

Specifications:

Case size dimensions:	4.0" x 2.9" x 0.9" (10.2 cm x 7.4 cm x 2.3 cm)
Fiber Connection:	ST type connectors (SMA type available upon request)
Fiber Optic Cable Maximum Distance:	2,000 meters (6,600 feet)
Fiber Optic Cable Recommended:	62.5 / 125 μ m multimode fiber
Optional:	100 / 140 μ m multimode fiber 85 / 125 μ m multimode fiber 50 / 125 μ m multimode fiber
Fiber Optic Transmitter Power:	Average power: -15.0 dBm Peak power: -12.0 dBm \pm 1dBm
Fiber Optic Receiver Power:	Average power: -27.4 dBm Bit error rate: $\leq 10^{-10}$
Twisted Pair Specifications:	22, 24, or 26 gauge cable, type 3 or better
Twisted Pair Maximum Distance:	100 meters (330 feet)
Environment:	0–50 degrees C, 5%–90% humidity non-condensing, 0–10,000 foot altitude
Warranty:	Two years

Power Supply Requirements:

Replace power supply with only the equivalent input rating (refer to the table below) and output rating (regulated 9VDC at 0.5 A).

TN PN	Requirement	Location
3517	240 volts, 50 hertz	United Kingdom
3516	230 volts, 50 hertz	Europe
3518	120 volts, 60 hertz	USA/Canada/Mexico
3514	100 volts, 50–60 hertz	Japan
3515	240 volts, 50 hertz	Australia

FCC Regulations:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own cost.

Canadian Regulations:

Note: This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

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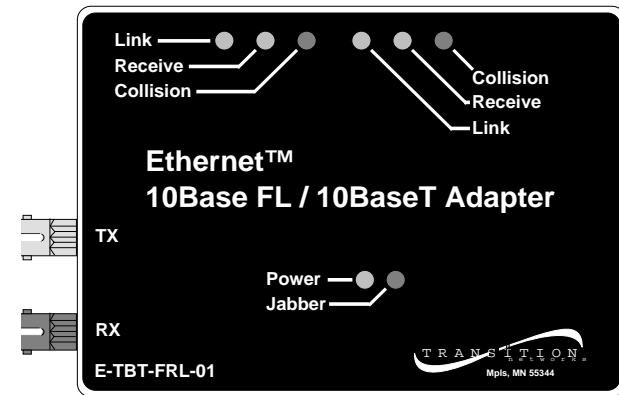


Minneapolis, MN 55344 USA

10BaseFL/10BaseT Adapter

E-TBT-FRL-01 USER'S GUIDE

The TRANSITION Networks Ethernet™ 10BaseFL/10BaseT Adapter (media converter), E-TBT-FRL-01, connects fiber optic cable (10BaseFL) to twisted pair (10BaseT).



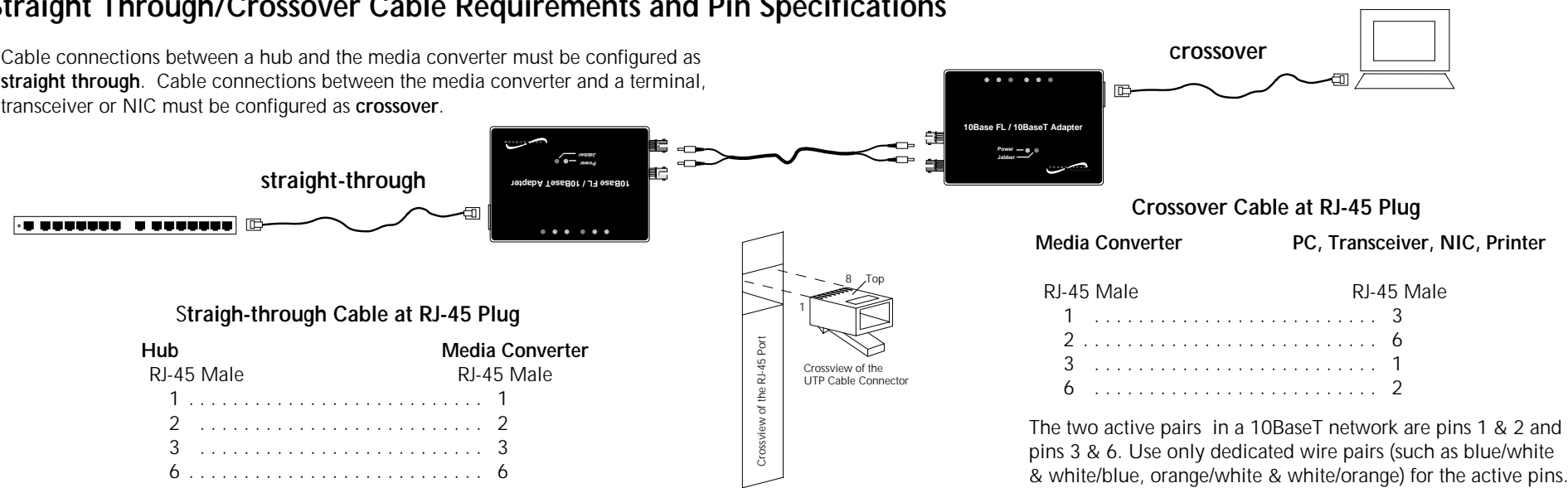
The 10BaseFL/10BaseT Adapter provides an RJ-45 twisted pair connector and a set of Receive and Transmit ST fiber optic connectors. The twisted pair connection allows a 10BaseT device to be located at a distance of up to 100 meters (185 feet). The fiber optic ST connections allows a device to be located at a distance of up to 2000 meters (6,600 feet). NOTE: A media converter with an SMA type fiber connection, E-TBT-FRL-01(SMA), also is available.

Status LEDs provide the following information:

Link	Illuminated green LED indicates the unit is receiving link pulses from a compliant device.
Receive:	Flashing or illuminated green LED indicates packet(s) are being received.
Collision:	Flashing or illuminated red LED indicates collisions are occurring.
Power:	Illuminated green LED indicates normal operation.
Jabber:	Illuminated red LED indicates the unit is disabled.

Straight Through/Crossover Cable Requirements and Pin Specifications

Cable connections between a hub and the media converter must be configured as **straight through**. Cable connections between the media converter and a terminal, transceiver or NIC must be configured as **crossover**.



Installation Notes

- Be certain that the 10BaseT cable is configured correctly (straight through or crossover) for site installation.
- Verify that both the fiber products to be connected are 10BaseFL or FOIRL compliant. (The fiber port on the TRANSITION Networks E-TBT-FRL-01 conforms to 10BaseFL or FOIRL but NOT to 10BaseFB or FDDI.)
- 62.5/125 micron duplex fiber cable is recommended.
- The maximum dBm loss for the fiber cable should not exceed 13 dBm.
- Connect the power supply cable to the media converter BEFORE connecting to the outlet.
- This unit must be installed with the PSU provided. (Output 9 VDC regulated, 500 mA).
- Connecting more than two media converters in series is not recommended.

Troubleshooting the Media Converter

If the 10BaseFL/10BaseT Adapter fails, determine the answers to the following questions:

- Is the power LED on the media converter illuminated?
NO
 - Is the power adapter the proper type of voltage and cycle frequency for your AC outlet?
NOTE: Refer to the "Power Supply Requirements" on the back page.
 - Is the power adapter properly installed in the media converter and in the outlet?
 - Contact Technical Support at (800) 260-1312 or at (800) LAN-WANS.**YES**
 - Proceed to step 2.
- Is the 10BaseT Link LED illuminated?
NO
 - Check UTP cables for proper connection and pin assignment. (See below.)
 - Contact Technical Support at (800) 260-1312 or at (800) LAN-WANS.**YES**
 - Proceed to step 3.
- Is the fiber Link LED illuminated?
NO
 - Check fiber cables for proper connection.
 - Verify that TX and RX cables on media converter are connected to RX and TX ports, respectively, on the other 10BaseFL device.
 - Contact Technical Support at (800) 260-1312 or at (800) LAN-WANS.**YES**
 - Contact Technical Support at (800) 260-1312 or at (800) LAN-WANS.