Heavy-Duty Edge Switches

Tough switches to withstand harsh conditions at the edge of your network.

FEATURES

» Choose from versions for the office, the factory, even the outdoors.
» Feature six ports to expand your network.
» Many port types and power options available.
» Power options for any application.
» Support VLAN tagging and spanning tree passthrough.
» Include Link-Loss-Learn (LLL) feature for fast network recovery.
» Tough steel case.

Daisychain switches for easy network extension.
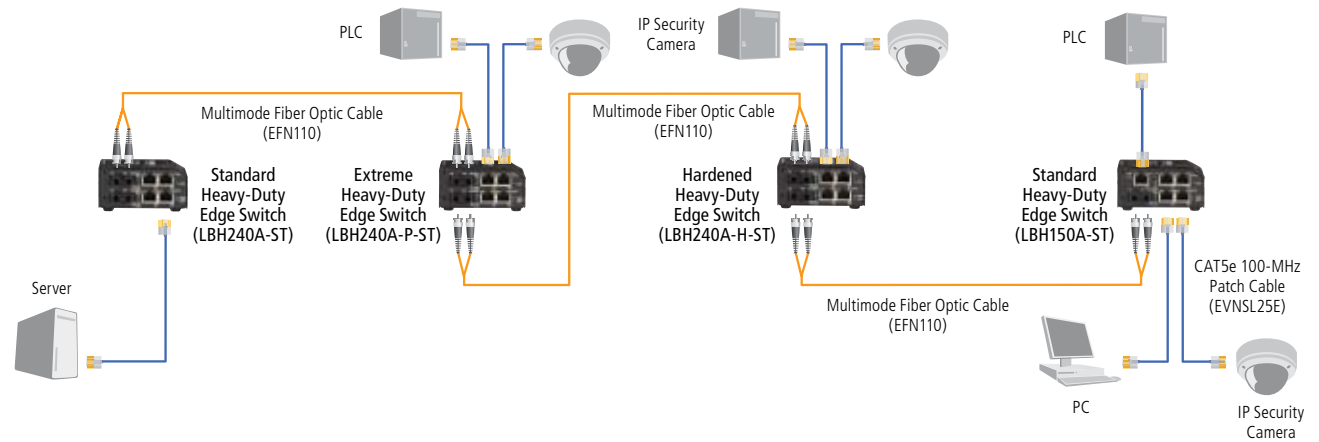
OVERVIEW

The Ethernet switches in your wiring closet or computer center enjoy a protected environment. The Ethernet switches at the edges of your network have to put up with the bumps, the dirt, the dampness, and the temperature fluctuations that happen out in the real world. This is where Heavy-Duty Edge Switches from Black Box come in.

Heavy-Duty Edge Switches are tough, 6-port Ethernet switches that enable you to expand your network into harsh environments such as factory floors or the outdoors. They're robust, easy to set up, and available with a vast array of interface, power, and durability options. In short, they're everything you're looking for in an edge switch.

Built tough

All Heavy-Duty Edge Switches come in a sturdy steel case that withstands heavy use.

The switches come in three versions to adapt to nearly any environment. Because all three types work together seamlessly, you can use inexpensive Standard Heavy-Duty Edge Switches in protected office environments and choose the more robust Hardened or Extreme Heavy-Duty Edge Switches for harsh locations at your network's edge.

Standard Edge Switches

• For use in clean, temperature-controlled environments such as offices and wiring closets.
• Feature the same heavyweight metal case as our more robust models.

Hardened Edge Switches

• For use in dusty or dirty environments—ideal for demanding industrial applications.

• Rated for a temperature range between -13 and +140°F (-25 and +60°C).
• The metal case acts as a heat sink so no internal airflow is needed for cooling.
• Sealed case resists contaminants such as dust, dirt, moisture, smoke, and insects.

Extreme Edge Switches

• Robust units for outdoor use require protection only from direct rainfall or standing water.
• Ideal for applications such as traffic-signal control, or for sensors or surveillance cameras in outdoor plants.
• Rated for above-the-ceiling plenum installation.
• Rated for extreme temperature ranges of -40 to +167°F (-40 to +75°C).
• Features a sealed case, which uses its own metal shell as a heat sink.

Multiple power options

• Standard models come with AC power adapters only, in a choice of 115 or 240 VAC.
• AC-powered Hardened and Extreme Switches feature robust 100- to 240-VAC power supplies.
• DC-powered Hardened and Extreme units have internal screw terminals for connecting DC power in addition to an AC power jack. Because these models have dual power connections, you can use them simultaneously with both your DC power supply and an AC power adapter (sold separately) to provide redundant power input.

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Run the distance!

Choose switches with fiber links for long-distance fiber links through harsh environments.

Multimode models support up to 2 kilometers (1.2 miles) between switches. For longer distances, choose single-mode models for up to 20 kilometers (12.4 miles) or single-mode, long-distance models for an incredible 40 kilometers(24.8 miles) between links.

Heavy-Duty Edge Switches can be daisychained together indefinitely, making them ideal for applications such as traffic signals where a great many switches are needed over a long distance.

Easy to set up

Heavy-Duty Edge Switches are literally plug-and-play. All copper ports are autosensing for speed and duplex, adjusting to the connected device automatically. Plus, the UTP ports feature Auto-MDI/MDI-X, eliminating the need for crossover cables.

Each switch has two full sets of LED indicators: one set on the front for viewing convenience when the switch is DIN rail or wallmounted, and one set mounted in the end next to the media ports for easy viewing when units are in a rackmount tray.

Heavy-Duty Edge Switches feature nonblocking switching architecture with a 2K MAC address table. The 128K buffer memory makes it easy to interconnect 10-Mbps and 100-Mbps devices.

Fast, redundant backup

Heavy-Duty Edge Switches feature Link-Loss-Learn (LLL) for fast network recovery when using the switches in a redundant application. In a normal network situation where you have primary link and a backup link, the network can take up to a few minutes to recover after the primary link goes down. This is because, when the link breaks, the switch uses its old MAC address table to try to send data to the disabled port.

However, if a link breaks with LLL in place, the switch senses the disconnect and instantly clears its MAC address table, forcing a new address table that includes the new link.

LLL works on both copper and fiber ports and be enabled or disabled at will.

Use them nearly anywhere

Heavy-Duty Edge Switches can be used as standalone switches, wallmounted, or DIN-rail mounted with special brackets. You an also rackmount up to eight units in the optional Rackmount Tray.

The switches each have two full sets of LED indicators: one set on the front for viewing and one set mounted next to the media ports, so you get a clear view of the LEDs from any angle.

Don't see it? Just ask.

If you require a port combination, power source, or mounting option not listed, contact our FREE Tech Support.

TECH SPECS

Altitude — -200 to 50,000 ft. (-61 to 15,240 m)
Distance (Maximum) — Multimode models: 2 km (1.2 mi.);
    Single-mode SC models: 20 km (12.4 mi.);
    Single-mode LC models: 15 km (9.3 mi.);
    Single-mode, long-distance SC models: 40 km (24.8 mi.)
Enclosure — Steel
Humidity — 5–95%, noncondensing
Standards — IEEE 802.3, IEEE 802.3u, IEEE 802.1p/q
Temperature Rating —
    All models:
        Storage: -40 to +185°F (-40 to +85°C);
    Standard models:
        Operating: +32 to +104°F (0 to +40°C);
    Hardened models:
        Long-term operating:
            -13 to +140°F (-25 to +60°C);
        Short-term operating:
            -40 to +185°F (-40 to +85°C);
        Cold start to -4°F (-20°C);
    Extreme models:
        Long-term operating:
            -40 to +167°F (-40 to +75°C);
        Short-term operating:
            -58 to +212°F (-50 to +100°C);
        Cold start to -40°F (-40°C)
Indicators — LEDs:
    Per Unit: (2) Power;
    Per Port: (2) LK/ACT, 2) F/H;
    Per Copper Port: (2) 10/100
Size — 3.6"H x 3"W x 1.7"D (9.1 x 7.6 x 4.3 cm)
Weight — Switches: 0.8 lb. (0.4 kg);
    Standard and Hardened Power Supplies: 0.4 lb. (0.2 kg);
    Extreme Power Supplies: 0.5 lb. (0.2 kg)

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LBH150A-P-SC

	(5) 10-/100 Mbps Copper and (1) 100-Mbps Multimode Fiber Ports		(5) 10-/100 Mbps Copper and (1) 100-Mbps Single-Mode Fiber Ports			(6) 10-/100-Mbps Copper Ports
	SC	ST	SC	LC	Long-Distance/SC	
115 VAC, 60 Hz	**LBH150A-SC**	**LBH150A-ST**	**LBH150A-SSC**	—	**LBH150A-SSCL**	**LBH600A**
230 VAC, 50 Hz w/IEC power connector	**LBH150AE-SC**	**LBH150AE-ST**	**LBH150AE-SSC**	**LBH150AE-SLC**	—	**LBH600AE**
	(4) 10-/100 Mbps Copper and (2) 100-Mbps Multimode Fiber Ports		(4) 10-/100 Mbps Copper and (2) 100-Mbps Single-Mode Fiber Ports			
	SC	ST	SC	LC	Long-Distance/SC	
115 VAC, 60 Hz	**LBH240A-SC**	**LBH240A-ST**	**LBH240A-SSC**	—	**LBH240A-SSCL**	—
VAC, 50 Hz w/IEC power connector	**LBH240AE-SC**	**LBH240AE-ST**	**LBH240AE-SSC**	—	—	

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10-/100-Mbps Heavy-Duty Edge Switches, Hardened: -13 to +140° F (-25 to +60° C)

LBH240A-H-SC

	(5) 10-/100 Mbps Copper and (1) 100-Mbps Multimode Fiber Ports			(5) 10-/100 Mbps Copper and (1) 100-Mbps Single-Mode Fiber Ports			(6) 10-/100-Mbps Copper Ports
	SC	ST	MT-RJ	SC	Long-Distance/SC	LC	
115 VAC, 60 Hz	LBH150A-H-SC	LBH150A-H-ST	LBH150A-H-MT	LBH150A-H-SSC	LBH150A-H-SSCL	—	LBH600A-H
230 VAC, 50 Hz w/IEC power connector	LBH150AE-H-SC	LBH150AE-H-ST	—	LBH150AE-H-SSC	—	LBH150AE-H-SLC	LBH600AE-H
12 VDC	LBH150A-H-SC-12	LBH150A-H-ST-12	—	LBH150A-H-SSC-12	—	—	LBH600A-H-12
24 VDC	LBH150A-H-SC-24	LBH150A-H-ST-24	—	LBH150A-H-SSC-24	—	—	LBH600A-H-24
24 VDC, DIN rail	LBH150A-HD-SC-24	LBH150A-HD-ST-24	LBH150A-HD-MT-24	LBH150A-HD-SSC-24	—	—	LBH600A-HD-24
48 VDC	LBH150A-H-SC-48	LBH150A-H-ST-48	—	—	—	—	LBH600A-H-48

	(4) 10-/100 Mbps Copper and (2) 100-Mbps Multimode Fiber Ports			(4) 10-/100 Mbps Copper and (2) 100-Mbps Single-Mode Fiber Ports	
	SC	ST	MT-RJ	SC	Long-Distance/SC
115 VAC, 60 Hz	LBH240A-H-SC	LBH240A-H-ST	LBH240A-H-MT	LBH240A-H-SSC	LBH240A-H-SSCL
230 VAC, 50 Hz w/IEC power connector	LBH240AE-H-SC	LBH240AE-H-ST	—	LBH240AE-H-SSC	—
12 VDC	LBH240A-H-SC-12	LBH240A-H-ST-12	—	LBH240A-H-SSC-12	—
24 VDC	LBH240A-H-SC-24	LBH240A-H-ST-24	—	LBH240A-H-SSC-24	—
24 VDC, DIN rail	LBH240A-HD-SC-24	LBH240A-HD-ST-24	LBH240A-HD-MT-24	LBH240A-HD-SSC-24	—
48 VDC	LBH240A-H-SC-48	LBH240A-H-ST-48	—		—

10-/100-Mbps Heavy-Duty Edge Switches, Extreme: -40 to +167° F (-40 to +75° C)

LBH240A-P-ST

	(5) 10-/100 Mbps Copper and (1) 100-Mbps Multimode Fiber Ports			(5) 10-/100 Mbps Copper and (1) 100-Mbps Single-Mode Fiber Ports			(6) 10-/100-Mbps Copper Ports
	SC	ST	MT-RJ	SC	Long Distance/SC	LC	
115 VAC, 60 Hz	LBH150A-P-SC	LBH150A-P-ST	LBH150A-P-MT	LBH150A-P-SSC	—	LBH150A-P-SLC	LBH600A-P
230 VAC, 50 Hz w/IEC power connector	LBH150AE-P-SC	LBH150AE-P-ST	—	LBH150AE-P-SSC	—	—	LBH600AE-P
12 VDC	LBH150A-P-SC-12	LBH150A-P-ST-12	—	LBH150A-P-SSC-12	—	—	LBH600A-P-12
24 VDC	LBH150A-P-SC-24	—	—	LBH150A-P-SSC-24	LBH150A-P-SSCL-24	—	LBH600A-P-24
24 VDC, DIN rail	LBH150A-PD-SC-24	LBH150A-PD-ST-24	—	—	—	—	LBH600A-PD-24

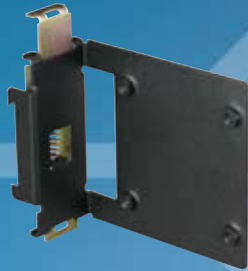|	(4) 10-/100 Mbps Copper and (2) 100-Mbps Multimode Fiber Ports			(4) 10-/100 Mbps Copper and (2) 100-Mbps Single-Mode Fiber Ports		
	SC	ST	MT-RJ	SC		LC
115 VAC, 60 Hz	LBH240A-P-SC	LBH240A-P-ST	—	LBH240A-P-SSC		LBH240A-P-SLC
230 VAC, 50 Hz w/IEC power connector	LBH240AE-P-SC	LBH240AE-P-ST	—	LBH240AE-P-SSC		—
12 VDC	LBH240A-P-SC-12	LBH240A-P-ST-12	—	LBH240A-P-SSC-12		LBH240A-P-SLC-12
24 VDC	LBH240A-P-SC-24	LBH240A-P-ST-24	—	LBH240A-P-SSC-24		—
24 VDC, DIN rail	—	LBH240A-PD-ST-2	—	LBH240A-PD-SSC-2		—

The DIN Rail Mounting Bracket (DIN-RAIL MC2) is a sturdy metal mounting clip for DIN-rail use.

DIN-RAIL MC2: rear view   *DIN-RAIL MC2: front view*

LE1505-RACK shown with Media Converter Switches

Item	Code
For spare power supplies, order…	
AC Power Supplies for Heavy-Duty Edge Switches	
Standard	
115 VAC	**LBH100A-115-VAC**
240 VAC	**LBH100AE-240-VAC**
Hardened	
100–240 VAC	**LBH100A-H-PS**
100–240 VAC with IEC Connector	**LBH100AE-H-PS**
Extreme	
100–240 VAC	**LBH100A-P-PS**
100–240 VAC with IEC Connector	**LBH100AE-P-PS**

Item	Code
For rackmounting, order…	
Rackmount Tray with No Power Supply	
(Holds up to 8 Switches)	**LE1505-RACK**
Rackmount Tray with (1) 9-V Power Supply	
(Powers up to 3 Switches)	**LH1505P-RACK**
Rackmount Tray with (2) 9-V Power Supplies	
(Powers up to 6 Switches)	**LH1505P-RACK-2-9-V**
To supply redundant power to both the AC power jack and the DC screw terminal on 24-VDC models only, order…	
Dual-Source Cable Kit	**LH1505-CK**
For DIN rail mounting, order…	
DIN Rail Mounting Bracket	**DIN-RAIL MC2**
DIN Rail, 1-m (3.2-ft.)	**DR100**

NOTE: Panel-mounting brackets are included.

NOTE: AC-powered models come complete with an AC power supply. Order a separate AC power supply to provide backup power to DC-powered Heavy Duty Edge Switches.