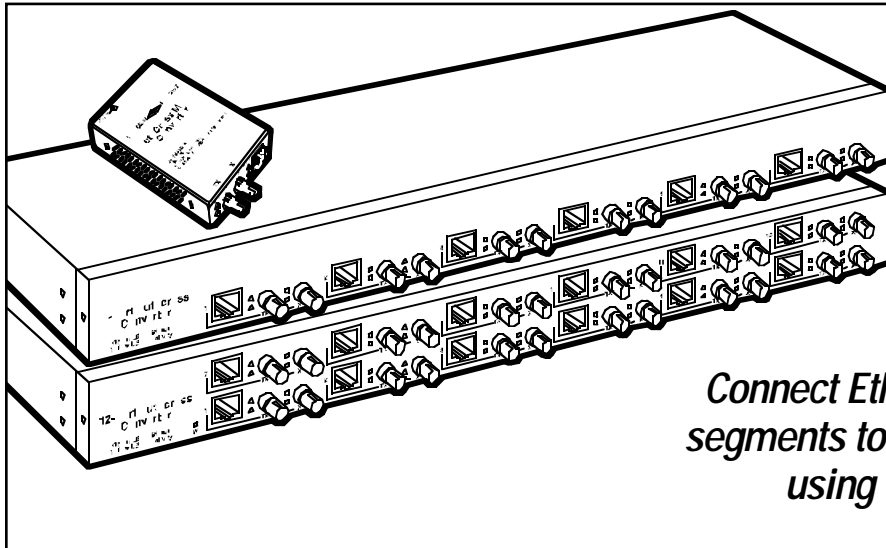


# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### AUTOCROSS MEDIA CONVERTERS



*Connect Ethernet or Fast Ethernet segments to fibre segments without using crossover cables.*

#### Key Features

- ▶ **LinkALERT™ monitors 100% of physical uplink and downlink failures to pinpoint transmission faults.**
- ▶ **Two LEDs per port show status of UTP and fibre links.**
- ▶ **Work with common networking devices.**
- ▶ **Operate full- or half-duplex to boost speed and distance.**
- ▶ **Ideal for preventing cross-cabling errors in mixed-media network.**
- ▶ **Autosensing, universal power supplies.**

With the AutoCross Media Converters for Ethernet and Fast Ethernet, you no longer have to deal with mismatched transmit and receive cable pairs.

The converters contain an automatic switch in the 10BASE-T and 100BASE-TX ports. This switch senses the type of circuit connected to the port and automatically configures the port to match the circuit. It conveniently converts twisted-pair media interfaces to fibre, or vice versa—in less than a second.

The AutoCross Media Converters can perform conversions just as effectively as a repeater—and they cost less.

Furthermore, they handle conversions without signaling violations or other problems that often occur when using repeaters.

For total convenience and flexibility, all AutoCross Media

Converters come with a universal, autosensing power supply.

#### Ethernet

Use the 1-port 10BASE-T to 10BASE-FL AutoCross Media Converter anytime that two devices need to communicate from over full-duplex (transmit and receive) or half-duplex twisted-pair cable to fibre. Have additional devices? Then choose either the 6- or 12-port models.

All three converters for Ethernet are available in both single-mode and multimode versions. These converters can be used up to 100 m (328 ft.) on the UTP link; up to 2 km (1.2 mi.) on a multimode fibre link; and up to 20 km (12.4 mi.) on a single-mode fibre link.

The 10BASE-T side is autosensing to either MDI or MDI-X. Either a straight or crossed cable can be used to

connect either a hub or NIC. Note that the converters are not compatible with other autosensing devices (for example, a 10-/100-Mbps hub); they work only with standard 10-Mbps devices.

#### Fast Ethernet

If your 100-Mbps networks need conversions from fibre to UTP, and back again, then choose a 100BASE-TX/100-BASE-FX AutoCross Media Converter.

As with the 10BASE-T/10BASE-FL models, you can order the 100BASE-TX/100BASE-FX converters in 1-, 6-, or 12-port models. They will help you maximize your current investment in twisted-pair hardware while integrating fibre optic cabling to support high-speed technology.

*(continued on page 2)*

(continued from page 1)

And all are available for either single-mode or multimode applications.

All Fast Ethernet converters support full- and half-duplex operation. They can be used up to 100 m (328 ft.) on the 100BASE-TX link; up to 2 km (1.2 mi.) on a multimode fibre link; and up to 20 km (12.4 mi.) on a single-mode fibre link.

The 100BASE-TX side is autosensing to either MDI or MDI-X. Either a straight or

crossed cable can be used to connect either a hub or NIC.

### A cable alternative

As you may know, the transmit pair from one end of the link must be connected to the receive pair on the other end of the link and vice versa.

In the past, you'd have to use a crossover cable to accomplish this connection. But one problem still remains even when you use crossover cable: The number of all cable segments crossed over—which can be quite difficult

to determine in a complicated installation—must be odd for the end-to-end cable to be crossed over. The AutoCross Media Converters solve all these problems and more.

They also feature LinkALERT™, which monitors 100% of physical uplink and downlink failures and alerts the network if transmission fails. Without LinkALERT, a failed link may appear normal to network management. LinkALERT saves you from the hassle of manual troubleshooting.

## Typical Application

Connect a 10BASE-T or 100BASE-TX segment to a fibre optic segment without using crossover cables.

## Specifications

**Interface:** LH2001A-R2, LH2006A-R2, LH2012A-R2: 100BASE-TX/100BASE-FX; LE2122A-R3, LE2123A-R2–LE2124A-R2: 10BASE-T/10BASE-FL

**Connectors:** LH2001A-ST-R2, LE2122A-R3: (1) RJ-45, (1) pair fibre ST\*; LH2001A-SC-R2, LH2001A-SCSM-R2: (1) RJ-45, (1) pair SC; LH2006A-ST-R2, LE2123A-R2: (6) RJ-45, (6) pair fibre ST;

LH2006A-SC-R2, LH2006A-SCSM-R2: (6) RJ-45, (6) pair SC; LH2012A-ST-R2, LE2124A-R2: (12) RJ-45, (12) pair fibre ST; LH2012A-SC-R2, LH2012A-SCSM-R2: (12) RJ-45, (12) pair SC; LE2122A-SM-R3: (1) RJ-45, (1) pair ST; LE2123A-SM-R2: (6) RJ-45, (6) pair ST; LE2124A-SM-R2: (12) RJ-45, (12) pair ST

**Indicators:** LEDs: (1) Power; (1) Link Status and (1) Activity (per each twisted-pair and fibre port)

**Temperature:** Operating: 32 to 122°F (0 to 50°C); Storage: 5 to 149°F (-15 to +65°C)

**Humidity:** 5 to 95% noncondensing

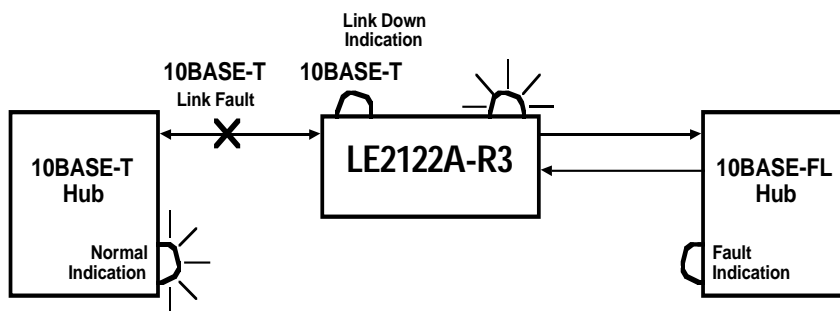
**Power:** LH2001A-R2, LE2122A-R3: 110–240 VAC, 50–60 Hz, external autosensing power supply; LH2006A-R2, LH2012A-R2, LE2123A-R2–LE2124A-R2: 110–240 VAC, 50–60 Hz, internal autosensing power supply

**Size:** LH2001A-R2, LE2122A-R3: 1"H x 3"W x 4"D (2.5 x 7.6 x 10.2 cm); LH2006A-R2, LH2012A-R2, LE2123A-R2–LE2124A-R2: 4.3 Hx 44.2W x 17.8D cm (1.7"H x 17.4"W x 7"D)

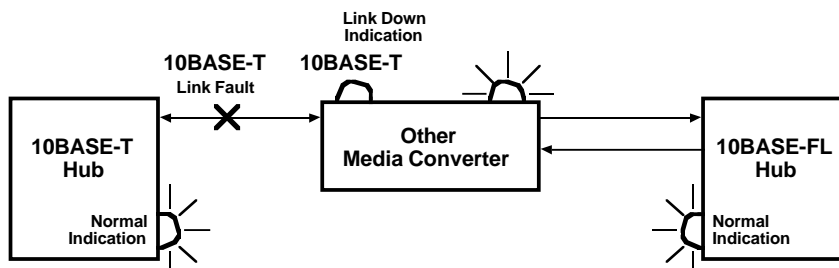
**Weight:** LH2001A-R2, LE2122A-R3: 0.2 kg (0.4 lb.); LH2006A-R2, LE2123A-R2: 2.3 kg (5 lb.); LH2012A-R2, LE2124A-R2: 2.7 kg (6 lb.)

## Perform end-to-end diagnostics with the converter's unique LinkALERT feature.

With LinkALERT:



Without LinkALERT:



# Why Buy From Black Box? Exceptional Value. Exceptional Tech Support.

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20%

of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.

## Ordering Information

ITEM	CODE
<b>Fast Ethernet AutoCross Media Converters</b>	
1-Port 100BASE-TX to 100BASE-FX	
ST* Multimode.....	LH2001A-ST-R2
SC Multimode.....	LH2001A-SC-R2
SC Single-Mode.....	LH2001A-SCSM-R2
6-Port 100BASE-TX to 100BASE-FX	
ST Multimode.....	LH2006A-ST-R2
SC Multimode.....	LH2006A-SC-R2
SC Single-Mode.....	LH2006A-SCSM-R2
12-Port 100BASE-TX to 100BASE-FX	
ST Multimode.....	LH2012A-ST-R2
SC Multimode.....	LH2012A-SC-R2
SC Single-Mode.....	LH2012A-SCSM-R2
<b>Ethernet AutoCross Media Converters</b>	
1-Port 10BASE-T to 10BASE-FL	
Multimode .....	LE2122A-R3
Single-Mode .....	LE2122A-SM-R3
6-Port 10BASE-T to 10BASE-FL	
Multimode .....	LE2123A-R2
Single-Mode .....	LE2123A-SM-R2
12-Port 10BASE-T to 10BASE-FL	
Multimode .....	LE2124A-R2
Single-Mode .....	LE2124A-SM-R2
<i><u>You may also need...</u></i>	
Category 5 Solid-Conductor Cable, 4-Pair, Straight-Pinned, PVC, 10-ft. (3-m) .....	
	EYN737MS-0010
Duplex Fibre Optic Cable, PVC, ST-ST, Custom Lengths.....	
	EFN062-CC