



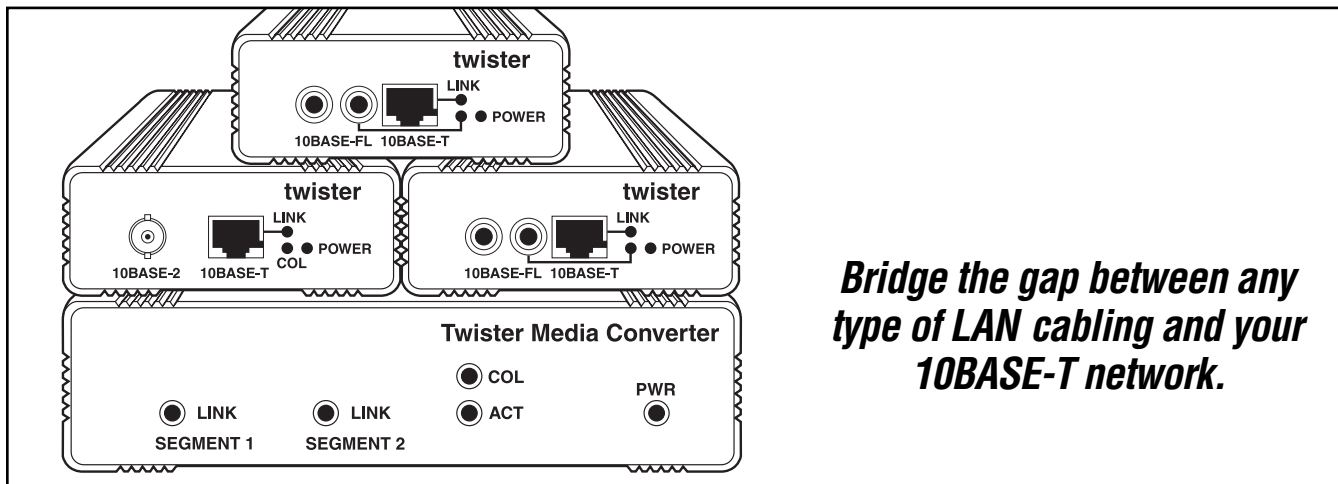
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BLACK BOX[®]

NETWORK SERVICES

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TWISTER MEDIA CONVERTER



Bridge the gap between any type of LAN cabling and your 10BASE-T network.

Key Features

- ▶ **No repeaters needed.**
- ▶ **Choose from a variety of connector combinations.**
- ▶ **Easy to install and use.**
- ▶ **Compact size.**
- ▶ **All models are compliant with IEEE 802.3 standards.**
- ▶ **Built-in diagnostic LED indicators.**
- ▶ **High performance and reliability.**

Mixed-media problems are a thing of the past with the Twister Media Converter. Now you can connect standard Ethernet, twisted-pair, thin coax, or fiber cable to your 10BASE-T network. And you don't need repeaters—the Converters translate all signals from one LAN cable to the other.

Twister Media Converters function like repeaters, but without the retiming, so they don't add to your repeater count. All signal data is reliably transmitted—including collision data—so you're assured of accurate communication between any connected segments or devices.

Five combinations are available for direct connection of your shielded or unshielded twisted-pair device to your thick coaxial, thin coaxial, or fiberoptic device. Two combinations are available for connection of your ThinNet device to a fiberoptic device.

The Media Converter Extender also allows you to extend the distance between 10BASE-T wiring concentrators by 328 feet (100 m).

Installation is simple: Just plug it in and your network or segment

is linked. And since no software changes are needed and all connections are accessible from the back panel, it's easy to use.

The Twister Media Converter is small, too, so it stays out of your way.

Technically Speaking

The Twister Media Converters are easy to configure for your application. 10BASE-T models have a link switch and BNC models have a termination switch.

Link switch for 10BASE-T models:

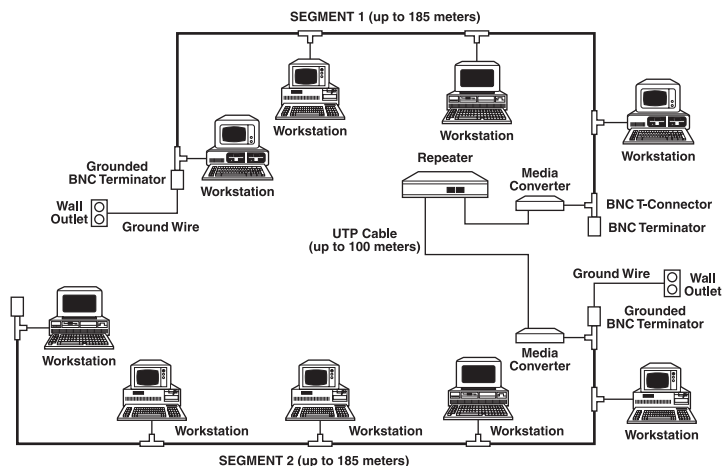
- 0 position: Link status disabled (backward compatible with pre-10BASE-T products)
- 1 position: Link status enabled for 10BASE-T operation (checks link integrity from one device to another)

Termination switch for BNC models:

- 0 position: Disable termination (for use in the middle of the segment, when you have a T connector on the unit with devices on either side of the unit)
- 1 position: Terminate enable (for use at the beginning or end of a coax ThinNet run into the converter)



The diagram at right shows a typical configuration using the Twister Media Converter 10BASE-T/BNC.



Specifications

Indicators: (3) Unit LEDs: Power, Collision, Activity; (2) Segment LEDs: Link

Twisted Pair: Connector: Shielded RJ-45, 8-pin jack;
Impedance: 100 ohms nominal;
Cable type: 22-24 AWG (0.5 mm) shielded or unshielded twisted-pair;
Link length: 328 ft. (100 m) max.;
Signal level output: 2.2 V to 2.8 V;
Signal level input: 350 mV min.

Fiber, Single Mode: Connector: Single mode FO ST connector for 25 km links over 8.3/125, 8.7/125, 9/125, or 10/125 μ m segments;
RX Input Sensitivity: -30.5 dBm peak;
Output power: -21 dBm into 9/125 μ m fiber;
Link length: Up to 25 km

Fiber, Multimode: Connector: (2) ST or SMA fiberoptic;
RX Input Sensitivity: FOIRL 27.5 dBm peak min.;
10BASE-FL: -29.5 dB peak min.;
Output power: -15.8 dBm peak (50/125 μ m) typical, -12 dBm peak (62.5/125 μ m) typical, -6.5 dBm peak (100/140 μ m) typical;
Link length: up to 1.2 mi (2 km);
Cable type: 50/125, 62.5/125, and 100/140 μ m multimode duplex fiber

ThinNet (BNC): Connector: BNC receptacle;
Internal transceiver: IEEE 802.3 type transceiver built-in;

Termination: Internally connected to a 50-ohm terminator, switch-selectable;
Segment length: RG-58 coaxial cable, 607 ft. (185 m) max.;
Min. spacing between transceivers: 1.6 ft. (0.5 m);
Max. devices per segment: 8

Thicknet (AUI): Connector: DB15 female;
Impedance: 78 ohms nominal;
Transceiver cable: IEEE 802.3 AUI cable, 164 ft. (50 m) max.

Power:
Twister Media Converter: 100-240 VAC, 50-60 Hz with removable cord;
Media Converter Extender: 115-VAC, 60 Hz external power supply

Size: LE611A-SMA: 1.2"H x 7.3"W x 3.7"D (3 x 18.5 x 9.4 cm);
LE611A-ST-R2, LE614A-ST, LE615A-R2: 1.8"H x 3.8"W x 3.7"D (4.5 x 9.7 x 9.4 cm);
LE612A-R2, LE613A, LE614A-SMA, LE681A: 1.8"H x 3.8"W x 4.5"D (4.5 x 9.7 x 11.4 cm)

Weight: LE611A-SMA: 4 lb. (1.8 kg);
LE611A-ST-R2, LE614A-R2, LE615A-R2: 1.4 lb. (0.6 kg), including power supply;
LE612A-R2, LE613A, LE614A-SMA, LE681A: 0.8 lb. (0.4 kg)

Typical Application

Connect two twisted-pair segments together with the Media Converter Extender.
Connect a fiberoptic segment to a 10BASE-T segment with the Twister Media Converter 10BT/Fiber SMA or ST.

Additional equipment you may need:

- Media Converter Extender (LE681A)
- Category 5 Patch Cable (EVMSL05)
- Bulk Duplex Fiber Optic Cable (EFN062-CC)
- Bulk ThinNet Cable (LCN300A)
- Bulk Transceiver Cable (LCN200A)
- Transceivers
- Ethernet cards
- Repeaters

Ordering Information

ITEM	CODE
Twister Media Converters	
10BASE-T/Fiber-ST.....	LE611A-ST-R2
10BASE-T/Fiber-ST with cables.....	LE611A-ST-R3
10BASE-T/Fiber-SMA	LE611A-SMA
10BASE-T/BNC.....	LE612A-R2
10BASE-T/BNC with cables	LE612A-R3
10BASE-T/AUI.....	LE613A
10BASE-T/AUI with cables.....	LE613A-R2
BNC/Fiber-SMA.....	LE614A-SMA
BNC/Fiber-SMA with cables	LE614A-SMA-R2
BNC/Fiber-ST.....	LE614A-ST
BNC/Fiber-ST with cables.....	LE614A-ST-R2
10BASE-T/Single-Mode Fiber.....	LE615A-R2
10BASE-T/Single-Mode Fiber with cables	LE615A-R3
Media Converter Extender.....	LE681A



Black Box offers the best warranty program in the industry—Fido Protection®. For more information, request **FaxBack 22512**.

