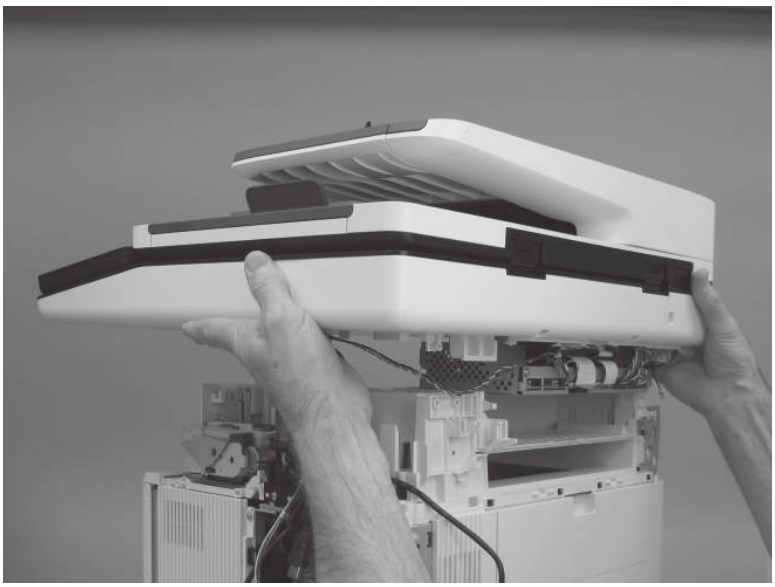
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-1147 Slide the ISA towards the back of the printer



e. Remove the ISA.

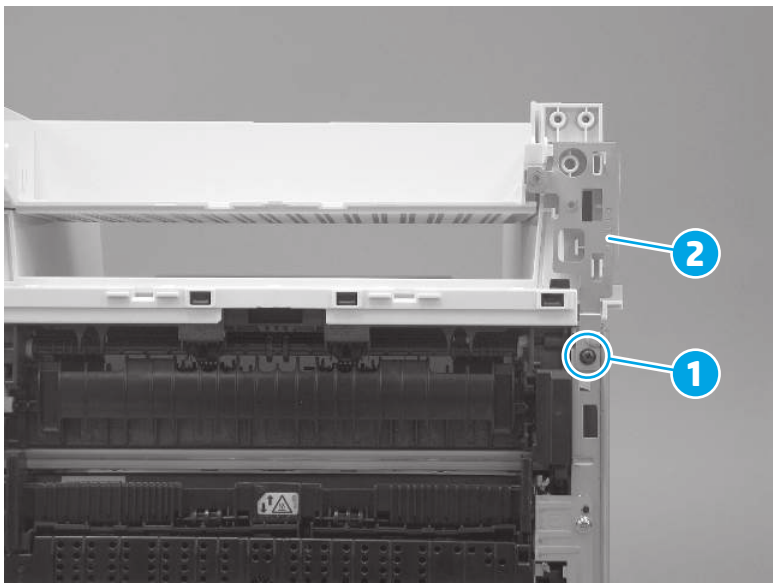
Figure 4-1148 Remove the ISA



16. Remove the top cover (M527/E52545/M528/E52645).

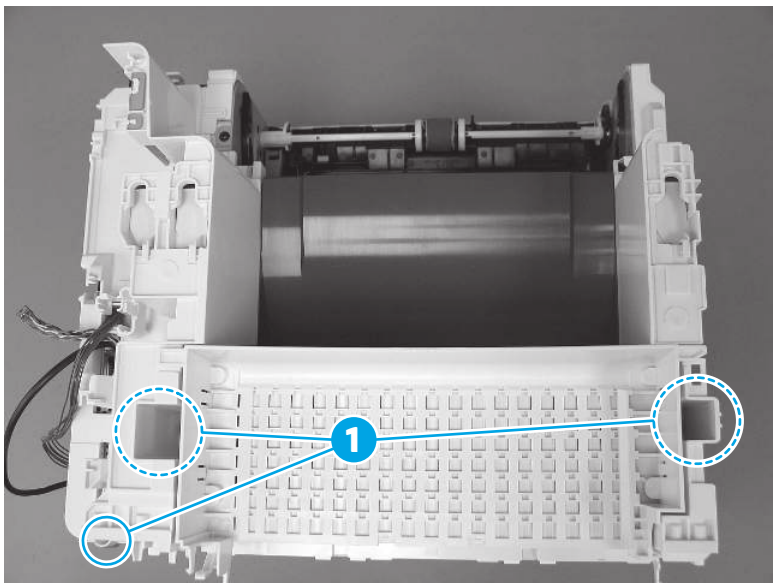
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-1149 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

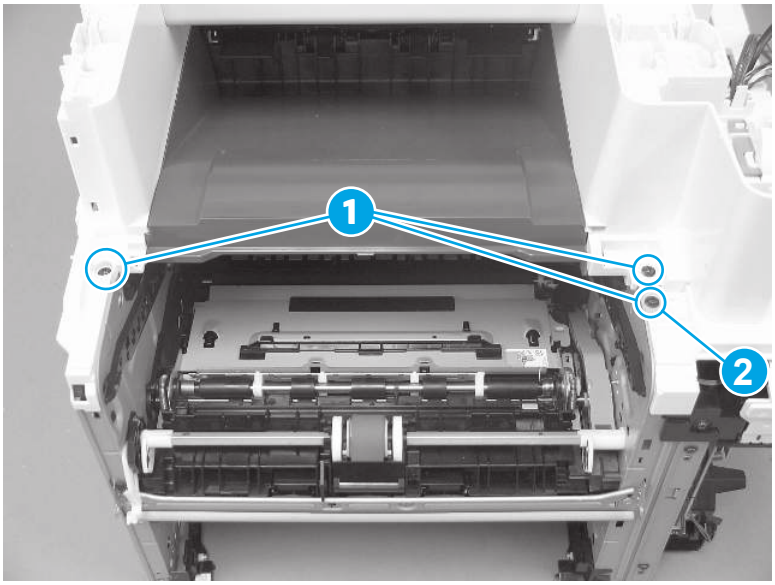
Figure 4-1150 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

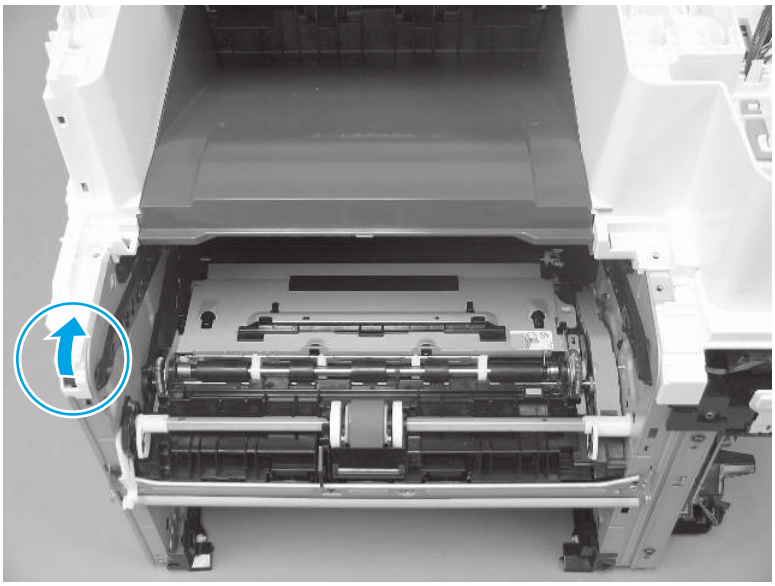
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-1151 Remove three screws



d. At the front left of the printer, release one boss.

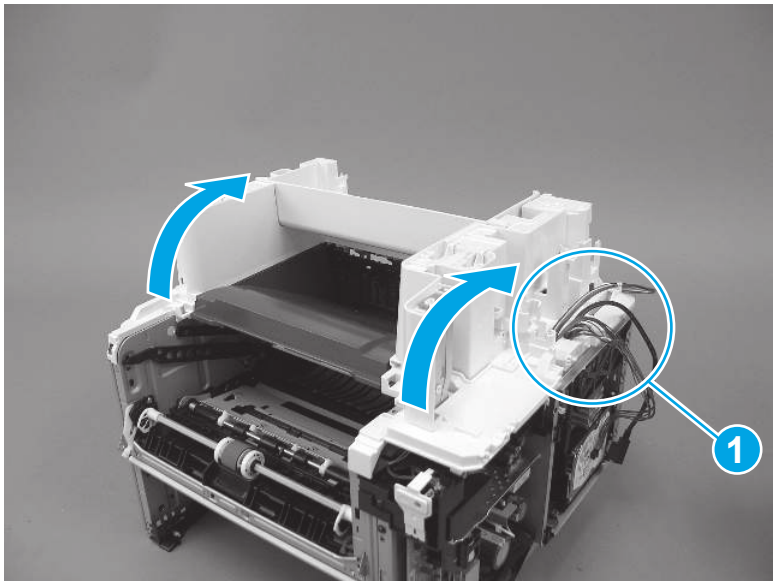
Figure 4-1152 Release one boss



e. Rotate the front of the cover up and away from the printer.

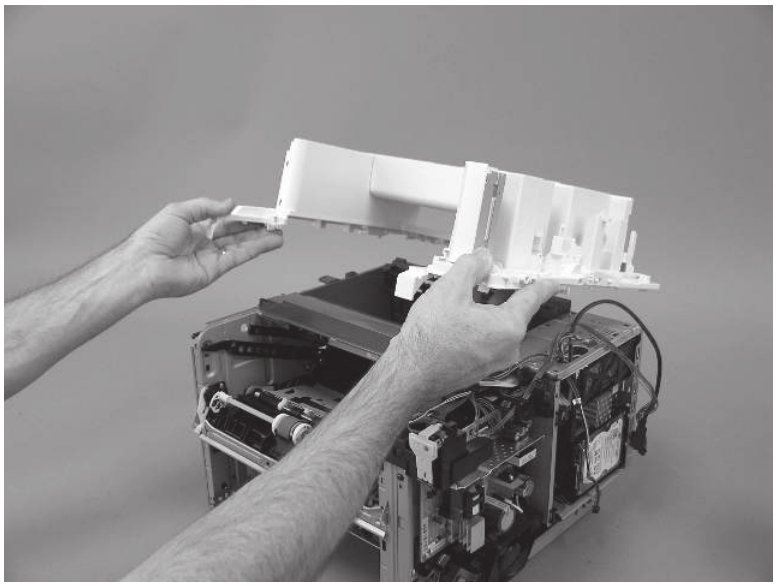
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-1153 Rotate the front of the cover up



f. Remove the cover.

Figure 4-1154 Remove the cover

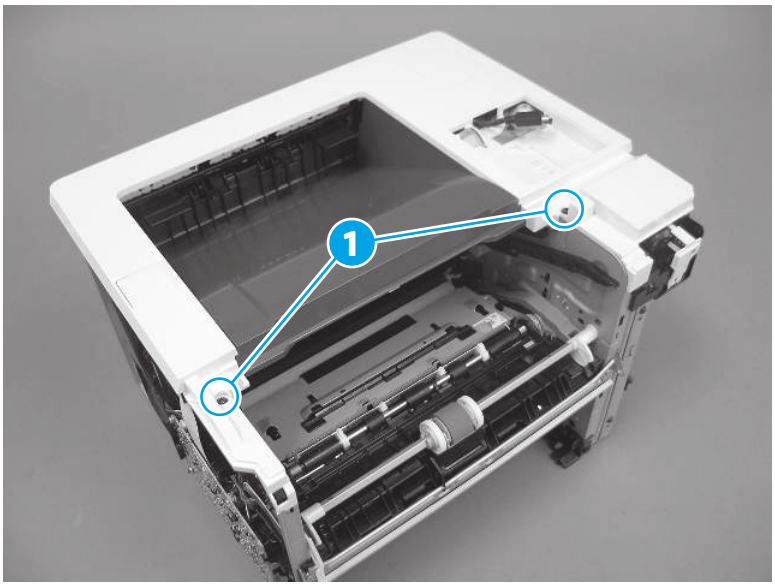


17. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

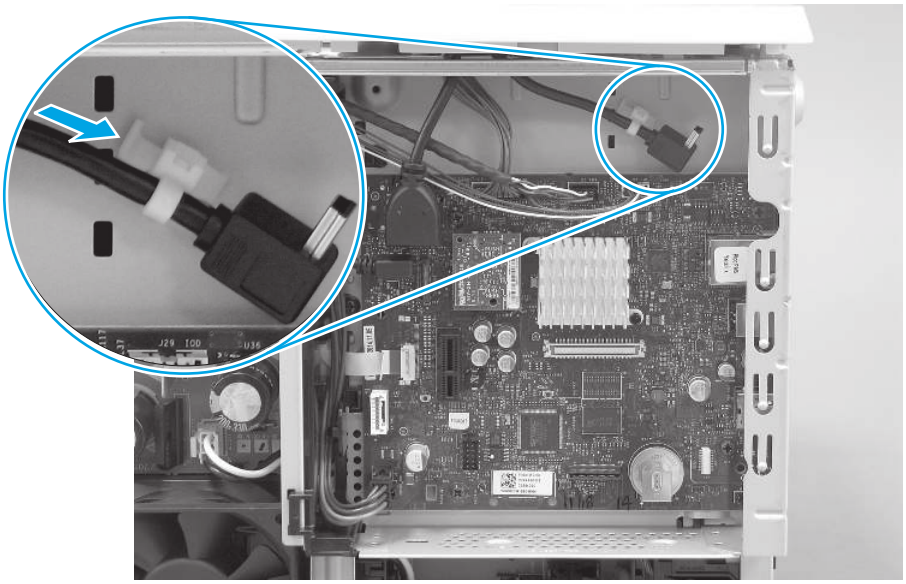
Figure 4-1155 Remove two screws



b. **M506/E50045/ only:** Release one cable retainer from the chassis.

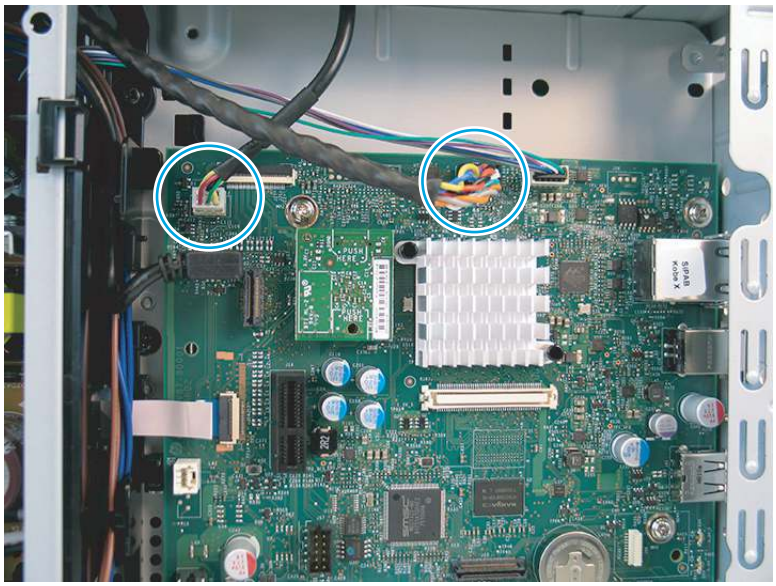
TIP: Depress the tab on the retainer to release it.

Figure 4-1156 Release one cable retainer



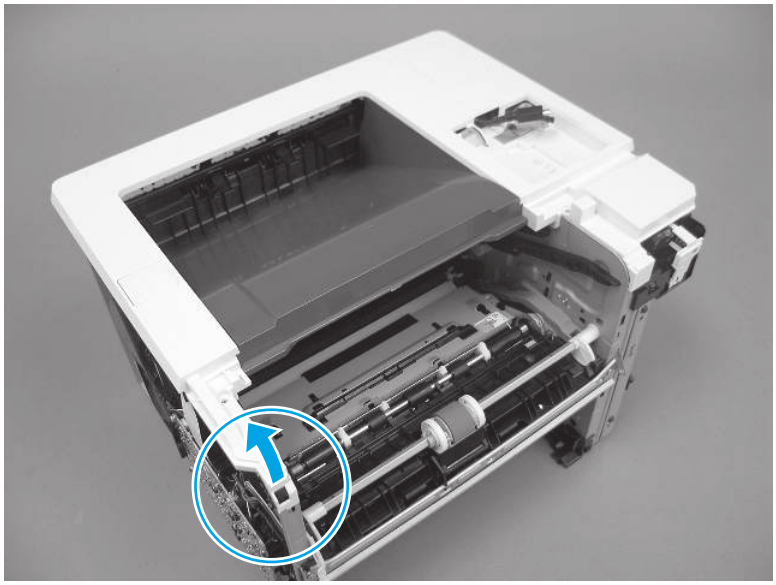
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-1157 **Disconnect two connectors**



d. Release one boss.

Figure 4-1158 **Release one boss**

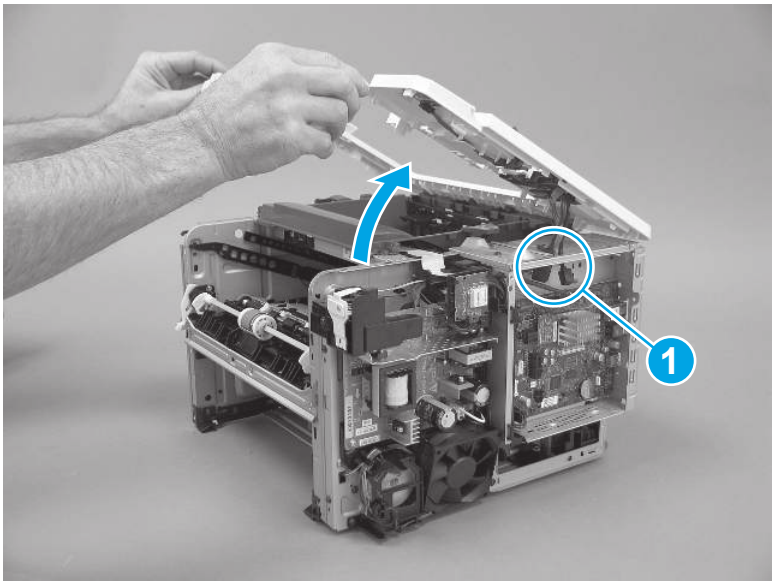


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

⚠ CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1159 Remove the cover (M506/E50045)



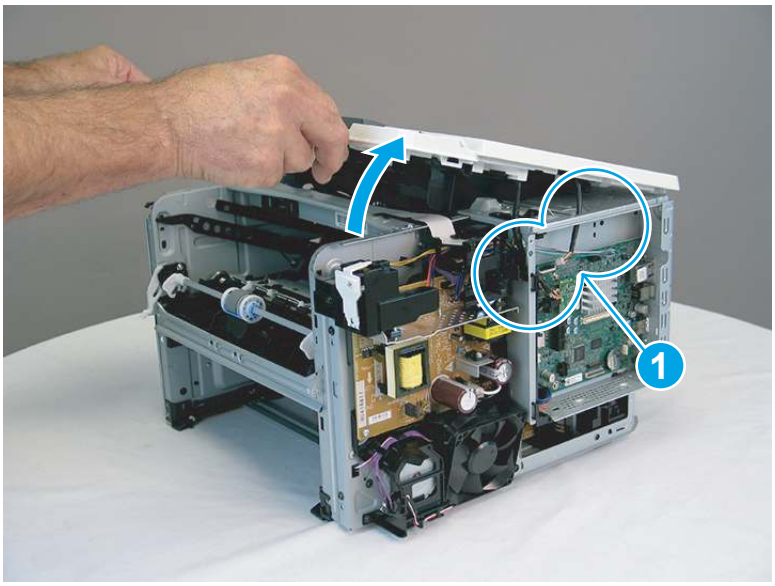
f. **M507/E50145only:** Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1160 Remove the cover (M507/E50145)

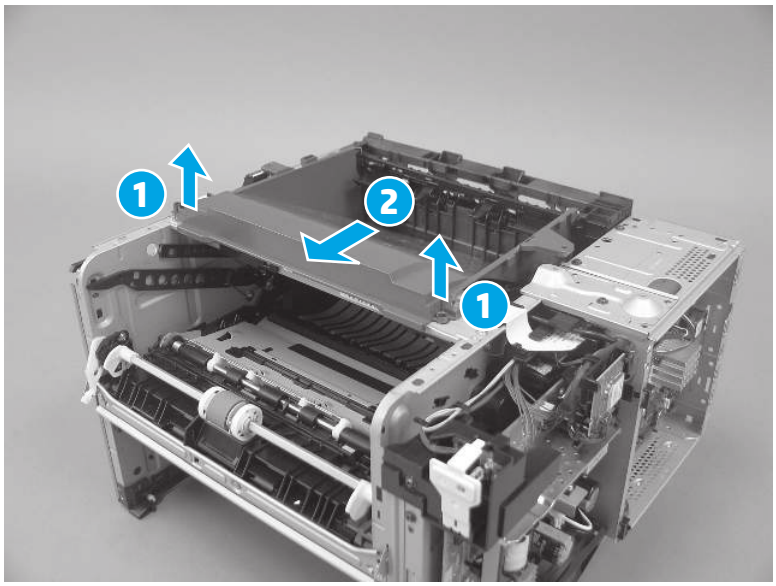


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

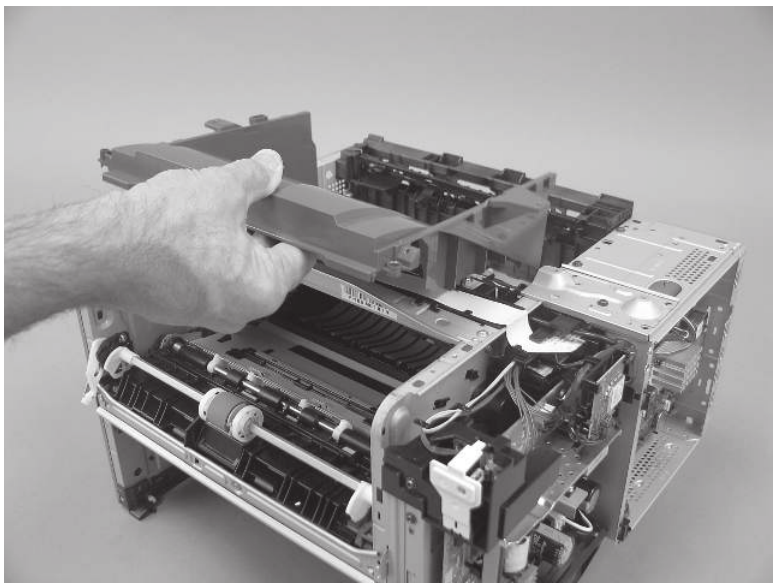
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-1161 Release two tabs



b. Remove the bin.

Figure 4-1162 Remove he bin

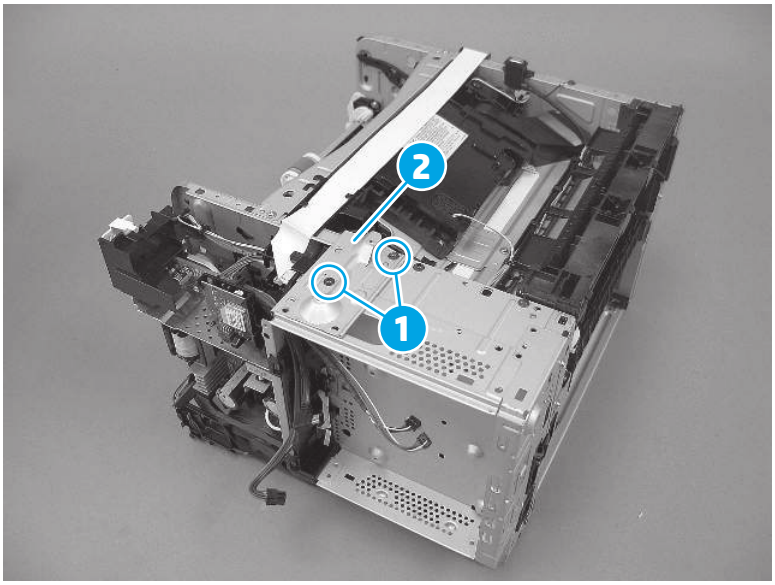


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

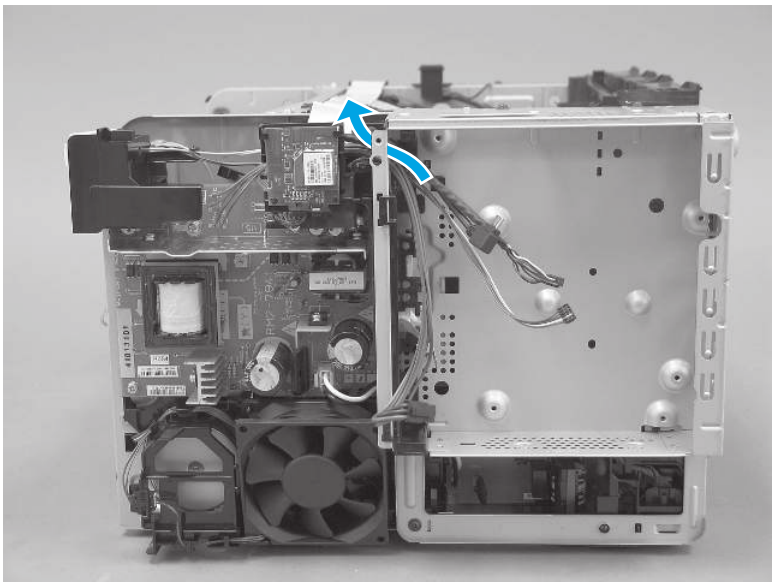
Figure 4-1163 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

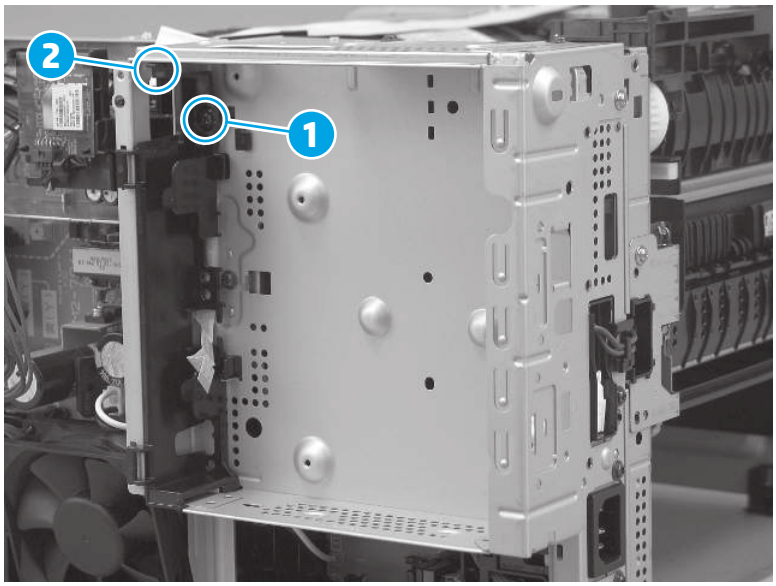
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-1164 **Pass all cables and wire harnesses through the opening**



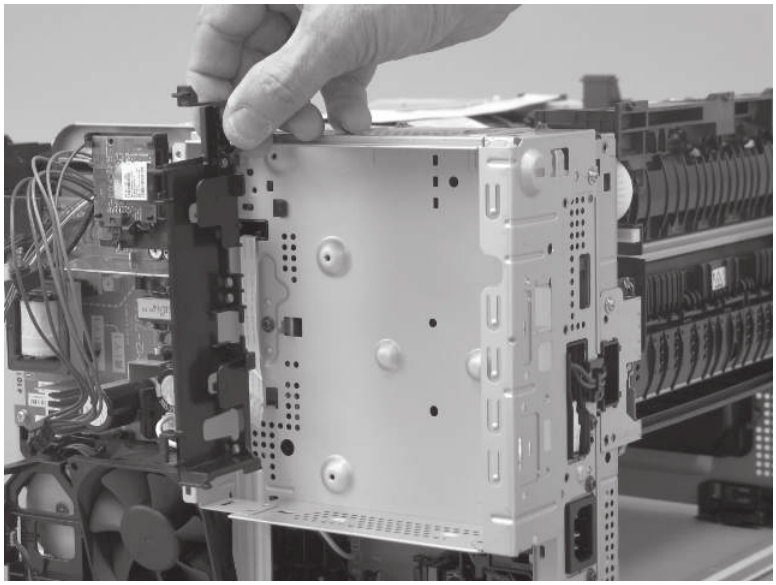
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-1165 Remove one screw



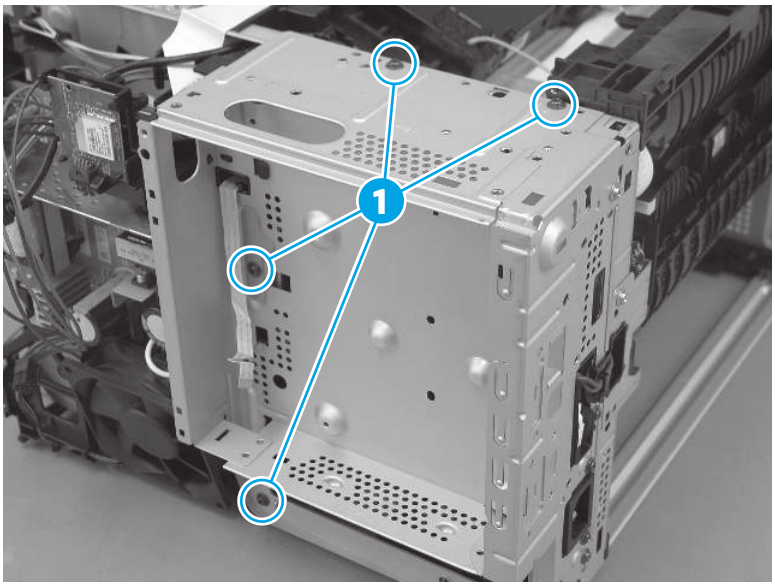
d. Remove the guide.

Figure 4-1166 Remove the guide



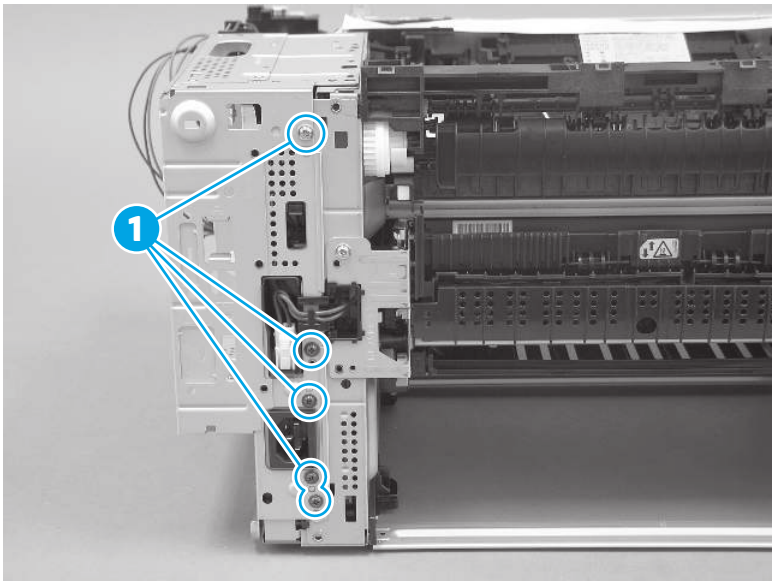
e. Remove four screws (callout 1).

Figure 4-1167 Remove four screws



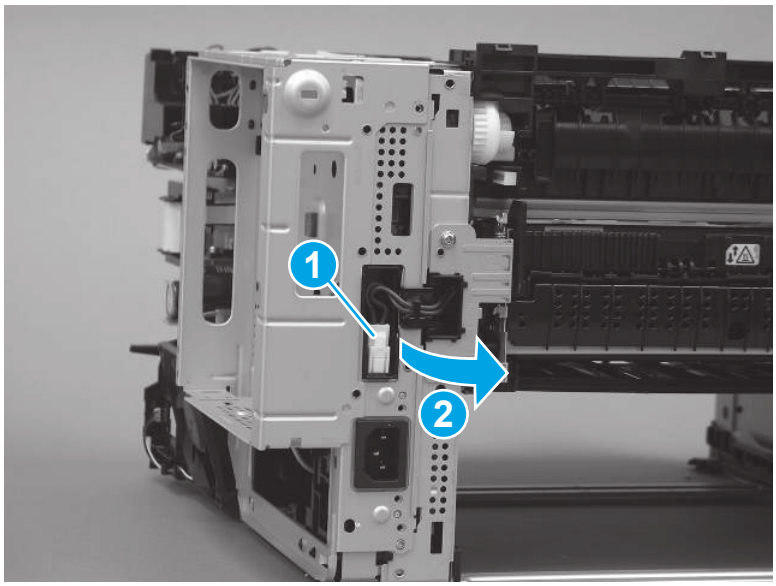
f. Remove five screws (callout 1).

Figure 4-1168 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

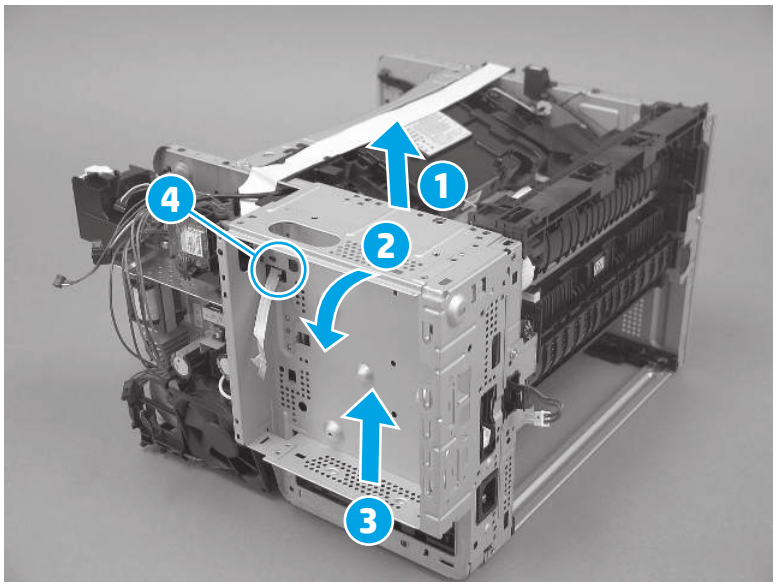
Figure 4-1169 Disconnect one connector



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

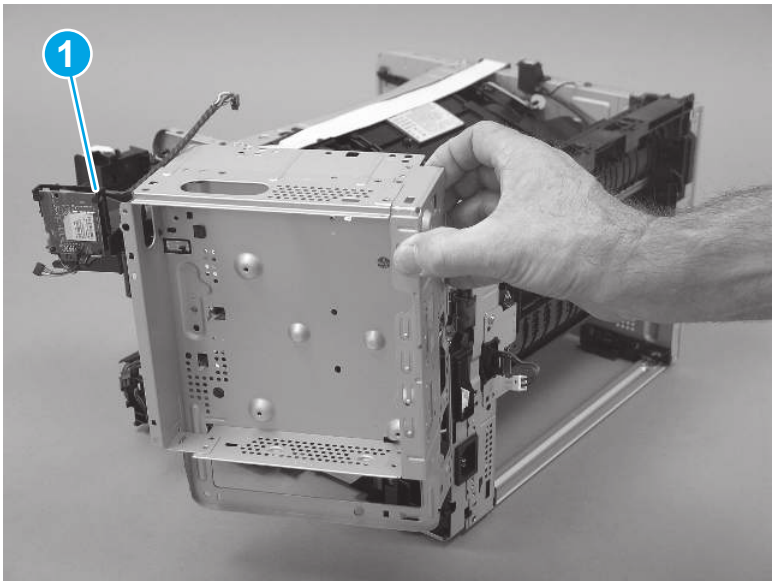
Figure 4-1170 Release the formatter case



i. Remove the formatter case.

NOTE: **WiFi models only**: If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

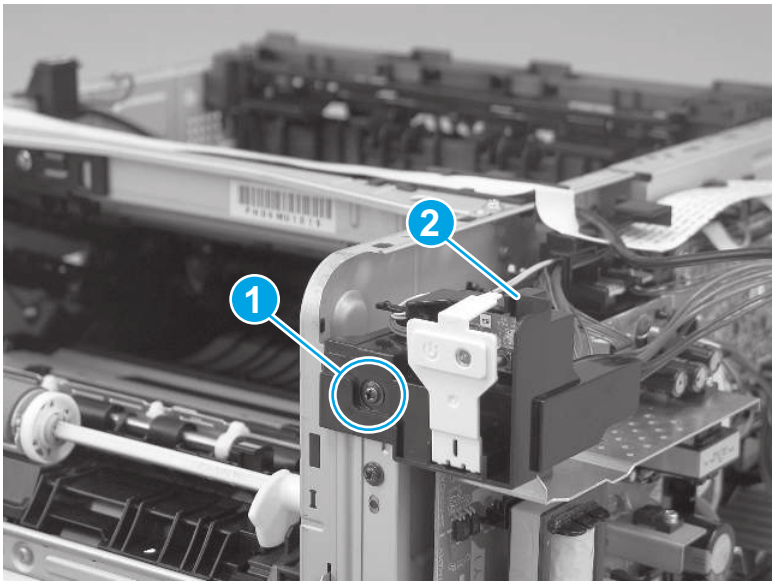
Figure 4-1171 Remove the formatter case



20. Remove the LVPS.

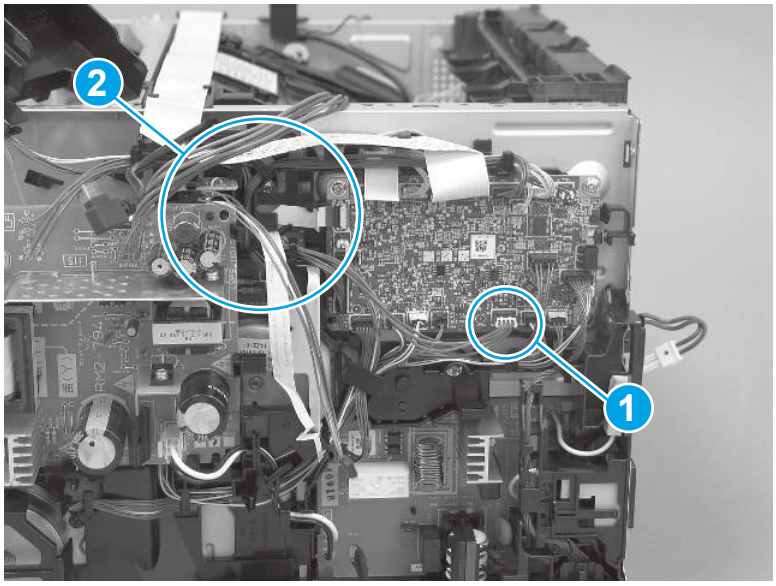
    a. Remove one screw (callout 1), and then move the power-switch assembly (callout 2) out of the way.

Figure 4-1172 Move the power-switch assembly



b. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

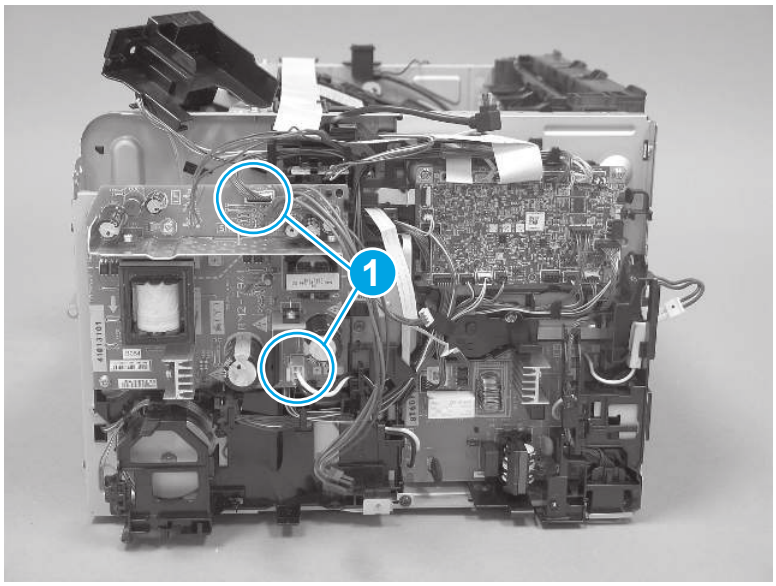
Figure 4-1173 Disconnect one connector



c. Disconnect two connectors (callout 1).

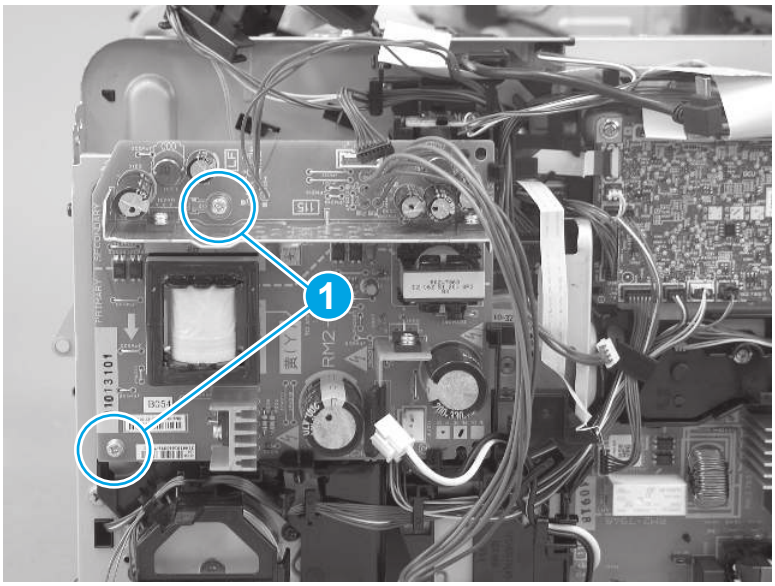
TIP: Squeeze the locking lever on the lower connector to release it.

Figure 4-1174 Disconnect two connectors



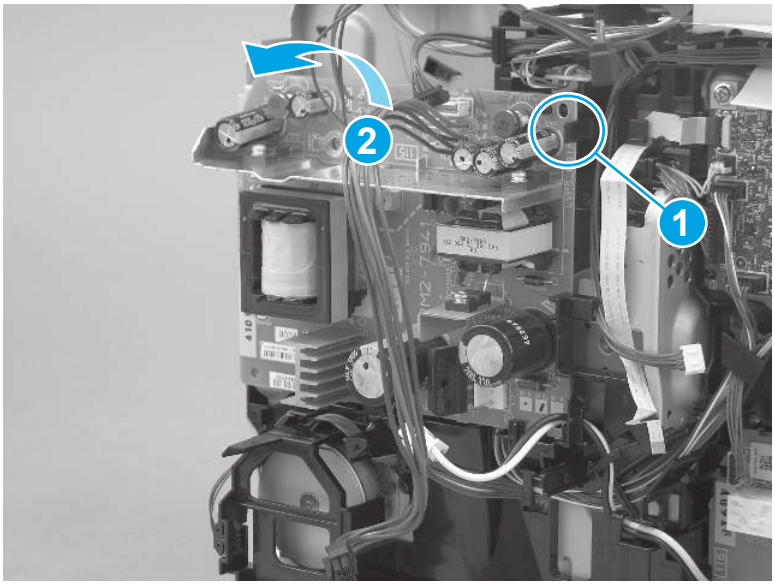
d. Remove two screws (callout 1).

Figure 4-1175 Remove two screws



e. Release one tab (callout 1), and then rotate the top of the LVPS out and away from the printer (callout 2).

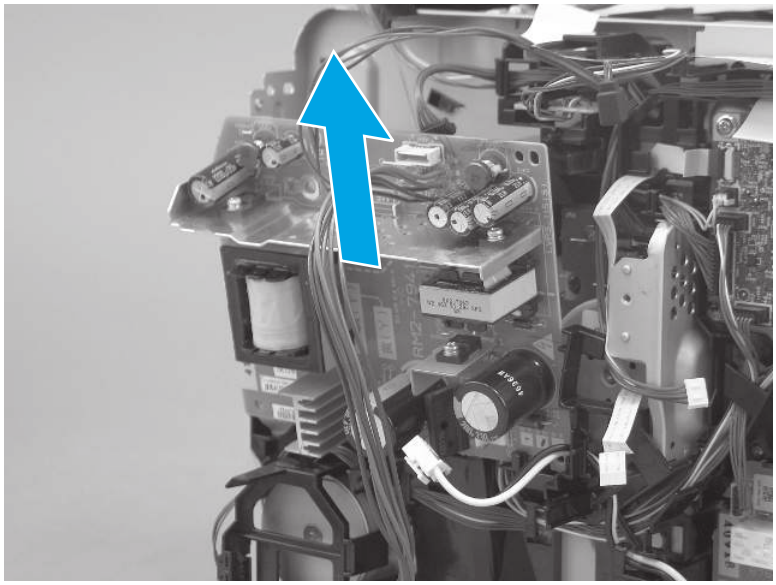
Figure 4-1176 Release one tab



f. Slide the LVPS up and away from the printer to release it.

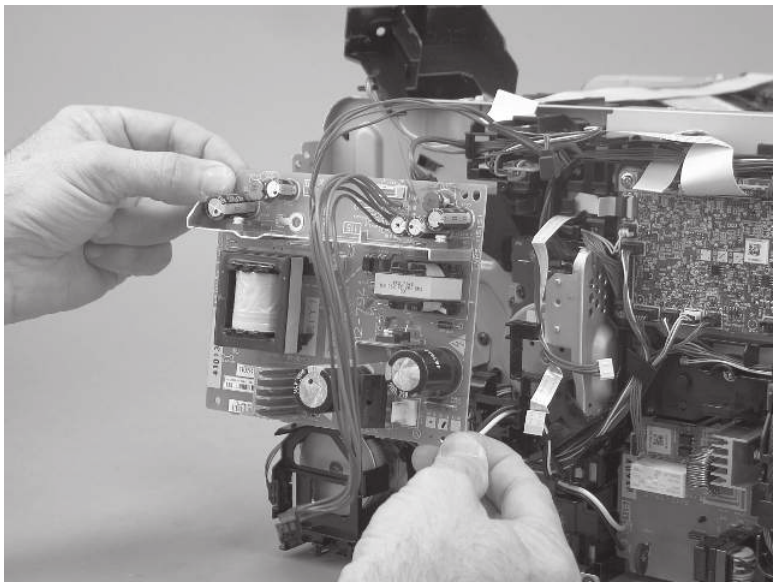
Reinstallation tip: Push down on the LVPS to make sure that it is fully seated on the holder.

Figure 4-1177 Release the LVPS



g. Remove the LVPS.

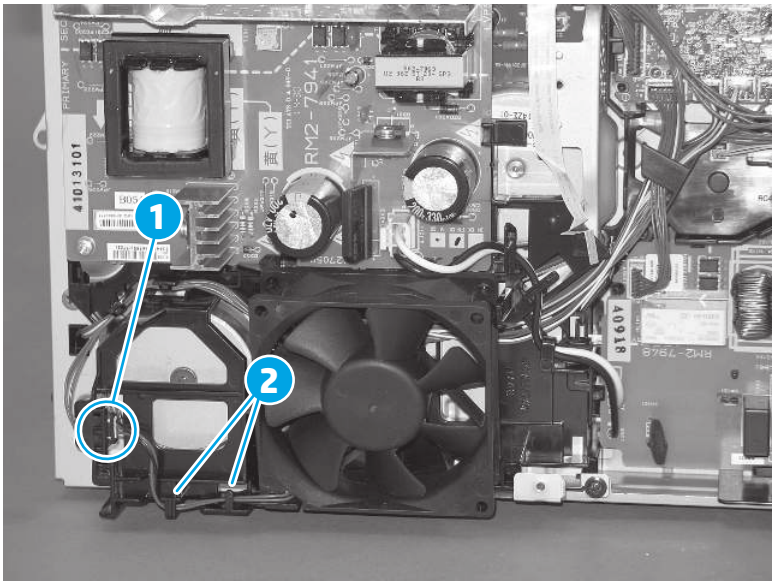
Figure 4-1178 Remove the LVPS



21. Remove the fan (FM2).

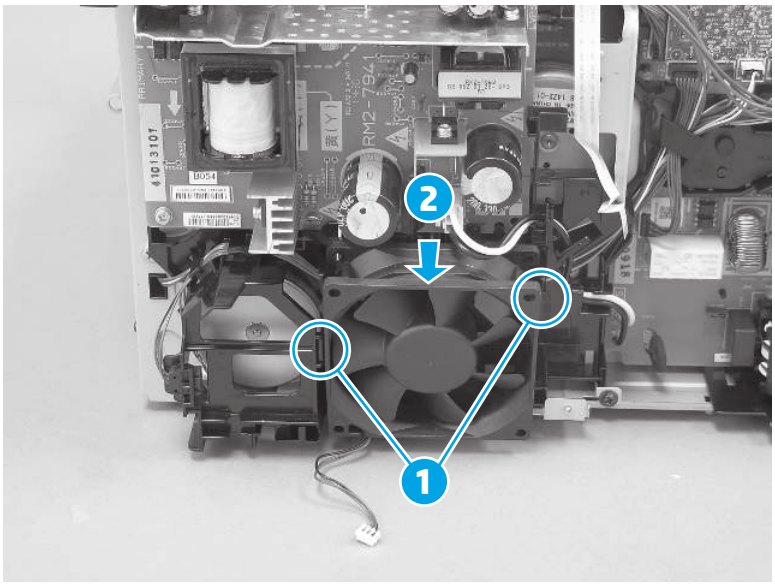
a. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-1179 Disconnect one connector



b. Release two tabs (callout 1), and then rotate the top of the fan out and away from the printer (callout 2).

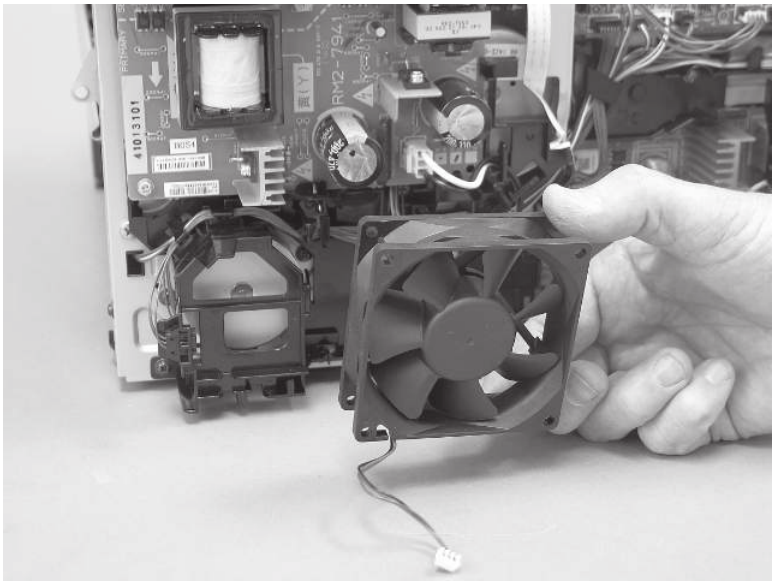
Figure 4-1180 Release two tabs



c. Remove the fan.

⚠ CAUTION: When reinstalled the fan must draw air into the printer. Make sure that the two arrows embossed on the right side of the fan body face downward and into the printer.

Figure 4-1181 Remove the fan

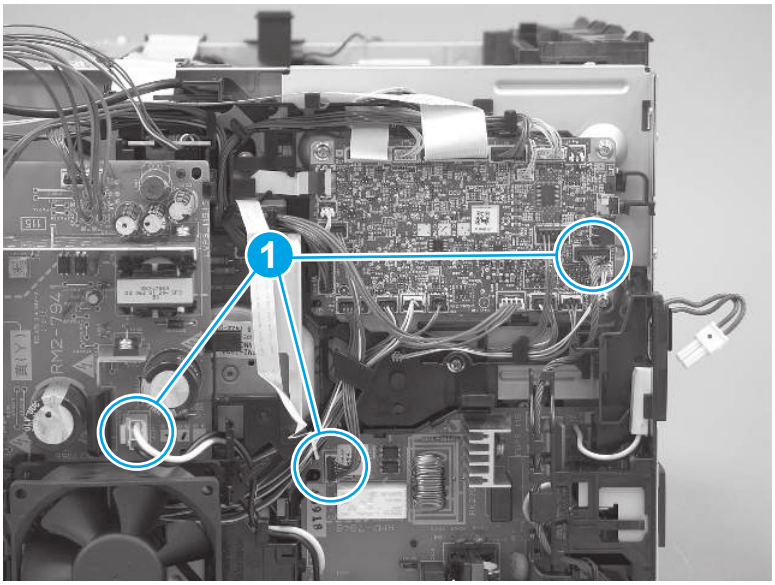


22. Remove the fuser power supply (FPS).

TIP: The FPS includes the optional paper feeder connector (Jetlink accessory tray connector) .

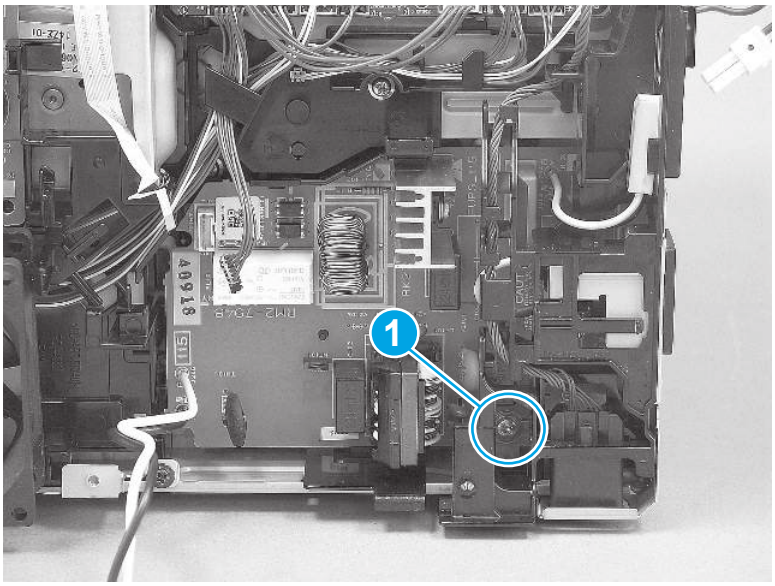
a. Disconnect three connectors (callout 1).

Figure 4-1182 Disconnect three connectors

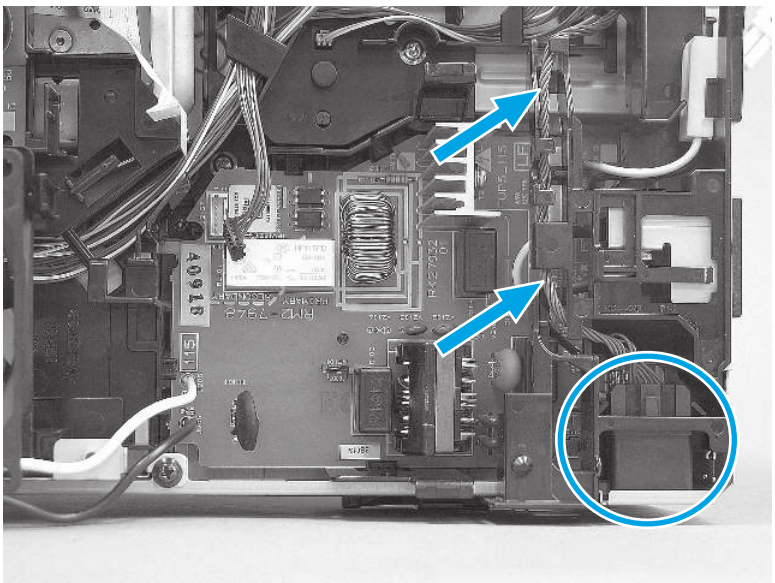


b. Remove one screw (callout 1).

Figure 4-1183 Remove one screw



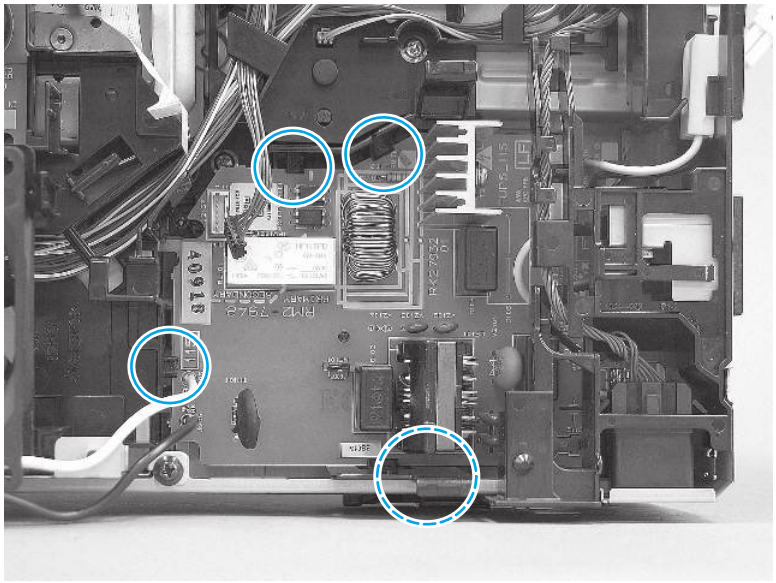
c. Disconnect the tray accessory connector (circle callout) and release the wire harness from the guide.



d. Release four tabs.

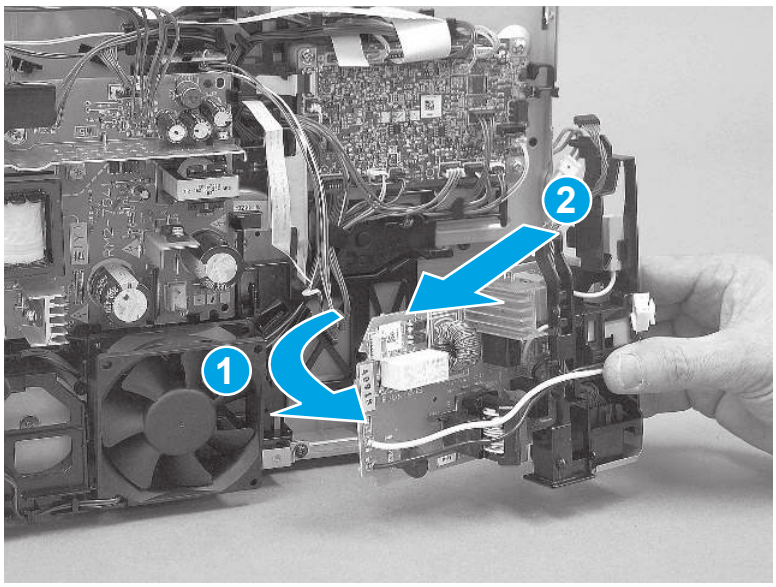
TIP: It might be easier to release the upper two tabs by using a small flat-blade screw driver.

Figure 4-1184 Release four tabs



e. Rotate the left end of the assembly out and away from the printer (callout 1), slide the assembly to the left to release the right side alignment pins (callout 2), and then remove the assembly.

Figure 4-1185 Remove the assembly

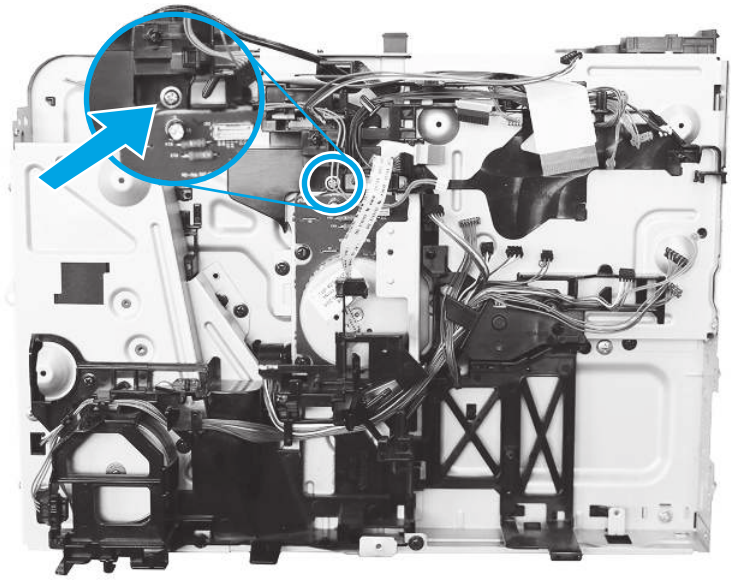


23. Remove internal cable and holder brackets.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

NOTE: Lay the engine on its left side to make removal or the following parts easier.

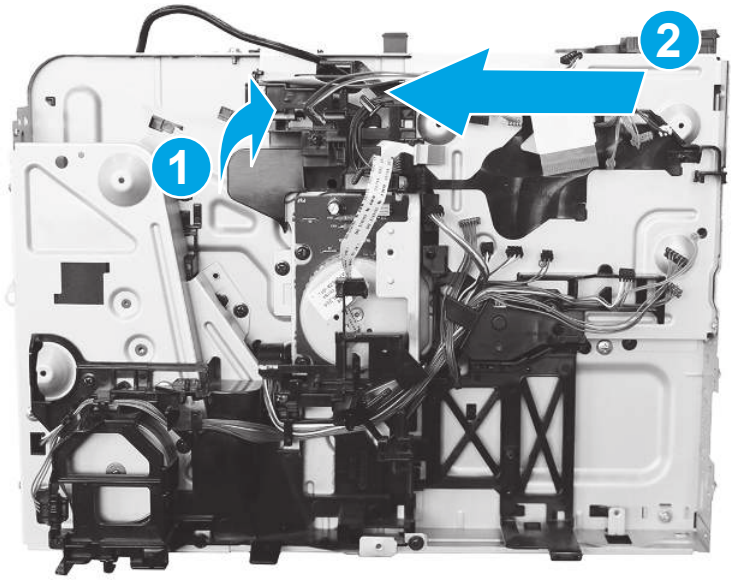
a. Remove one (1) screw from the upper cable bracket.



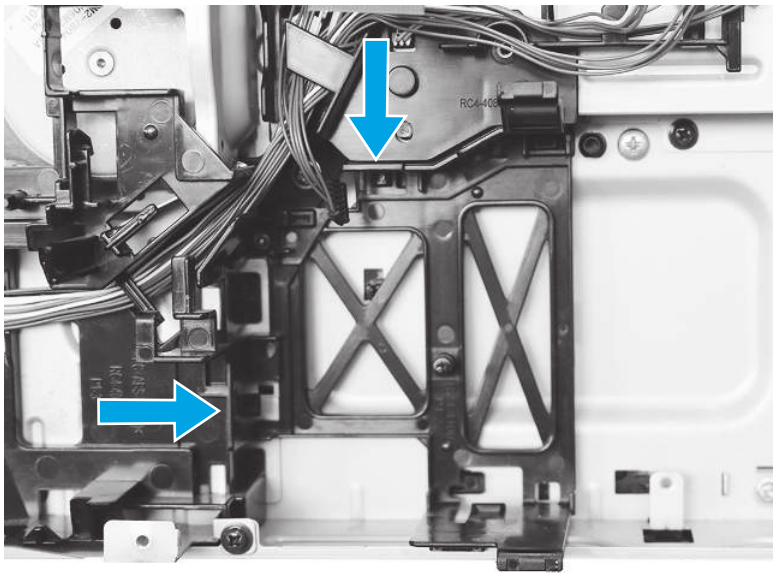
NOTE: The upper cable bracket assembly does not need to be completely removed, simply detached and then moved up out of the way and placed on the top of the printer.

b. Remove the cable routing from the upper cable bracket.

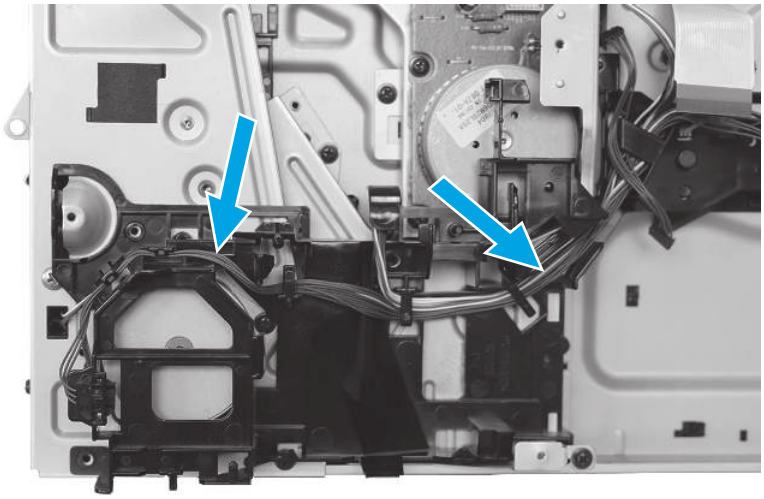
c. Lift up on the left side of the cable bracket (callout 1) and slide the bracket towards the front of the printer (callout 2) to remove the bracket.



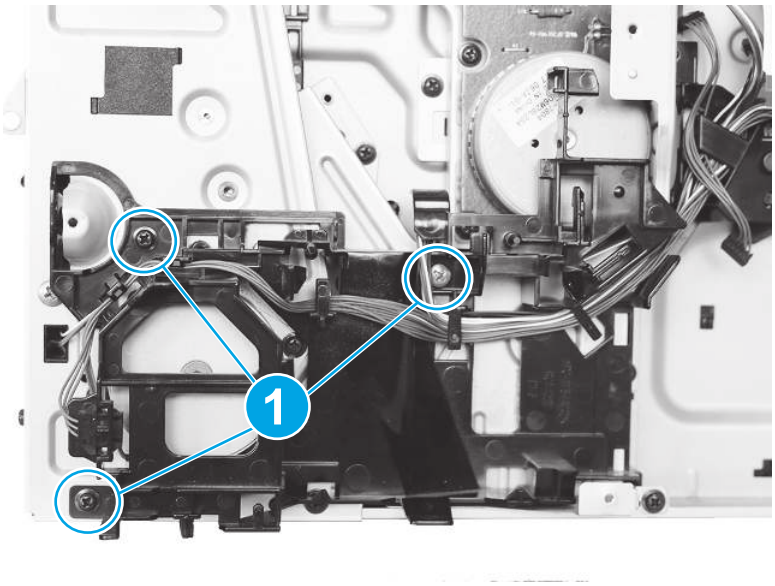
d. Remove the fuser power supply bracket (small lower rear bracket) by pulling in the upper and left side of the bracket and lifting it from the printer.



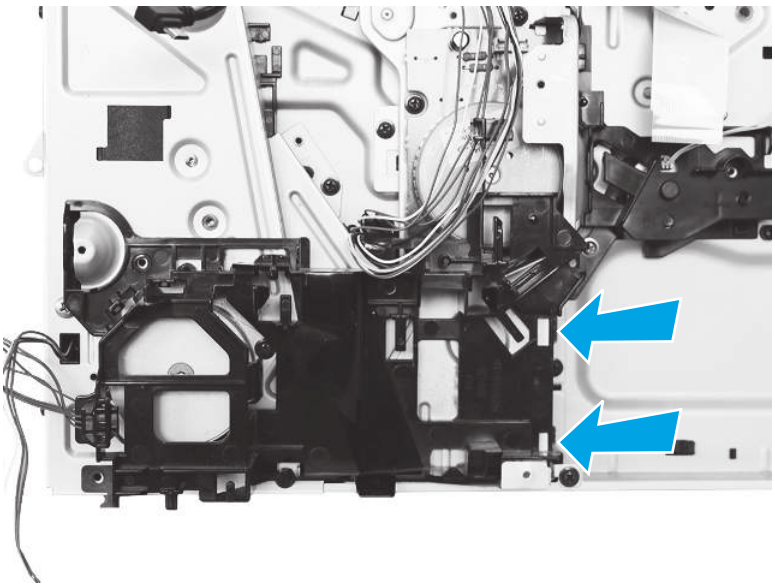
e. Remove the cables from the lower front cable bracket.



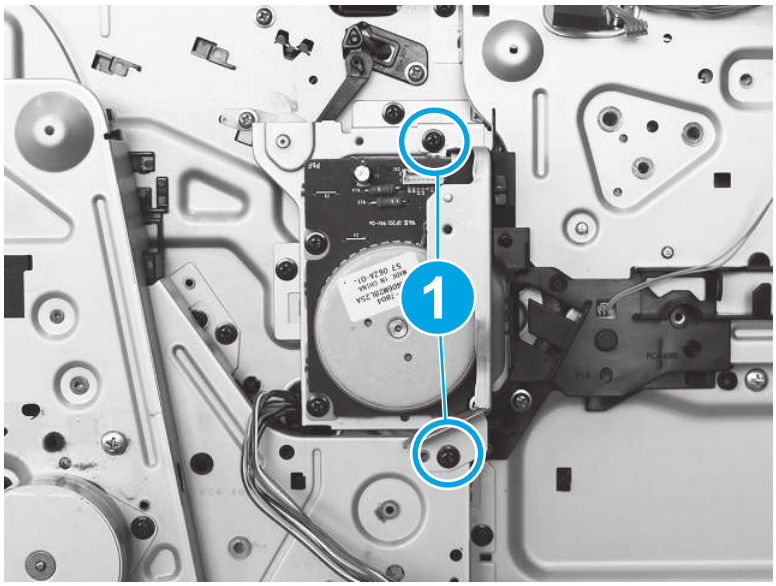
f. Remove three (3) screws (callout 1) from the bracket assembly.



g. Gently pry up the two (2) tabs on the lower right side of the bracket the remove the bracket from the printer.

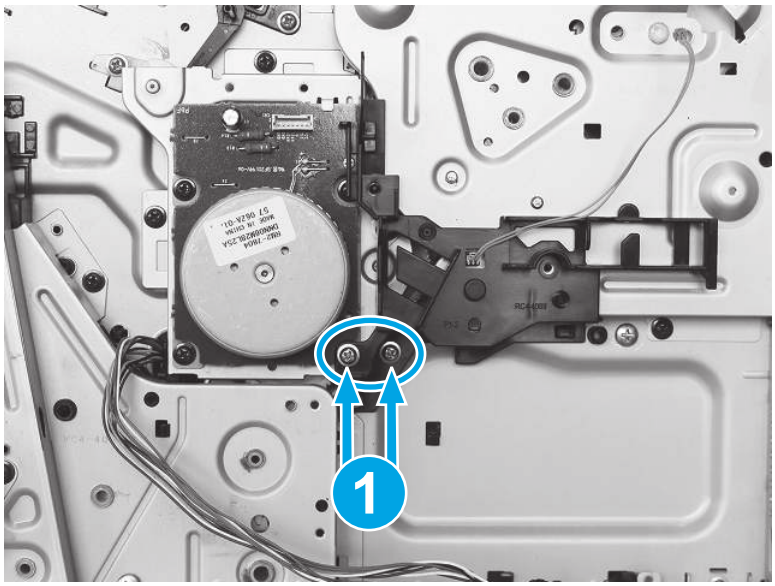


h. Remove two (2) screws (callout 1) from the metal M1 motor shield and remove the shield from the printer.



i. Remove three (2) screws (callout 1) and then remove the cable bracket located to the right of the main motor, M1.

NOTE: Carefully lift off the bracket to ensure that the clutch on the back of the guide does not fall off when removing.

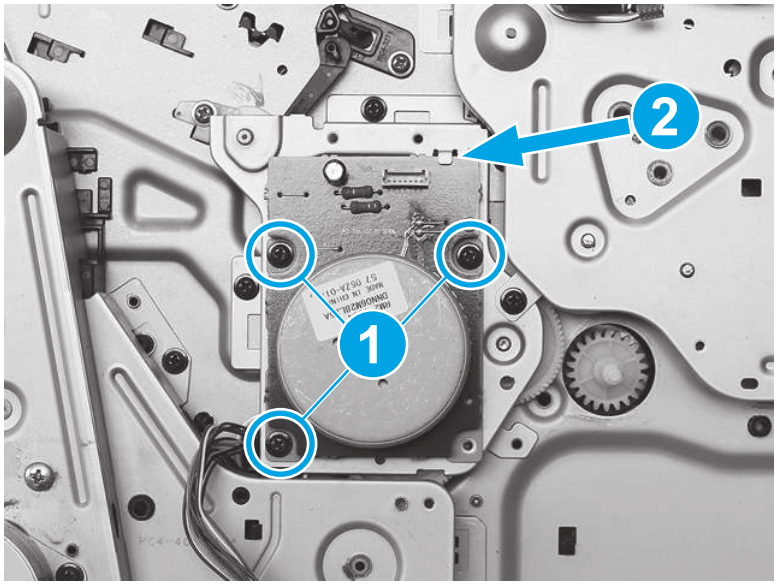


24. Remove the Main Motor M1.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

NOTE: Lay the engine on its left side to make removal or the following parts easier.

- Remove three (3) screws from the main motor M1 and then remove the motor from the printer.



Reinstallation tip: When reinstalling the main motor, ensure that the motor board fits under the tab (Callout 2). Start all three (3) screws to hold the motor in place while adjusting the motor to ensure that it seats correctly then tighten all three screws.

25. Unpack the replacement assembly.

    a. Dispose of the defective part.

    NOTE: HP recommends responsible disposal of the defective part.

    http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

    b. Unpack the replacement part from the packaging.

    CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

    If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

    IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

    c. To install an assembly, reverse the removal steps.

    NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Paper feed drive assembly

Learn how to remove and replace the Paper feed drive assembly.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

Mean time to repair: 60 minutes

Service level: Hard

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-44 Part information

Part number	Part description
RM2-5715-000CN	Paper feed drive assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

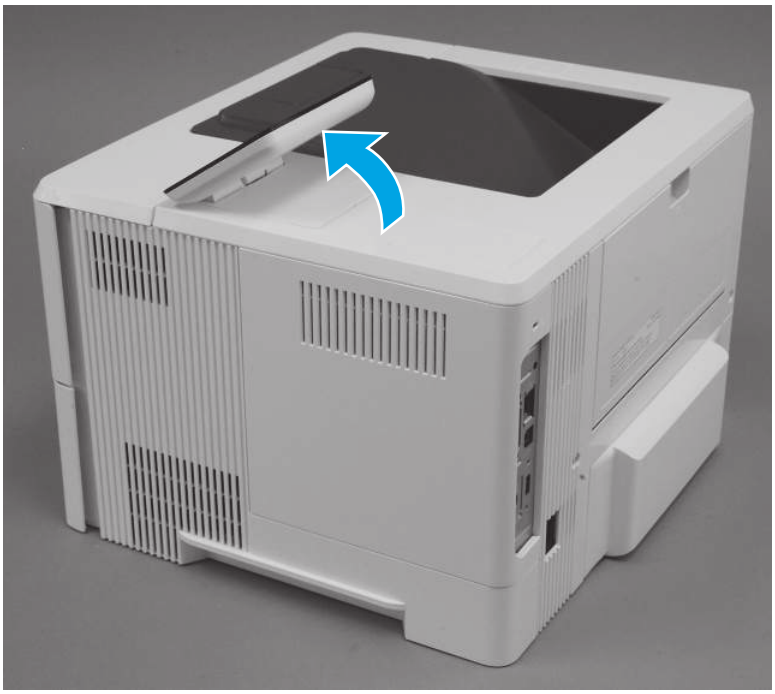
Post service test

Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel (M506x/E50045x/M507x/E50145x).

a. Tilt the control panel to the fully raised position.

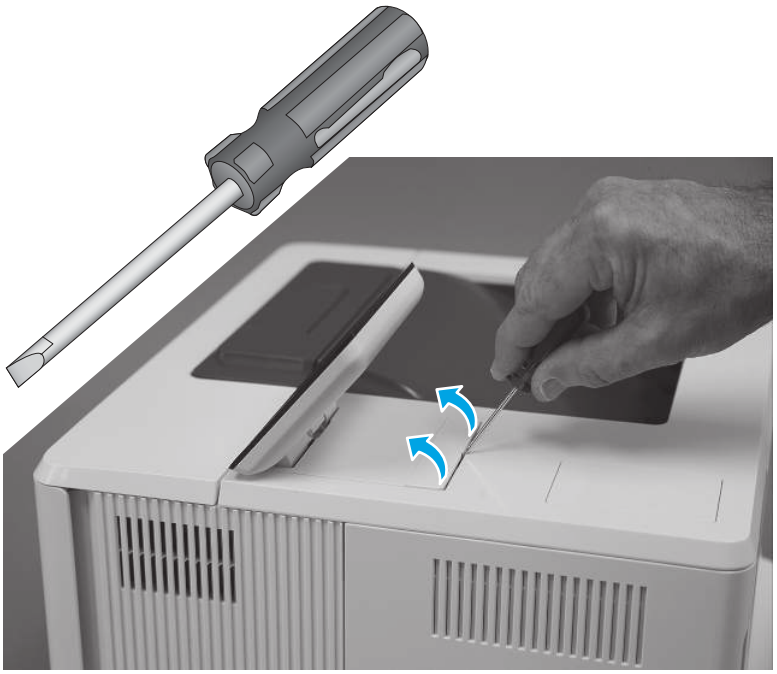
Figure 4-1186 Tilt the control panel up



b. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

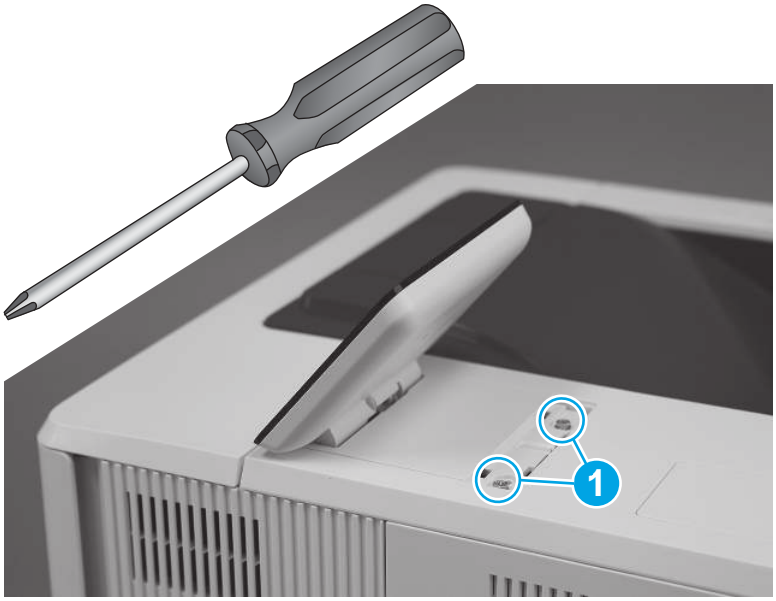
Figure 4-1187 Remove the cover



c. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

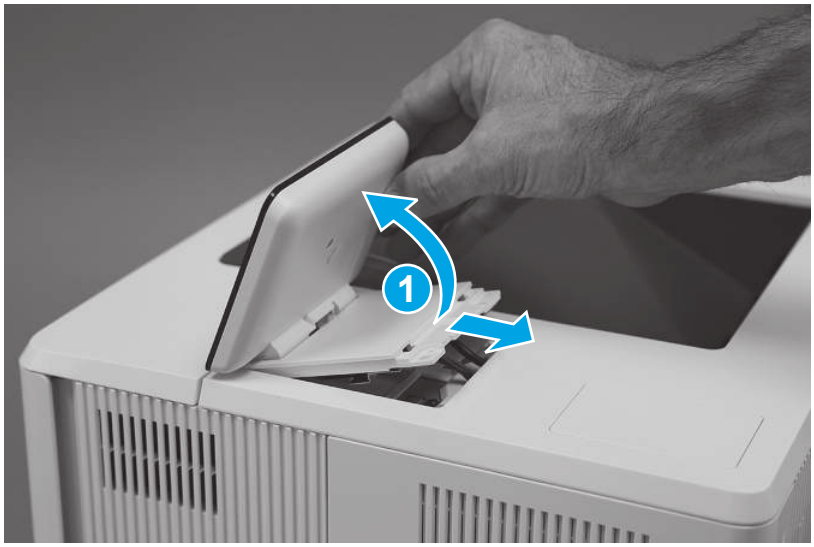
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-1188 Remove two screws



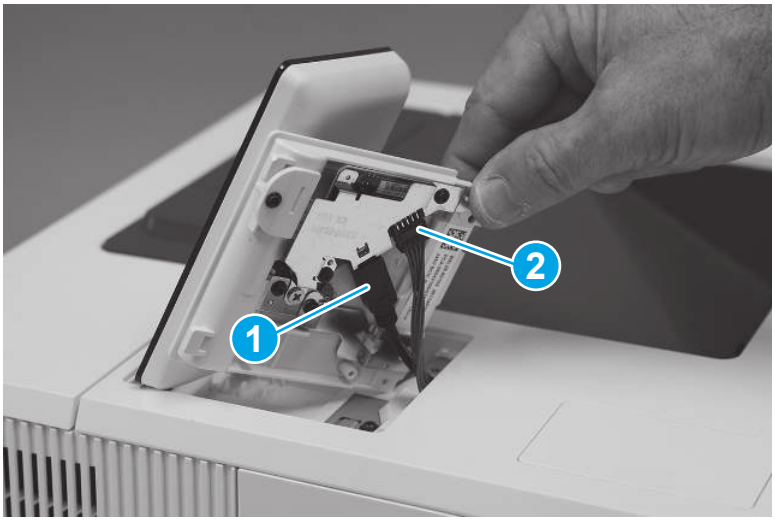
d. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-1189 Turn the control panel over



e. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-1190 **Remove the control panel (M506/E50045)**



f. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-1191 **Disconnect one FFC (M507/E50145)**

g. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ **CAUTION:** ESD sensitive part.

Figure 4-1192 **Remove the control panel (M507/E50145)**

2. Remove the tray.

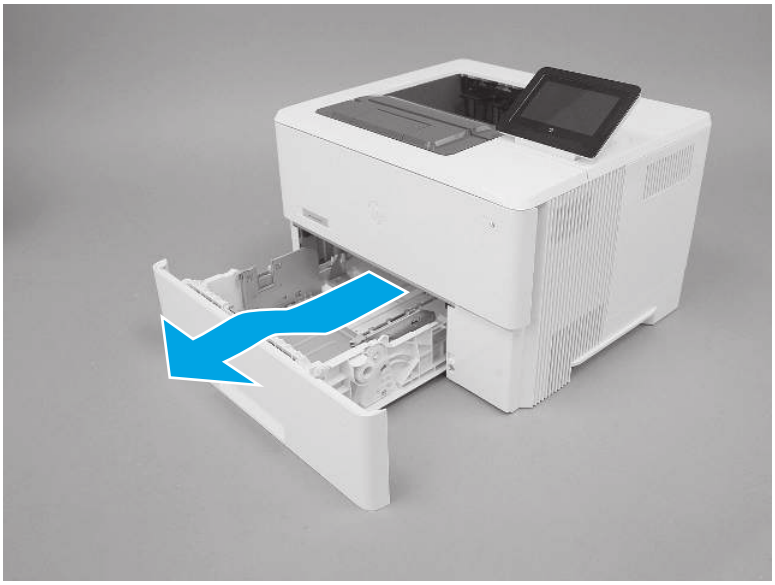
a. Pull the tray straight out of the printer until it stops.

Figure 4-1193 **Pull the tray out until it stops**

b. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1194 Release and remove the tray

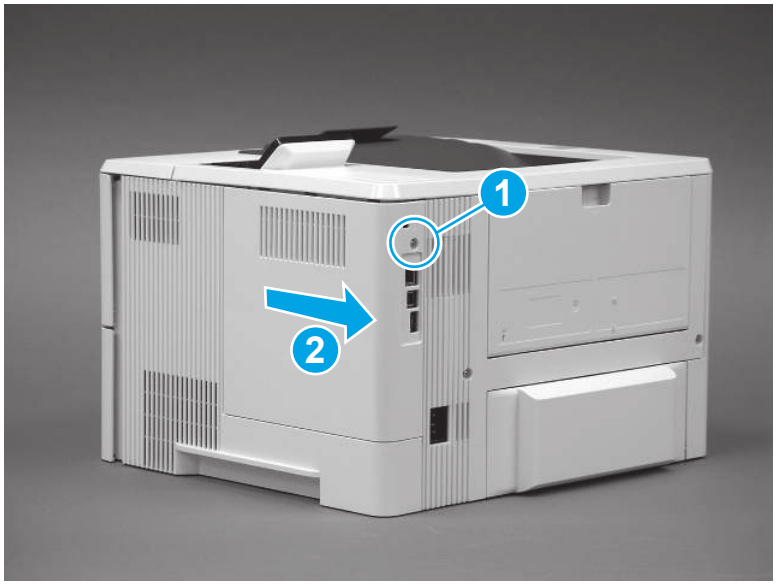


3. Remove the formatter cover.

- Do one of the following:

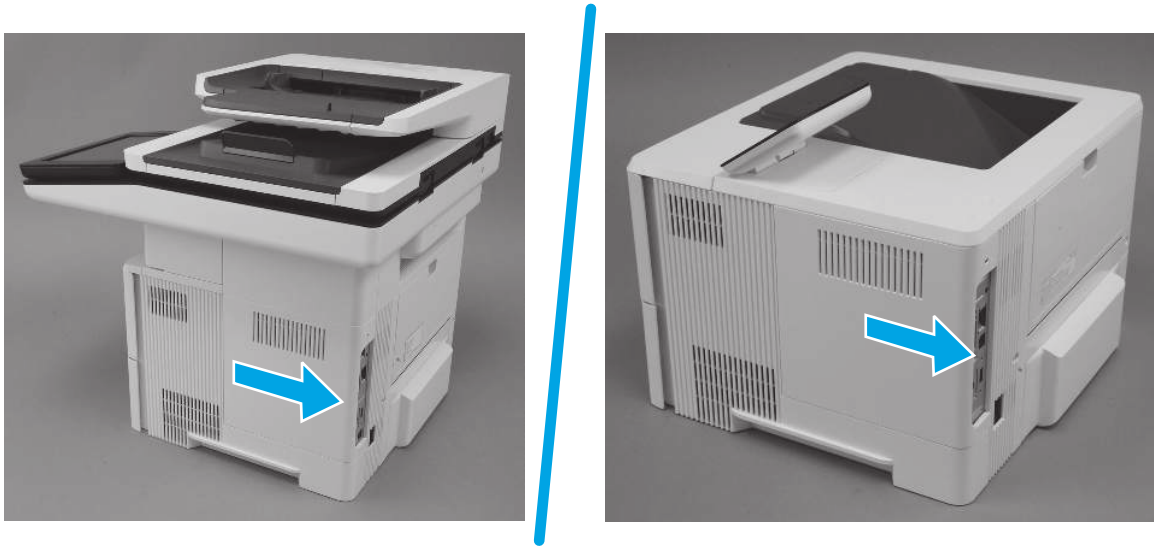
- **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1195 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-1196 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

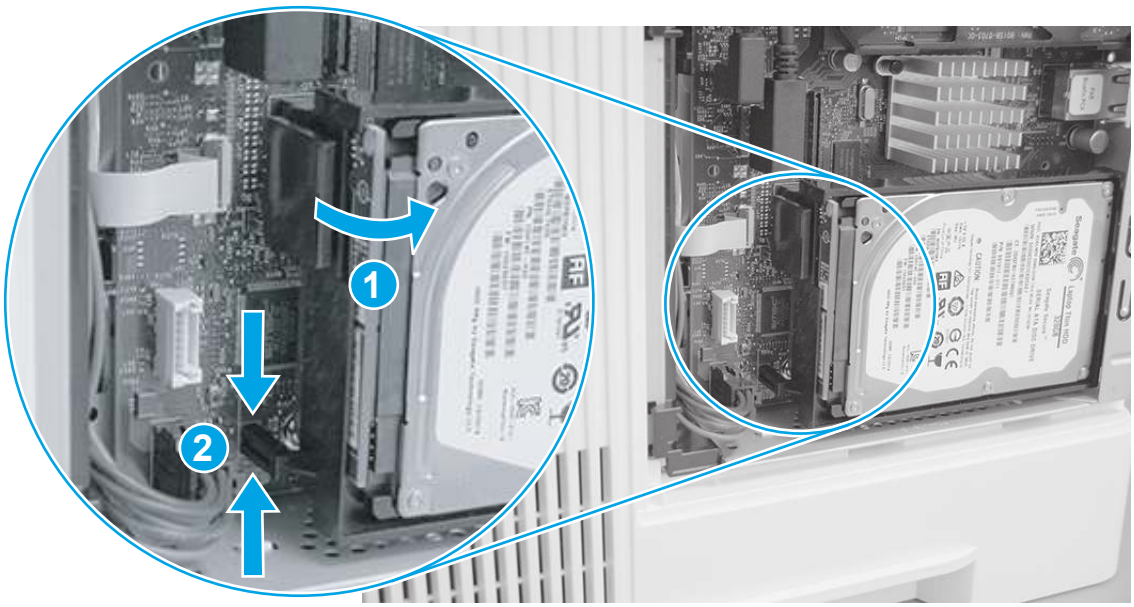


4. Remove the hard-disk drive (HDD models).

CAUTION: ESD sensitive part.

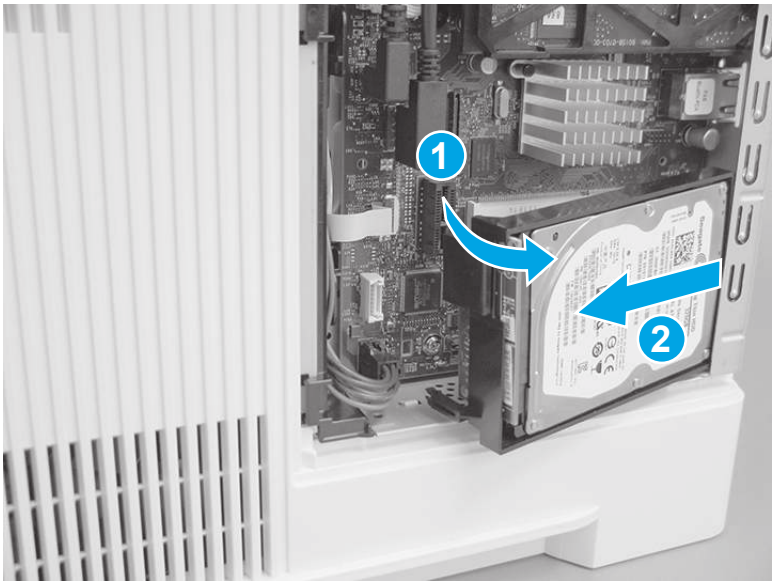
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-1197 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1198 Remove the HDD

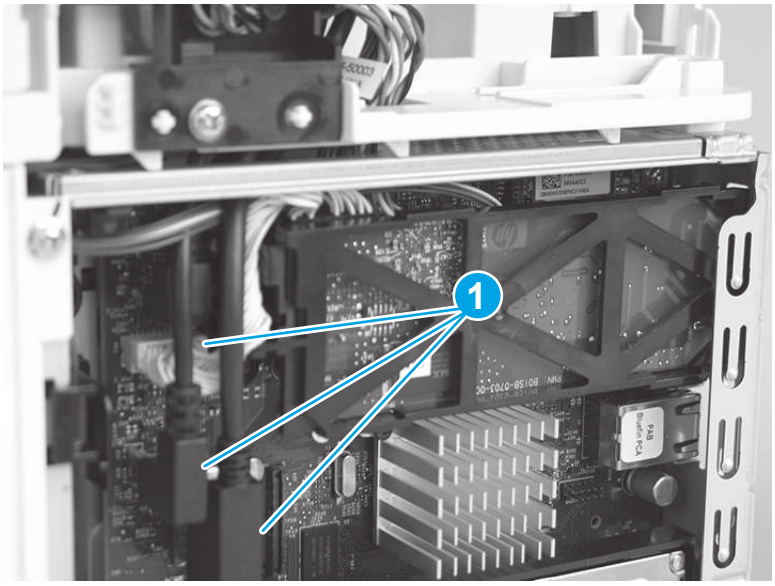


5. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

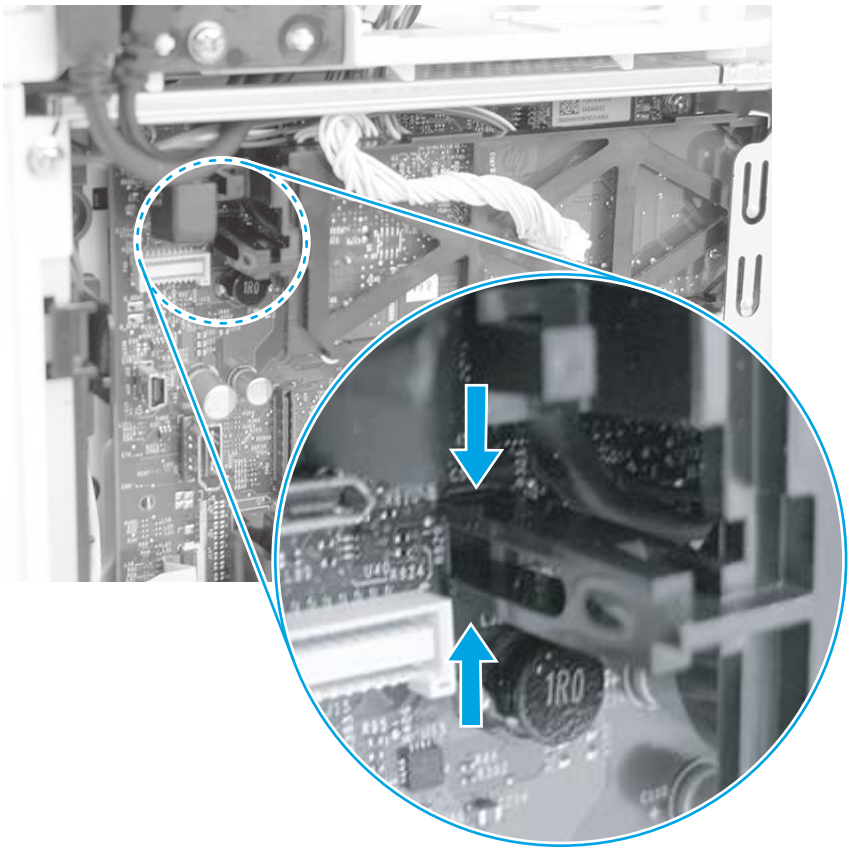
a. Disconnect three connectors (callout 1).

Figure 4-1199 Disconnect three connectors



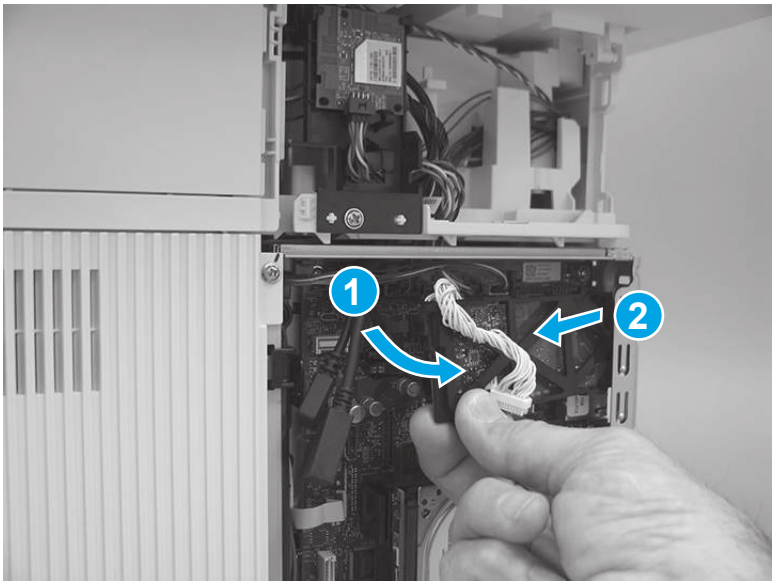
b. Pinch the retainer to release it.

Figure 4-1200 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1201 Remove the fax PCA



6. Remove the formatter.

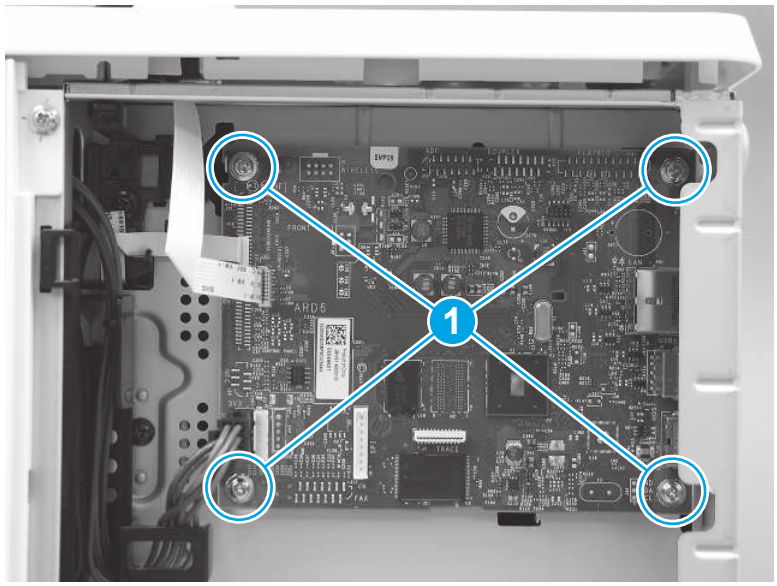
⚠ **CAUTION:** Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

a. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

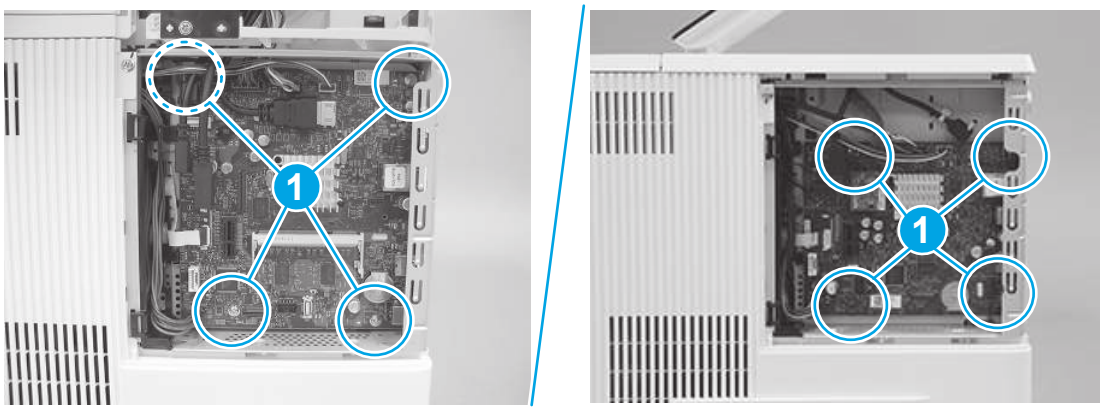
Figure 4-1202 Remove the formatter (M501)



b. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-1203 Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

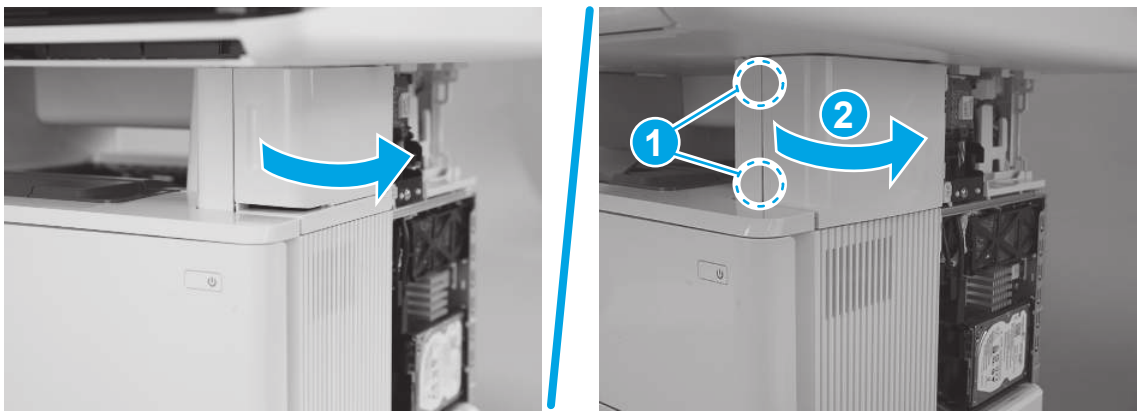


7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

   a. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-1204 Open the door or release the cover



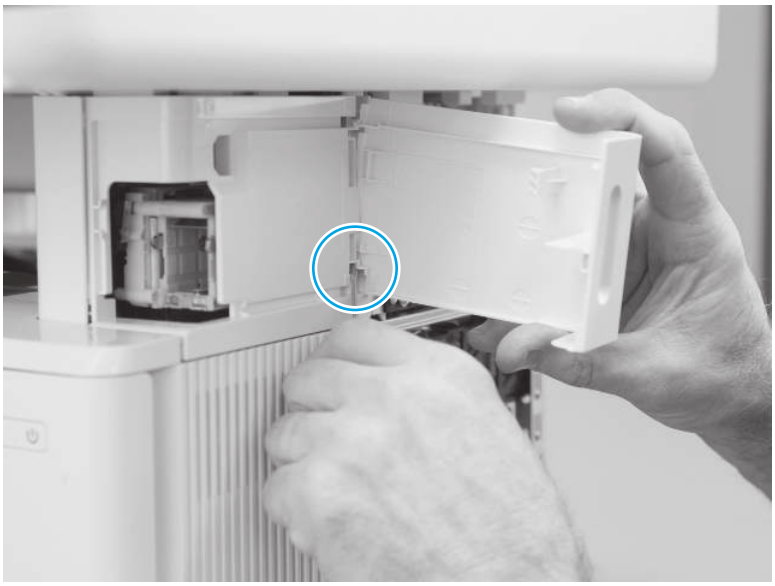
   b. Do one of the following:

   - **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
   - **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-1205 Release the upper hinge or remove the cover

c. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-1206 Release the lower hinge



d. **Stapler models**: Remove the door.

Figure 4-1207 **Remove the door**

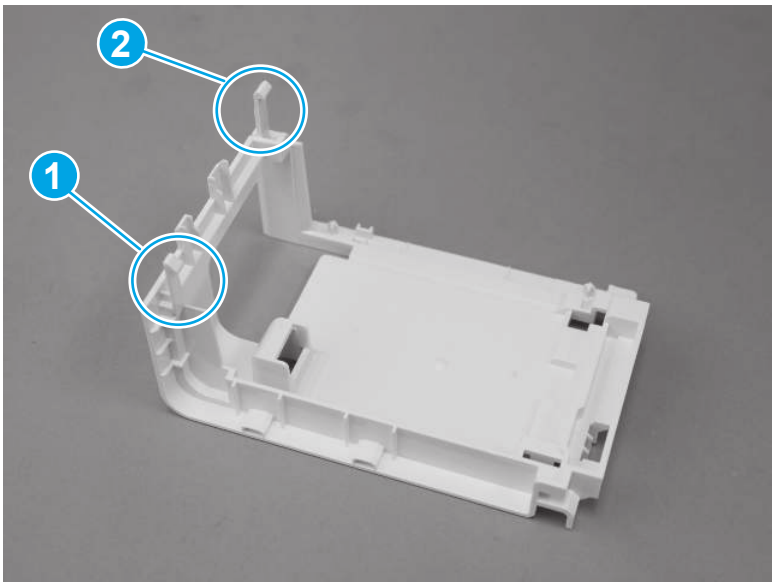
8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

a. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

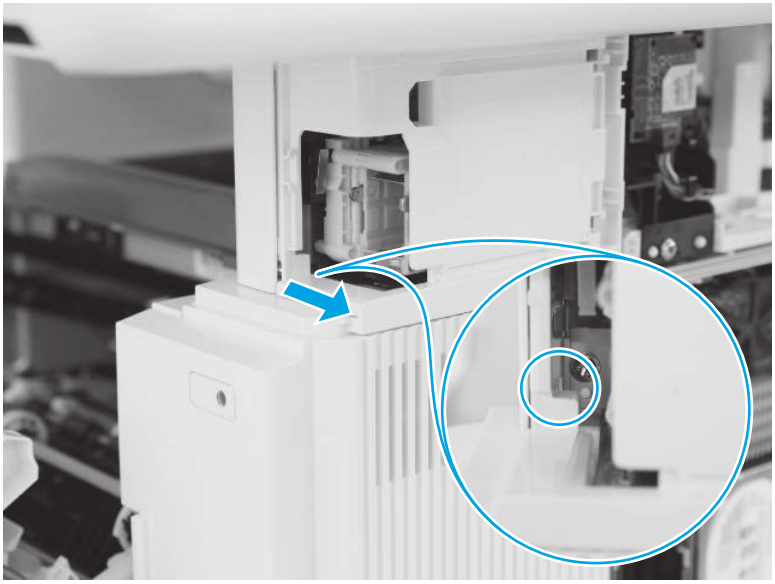
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-1208 **Locate the tabs**



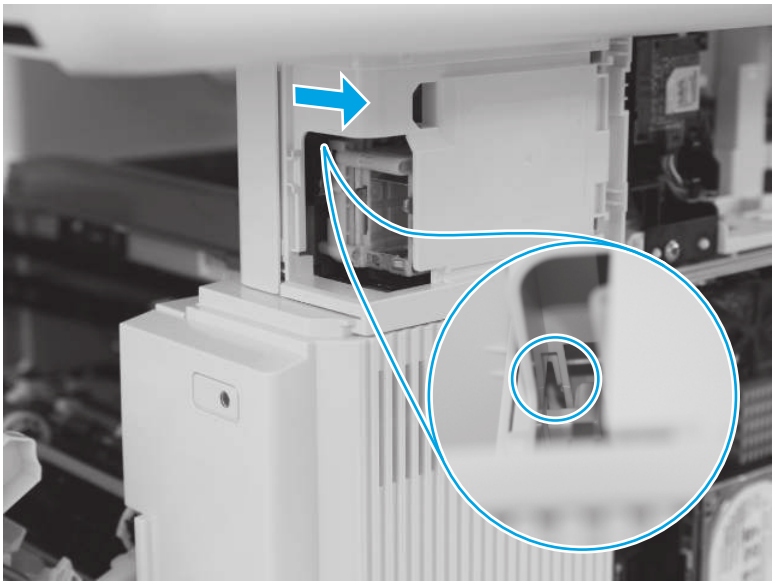
b. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-1209 Release one tab



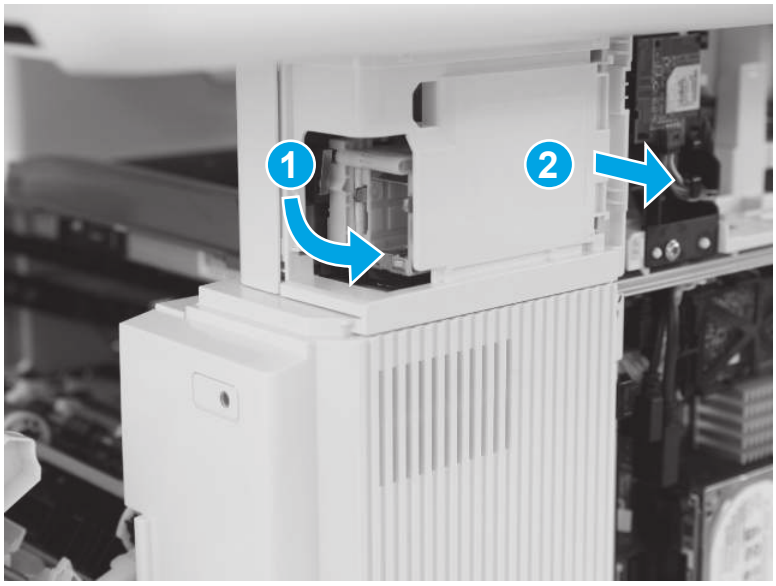
c. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-1210 Release one tab



d. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

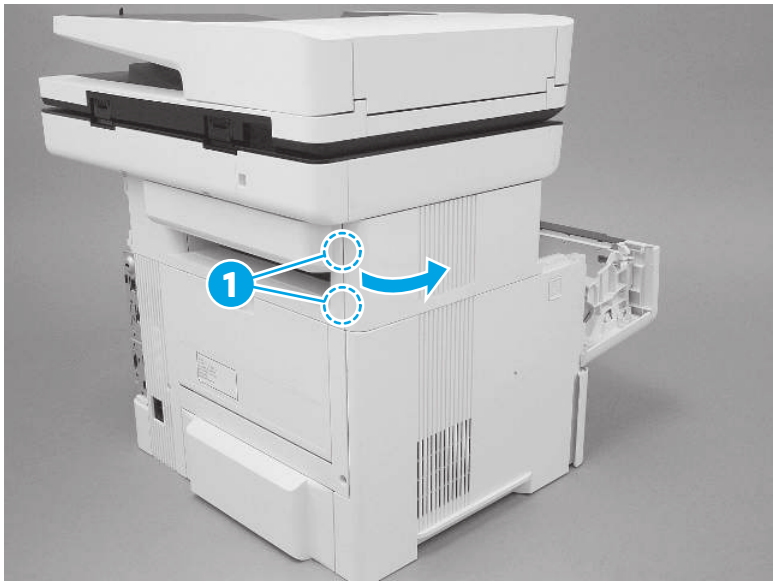
Figure 4-1211 Remove the cover



9. Remove the top-left cover (M527/E52545M528/E52645).

a. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-1212 Release two tabs



b. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

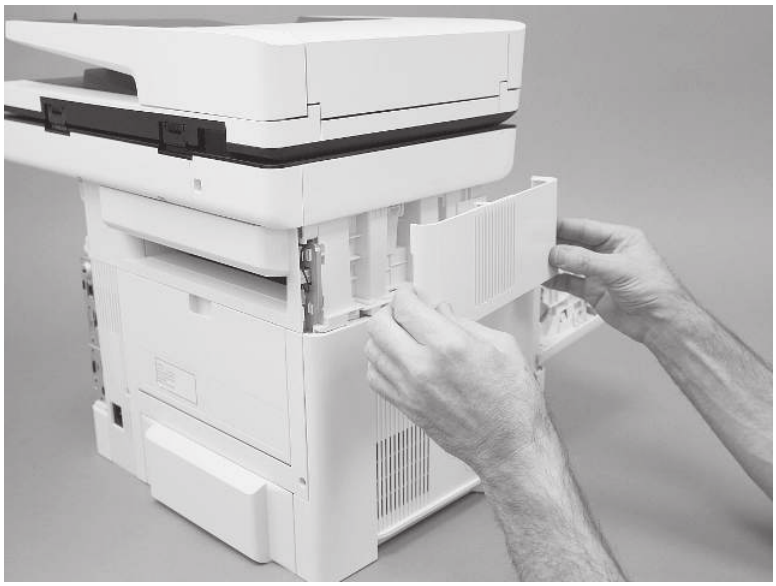
Figure 4-1213 Release two tabs

c. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-1214 Slide the cover

d. Remove the cover.

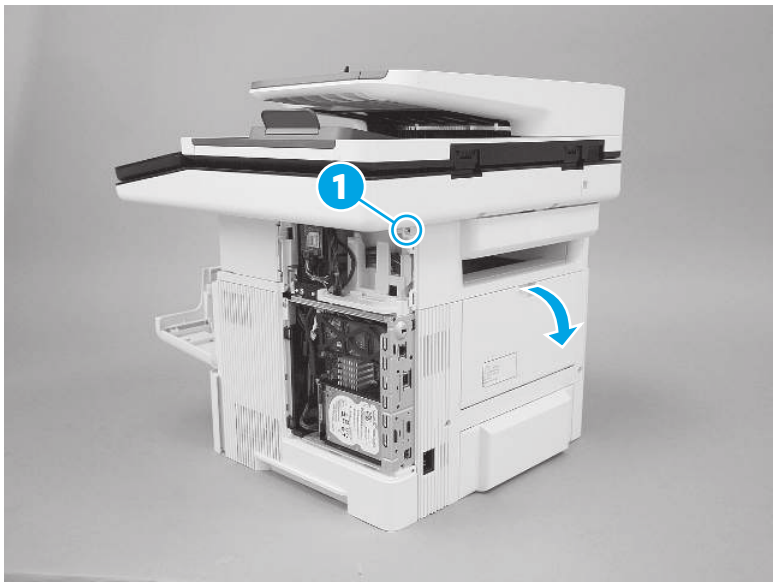
Figure 4-1215 Remove the cover



10. Remove the top-rear cover (M527/E52545/M528/E52645).

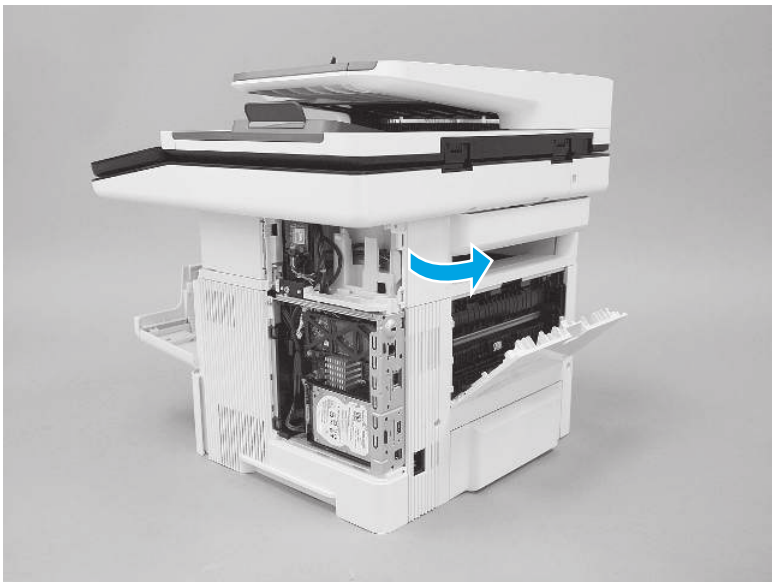
a. Remove one screw (callout 1), and then open the rear door.

Figure 4-1216 Remove one screw



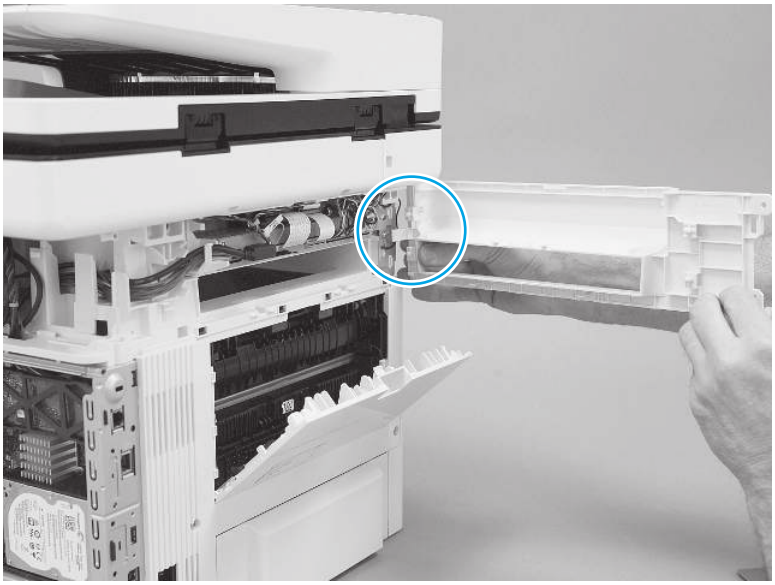
b. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-1217 Rotate the cover



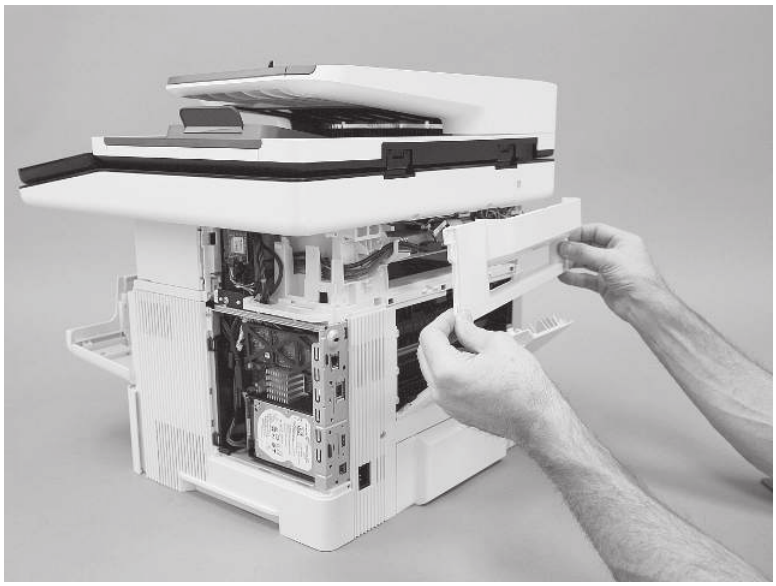
c. Continue to rotate the cover away from the printer to release one boss.

Figure 4-1218 Release one boss



d. Remove the cover.

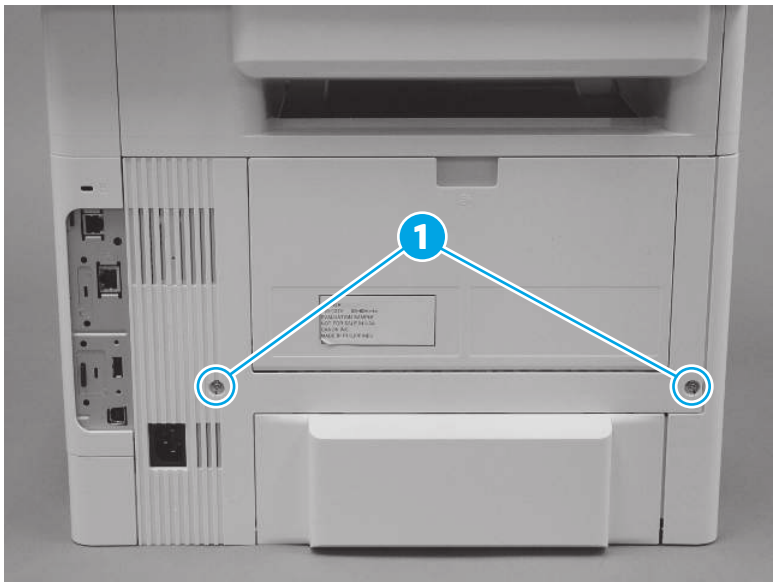
Figure 4-1219 Remove the cover



11. Remove the rear door assembly.

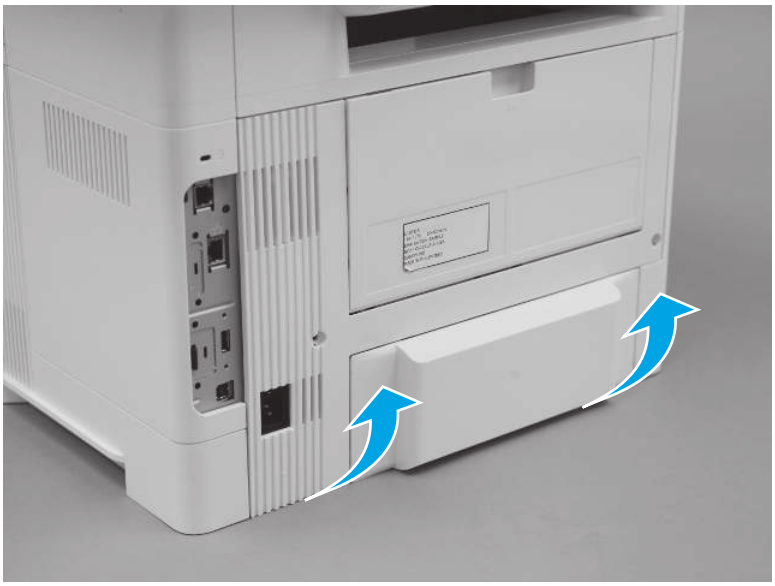
a. At the rear of the printer, remove two screws (callout 1).

Figure 4-1220 Remove two screws



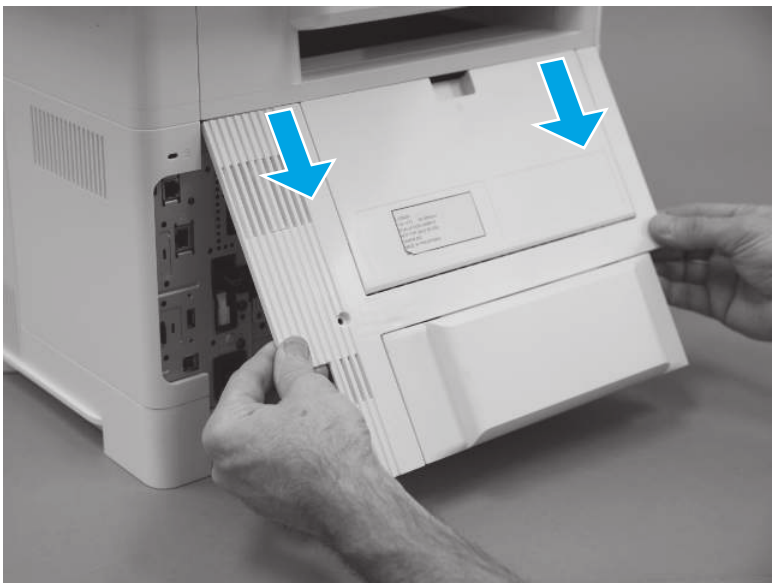
b. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-1221 Rotate the bottom of the cover



c. Pull down on the assembly to remove it.

Figure 4-1222 Remove the cover



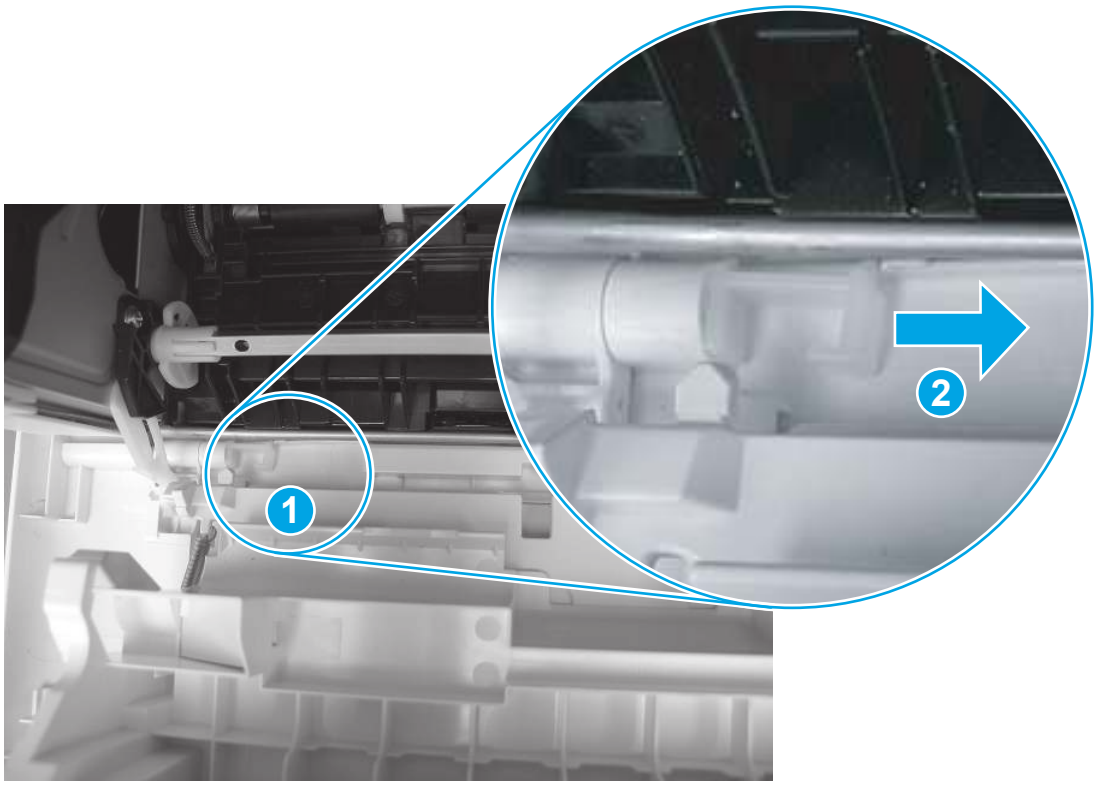
12. Remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

a. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

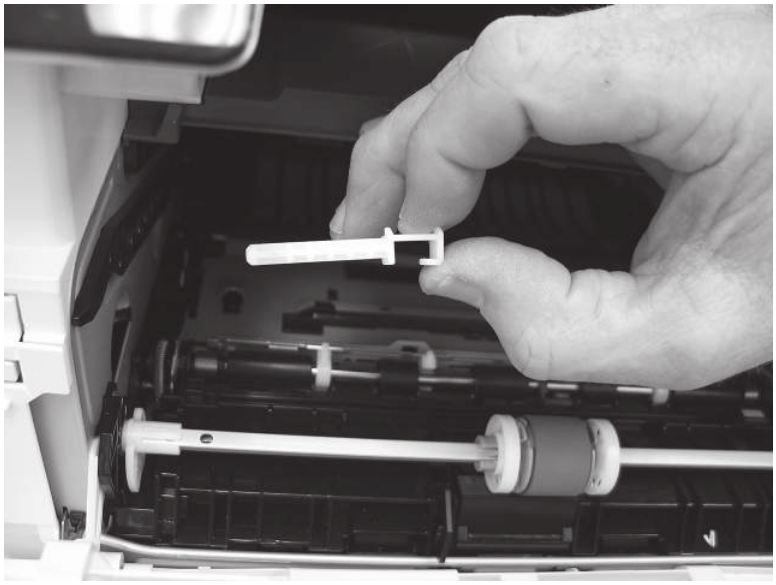
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-1223 Release the support shaft



b. Remove the support shaft.

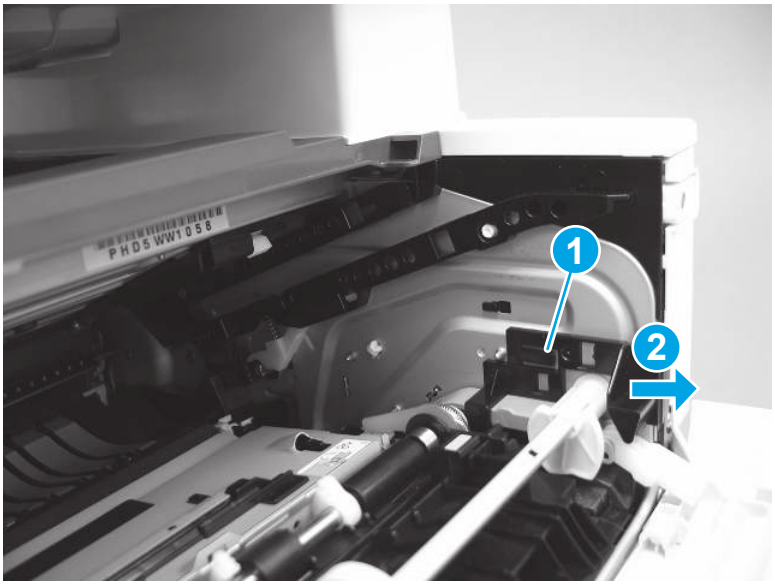
Figure 4-1224 Remove the support shaft



c. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

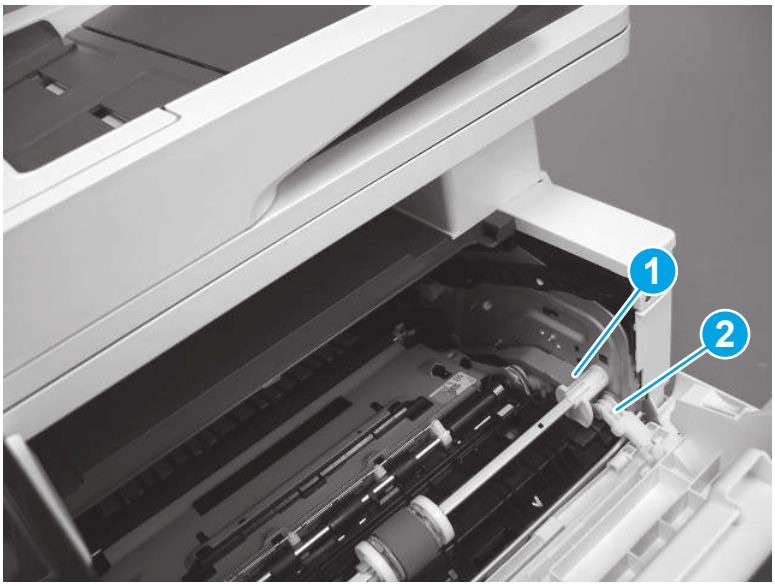
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-1225 Remove the guide



d. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-1226 Release the pressure-release link



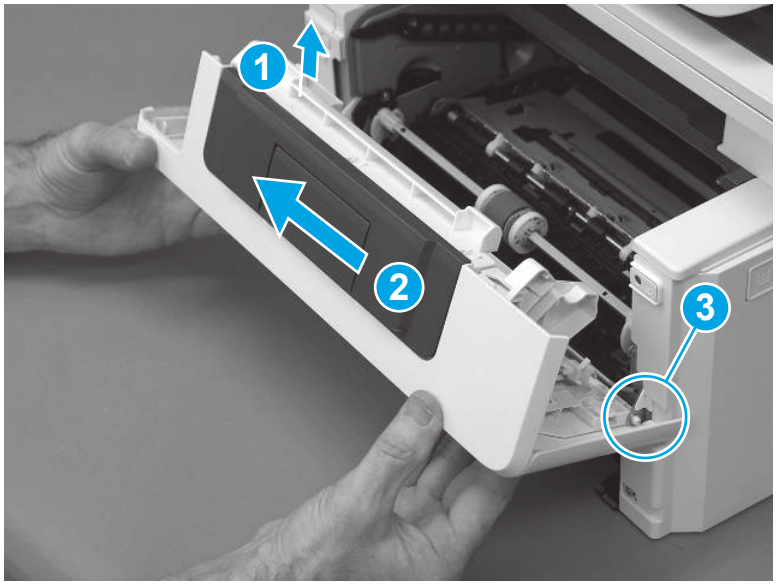
e. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

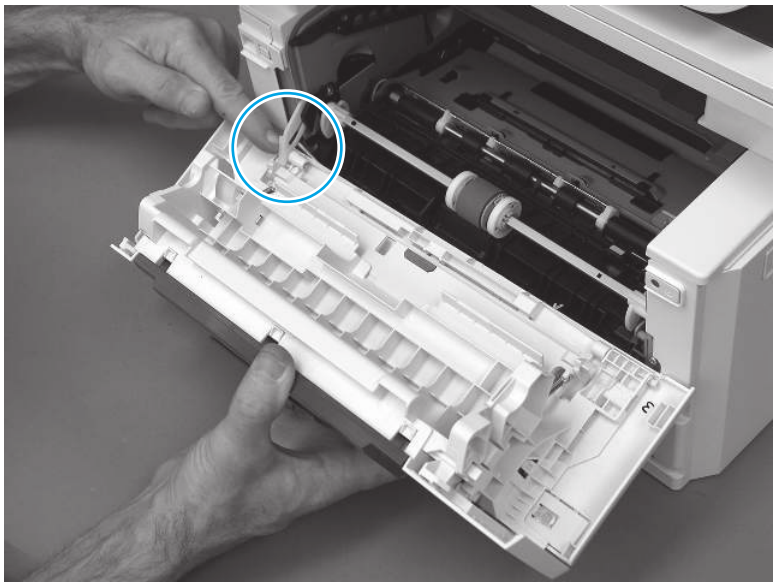
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-1227 Release the door



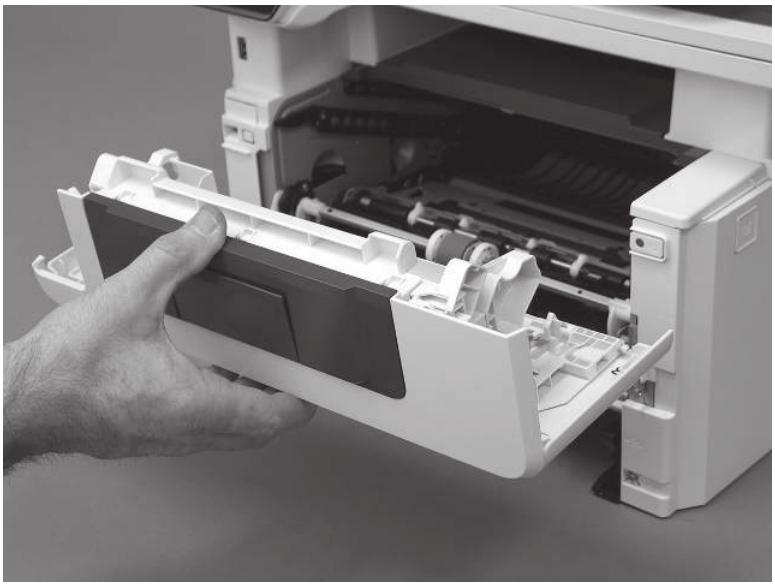
f. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-1228 Release the left-side retainer arm



g. Remove the door.

Figure 4-1229 Remove the door



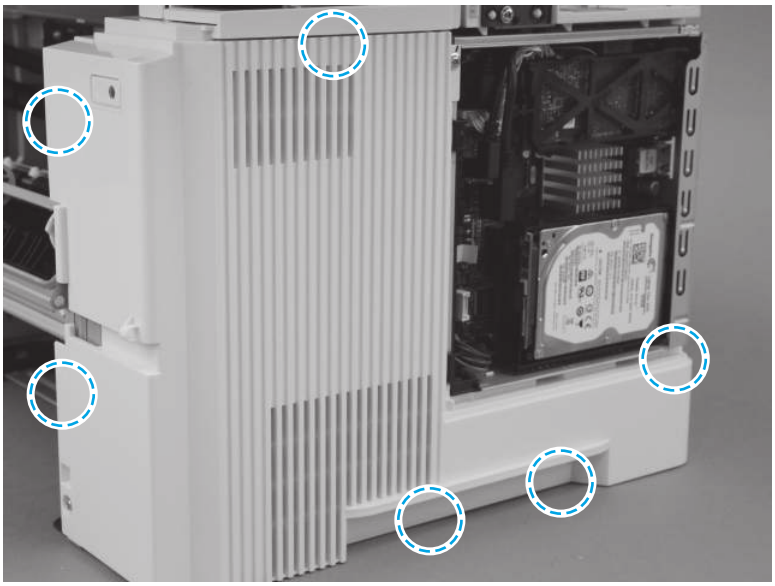
13. Remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

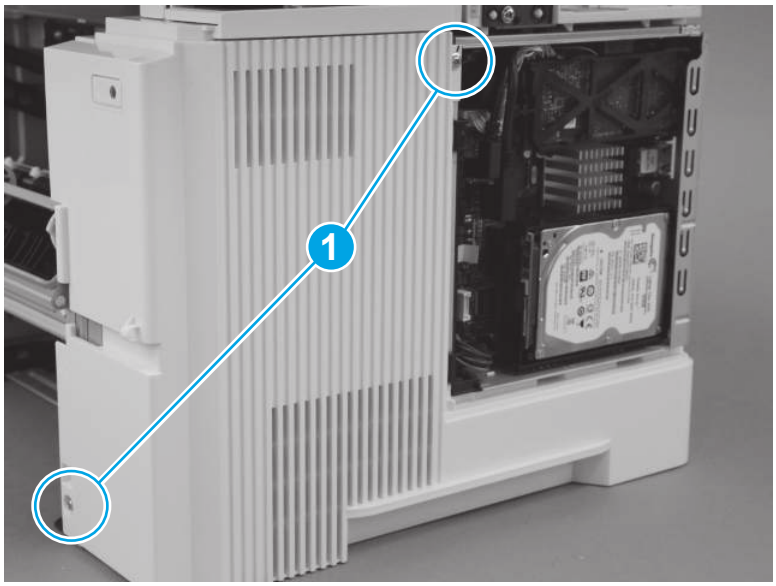
a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1230 Locate the tabs and bosses



b. Remove two screws (callout 1).

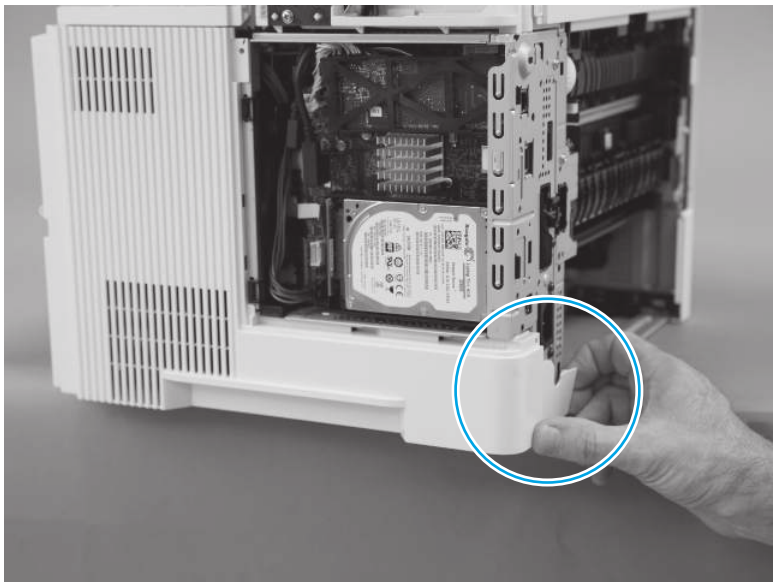
Figure 4-1231 Remove two screws



c. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

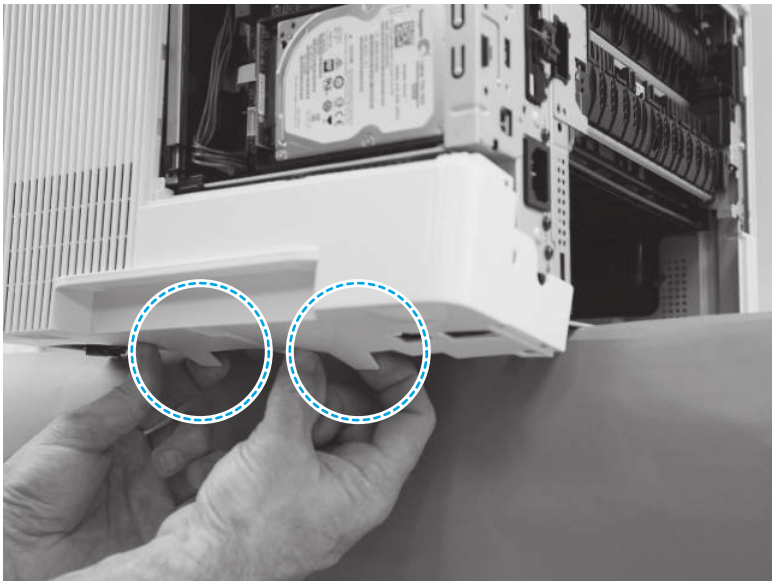
Figure 4-1232 Release one boss



d. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1233 Release two bosses

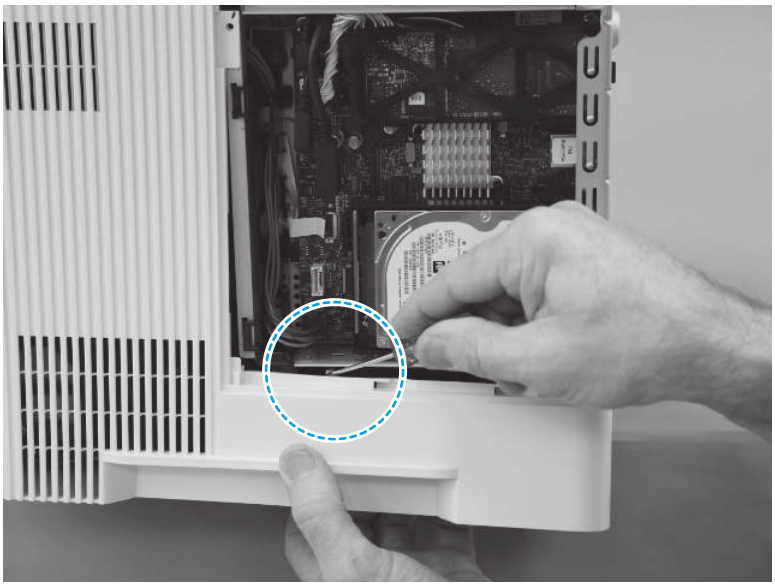


e. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-1234 Release one tab

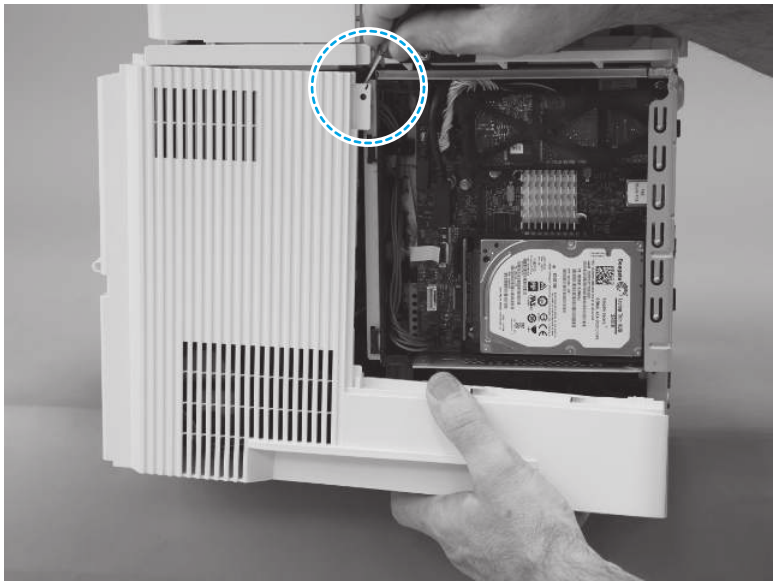


f. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

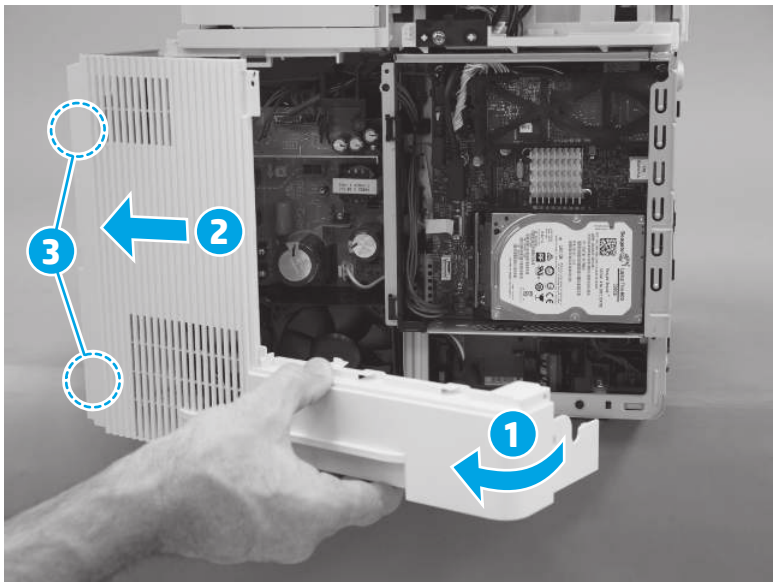
Figure 4-1235 Release one tab



g. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1236 Remove the cover



14. Remove the left cover.

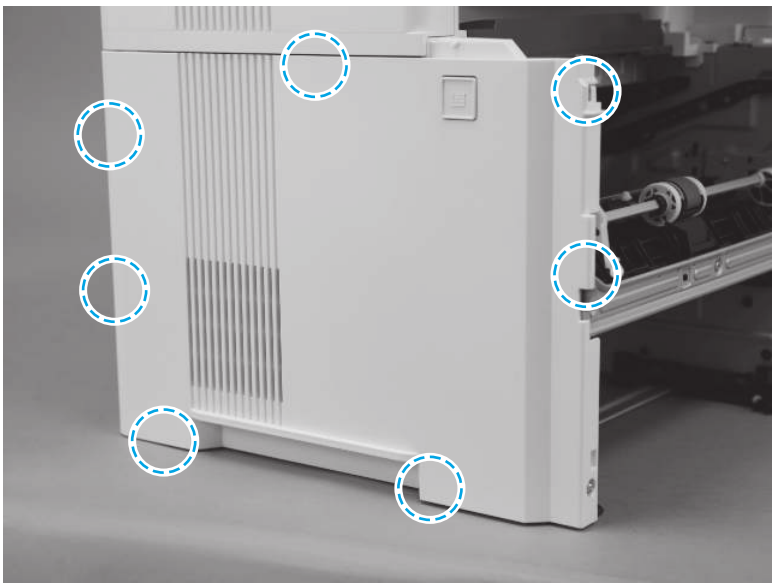
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

a. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

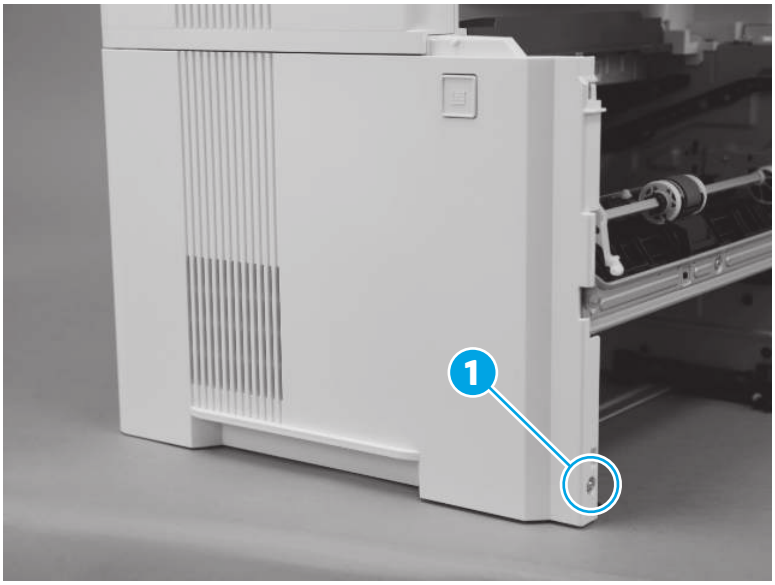
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1237 Locate of the tabs and bosses



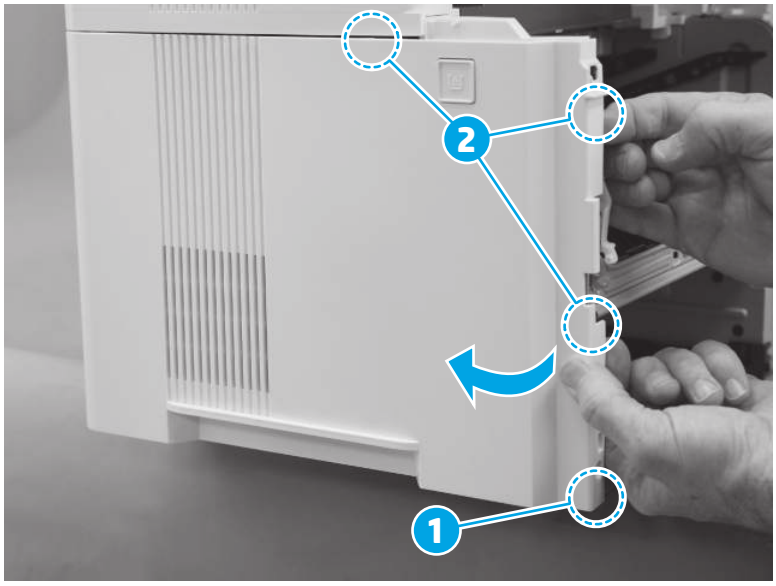
b. Remove one screw (callout 1).

Figure 4-1238 Remove one screw



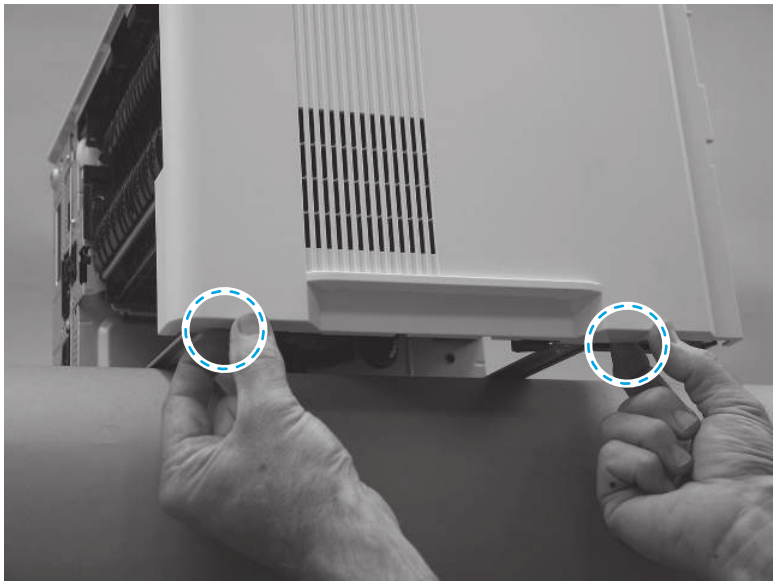
c. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-1239 Release one boss and three tabs



d. At the bottom edge of the cover, release two tabs.

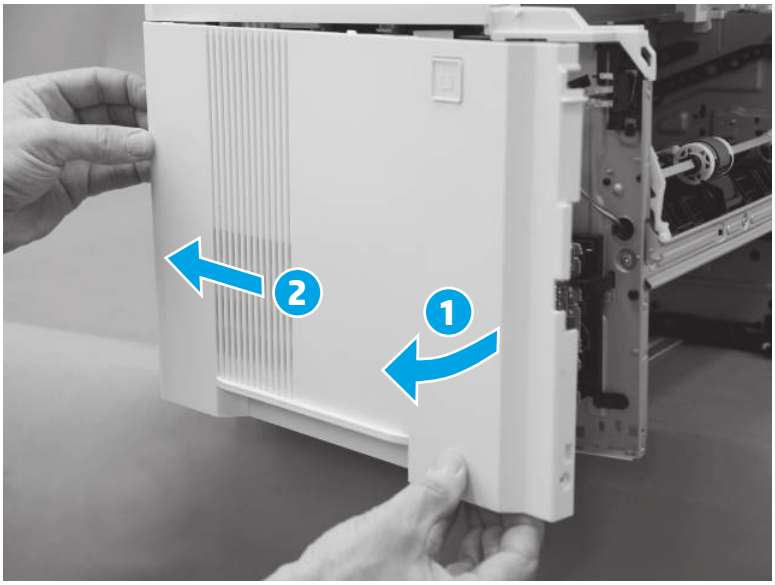
Figure 4-1240 Release two tabs



e. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-1241 Remove the cover



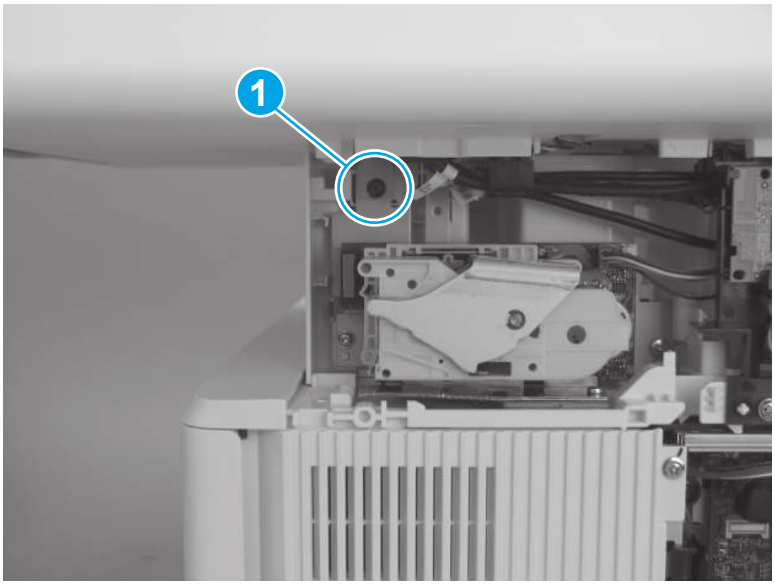
15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

a. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-1242 Remove one screw

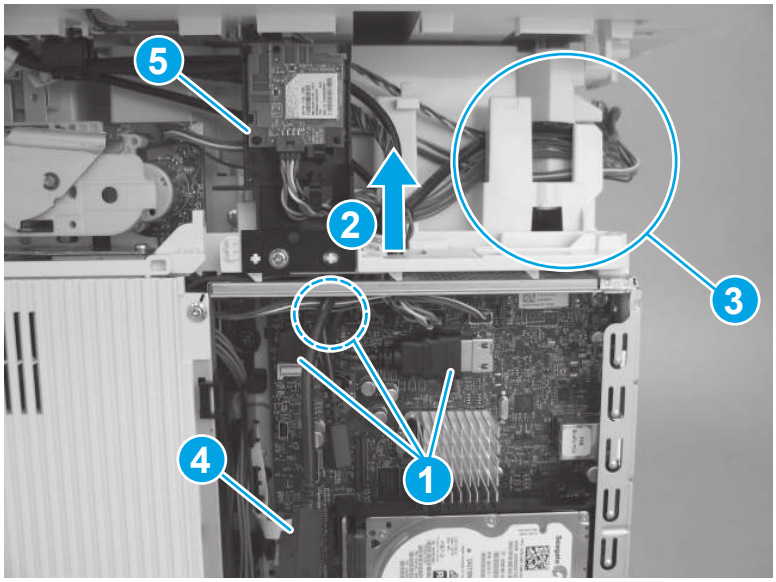


b. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

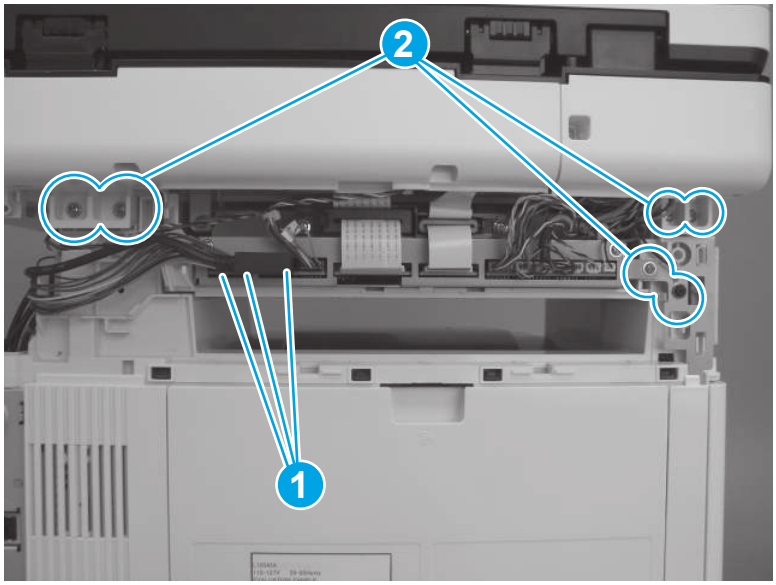
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-1243 Disconnect cables and connectors



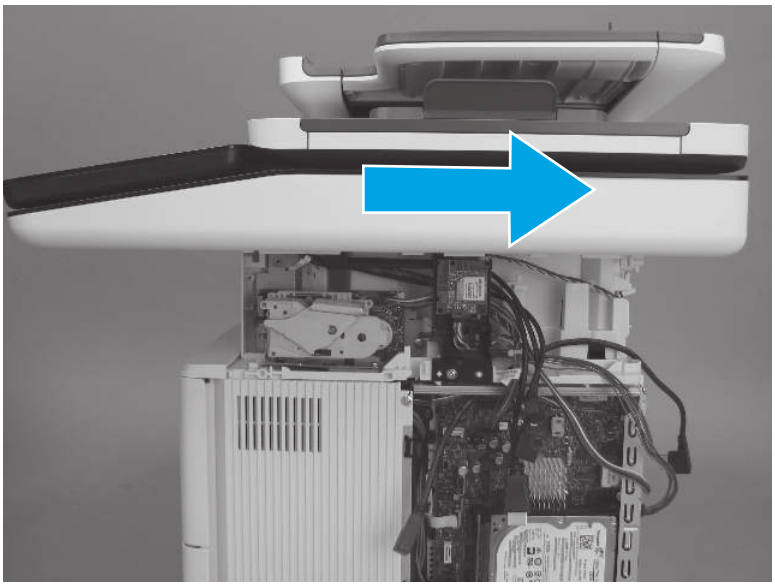
c. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-1244 Disconnect connectors and remove screws



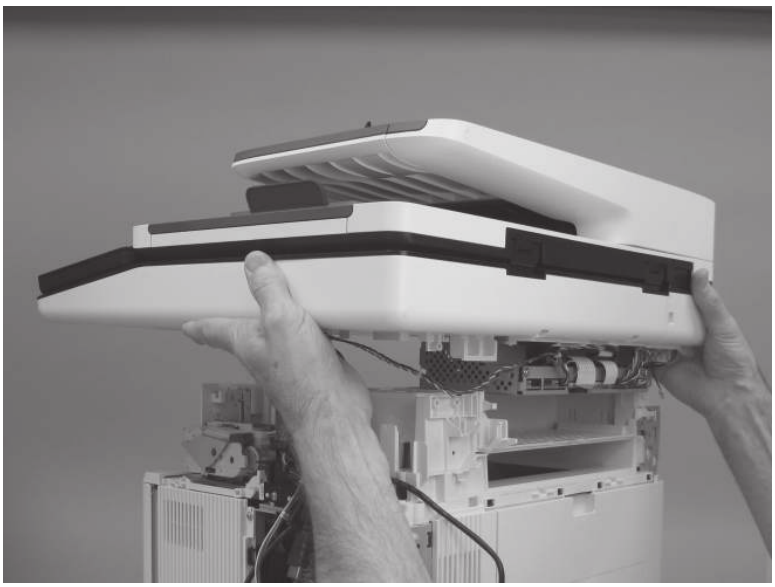
d. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-1245 Slide the ISA towards the back of the printer



e. Remove the ISA.

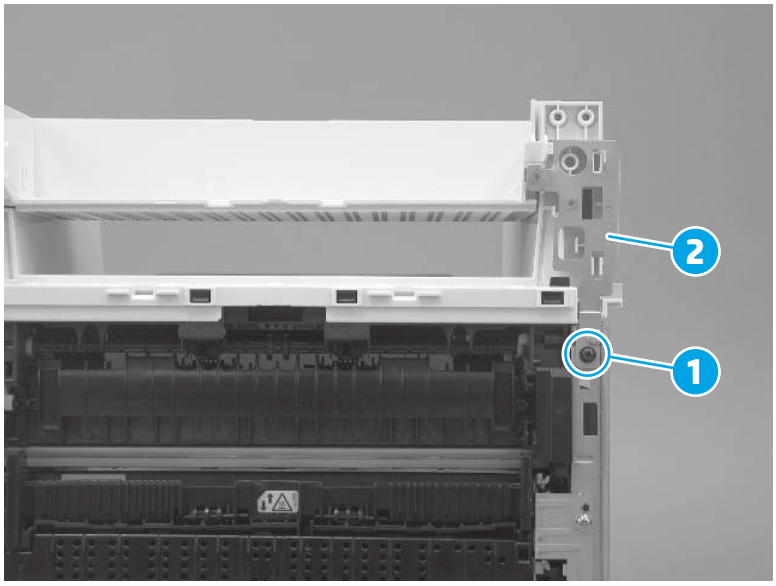
Figure 4-1246 Remove the ISA



16. Remove the top cover (M527/E52545/M528/E52645).

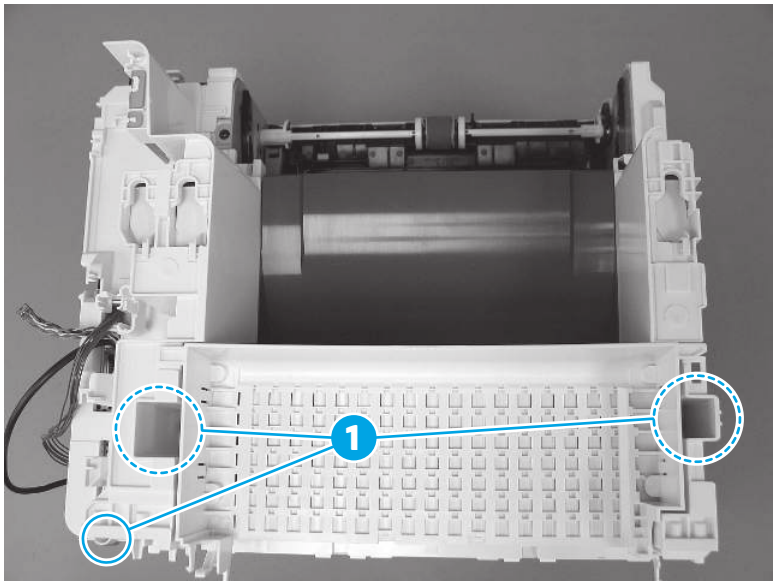
a. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-1247 Remove one screw and the plate



b. At the top rear of the printer, remove three screws (callout 1).

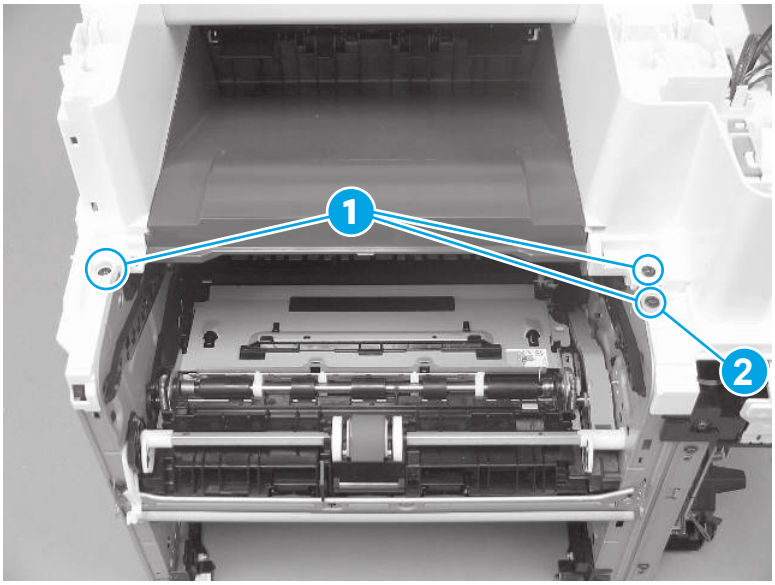
Figure 4-1248 Remove three screws



c. At the top front of the printer, remove three screws (callout 1).

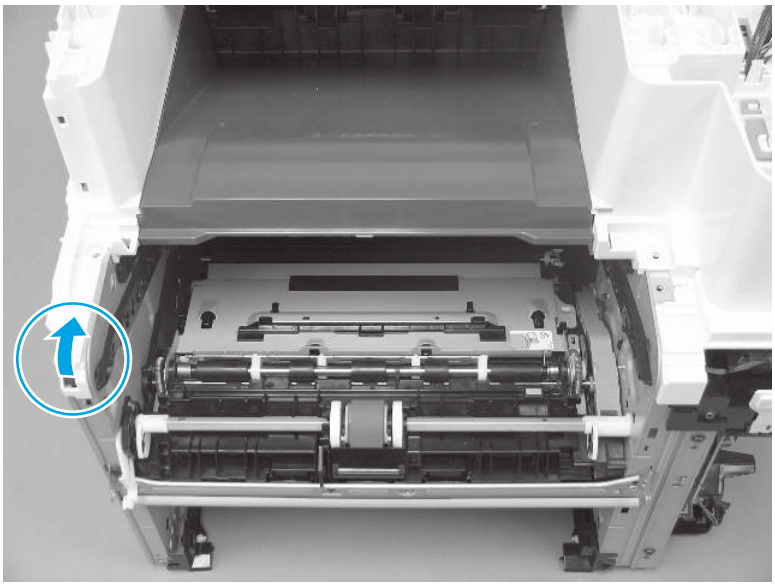
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-1249 Remove three screws



d. At the front left of the printer, release one boss.

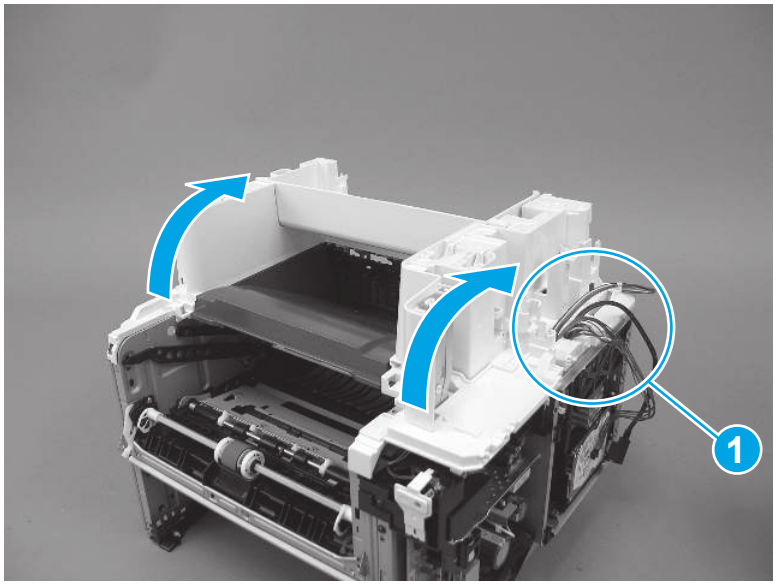
Figure 4-1250 Release one boss



e. Rotate the front of the cover up and away from the printer.

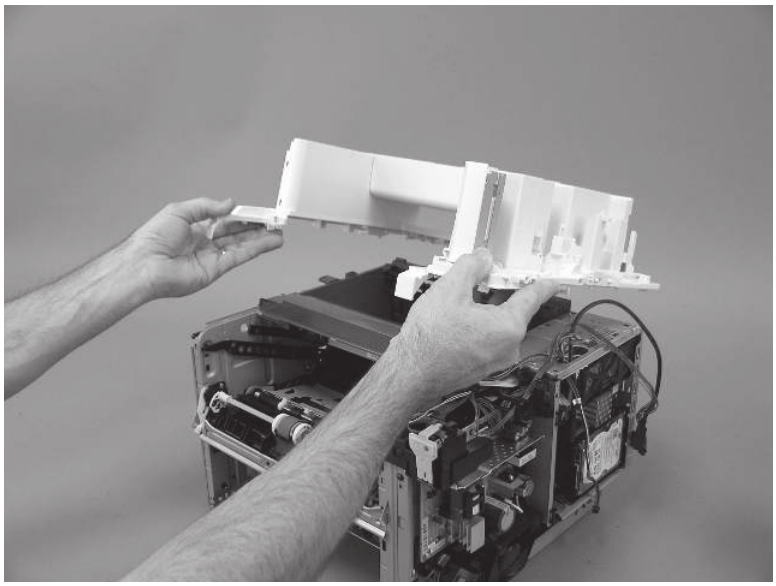
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-1251 Rotate the front of the cover up



f. Remove the cover.

Figure 4-1252 Remove the cover

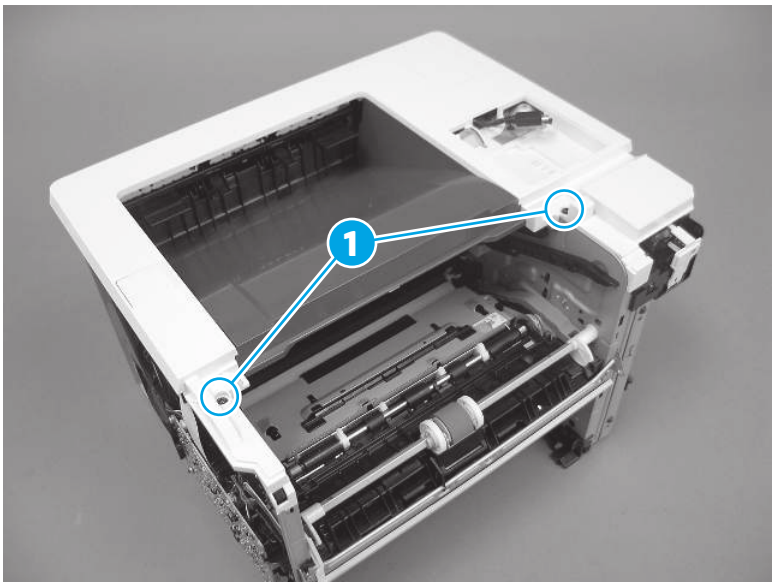


17. Remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

a. Remove two screws (callout 1).

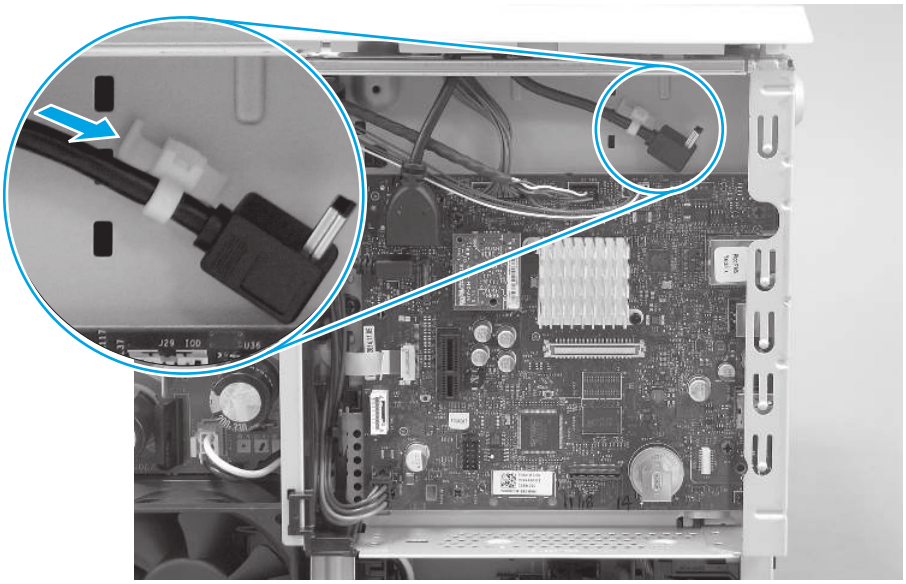
Figure 4-1253 **Remove two screws**



b. **M506/E50045/ only:** Release one cable retainer from the chassis.

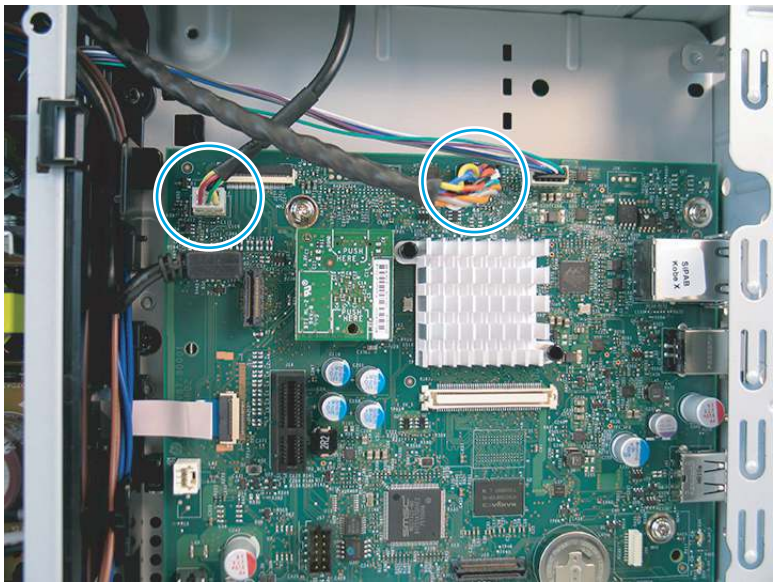
TIP: Depress the tab on the retainer to release it.

Figure 4-1254 **Release one cable retainer**



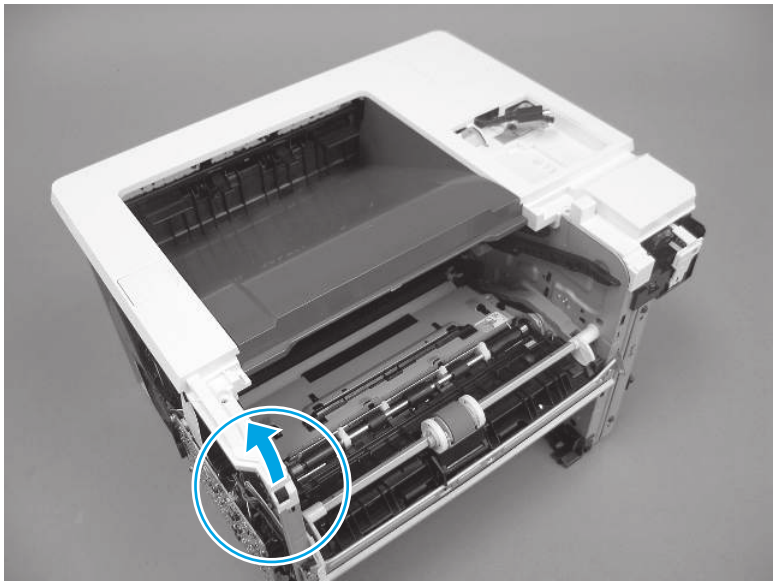
c. **M507/E50145 only**: Disconnect two connectors.

Figure 4-1255 **Disconnect two connectors**



d. Release one boss.

Figure 4-1256 **Release one boss**

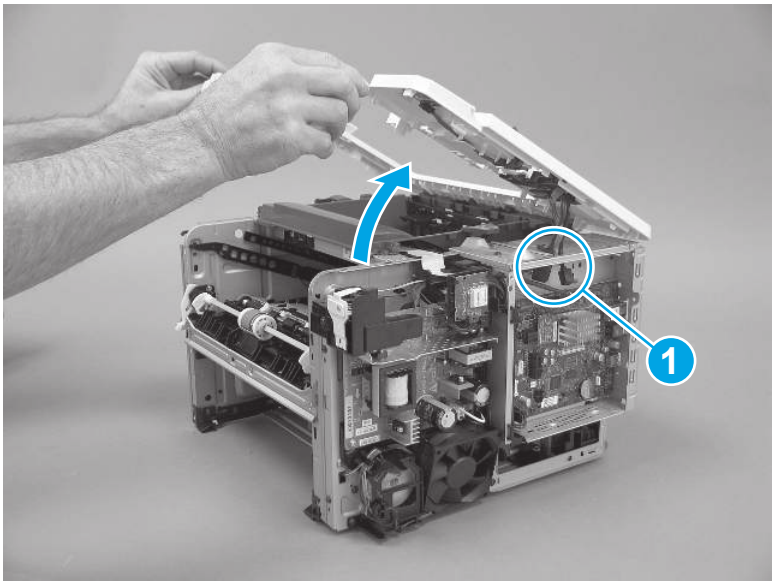


e. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1257 Remove the cover (M506/E50045)



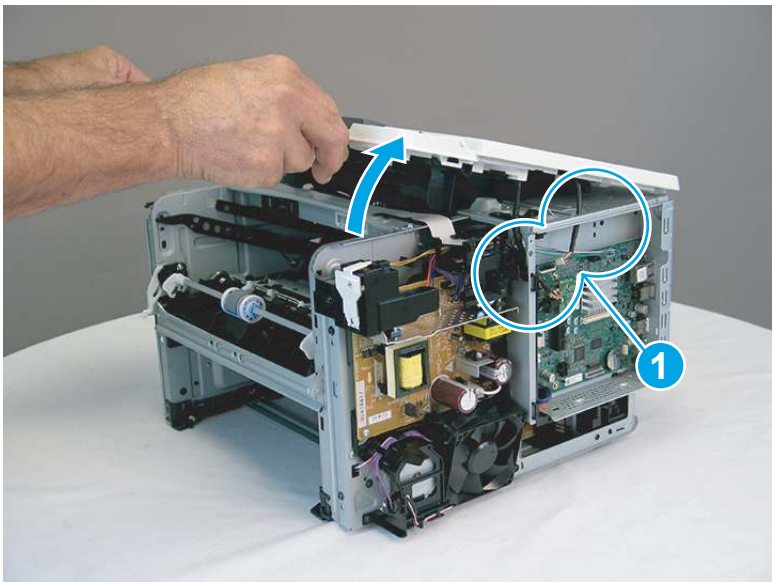
f. **M507/E50145only:** Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only:** As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only:** Disconnect the control panel before removing the cover.

Figure 4-1258 Remove the cover (M507/E50145)

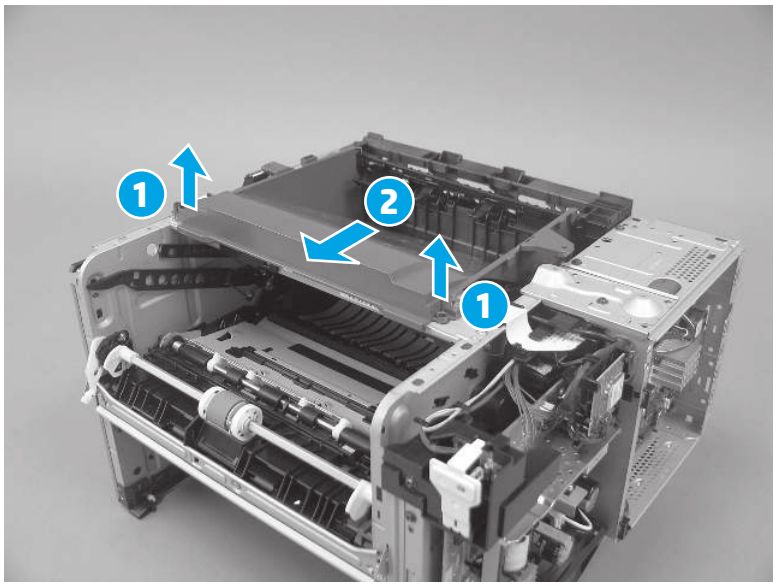


18. Remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

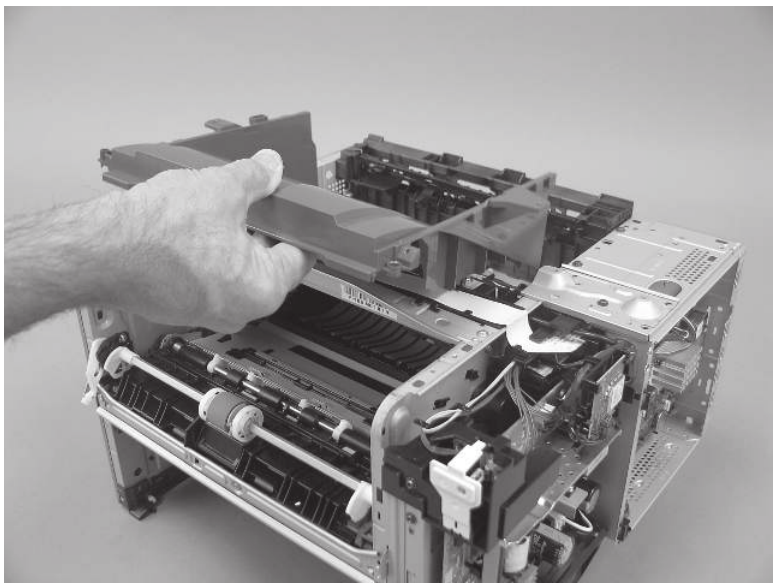
a. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-1259 Release two tabs



b. Remove the bin.

Figure 4-1260 Remove he bin

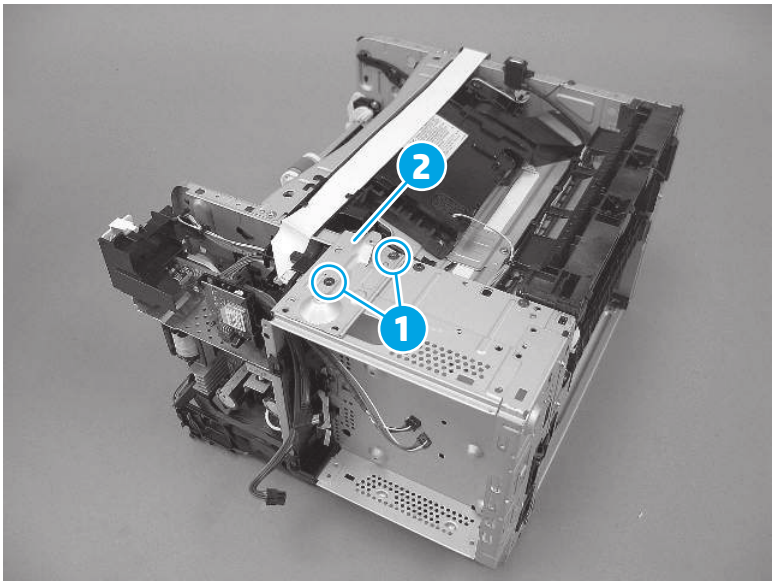


19. Remove the formatter case.

a. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

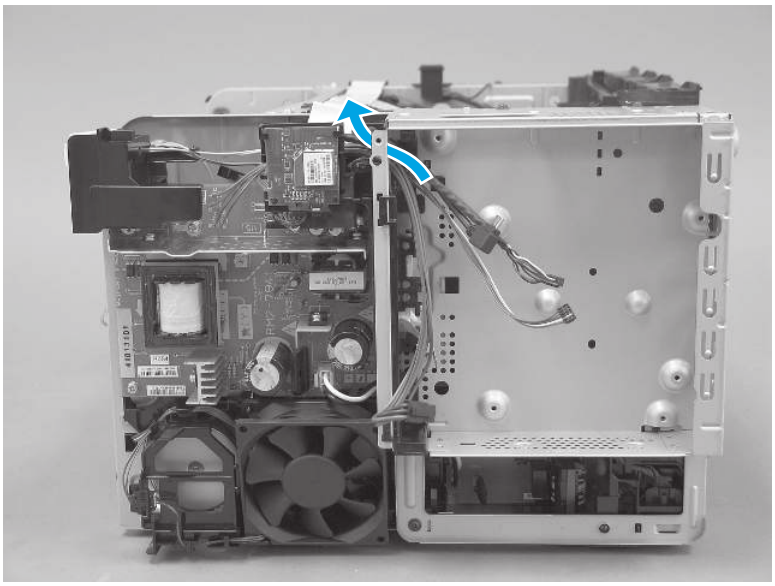
Figure 4-1261 **Remove the sheet-metal plate**



b. Carefully pass all cables and wire harnesses through the opening in the formatter case.

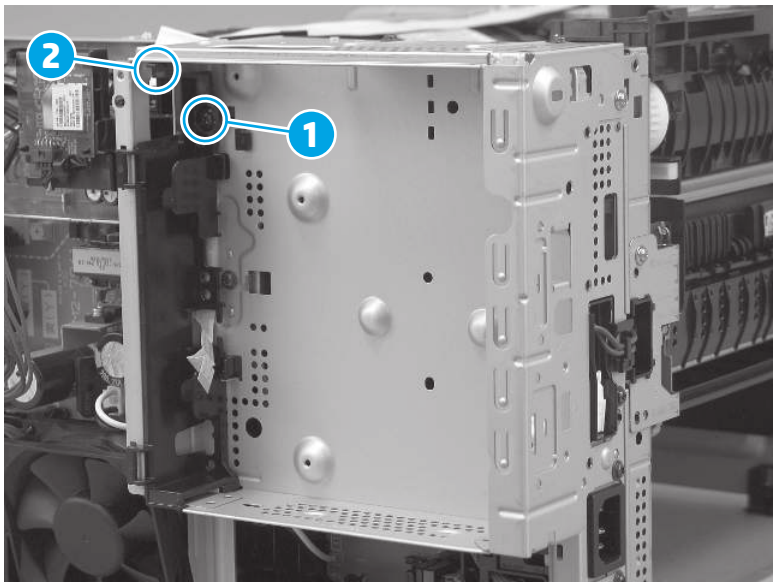
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-1262 **Pass all cables and wire harnesses through the opening**



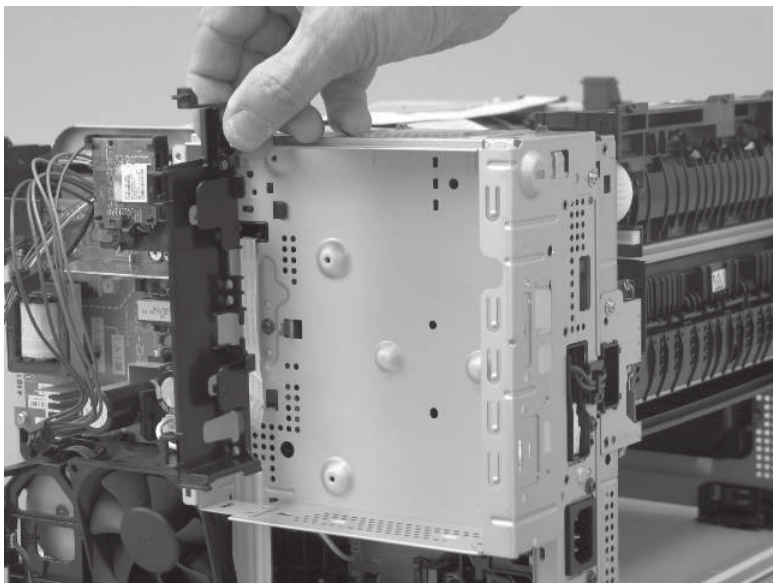
c. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-1263 Remove one screw



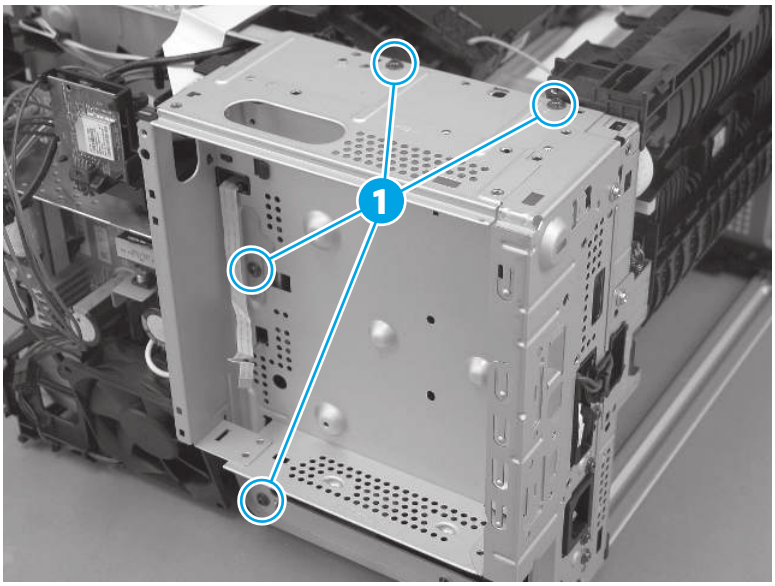
d. Remove the guide.

Figure 4-1264 Remove the guide



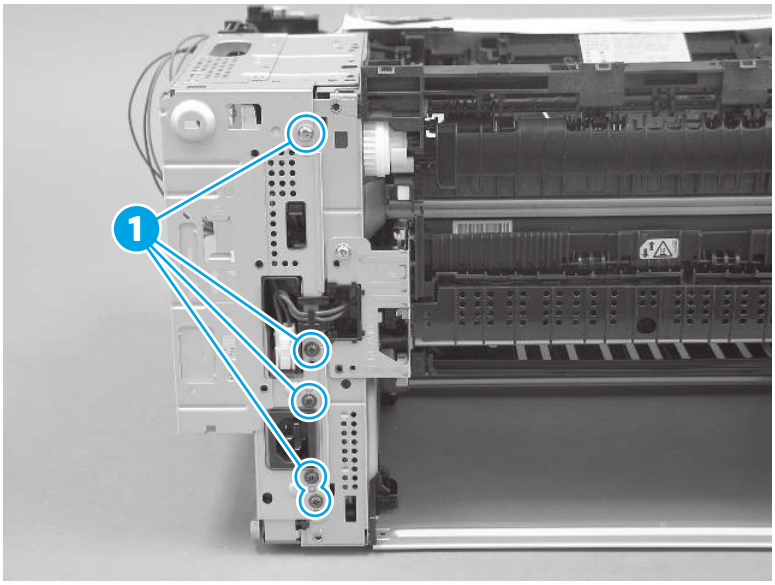
e. Remove four screws (callout 1).

Figure 4-1265 Remove four screws



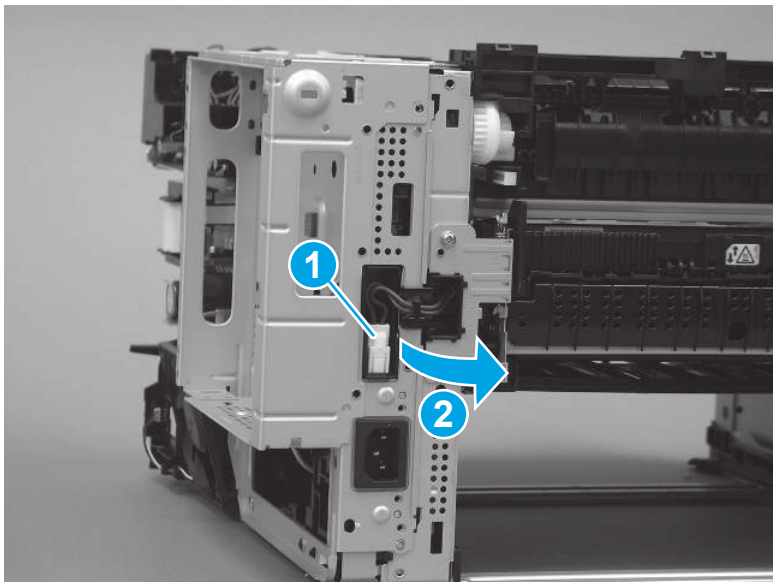
f. Remove five screws (callout 1).

Figure 4-1266 Remove five screws



g. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

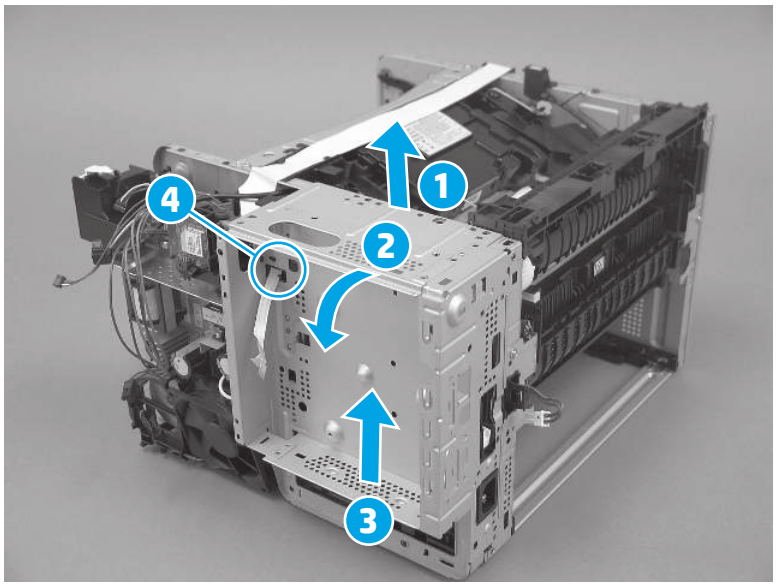
Figure 4-1267 Disconnect one connector



h. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

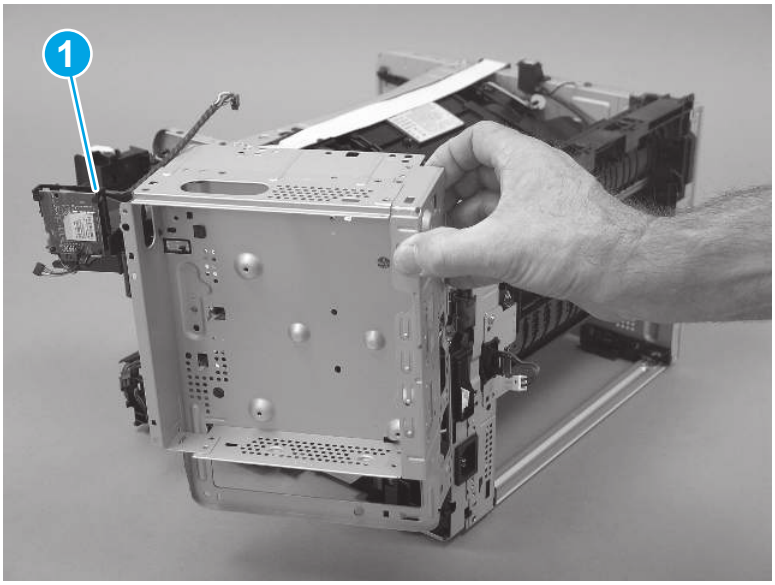
Figure 4-1268 Release the formatter case



i. Remove the formatter case.

NOTE: **WiFi models only**: If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

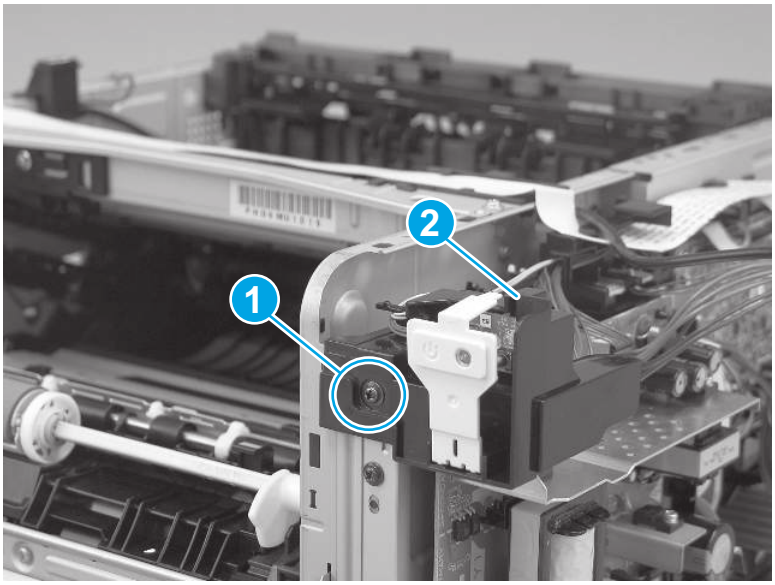
Figure 4-1269 Remove the formatter case



20. Remove the LVPS.

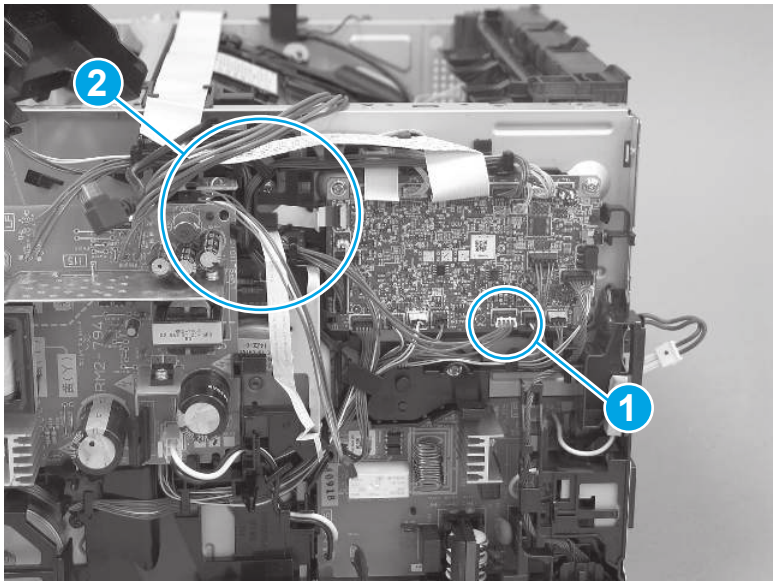
    a. Remove one screw (callout 1), and then move the power-switch assembly (callout 2) out of the way.

Figure 4-1270 Move the power-switch assembly



b. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

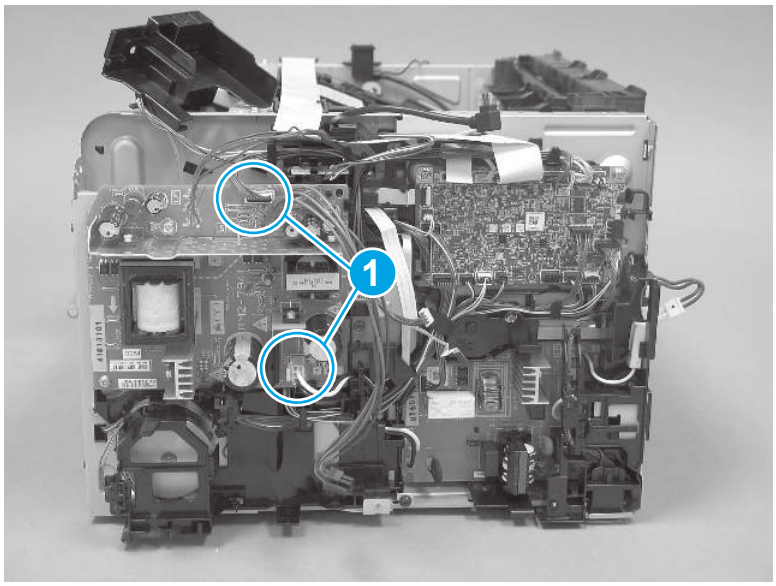
Figure 4-1271 Disconnect one connector



c. Disconnect two connectors (callout 1).

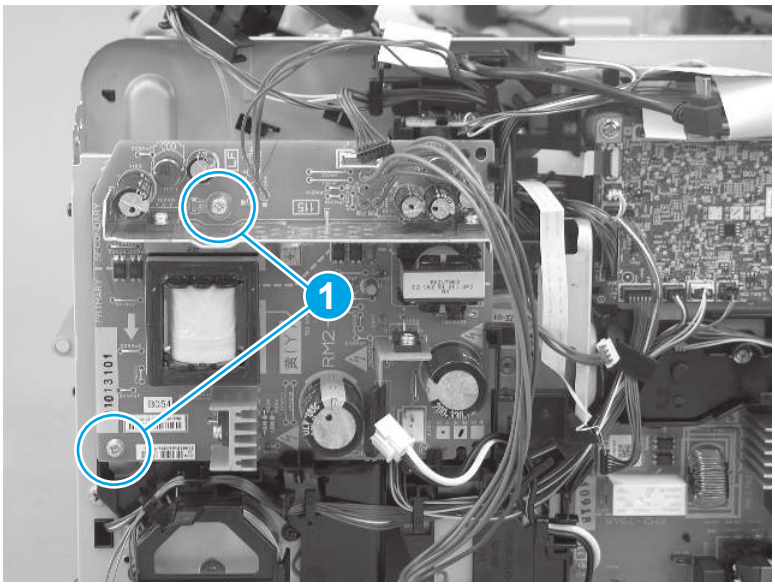
TIP: Squeeze the locking lever on the lower connector to release it.

Figure 4-1272 Disconnect two connectors



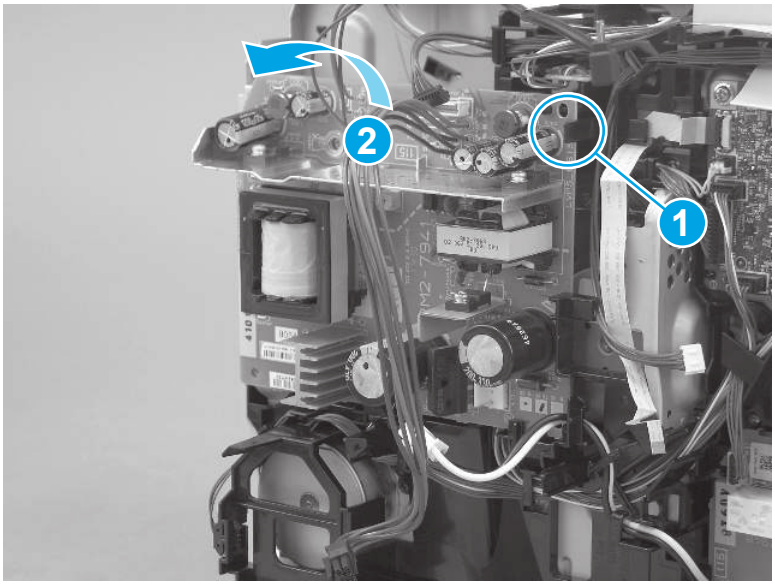
d. Remove two screws (callout 1).

Figure 4-1273 Remove two screws



e. Release one tab (callout 1), and then rotate the top of the LVPS out and away from the printer (callout 2).

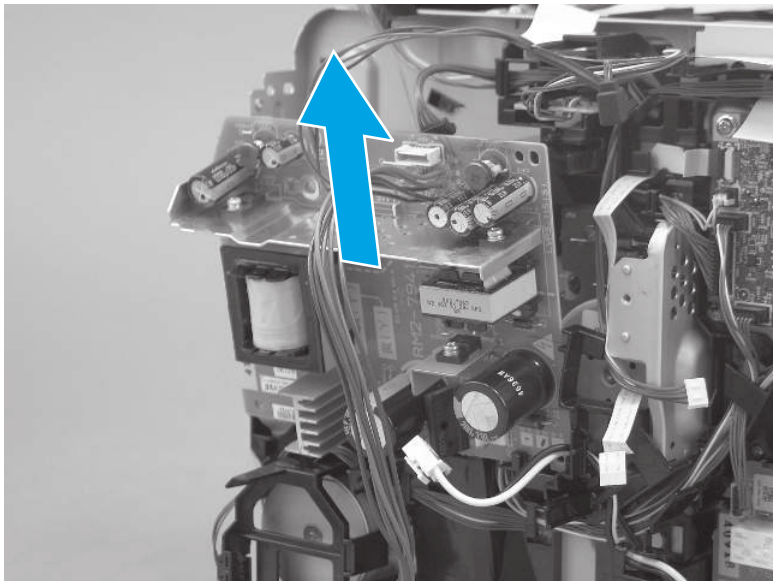
Figure 4-1274 Release one tab



f. Slide the LVPS up and away from the printer to release it.

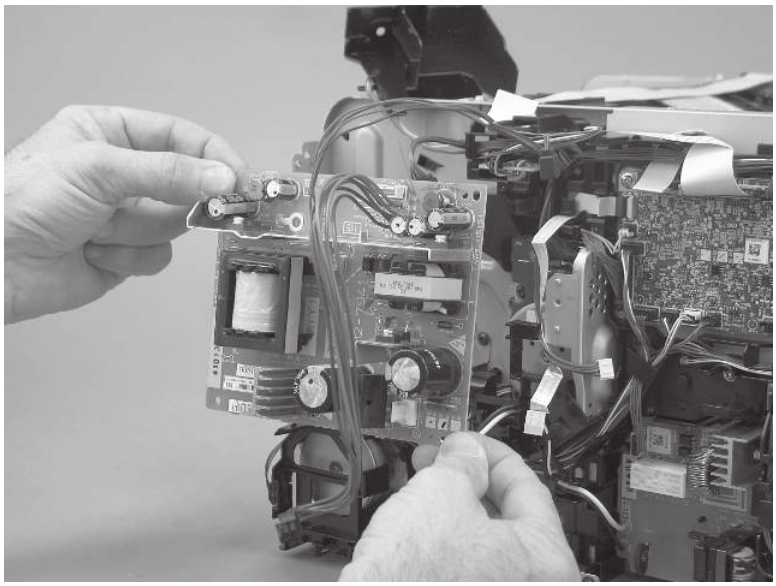
Reinstallation tip: Push down on the LVPS to make sure that it is fully seated on the holder.

Figure 4-1275 Release the LVPS



g. Remove the LVPS.

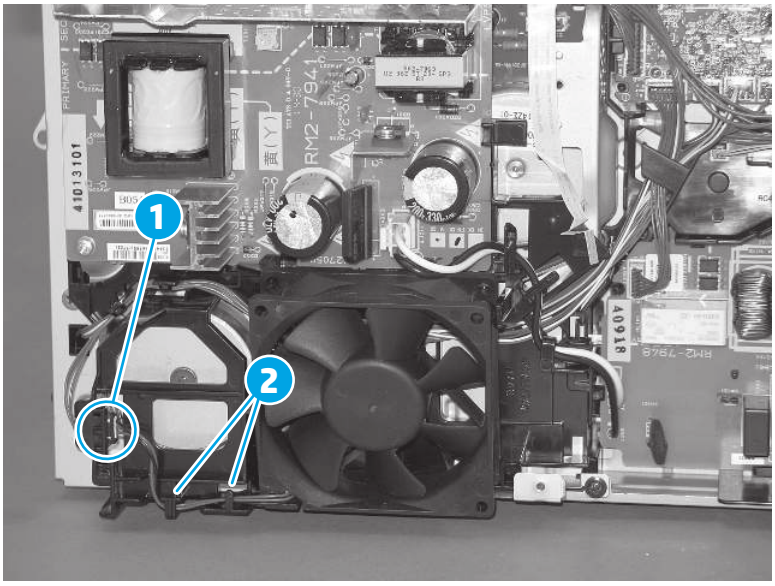
Figure 4-1276 Remove the LVPS



21. Remove the fan (FM2).

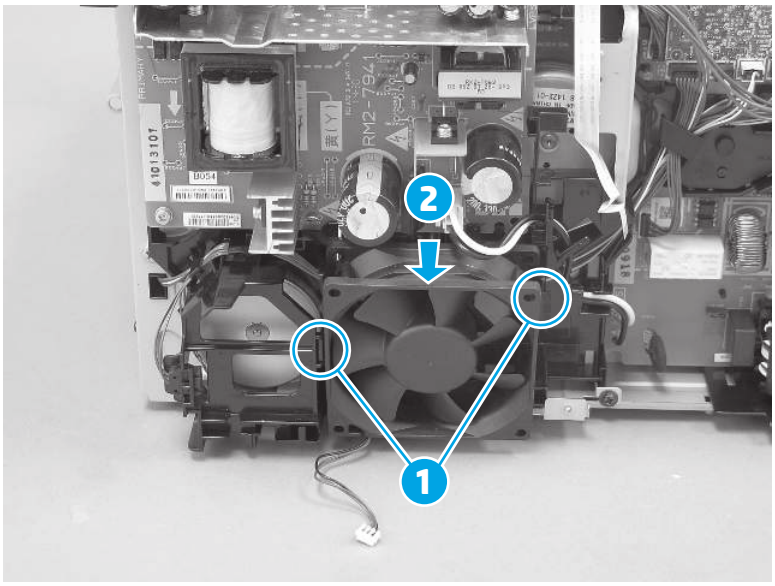
a. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-1277 Disconnect one connector



b. Release two tabs (callout 1), and then rotate the top of the fan out and away from the printer (callout 2).

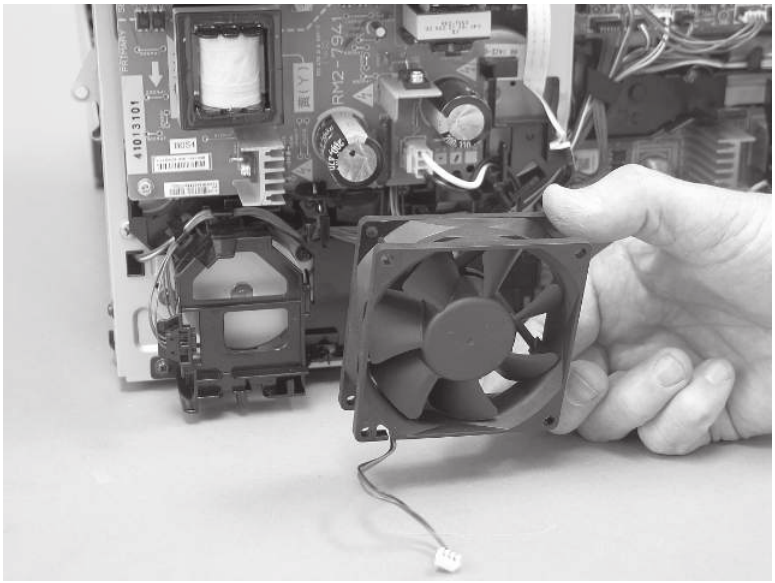
Figure 4-1278 Release two tabs



c. Remove the fan.

⚠ CAUTION: When reinstalled the fan must draw air into the printer. Make sure that the two arrows embossed on the right side of the fan body face downward and into the printer.

Figure 4-1279 **Remove the fan**

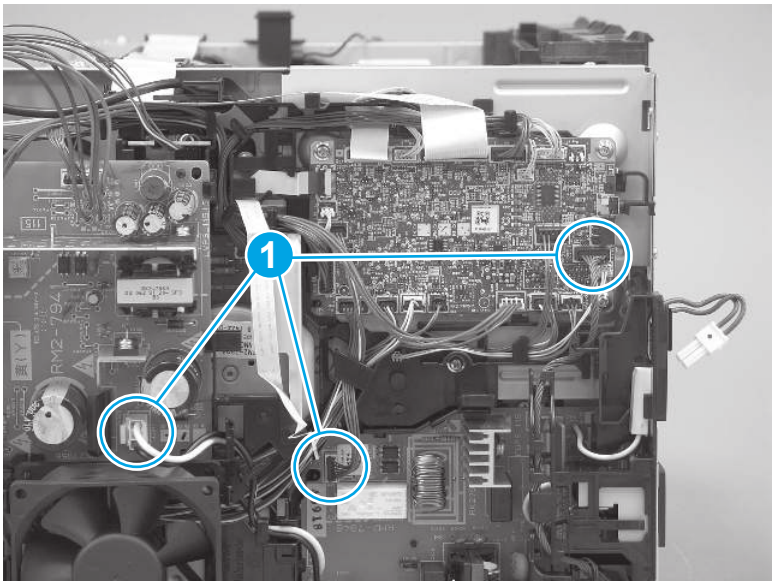


22. Remove the fuser power supply (FPS).

TIP: The FPS includes the optional paper feeder connector (Jetlink accessory tray connector) .

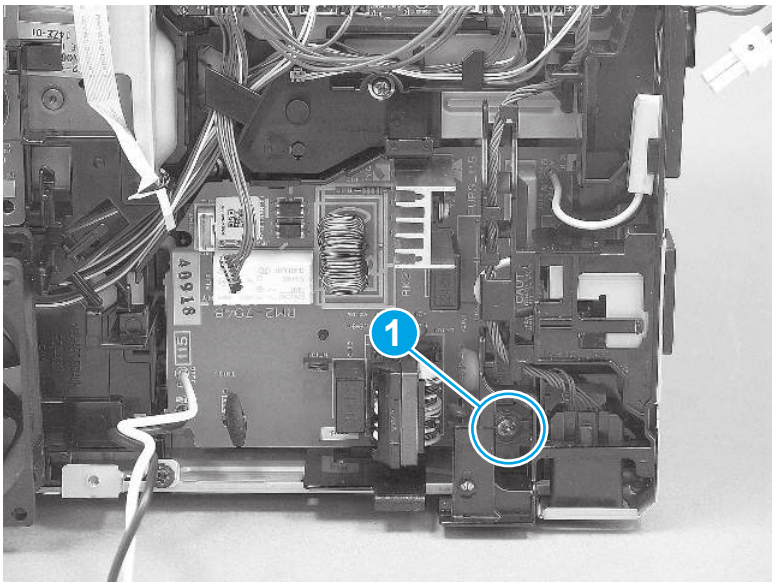
a. Disconnect three connectors (callout 1).

Figure 4-1280 **Disconnect three connectors**

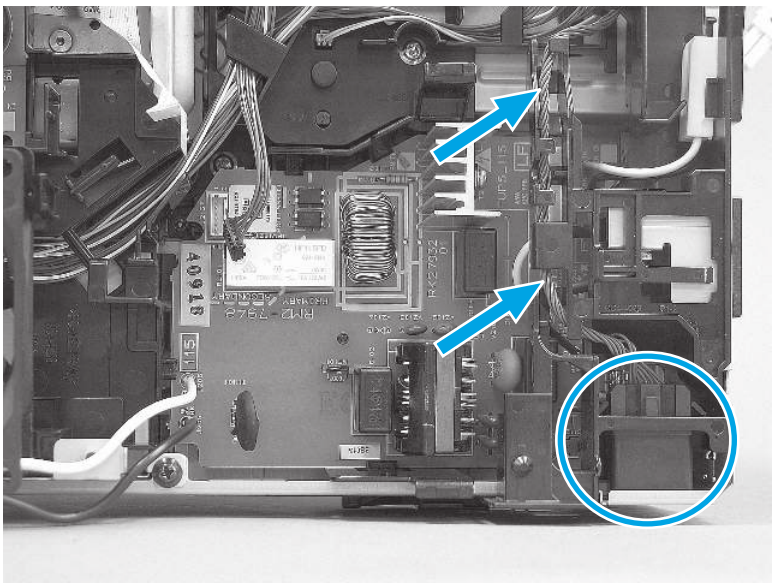


b. Remove one screw (callout 1).

Figure 4-1281 Remove one screw



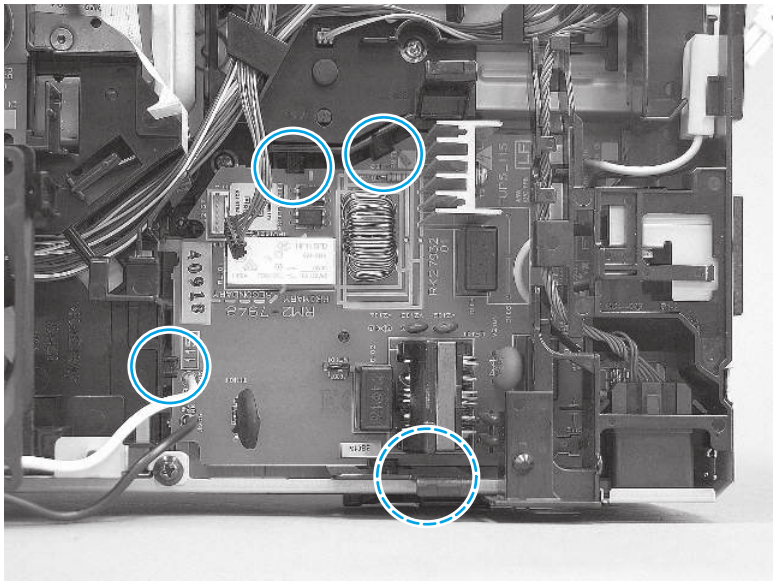
c. Disconnect the tray accessory connector (circle callout) and release the wire harness from the guide.



d. Release four tabs.

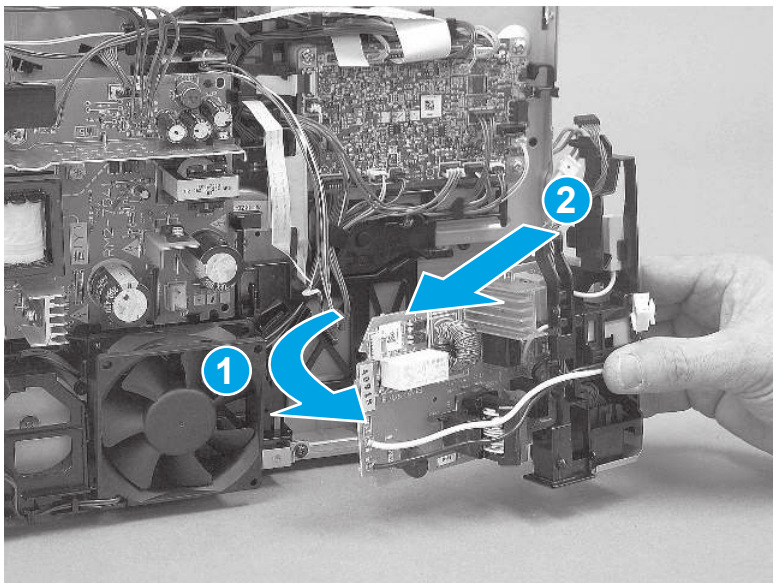
TIP: It might be easier to release the upper two tabs by using a small flat-blade screw driver.

Figure 4-1282 Release four tabs



e. Rotate the left end of the assembly out and away from the printer (callout 1), slide the assembly to the left to release the right side alignment pins (callout 2), and then remove the assembly.

Figure 4-1283 Remove the assembly

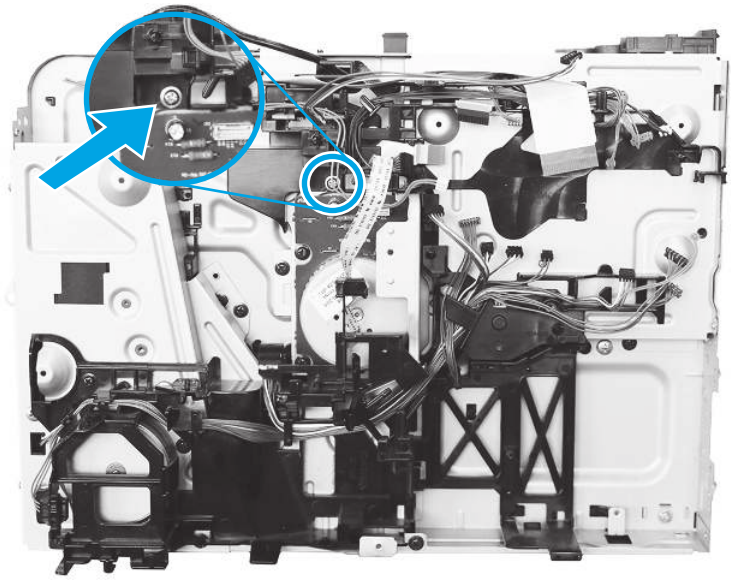


23. Remove internal cable and holder brackets.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

NOTE: Lay the engine on its left side to make removal or the following parts easier.

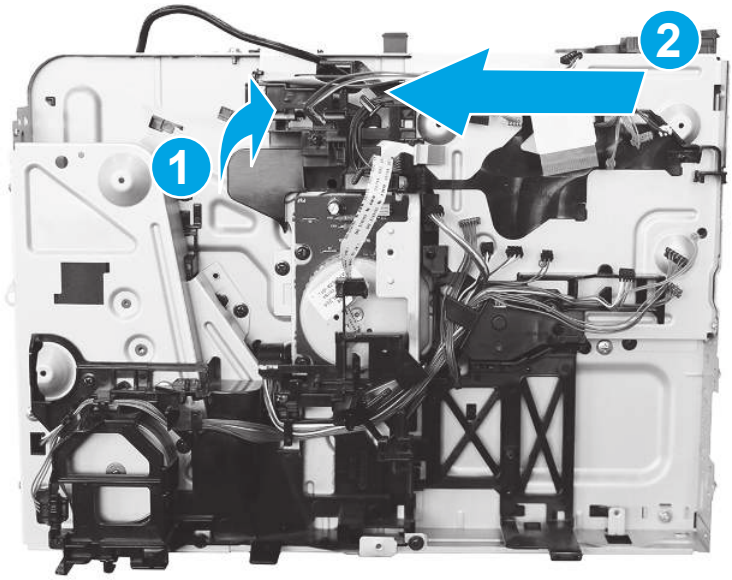
a. Remove one (1) screw from the upper cable bracket.



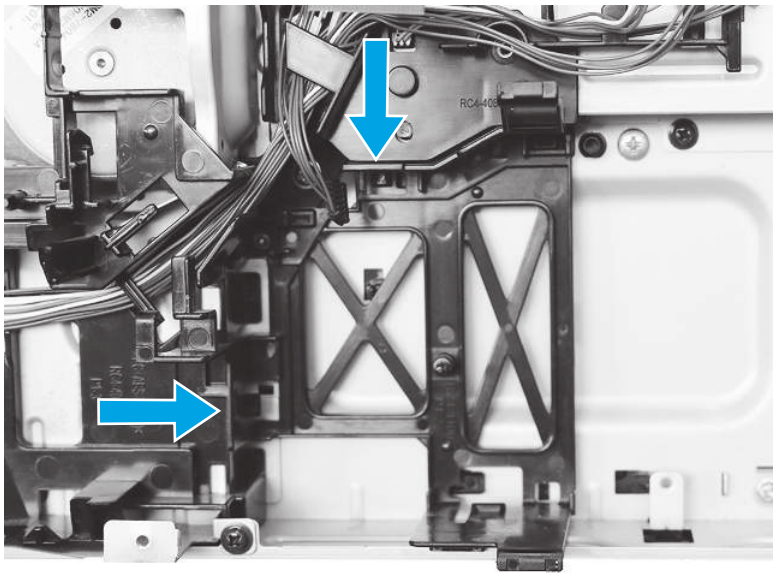
NOTE: The upper cable bracket assembly does not need to be completely removed, simply detached and then moved up out of the way and placed on the top of the printer.

b. Remove the cable routing from the upper cable bracket.

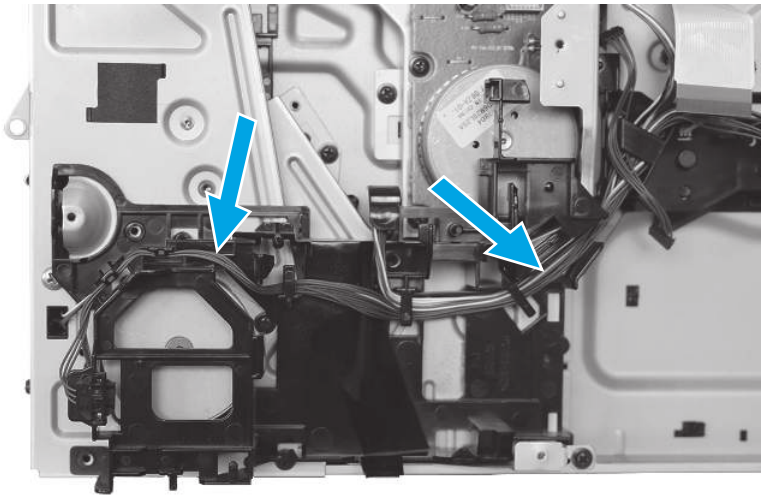
c. Lift up on the left side of the cable bracket (callout 1) and slide the bracket towards the front of the printer (callout 2) to remove the bracket.



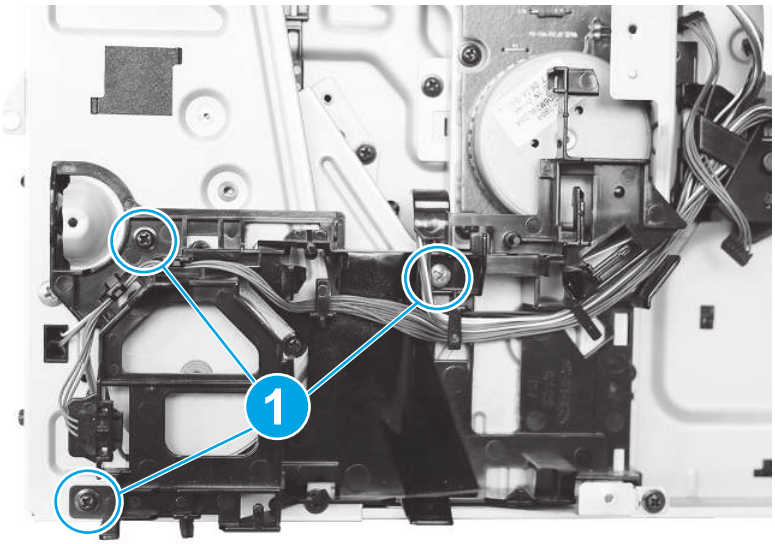
d. Remove the fuser power supply bracket (small lower rear bracket) by pulling in the upper and left side of the bracket and lifting it from the printer.



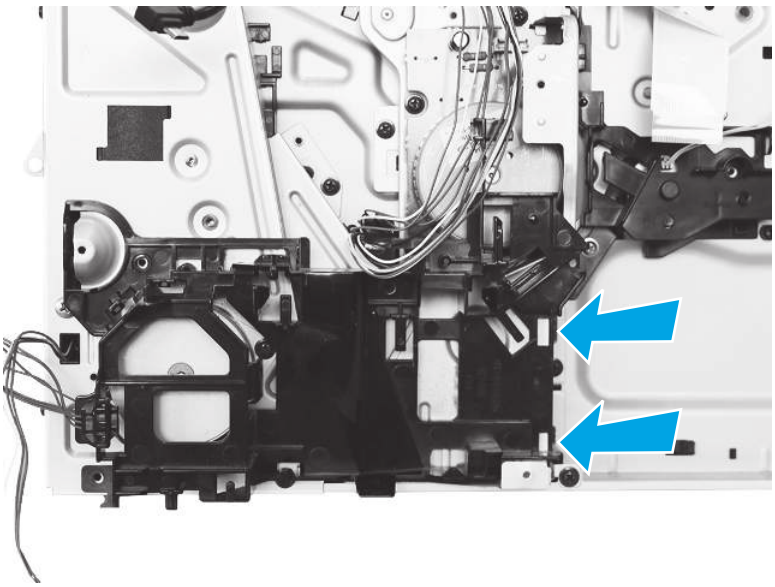
e. Remove the cables from the lower front cable bracket.



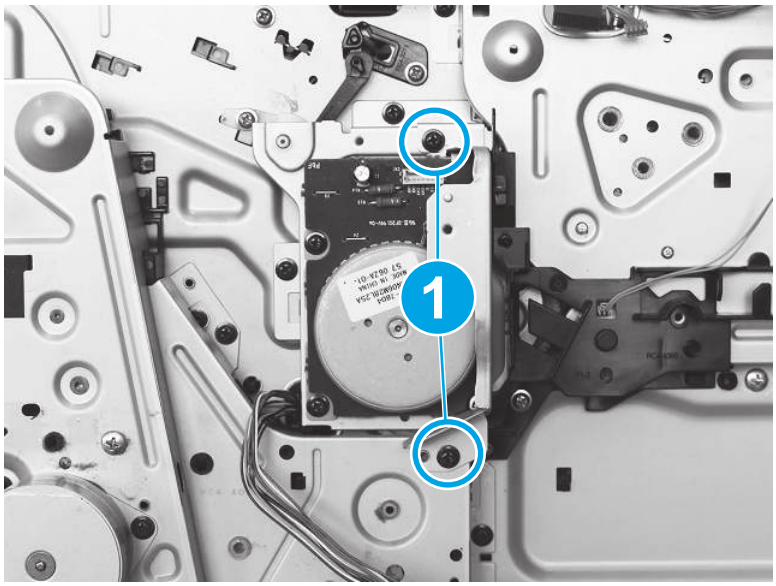
f. Remove three (3) screws (callout 1) from the bracket assembly.



g. Gently pry up the two (2) tabs on the lower right side of the bracket the remove the bracket from the printer.

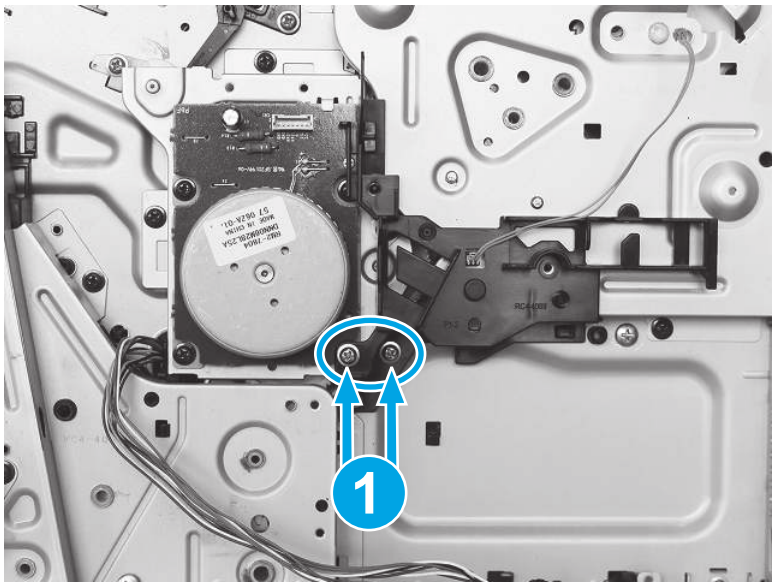


h. Remove two (2) screws (callout 1) from the metal M1 motor shield and remove the shield from the printer.



i. Remove three (2) screws (callout 1) and then remove the cable bracket located to the right of the main motor, M1.

NOTE: Carefully lift off the bracket to ensure that the clutch on the back of the guide does not fall off when removing.

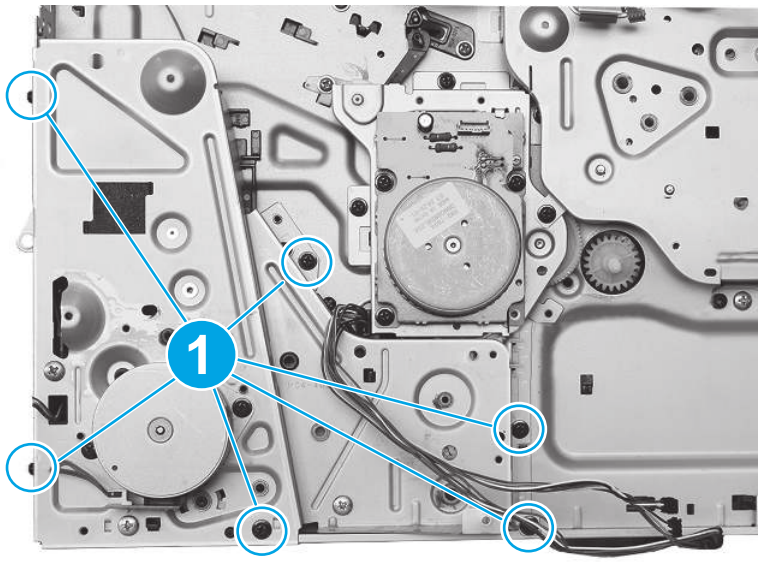


24. Remove the Paper feed drive assembly.

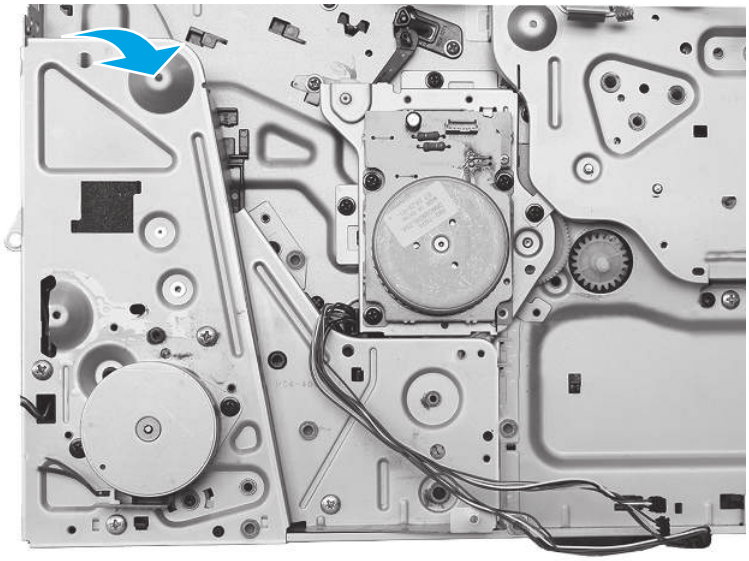
IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

NOTE: Lay the engine on its left side to make removal or the following parts easier.

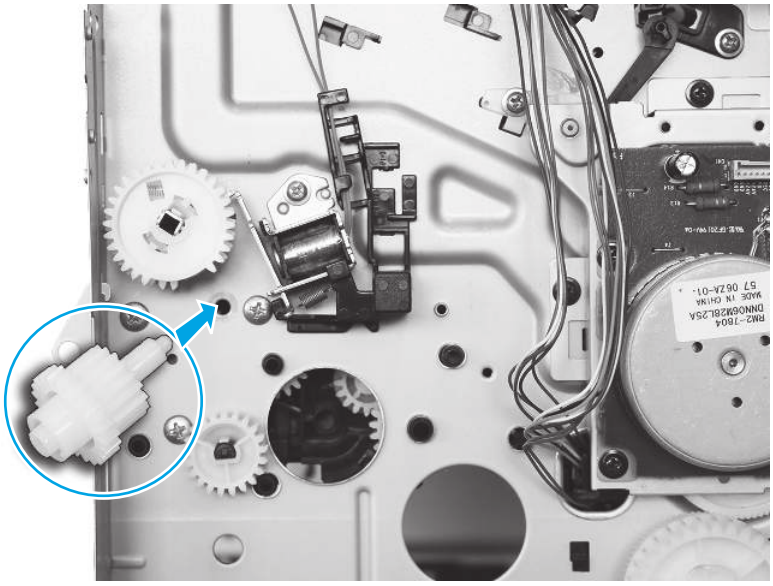
a. Remove six (6) black screws (callout 1).



b. Remove the paper feed drive assembly by gently lifting on the top side and remove it out from the printer.



Reinstallation tip: When reinstalling, ensure the white drive gear is in the right orientation. You may need to adjust before reinstalling the feed drive assembly.



25. Unpack the replacement assembly.

    a. Dispose of the defective part.

    NOTE: HP recommends responsible disposal of the defective part.

    http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

    b. Unpack the replacement part from the packaging.

    CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

    If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

    IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

    c. To install an assembly, reverse the removal steps.

    NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Paper delivery assembly

Learn how to remove and replace the delivery assembly.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

Mean time to repair:

Service level:

Before performing service

Turn the printer power off

- Disconnect the power cable.

> ⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-45 Part information

Part number	Part description
RM2-5684-000CN	Simplex paper delivery assembly
RM2-5683-000CN	Duplex paper delivery assembly

Required tools

- Small flat-blade screwdriver
- #2 Phillips screwdriver with a magnetic tip and a 152 mm (6 in) shaft length

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

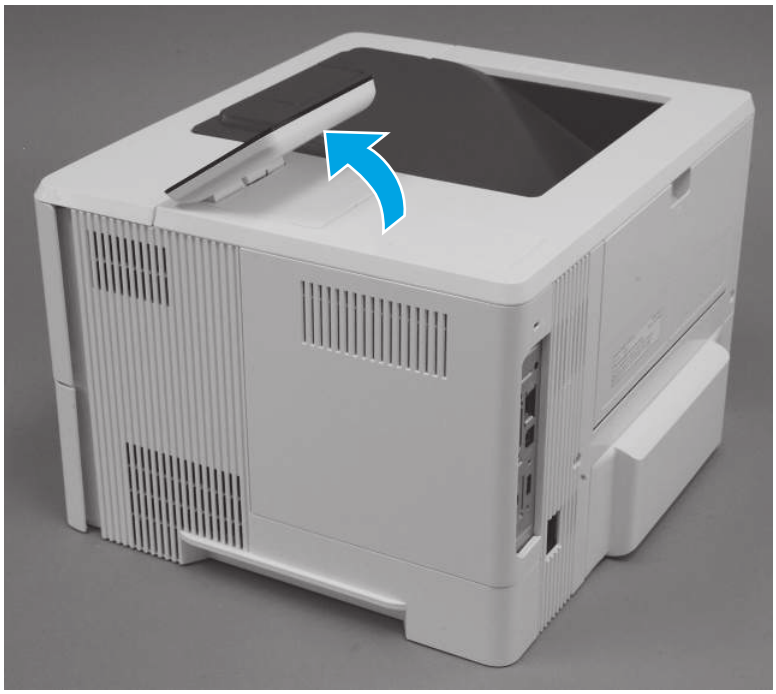
Make sure that the printer initializes to a **Ready** state.

1. Remove the control panel (M506x/E50045x/M507x/E50145x)

Follow these steps to remove the control panel (M506x/E50045x/M507x/E50145x).

1. Tilt the control panel to the fully raised position.

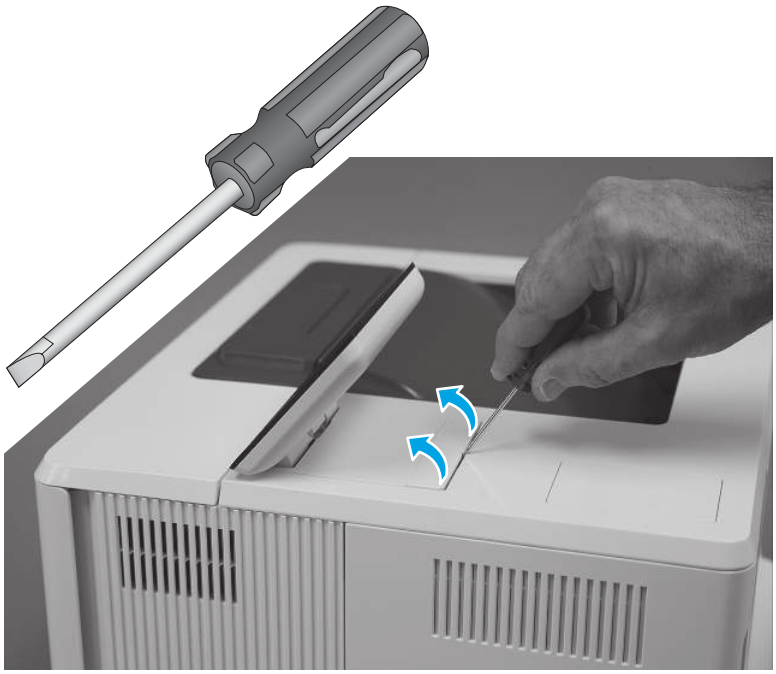
Figure 4-1284 Tilt the control panel up



2. Use the small flat-blade screwdriver supplied in the kit to release the control-panel screws cover, and then remove the cover.

TIP: The screwdriver has a reversible shaft. Simply pull the shaft out of the handle, and then reinstall it with the desired end facing out.

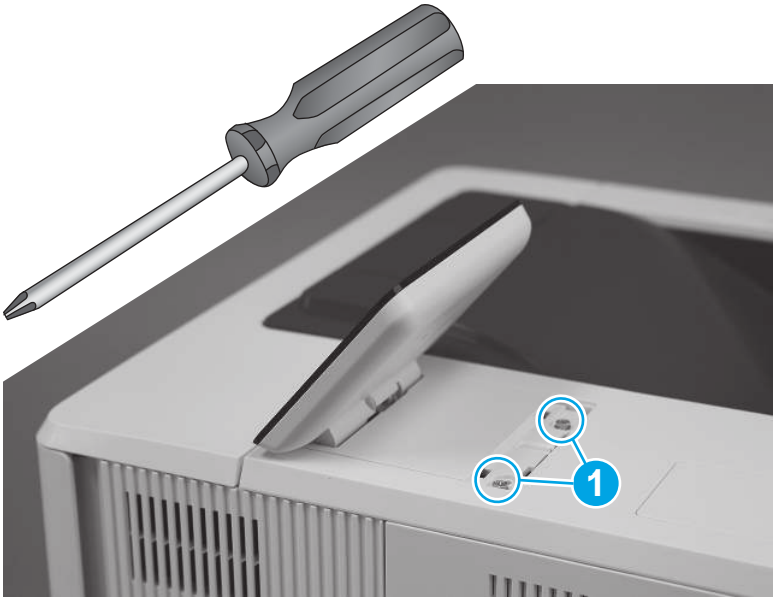
Figure 4-1285 Remove the cover



3. Use the small Phillips screwdriver supplied in the kit to remove two screws (callout 1).

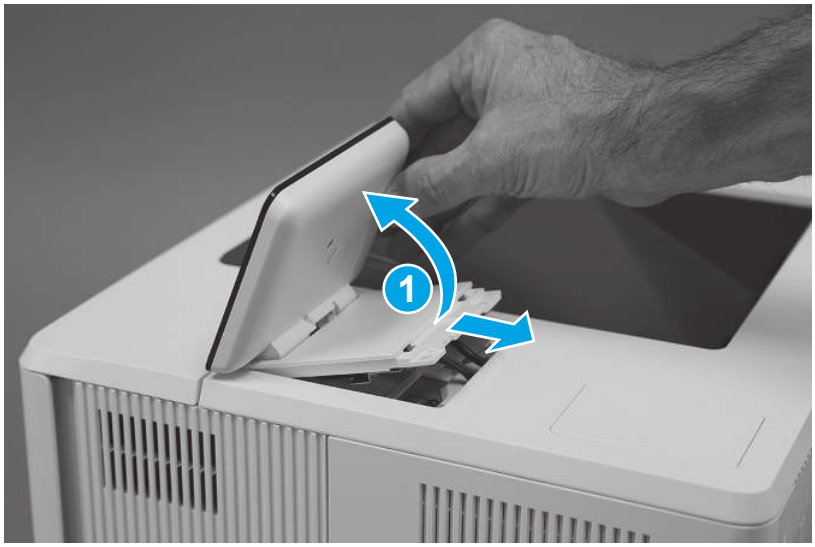
IMPORTANT: Store the screws in a secure place where they cannot fall down into the printer.

Figure 4-1286 Remove two screws



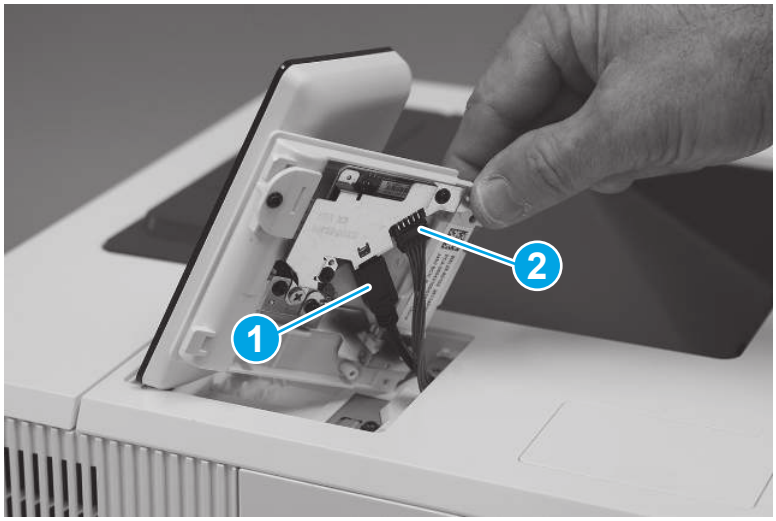
4. Turn the control panel over (callout 1), to gain access to the bottom side.

Figure 4-1287 Turn the control panel over



5. **M506/E50045 only**: Disconnect one HDMI cable (callout 1), one connector (callout 2), and then remove the control panel.

Figure 4-1288 **Remove the control panel (M506/E50045)**



6. **M507/E50154 only**: If the formatter cover has not been removed, remove it now. Disconnect one flat-flexible cable (FFC).

CAUTION: ESD sensitive part.

NOTE: This connector is a zero-insertion force (ZIF) connector. Open the locking clip. The clip is easily dislodged and lost.

Figure 4-1289 **Disconnect one FFC (M507/E50145)**

7. **M507/E50145 only**: Pass the FFC through the opening in the cover, and then remove the control panel.

⚠ CAUTION: ESD sensitive part.

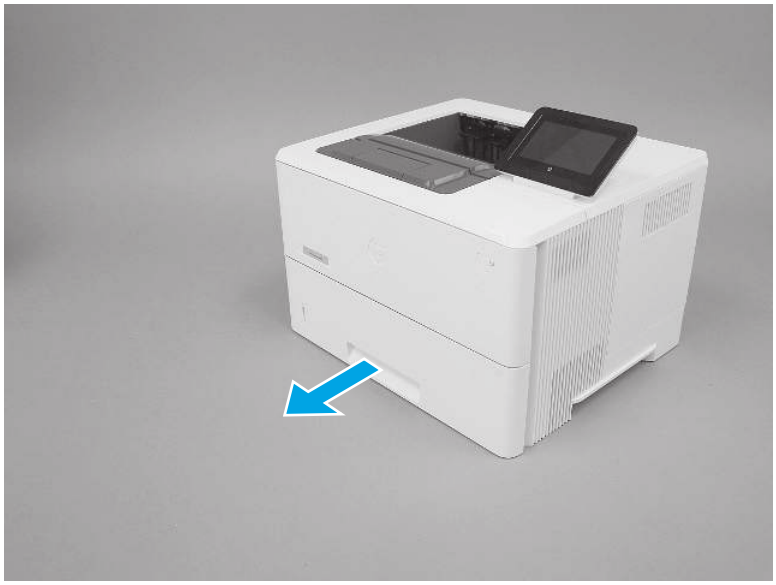
Figure 4-1290 **Remove the control panel (M507/E50145)**

2. Remove the tray

Follow these steps to remove the tray.

1. Pull the tray straight out of the printer until it stops.

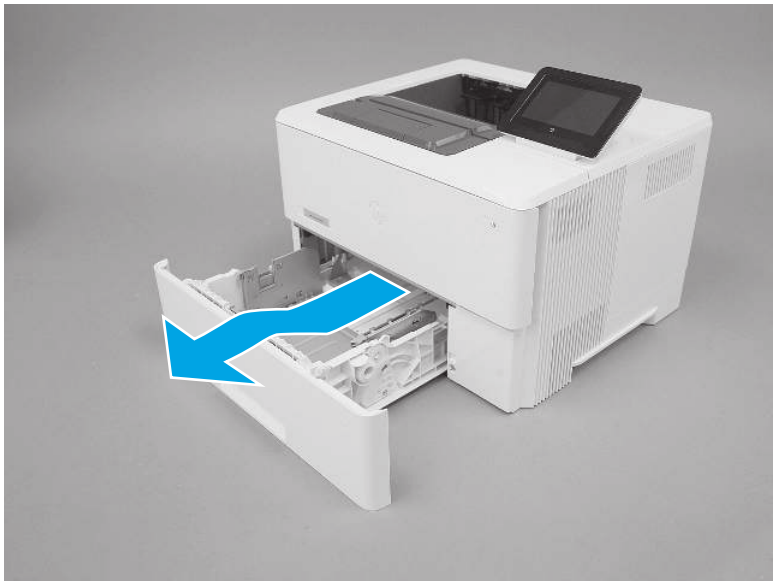
Figure 4-1291 **Pull the tray out until it stops**



2. Lift the front of the tray, and then pull it out of the printer to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1292 Release and remove the tray

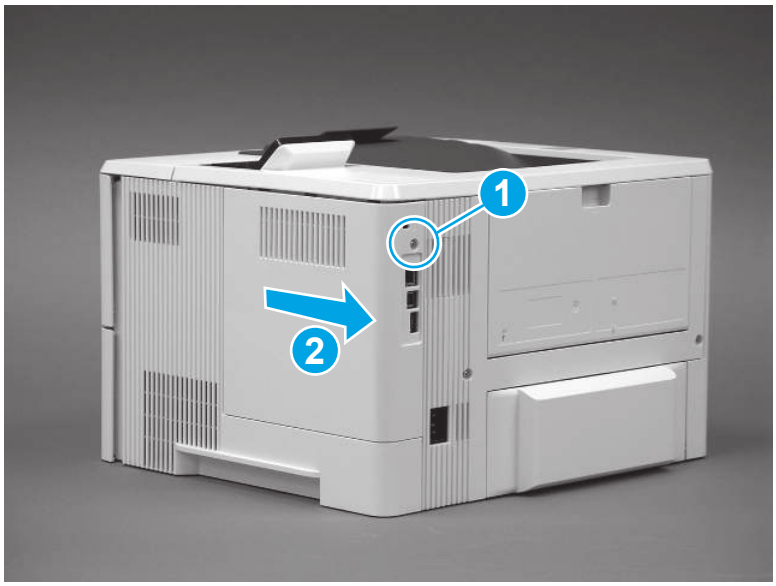


3. Remove the formatter cover

Follow these steps to remove the formatter cover.

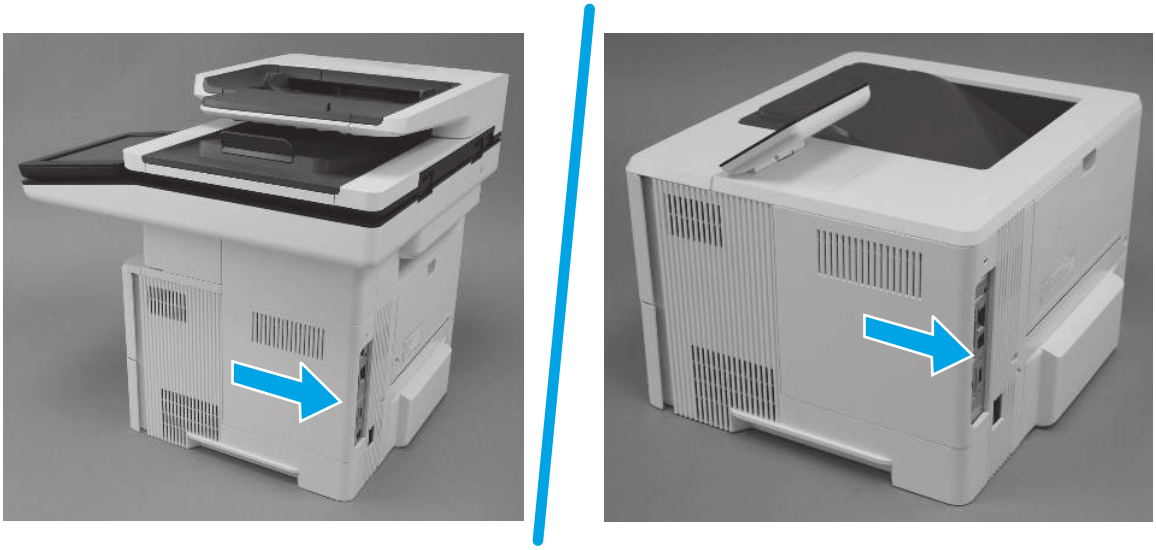
- Do one of the following:
  - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1293 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-1294 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



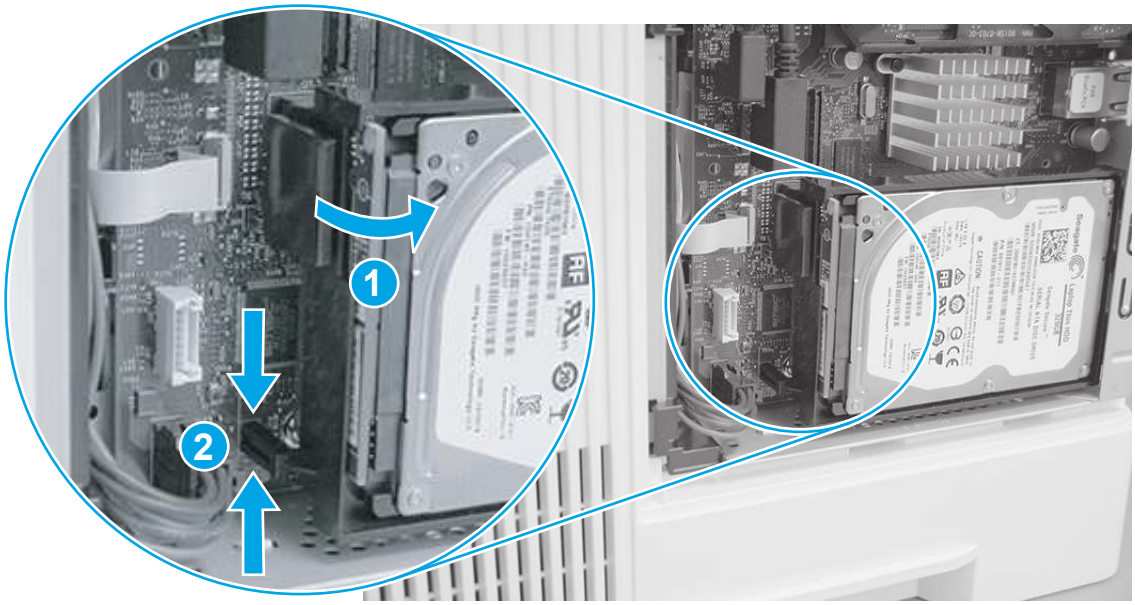
4. Remove the hard-disk drive (HDD models)

Follow these steps to remove the hard-disk drive (HDD models).

⚠ **CAUTION:** ESD sensitive part.

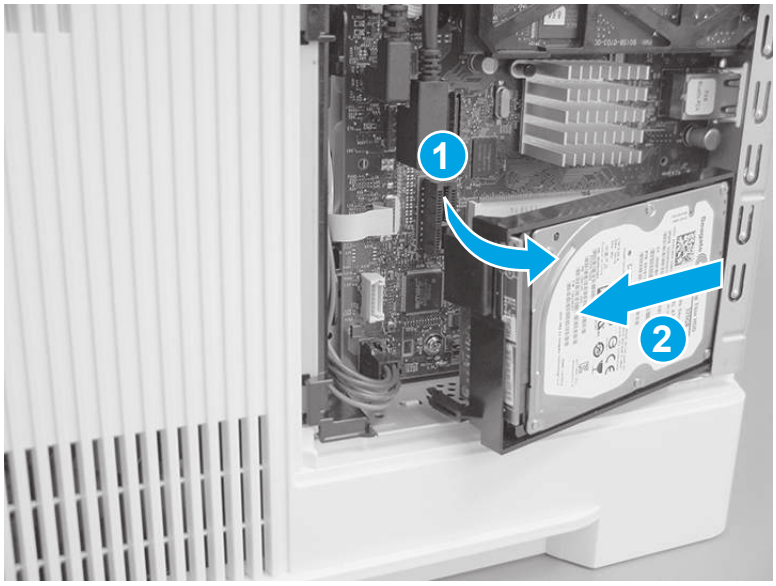
1. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

   Figure 4-1295 Release the HDD



2. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1296 **Remove the HDD**



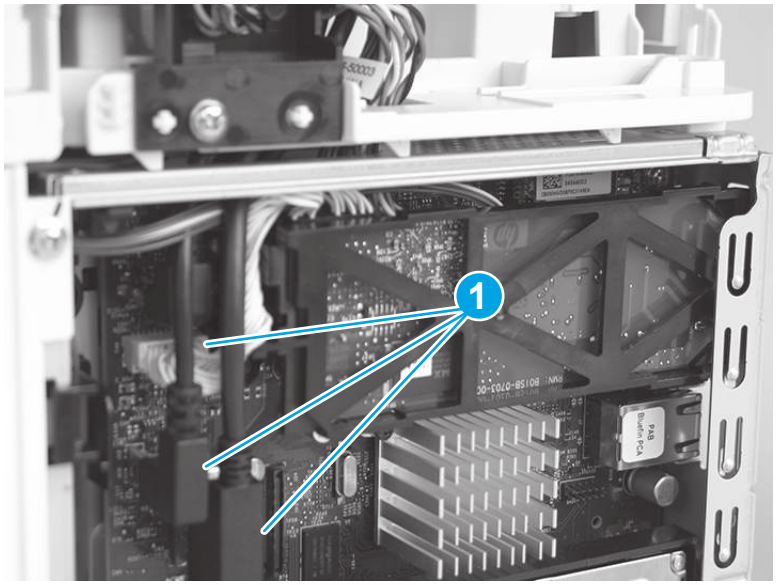
5. Remove the fax PCA (M527/E52545/M528/E52645 fax models)

Follow these steps to remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

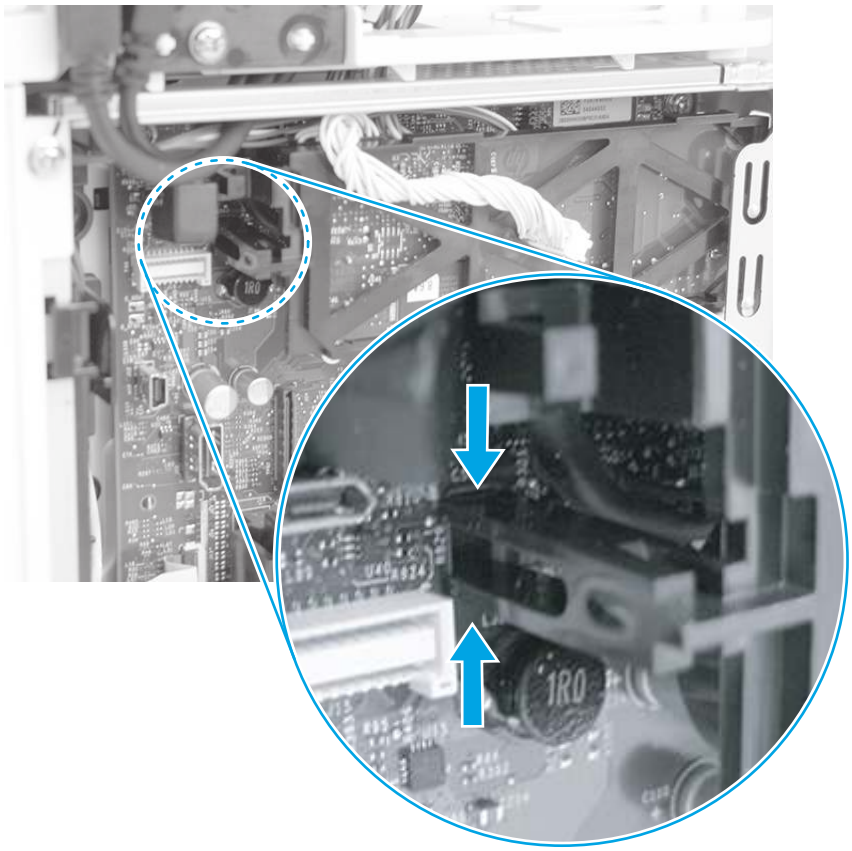
1. Disconnect three connectors (callout 1).

Figure 4-1297 **Disconnect three connectors**



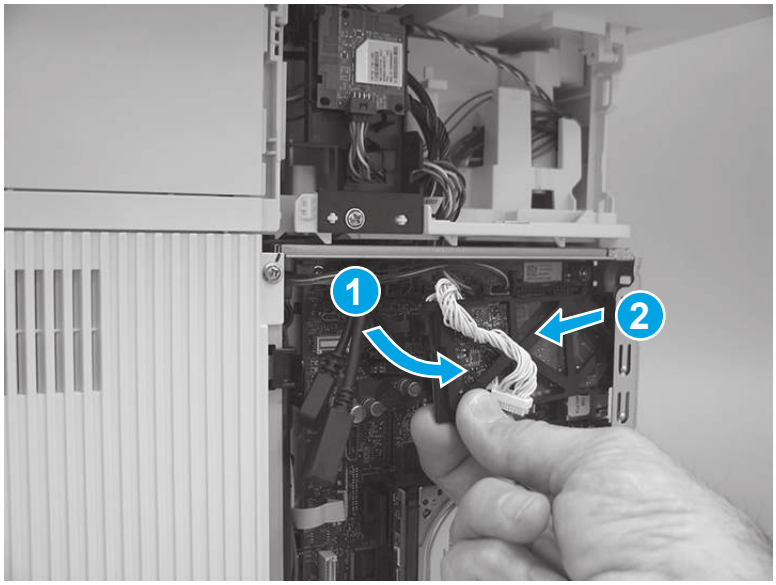
2. Pinch the retainer to release it.

Figure 4-1298 Release the fax PCA



3. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1299 Remove the fax PCA



6. Remove the formatter

Follow these steps to remove the formatter.

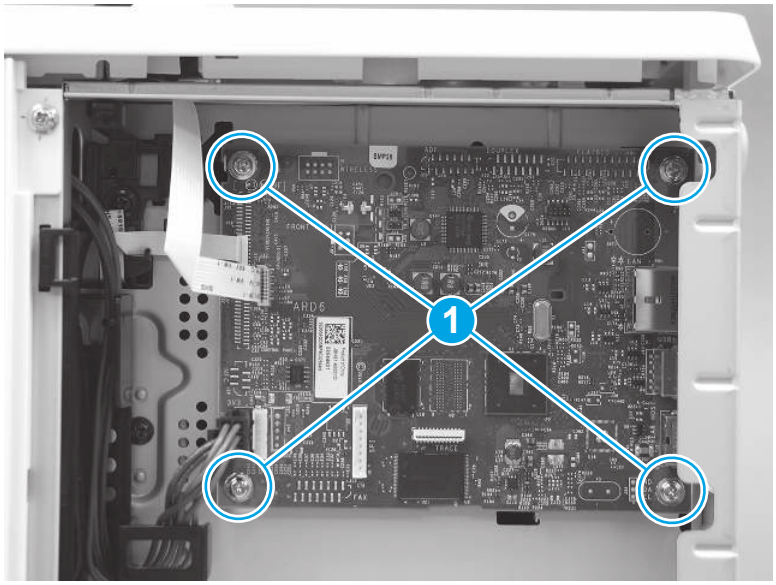
⚠ **CAUTION:** Never remove and then install a replacement DCC and formatter at the same time. Doing so will cause the printer to become unstable.

If a replacement DCC and formatter must be installed, first remove and install the formatter. Test operate the printer, and then if necessary install a replacement DCC.

IMPORTANT: Take note of all empty connectors on the PCA before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessory items.

1. **M501**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

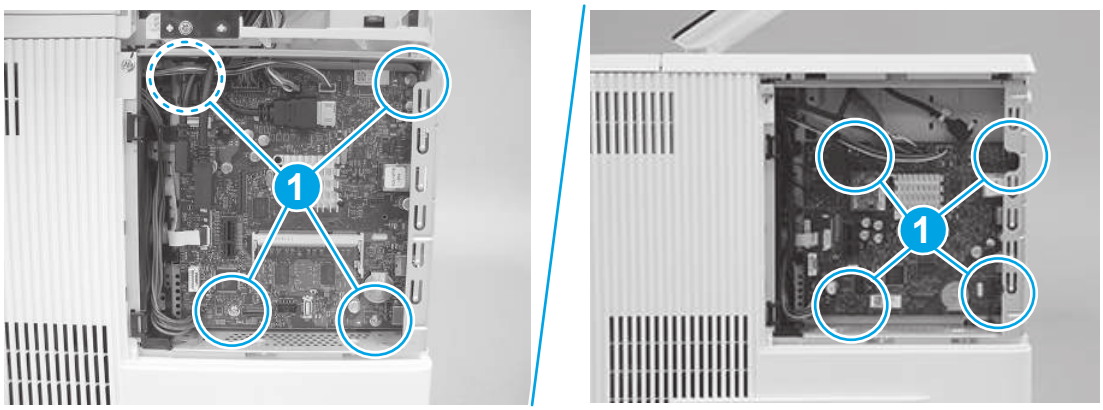
   Figure 4-1300 **Remove the formatter (M501)**

2. **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Disconnect all of the connectors and FFCs, remove four screws (callout 1), and then remove the formatter.

IMPORTANT: Take note of all empty connectors on the formatter before disconnecting any wire harnesses or flat-flexible cables (FFCs). Some empty connectors might not be visible until other items—like the hard-disk drive—are removed, so pay close attention while removing the formatter and accessories items.

Figure 4-1301 Remove the formatter (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



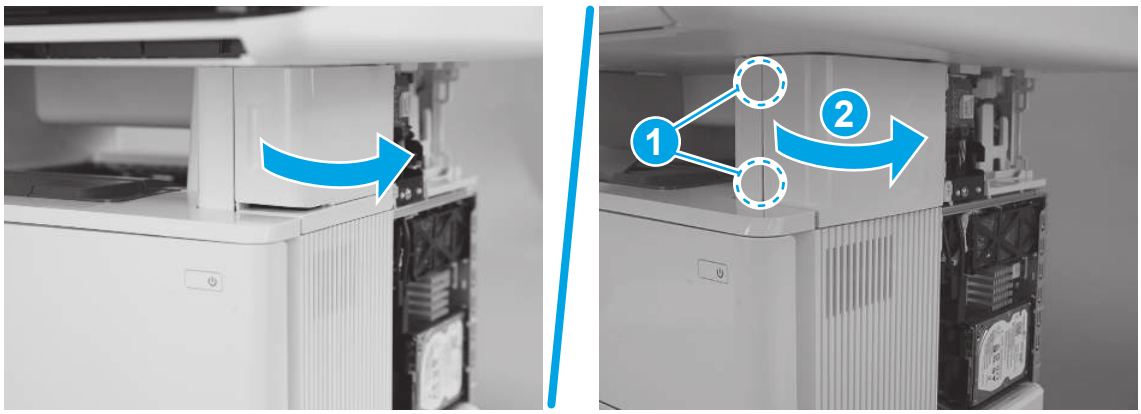
7. Remove the stapler door or stapler blank cover (M527/E52545/M528/E52645)

Follow these steps to remove the stapler door or stapler blank cover (M527/E52545/M528/E52645).

1. Do one of the following:

   - **Stapler models**: Open the stapler door.
   - **Non-stapler models**: Use a small flat-blade screw driver to release two tabs (callout 1), and then rotate the cover away from the printer (callout 2).

Figure 4-1302 Open the door or release the cover



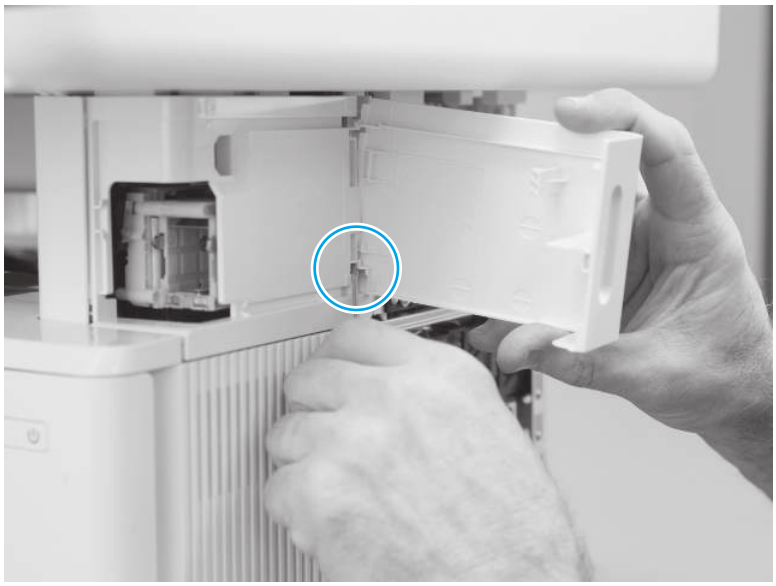
2. Do one of the following:

   - **Stapler models**: Use a small flat-blade screwdriver to release the upper hinge.
   - **Non-stapler models**: Slide the cover toward the front of the printer to remove it.

Figure 4-1303 Release the upper hinge or remove the cover

3. **Stapler models**: Use a small flat-blade screwdriver to release the lower hinge.

Figure 4-1304 Release the lower hinge



4. **Stapler models**: Remove the door.

Figure 4-1305 **Remove the door**

8. Remove the stapler stationary (inner) cover (M527/E52545/M528/E52645)

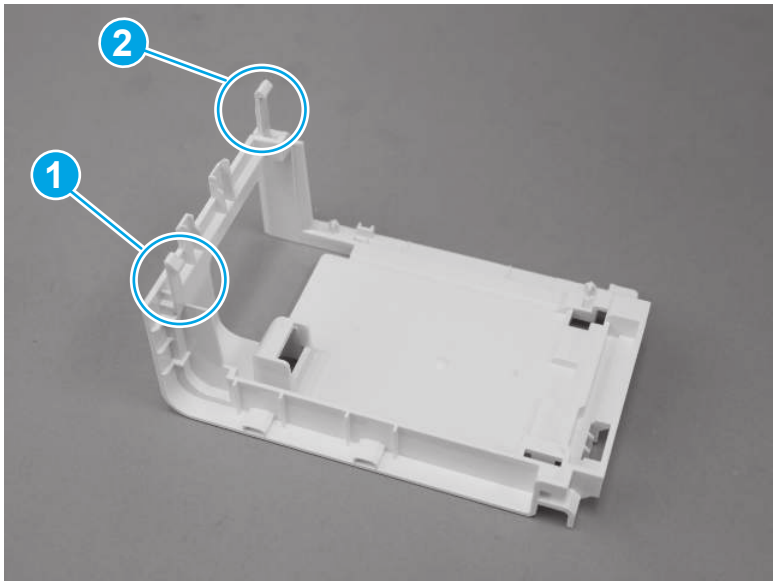
Follow these steps to remove the stapler stationary (inner) cover (M527/E52545/M528/E52645).

NOTE: Stapler models only.

1. Before proceeding, take note of the locations of the upper tab (callout 1) and the lower tab (callout 2) on the stapler stationary (inner) cover.

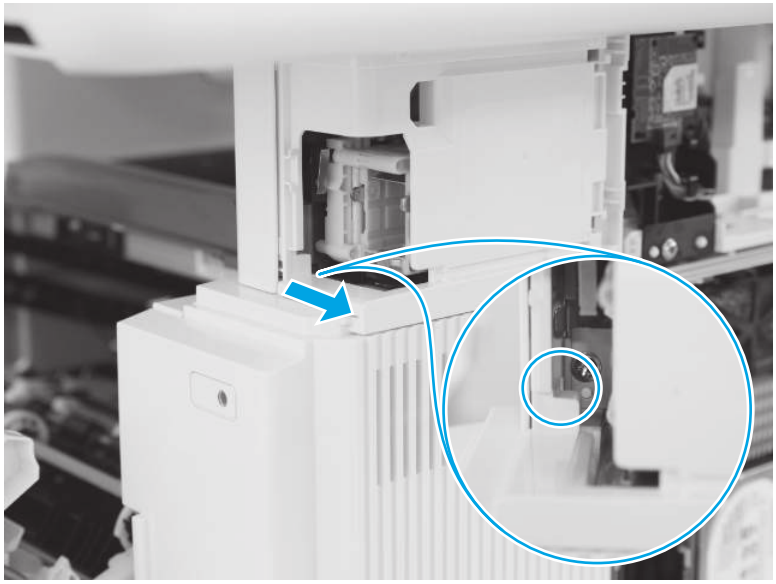
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs.

Figure 4-1306 **Locate the tabs**



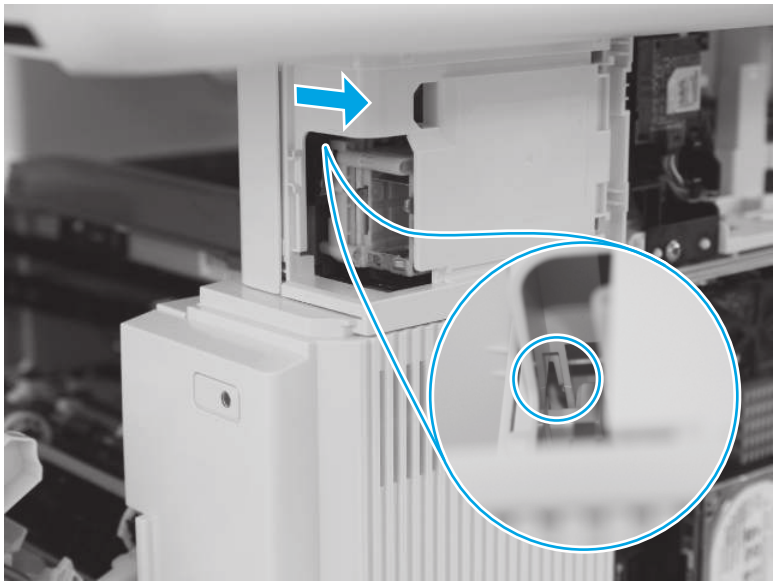
2. Use a long-shaft small flat-blade screwdriver to release the lower tab.

Figure 4-1307 Release one tab



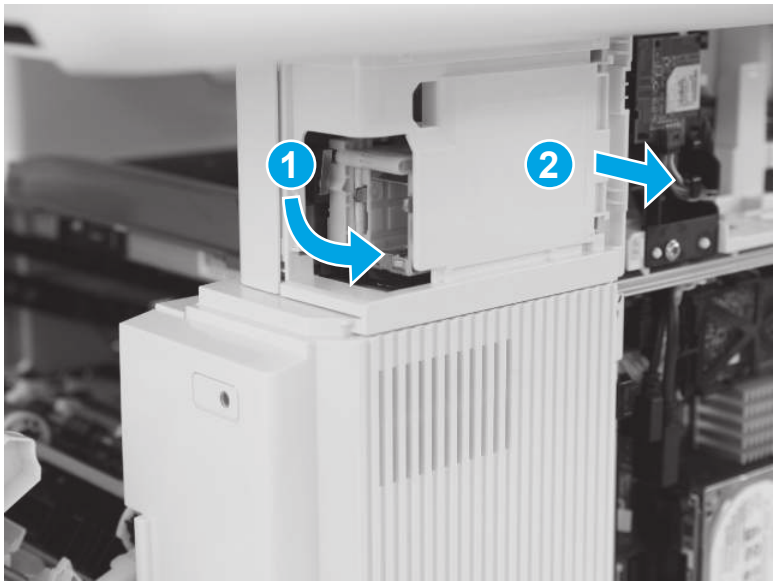
3. Use a long-shaft small flat-blade screwdriver to release the upper tab.

Figure 4-1308 Release one tab



4. With the tabs disengaged the front of the cover is released. Rotate the front of the cover away from the printer (callout 1) to release the rear of the cover (callout 2), and then remove it.

Figure 4-1309 **Remove the cover**

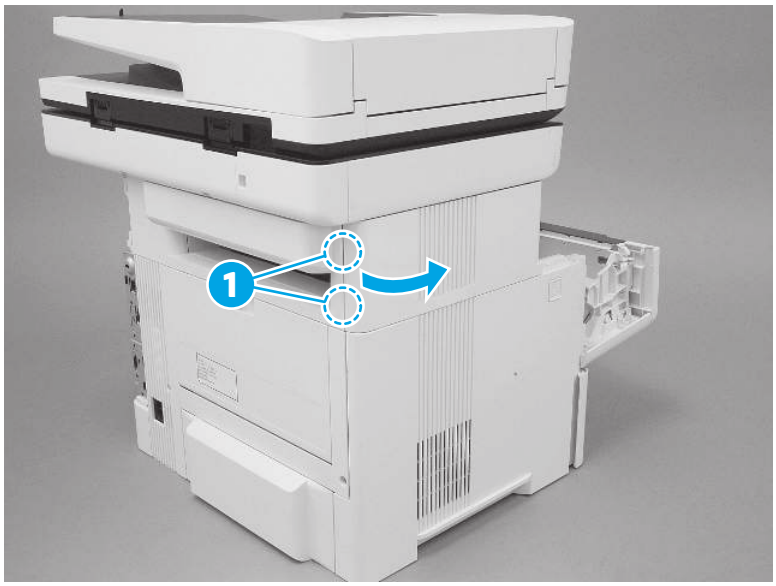


9. Remove the top-left cover (M527/E52545M528/E52645)

Follow these steps to remove the top-left cover (M527/E52545M528/E52645).

1. Open the toner-cartridge door, release two tabs (callout 1), and then rotate the rear edge of the cover away from the printer.

Figure 4-1310 **Release two tabs**



2. Continue to rotate the cover away from the printer to release two more tabs at the middle of the cover.

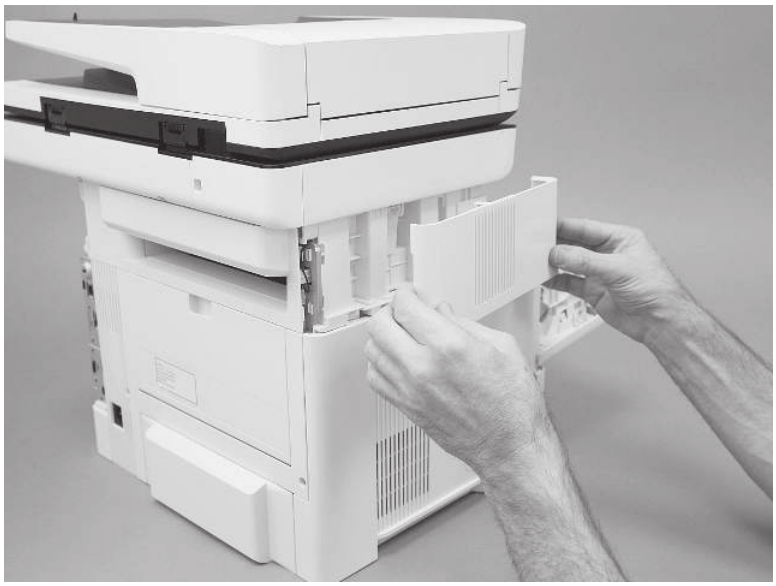
Figure 4-1311 Release two tabs

3. Slide the cover toward the rear of the printer to release two bosses at the front of the cover.

Figure 4-1312 Slide the cover

4. Remove the cover.

Figure 4-1313 **Remove the cover**

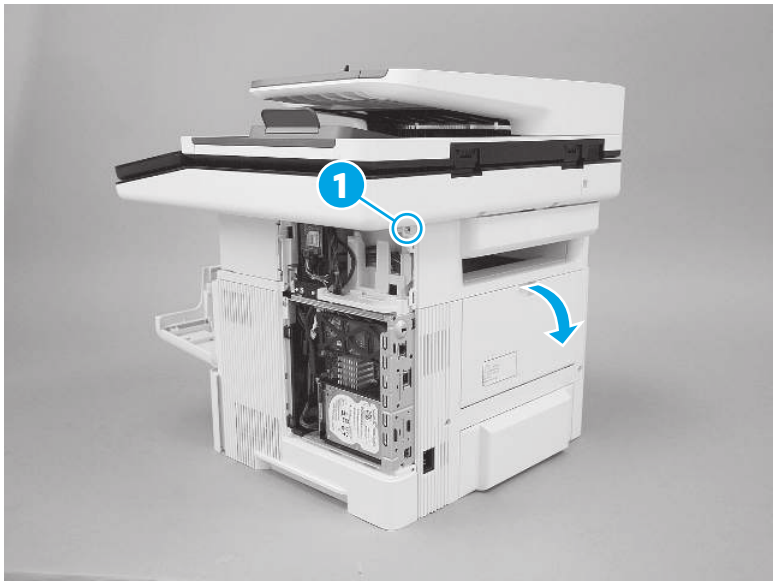


10. Remove the top-rear cover (M527/E52545/M528/E52645)

Follow these steps to remove the top-rear cover (M527/E52545/M528/E52645).

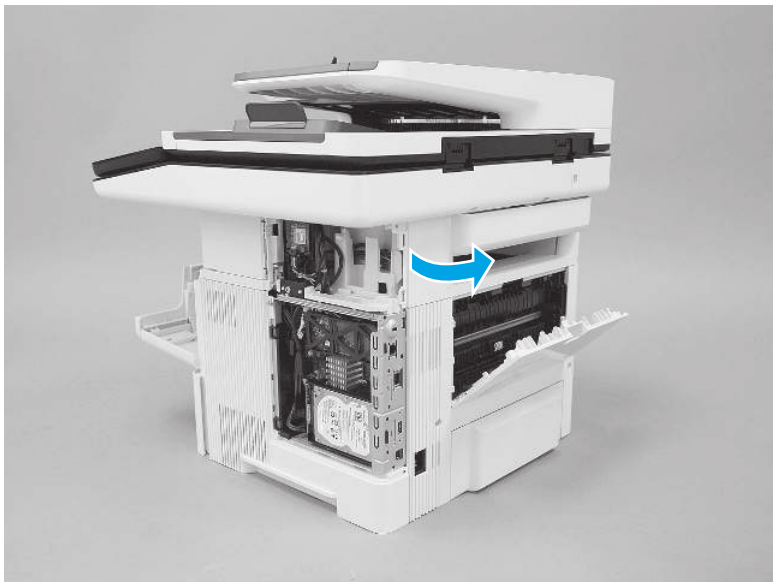
1. Remove one screw (callout 1), and then open the rear door.

Figure 4-1314 **Remove one screw**



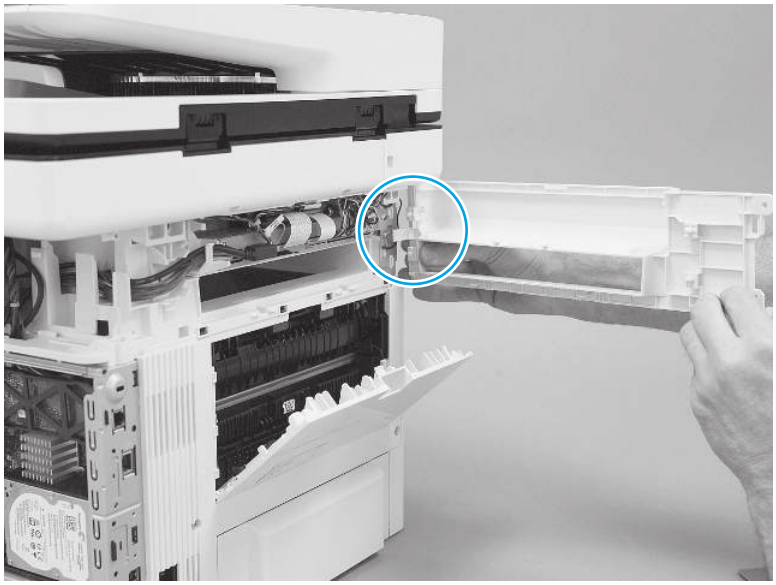
2. Rotate the exposed edge of the cover away from the printer (as shown).

Figure 4-1315 Rotate the cover



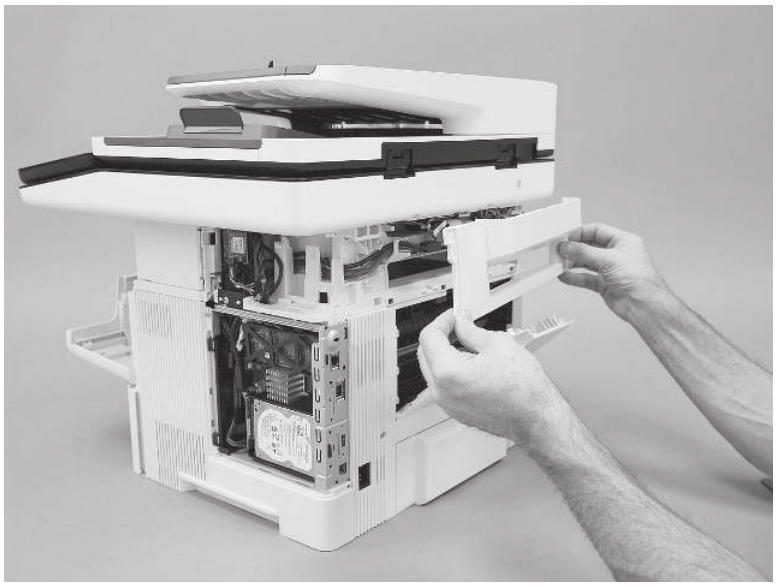
3. Continue to rotate the cover away from the printer to release one boss.

Figure 4-1316 Release one boss



4. Remove the cover.

Figure 4-1317 **Remove the cover**

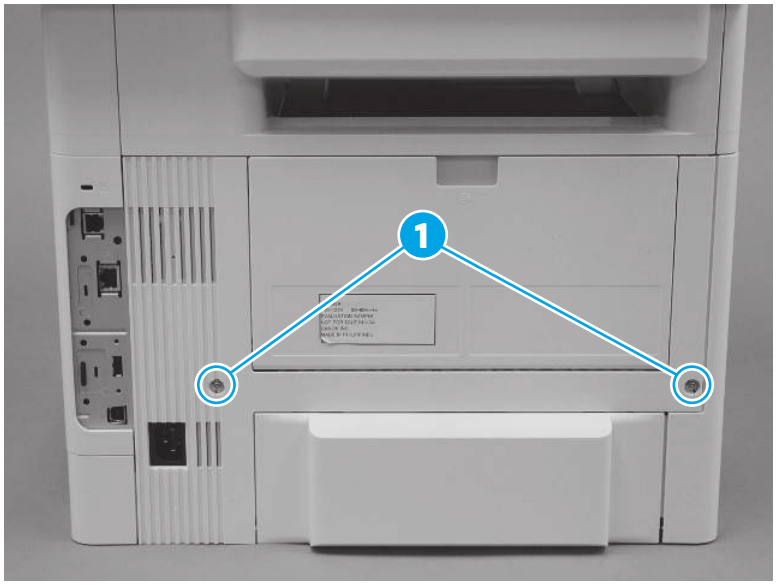


11. Remove the rear door assembly

Follow these steps to remove the rear door assembly.

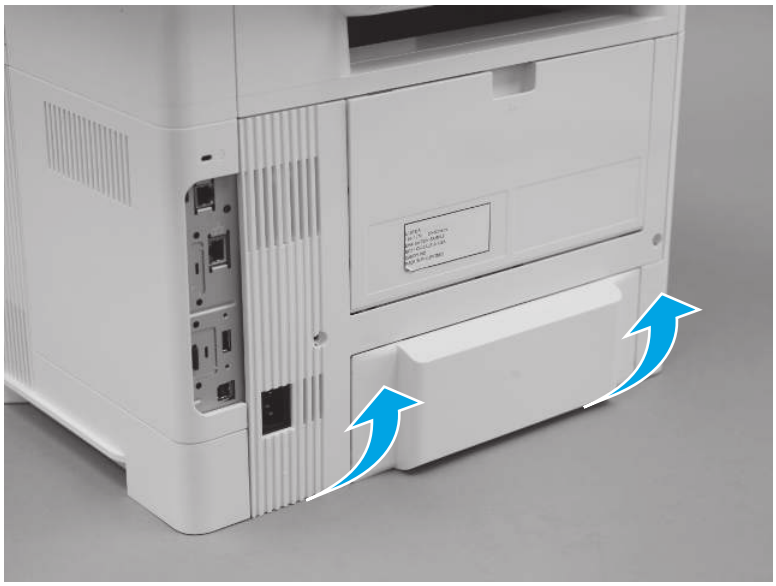
1. At the rear of the printer, remove two screws (callout 1).

Figure 4-1318 **Remove two screws**



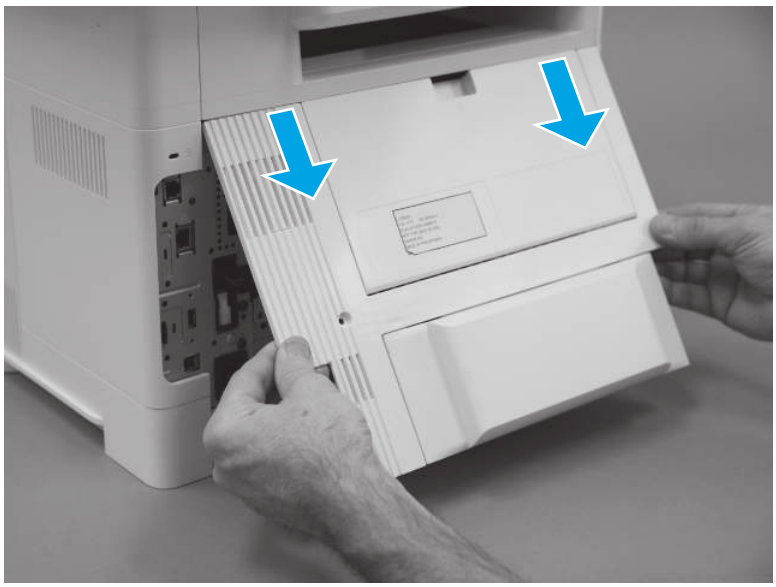
2. Rotate the bottom edge of the assembly away from the printer to release it.

Figure 4-1319 **Rotate the bottom of the cover**



3. Pull down on the assembly to remove it.

Figure 4-1320 **Remove the cover**



12. Remove the cartridge door assembly

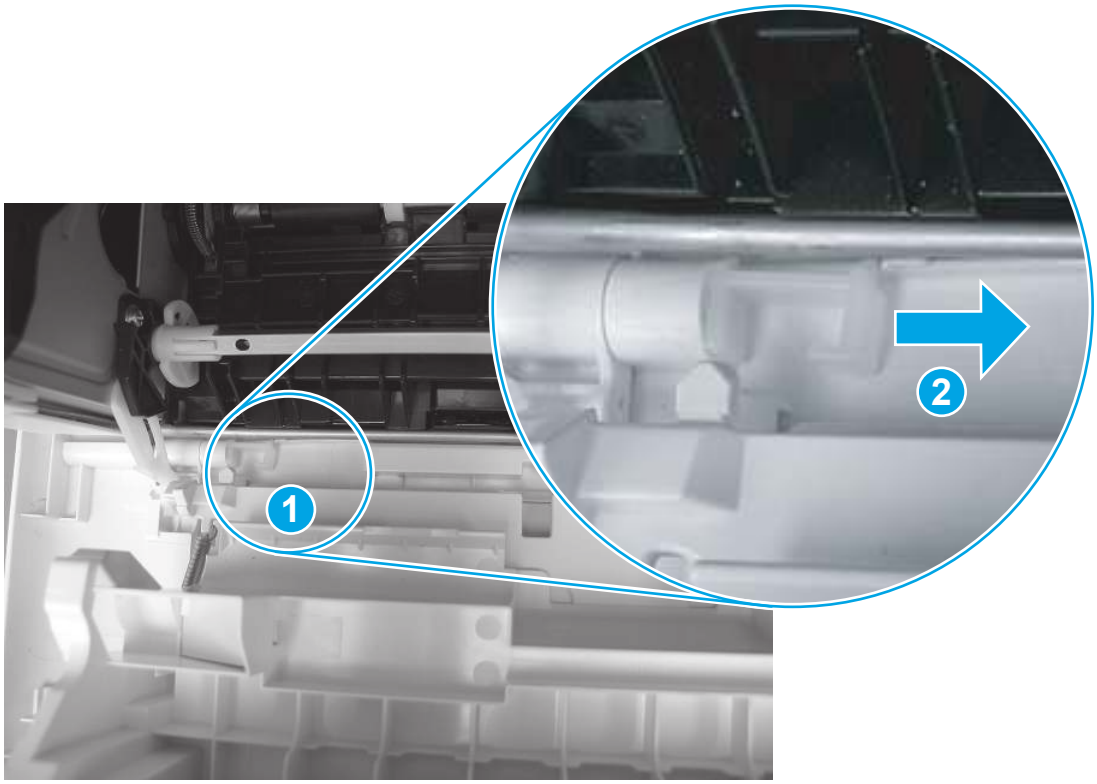
Follow these steps to remove the cartridge door assembly.

NOTE: If the toner cartridge was not removed prior to servicing the printer, remove it now.

1. Release the support shaft (callout 1), and then slide it toward the center of the door (callout 2).

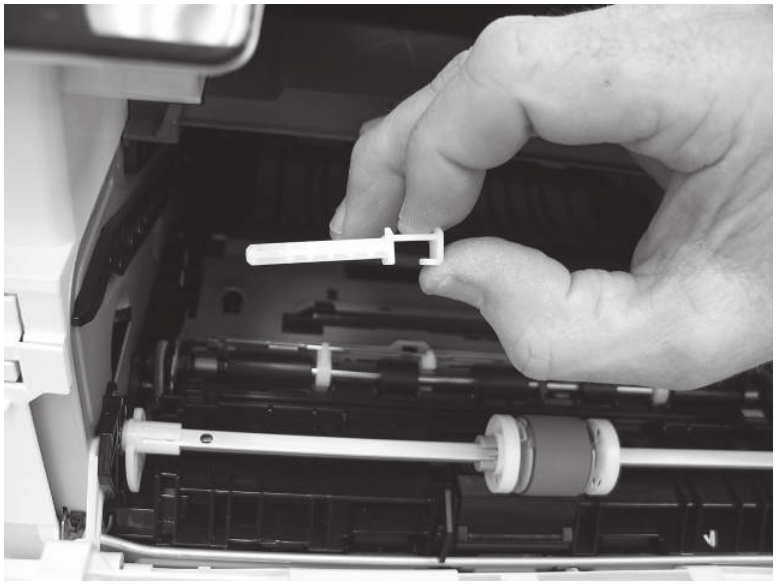
TIP: It might be easier to release the support shaft by using a small flat-blade screwdriver.

Figure 4-1321 Release the support shaft



2. Remove the support shaft.

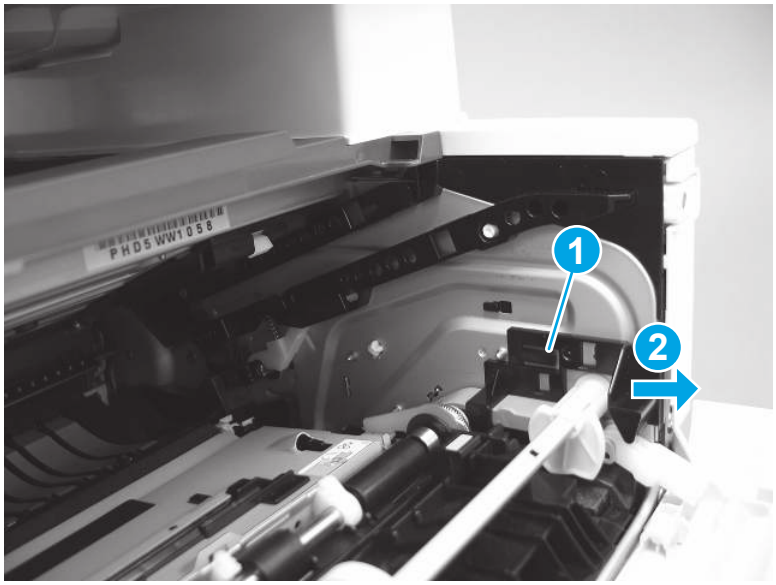
Figure 4-1322 Remove the support shaft



3. Release one tab (callout 1), and then slide the guide out of the printer (callout 2).

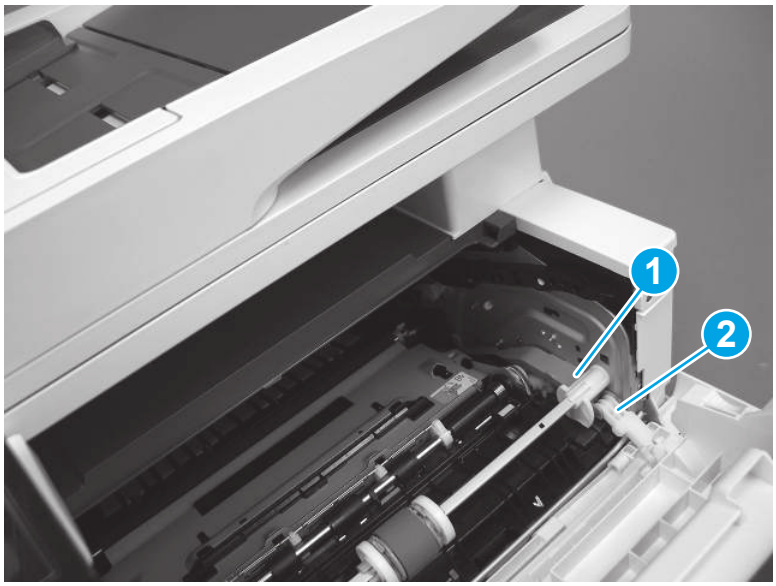
⚠ CAUTION: Be careful, the tab (callout 1) can be easily broken.

Figure 4-1323 Remove the guide



4. Use a small flat-blade screwdriver to gently pry the white-plastic door arm (callout 1) off of the gray-plastic pressure-release link (callout 2) to release the door arm.

Figure 4-1324 Release the pressure-release link



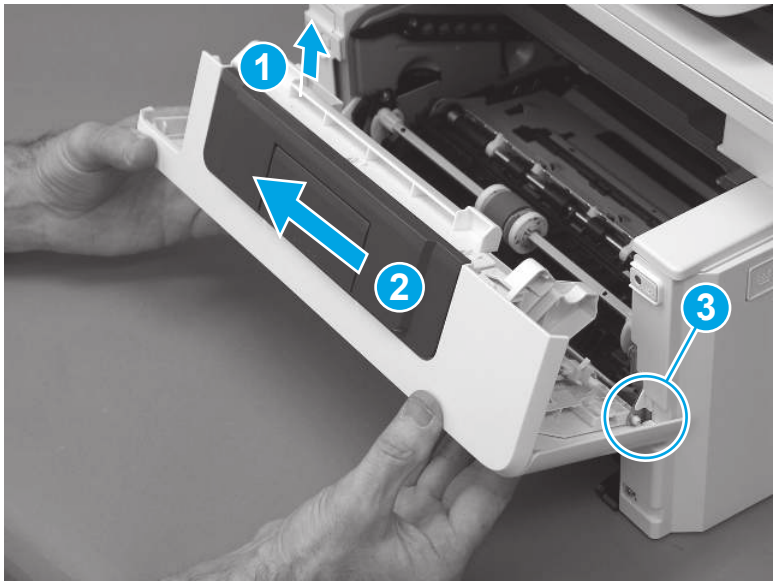
5. With the door in the partially closed position, slightly raise the left end (callout 1; raise it over the sheet-metal hinge boss), and then slide the door to the left (callout 2) to release the right hinge (callout 3).

⚠ CAUTION: The door is still attached to the printer by the left-side retainer arm. Do not attempt to completely remove the door.

Reinstallation tip: When reinstalling the door, there are two right-side hinge pins (not shown in callout 3).

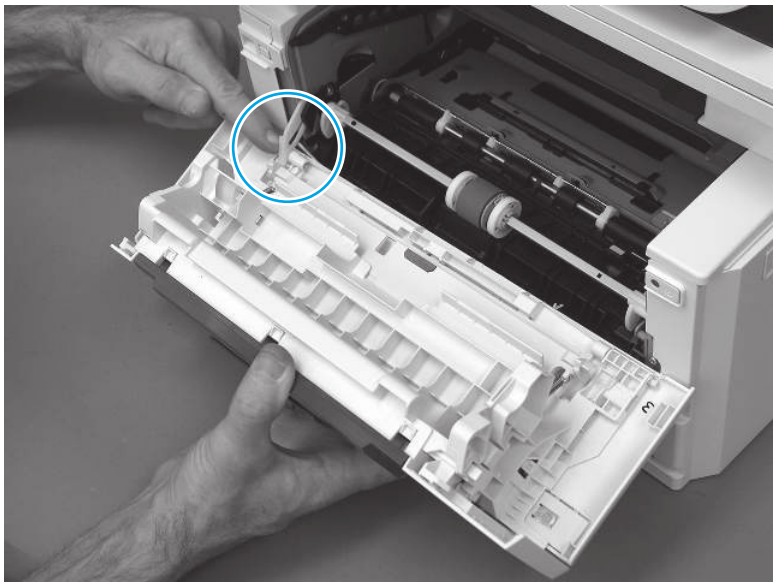
Keep a finger pressed on the left-side retainer arm so that it does not disengage from the door.

Figure 4-1325 Release the door



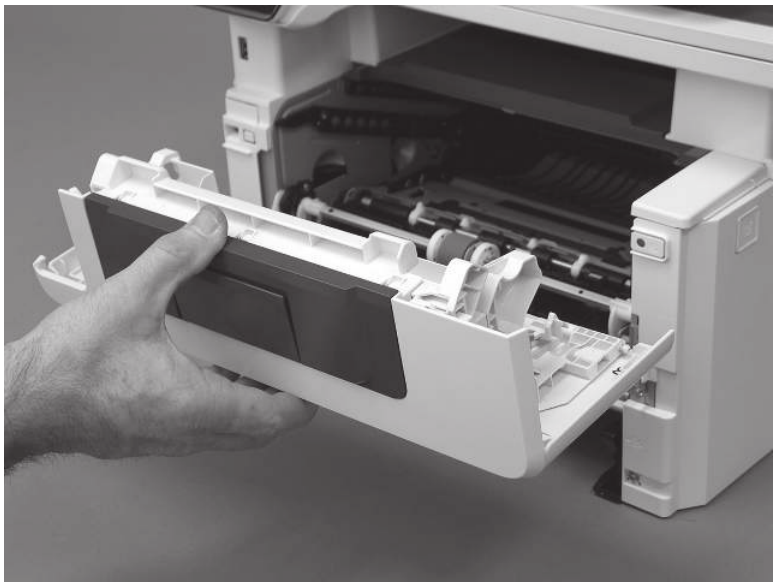
6. Rotate the door away from the printer until the keyed pin on the left-side retainer arm can disengage from the door.

Figure 4-1326 Release the left-side retainer arm



7. Remove the door.

Figure 4-1327 **Remove the door**



13. Remove the right cover

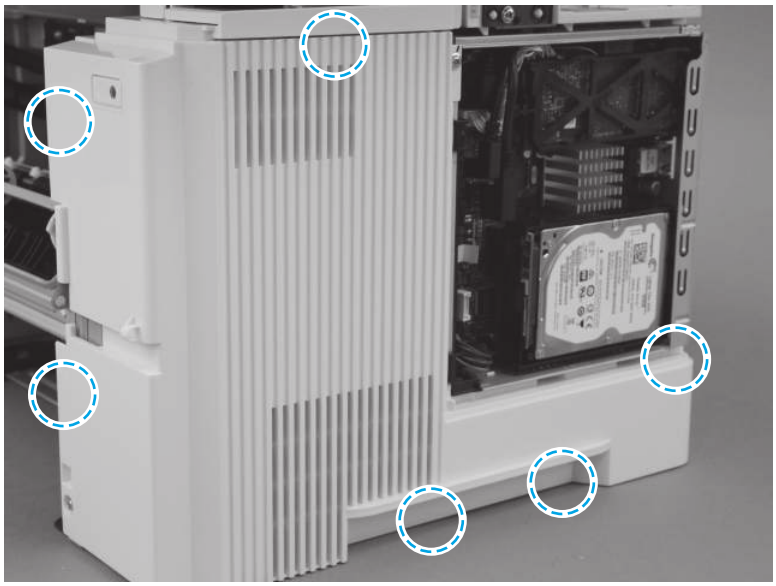
Follow these steps to remove the right cover.

IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

An MFP printer is shown in this section. However, the procedure is correct for all printer models.

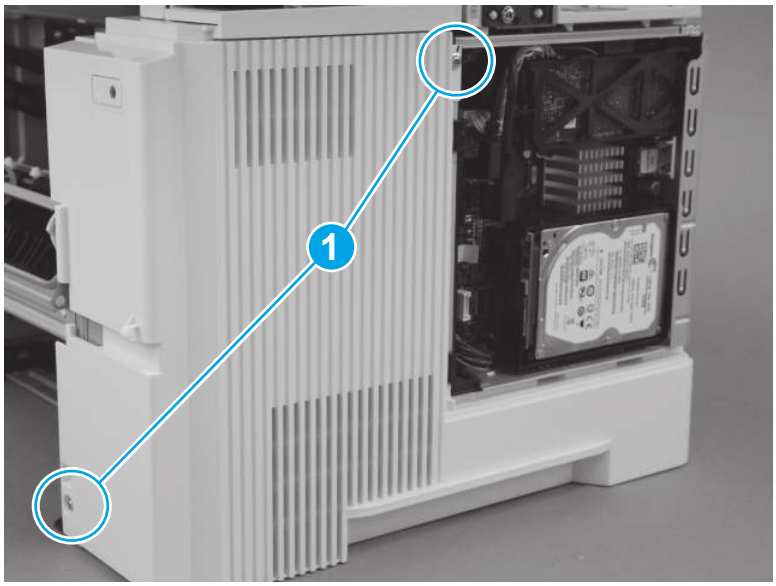
1. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1328 **Locate the tabs and bosses**



2. Remove two screws (callout 1).

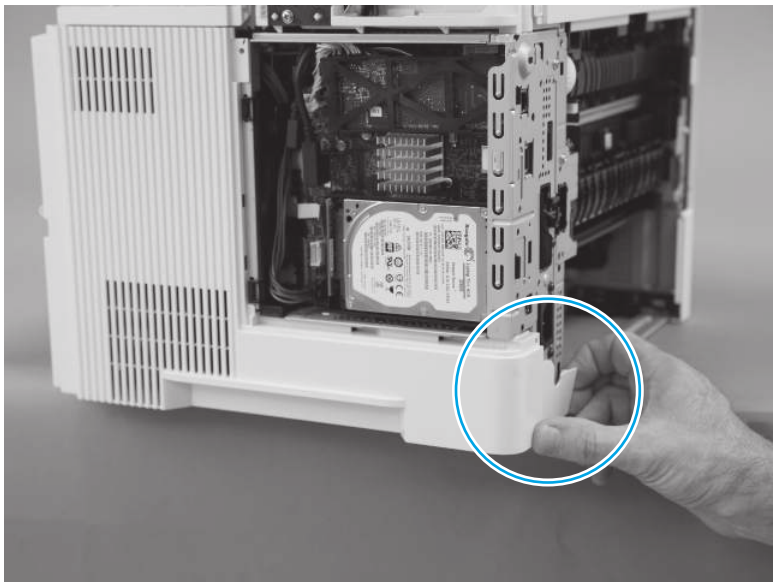
Figure 4-1329 Remove two screws



3. At the rear of the printer, release one boss.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

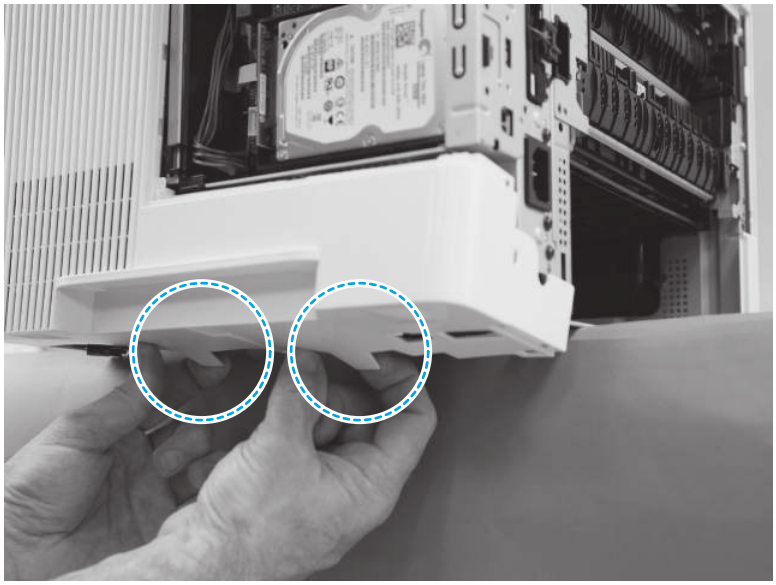
Figure 4-1330 Release one boss



4. At the bottom edge of the cover, release two bosses.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1331 Release two bosses

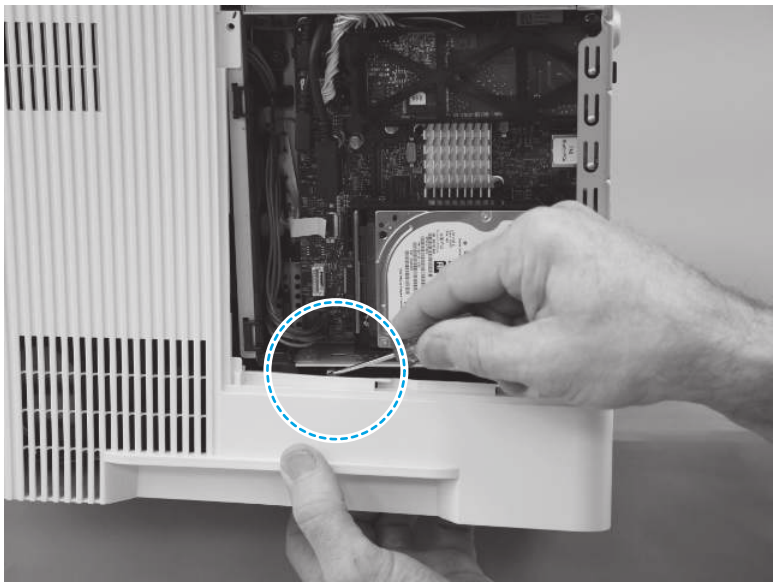


5. Near the formatter, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Hold the bottom of the cover away from the printer, and then use a small flat-blade screw driver to easily release this tab.

Figure 4-1332 Release one tab

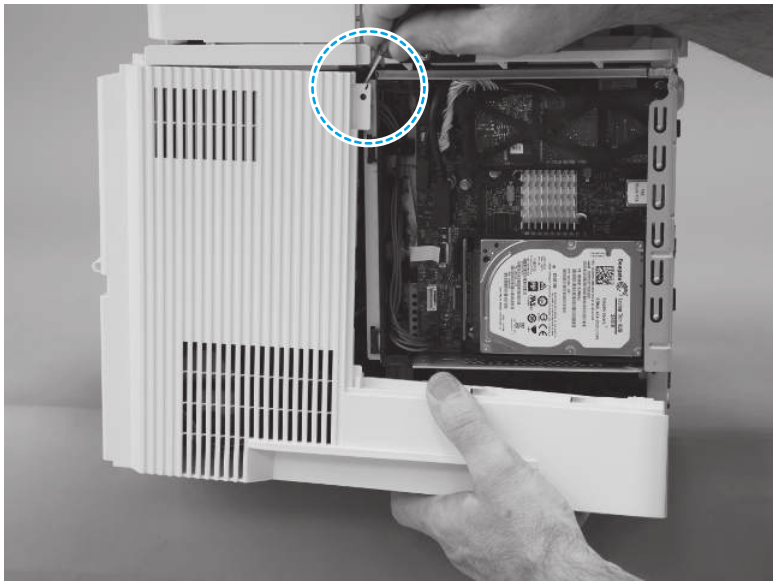


6. At the top rear edge of the cover, release one tab.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

TIP: Use a small flat-blade screw driver to easily release this tab.

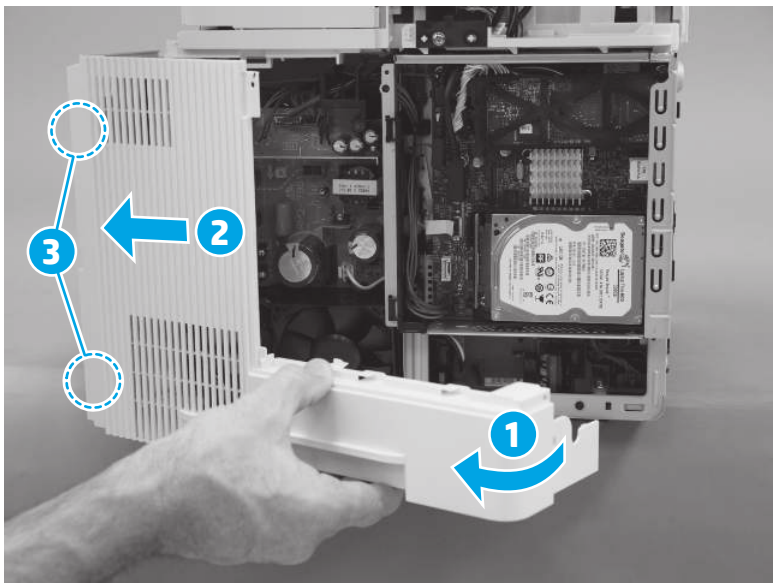
Figure 4-1333 Release one tab



7. Rotate the rear of the cover away from the printer (callout 1), slide the cover toward the front of the printer (callout 2) to release two bosses (callout 3), and then remove the cover.

⚠ CAUTION: It might be easier to remove the cover with the printer slightly hanging over the edge of the workspace. Do not let the printer tip and fall off of the workspace when removing the cover.

Figure 4-1334 Remove the cover



14. Remove the left cover

Follow these steps to remove the left cover.

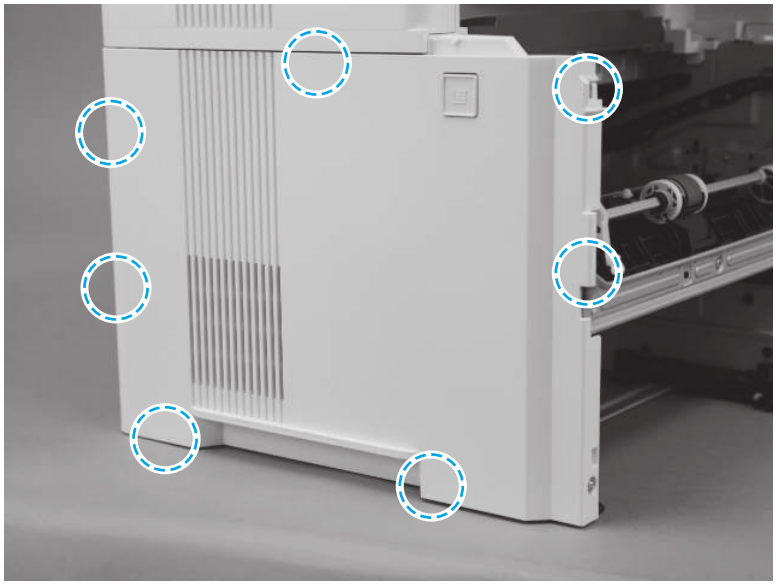
IMPORTANT: The black-plastic cassette front and rear guides (located inside the tray cavity) can be easily dislodged. Do not lose the guides when the cover is removed or installed.

NOTE: An MFP printer is shown in this section. However, the procedure is correct for all printer models.

1. Before proceeding, take note of the location of the tabs and bosses on the inside of the cover.

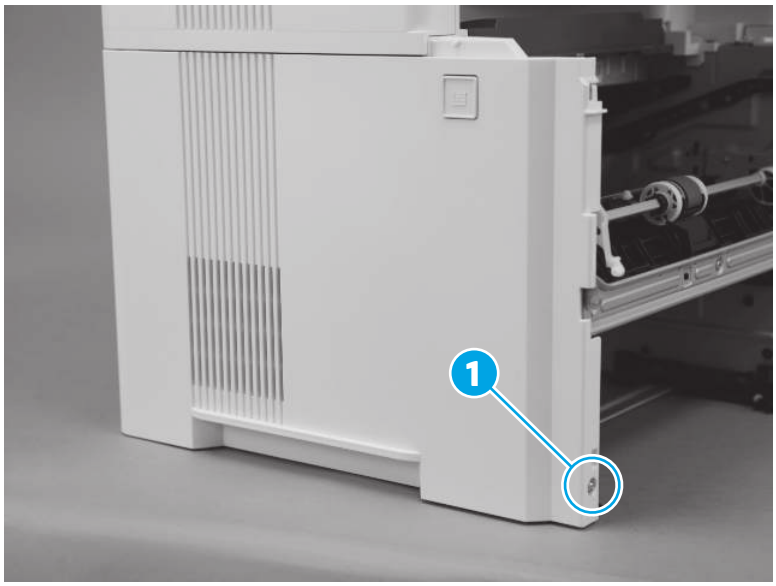
Reinstallation tip: When reinstalling the cover, take note of the location of the tabs and bosses on the inside of the cover.

Figure 4-1335 Locate of the tabs and bosses



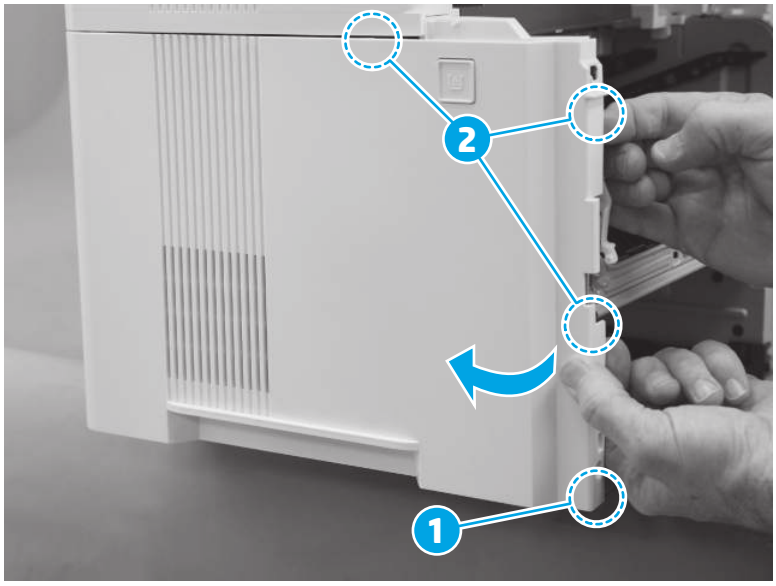
2. Remove one screw (callout 1).

Figure 4-1336 Remove one screw



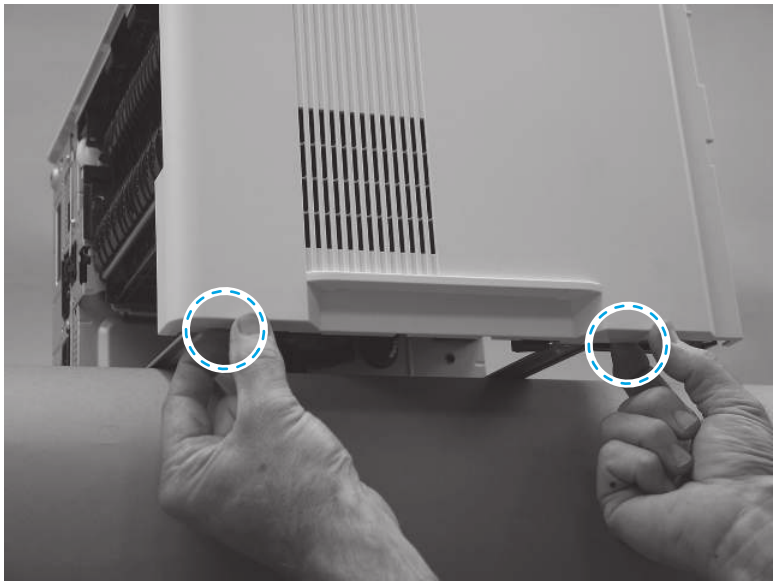
3. At the front of the printer, release one boss (callout 1), and then rotate the front edge of the cover away from the printer to release three tabs (callout 2).

Figure 4-1337 Release one boss and three tabs



4. At the bottom edge of the cover, release two tabs.

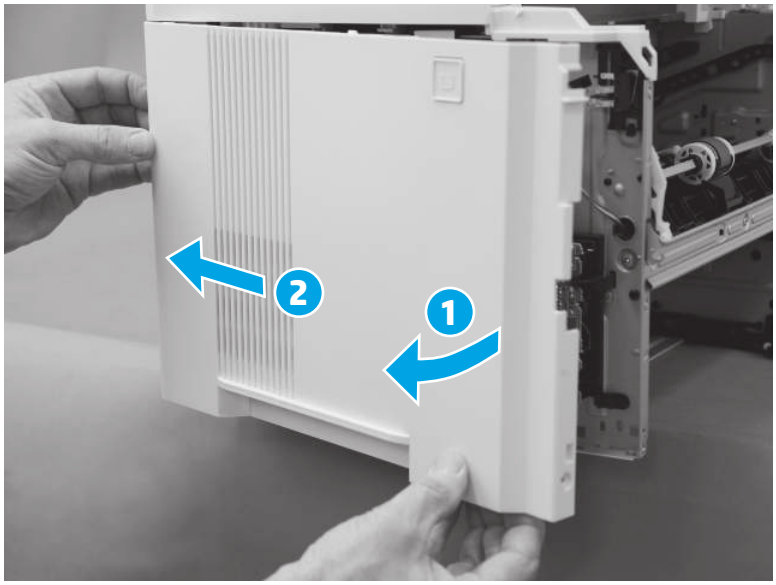
Figure 4-1338 Release two tabs



5. Continue to rotate the front edge of the cover away from the printer (callout 1), and then slide the cover toward the rear of the printer (callout 2) to remove it.

NOTE: If the cover is difficult to rotate or slide as shown below, make sure that the bottom tabs (released in the previous step) are completely disengaged from the chassis.

Figure 4-1339 Remove the cover



15. Remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645)

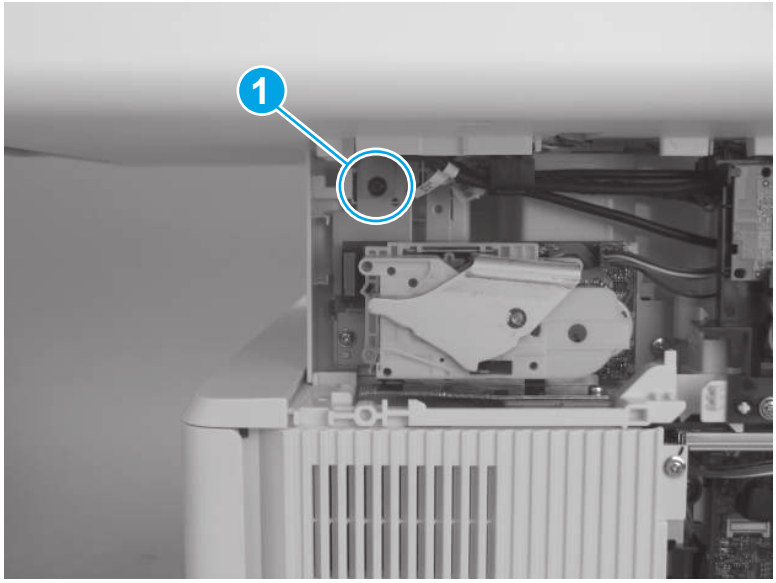
Follow these steps to remove the integrated-scanner assembly (ISA) (M527/E52545/M528/E52645).

NOTE: The ISA includes the document feeder, sub-scanner assembly (SSA), and the scanner control board (SCB).

1. Remove one screw (callout 1).

IMPORTANT: This screw fastens the ISA ground plate to the printer chassis. Do not lose this screw.

Figure 4-1340 Remove one screw

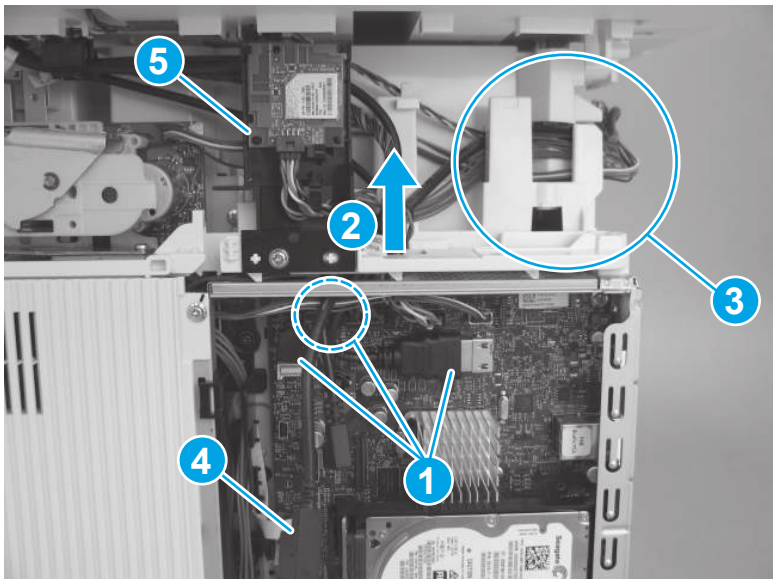


2. Disconnect three connectors (callout 1), pass the wire harnesses and cables through the opening in the cover (callout 2), and then release them from the retainers (callout 3).

NOTE: One cable (callout 4) does not need to pass through the opening in the cover.

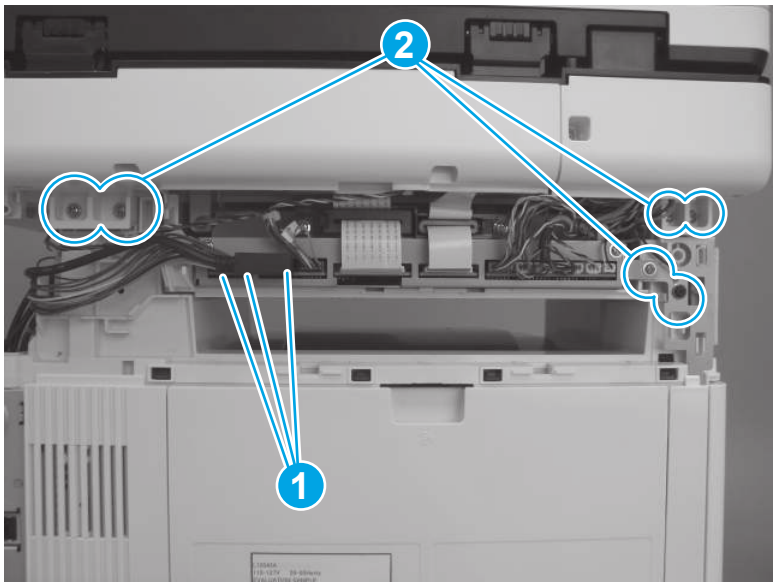
TIP: It might be easier if the WiFi PCA and holder (not all models; callout 5) is detached from the printer, and then moved out of the way.

Figure 4-1341 Disconnect cables and connectors



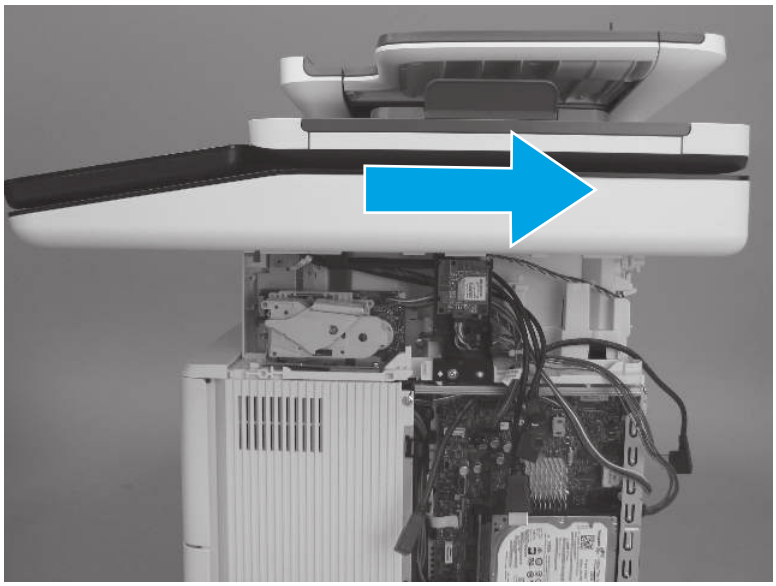
3. Disconnect three connectors (callout 1), and then remove six screws (callout 2).

Figure 4-1342 Disconnect connectors and remove screws



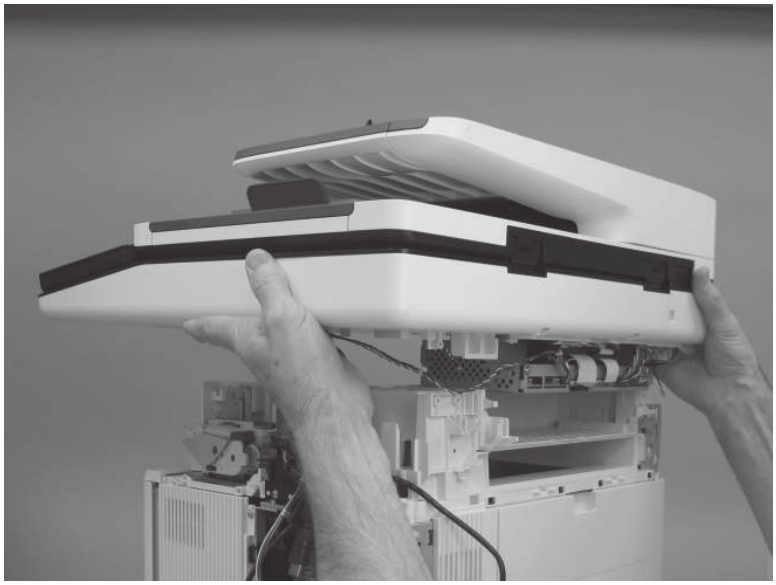
4. Slightly slide the ISA towards the back of the printer to release it.

Figure 4-1343 **Slide the ISA towards the back of the printer**



5. Remove the ISA.

Figure 4-1344 **Remove the ISA**

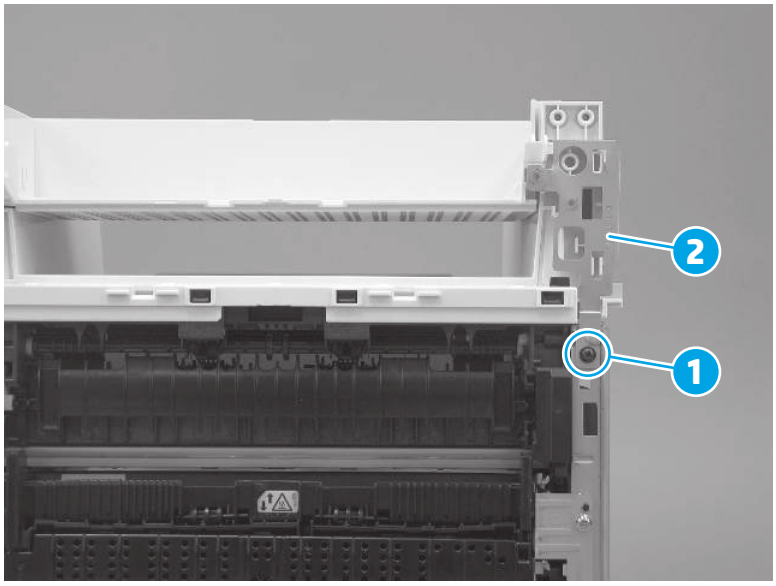


16. Remove the top cover (M527/E52545/M528/E52645)

Follow these steps to remove the top cover (M527/E52545/M528/E52645).

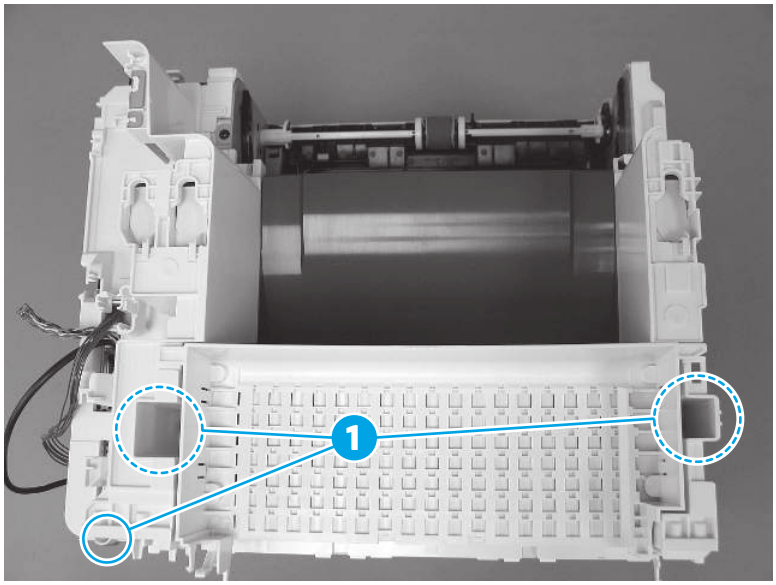
1. At the front right of the printer, remove one screw (callout 1), and then remove the sheet-metal plate (callout 2).

Figure 4-1345 Remove one screw and the plate



2. At the top rear of the printer, remove three screws (callout 1).

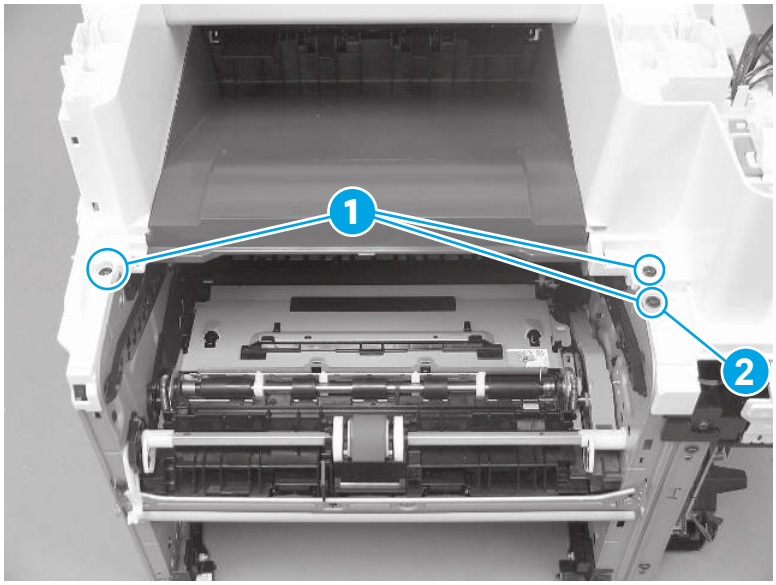
Figure 4-1346 Remove three screws



3. At the top front of the printer, remove three screws (callout 1).

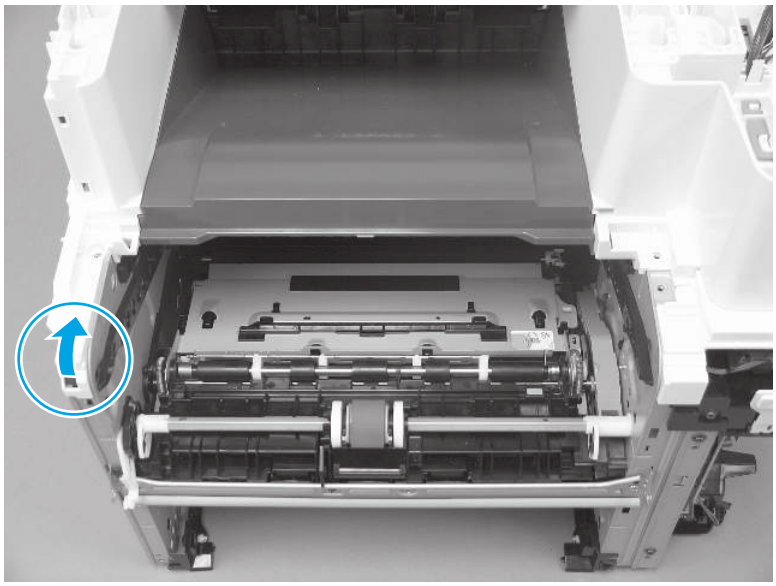
NOTE: The screw (callout 2) on the lower-right portion of the cover is a different color than the other two screws, and is surrounded by sheet-metal. It might appear that this screw does not need to be removed. Remove this screw.

Figure 4-1347 Remove three screws



4. At the front left of the printer, release one boss.

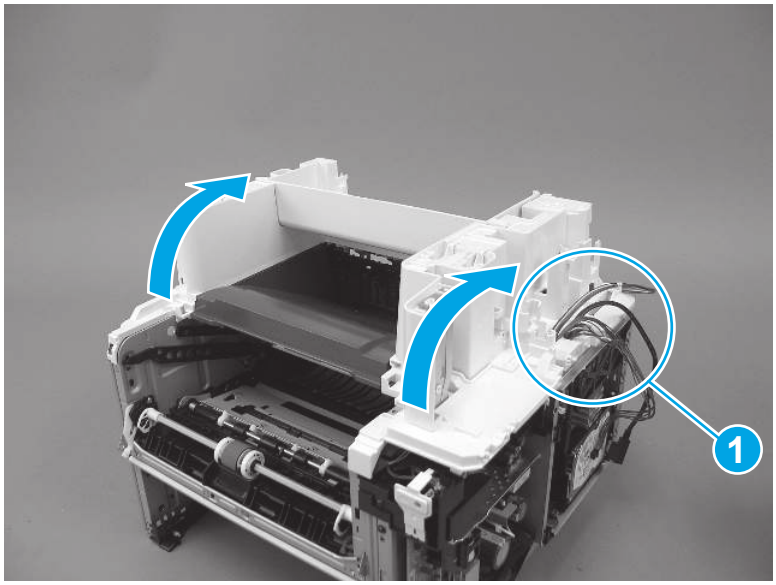
Figure 4-1348 Release one boss



5. Rotate the front of the cover up and away from the printer.

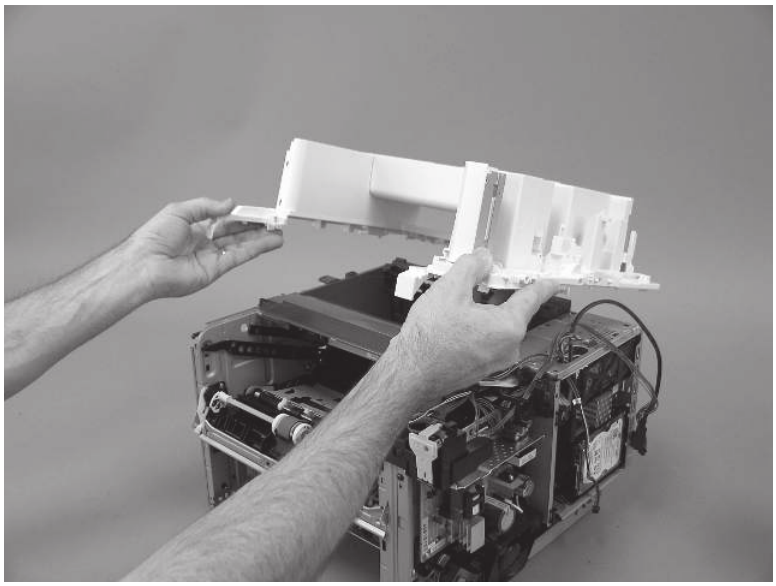
⚠ CAUTION: As the cover is rotated up, carefully pass the cables and wire harnesses the hole in the cover (callout 1).

Figure 4-1349 Rotate the front of the cover up



6. Remove the cover.

Figure 4-1350 Remove the cover



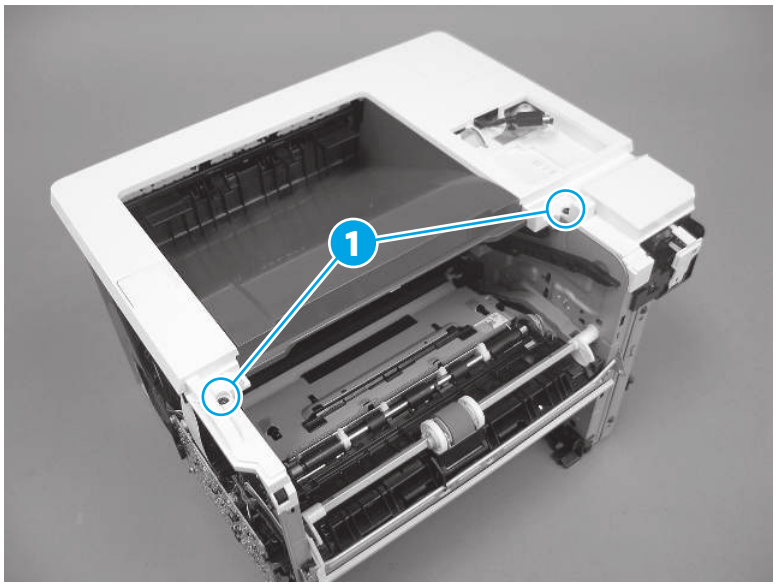
17. Remove the top cover (M501/M506/E50045/M507/E50145)

Follow these steps to remove the top cover (M501/M506/E50045/M507/E50145).

The M506x/E50045x is shown in this procedure. However, the steps are correct for all M506/E50045/M507/E50145 models and the M501 printer.

1. Remove two screws (callout 1).

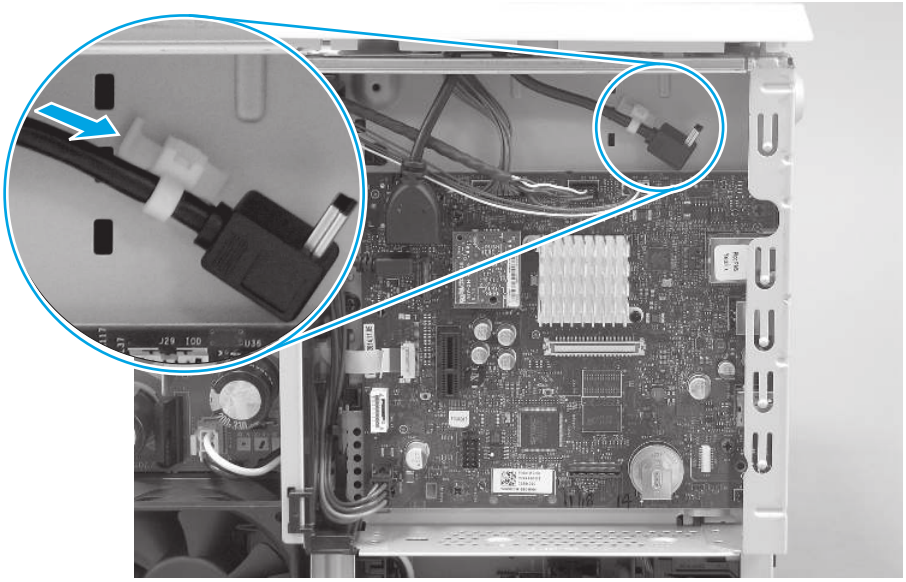
Figure 4-1351 **Remove two screws**



2. **M506/E50045/ only**: Release one cable retainer from the chassis.

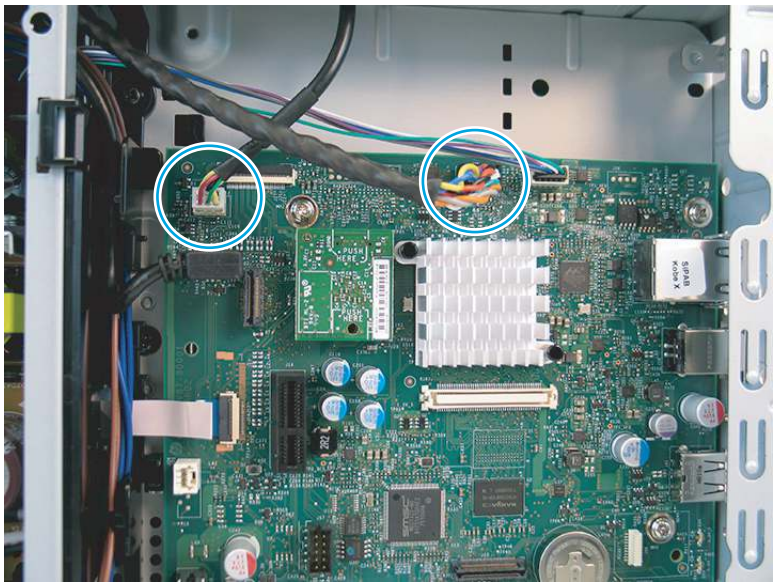
TIP: Depress the tab on the retainer to release it.

Figure 4-1352 **Release one cable retainer**



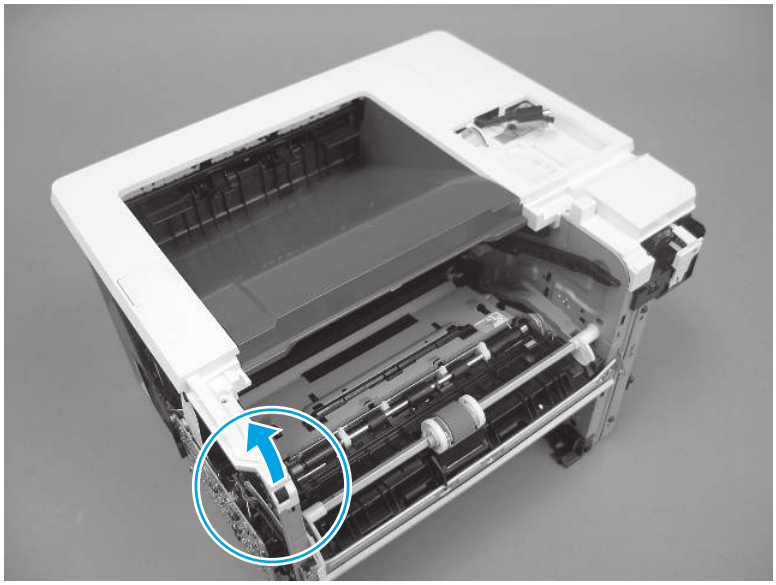
3. **M507/E50145 only**: Disconnect two connectors.

Figure 4-1353 Disconnect two connectors



4. Release one boss.

Figure 4-1354 Release one boss

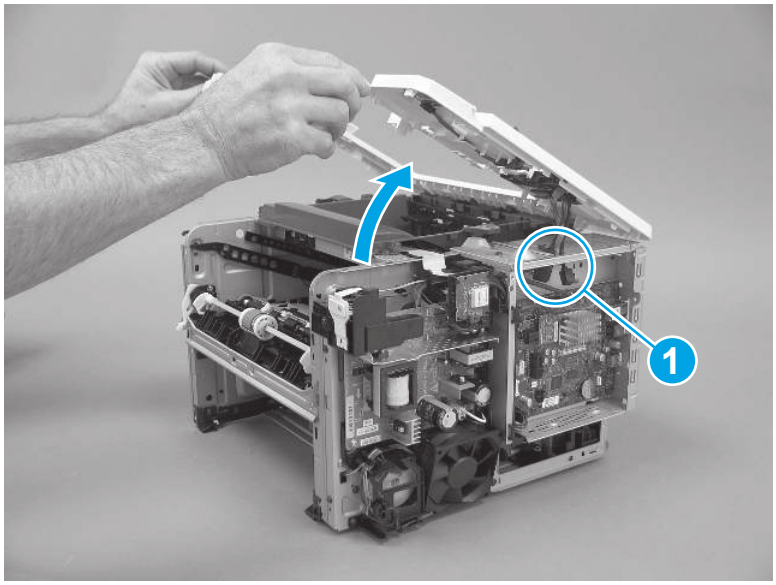


5. **M506/E50045/ only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M506x/E50045x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1355 **Remove the cover (M506/E50045)**



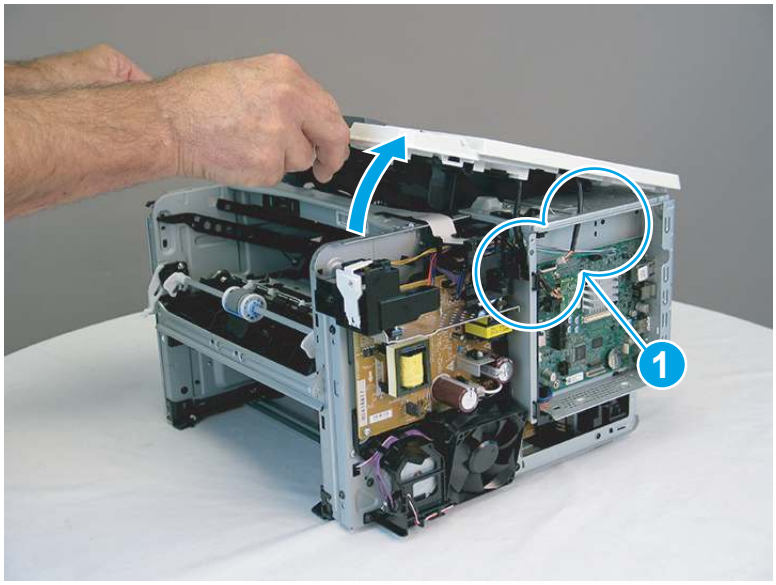
6. **M507/E50145only**: Rotate the front of the cover up and away from the printer, and then remove the cover.

CAUTION: **M507x/E50145x only**: As the cover is rotated up, carefully pass the cables the hole in the chassis (callout 1).

IMPORTANT: If the top cover is being replaced, make sure to transfer the WiFi PCA from the discarded cover to the replacement cover.

NOTE: **LCD control panel models only**: Disconnect the control panel before removing the cover.

Figure 4-1356 **Remove the cover (M507/E50145)**



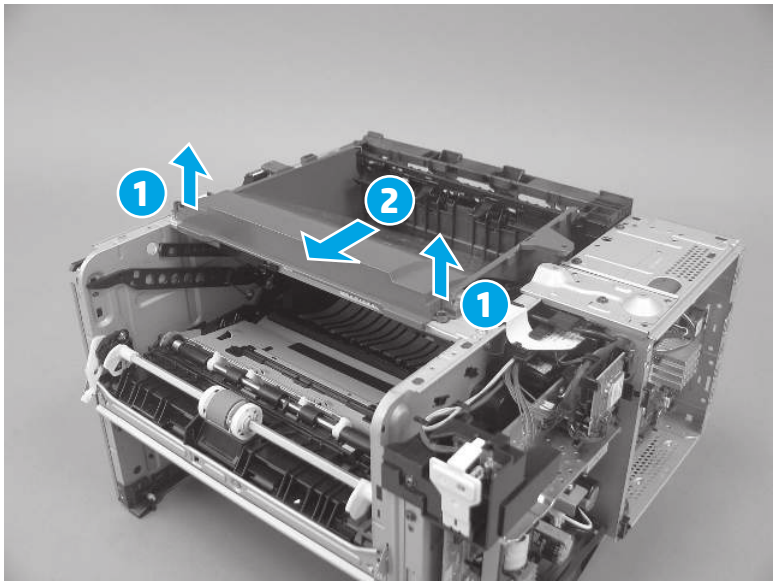
18. Remove the paper delivery tray (output bin)

Follow these steps to remove the paper delivery tray (output bin).

NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

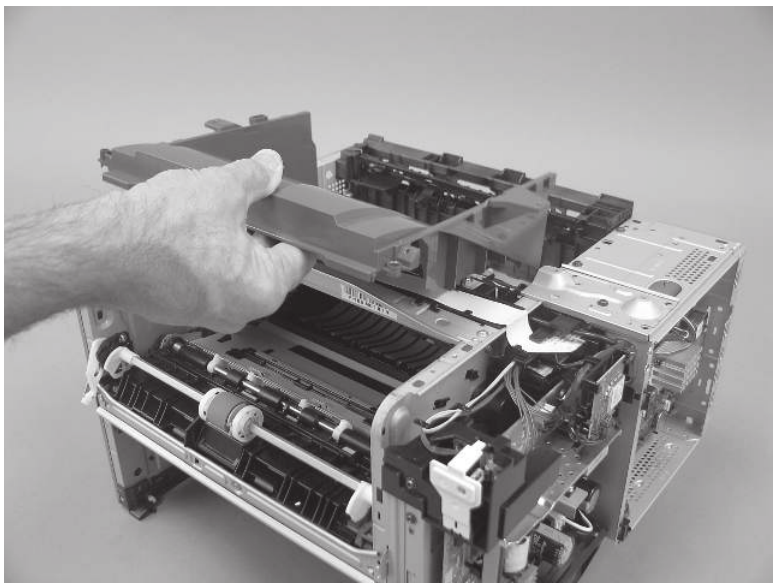
1. Release two tabs (callout 1), and then slide the cover toward the front of the printer (callout 2).

Figure 4-1357 **Release two tabs**



2. Remove the bin.

Figure 4-1358 **Remove he bin**



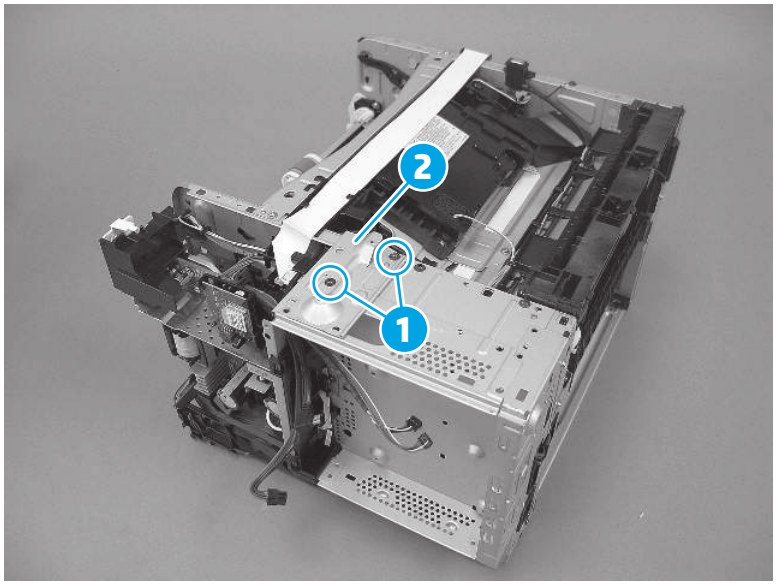
19. Remove the formatter case

Follow these steps to remove the formatter case.

1. **M506/E50045/M507/E50145 only**: Remove two screws (callout 1), and then remove the sheet-metal plate (callout 2).

NOTE: **M507/E50145 only**: The M507/E50145 sheet-metal plate includes a separate black plastic cable guide (not shown). Do not lose the guide when removing the plate.

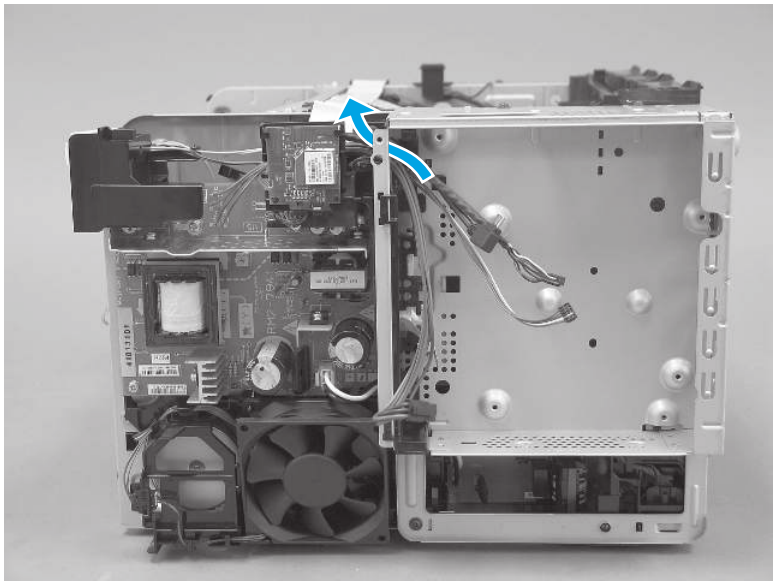
Figure 4-1359 Remove the sheet-metal plate



2. Carefully pass all cables and wire harnesses through the opening in the formatter case.

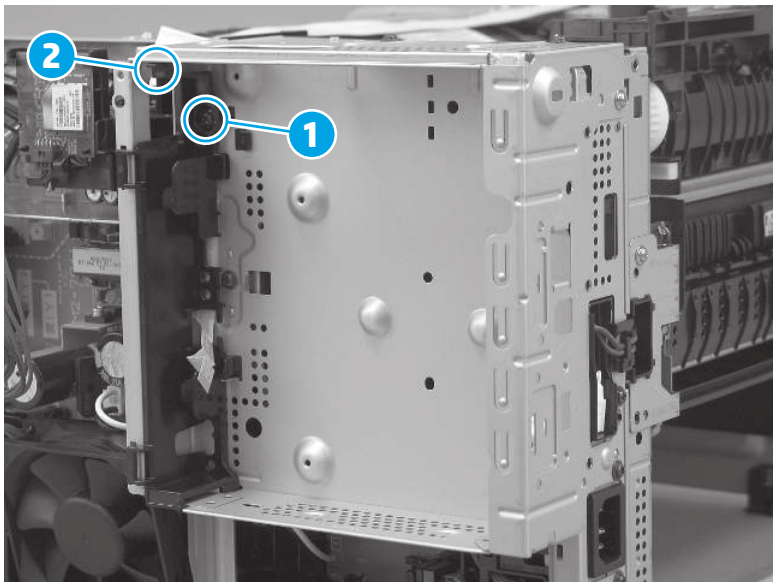
NOTE: A SFP printer is shown in this section. However, the procedure is correct for all printer models.

Figure 4-1360 Pass all cables and wire harnesses through the opening



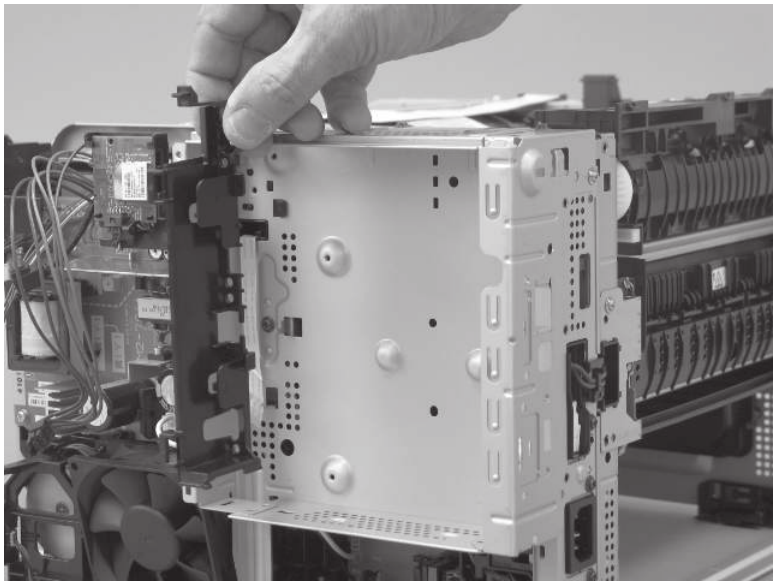
3. Remove one screw (callout 1), and then push down on one tab (callout 2) to release it.

Figure 4-1361 Remove one screw



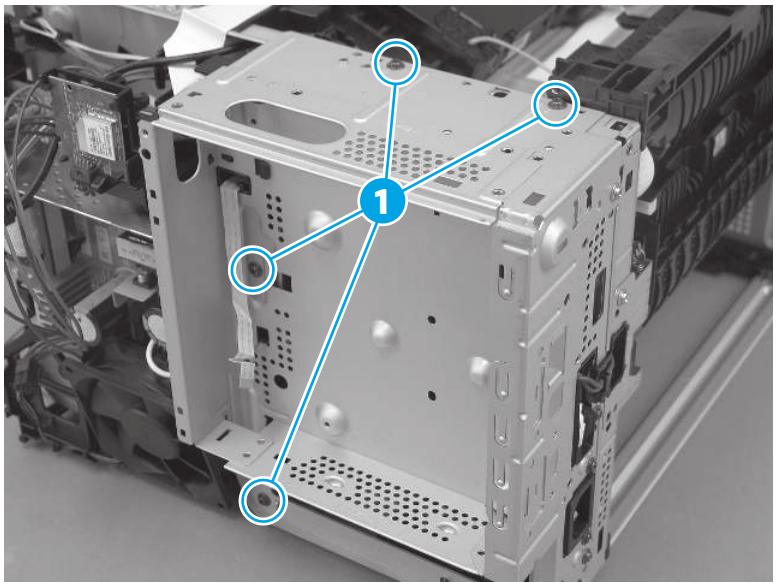
4. Remove the guide.

Figure 4-1362 Remove the guide



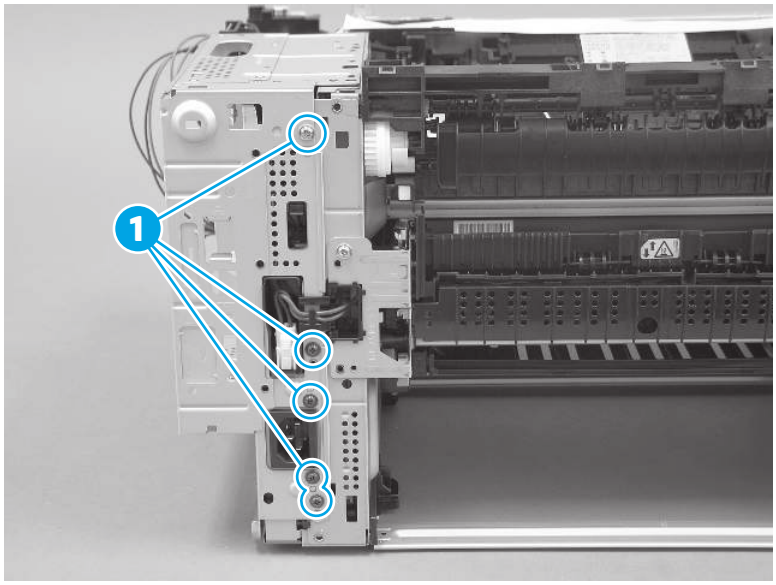
5. Remove four screws (callout 1).

Figure 4-1363 Remove four screws



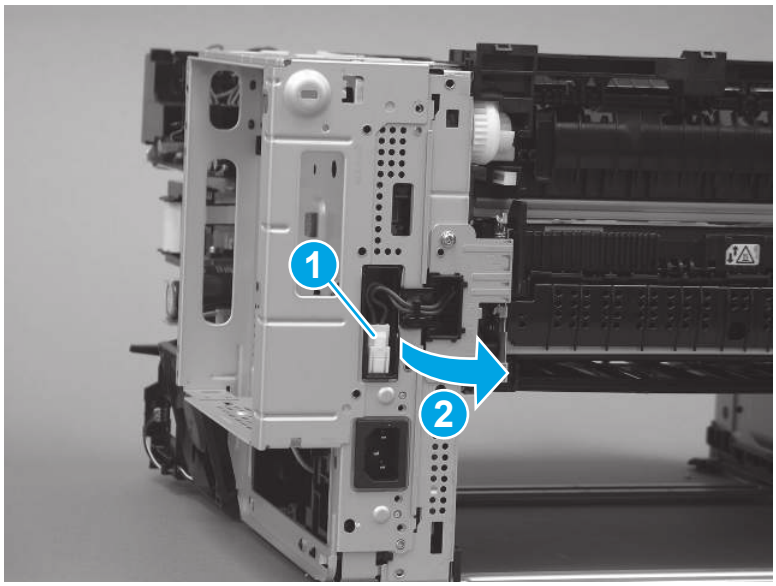
6. Remove five screws (callout 1).

Figure 4-1364 Remove five screws



7. Disconnect one connector (callout 1), and then move the guide out of the way (callout 2).

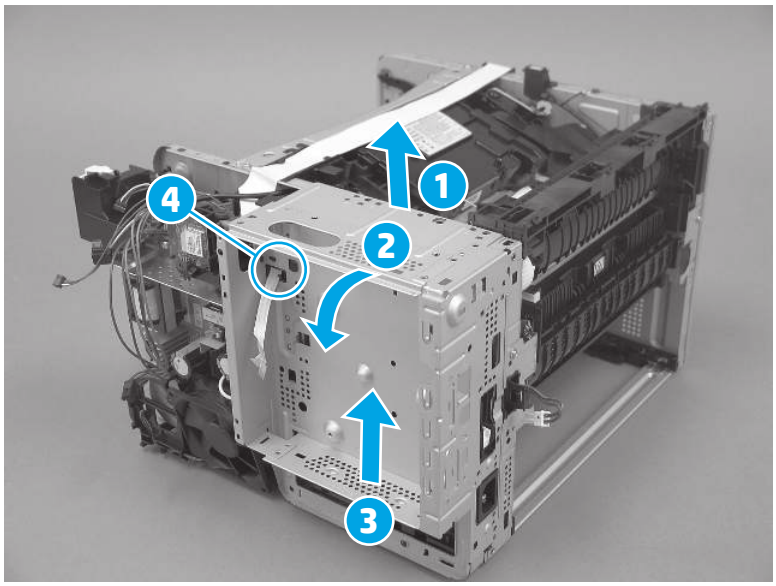
Figure 4-1365 **Disconnect one connector**



8. Slightly lift up the formatter case (callout 1), rotate the top of the case away from the chassis (callout 2), and then lift up the case to release it (callout 3).

⚠ CAUTION: Pass the FFC through the opening (callout 4) in the formatter while removing the case.

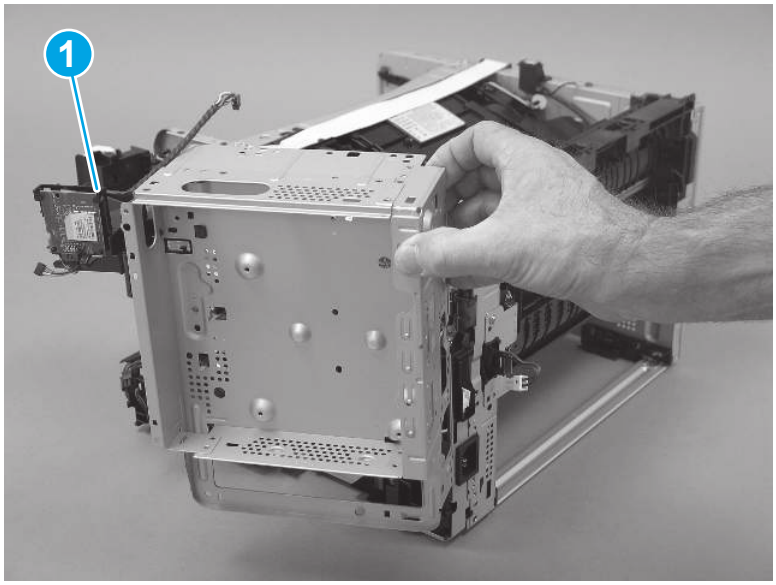
Figure 4-1366 **Release the formatter case**



9. Remove the formatter case.

NOTE: **WiFi models only**: If the formatter case is being replaced, make sure that the WiFi PCA and bracket (callout 1) are transferred to the replacement case.

Figure 4-1367 Remove the formatter case

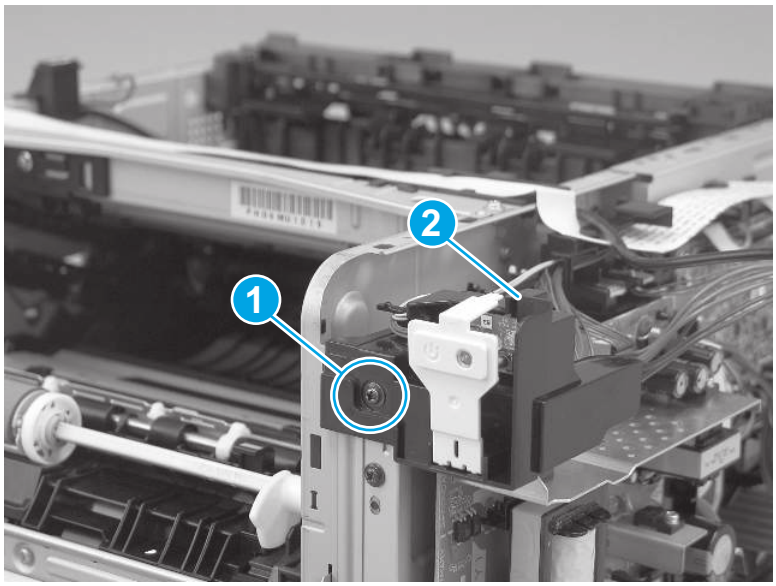


20. Remove the LVPS

Follow these steps to remove the LVPS.

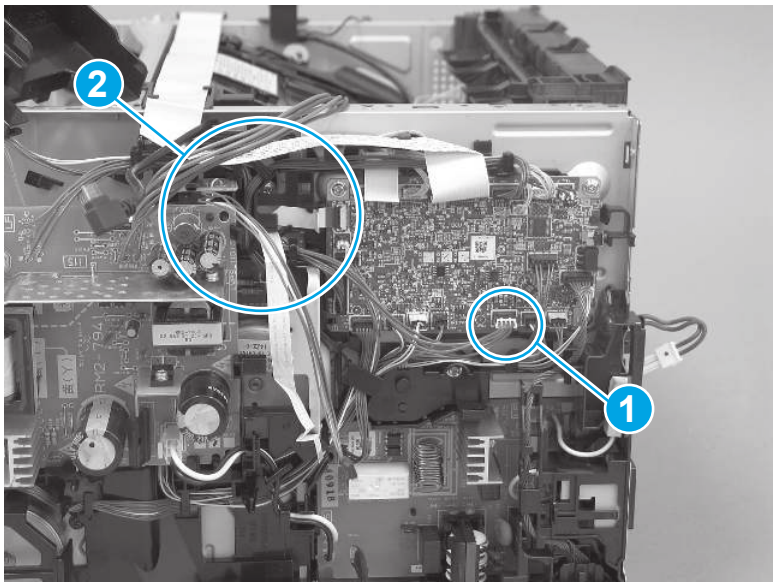
1. Remove one screw (callout 1), and then move the power-switch assembly (callout 2) out of the way.

Figure 4-1368 Move the power-switch assembly



2. Disconnect one connector (callout 1), and then release the wire harness from the guide (callout 2).

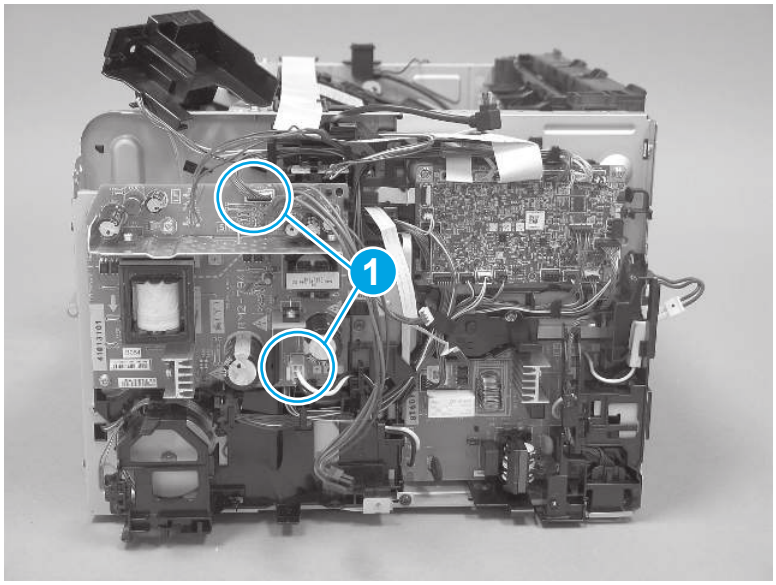
Figure 4-1369 Disconnect one connector



3. Disconnect two connectors (callout 1).

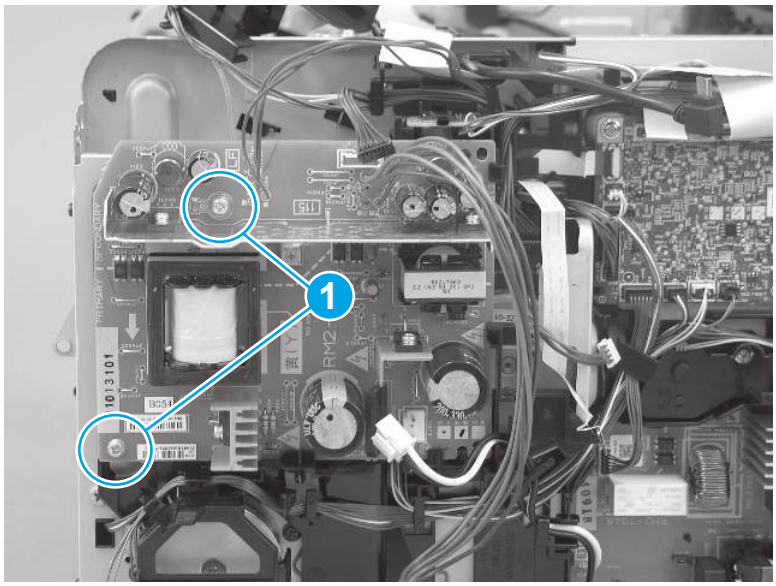
TIP: Squeeze the locking lever on the lower connector to release it.

Figure 4-1370 Disconnect two connectors



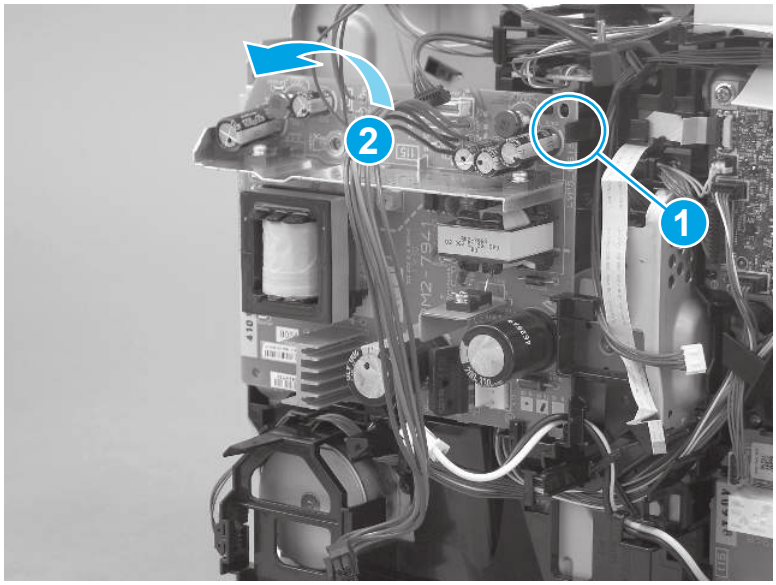
4. Remove two screws (callout 1).

Figure 4-1371 Remove two screws



5. Release one tab (callout 1), and then rotate the top of the LVPS out and away from the printer (callout 2).

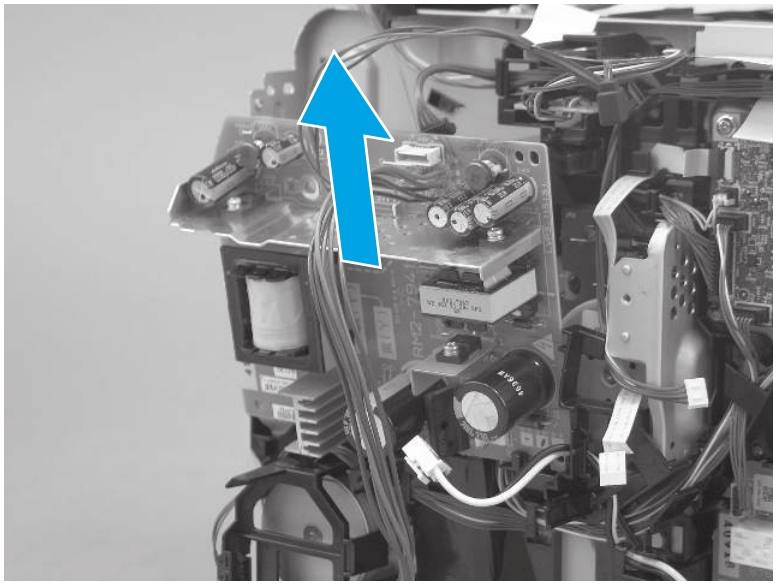
Figure 4-1372 Release one tab



6. Slide the LVPS up and away from the printer to release it.

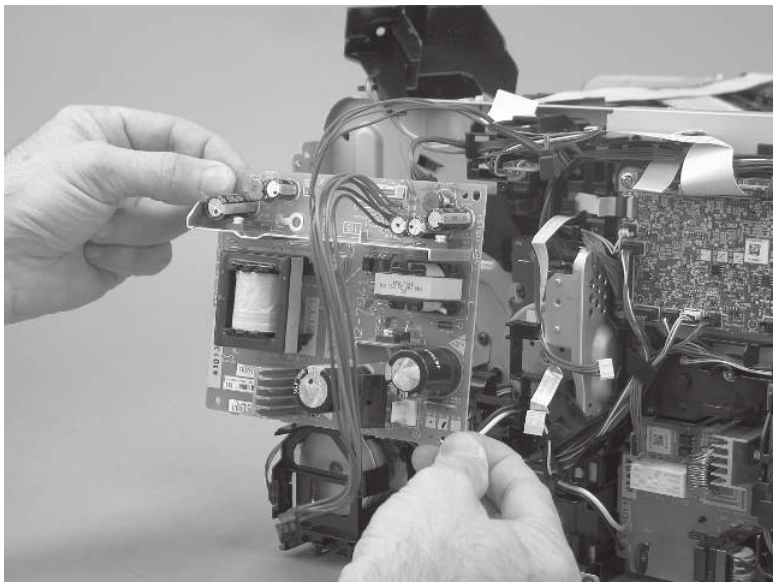
Reinstallation tip: Push down on the LVPS to make sure that it is fully seated on the holder.

Figure 4-1373 Release the LVPS



7. Remove the LVPS.

Figure 4-1374 Remove the LVPS

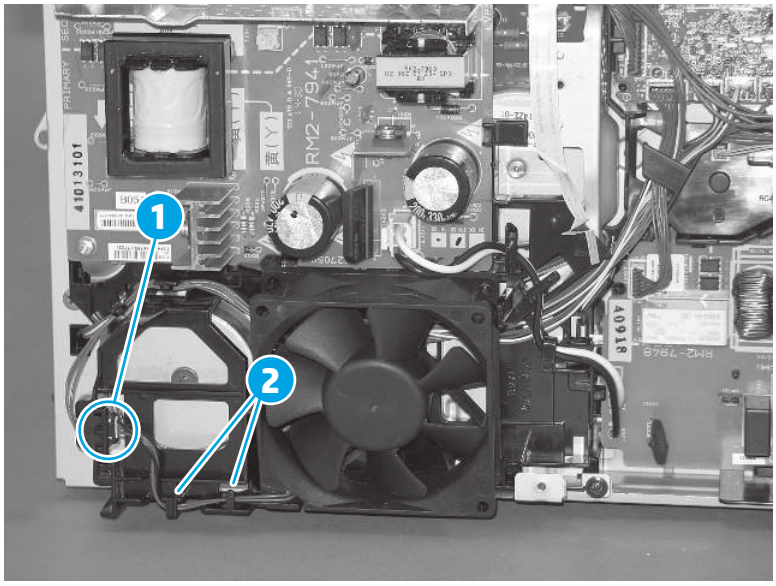


21. Remove the fan (FM2)

Follow these steps to remove the fan (FM2).

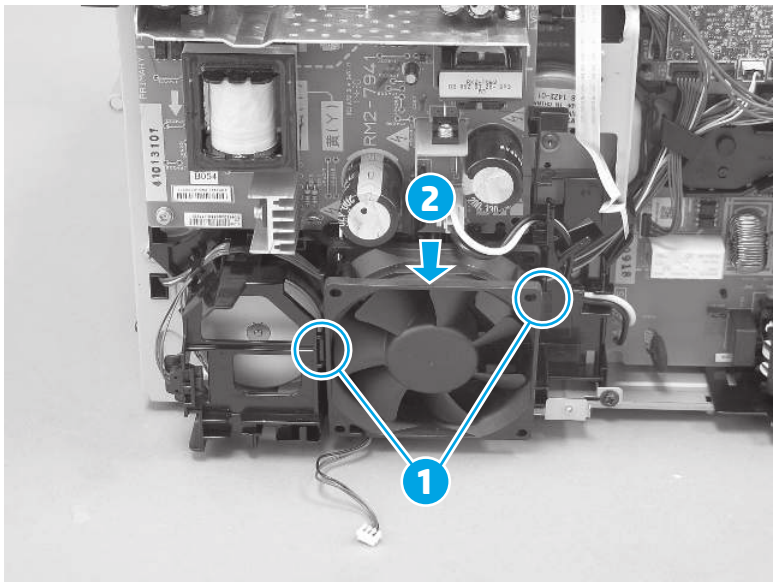
1. Disconnect one connector (callout 1), and then release the wire harness from the retainer (callout 2).

Figure 4-1375 Disconnect one connector



2. Release two tabs (callout 1), and then rotate the top of the fan out and away from the printer (callout 2).

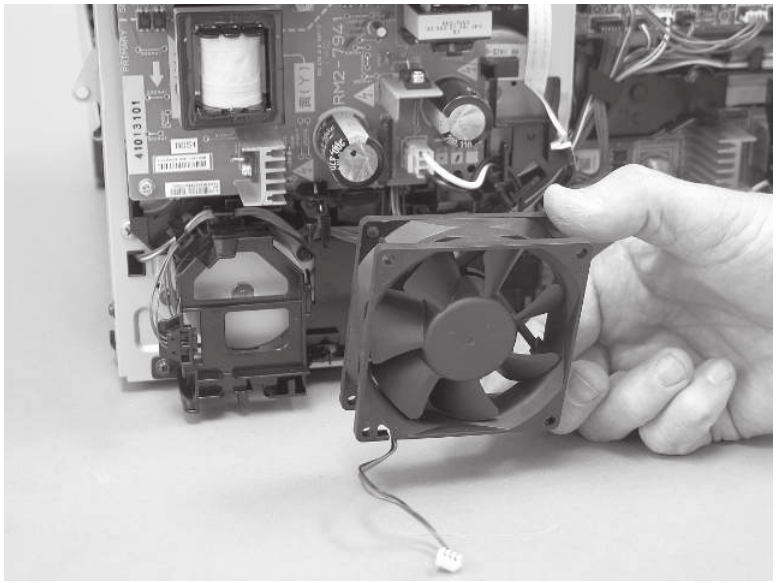
Figure 4-1376 Release two tabs



3. Remove the fan.

⚠ CAUTION: When reinstalled the fan must draw air into the printer. Make sure that the two arrows embossed on the right side of the fan body face downward and into the printer.

Figure 4-1377 Remove the fan



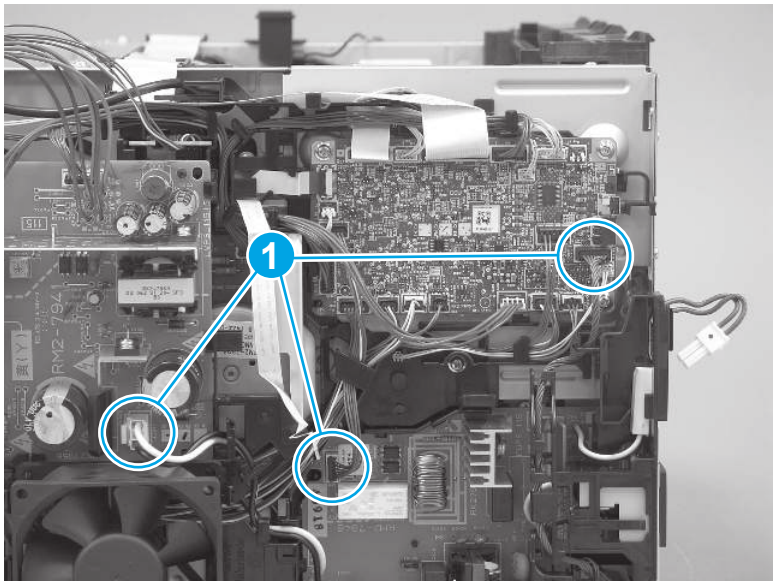
22. Remove the fuser power supply (FPS)

Follow these steps to remove the fuser power supply (FPS).

TIP: The FPS includes the optional paper feeder connector (Jetlink accessory tray connector).

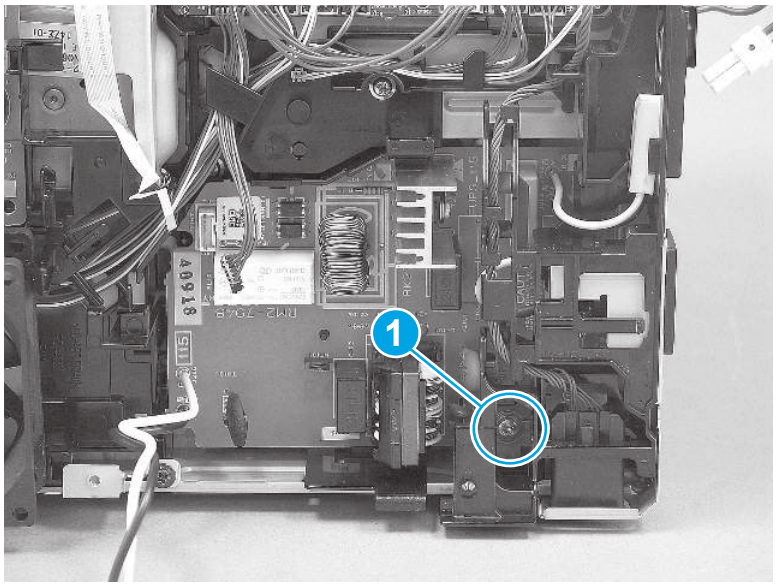
1. Disconnect three connectors (callout 1).

Figure 4-1378 Disconnect three connectors

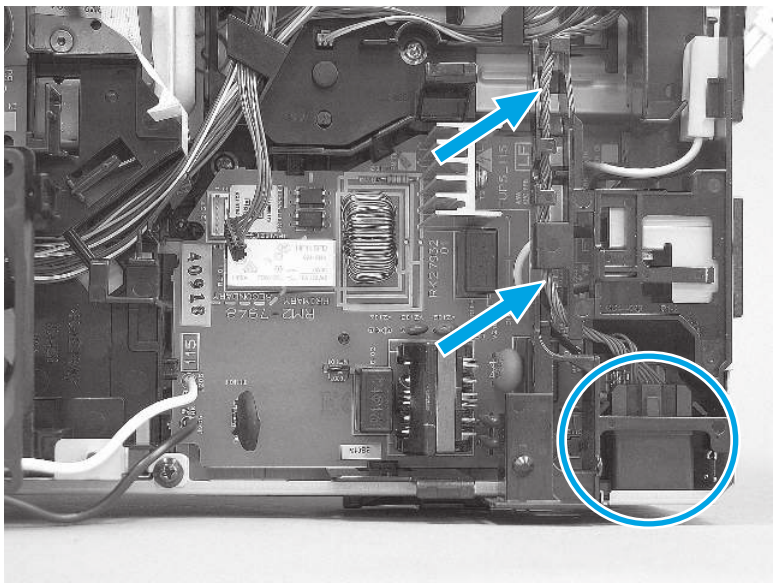


2. Remove one screw (callout 1).

Figure 4-1379 **Remove one screw**



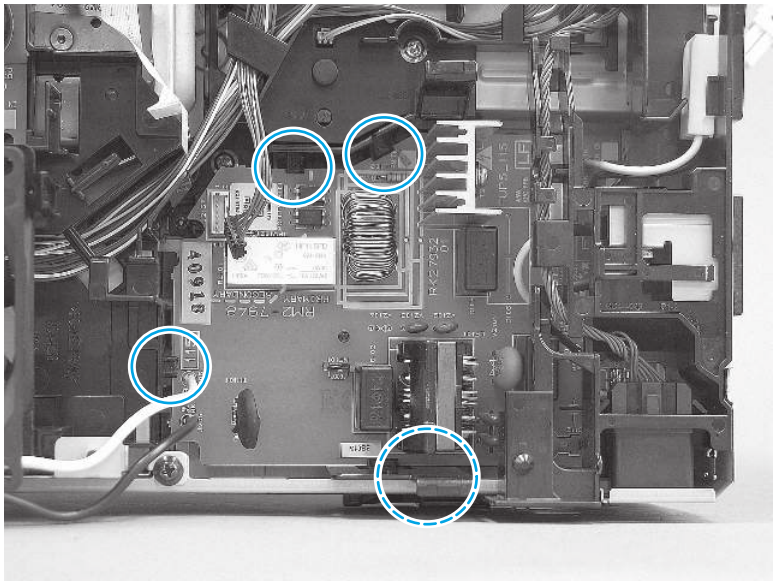
3. Disconnect the tray accessory connector (circle callout) and release the wire harness from the guide.



4. Release four tabs.

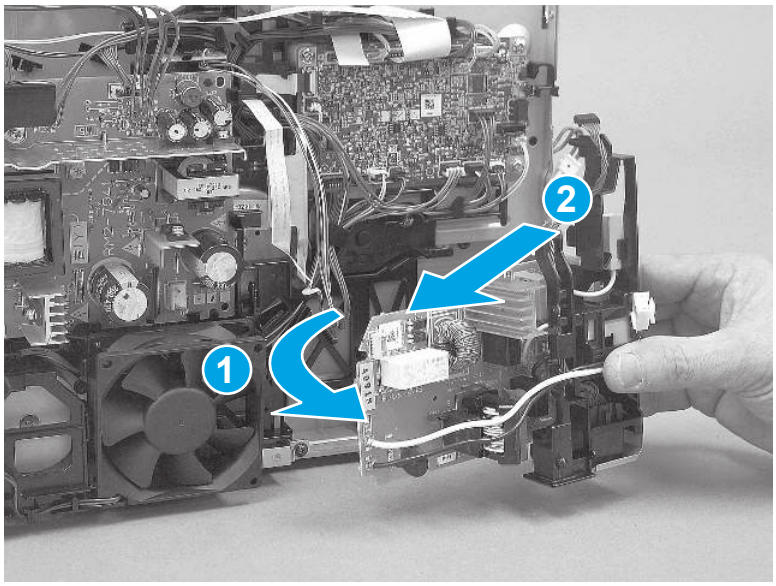
TIP: It might be easier to release the upper two tabs by using a small flat-blade screw driver.

Figure 4-1380 Release four tabs



5. Rotate the left end of the assembly out and away from the printer (callout 1), slide the assembly to the left to release the right side alignment pins (callout 2), and then remove the assembly.

Figure 4-1381 Remove the assembly



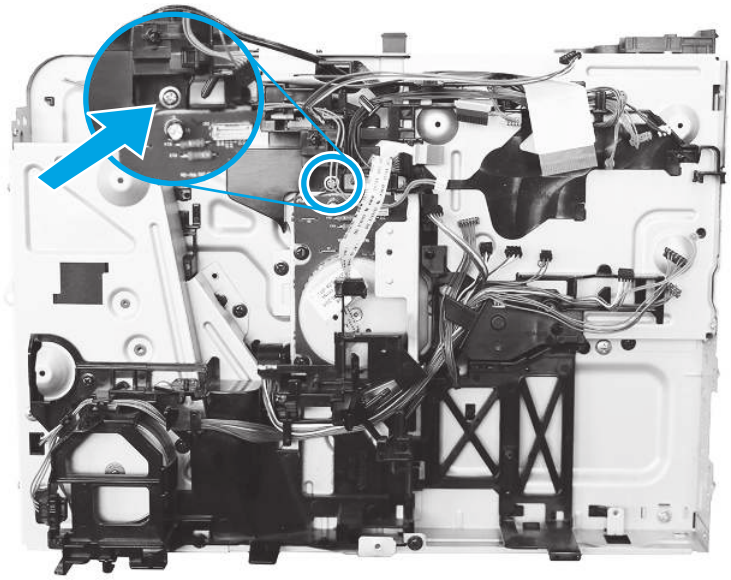
23. Remove internal cable and holder brackets

Follow these steps to remove internal cable and holder brackets.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

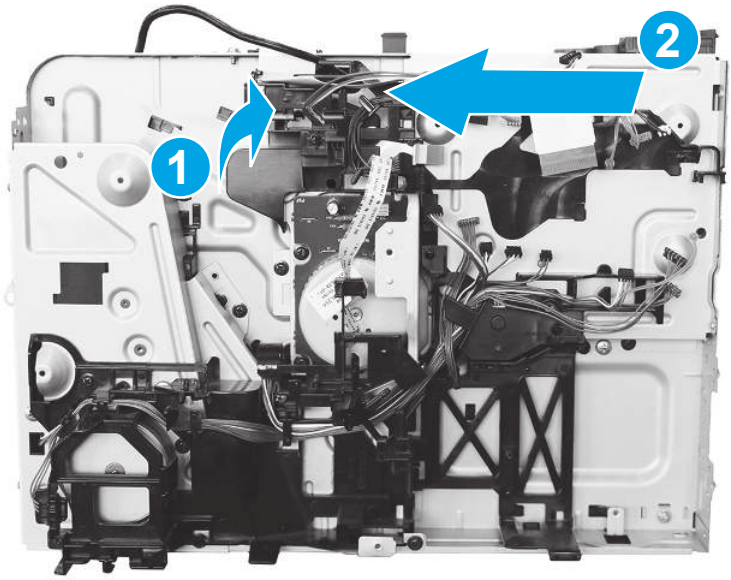
NOTE: Lay the engine on its left side to make removal or the following parts easier.

1. Remove one (1) screw from the upper cable bracket.

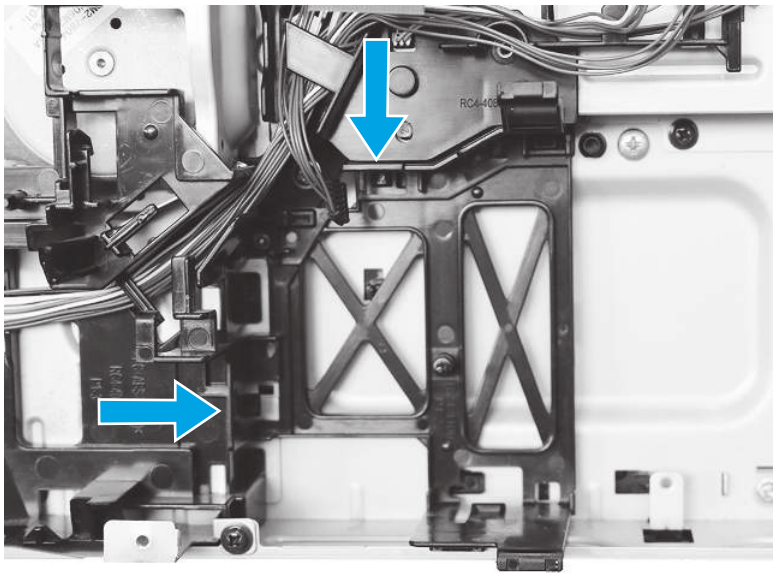


NOTE: The upper cable bracket assembly does not need to be completely removed, simply detached and then moved up out of the way and placed on the top of the printer.

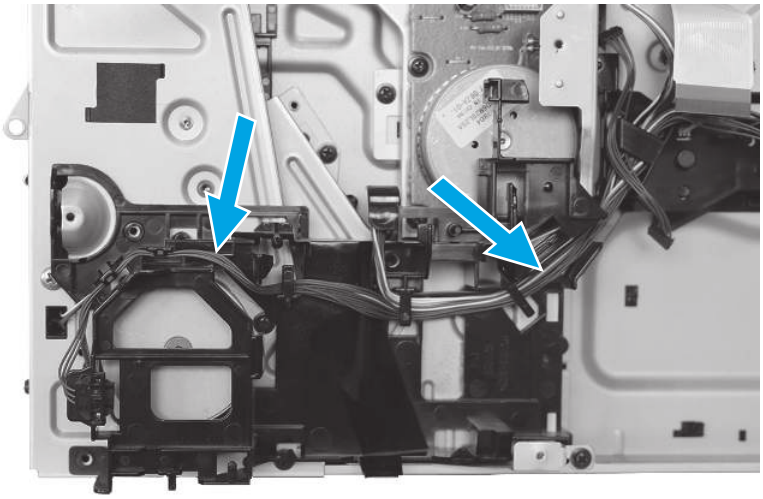
2. Remove the cable routing from the upper cable bracket.
3. Lift up on the left side of the cable bracket (callout 1) and slide the bracket towards the front of the printer (callout 2) to remove the bracket.



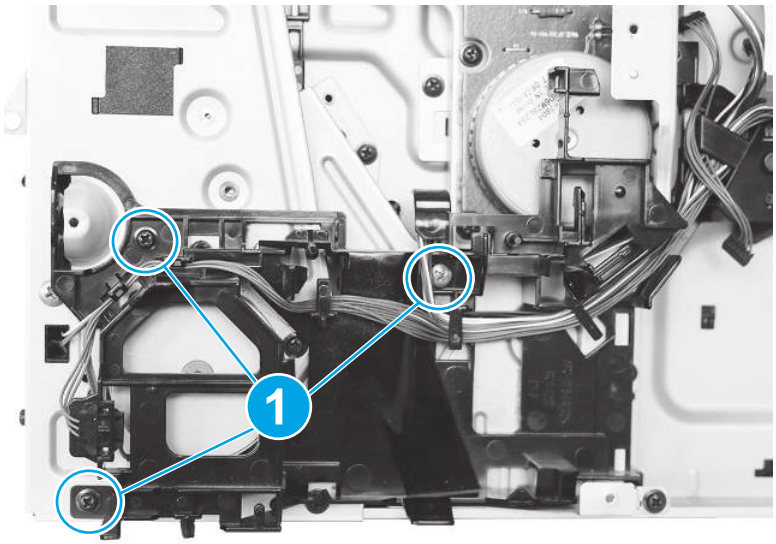
4. Remove the fuser power supply bracket (small lower rear bracket) by pulling in the upper and left side of the bracket and lifting it from the printer.



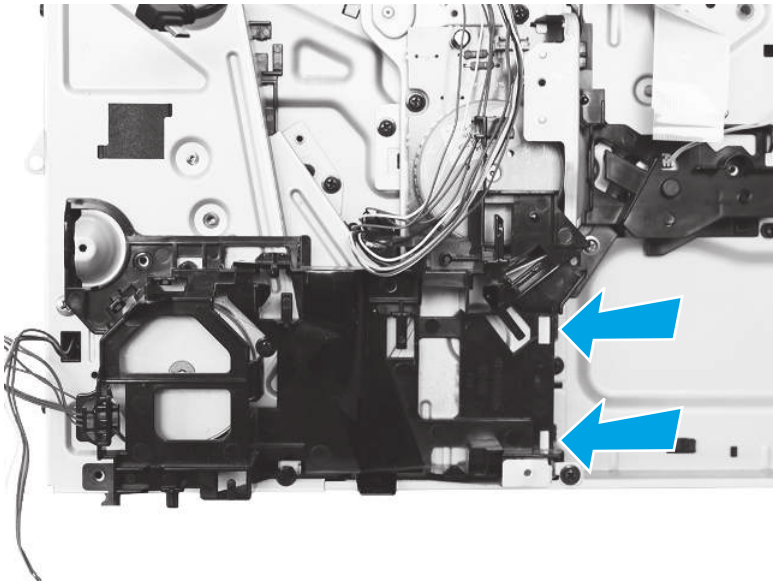
5. Remove the cables from the lower front cable bracket.



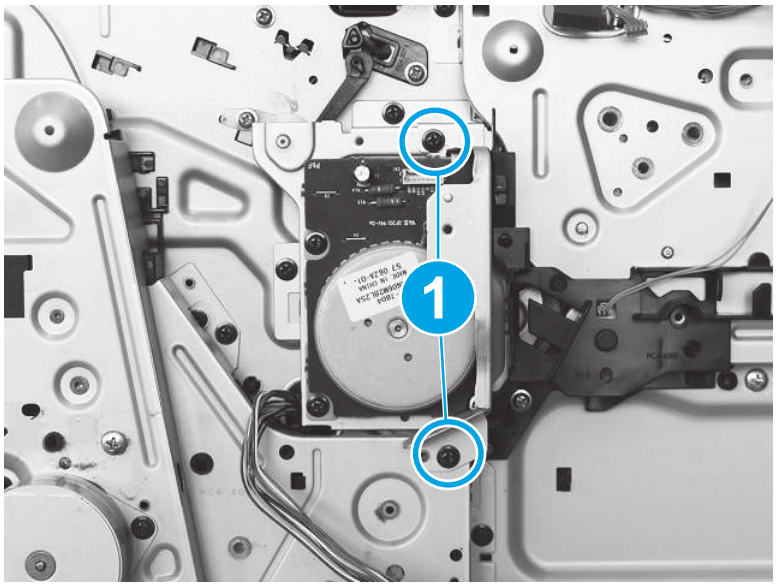
6. Remove three (3) screws (callout 1) from the bracket assembly.



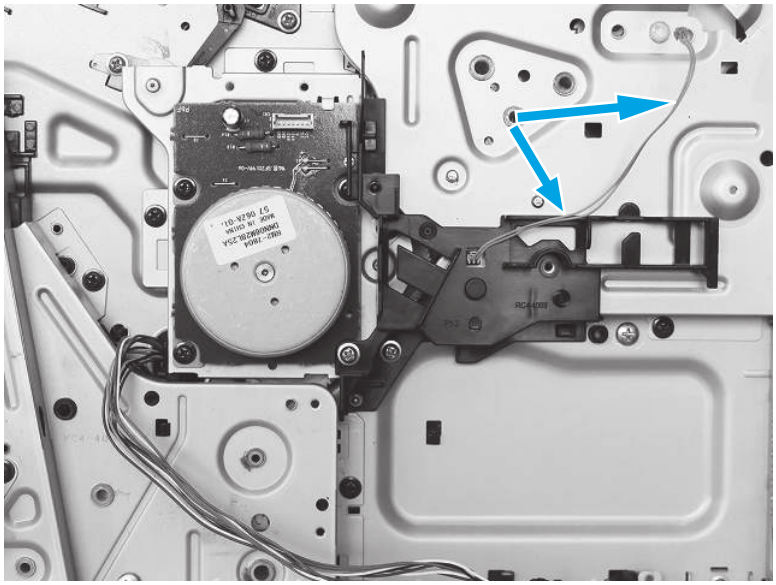
7. Gently pry up the two (2) tabs on the lower right side of the bracket the remove the bracket from the printer.



8. Remove two (2) screws (callout 1) from the metal M1 motor shield and remove the shield from the printer.

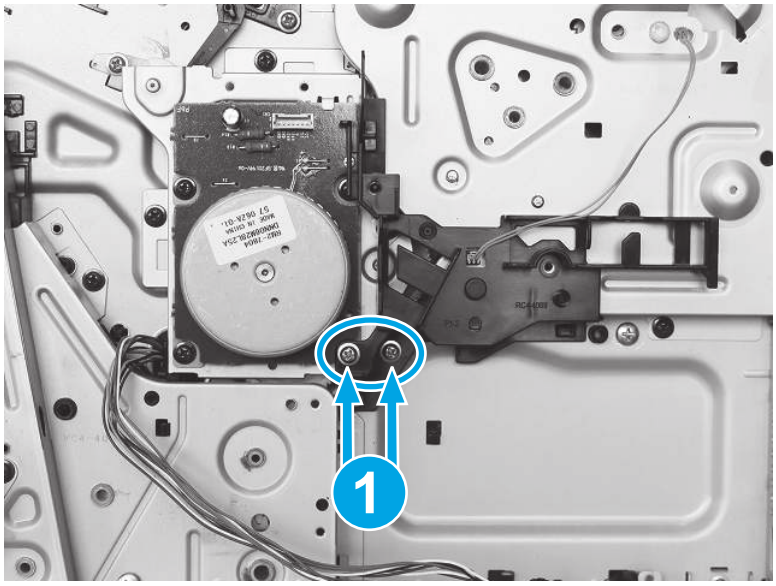


9. Remove the yellow cable from the cable bracket guide.



10. Remove two (2) screws (callout 1) and then remove the cable bracket located to the right of the main motor, M1.

NOTE: Carefully lift off the bracket to ensure that the clutch on the back of the guide does not fall off when removing.



24. Remove the delivery assembly

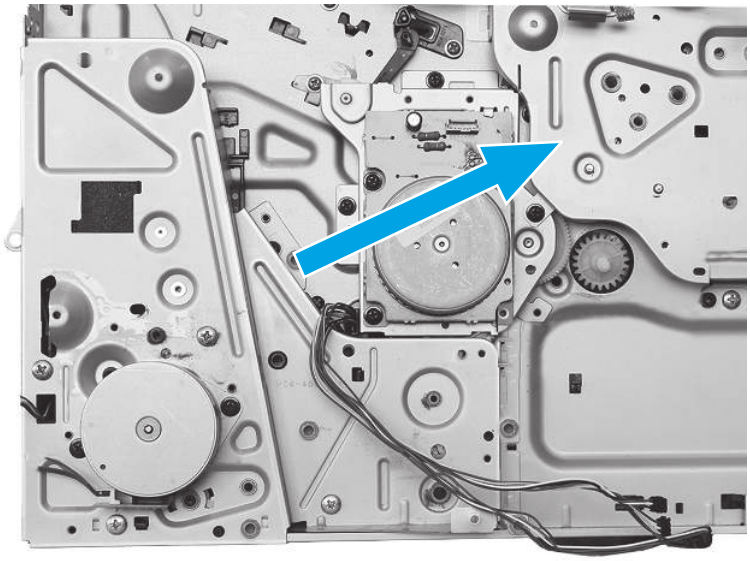
Follow these steps to remove the delivery assembly.

IMPORTANT: It is recommended to bring the printer back to the shop to perform the following removal and replacement repairs.

NOTE: Lay the engine on its left side to make removal or the following parts easier.

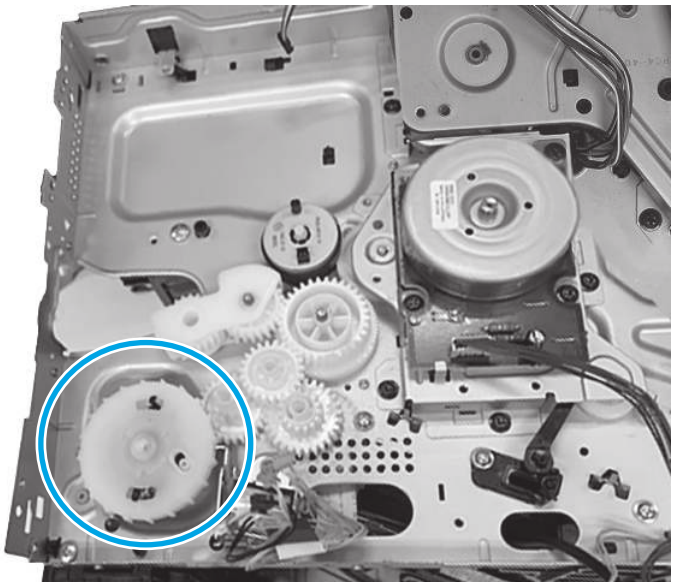
1. After removing the cable guide, access the 3 screws for the main drive metal cover and remove.

Figure 4-1382 **Remove main gear drive metal cover**



2. Carefully pull up on and remove the duplex gear to access the screws underneath.

Figure 4-1383 Remove gear

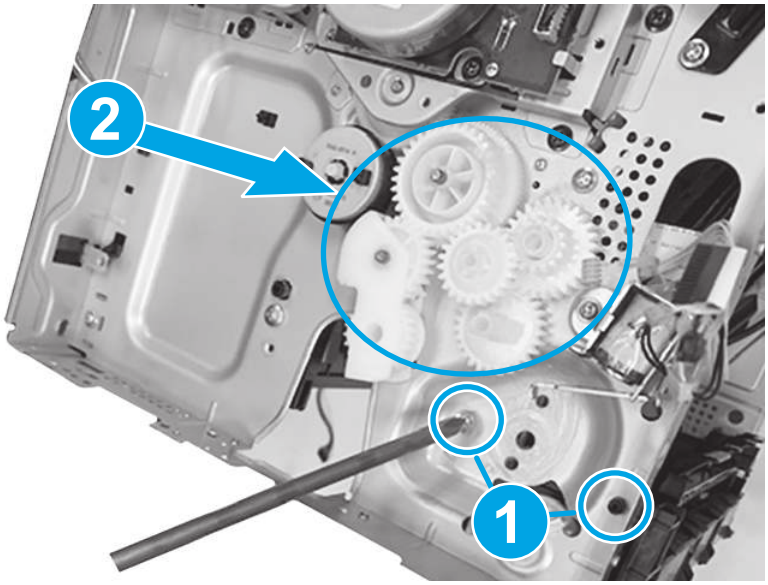


TIP: Note the position of the solenoid on the lower right of the gear for reassembly.

3. Remove two (2) screws (callout 1) from the left side of the engine and set the engine up on the feet.

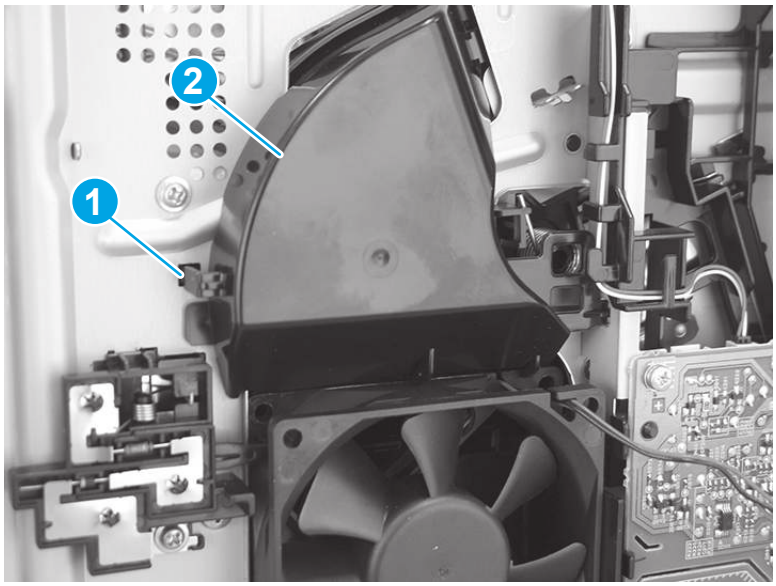
IMPORTANT: Ask someone to hold the main gear assembly (callout 2) in place so the gears do not fall off when the engine is set up.

Figure 4-1384 Remove screws



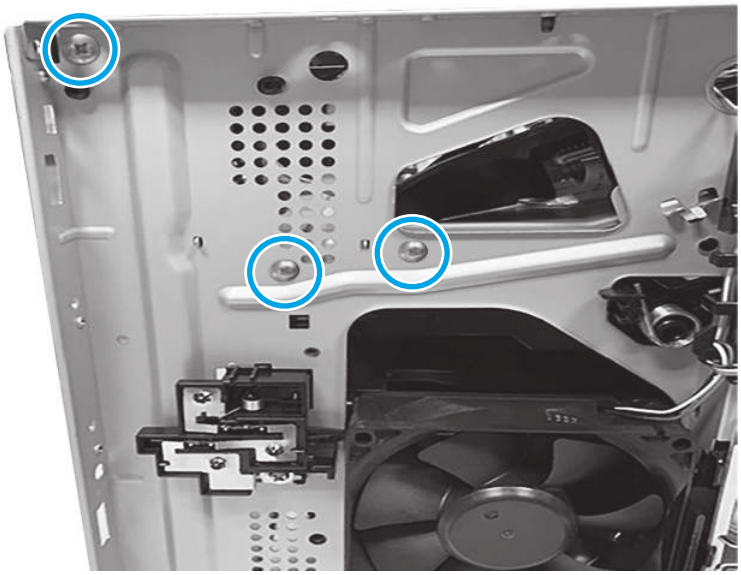
4. Release one tab (callout 1), and then remove the fan duct (callout 2).

Figure 4-1385 **Remove the fan duct**



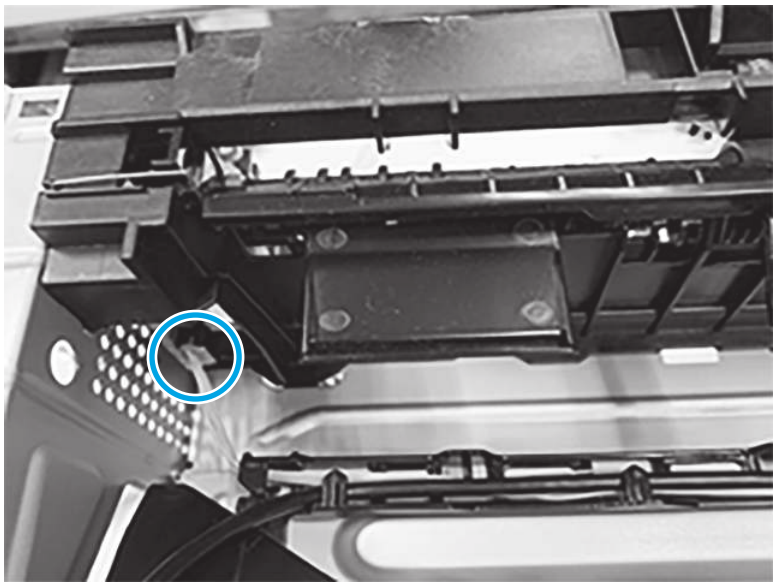
5. Remove 3 screws from the deliver assembly.

Figure 4-1386 **Remove 3 screws**



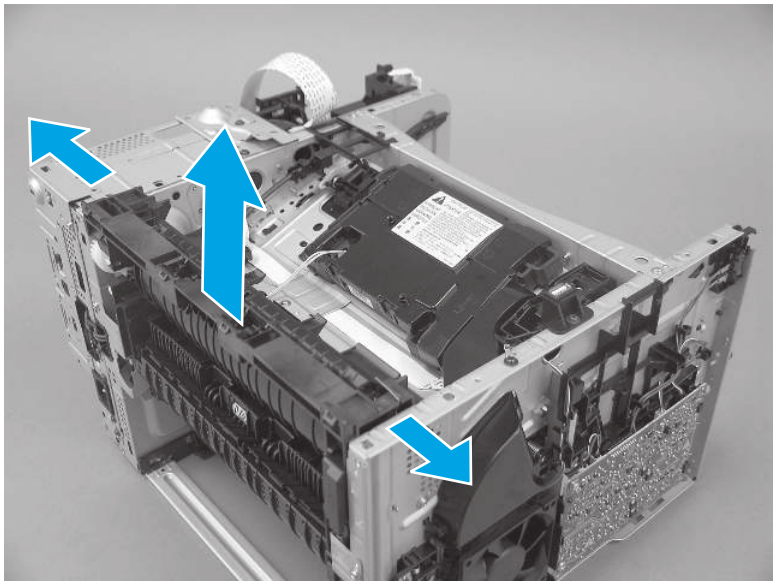
6. Unplug the delivery assembly connector.

Figure 4-1387 **Unplug the connector**



7. Remove the delivery assembly by slightly pulling the chassis sides apart.

Figure 4-1388
Remove the delivery assembly



25. Installation special instructions

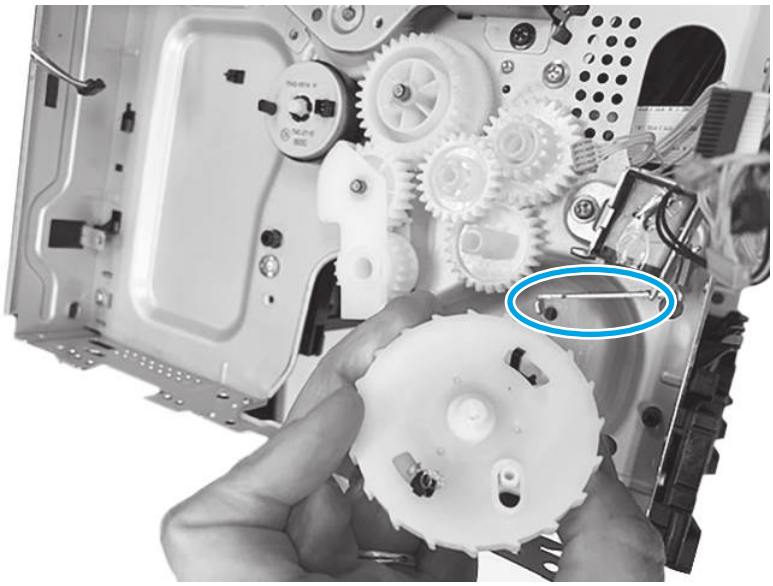
Use these specific steps when installing the new delivery assembly.

1. On installation of the new part, make sure the gears on the new delivery assembly do not fall off before installing since they are not held in by screws.

Figure 4-1389 **Delivery drive gear**

2. On installation, make sure the main drive gear train does not fall off. Pay special attention to the duplex gear from the removal step, make sure the solenoid is in the right position when installing the gear.

Figure 4-1390 **Check solenoid**



3. Follow the removal steps in reverse order to install all parts that were removed from th eprinter.

26. Unpack the replacement assembly

Follow these steps to unpack the replacement assembly.

1. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

2. Unpack the replacement part from the packaging.

CAUTION:

Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

NOTE: If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

3. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Remove and replacement: Trays

Learn how to remove and replace the printer trays.

Removal and replacement: Tray 2

Learn how to remove and replace Tray 2.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace Tray 2.

Mean time to repair: 5 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-46 Part information

Part number	Part description
RM2-5690-000CN	Cassette (Tray 2) assembly

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

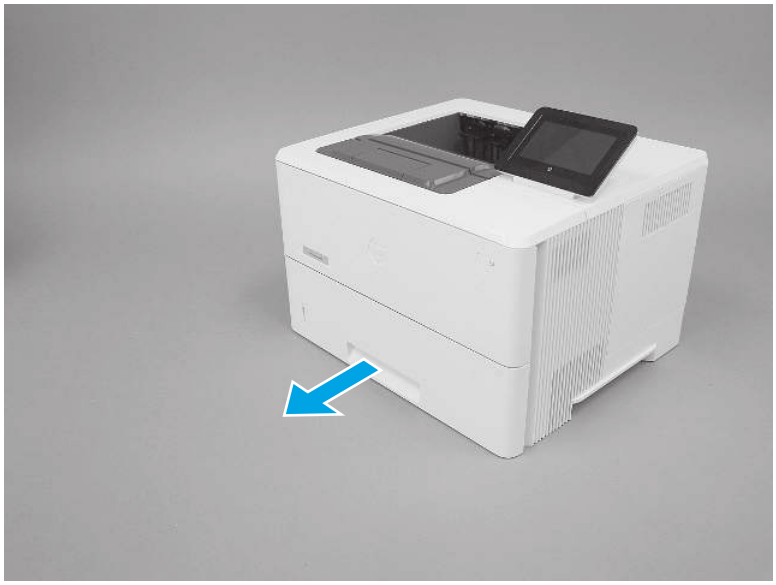
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print a page from Tray 2 to make sure that the paper feeder is functioning correctly.

1. Remove the tray.
   a. Pull the tray straight out of the printer until it stops.

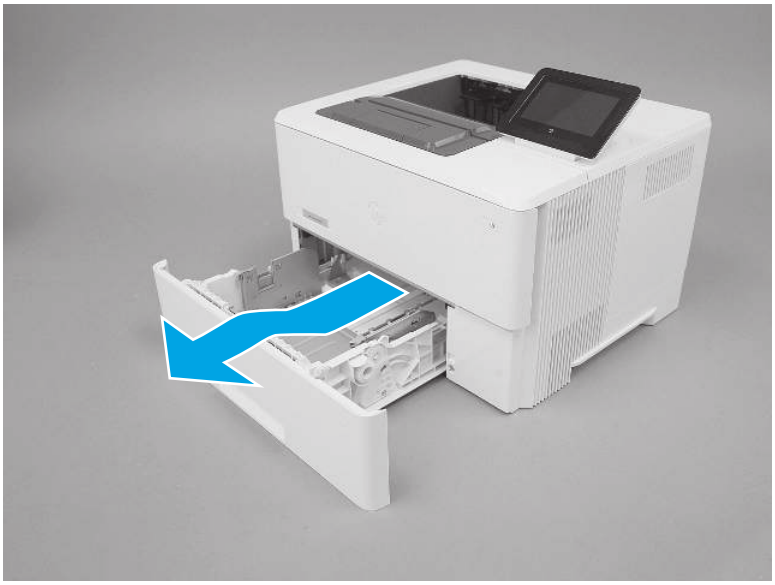
      Figure 4-1391 Pull the tray out until it stops

   b. Lift the front of the tray, and then pull it out of the printer to remove it.

   NOTE: If the tray has Fixed Tray Guides installed and are still required, move the hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1392 Release and remove the tray



2. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Removal and replacement: Tray 3

Learn how to remove and replace Tray 3.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace Tray 3.

Mean time to repair: 5 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-47 Part information

Part number	Part description
RM2-5758-000CN	Cassette (Tray 3) assembly

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

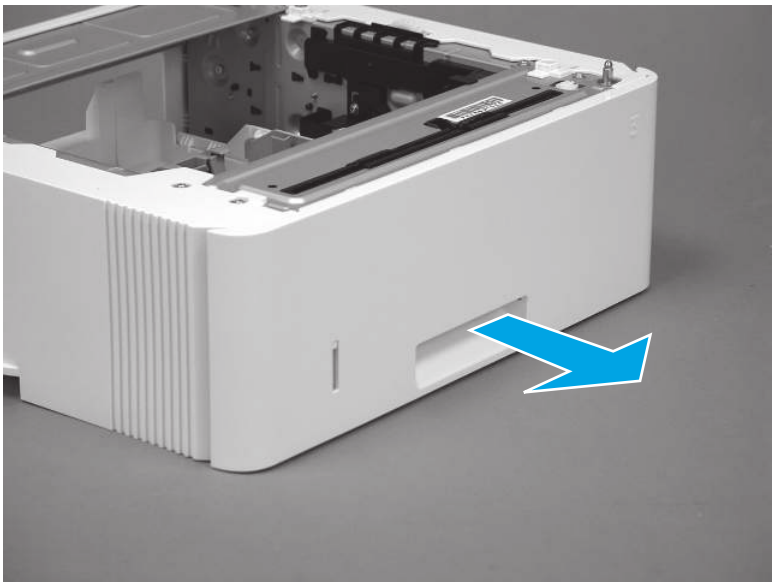
Post service test

Print a page from Tray 3 to make sure that the paper feeder is functioning correctly.

1. Remove the tray.

a. Pull the tray straight out of the printer until it stops.

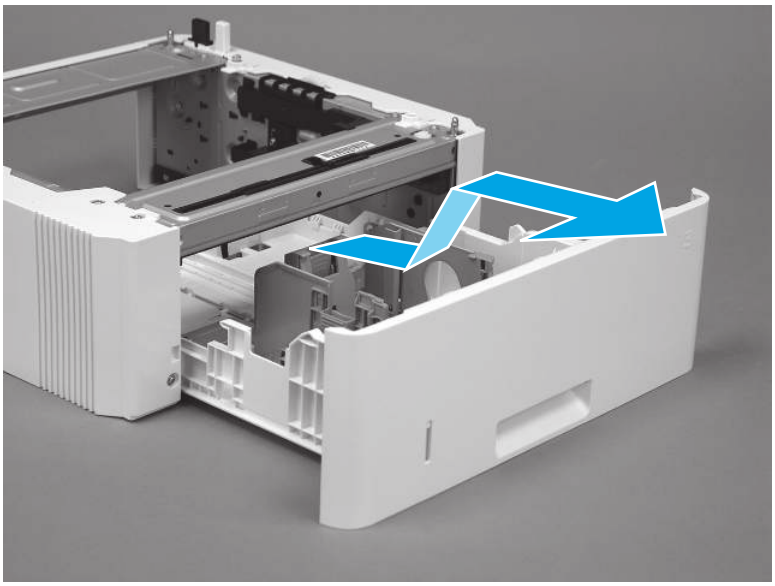
Figure 4-1393 **Pull the tray out of the printer**



b. Slightly lift up on the front of the tray to release it, and then continue to pull the tray out of the accessory to remove it.

NOTE: If the tray has Fixed Tray Guides installed and are still required, move hardware to new tray. If necessary, order new kit: 3GY19-67901 Kit-Fixed Tray Guide. Only one kit required per engine.

Figure 4-1394 **Release and remove the tray**



2. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

Remove and replacement: Accessories

Learn how to remove and replace the accessories.

Removal and replacement: 550-sheet paper feeder

Learn how to remove and replace the optional 550-sheet paper feeder.

To view a short video of this procedure, click the link below.

NOTE: The printer accepts up to three optional paper trays.

View a video of how to remove and replace the 550-sheet feeder.

Mean time to repair: 8 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-48 Part information

Part number	Part description
F2A72-67901	Optional 550-sheet paper feeder with instruction guide

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

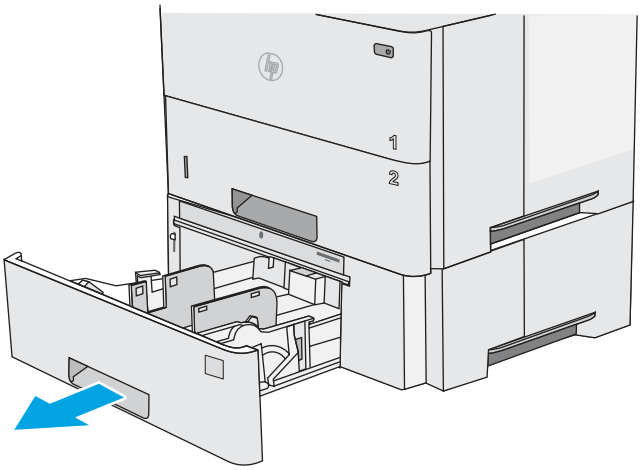
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Print a page from the optional tray (or trays) to make sure that the paper feeder is functioning correctly.

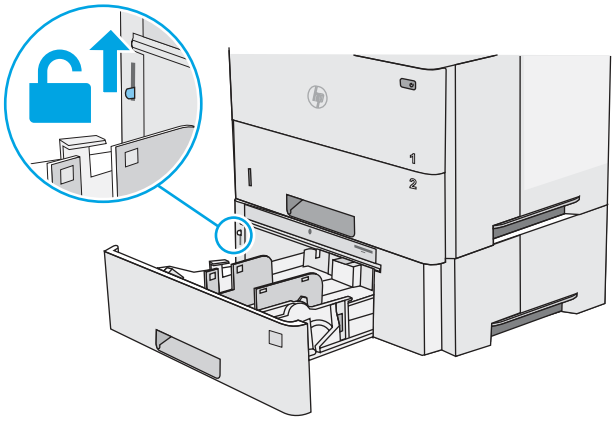
1. Remove the optional 550-sheet paper feeder.
   a. Slide the tray out of the printer.

Figure 4-1395 Open the tray



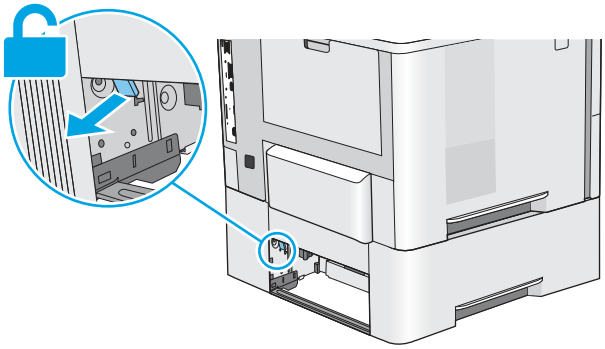
b. Pull up on the blue lever to unlock it.

Figure 4-1396 Unlock the front accessory lock



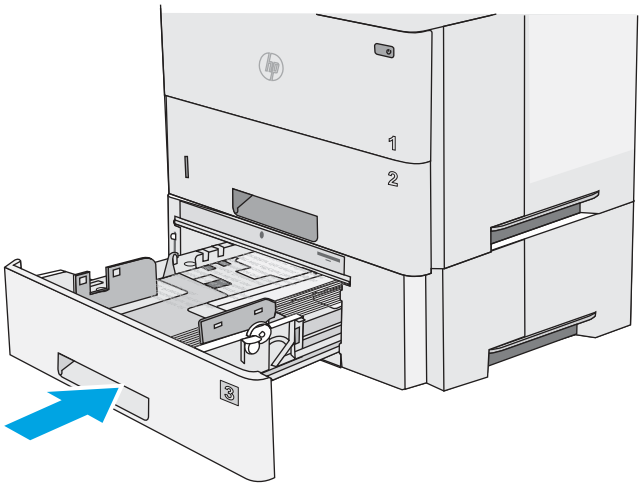
c. At the rear of the printer, pull out on the blue lever to unlock it.

Figure 4-1397 Unlock the rear accessory lock



d. Close the tray.

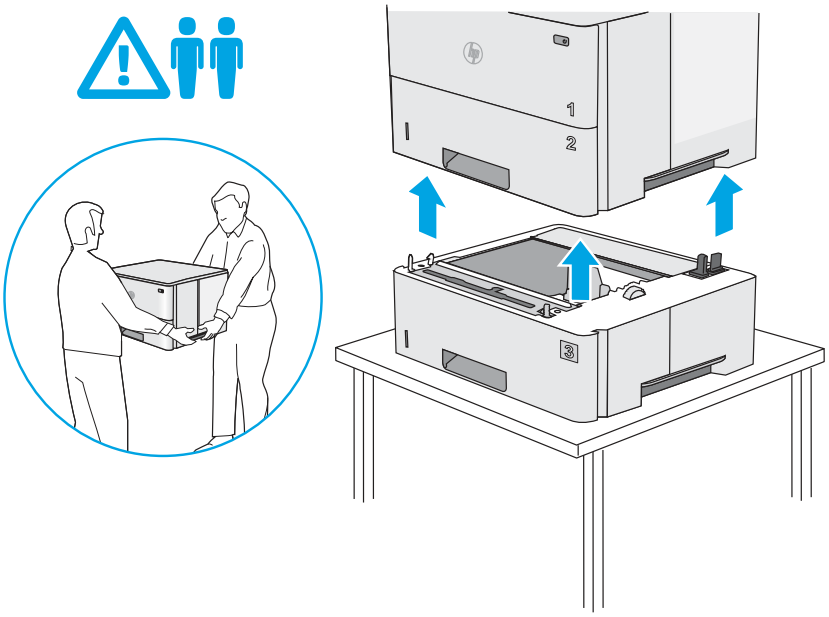
Figure 4-1398 Close the tray



e. Lift the printer off of the accessory.

⚠ CAUTION: The printer is heavy. HP recommends two people lift the printer.

Figure 4-1399 Lift the printer off of the accessory



2. Unpack the replacement assembly.

   a. Dispose of the defective part.

   NOTE: HP recommends responsible disposal of the defective part.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   b. Unpack the replacement part from the packaging.

   CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

   If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

   IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

   c. To install an assembly, reverse the removal steps.

   NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

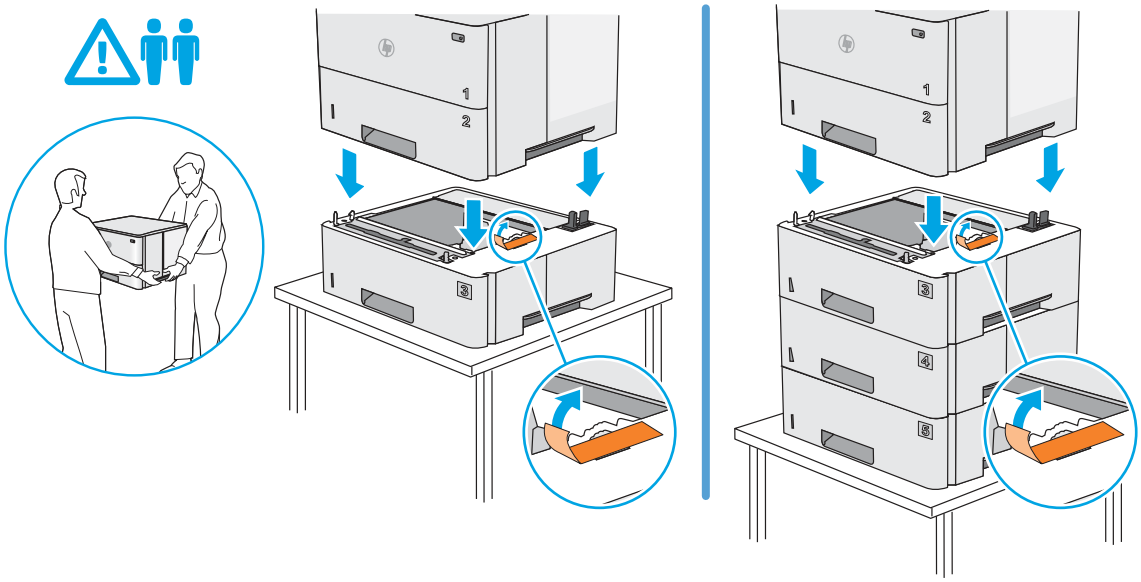
3. Install the optional 550-sheet paper feeder.

   a. Remove the orange shipping tape, and then place the printer on the replacement accessory.

   CAUTION: The printer is heavy. HP recommends two people lift the printer.

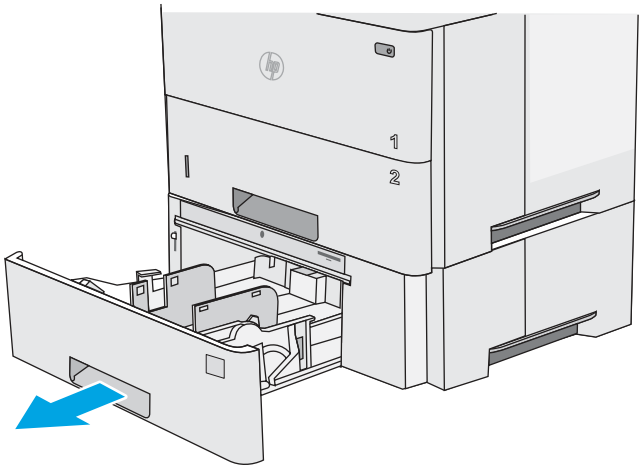
NOTE: The printer accepts up to three optional paper trays.

Figure 4-1400 Remove shipping tape



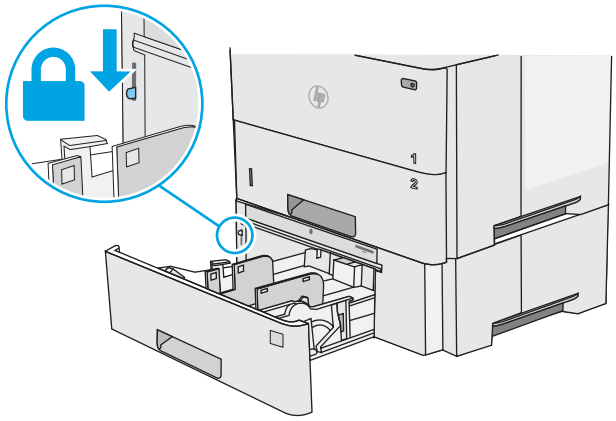
b. Slide the tray out of the printer.

Figure 4-1401 Open the tray



c. Push down on the blue lever to lock it.

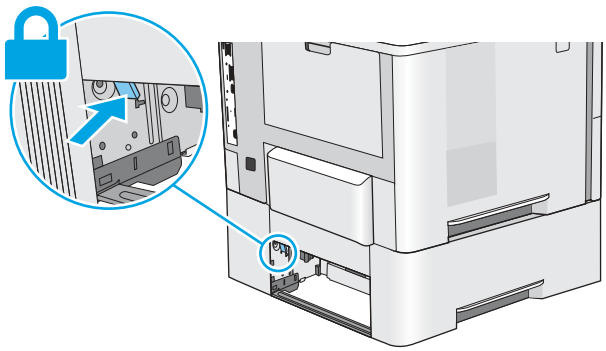
Figure 4-1402 Lock the front accessory lock



d. At the rear of the printer, push in on the blue lever to lock it.

NOTE: Repeat these steps to make sure all of the installed trays are locked together and to the printer base.

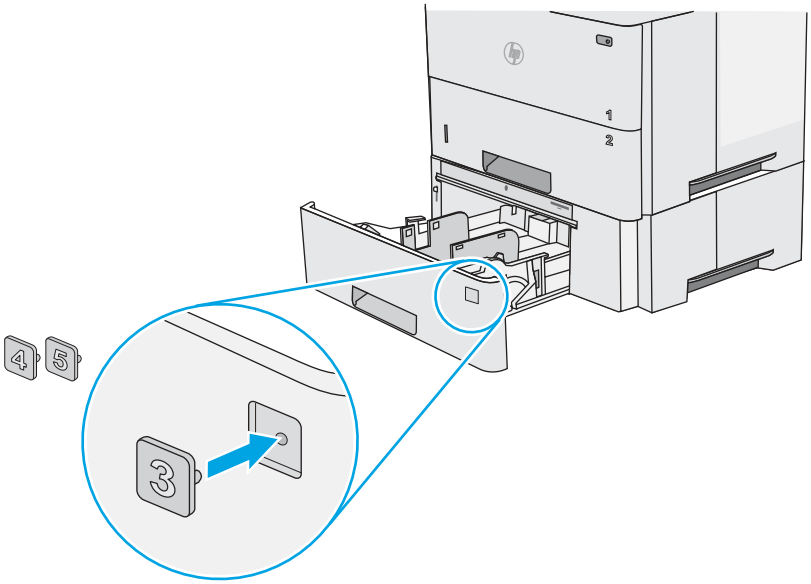
Figure 4-1403 Lock the rear accessory lock



e. Position the appropriate tray number plate in the depression in the tray, and then push in to install it.

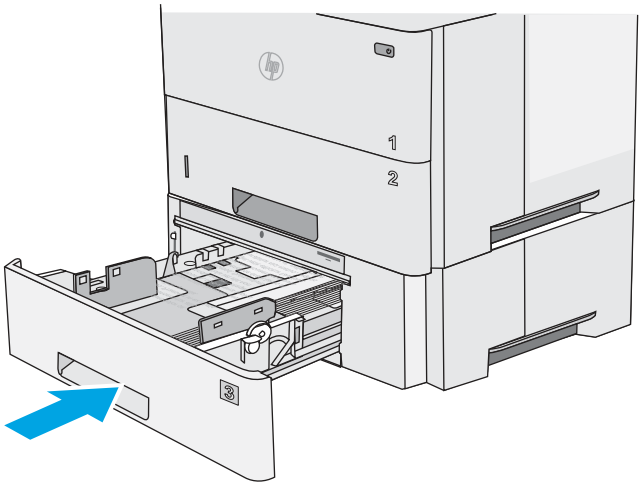
TIP: Number plates are included with the accessory.

Figure 4-1404 Install the tray number plate



f. Close the tray.

Figure 4-1405 Close the tray



Removal and replacement: Document feeder rollers (MFP)

Learn how to remove and replace the document feeder pickup and feed roller assembly and the separation roller assembly.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the document feeder pickup and feed roller assembly and the separation roller assembly.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

IMPORTANT: When replacement rollers are installed, reset the **New Document Feeder Kit** firmware counter.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-49 Part information

Part number	Part description
B5L52-67903	Document feeder maintenance kit accessory with instruction guide

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Use the document feeder to copy a page to make sure that it is functioning correctly.

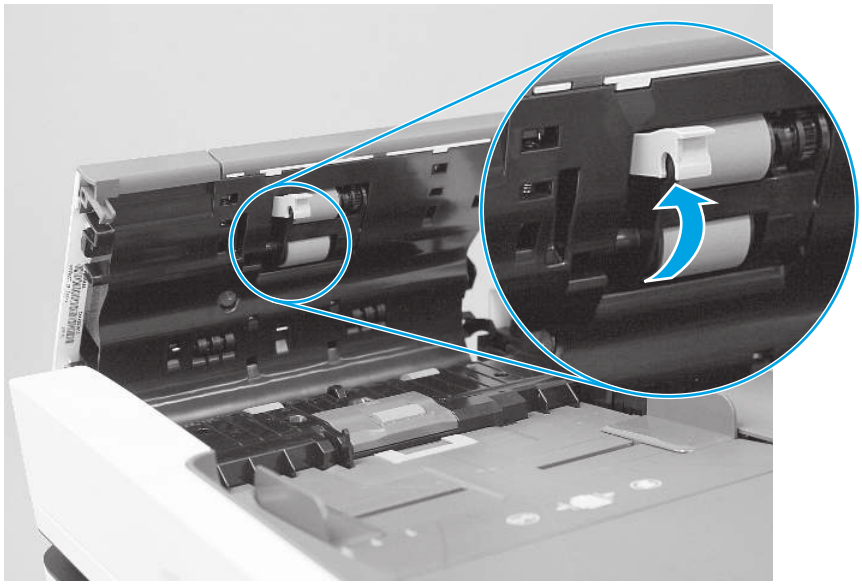
1. Remove the document feeder pickup and feed roller assembly.

a. Open the document feeder jam access door.

Figure 4-1406 Open the door

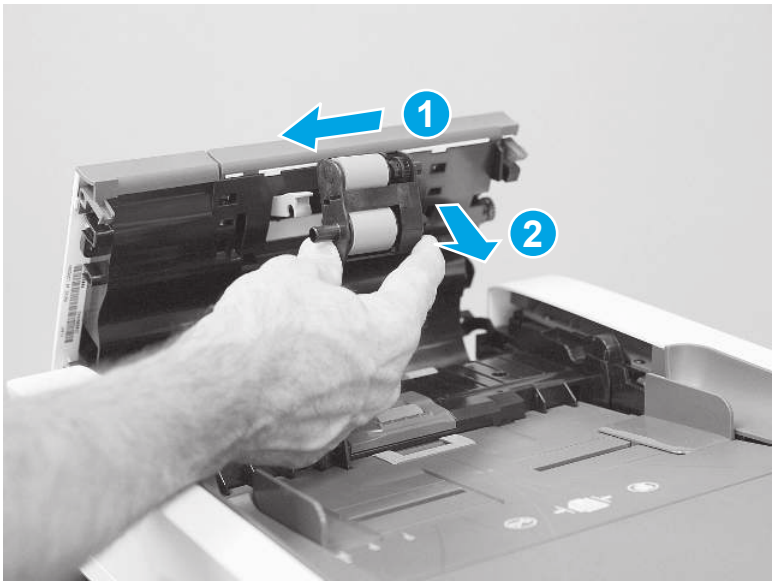
b. Raise the blue lever to release the document feeder pickup and feed roller assembly.

Figure 4-1407 Raise the blue lever



c. Slide the roller assembly toward the front of the printer (callout 1), and then away from the document feeder (callout 2) to remove it.

Figure 4-1408 Remove the roller assembly



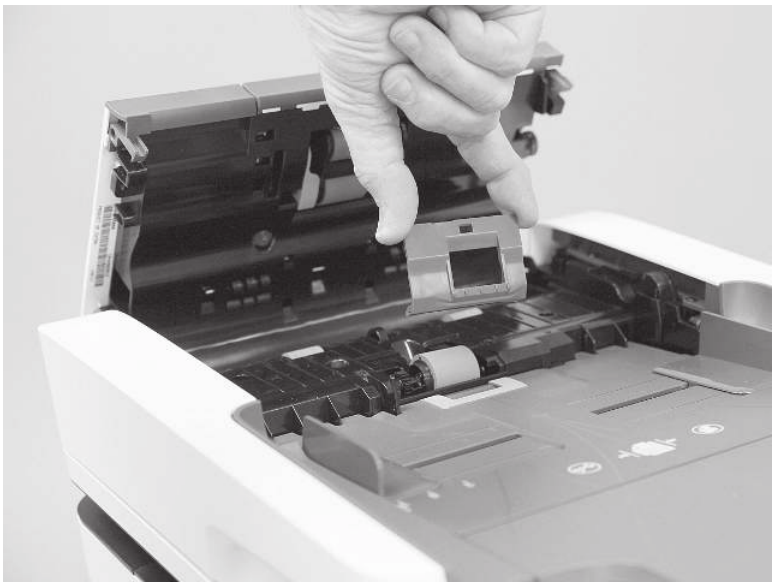
2. Remove the document feeder separation roller assembly.

a. Open the document feeder separation roller assembly cover.

Figure 4-1409 Open the cover

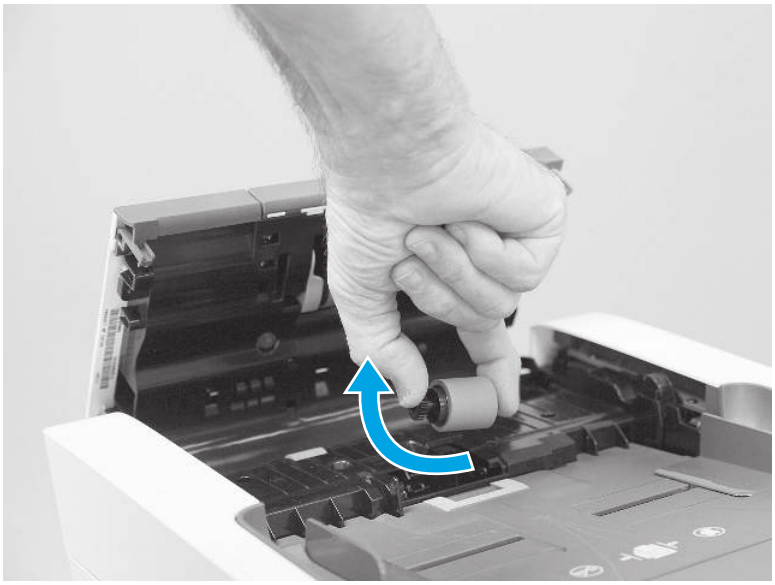
b. Remove the cover.

Figure 4-1410 Remove the cover



c. Slide the roller assembly toward the front of the printer, and then rotate it up and away from the document feeder to remove it.

Figure 4-1411 Remove the roller assembly



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

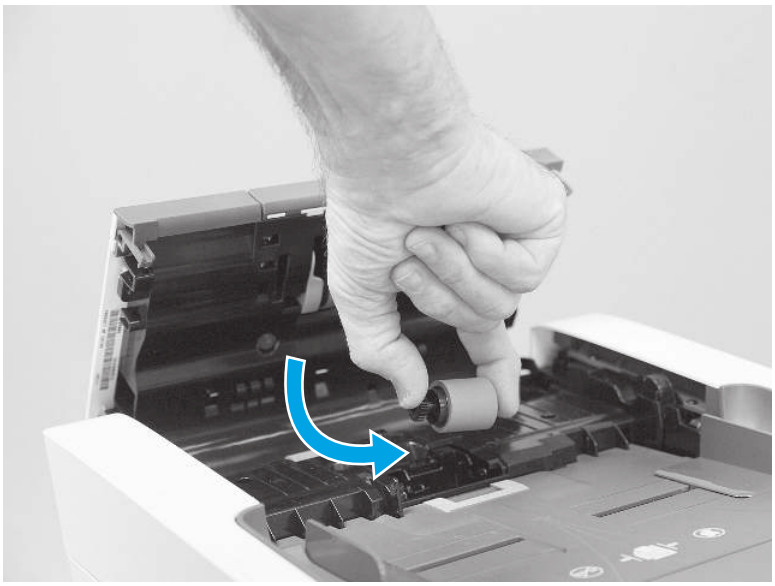
4. Install the document feeder separation roller assembly.

CAUTION: Do not touch the spongy portion of the replacement roller. Skin oils on the roller can cause paper handling problems. HP recommends washing your hands before handling the assembly.

a. Place the solid-shaft end of the assembly (the gear end will face the front of the printer) in the slot provided in the roller holder, and then rotate the gear end down and into the document feeder.

NOTE: The roller might seem loose until the cover is installed and snapped closed. The cover helps hold the roller in place.

Figure 4-1412 **Install the roller assembly**

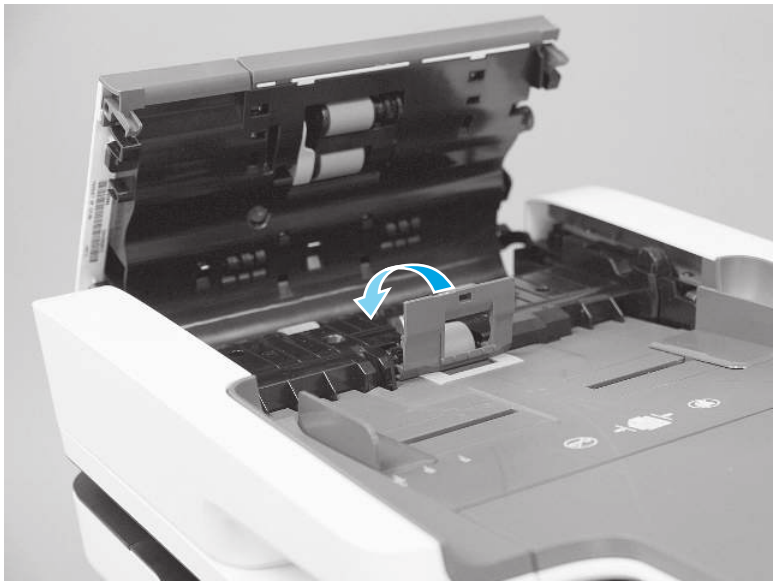


b. Position the roller cover on the document feeder.

Figure 4-1413 Install the roller cover

c. Close the roller cover.

Figure 4-1414 Close the roller cover



d. Push down to snap the cover into place.

NOTE: When the cover is correctly installed, an audible click is heard when it snaps into place.

Figure 4-1415 Push down on the roller cover

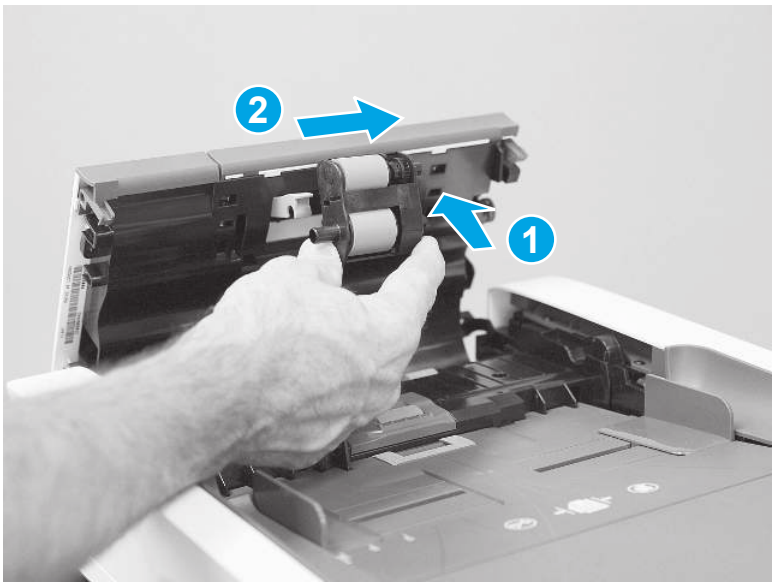
5. Install the document feeder pickup and feed roller assembly.

⚠ CAUTION: Do not touch the spongy portion of the replacement roller. Skin oils on the roller can cause paper handling problems. HP recommends washing your hands before handling the assembly.

a. Position the roller assembly in the holder (callout 1) with the drive shaft end of the assembly facing toward the rear of the printer.

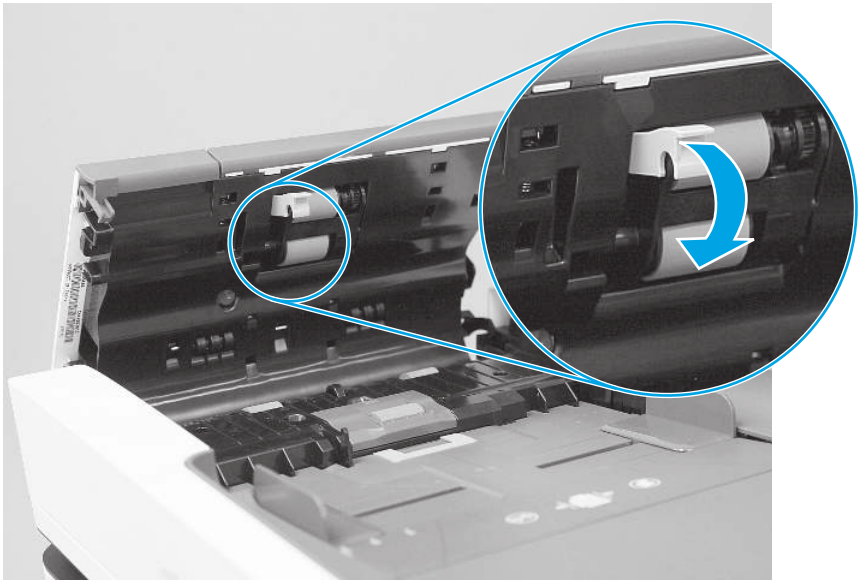
   Slide the assembly toward the rear of the printer to engage the two keyed drive shafts with the two drive bushings (callout 2).

Figure 4-1416 Install the roller assembly



b. Lower the blue lever until it snaps over the roller assembly solid shaft.

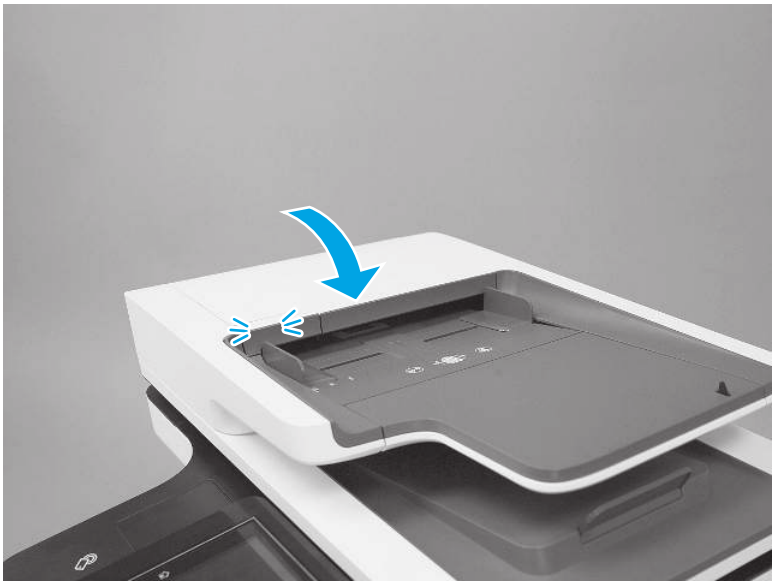
Figure 4-1417 **Close the blue lever**



c. Close the document feeder jam access door.

NOTE: When the door is completely closed, an audible click is heard when it latches closed.

Figure 4-1418 **Close the door**



6. Reverse the removal steps to install the assembly. Also use the following **special installation instructions**.

NOTE: Resetting the firmware counter is firmware dependent. Do one of the following.

Reset the firmware counter (FS3)

a. From the Home screen on the control panel, scroll to and touch the Administration button.

Figure 4-1419 Home screen (FS3)

b. Open the following menus:

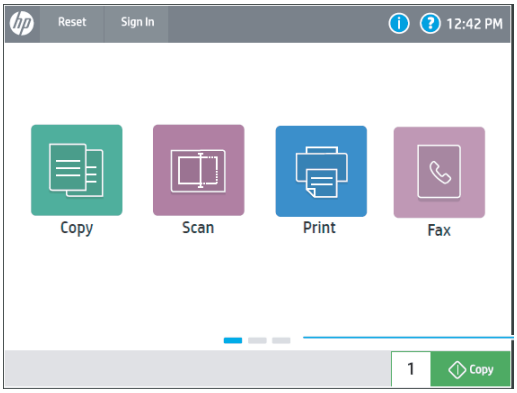
- Manage Supplies
- Reset Supplies
- New Document Feeder Kit

c. Select the Reset item to reset the firmware counter.

Reset the firmware counter (FS4)

a. At the printer control panel, do the following.

Figure 4-1420 Home screen (FS4)



b. Scroll to, and then select the Settings button.

c. Open the following menus:

- Manage Supplies
- Reset Supplies

d. Select the Document Feeder Kit item, and then select the Reset button to reset the firmware counter.

Removal and replacement: Fax printed-circuit board (M527c/f/z, E52545c/f/z, M528c/f/z, and E52645c/f/z)

Learn how to remove and replace the fax printed-circuit board.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the FAX PCA.

Mean time to repair: 10 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-50 Part information

Part number	Part description
B5L53-67901	Fax printed-circuit board with instruction guide

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

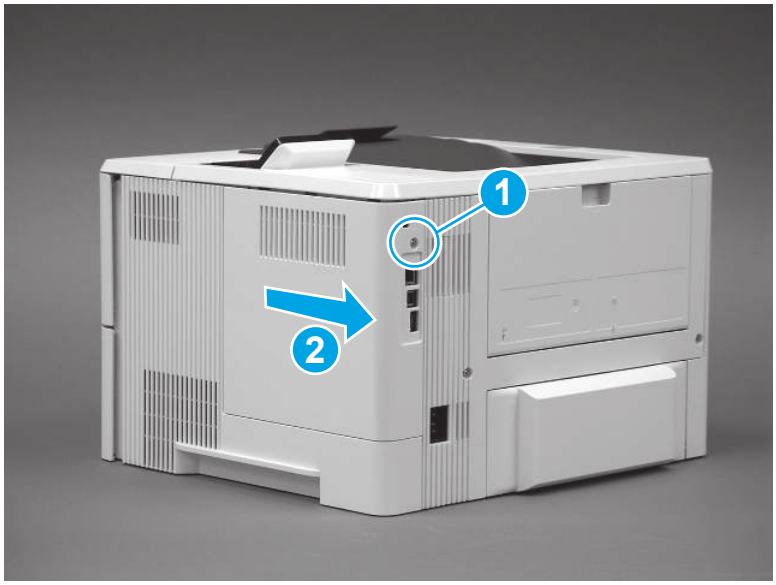
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Send/receive a fax using the printer.

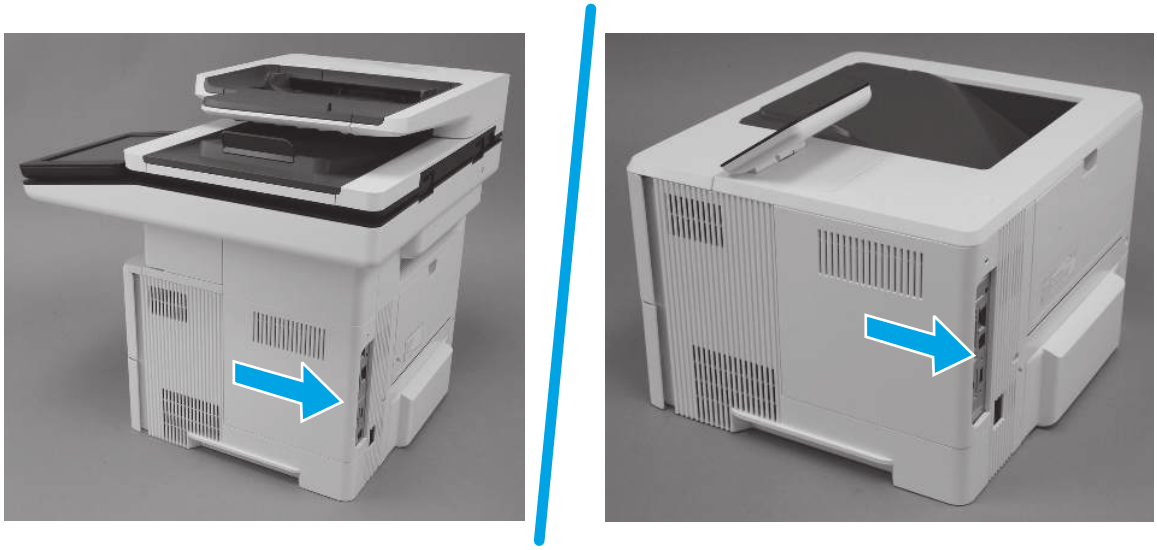
1. Remove the formatter cover.
   - Do one of the following:
     - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1421 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-1422 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

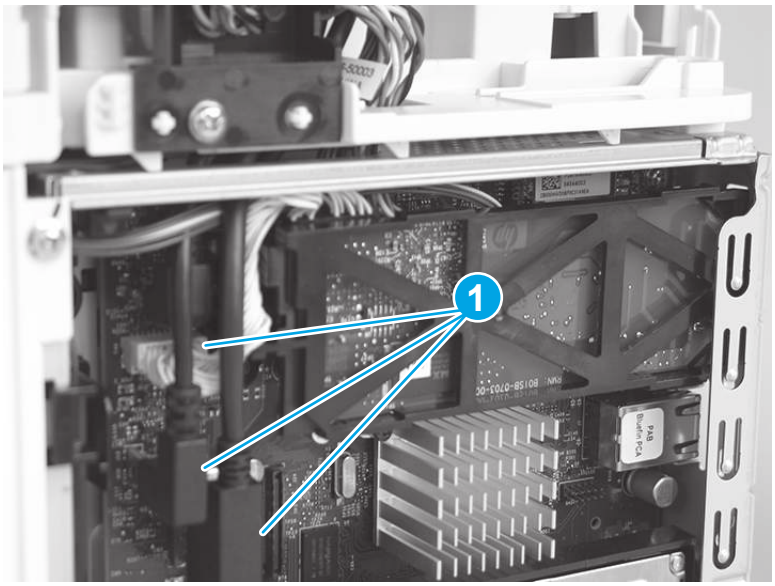


2. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

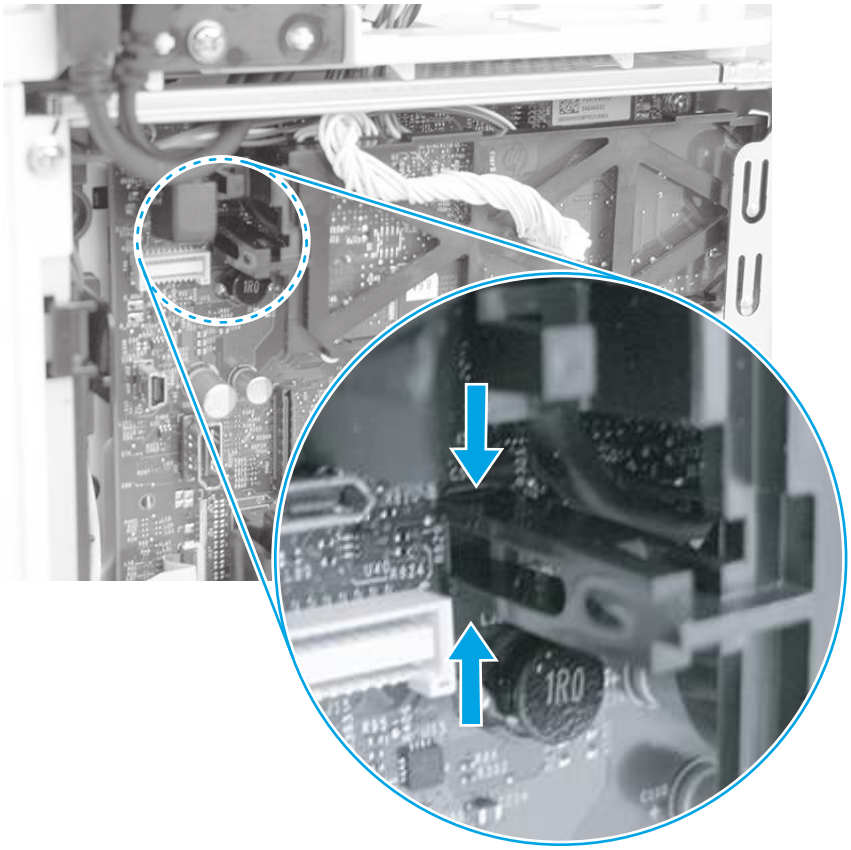
a. Disconnect three connectors (callout 1).

Figure 4-1423 Disconnect three connectors



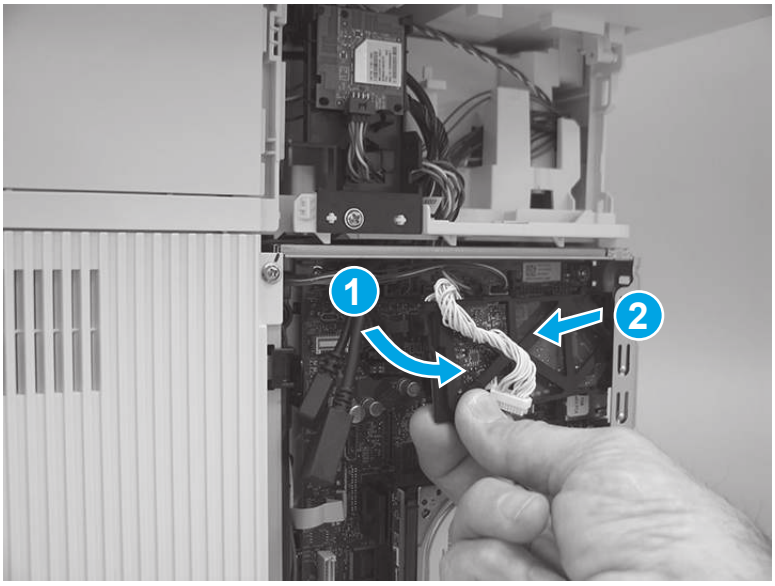
b. Pinch the retainer to release it.

Figure 4-1424 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1425 Remove the fax PCA



3. Unpack the replacement assembly.

a. Dispose of the defective part.

NOTE: HP recommends responsible disposal of the defective part.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

b. Unpack the replacement part from the packaging.

CAUTION: Some parts are sensitive to electrostatic discharge (ESD). Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, touch the sheet-metal chassis to provide a static ground before touching an ESD-sensitive assembly. Protect the ESD-sensitive assemblies by placing them in ESD pouches when they are out of the printer.

If the replacement part is a roller or pad, avoid touching the spongy part of it. Skin oils on the roller or pad can cause paper pickup and/or print-quality problems. HP recommends using disposable gloves when handling rollers or pads or washing your hands before touching rollers or pads.

IMPORTANT: Make sure that all of the shipping materials (for example shipping tape) are removed from the replacement part prior to installation.

c. To install an assembly, reverse the removal steps.

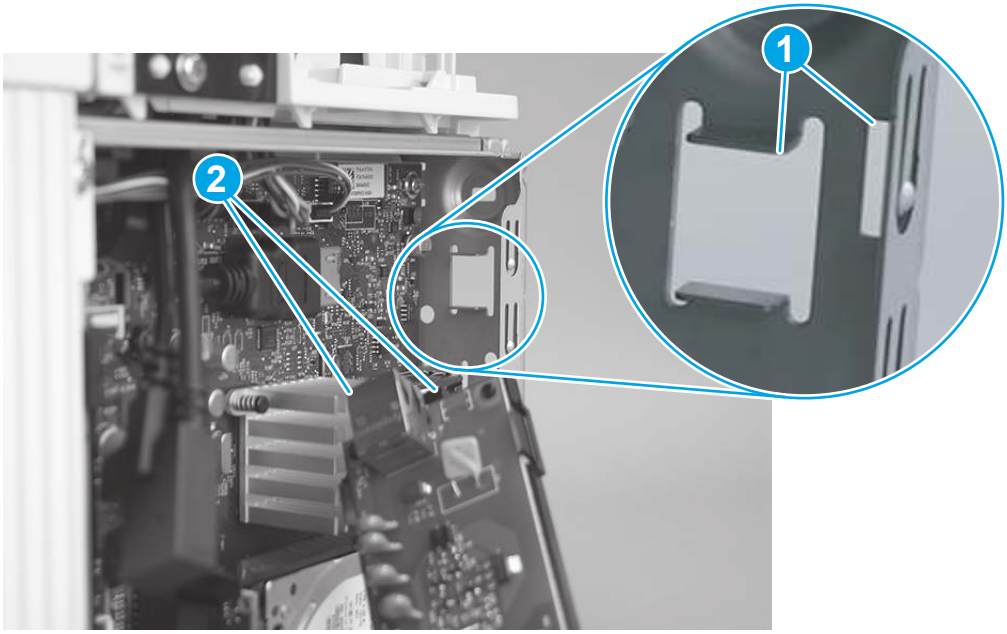
NOTE: When applicable, special installation instructions are provided for an assembly at the end of the removal procedure. Always completely read the removal instructions and follow all special installation instructions.

4. Install the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ **CAUTION:** ESD-sensitive part.

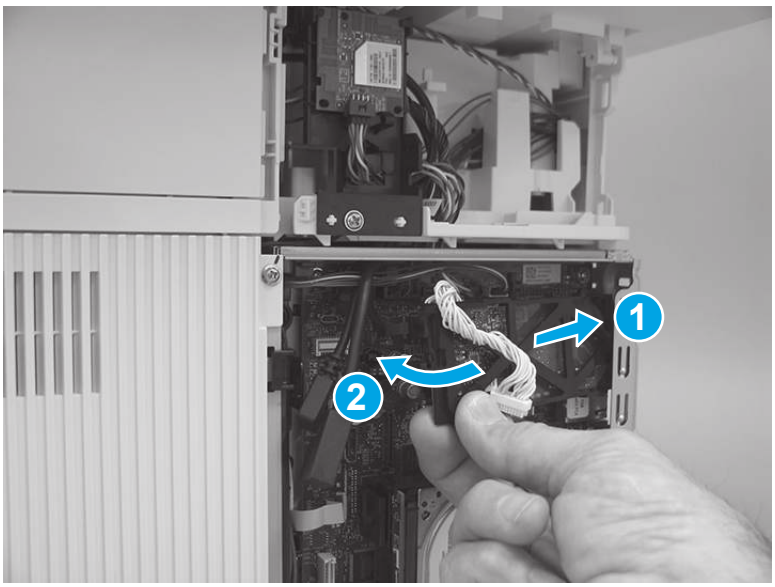
a. Before proceeding, take note of the location of the slots (callout 1) in the sheet-metal where the fax PCA cradle mounting tab and fax port (callout 2) must be installed.

Figure 4-1426 Locate the slots in the sheet-metal



b. Insert the fax PCA cradle mounting tab and fax port in the slots in the sheet-metal plate (callout 1), and then rotate the connector end of the fax PCA toward the formatter (callout 2).

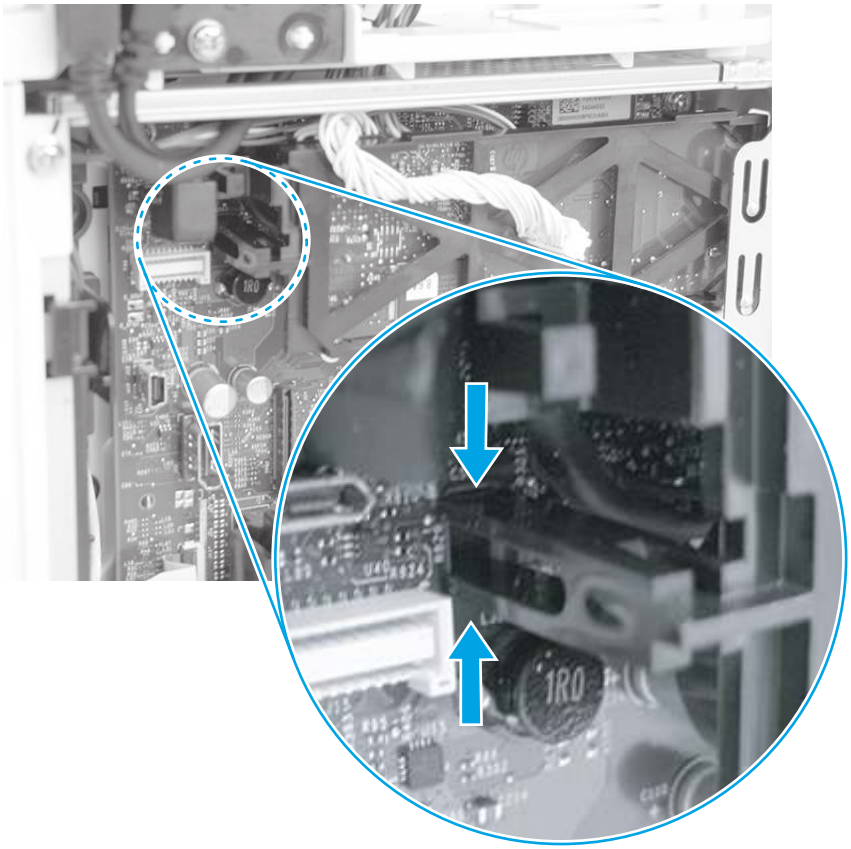
Figure 4-1427 Install the fax PCA



c. Engage the retainer with the slot in the formatter.

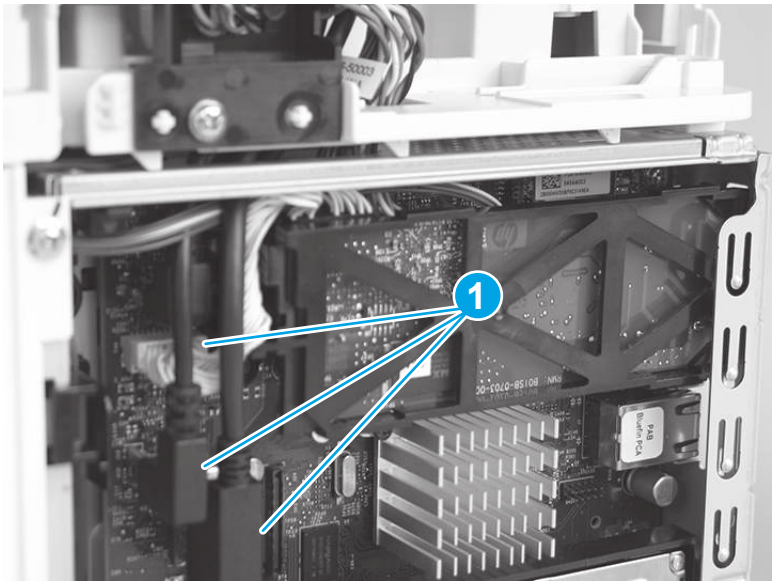
Reinstallation tip: Pinch the retainer to easily engage it with the slot.

Figure 4-1428 **Engage the fax PCA**



d. Connect three connectors (callout 1).

Figure 4-1429 **Connect three connectors**

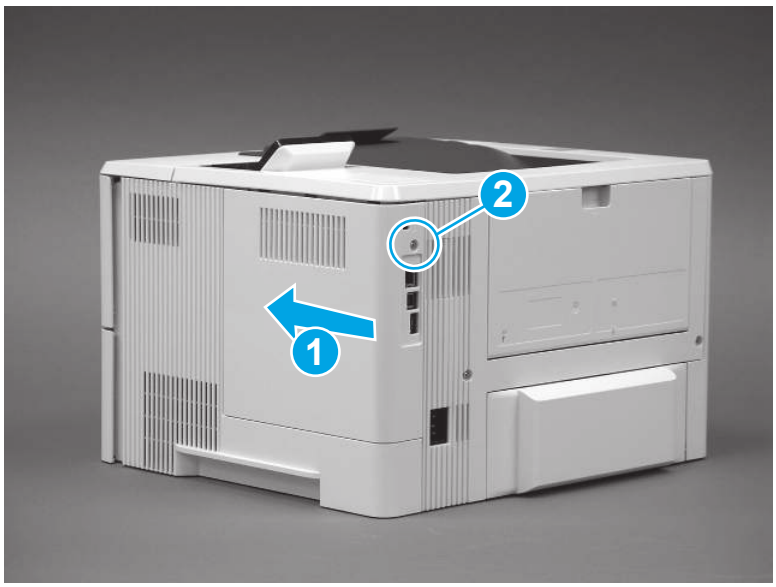


5. Install the formatter cover.

- Do one of the following:

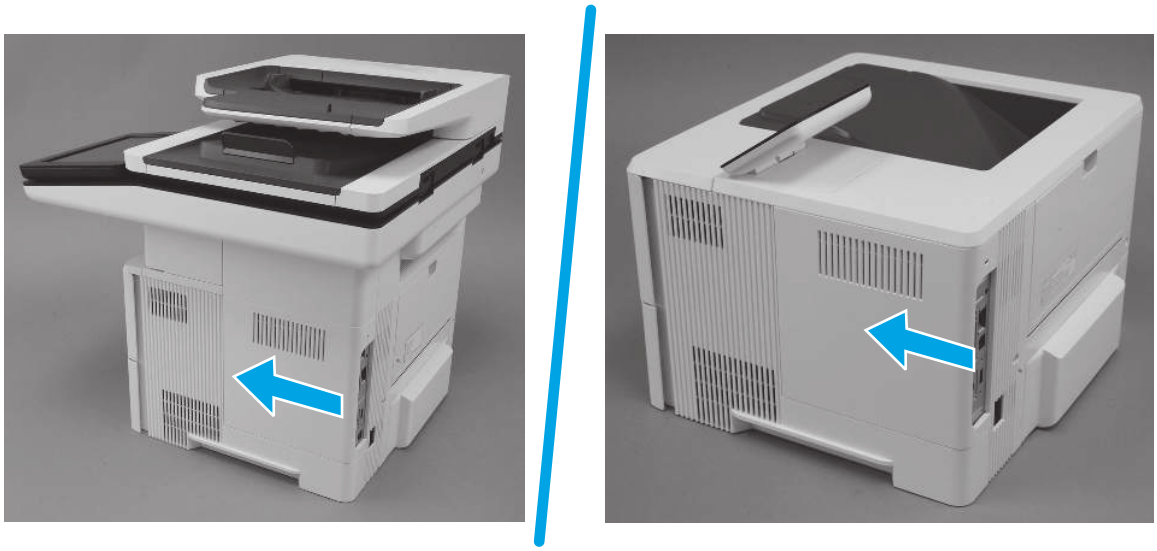
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-1430 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-1431 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



Install accessory: Internal USB ports (MFP)

Learn how to remove and replace the internal USB ports.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the internal USB ports.

Mean time to repair: 7 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-51 Part information

Part number	Part description
F2A87A	Internal USB ports (M527/E52545)
1PV95A	Internal USB ports (M528/E52645)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

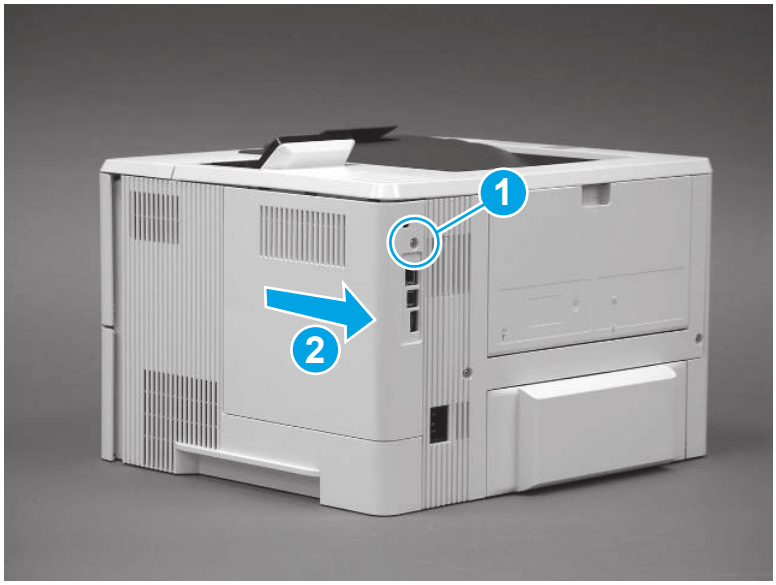
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

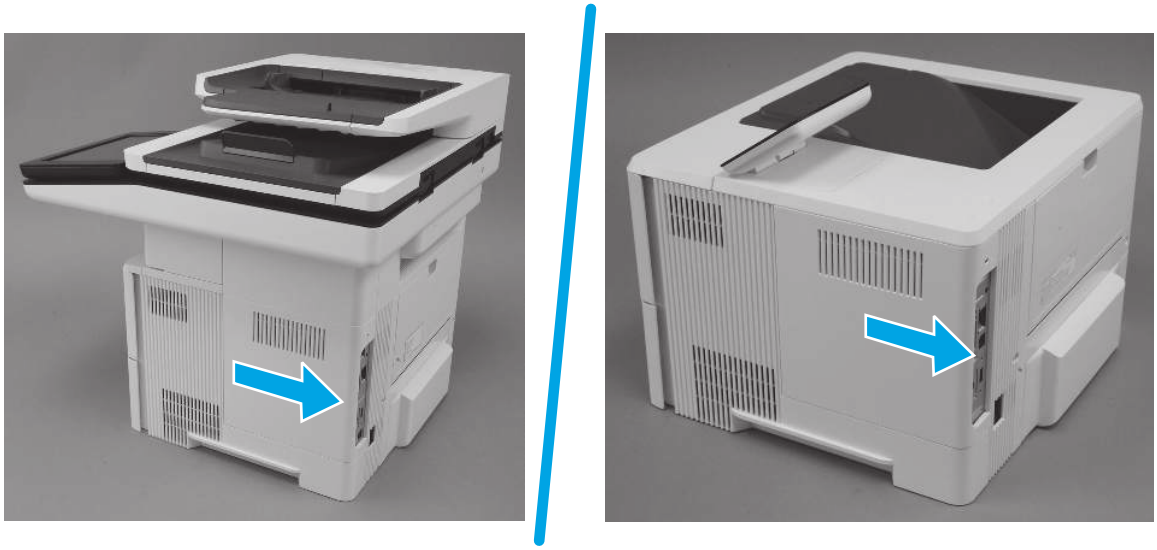
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1432 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-1433 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

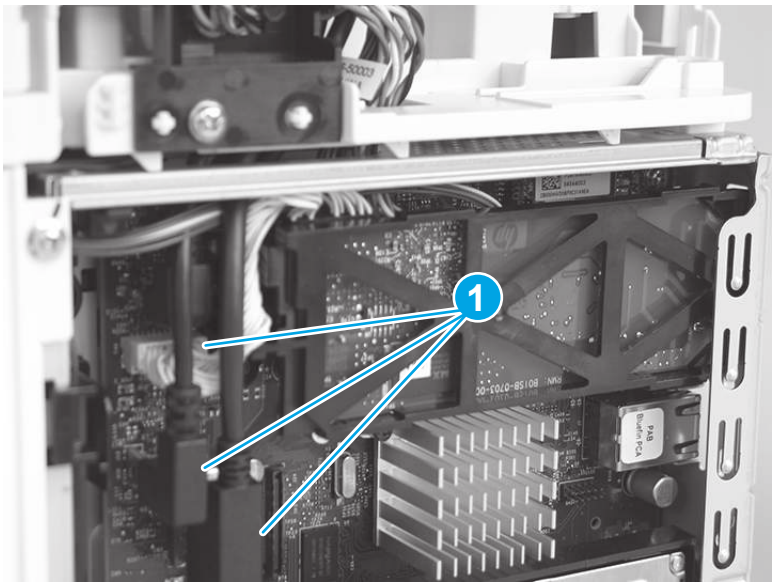


2. Remove the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ CAUTION: ESD-sensitive part.

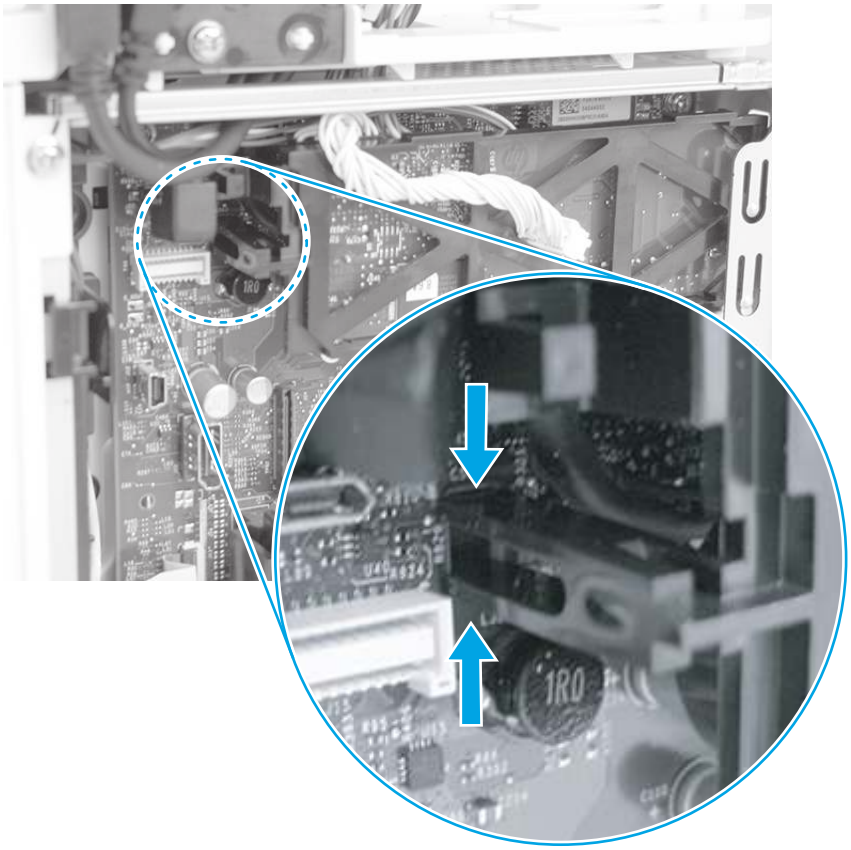
a. Disconnect three connectors (callout 1).

Figure 4-1434 Disconnect three connectors



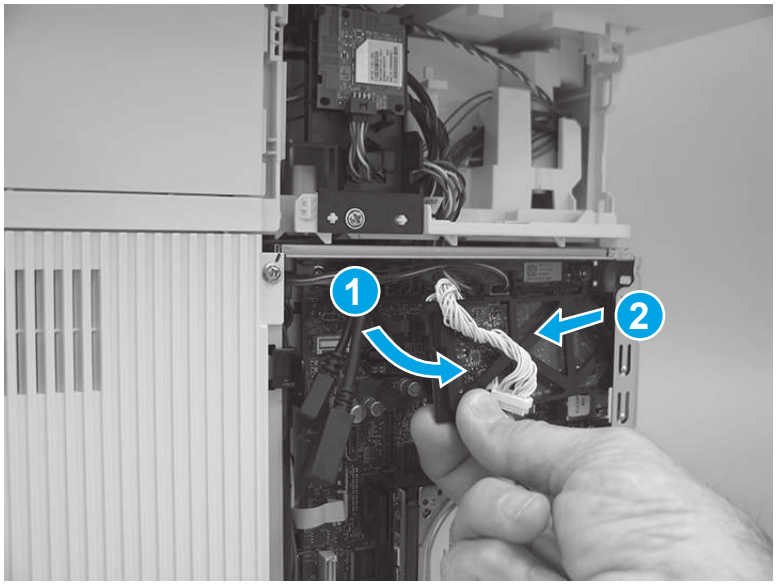
b. Pinch the retainer to release it.

Figure 4-1435 Release the fax PCA



c. Rotate the connector end of the fax PCA out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1436 Remove the fax PCA



3. Unpack the accessory

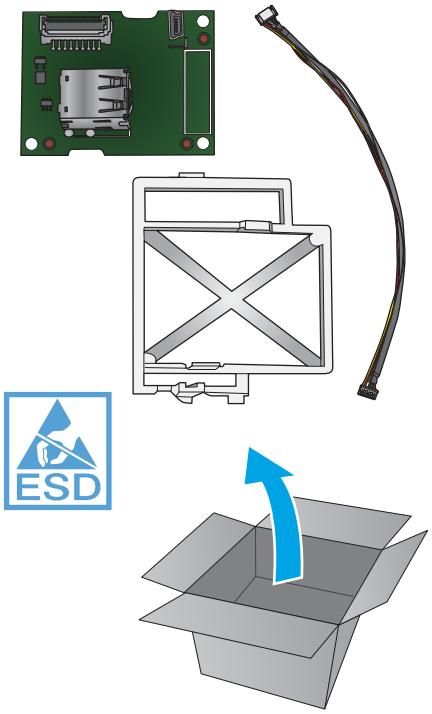
a. Dispose of the old part.

NOTE: HP recommends responsible disposal of the defective part.

b. Unpack the replacement part from the packaging.

http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

Figure 4-1437 Recycle and unpack

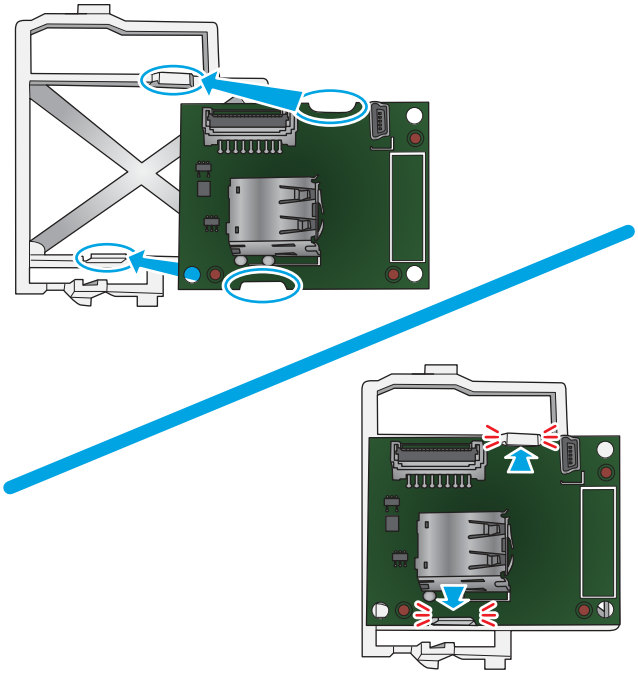


4. Install the internal USB ports module.

CAUTION: ESD-sensitive part.

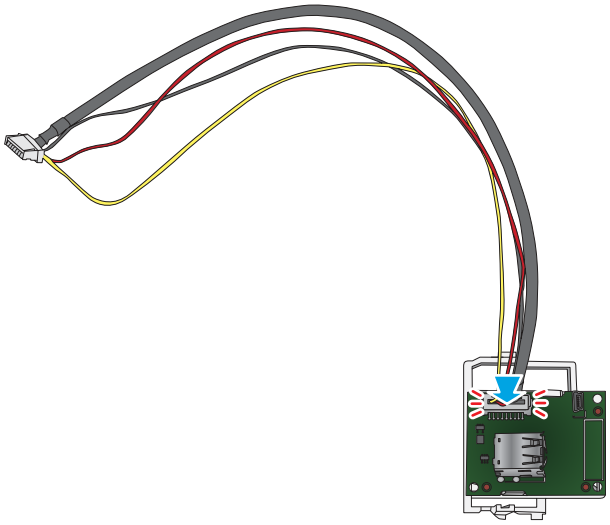
a. Position the notches on the internal USB ports PCA over the clips on the PCA holder and press down to attach the PCA to the holder. Make sure that the clips snap into place.

Figure 4-1438 Install the PCA in the holder



b. Connect the wire harness to the PCA.

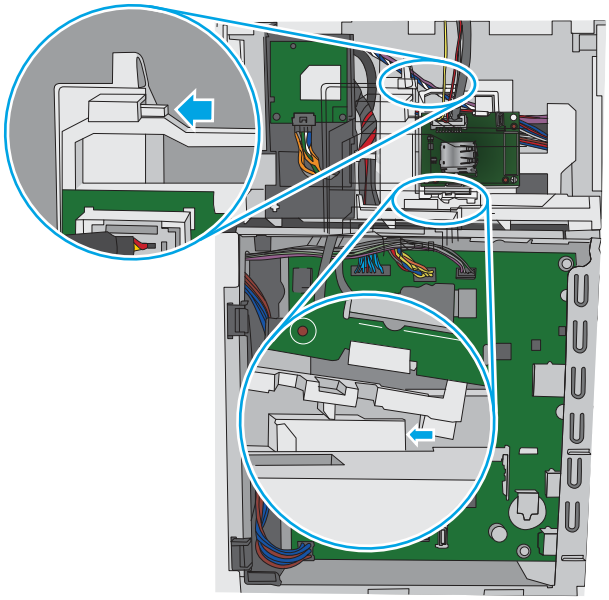
Figure 4-1439 **Connect one cable**



c. Position the PCA and bracket in the printer with the top tab aligned with the top slot (callout 1), and bottom edge of the bracket aligned with the bottom slot (callout 2).

NOTE: When correctly installed, the PCA and bracket are firmly held in place.

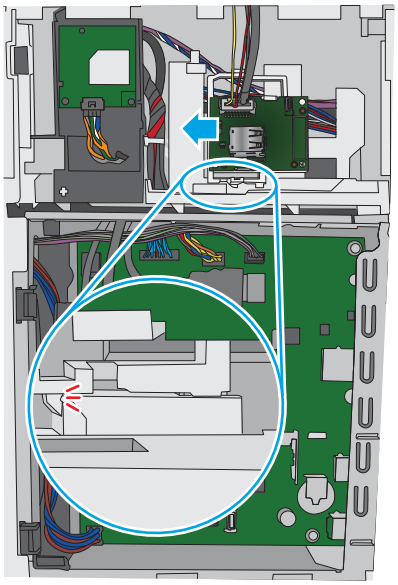
Figure 4-1440 **Position the internal USB ports module**



d. Slide the PCA and bracket to the left until the tab on the bottom edge snaps into place.

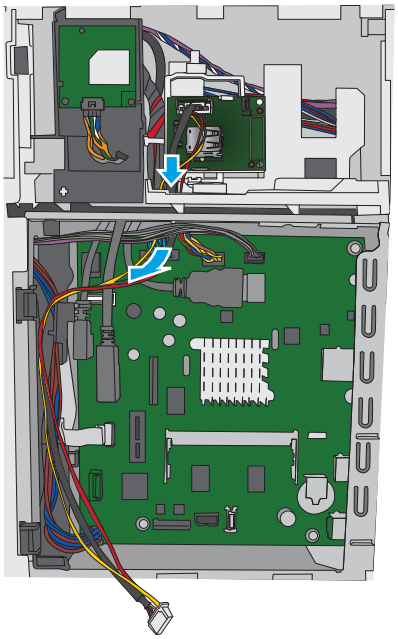
NOTE: When correctly installed, the PCA and bracket are firmly held in place.

Figure 4-1441 Install the internal USB ports module



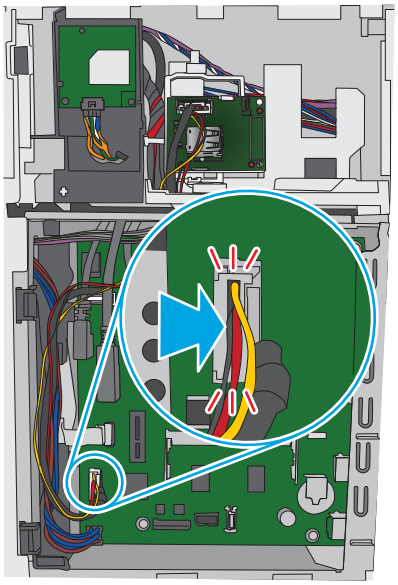
e. Pass the wire harness through the provided opening in the chassis.

Figure 4-1442 Install the wire harness



f. Connect one connector on the formatter.

Figure 4-1443 **Connect one connector**

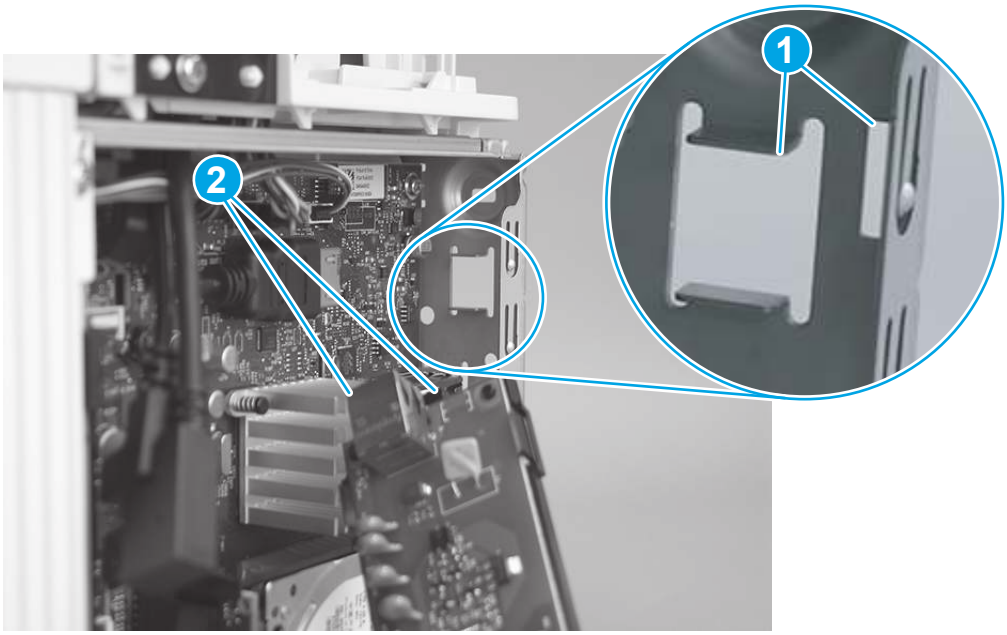


5. Install the fax PCA (M527/E52545/M528/E52645 fax models).

⚠ **CAUTION:** ESD-sensitive part.

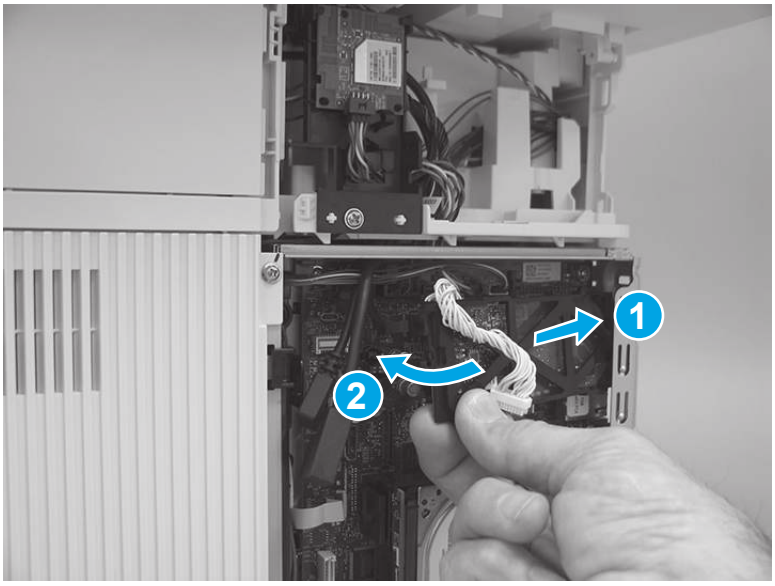
a. Before proceeding, take note of the location of the slots (callout 1) in the sheet-metal where the fax PCA cradle mounting tab and fax port (callout 2) must be installed.

Figure 4-1444 **Locate the slots in the sheet-metal**



b. Insert the fax PCA cradle mounting tab and fax port in the slots in the sheet-metal plate (callout 1), and then rotate the connector end of the fax PCA toward the formatter (callout 2).

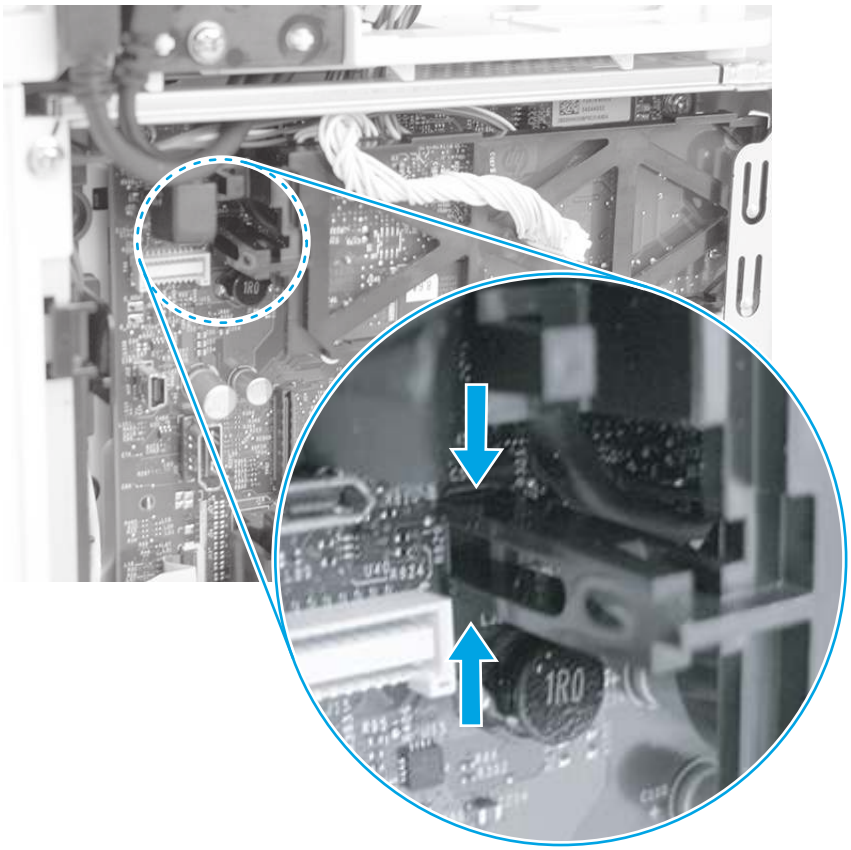
Figure 4-1445 Install the fax PCA



c. Engage the retainer with the slot in the formatter.

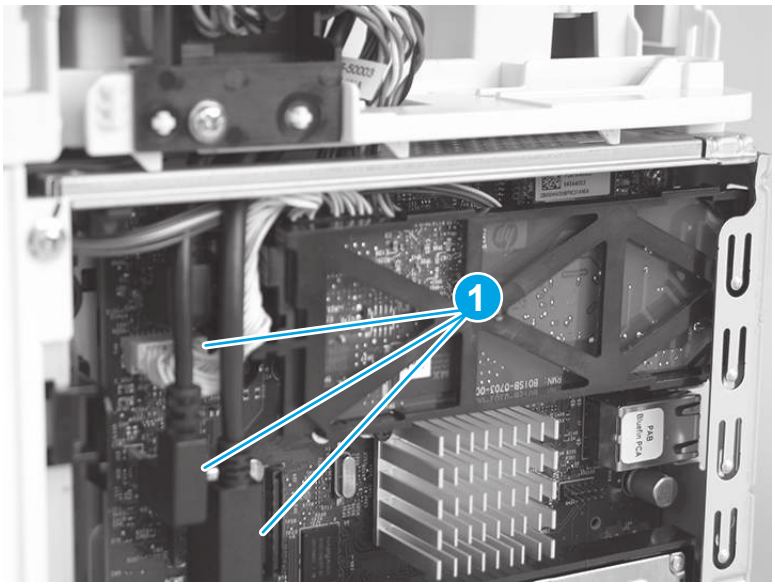
Reinstallation tip: Pinch the retainer to easily engage it with the slot.

Figure 4-1446 Engage the fax PCA



d. Connect three connectors (callout 1).

Figure 4-1447 Connect three connectors

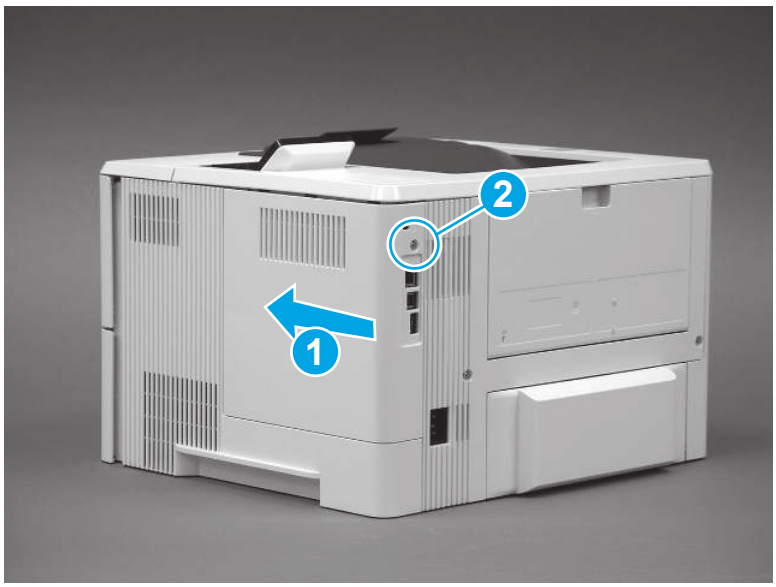


6. Install the formatter cover.

- Do one of the following:

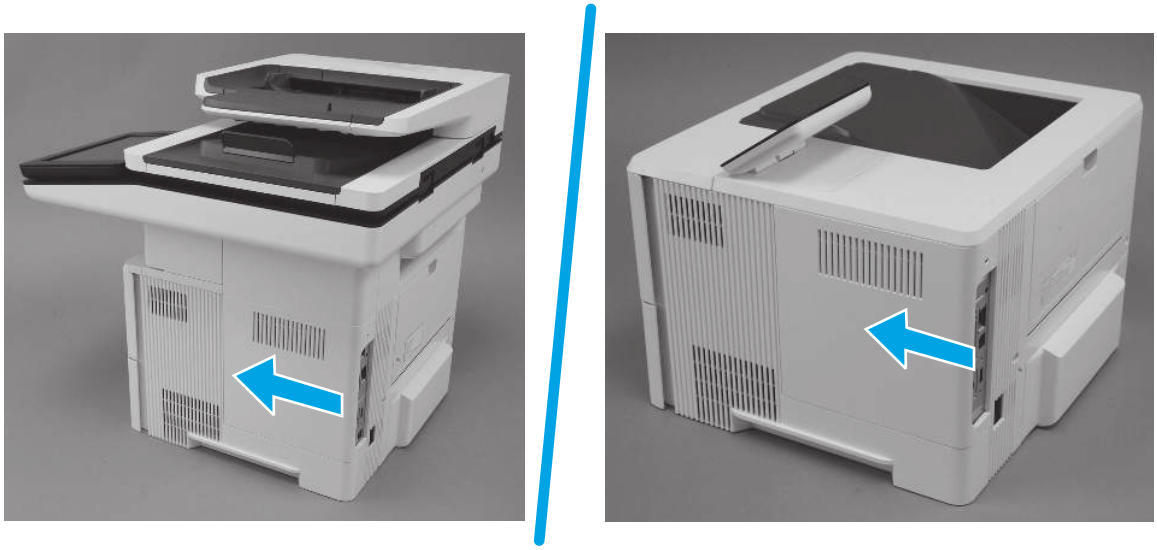
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-1448 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-1449 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



Install accessory: Internal USB ports (M506/E50045)

Learn how to remove and replace the internal USB ports.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the internal USB ports.

Mean time to repair: 7 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

⚠ **CAUTION:** This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-52 Part information

Part number	Part description
F2A87A	Internal USB ports (M506/E50045)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

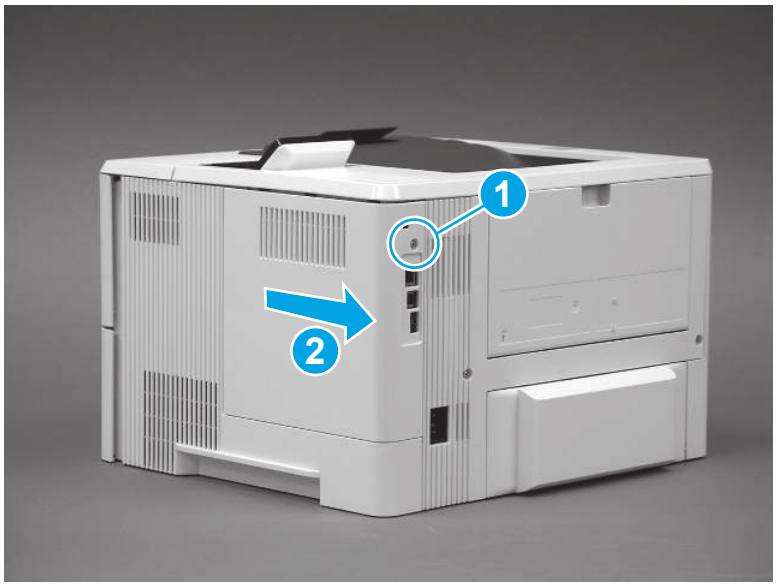
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

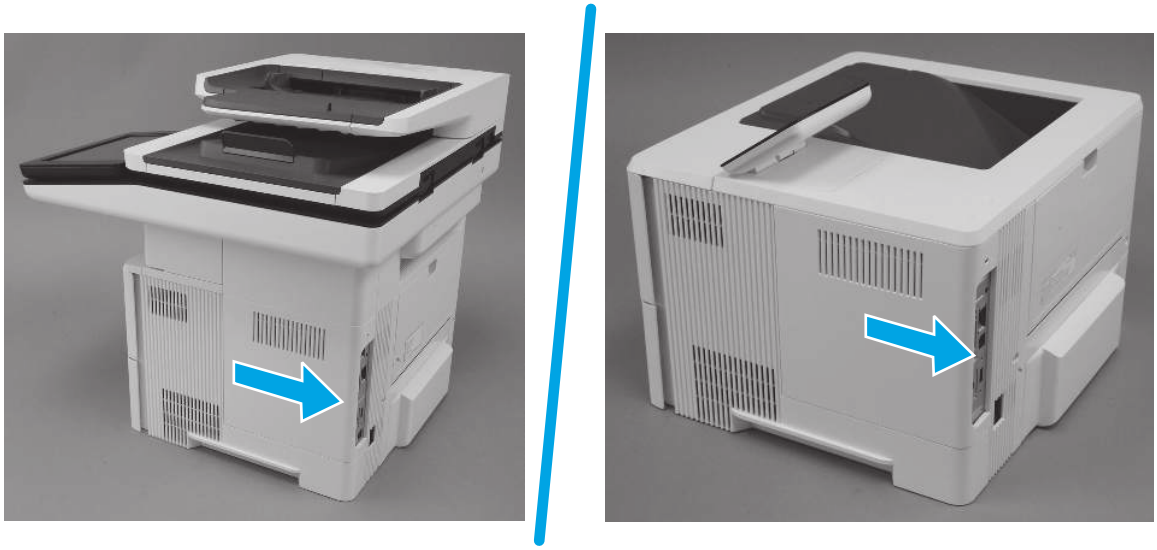
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-1450 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-1451 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



2. Unpack the accessory.

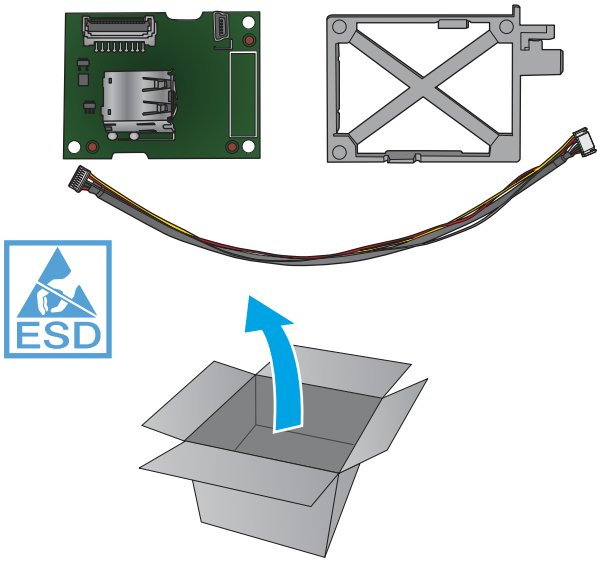
   a. Dispose of the old part.

   NOTE: HP recommends responsible disposal of the defective part.

   b. Unpack the replacement part from the packaging.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   Figure 4-1452 Recycle and unpack

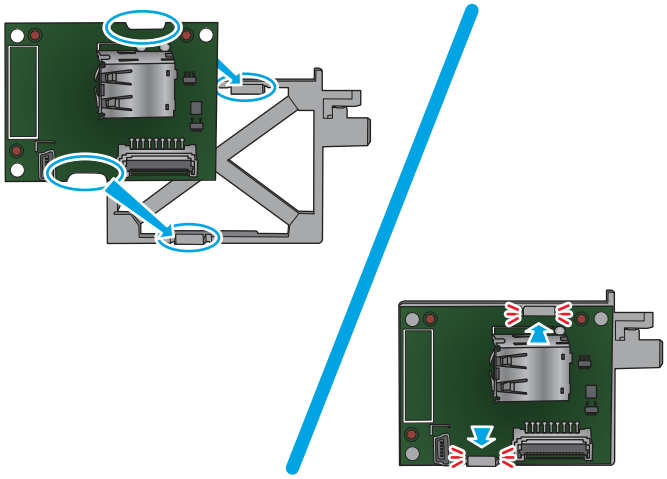


3. Install the internal USB ports module.

CAUTION: ESD-sensitive part.

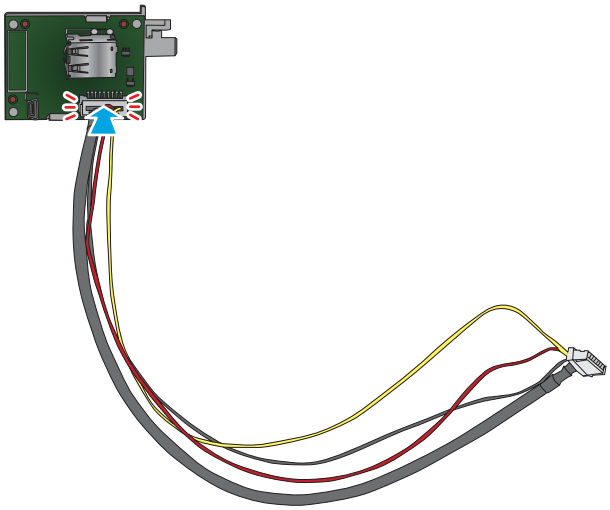
a. Position the notches on the internal USB ports PCA over the clips on the PCA holder and press down to attach the PCA to the holder. Make sure that the clips snap into place.

Figure 4-1453 Install the PCA in the holder



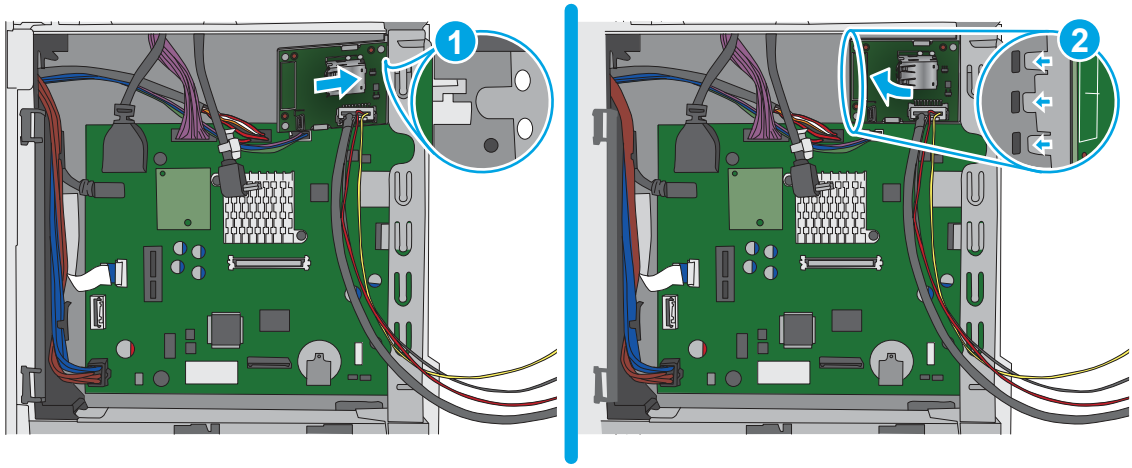
b. Connect the wire harness to the PCA.

Figure 4-1454 Connect the wire harness



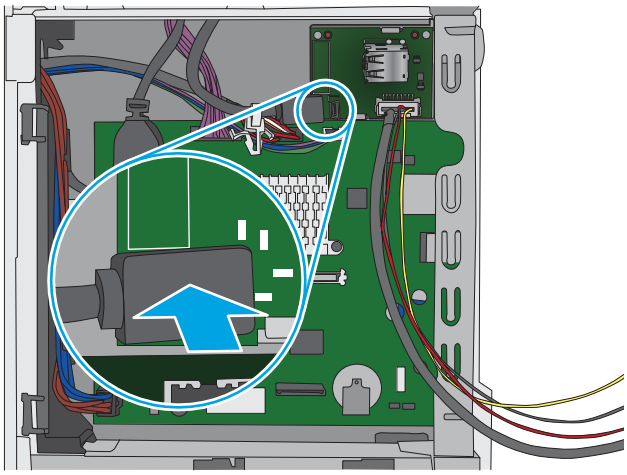
c. Position the tab on the PCA bracket in the slot on the formatter cage (callout 1), and then rotate the left end of the bracket toward the formatter to engage three tabs (callout 2).

Figure 4-1455 Install the internal USB ports module



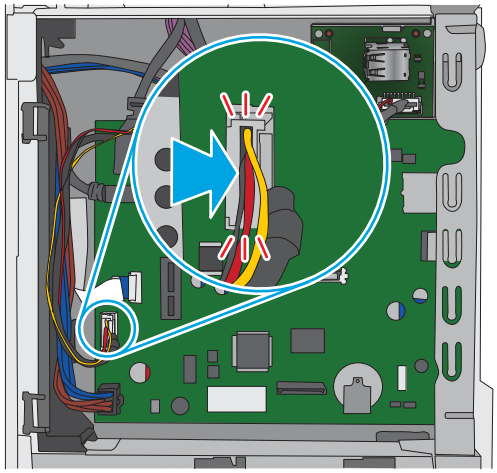
d. Connect one connector on the USB PCA.

Figure 4-1456 Connect one connector



e. Connect one connector on the formatter.

Figure 4-1457 Connect one connector

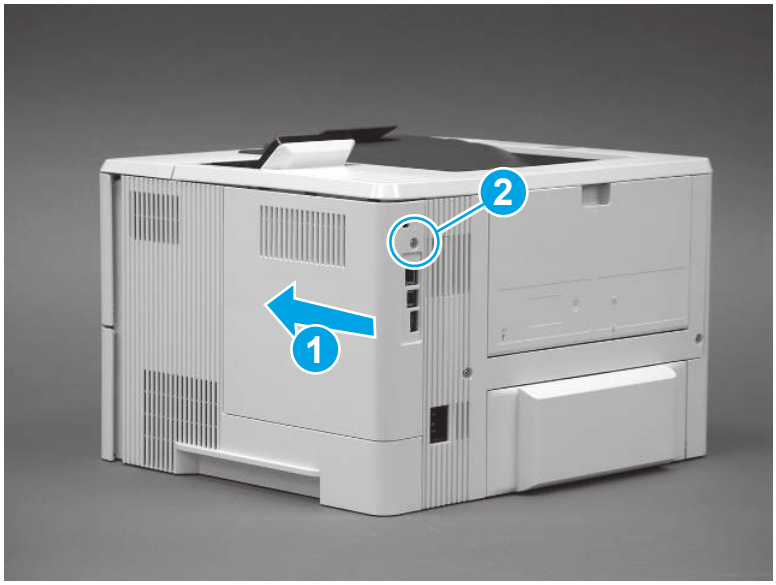


4. Install the formatter cover.

- Do one of the following:

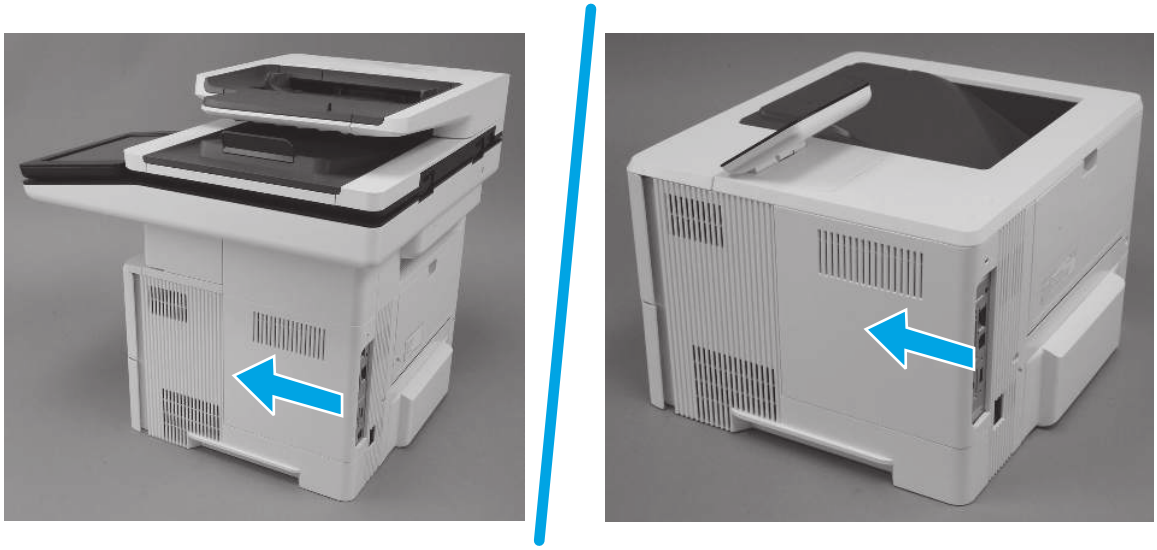
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-1458 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-1459 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



Install accessory: Internal USB ports (M507/E50145)

Learn how to remove and replace the internal USB ports.

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the internal USB ports.

Mean time to repair: 7 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

WARNING! To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

CAUTION: This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-53 Part information

Part number	Part description
1PV95A	Internal USB ports (M507/E50145)

Required tools

- No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

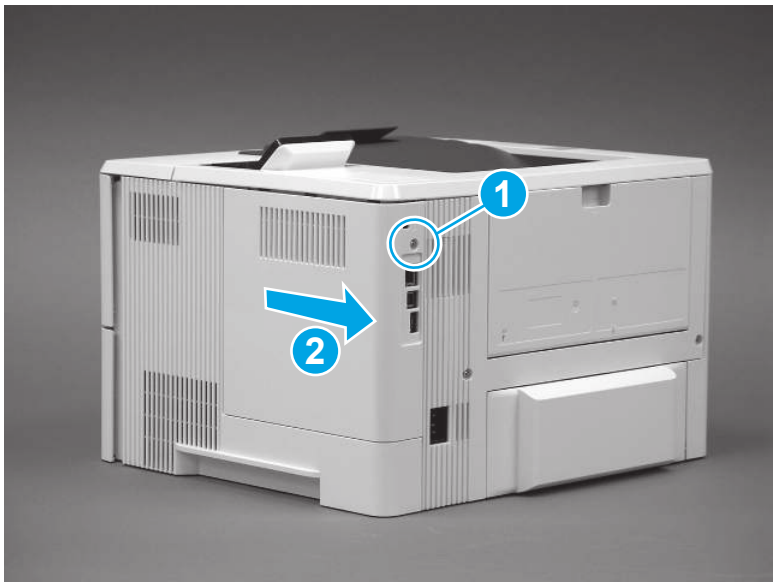
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

No post service test is available for this assembly.

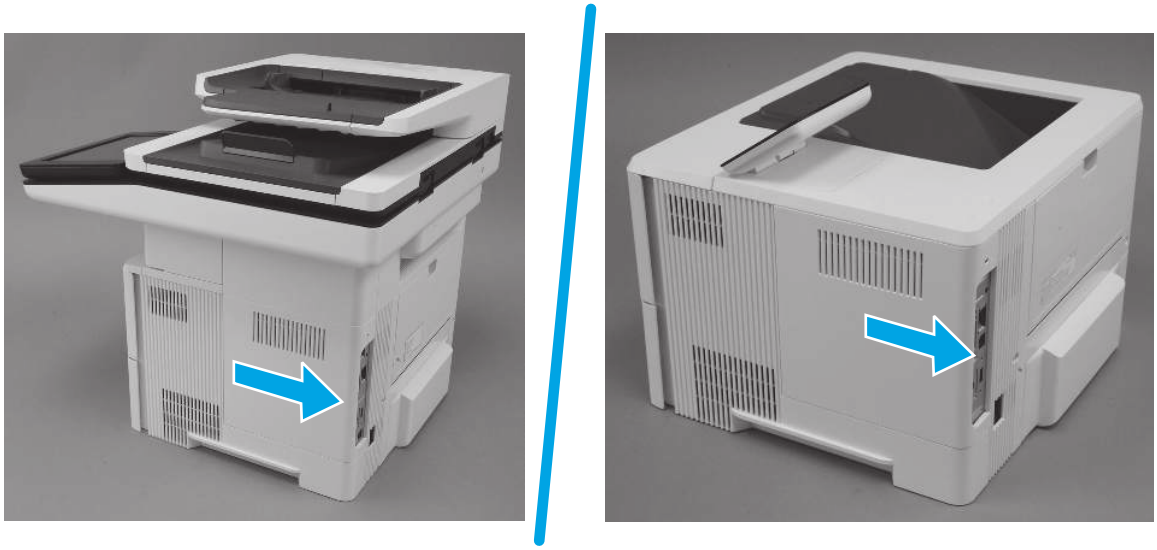
1. Remove the formatter cover.
   - Do one of the following:
   - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

     Figure 4-1460 **Remove the formatter cover (M501)**

   - **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

Figure 4-1461 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



2. Unpack the accessory.

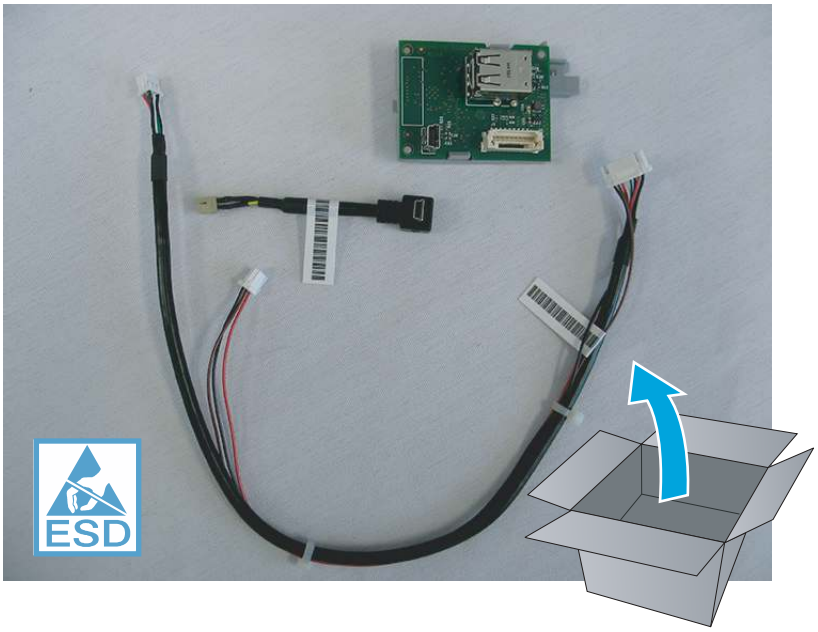
   a. Dispose of the old part.

   NOTE: HP recommends responsible disposal of the defective part.

   b. Unpack the replacement part from the packaging.

   http://www8.hp.com/us/en/hp-information/environment/product-recycling.html

   Figure 4-1462 Unpack and recycle

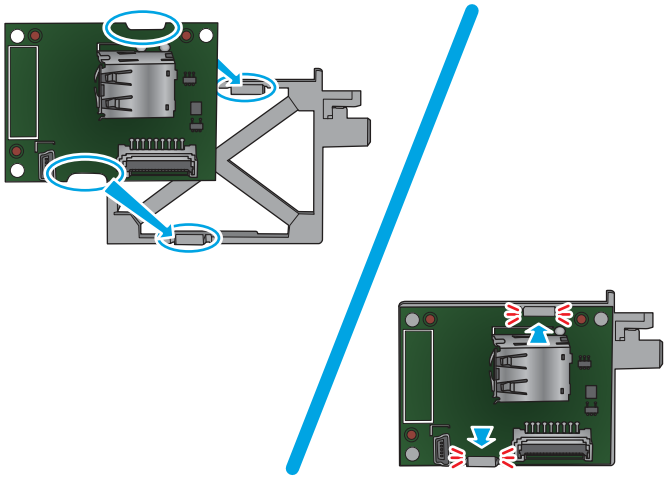


3. Install the internal USB ports module.

⚠ **CAUTION:** ESD-sensitive part.

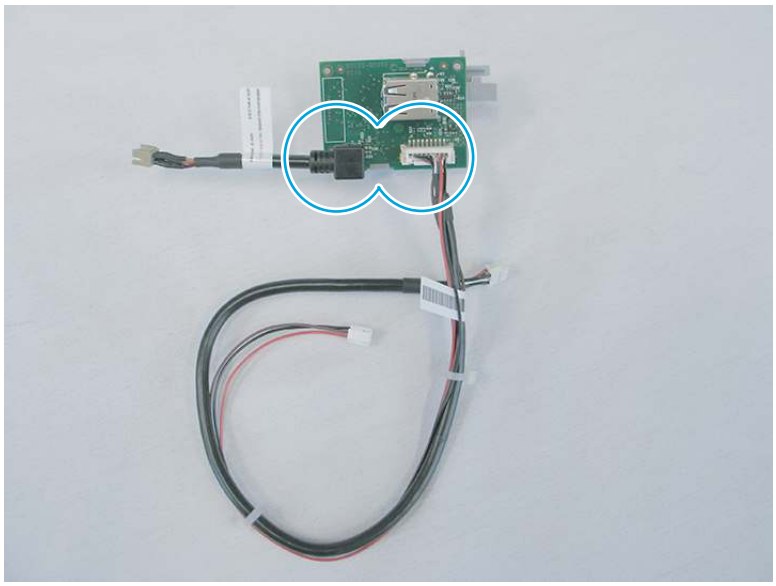
a. Position the notches on the internal USB ports PCA over the clips on the PCA holder and press down to attach the PCA to the holder. Make sure that the clips snap into place.

Figure 4-1463 Install the PCA in the holder



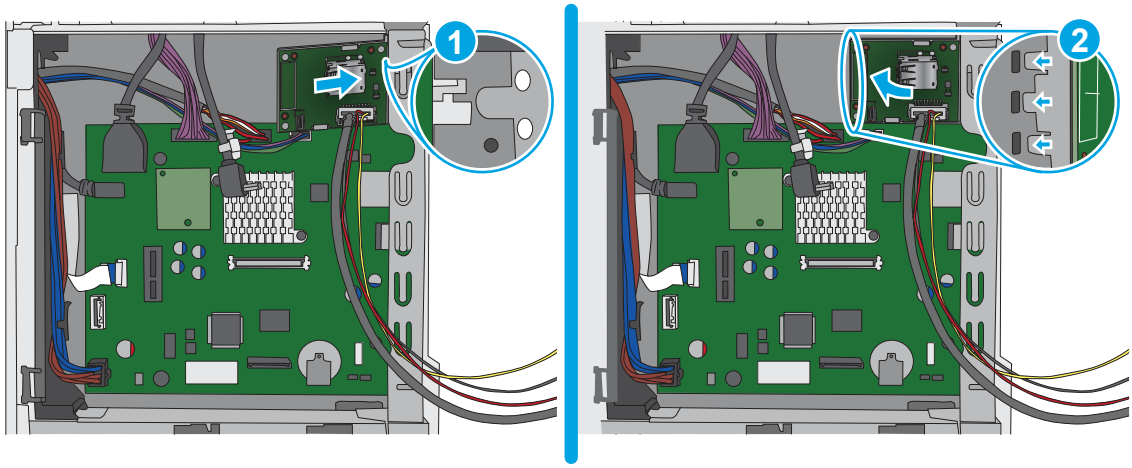
b. Connect the wire harnesses to the PCA.

Figure 4-1464 Connect the wire harnesses



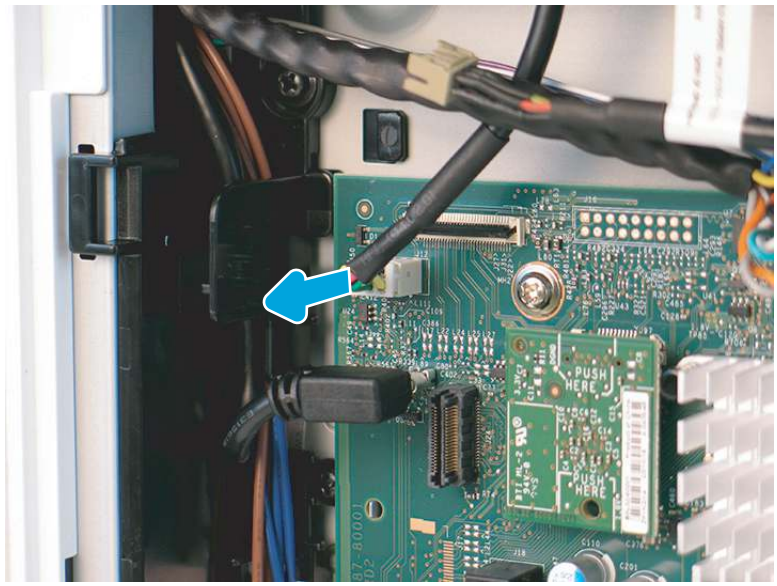
c. Position the tab on the PCA bracket in the slot on the formatter cage (callout 1), and then rotate the left end of the bracket toward the formatter to engage three tabs (callout 2).

Figure 4-1465 Install the internal USB ports module



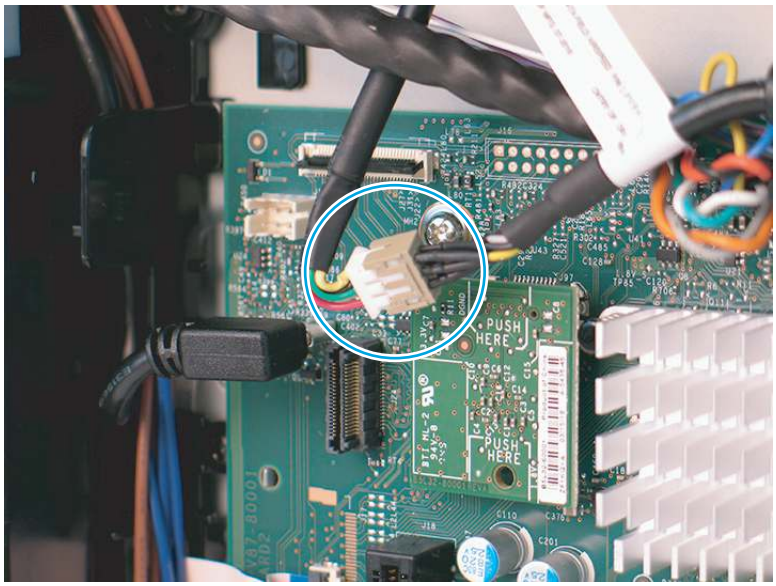
d. Disconnect one connector.

Figure 4-1466 Disconnect one connector



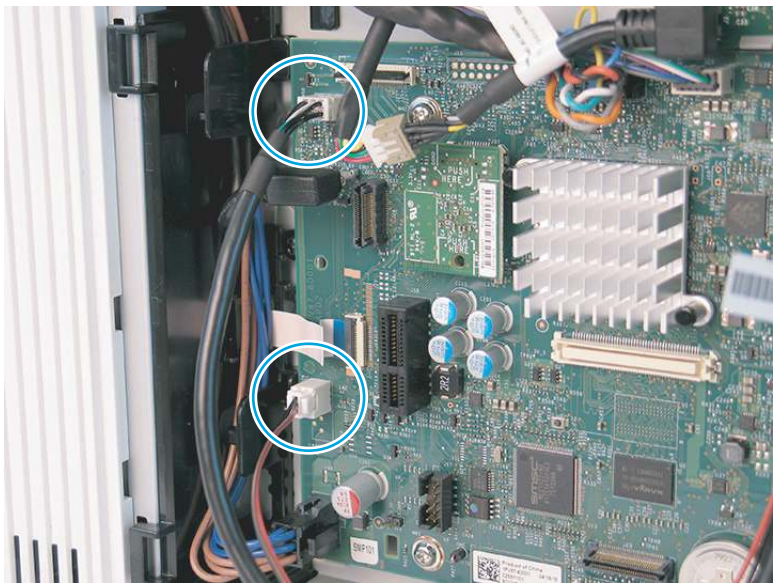
e. Connect one connector (short wire harness from internal USB ports to formatter).

Figure 4-1467 **Connect one connector**



f. Connect two connectors (long wire harness from internal USB ports to formatter).

Figure 4-1468 **Connect two connectors**

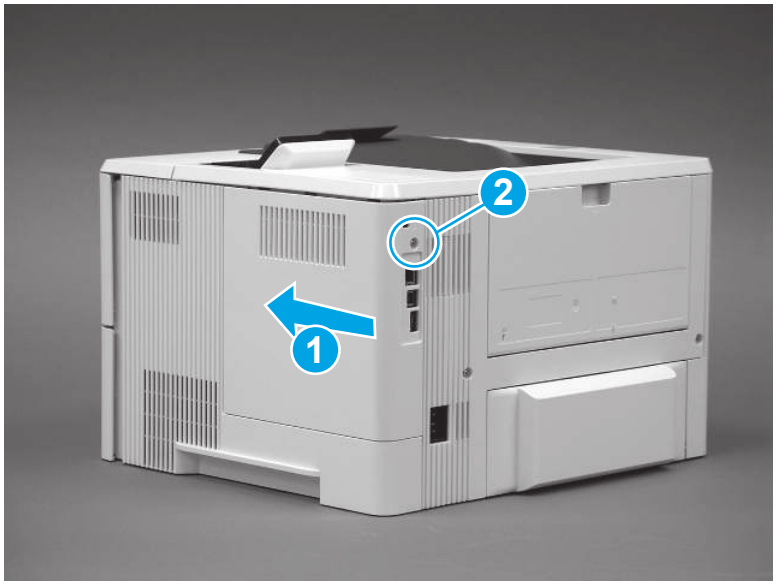


4. Install the formatter cover.

- Do one of the following:

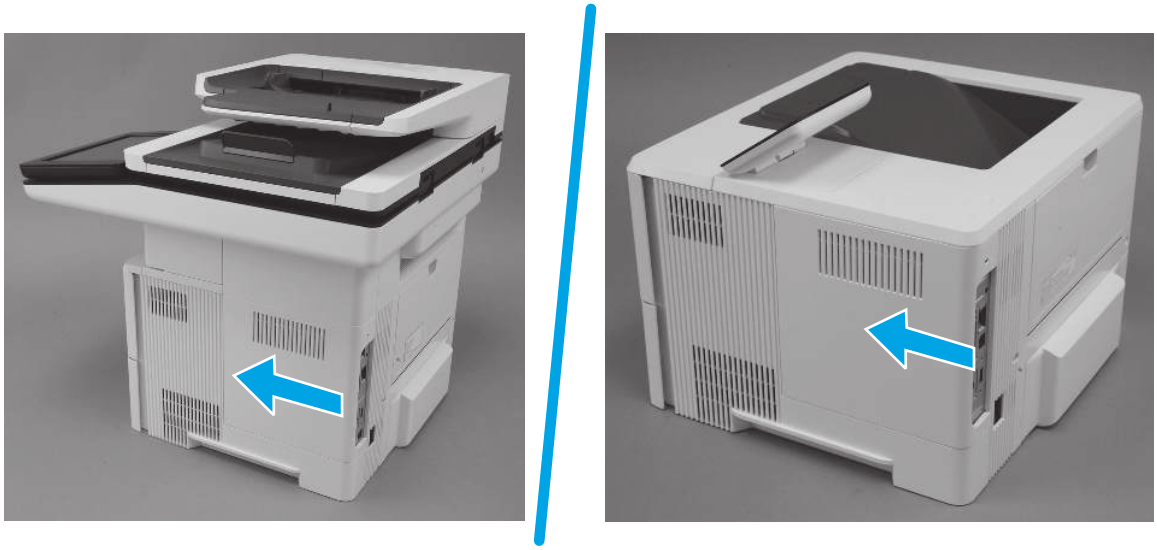
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-1469 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-1470 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



Install accessory: Trusted platform module (TPM)

Learn how to remove and replace the trusted platform module (TPM).

To view a short video of this procedure, click the link below.

View a video of how to remove and replace the TPM.

Mean time to repair: 7 minutes

Service level: Easy

Before performing service

Turn the printer power off

- Disconnect the power cable.

⚠ **WARNING!** To avoid damage to the printer, turn the printer off, wait 30 seconds, and then remove the power cord before attempting to service the printer.

⚠ **CAUTION:** This part contains components that are electrostatic discharge (ESD) sensitive. To reduce the possibility of ESD damage, always touch the sheet-metal chassis to ground yourself before touching an ESD sensitive part.

Use the table below to identify the correct part number for your printer. To order the part, go to www.hp.com/buy/parts.

Table 4-54 Part information

Part number	Part description
F5S62-61001	Trusted platform module (TPM)

Required tools

No special tools are required to remove or install this assembly.

After performing service

Turn the printer power on

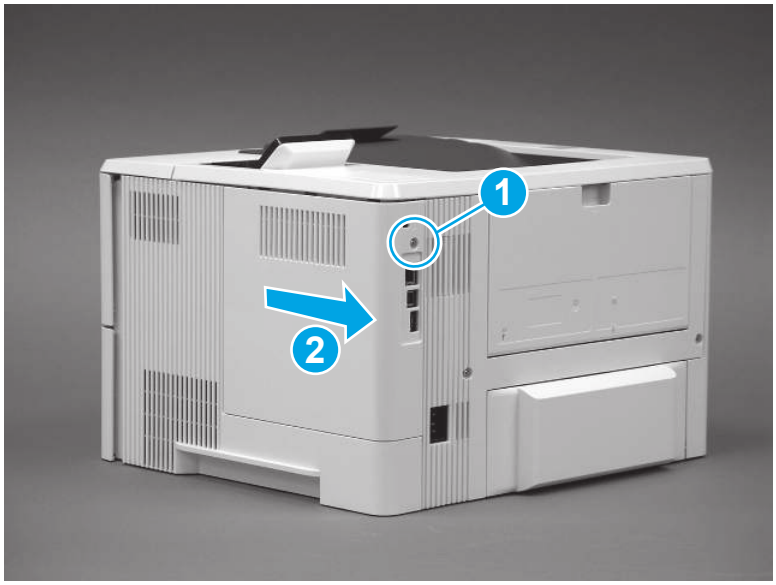
- Connect the power cable.
- Use the power switch to turn the power on.

Post service test

Make sure that the printer initializes to a **Ready** state.

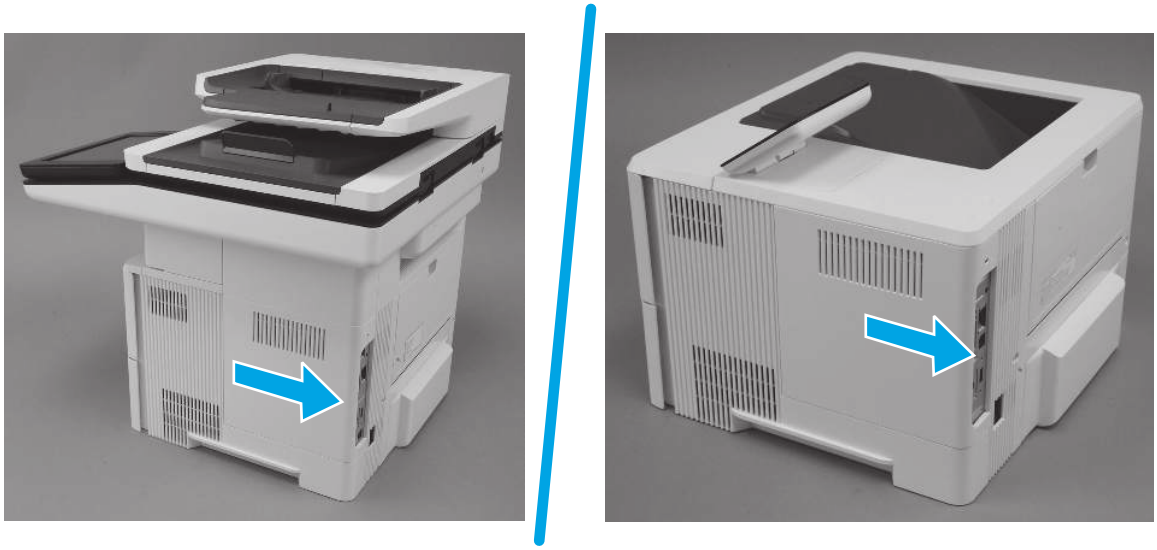
1. Remove the formatter cover.
   - Do one of the following:
     - **M501**: Remove one screw (callout 1), and then slide the cover toward the rear of the printer to remove it (callout 2).

Figure 4-1471 Remove the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide the cover toward the rear of the printer to remove it.

  Figure 4-1472 Remove the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)

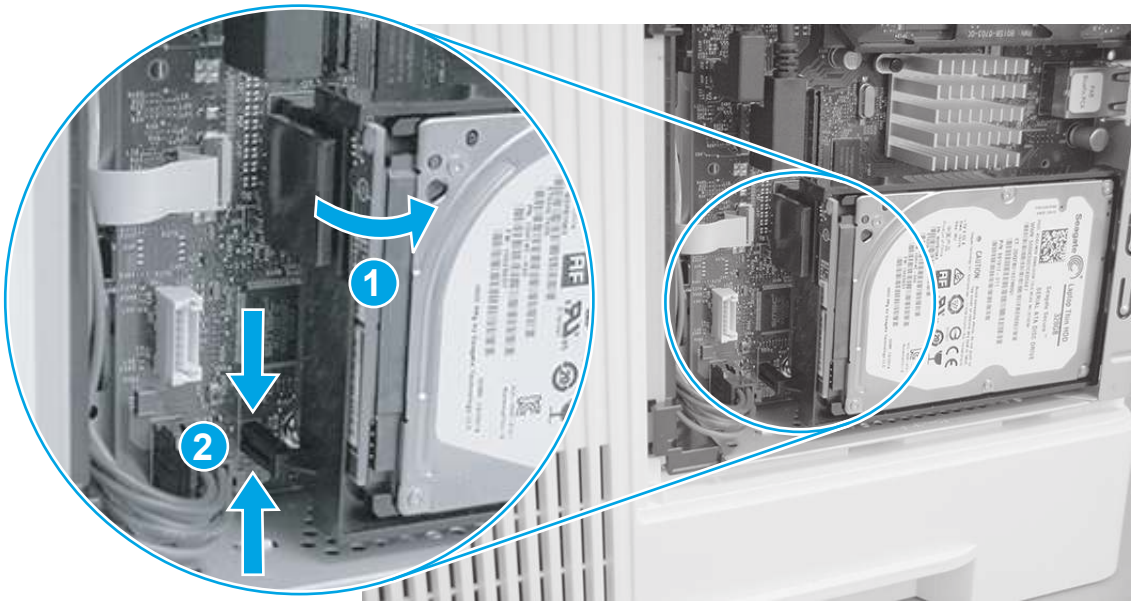


2. Remove the hard-disk drive (HDD models).

⚠ CAUTION: ESD sensitive part.

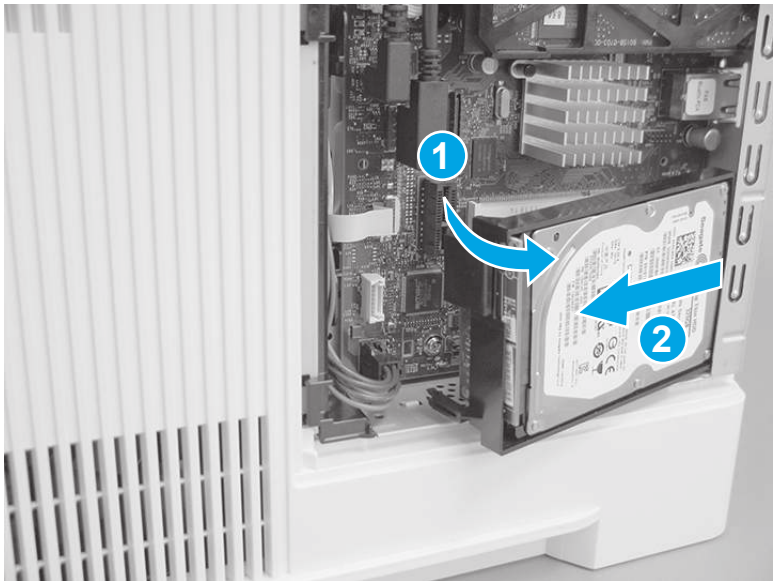
a. Release the locking connector (callout 1), and then pinch the retainer (callout 2) to release it.

Figure 4-1473 Release the HDD



b. Rotate the connector end of the HDD out and away from the formatter (callout 1), and then slide it as shown (callout 2) to remove it.

Figure 4-1474 Remove the HDD



3. Remove the accessory from its package.

a. Save all packaging for recycling.

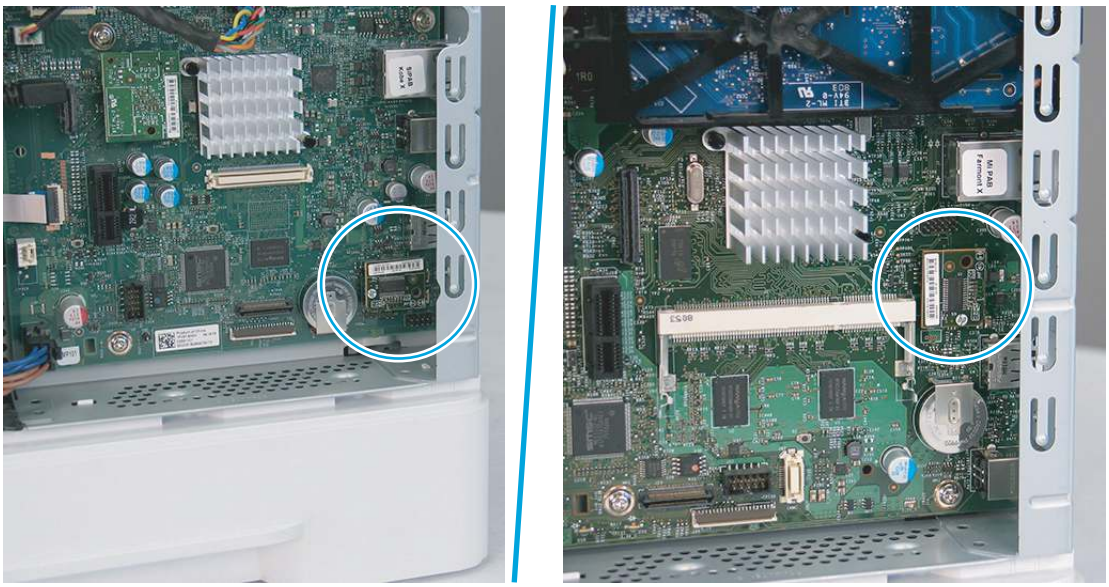
b. For complete information about HP recycling programs, go to http://www8.hp.com/us/en/hp-information/environment/product-recycling.html.

4. Install the TPM.

CAUTION: ESD-sensitive part.

a. Note the location on the formatter of an installed TPM (M507/E50145 right; M528/E52645 left).

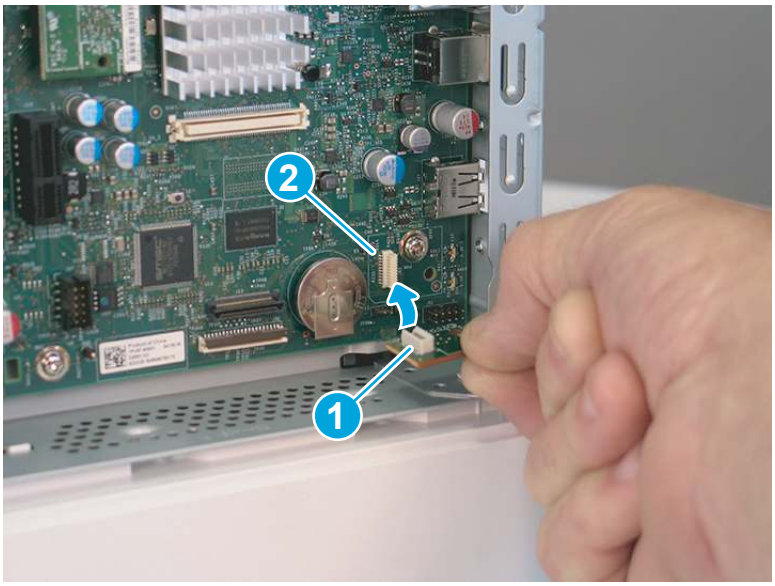
Figure 4-1475 TPM location (M507/E50145/M528/E52645)



b. **M507/E50145 only**: Align the connector on the TPM (callout 1) with the connector on the formatter (callout 2).

NOTE: The TPM can only be installed in one direction on the formatter.

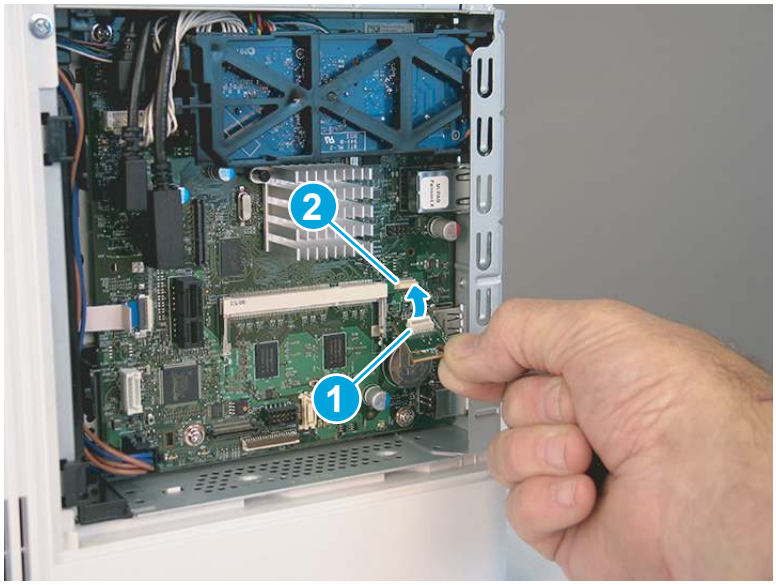
Figure 4-1476 Align the connectors (M507/E50145)



c. **M528/E52645 only**: Align the connector on the TPM (callout 1) with the connector on the formatter (callout 2).

NOTE: The TPM can only be installed in one direction on the formatter.

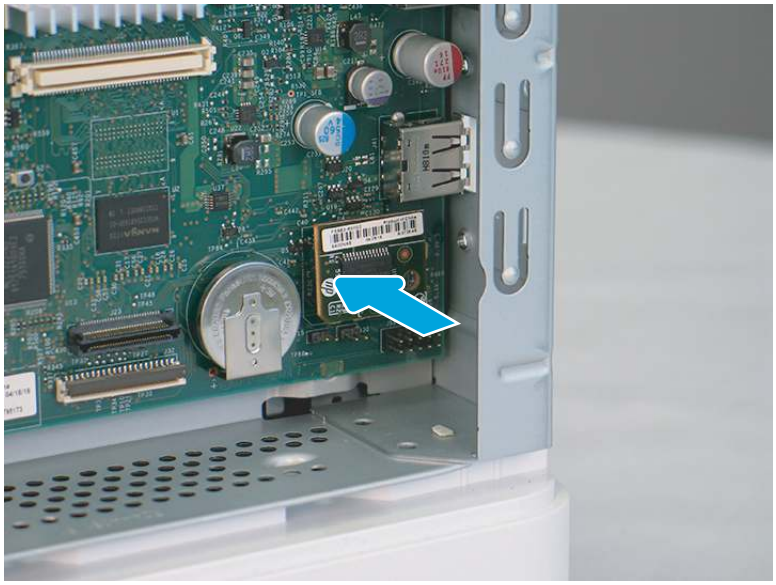
Figure 4-1477 **Align the connectors (M528/E52645)**



d. **M507/E50145 only**: Push the TPM onto the formatter to install it.

IMPORTANT: Press on the TPM at the connector to make sure it is fully seated on the formatter connector.

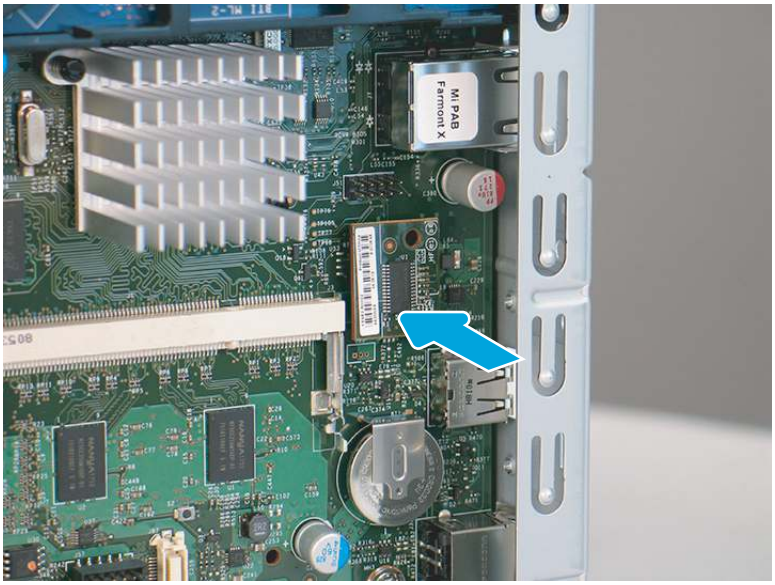
Figure 4-1478 **Install the TPM (M507/E50145)**



e. **M528/E52645 only**: Push the TPM onto the formatter to install it.

IMPORTANT: Press on the TPM at the connector to make sure it is fully seated on the formatter connector.

Figure 4-1479 Install the TPM (M528/E52645)



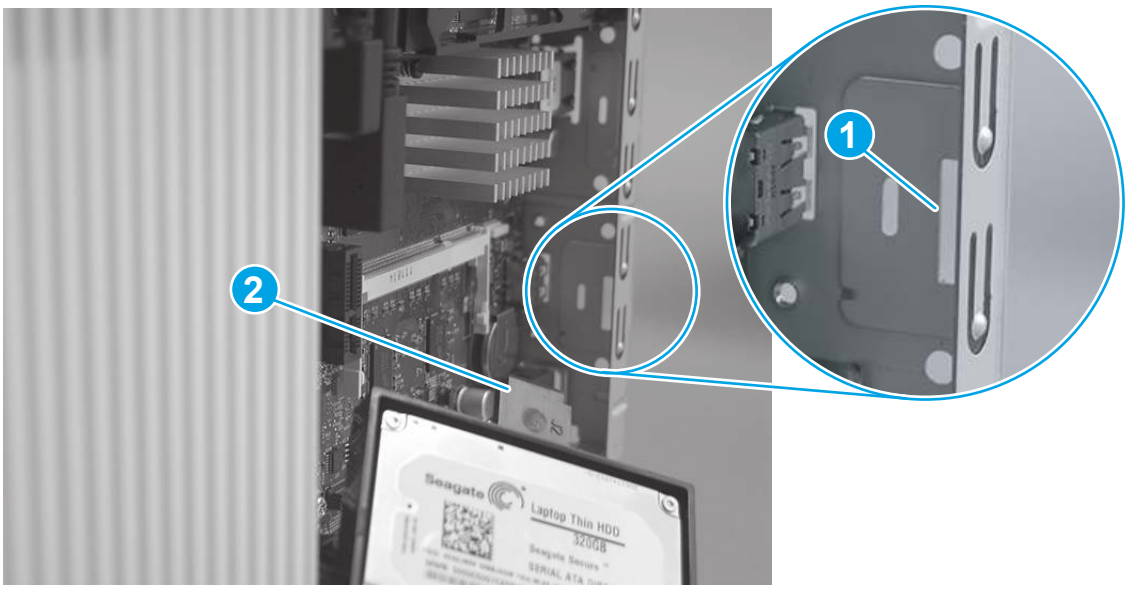
5. Install the HDD (HDD models).

CAUTION: ESD sensitive part.

a. Before proceeding, take note of the location of the slot (callout 1) in the sheet-metal where the HDD cradle mounting tab (callout 2) must be installed.

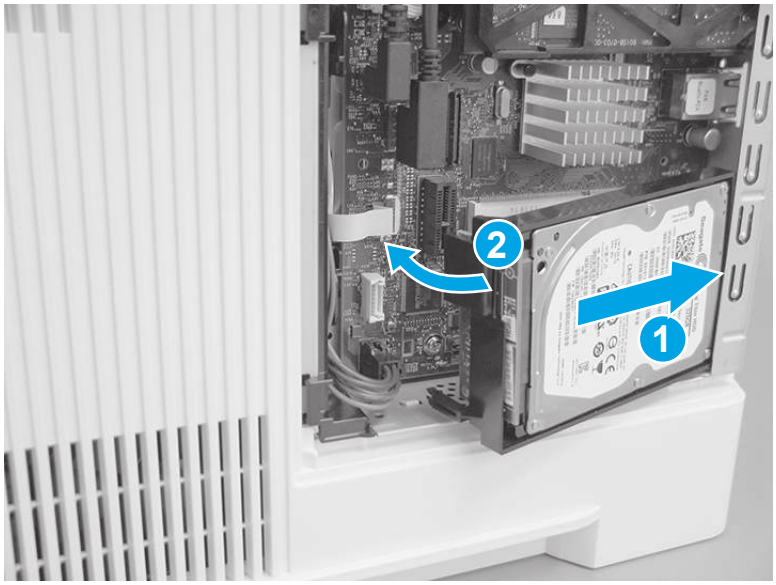
CAUTION: This portion of the sheet-metal is a knock-out plate (callout 1). Do not push on it with sufficient force to detach it when installing the HDD.

Figure 4-1480 Locate the slot in the sheet-metal



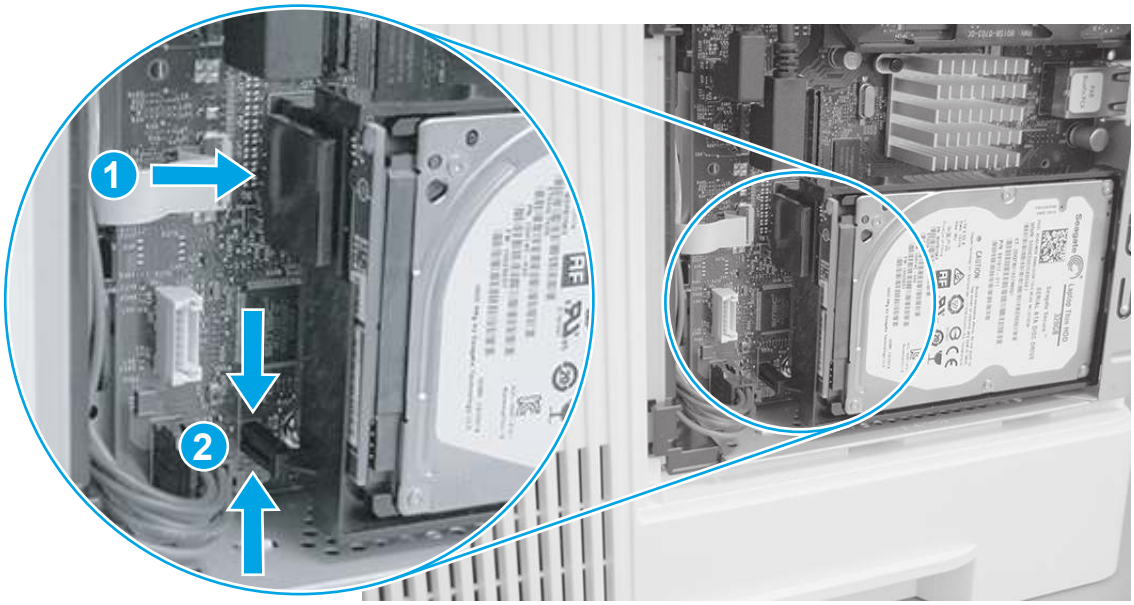
b. Insert the HDD cradle mounting tab in the slot in the sheet-metal (callout 1), and then rotate the connector end (callout 2) of the HDD toward the formatter.

Figure 4-1481 Install the HDD



c. Make sure that the locking connector (callout 1) latches and that the standoff (callout 2) engages with the slot in the formatter (it might be necessary to pinch the retainer to engage it with the slot).

Figure 4-1482 Install the HDD

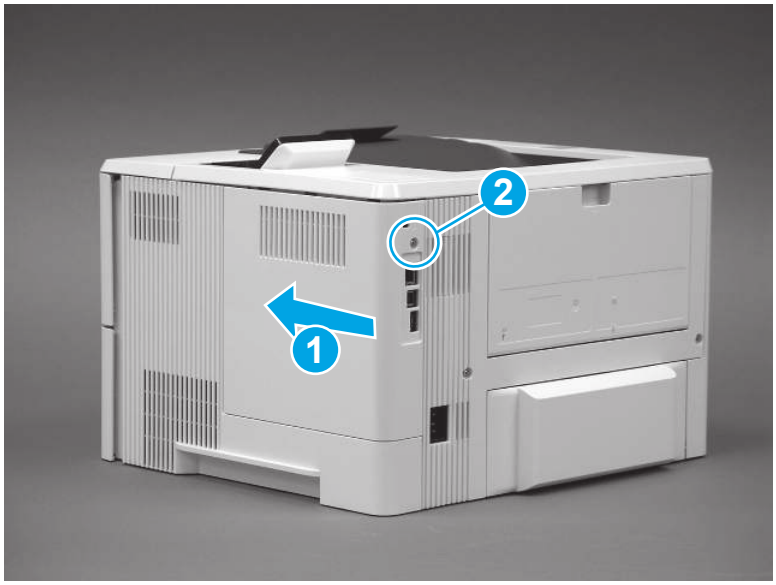


6. Install the formatter cover.

- Do one of the following:

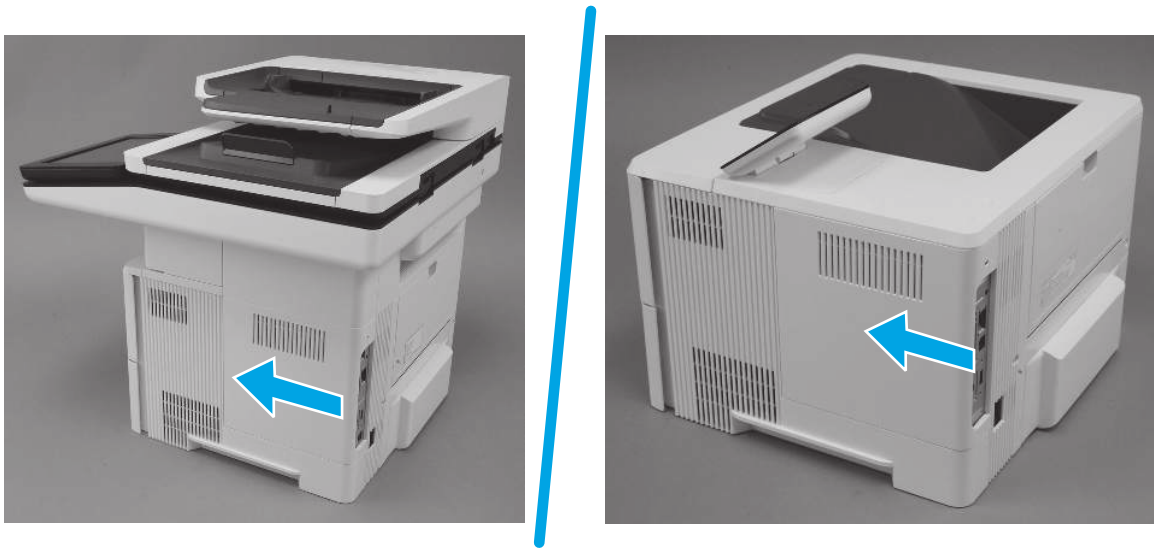
- **M501**: Slide it toward the front of the printer to install it (callout 1), and then install one screw (callout 2).

Figure 4-1483 Install the formatter cover (M501)



- **M506/E50045/M507/E50145/M527/E52545/M528/E52645**: Slide it toward the front of the printer to install it.

Figure 4-1484 Install the formatter cover (M506/E50045/M507/E50145/M527/E52545/M528/E52645)



5 Parts and diagrams

Printer parts information including exploded assembly diagrams and part number lists.

Order parts by authorized service providers

Find information about ordering parts and supplies for the printer.

Ordering

Order parts by authorized service providers.

Table 5-1 Ordering

Item or provider	Description
Order supplies and paper	www.hp.com/go/suresupply
Order parts from authorized service providers	www.hp.com/buy/parts or partsurfer.hp.com
Order through service or support providers	Contact an HP-authorized service or support provider.
Order using the HP Embedded Web Server (EWS)	To access, in a supported web browser on your computer, enter the printer IP address or host name in the address/URL field. The EWS contains a link to the HP SureSupply web site, which provides options for purchasing Original HP supplies.

Orderable parts

Not all of the parts shown in the exploded assembly diagrams are orderable parts.

Refer to the tables following the diagrams or the alphabetical/numerical parts lists to determine if a part is orderable.

Supplies and accessories

Following are the part numbers for the supplies and accessories that are available for the printers.

To order cartridges, visit http://www.hp.com (some portions of the HP Web site are available in English only). Ordering cartridges online is not supported in all countries/regions. However, many countries/regions have information about ordering by telephone, locating a local store, and printing a shopping list. In addition, go to hp.com/supplies to obtain information about purchasing HP products in your country/region.

Use only the replacement cartridges that have the same cartridge number as the cartridge that is being replaced. Find the cartridge number in the following places:

- On the label of the cartridge that is being replaced.
- On a sticker inside the printer. Open the cartridge door to locate the sticker.
- Open the printer software (**HP Printer Assistant**), and then click **Shop** > **Shop For Supplies Online**.
- Open the HP Embedded Web Server (EWS), and then click **Tools** > **Supply Status** (under the **Product Information** item).

Table 5-2 **Supplies part numbers**

Item	Description	Cartridge number	Part number
HP 872A Black Original LaserJet Toner Cartridge	Standard-capacity replacement black toner cartridge (M501/M506/ E50045/M527/E52545)	87A	CF287A (service: CF287-67901)
HP 872X High Yield Black Original LaserJet Toner Cartridge	High-capacity replacement black toner cartridge (M501/M506/ E50045/M527/E52545)	87X	CF287X (service: CF287-67902)
HP 89A Black Original LaserJet Toner Cartridge	Standard-capacity replacement black toner cartridge (M507/E50145/ M528/E52645)	89A	CF289A (service: CF289-67901)
HP 89X High Yield Black Original LaserJet Toner Cartridge	High-capacity replacement black toner cartridge (M507/E50145/ M528/E52645)	89X	CF289X (service: CF289-67902)
HP 89Y Extra High Yield Black Original LaserJet Toner Cartridge	Extra high-capacity replacement black toner cartridge (M507/E50145/ M528/E52645)	89Y	CF289Y (service: CF289-67903)
HP Black contract LaserJet Toner Cartridge	Standard-capacity replacement black toner cartridge (contract; M507/ E50145/M528/E52645)	89YC	CF289YC (service: CF289-67904)
HP Black managed LaserJet Toner Cartridge	Standard-capacity replacement black toner cartridge (managed; M507/ E50145/M528/E52645)	89A	CF289A (service: CF289-67905)
HP Staple Cartridge Pack	Replacement staple cartridges for the f and z models. Contains two staple cartridges of 1500 staples each (MFP only).	Not applicable	Q7432A
HP LaserJet 200 ADF Roller Replacement Kit	Replacement feed rollers for the document feeder (MFP only).	Not applicable	B5L52A

Table 5-3 Accessories

Item	Description	Part number
1 x 550-sheet paper feeder	Optional 550-sheet paper feeder (The M501 printer supports one 1 x 550-sheet paper feeder. All other models support up to three 1 x 550-sheet paper feeders.)	F2A72A
Printer stand and cabinet	Optional stand with storage cabinet to support the printer (Recommended when using multiple optional paper feeders.)	F2A73A
500 GB HP Secure High-Performance Hard Disk Drive	Accessory hard drive (M506/E50045/M507/E50145/ M527/E52545/M528/E52645 only)	B5L29A
320 GB HP Secure High-Performance Hard Disk Drive	Standard hard drive (M527/E52545 only)	5851-6712
TAA FIPS/CC Hard Disk Drive	Hard Disk Drive (M527/E52545/ M528/E52645 only)	5EH03A
HP 1GB DDR3 x32 144-pin 800MHz SODIMM	Optional DIMM for expanding the memory (M527/E52545/M528/ E52645)	E5K48A
HP 2GB DDR3 x32 144-pin 800MHz SODIMM	Optional DIMM for expanding the memory (M527/E52545/M528/ E52645)	E5K49A
HP 1GB 90-pin DDR3 x32 Slim DIMM	Optional DIMM for expanding the memory (M506/E50045/M507/ E50145)	G6W84A
1GB 90-Pin DDR3 Slim DIMM TAA-Compliant	Optional DIMM for expanding the memory (M506/E50045/M507/ E50145)	2NR03A
2GB 144-Pin DDR3 DIMM TAA-Compliant	Optional DIMM for expanding the memory (M527/E52545/M528/ E52645)	2NR09A
HP LaserJet Keyboard Overlay Kit for Simplified Chinese & Traditional Chinese	Language-specific, adhesive overlay for the physical keyboard (z models only)	A7W12A
HP LaserJet Keyboard Overlay Kit for Swedish	Language-specific, adhesive overlay for the physical keyboard (z models only)	A7W14A
HP Internal USB ports	Two internal USB ports for connecting third-party devices	B5L28A
HP Trusted Platform Module	Automatically encrypts all data that passes through the printer	F5S62A
HP Foreign Interface Harness	Optional port for connecting third-party devices	B5L31A
HP LaserJet MFP Analog Fax Accessory 600	Optional fax accessory for the dn model (M527/E52545)	B5L53A
HP LaserJet MFP Analog Fax Accessory 700	Optional fax accessory for the dn model (M528/E52645)	2EH31A
HP Jetdirect 2900nw Print Server	USB wireless print server accessory	J8031A

Table 5-3 Accessories (continued)

Item	Description	Part number
HP Jetdirect 3000w NFC/Wireless Accessory	WiFi direct accessory for "touch" printing from mobile devices (M506/E50045/M527/E52545 only)	J8030A
HP JetDirect 3100w BLE/NFC/Wireless Accessory	WiFi direct accessory for "touch" printing from mobile devices (M507/E50145/M528/E52645 only)	3JN69A
HP Accessibility Kit (M528 only)	Accessibility kit including button adhesives and an accessibility handle (M528/E52645 only)	2TD64A
HP USB Universal Card Reader (M528 only)	USB proximity card reader (M528/E52645 only)	X3D03A
HP Legic Reader	HP card reader accessory	4QL32A

Customer self-repair kits

Following are the available customer self-repair kits part numbers.

Customer Self-Repair (CSR) parts are available for many HP LaserJet printers to reduce repair time. More information about the CSR program and benefits can be found at www.hp.com/go/csr-support and www.hp.com/go/csr-faq.

Genuine HP replacement parts can be ordered at www.hp.com/buy/parts or by contacting an HP-authorized service or support provider. When ordering, one of the following will be needed: part number, serial number (found on back of printer), printer number, or printer name.

- Parts listed as **A**: Easy
- Parts listed as **B**: Difficult and/or requires tools

Table 5-4 Customer self-repair kits

Kit	Description	CSR level	Part number
Control panel (M527/E52545/M528/E52645 only)	Control panel and screwdriver	A	B5L47-67018
Control panel kit (M506x/E50045x only)	Control panel and screwdriver	A	G1W41-67907
Control panel kit (M507x/E50145x only)	Control panel and screwdriver	A	K0Q15-67901
White backing (MFP only)	White backing (document feeder) and retention clips	A	5851-6570
embedded MultiMedia Card (eMMC) kit (M527dn/E52545dn/M528dn/E52645dn only)	eMMC module 16GB	A	5851-6587
embedded MultiMedia Card (eMMC) kit (M506/E50045 only)	eMMC module 4GB	A	5851-6436
Transfer roller	Transfer roller	A	F2A68-67910

Table 5-4 **Customer self-repair kits (continued)**

Kit	Description	CSR level	Part number
Multipurpose tray (Tray 1) pickup roller and separation pad	Roller and separation pad for Tray 1	B	F2A68-67914
Tray 2/3 roller kit (M506/E50045/M507/ E50145/ M527/E52545/ M528/E52645 only)	Rollers for Tray 2 and the optional 550-sheet paper feeders. NOTE: This kit contains rollers for two trays, both Tray 2 and the optional 550 sheet feeder.	B	RM2-5752-000CN NOTE: **(Replaces F2A68-67913 that is obsolete)**
Tray 2- roller kit (M501/M506/E50045/ M507/E50145/ M527/ E52545/M528/E52645)	Rollers for Tray 2 NOTE: **This roller kit is for one tray only!** For a roller kit for tray 2 and optional 550 sheet feeder order RM2-5752-000CN	B	J8H60-67903
Document feeder maintenance kit (MFP only)	Pickup, feed, and separation ADF roller kit	A	W5U23-67901
Keyboard kit (M527c/z/E52545c/z/ M528cz/E52645cz only)	Physical pull-out keyboard	B	B5L47-67019 (US English
Keyboard kit (M527c/z/E52545c/z/ M528cz/E52645cz only)	Physical pull-out keyboard	B	B5L47-67020 (UK English)
Foreign Interface Harness kit (MFP only)	FIH accessory	A	B5L31-67902

How to use the parts lists and diagrams

Learn how to use the parts lists and diagrams.

The figures in this chapter show the major sub-assemblies in the printer and their component parts. A parts list table follows each exploded view assembly diagram. The table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then it is not a field replacement unit (FRU).

NOTE: The abbreviation “PCA” stands for “printed circuit-board assembly.” Components described as a PCA might consist of a single circuit board or a circuit board plus other parts, such as cables and sensors.

Parts and diagrams: Document feeder and scanner whole units

Parts diagram and part list for the document feeder and scanner whole units.

Figure 5-1 Document feeder and image scanner assembly (MFP only)

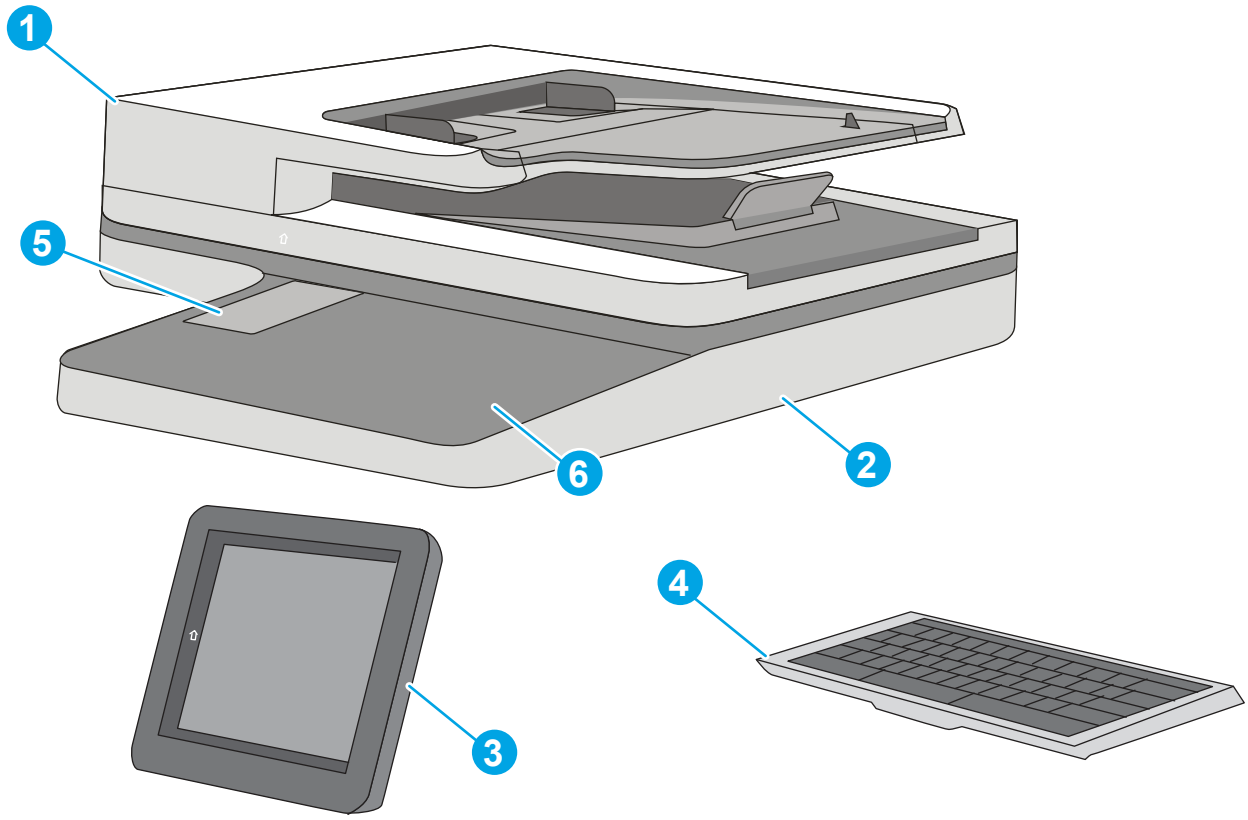


Table 5-5 Document feeder and image scanner assembly (MFP only)

Ref No	Part number	Description	Qty
1	B5L47-67906	Document feeder kit (M527/E52545/M528/ E52645 Enterprise)	1
1	B5L47-67907	Document feeder kit (M527/E52545/M528/ E52645 Flow)	1
2	F2A76-67909	Image scanner assembly kit (M527/E52545/ M528/E52645)	1
3	B5L47-67018	Control panel kit (M527/E52545/M528/ E52645)	1
4	B5L47-67019	Keyboard US (M527/E52545/M528/E52645)	1
4	B5L47-67020	Keyboard UK (M527/E52545/M528/E52645)	1
5	B5L46-40021	Cover, HIP (M527/E52545/M528/E52645)	1
6	B5L46-60117	Bezel, control panel (M527/E52545/M528/ E52645)	1
Not shown	B5L46-40002	Cover, keyboard (M527/E52545/M528/E52645)	1

Table 5-5 Document feeder and image scanner assembly (MFP only) (continued)

Ref No	Part number	Description	Qty
Not shown	5851-5939	Cable, WU USB control panel (M527/E52545)	1
Not shown	5851-5938	Cable, HIP USB control panel (M527/E52545/ M528/E52645)	1
Not shown	5851-5936	Cable, HDMI control panel (M527/E52545/ M528/E52645)	1
Not shown	5851-5935	Cable, 18-pin control panel (M527/E52545/ M528/E52645)	1
Not shown	F2A76-50004	Cable, HDMI PAB to SCAM (M527/E52545/ M528/E52645)	1
Not shown	COM39-60064	Hinge, left document feeder (M527/E52545/ M528/E52645)	1
Not shown	COM39-60065	Hinge, right document feeder (M527/E52545/ M528/E52645)	1
Not shown	B5L46-40028	Cover, USB (M527/E52545)	1
Not shown	B5L46-60116	Cable, stapler (M5278/E52645)	1
Not shown	B5L46-40011	Cover, rear image scanner (M527/E52545)	1
Not shown	B5L47-67901	Scan-control board (SCB) kit (M528/E52645)	1
Not shown	B5L47-67903	Scan-control board (SCB) kit (M527/E52545)	1
Not shown	5851-6019	Keyboard overlay kit (FR, IT, RU, DE, ES: UK Kybd)	1
Not shown	5851-6020	Keyboard overlay kit (FR-CN, ES-LA, ES: US Keyboard)	1
Not shown	5851-6021	Keyboard overlay kit (FR-SW, DE-SW, DA: UK Keyboard)	1
Not shown	5851-6022	Keyboard overlay kit (ZHTW, ZHCN)	1
Not shown	5851-6023	Keyboard overlay kit (ES, PT)	1
Not shown	5851-6024	Keyboard overlay kit (JA-KG, JA-KT)	1

Parts and diagrams: Covers (M501/M506/E50045/M507/E50145)

Parts diagram and parts list for the SFP printer covers.

Figure 5-2 **Covers (M501/M506/E50045/M507/E50145)**

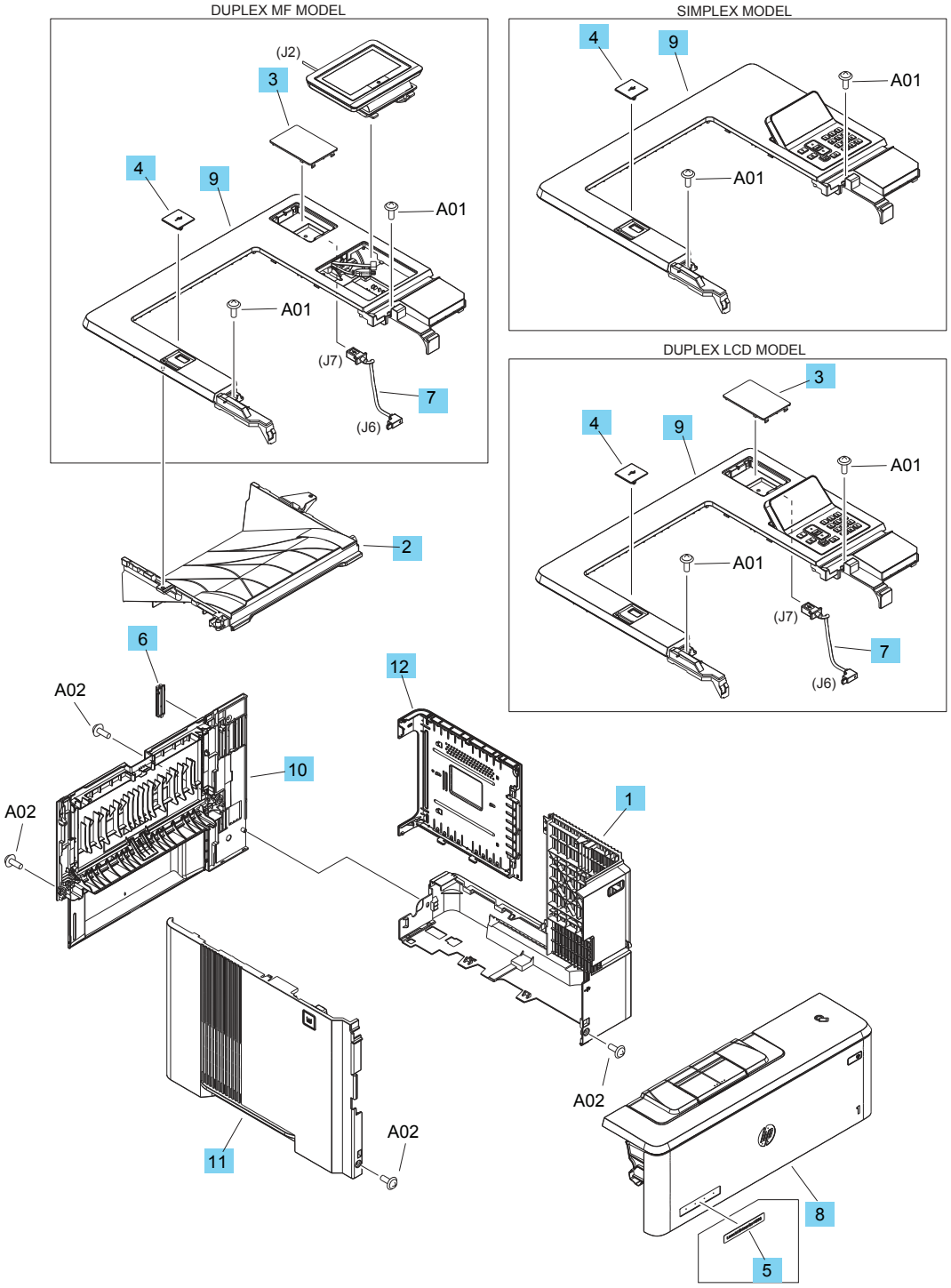


Table 5-6 Covers (M501/M506/E50045/M507/E50145)

Ref No	Part number	Description	Qty
1	RC4-4437-000CN	Cover, right (M501/M506/E50045)	1
1	RC4-4137-000CN	Cover, right (M507/E50145)	1
2	RC4-4439-000CN	Tray, paper delivery output bin (M501/M506/E50045)	1
2	RC4-4141-000CN	Tray, paper delivery output bin (M507/E50145)	1
3	RC4-4142-000CN	Cover, HIP (M506/E50045/M507/E50145 duplex models)	1
4	RC4-4149-000CN	Cover, USB (M506/E50045/M507/E50145)	1
5	F2A68-40002	Plate, name (M506/E50045)	1
5	1PV87-40001	Plate, name (M507)	1
5	1PU51-40001	Plate, name (E50145dn)	
5	J8H60-40001	Plate, name (M501)	1
6	RC4-4433-000CN	Cover, I/O (M506/E50045/M507/E50145)	1
7	RK2-7104-000CN	Cable, HIP (M506/E50045 duplex models)	1
7	RK3-0526-000CN	Cable, HIP (M507/E50145 duplex models)	1
8	F2A68-67919	Door, cartridge kit (M506n/dn/E50045n/dn)	1
8	F2A68-67920	Door, cartridge kit (M506x/E50045x)	1
8	RM2-5677-000CN	Door, cartridge (M501/M507/E50145)	1
Not Shown	RM2-5735-000CN	Cover, top (M501)	1
9	RM2-5687-000CN	Cover, top (M506/E50045 simplex models)	1
9	RM2-5699-000CN	Cover, top (M506/E50045 duplex LCD models)	1
9	RM2-5686-000CN	Cover, top (M506/E50045 duplex MF models)	1
9	RM2-5726-000CN	Cover, top (M501 duplex models)	1
9	RM2-2587-000CN	Cover, top (M507/E50145 duplex models)	1
9	RM2-2607-000CN	Cover, top (M507/E50145 simplex models)	1
10	RM2-5712-000CN	Door, rear (M501/M506/E50045/M507/E50145 simplex models)	1
10	RM2-5711-000CN	Door, rear (M501/M506/E50045/M507/E50145 duplex models)	1
11	RM2-5727-000CN	Cover, left (M501/M506/E50045)	1
11	RM2-5713-000CN	Cover, left (M507/E50145)	1
12	RC4-4200-000CN	Cover, formatter (M501)	1
12	RM2-5725-000CN	Cover, formatter (M506/E50045/M507/E50145)	1
Not shown	RC4-3010-000CN	Hinge, cartridge door left	1

Table 5-6 Covers (M501/M506/E50045/M507/E50145) (continued)

Ref No	Part number	Description	Qty
Not shown	RC4-4479-000CN	Link, pressure release (cartridge door)	1
Not shown	RC4-3002-000CN	Shaft, support	1
Not shown	RC5-5148-000CN	Cover, WiFi	1
Not shown	RC4-3219-000CN	Cover, full detect sensor	1
Not shown	7121-8684	Jewel, HP logo (2pc; M507/E50145)	1
No reference	G1W41-67907	Control panel kit (M506x/E50045x)	1
No reference	K0Q15-67901	Control panel kit (M507x/E50145x)	1
No reference	J8H60-67904	Control panel (M501)	1
No reference	RM2-2610-000CN	Control panel (507n/dn)	1
No reference	K0Q15-60106	Control panel E50145	1

Parts and diagrams: Covers (M527/E52545/M528/E52645)

Parts diagram and parts list for the MFP printer covers.

Figure 5-3 Covers (M527/E52545/M528/E52645)

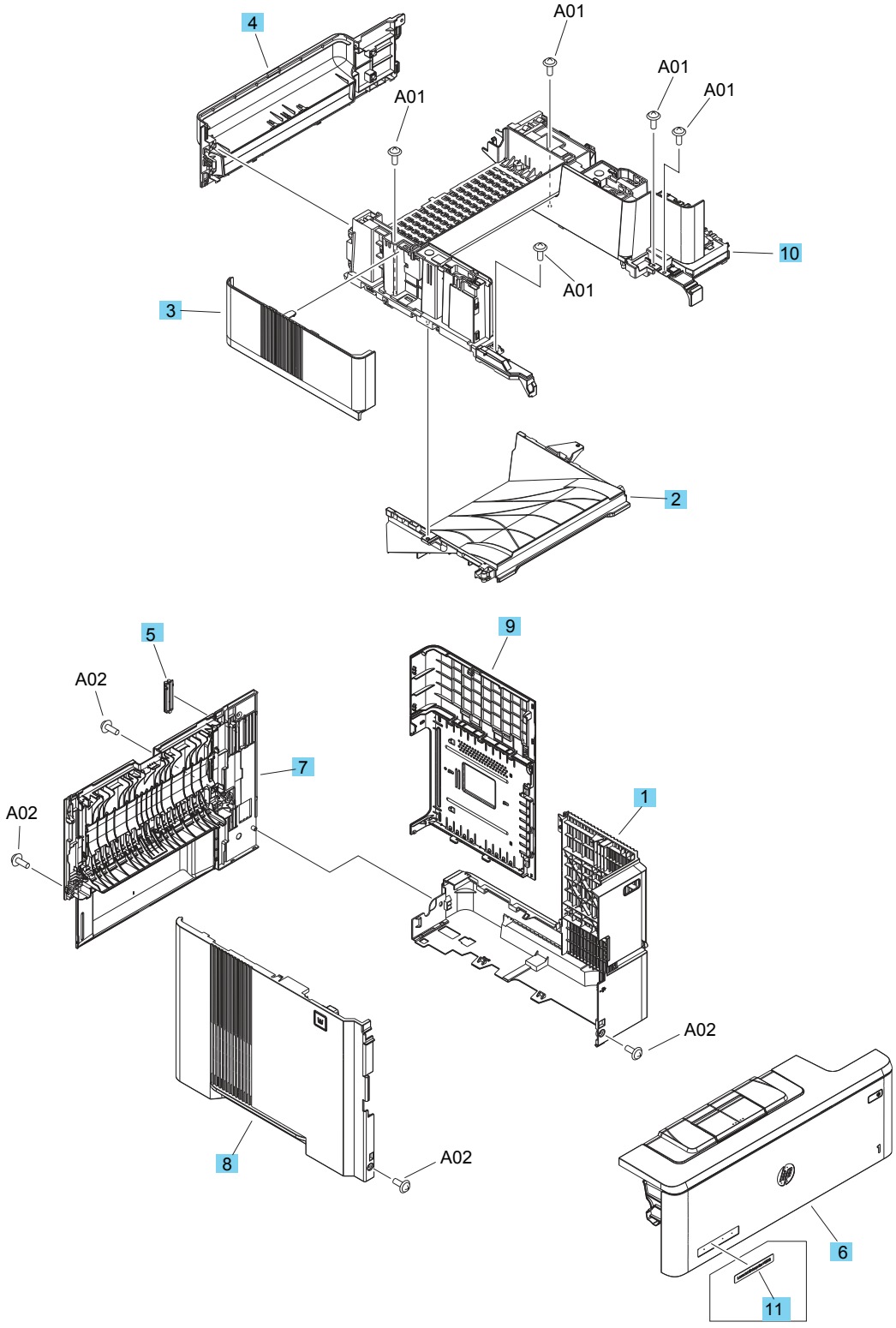


Table 5-7 Covers (M527/E52545/M528/E52645)

Ref No	Part number	Description	Qty
1	RC4-4437-000CN	Cover, right (M527/E52545/M528/E52645)	1
2	RC4-4141-000CN	Tray, paper delivery output bin (M527/E52545/M528/E52645)	1
3	RC4-4147-000CN	Cover, top left (M527/E52545/M528/E52645)	1
4	RC4-4150-000CN	Cover, top rear (M527/E52545)	1
5	RC4-4433-000CN	Cover, I/O (M527/E52545)	1
6	F2A76-67912	Door, cartridge kit (M527/E52545)	1
6	RM2-5691-000CN	Door, cartridge (M528/E52645)	1
7	RM2-5711-000CN	Door, rear (M527/E52545/M528/E52645)	1
8	RM2-5727-000CN	Cover, left (M527/E52545)	1
8	RM2-5713-000CN	Cover, left (M528/E52645)	1
9	RM2-5717-000CN	Cover, formatter (M527/E52545/M528/E52645)	1
10	RM2-5718-000CN	Cover, top (M527/E52545/M528/E52645)	1
11	F2A74-40001	Plate, name (M527/E52545)	1
11	1PV64-40001	Plate, name (M528dn/f)	1
11	1PV66-40001	Plate, name (M528c/z)	1
11	1PS54-40001	Plate, name (E52645dn)	1
11	1PS55-40001	Plate, name (E52645c)	1
Not shown	7121-8684	Jewel, HP logo (2pc; M528/E52645)	1
Not shown	F2A76-40003	Cover, stationary stapler, inner (M527c/f/z/E52545c/f/z/M528c/f/z/E52645c/f/z)	1
Not shown	F2A76-40004	Door, stapler flap (M527c/f/z/E52545c/f/z)	1
Not shown	F2A76-40005	Cover, stapler blank (M527dn/E5245dn)	1
Not shown	B5L24-00035	Sticker, stapler cartridge replacement (M527/M528/E52645)	1
Not shown	5851-1885	Plug/cap, fax port (M527/E52545)	1
Not shown	RC4-3010-000CN	Hinge, cartridge door left	1
Not shown	RC4-4479-000CN	Link, pressure release (cartridge door)	1
Not shown	RC4-3002-000CN	Shaft, support	1
Not shown	RC4-3219-000CN	Cover, full detect sensor	1

Parts and diagrams: Internal assemblies (1 of 4)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-4 Internal assemblies (1 of 4)

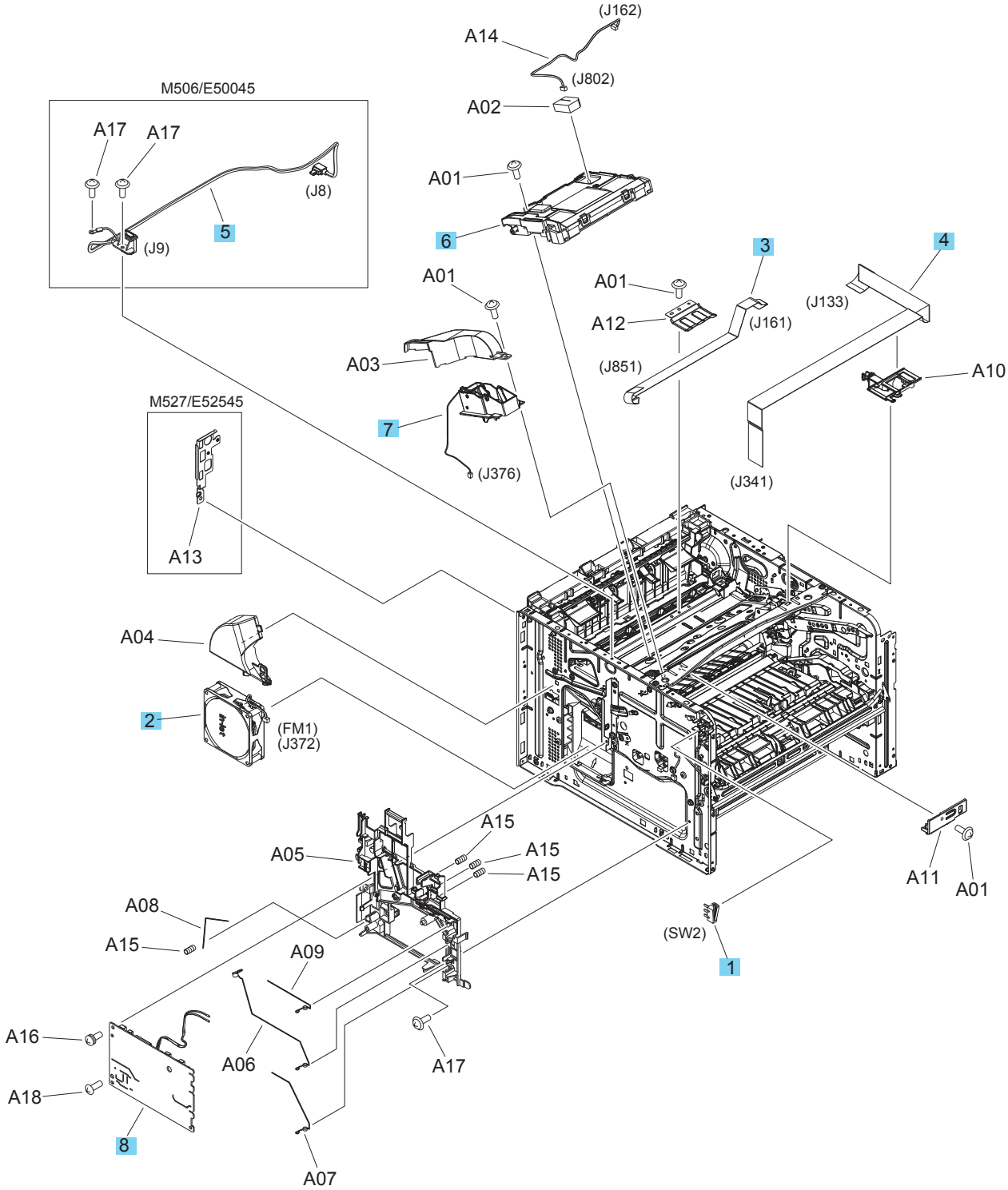


Table 5-8 Internal assemblies (1 of 4)

Ref No	Part number	Description	Qty
1	RK2-0534-000CN	Microswitch (SW2)	1
2	RK2-8068-000CN	Fan (FM1)	1
3	RK2-6259-000CN	Cable, flat-flexible	1
4	RK2-6260-000CN	Cable, flat-flexible	1
5	RK2-7067-000CN	Cable, USB (M506/E50045)	1
5	RK2-7067-000CN	Cable, USB (M507/E50145)	1
6	RM2-5528-000CN	Laser/scanner assembly (M501/M506/ E50045/M527/E52545)	1
6	RM2-2891-000CN	Laser/scanner assembly (M507/E50145/ M528/E52645)	1
7	RM2-5702-000CN	Cable, TAG assembly (M501/M506/E50045/ M527/E52545)	1
7	RM2-2596-000CN	Cable, TAG assembly (M507/E50145/M528/ E52645)	1
8	RM2-7945-000CN	Power supply, high-voltage (HVPS) (M501/ M506/E50045/M527/E52545)	1
8	RM3-7424-000CN	Power supply, high-voltage (HVPS) (M507/ E50145/M528/E52645)	1

Parts and diagrams: Internal assemblies (2 of 4)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-5 Parts and diagrams: Internal assemblies (2 of 4)

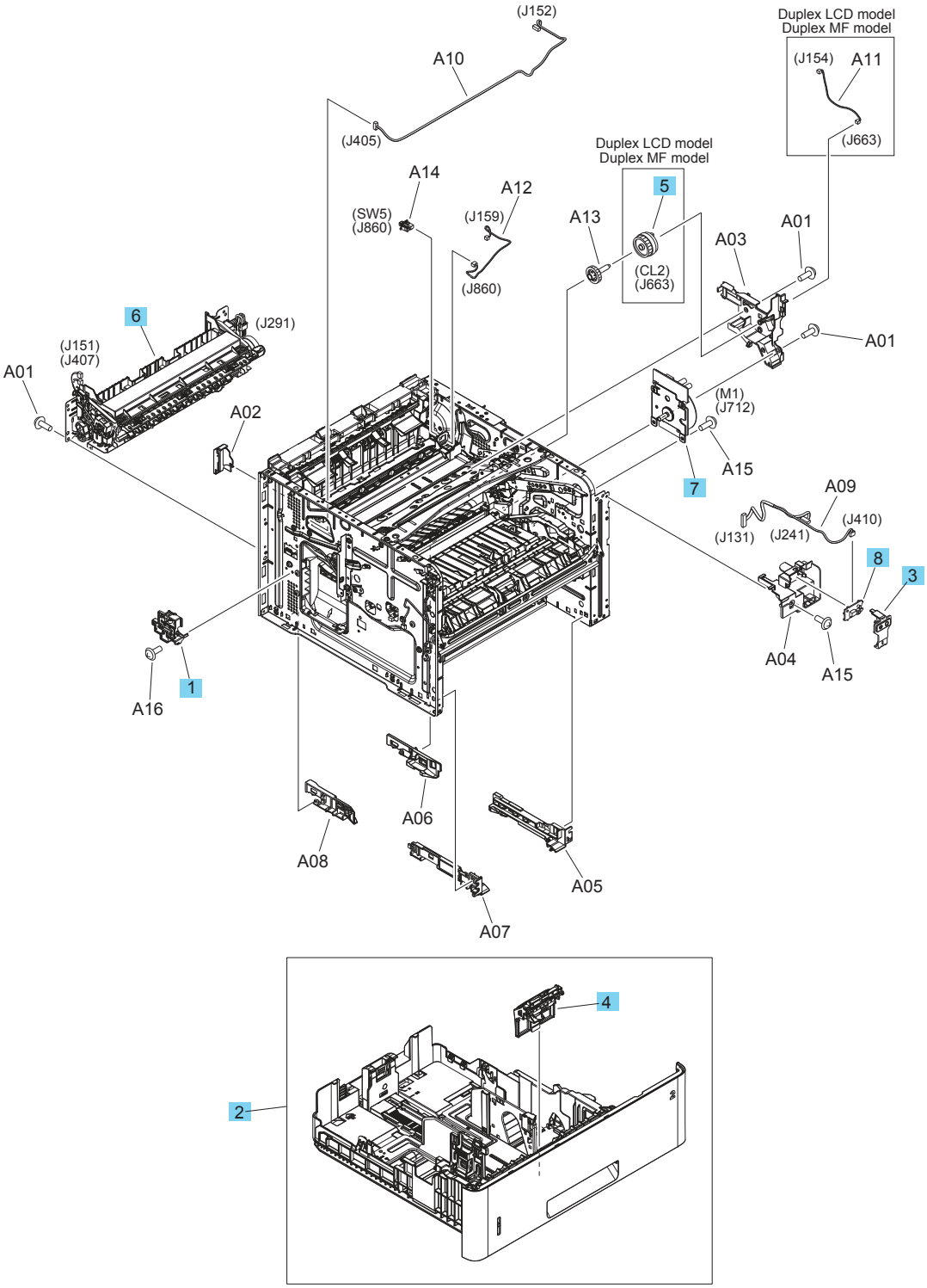


Table 5-9 Parts and diagrams: Internal assemblies (2 of 4)

Ref No	Part number	Description	Qty
1	RM2-5689-000CN	Film bias assembly	1
2	RM2-5690-000CN	Cassette (Tray 2)	1
3	RM2-5701-000CN	Switch, lever assembly	1
4	RM2-5745-000CN	Roller, separation (Tray 2/3)	1
5	RM2-8514-000CN	Clutch, paper re-pickup assembly (duplex LCD and MF models)	1
6	RM2-2585-000CN	Fixing (fuser) assembly 110V-127V (M501/M506/E50045/M527/E52545)	1
6	RM2-2585-000CN	Fixing (fuser) assembly 110V-127V (M507/E50145/M528/E52645)	1
6	RM2-2586-000CN	Fixing (fuser) assembly 220V-240V (M501/M506/E50045/M527/E52545)	1
6	RM2-2586-000CN	Fixing (fuser) assembly 220V-240V (M507/E50145/M528/E52645)	1
7	RM2-8684-000CN	Motor, main M1	1
8	RM2-8597-000CN	Switch, power PCA assembly	1
Not shown	RK2-8657-000CN	Cable, flat flexible (FFC)	1
Not shown	RK3-0503-000CN	Cable, flat flexible (FFC)	1

Parts and diagrams: Internal assemblies (3 of 4)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-6 **Parts and diagrams: Internal assemblies (3 of 4)**

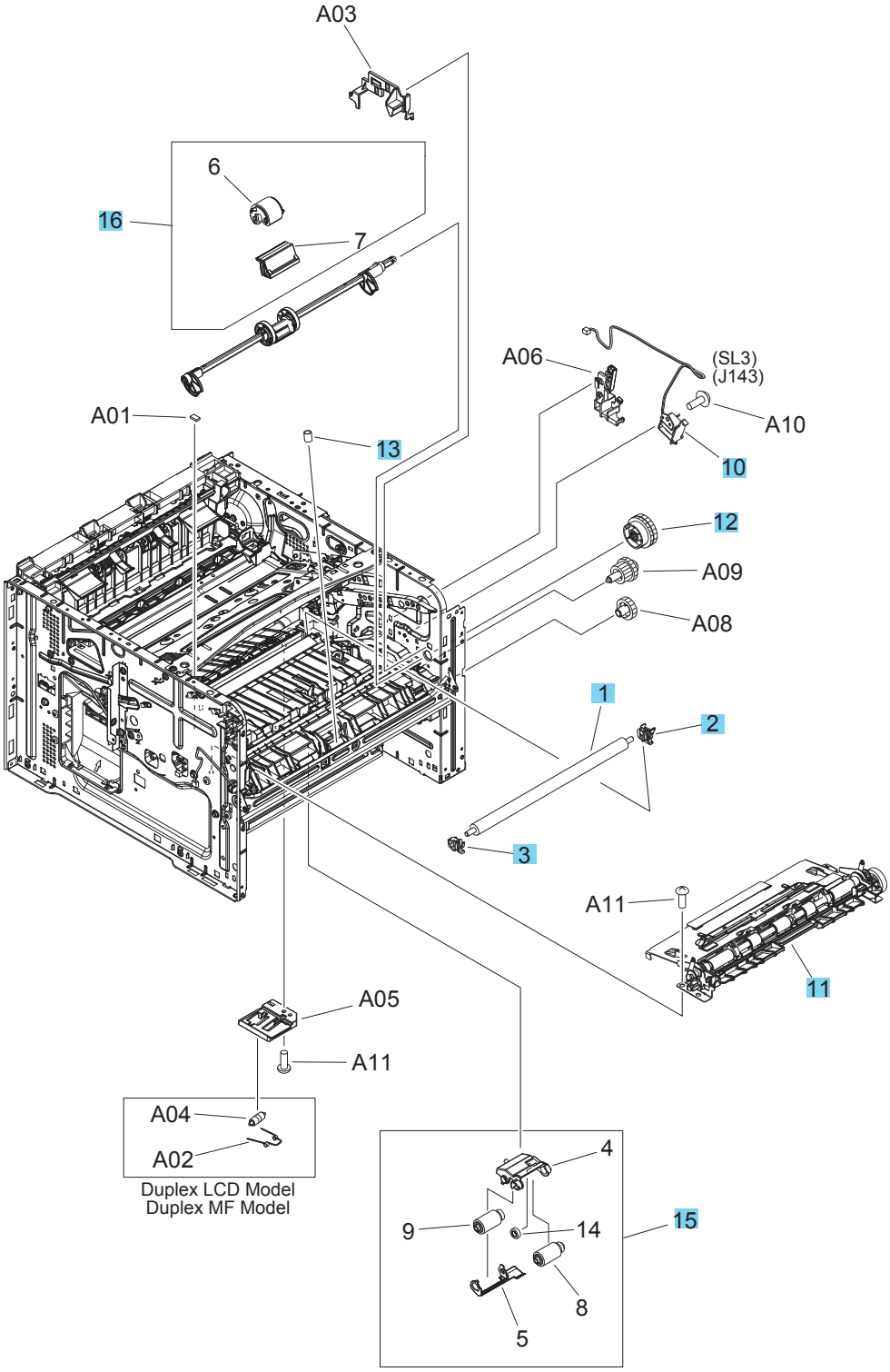


Table 5-10 Parts and diagrams: Internal assemblies (3 of 4)

Ref No	Part number	Description	Qty
1	F2A68-67910	Roller, transfer kit	1
2	RC4-3133-000CN	Holder, transfer roller right	1
3	RC4-3134-000CN	Holder, transfer roller left	1
10	RM1-5421-000CN	Solenoid assembly	1
11	RM2-5671-000CN	Registration assembly (M501/M506/E50045/M527/E52545)	1
11	RM2-2577-000CN	Registration assembly (M507/E50145/M528/E52645)	1
12	RM2-5700-000CN	Gear, multipurpose	1
13	RU8-2935-000CN	Spring, compression (included in the multipurpose tray roller and separation pad kit)	1
15	J8H60-67903	Roller, Tray 2-3 kit (M501)	1
15	F2A68-67913	Roller, Tray 2-x kit (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	1
16	F2A68-67914	Roller and pad, Tray 1 pickup and separation pad kit	1
Not shown	B5L46-60102	Stapler unit (M527/E52545/M528/E52645)	1
Not shown	F2A76-60113	Cable, stapler 6-pin (M527/E52545/M528/E52645)	1
Not shown	B5L24-60001	Near-field communications (NFC) PCA (M527/E52545)	1
Not shown	J8030-61001	Near-field communications (NFC) HP JetDirect 3000W NFC accessory (M528/E52645)	1
Not shown	F2A76-40007	Bracket, WiFi PCA (M506z/E50045/M507z/E50145z/M527/E52545/M528/E52645)	1
Not shown	F2A76-60112	Cable, WiFi PCA (M506z/E50045z/M507z/E50145z/M527/E52545/M528/E52645)	1
Not shown	1150-7968	Wireless embedded PCA (M506z/E50045z/M507z/E50145z/M527/E52545M528/E52645)	1
Not shown	RM2-5666-000CN	Assembly-Intermediate Paper Feed	1

Parts and diagrams: Internal assemblies (4 of 4)

Parts diagram and parts list for the internal printer assemblies.

Figure 5-7 Parts and diagrams: Internal assemblies (4 of 4)

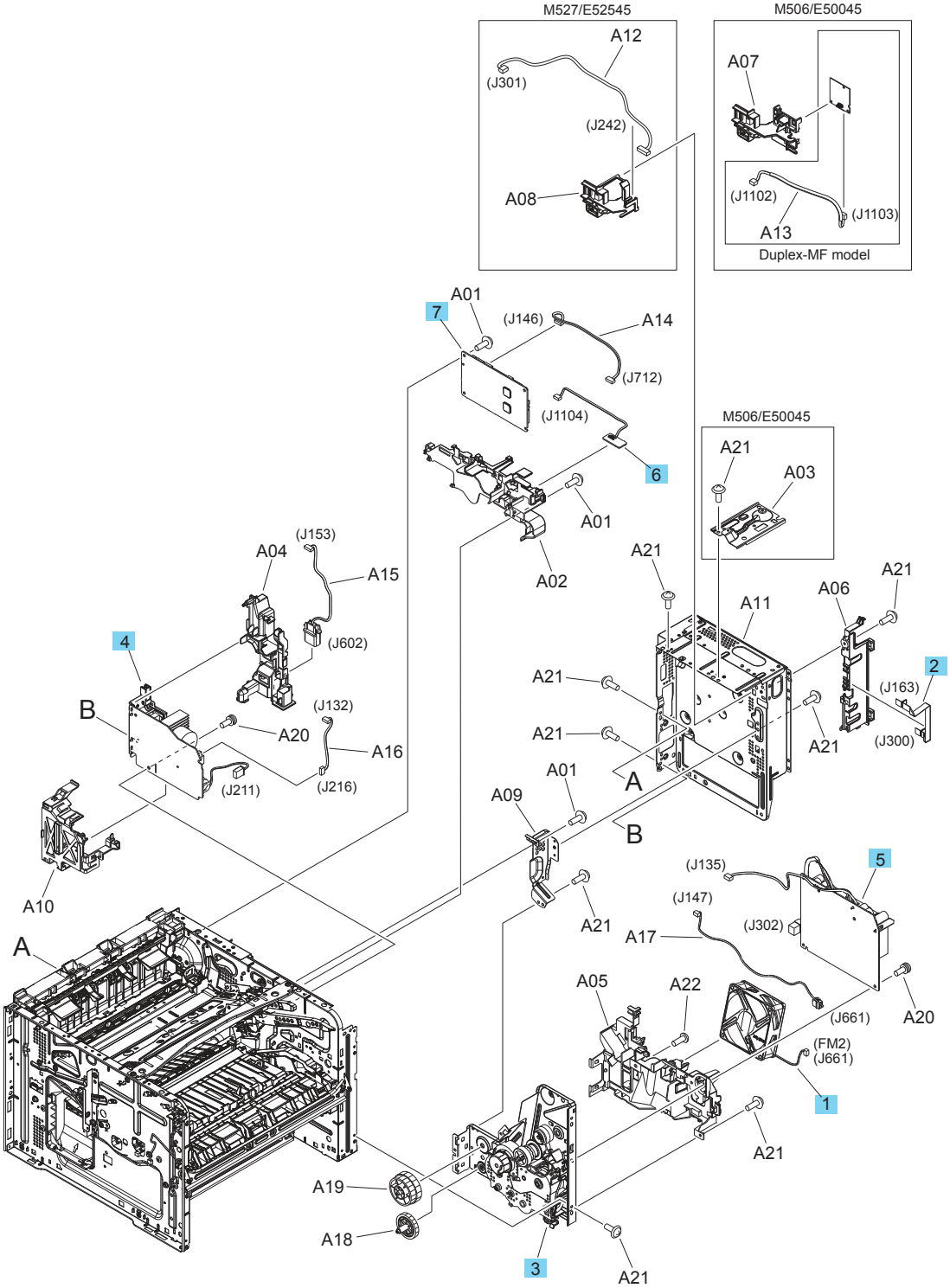


Table 5-11 Parts and diagrams: Internal assemblies (4 of 4)

Ref No	Part number	Description	Qty
1	RK2-8068-000CN	Fan (FM2)	1
2	RK2-6261-000CN	Cable, flat flexible (M506/E50045/M507/ E50145/M527/E52545/M528/E52645)	1
2	RK2-6526-000CN	Cable, flat flexible (M501)	1
3	RM2-5715-000CN	Paper feed drive assembly	1
4	RM2-7948-000CN	Fixing (fuser) power supply (FPS) 110V-127V (includes tray connector)	1
4	RM2-7949-000CN	Fixing (fuser) power supply (FPS) 220V-240V (includes tray connector)	1
5	RM2-7951-000CN	Low-voltage power supply (LVPS) 110V-127V (M527/E52545/M528/E52645)	1
5	RM2-7952-000CN	Low-voltage power supply (LVPS) 220V-240V (M527/E52545/M528/E52645)	1
5	RM2-7941-000CN	Low-voltage power supply (LVPS) 110V-127V (M501/M506/E50045/M507/E50145)	1
5	RM2-7942-000CN	Low-voltage power supply (LVPS) 220V-240V (M501/M506/E50045/M507/E50145)	1
6	RM2-7955-000CN	Memory PCA (M506/E50045/M507/E50145/ M527/E52545/M528/E52645)	1
7	RM2-8612-000CN	DC controller PCA (M506/M527/E52545)	1
7	RM3-7475-010CN	DC controller PCA, duplex (M527/M528/ E52545/E52645)	1
7	RM3-7476-000CN	DC controller PCA, simplex (M507/E50145/ M528/E52645)	1
7	RM2-8600-000CN	DC controller PCA, simplex (M506/E50045)	1
7	RM2-7940-000CN	DC controller PCA, duplex (M506/E50045)	1
7	RM2-8710-000CN	DC controller PCA, simplex (M501)	1
7	RM2-7950-000CN	DC controller PCA, duplex (M501)	1
Not shown	F2A76-67910	Formatter PCA kit (M527/E52545)	1
Not shown	1PV64-60002	Formatter PCA kit (M528/E52645)	1
Not shown	1PV64-60003	Formatter PCA kit (M528/E52645; China)	1
Not shown	1PV87-60001	Formatter PCA kit (M507x/dng /E50145)	1
Not shown	1PV87-60002	Formatter (M507dn)	1
Not shown	1PV87-60003	Formatter (M507n)	1
Not shown	1PV86-60004	Formatter (M507x/dng) China/India	1
Not shown	1PV86-60007	Formatter (M507dn) China/India	1
Not shown	1PV86-60008	Formatter (M507n) China/India	1
Not shown	F2A68-67915	Formatter PCA kit (M506n/dn /E50045n/dn)	1

Table 5-11 Parts and diagrams: Internal assemblies (4 of 4) (continued)

Ref No	Part number	Description	Qty
Not shown	F2A68-67916	Formatter PCA kit (M506x /E50045dw)	1
Not shown	J8H60-67901	Formatter PCA (M501n)	1
Not shown	J8H60-67902	Formatter PCA (M501n; China)	1
Not shown	J8H61-67901	Formatter PCA (M501dn)	1
Not shown	J8H61-67902	Formatter PCA (M501dn; China)	1
Not shown	RL2-0888-000CN	Case, formatter (M501)	1
Not shown	RL2-0885-000CN	Case, formatter PCA (M506/E50045/M507/E50145)	1
Not shown	RL2-0895-000CN	Case, formatter (M527/E52545/M528/E52645)	1
Not shown	CC456-60002	Fax PCA (M527/E52545)	1
Not shown	2EH31-67901	Fax PCA; HP analog fax 700 accessory (M528/E52645)	1
Not shown	5851-5605	Cradle, fax PCA (M527/E52545)	1
Not shown	5851-5997	Cable, fax PCA (M527/E52545)	1

Parts and diagrams: 1x550-sheet paper feeder

Parts diagram and parts list for the 1x550-sheet paper feeder.

Figure 5-8 **Parts and diagrams: 1x550-sheet paper feeder**

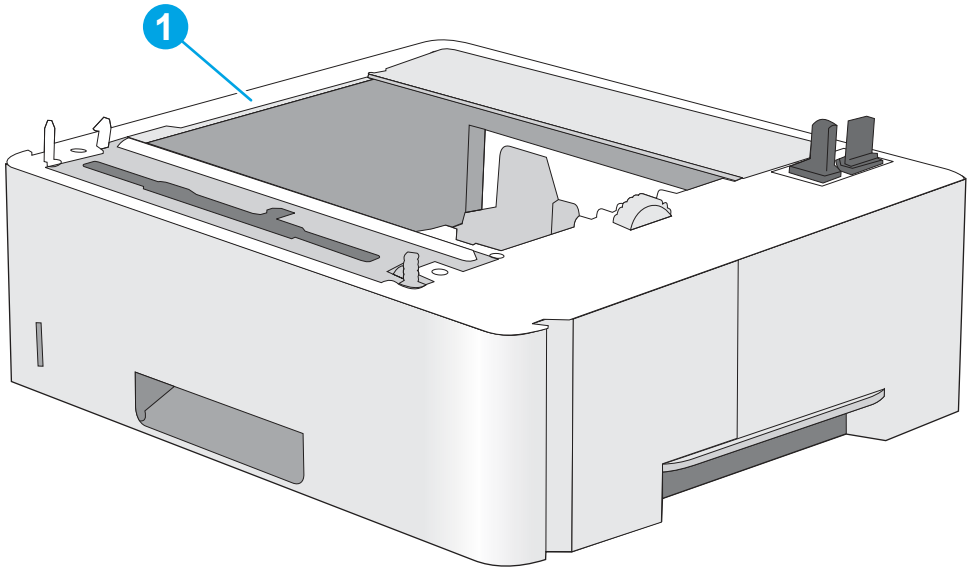


Table 5-12 **Parts and diagrams: 1x550-sheet paper feeder**

Ref No	Part number	Description	Qty
1	F2A72-67901	1x550-sheet paper feeder (whole unit)	1

Alphabetical parts list

Table 5-13 Alphabetical parts list

Description	Part number	Table and page
1x550-sheet paper feeder (whole unit)	F2A72-67901	Parts and diagrams: 1x550-sheet paper feeder on page 1247
Bezel, control panel (M527/E52545/M528/E52645)	B5L46-60117	Document feeder and image scanner assembly (MFP only) on page 1231
Bracket, WiFi PCA (M506z/E50045/M507z/E50145z/M527/E52545/M528/E52645)	F2A76-40007	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Cable, 18-pin control panel (M527/E52545/M528/E52645)	5851-5935	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, HDMI PAB to SCAM (M527/E52545/M528/E52645)	F2A76-50004	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, HDMI control panel (M527/E52545/M528/E52645)	5851-5936	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, HIP (M506/E50045 duplex models)	RK2-7104-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cable, HIP (M507/E50145 duplex models)	RK3-0526-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cable, HIP USB control panel (M527/E52545/M528/E52645)	5851-5938	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, TAG assembly (M501/M506/E50045/M527/E52545)	RM2-5702-000CN	Internal assemblies (1 of 4) on page 1239
Cable, TAG assembly (M507/E50145/M528/E52645)	RM2-2596-000CN	Internal assemblies (1 of 4) on page 1239
Cable, USB (M506/E50045)	RK2-7067-000CN	Internal assemblies (1 of 4) on page 1239
Cable, USB (M507/E50145)	RK2-7067-000CN	Internal assemblies (1 of 4) on page 1239
Cable, WU USB control panel (M527/E52545)	5851-5939	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, WiFi PCA (M506z/E50045z/M507z/E50145z/M527/E52545/M528/E52645)	F2A76-60112	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Cable, fax PCA (M527/E52545)	5851-5997	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Cable, flat flexible (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	RK2-6261-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Cable, flat flexible (FFC)	RK2-8657-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Cable, flat flexible (FFC)	RK3-0503-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Cable, flat flexible (M501)	RK2-6526-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Cable, flat-flexible	RK2-6259-000CN	Internal assemblies (1 of 4) on page 1239
Cable, flat-flexible	RK2-6260-000CN	Internal assemblies (1 of 4) on page 1239
Cable, stapler (M5278/E52645)	B5L46-60116	Document feeder and image scanner assembly (MFP only) on page 1231
Cable, stapler 6-pin (M527/E52545/M528/E52645)	F2A76-60113	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Case, formatter (M527/E52545/M528/E52645)	RL2-0895-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Case, formatter (M501)	RL2-0888-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Case, formatter PCA (M506/E50045/M507/E50145)	RL2-0885-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Cassette (Tray 2)	RM2-5690-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Clutch, paper re-pickup assembly (duplex LCD and MF models)	RM2-8514-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Control panel (507n/dn)	RM2-2610-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Control panel (M501)	J8H60-67904	Covers (M501/M506/E50045/M507/E50145) on page 1234
Control panel E50145	K0Q15-60106	Covers (M501/M506/E50045/M507/E50145) on page 1234
Control panel kit (M527/E52545/M528/E52645)	B5L47-67018	Document feeder and image scanner assembly (MFP only) on page 1231
Control panel kit (M506x/E50045x)	G1W41-67907	Covers (M501/M506/E50045/M507/E50145) on page 1234
Control panel kit (M507x/E50145x)	K0Q15-67901	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, HIP (M506/E50045/M507/E50145 duplex models)	RC4-4142-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, HIP (M527/E52545/M528/E52645)	B5L46-40021	Document feeder and image scanner assembly (MFP only) on page 1231
Cover, I/O (M506/E50045/M507/E50145)	RC4-4433-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, I/O (M527/E52545)	RC4-4433-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, USB (M506/E50045/M507/E50145)	RC4-4149-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, USB (M527/E52545)	B5L46-40028	Document feeder and image scanner assembly (MFP only) on page 1231
Cover, WiFi	RC5-5148-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, formatter (M506/E50045/M507/E50145)	RM2-5725-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, formatter (M527/E52545/M528/E52645)	RM2-5717-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, formatter (M501)	RC4-4200-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, full detect sensor	RC4-3219-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, full detect sensor	RC4-3219-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, keyboard (M527/E52545/M528/E52645)	B5L46-40002	Document feeder and image scanner assembly (MFP only) on page 1231
Cover, left (M501/M506/E50045)	RM2-5727-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, left (M507/E50145)	RM2-5713-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, left (M527/E52545)	RM2-5727-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, left (M528/E52645)	RM2-5713-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, rear image scanner (M527/E52545)	B5L46-40011	Document feeder and image scanner assembly (MFP only) on page 1231
Cover, right (M527/E52545/M528/E52645)	RC4-4437-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Cover, right (M501/M506/E50045)	RC4-4437-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, right (M507/E50145)	RC4-4137-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Cover, stapler blank (M527dn/E5245dn)	F2A76-40005	Covers (M527/E52545/M528/E52645) on page 1237

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Cover, stationary stapler, inner (M527c/f/z/E52545c/f/z/ M528c/f/z/E52645c/f/z)	F2A76-40003	Covers (M527/E52545/M528/ E52645) on page 1237
Cover, top (M501 duplex models)	RM2-5726-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M501)	RM2-5735-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M506/E50045 duplex LCD models)	RM2-5699-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M506/E50045 duplex MF models)	RM2-5686-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M506/E50045 simplex models)	RM2-5687-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M507/E50145 duplex models)	RM2-2587-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M507/E50145 simplex models)	RM2-2607-000CN	Covers (M501/M506/E50045/ M507/E50145) on page 1234
Cover, top (M527/E52545/M528/E52645)	RM2-5718-000CN	Covers (M527/E52545/M528/ E52645) on page 1237
Cover, top left (M527/E52545/M528/E52645)	RC4-4147-000CN	Covers (M527/E52545/M528/ E52645) on page 1237
Cover, top rear (M527/E52545)	RC4-4150-000CN	Covers (M527/E52545/M528/ E52645) on page 1237
Cradle, fax PCA (M527/E52545)	5851-5605	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA (M506/M527/E52545)	RM2-8612-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, duplex (M506/E50045)	RM2-7940-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, duplex (M501)	RM2-7950-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, duplex (M527/M528/E52545/E52645)	RM3-7475-010CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, simplex (M506/E50045)	RM2-8600-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, simplex (M501)	RM2-8710-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
DC controller PCA, simplex (M507/E50145/M528/E52645)	RM3-7476-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Document feeder kit (M527/E52545/M528/E52645 Enterprise)	B5L47-67906	Document feeder and image scanner assembly (MFP only) on page 1231
Document feeder kit (M527/E52545/M528/E52645 Flow)	B5L47-67907	Document feeder and image scanner assembly (MFP only) on page 1231
Door, cartridge (M501/M507/E50145)	RM2-5677-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Door, cartridge (M528/E52645)	RM2-5691-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Door, cartridge kit (M506n/dn/E50045n/dn)	F2A68-67919	Covers (M501/M506/E50045/M507/E50145) on page 1234
Door, cartridge kit (M506x/E50045x)	F2A68-67920	Covers (M501/M506/E50045/M507/E50145) on page 1234
Door, cartridge kit (M527/E52545)	F2A76-67912	Covers (M527/E52545/M528/E52645) on page 1237
Door, rear (M501/M506/E50045/M507/E50145 duplex models)	RM2-5711-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Door, rear (M501/M506/E50045/M507/E50145 simplex models)	RM2-5712-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Door, rear (M527/E52545/M528/E52645)	RM2-5711-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Door, stapler flap (M527c/f/z/E52545c/f/z)	F2A76-40004	Covers (M527/E52545/M528/E52645) on page 1237
Fan (FM1)	RK2-8068-000CN	Internal assemblies (1 of 4) on page 1239
Fan (FM2)	RK2-8068-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Fax PCA (M527/E52545)	CC456-60002	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Fax PCA; HP analog fax 700 accessory (M528/E52645)	2EH31-67901	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Film bias assembly	RM2-5689-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Fixing (fuser) assembly 110V-127V (M501/M506/E50045/M527/E52545)	RM2-2585-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Fixing (fuser) assembly 110V-127V (M507/E50145/M528/E52645)	RM2-2585-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Fixing (fuser) assembly 220V-240V (M501/M506/E50045/M527/E52545)	RM2-2586-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Fixing (fuser) assembly 220V-240V (M507/E50145/M528/E52645)	RM2-2586-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Fixing (fuser) power supply (FPS) 110V-127V (includes tray connector)	RM2-7948-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Fixing (fuser) power supply (FPS) 220V-240V (includes tray connector)	RM2-7949-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter (M507dn)	1PV87-60002	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter (M507dn) China/India	1PV86-60007	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter (M507n)	1PV87-60003	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter (M507n) China/India	1PV86-60008	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter (M507x/dng) China/India	1PV86-60004	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA (M501dn)	J8H61-67901	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA (M501dn; China)	J8H61-67902	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA (M501n)	J8H60-67901	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA (M501n; China)	J8H60-67902	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA kit (M506n/dn /E50045n/dn)	F2A68-67915	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA kit (M506x /E50045dw)	F2A68-67916	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA kit (M507x/dng /E50145)	1PV87-60001	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA kit (M527/E52545)	F2A76-67910	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Formatter PCA kit (M528/E52645)	1PV64-60002	Parts and diagrams: Internal assemblies (4 of 4) on page 1245

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Gear, multipurpose	RM2-5700-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Hinge, cartridge door left	RC4-3010-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Hinge, cartridge door left	RC4-3010-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Hinge, left document feeder (M527/E52545/M528/E52645)	COM39-60064	Document feeder and image scanner assembly (MFP only) on page 1231
Hinge, right document feeder (M527/E52545/M528/E52645)	COM39-60065	Document feeder and image scanner assembly (MFP only) on page 1231
Holder, transfer roller left	RC4-3134-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Holder, transfer roller right	RC4-3133-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Image scanner assembly kit (M527/E52545/M528/E52645)	F2A76-67909	Document feeder and image scanner assembly (MFP only) on page 1231
Jewel, HP logo (2pc; M507/E50145)	7121-8684	Covers (M501/M506/E50045/M507/E50145) on page 1234
Keyboard UK (M527/E52545/M528/E52645)	B5L47-67020	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard US (M527/E52545/M528/E52645)	B5L47-67019	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (ES, PT)	5851-6023	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (FR, IT, RU, DE, ES: UK Kybd)	5851-6019	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (FR-CN, ES-LA, ES: US Keyboard)	5851-6020	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (FR-SW, DE-SW, DA: UK Keyboard)	5851-6021	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (JA-KG, JA-KT)	5851-6024	Document feeder and image scanner assembly (MFP only) on page 1231
Keyboard overlay kit (ZHTW, ZHCN)	5851-6022	Document feeder and image scanner assembly (MFP only) on page 1231

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Laser/scanner assembly (M501/M506/E50045/M527/E52545)	RM2-5528-000CN	Internal assemblies (1 of 4) on page 1239
Laser/scanner assembly (M507/E50145/M528/E52645)	RM2-2891-000CN	Internal assemblies (1 of 4) on page 1239
Link, pressure release (cartridge door)	RC4-4479-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Link, pressure release (cartridge door)	RC4-4479-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Low-voltage power supply (LVPS) 110V-127V (M501/M506/E50045/M507/E50145)	RM2-7941-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Low-voltage power supply (LVPS) 220V-240V (M501/M506/E50045/M507/E50145)	RM2-7942-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Low-voltage power supply (LVPS) 220V-240V (M527/E52545/M528/E52645)	RM2-7952-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Low-voltage power supply (LVPS) 110V-127V (M527/E52545/M528/E52645)	RM2-7951-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Memory PCA (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	RM2-7955-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Microswitch (SW2)	RK2-0534-000CN	Internal assemblies (1 of 4) on page 1239
Motor, main M1	RM2-8684-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Near-field communications (NFC) HP JetDirect 3000W NFC accessory (M528/E52645)	J8030-61001	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Near-field communications (NFC) PCA (M527/E52545)	B5L24-60001	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Paper feed drive assembly	RM2-5715-000CN	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
Plate, name (E50145dn)	1PU51-40001	Covers (M501/M506/E50045/M507/E50145) on page 1234
Plate, name (E52645c)	1PS55-40001	Covers (M527/E52545/M528/E52645) on page 1237
Plate, name (E52645dn)	1PS54-40001	Covers (M527/E52545/M528/E52645) on page 1237
Plate, name (M501)	J8H60-40001	Covers (M501/M506/E50045/M507/E50145) on page 1234
Plate, name (M506/E50045)	F2A68-40002	Covers (M501/M506/E50045/M507/E50145) on page 1234

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Plate, name (M507)	1PV87-40001	Covers (M501/M506/E50045/M507/E50145) on page 1234
Plate, name (M527/E52545)	F2A74-40001	Covers (M527/E52545/M528/E52645) on page 1237
Plate, name (M528c/z)	1PV66-40001	Covers (M527/E52545/M528/E52645) on page 1237
Plate, name (M528dn/f)	1PV64-40001	Covers (M527/E52545/M528/E52645) on page 1237
Plug/cap, fax port (M527/E52545)	5851-1885	Covers (M527/E52545/M528/E52645) on page 1237
Power supply, high-voltage (HVPS) (M501/M506/E50045/M527/E52545)	RM2-7945-000CN	Internal assemblies (1 of 4) on page 1239
Power supply, high-voltage (HVPS) (M507/E50145/M528/E52645)	RM3-7424-000CN	Internal assemblies (1 of 4) on page 1239
Registration assembly (M501/M506/E50045/M527/E52545)	RM2-5671-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Registration assembly (M507/E50145/M528/E52645)	RM2-2577-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Roller and pad, Tray 1 pickup and separation pad kit	F2A68-67914	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Roller, Tray 2-3 kit (M501)	J8H60-67903	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Roller, Tray 2-x kit (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	F2A68-67913	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Roller, separation (Tray 2/3)	RM2-5745-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Roller, transfer kit	F2A68-67910	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Scan-control board (SCB) kit (M527/E52545)	B5L47-67903	Document feeder and image scanner assembly (MFP only) on page 1231
Scan-control board (SCB) kit (M528/E52645)	B5L47-67901	Document feeder and image scanner assembly (MFP only) on page 1231
Shaft, support	RC4-3002-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Shaft, support	RC4-3002-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Solenoid assembly	RM1-5421-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243

Table 5-13 Alphabetical parts list (continued)

Description	Part number	Table and page
Spring, compression (included in the multipurpose tray roller and separation pad kit)	RU8-2935-000CN	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Stapler unit (M527/E52545/M528/E52645)	B5L46-60102	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
Sticker, stapler cartridge replacement (M527/M528/E52645)	B5L24-00035	Covers (M527/E52545/M528/E52645) on page 1237
Switch, lever assembly	RM2-5701-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Switch, power PCA assembly	RM2-8597-000CN	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
Tray, paper delivery output bin (M501/M506/E50045)	RC4-4439-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Tray, paper delivery output bin (M507/E50145)	RC4-4141-000CN	Covers (M501/M506/E50045/M507/E50145) on page 1234
Tray, paper delivery output bin (M527/E52545/M528/E52645)	RC4-4141-000CN	Covers (M527/E52545/M528/E52645) on page 1237
Wireless embedded PCA (M506z/E50045z/M507z/E50145z/M527/E52545M528/E52645)	1150-7968	Parts and diagrams: Internal assemblies (3 of 4) on page 1243

Numerical parts list

Table 5-14 **Numerical parts list**

Part number	Description	Table and page
1150-7968	Wireless embedded PCA (M506z/E50045z/M507z/E50145z/ M527/E52545M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
1PS54-40001	Plate, name (E52645dn)	Covers (M527/E52545/M528/ E52645) on page 1237
1PS55-40001	Plate, name (E52645c)	Covers (M527/E52545/M528/ E52645) on page 1237
1PU51-40001	Plate, name (E50145dn)	Covers (M501/M506/E50045/ M507/E50145) on page 1234
1PV64-40001	Plate, name (M528dn/f)	Covers (M527/E52545/M528/ E52645) on page 1237
1PV64-60002	Formatter PCA kit (M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV66-40001	Plate, name (M528c/z)	Covers (M527/E52545/M528/ E52645) on page 1237
1PV86-60004	Formatter (M507x/dng) China/India	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV86-60007	Formatter (M507dn) China/India	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV86-60008	Formatter (M507n) China/India	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV87-40001	Plate, name (M507)	Covers (M501/M506/E50045/ M507/E50145) on page 1234
1PV87-60001	Formatter PCA kit (M507x/dng /E50145)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV87-60002	Formatter (M507dn)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
1PV87-60003	Formatter (M507n)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
2EH31-67901	Fax PCA; HP analog fax 700 accessory (M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
5851-1885	Plug/cap, fax port (M527/E52545)	Covers (M527/E52545/M528/ E52645) on page 1237
5851-5605	Cradle, fax PCA (M527/E52545)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
5851-5935	Cable, 18-pin control panel (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-5936	Cable, HDMI control panel (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-5938	Cable, HIP USB control panel (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-5939	Cable, WU USB control panel (M527/E52545)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-5997	Cable, fax PCA (M527/E52545)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
5851-6019	Keyboard overlay kit (FR, IT, RU, DE, ES: UK Kybd)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-6020	Keyboard overlay kit (FR-CN, ES-LA, ES: US Keyboard)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-6021	Keyboard overlay kit (FR-SW, DE-SW, DA: UK Keyboard)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-6022	Keyboard overlay kit (ZHTW, ZHCN)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-6023	Keyboard overlay kit (ES, PT)	Document feeder and image scanner assembly (MFP only) on page 1231
5851-6024	Keyboard overlay kit (JA-KG, JA-KT)	Document feeder and image scanner assembly (MFP only) on page 1231
7121-8684	Jewel, HP logo (2pc; M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
B5L24-00035	Sticker, stapler cartridge replacement (M527/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
B5L24-60001	Near-field communications (NFC) PCA (M527/E52545)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
B5L46-40002	Cover, keyboard (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L46-40011	Cover, rear image scanner (M527/E52545)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L46-40021	Cover, HIP (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
B5L46-40028	Cover, USB (M527/E52545)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L46-60102	Stapler unit (M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
B5L46-60116	Cable, stapler (M5278/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L46-60117	Bezel, control panel (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67018	Control panel kit (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67019	Keyboard US (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67020	Keyboard UK (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67901	Scan-control board (SCB) kit (M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67903	Scan-control board (SCB) kit (M527/E52545)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67906	Document feeder kit (M527/E52545/M528/E52645 Enterprise)	Document feeder and image scanner assembly (MFP only) on page 1231
B5L47-67907	Document feeder kit (M527/E52545/M528/E52645 Flow)	Document feeder and image scanner assembly (MFP only) on page 1231
CC456-60002	Fax PCA (M527/E52545)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
COM39-60064	Hinge, left document feeder (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
COM39-60065	Hinge, right document feeder (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
F2A68-40002	Plate, name (M506/E50045)	Covers (M501/M506/E50045/M507/E50145) on page 1234
F2A68-67910	Roller, transfer kit	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
F2A68-67913	Roller, Tray 2-x kit (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
F2A68-67914	Roller and pad, Tray 1 pickup and separation pad kit	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
F2A68-67915	Formatter PCA kit (M506n/dn /E50045n/dn)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
F2A68-67916	Formatter PCA kit (M506x /E50045dw)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
F2A68-67919	Door, cartridge kit (M506n/dn/E50045n/dn)	Covers (M501/M506/E50045/M507/E50145) on page 1234
F2A68-67920	Door, cartridge kit (M506x/E50045x)	Covers (M501/M506/E50045/M507/E50145) on page 1234
F2A72-67901	1x550-sheet paper feeder (whole unit)	Parts and diagrams: 1x550-sheet paper feeder on page 1247
F2A74-40001	Plate, name (M527/E52545)	Covers (M527/E52545/M528/E52645) on page 1237
F2A76-40003	Cover, stationary stapler, inner (M527c/f/z/E52545c/f/z/M528c/f/z/E52645c/f/z)	Covers (M527/E52545/M528/E52645) on page 1237
F2A76-40004	Door, stapler flap (M527c/f/z/E52545c/f/z)	Covers (M527/E52545/M528/E52645) on page 1237
F2A76-40005	Cover, stapler blank (M527dn/E5245dn)	Covers (M527/E52545/M528/E52645) on page 1237
F2A76-40007	Bracket, WiFi PCA (M506z/E50045/M507z/E50145z/M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
F2A76-50004	Cable, HDMI PAB to SCAM (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
F2A76-60112	Cable, WiFi PCA (M506z/E50045z/M507z/E50145z/M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
F2A76-60113	Cable, stapler 6-pin (M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
F2A76-67909	Image scanner assembly kit (M527/E52545/M528/E52645)	Document feeder and image scanner assembly (MFP only) on page 1231
F2A76-67910	Formatter PCA kit (M527/E52545)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
F2A76-67912	Door, cartridge kit (M527/E52545)	Covers (M527/E52545/M528/E52645) on page 1237
G1W41-67907	Control panel kit (M506x/E50045x)	Covers (M501/M506/E50045/M507/E50145) on page 1234

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
J8030-61001	Near-field communications (NFC) HP JetDirect 3000W NFC accessory (M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
J8H60-40001	Plate, name (M501)	Covers (M501/M506/E50045/M507/E50145) on page 1234
J8H60-67901	Formatter PCA (M501n)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
J8H60-67902	Formatter PCA (M501n; China)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
J8H60-67903	Roller, Tray 2-3 kit (M501)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
J8H60-67904	Control panel (M501)	Covers (M501/M506/E50045/M507/E50145) on page 1234
J8H61-67901	Formatter PCA (M501dn)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
J8H61-67902	Formatter PCA (M501dn; China)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
K0Q15-60106	Control panel E50145	Covers (M501/M506/E50045/M507/E50145) on page 1234
K0Q15-67901	Control panel kit (M507x/E50145x)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-3002-000CN	Shaft, support	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-3002-000CN	Shaft, support	Covers (M527/E52545/M528/E52645) on page 1237
RC4-3010-000CN	Hinge, cartridge door left	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-3010-000CN	Hinge, cartridge door left	Covers (M527/E52545/M528/E52645) on page 1237
RC4-3133-000CN	Holder, transfer roller right	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RC4-3134-000CN	Holder, transfer roller left	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RC4-3219-000CN	Cover, full detect sensor	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-3219-000CN	Cover, full detect sensor	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4137-000CN	Cover, right (M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
RC4-4141-000CN	Tray, paper delivery output bin (M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4141-000CN	Tray, paper delivery output bin (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4142-000CN	Cover, HIP (M506/E50045/M507/E50145 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4147-000CN	Cover, top left (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4149-000CN	Cover, USB (M506/E50045/M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4150-000CN	Cover, top rear (M527/E52545)	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4200-000CN	Cover, formatter (M501)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4433-000CN	Cover, I/O (M506/E50045/M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4433-000CN	Cover, I/O (M527/E52545)	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4437-000CN	Cover, right (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RC4-4437-000CN	Cover, right (M501/M506/E50045)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4439-000CN	Tray, paper delivery output bin (M501/M506/E50045)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4479-000CN	Link, pressure release (cartridge door)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RC4-4479-000CN	Link, pressure release (cartridge door)	Covers (M527/E52545/M528/E52645) on page 1237
RC5-5148-000CN	Cover, WiFi	Covers (M501/M506/E50045/M507/E50145) on page 1234
RK2-0534-000CN	Microswitch (SW2)	Internal assemblies (1 of 4) on page 1239
RK2-6259-000CN	Cable, flat-flexible	Internal assemblies (1 of 4) on page 1239
RK2-6260-000CN	Cable, flat-flexible	Internal assemblies (1 of 4) on page 1239
RK2-6261-000CN	Cable, flat flexible (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RK2-6526-000CN	Cable, flat flexible (M501)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RK2-7067-000CN	Cable, USB (M506/E50045)	Internal assemblies (1 of 4) on page 1239

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
RK2-7067-000CN	Cable, USB (M507/E50145)	Internal assemblies (1 of 4) on page 1239
RK2-7104-000CN	Cable, HIP (M506/E50045 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RK2-8068-000CN	Fan (FM1)	Internal assemblies (1 of 4) on page 1239
RK2-8068-000CN	Fan (FM2)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RK2-8657-000CN	Cable, flat flexible (FFC)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RK3-0503-000CN	Cable, flat flexible (FFC)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RK3-0526-000CN	Cable, HIP (M507/E50145 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RL2-0885-000CN	Case, formatter PCA (M506/E50045/M507/E50145)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RL2-0888-000CN	Case, formatter (M501)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RL2-0895-000CN	Case, formatter (M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM1-5421-000CN	Solenoid assembly	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RM2-2577-000CN	Registration assembly (M507/E50145/M528/E52645)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RM2-2585-000CN	Fixing (fuser) assembly 110V-127V (M501/M506/E50045/M527/E52545)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-2585-000CN	Fixing (fuser) assembly 110V-127V (M507/E50145/M528/E52645)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-2586-000CN	Fixing (fuser) assembly 220V-240V (M501/M506/E50045/M527/E52545)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-2586-000CN	Fixing (fuser) assembly 220V-240V (M507/E50145/M528/E52645)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-2587-000CN	Cover, top (M507/E50145 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-2596-000CN	Cable, TAG assembly (M507/E50145/M528/E52645)	Internal assemblies (1 of 4) on page 1239
RM2-2607-000CN	Cover, top (M507/E50145 simplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-2610-000CN	Control panel (507n/dn)	Covers (M501/M506/E50045/M507/E50145) on page 1234

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
RM2-2891-000CN	Laser/scanner assembly (M507/E50145/M528/E52645)	Internal assemblies (1 of 4) on page 1239
RM2-5528-000CN	Laser/scanner assembly (M501/M506/E50045/M527/E52545)	Internal assemblies (1 of 4) on page 1239
RM2-5671-000CN	Registration assembly (M501/M506/E50045/M527/E52545)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RM2-5677-000CN	Door, cartridge (M501/M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5686-000CN	Cover, top (M506/E50045 duplex MF models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5687-000CN	Cover, top (M506/E50045 simplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5689-000CN	Film bias assembly	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-5690-000CN	Cassette (Tray 2)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-5691-000CN	Door, cartridge (M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RM2-5699-000CN	Cover, top (M506/E50045 duplex LCD models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5700-000CN	Gear, multipurpose	Parts and diagrams: Internal assemblies (3 of 4) on page 1243
RM2-5701-000CN	Switch, lever assembly	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-5702-000CN	Cable, TAG assembly (M501/M506/E50045/M527/E52545)	Internal assemblies (1 of 4) on page 1239
RM2-5711-000CN	Door, rear (M501/M506/E50045/M507/E50145 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5711-000CN	Door, rear (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RM2-5712-000CN	Door, rear (M501/M506/E50045/M507/E50145 simplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5713-000CN	Cover, left (M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5713-000CN	Cover, left (M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RM2-5715-000CN	Paper feed drive assembly	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-5717-000CN	Cover, formatter (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237
RM2-5718-000CN	Cover, top (M527/E52545/M528/E52645)	Covers (M527/E52545/M528/E52645) on page 1237

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
RM2-5725-000CN	Cover, formatter (M506/E50045/M507/E50145)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5726-000CN	Cover, top (M501 duplex models)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5727-000CN	Cover, left (M501/M506/E50045)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5727-000CN	Cover, left (M527/E52545)	Covers (M527/E52545/M528/E52645) on page 1237
RM2-5735-000CN	Cover, top (M501)	Covers (M501/M506/E50045/M507/E50145) on page 1234
RM2-5745-000CN	Roller, separation (Tray 2/3)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-7940-000CN	DC controller PCA, duplex (M506/E50045)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7941-000CN	Low-voltage power supply (LVPS) 110V-127V (M501/M506/E50045/M507/E50145)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7942-000CN	Low-voltage power supply (LVPS) 220V-240V (M501/M506/E50045/M507/E50145)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7945-000CN	Power supply, high-voltage (HVPS) (M501/M506/E50045/M527/E52545)	Internal assemblies (1 of 4) on page 1239
RM2-7948-000CN	Fixing (fuser) power supply (FPS) 110V-127V (includes tray connector)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7949-000CN	Fixing (fuser) power supply (FPS) 220V-240V (includes tray connector)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7950-000CN	DC controller PCA, duplex (M501)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7951-000CN	Low-voltage power supply (LVPS) 110V-127V (M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7952-000CN	Low-voltage power supply (LVPS) 220V-240V (M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-7955-000CN	Memory PCA (M506/E50045/M507/E50145/M527/E52545/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-8514-000CN	Clutch, paper re-pickup assembly (duplex LCD and MF models)	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-8597-000CN	Switch, power PCA assembly	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-8600-000CN	DC controller PCA, simplex (M506/E50045)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245

Table 5-14 Numerical parts list (continued)

Part number	Description	Table and page
RM2-8612-000CN	DC controller PCA (M506/M527/E52545)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM2-8684-000CN	Motor, main M1	Parts and diagrams: Internal assemblies (2 of 4) on page 1241
RM2-8710-000CN	DC controller PCA, simplex (M501)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM3-7424-000CN	Power supply, high-voltage (HVPS) (M507/E50145/M528/E52645)	Internal assemblies (1 of 4) on page 1239
RM3-7475-010CN	DC controller PCA, duplex (M527/M528/E52545/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RM3-7476-000CN	DC controller PCA, simplex (M507/E50145/M528/E52645)	Parts and diagrams: Internal assemblies (4 of 4) on page 1245
RU8-2935-000CN	Spring, compression (included in the multipurpose tray roller and separation pad kit)	Parts and diagrams: Internal assemblies (3 of 4) on page 1243

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