# D-Link

Installation Guide
10BASE-T/10BASE-FL
Ethernet Media Converters

General Description

The 10BASE-T/10BASE-FL Ethernet media converter is designed to be a connection interface between a 10BASE-T Ethernet UTP cable and 10BASE-FL fiber cable with no increasing on the hop count in the network. It features a RJ-45 connector and a pair of fiber optic connectors. This guide covers the following three models to support different fiber cables as follows:

Converter/T   UTP to multimode fiber with ST connectors
Converter/C   UTP to multimode fiber with SC connectors
Converter/S   UTP to single mode fiber with ST connectors

Fiber Connectors   RJ45 Switch   RJ45 jack
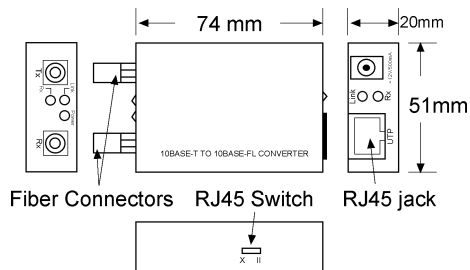
Specifications

Standard
IEEE 802.3 10BASE-T, 10BASE-FL

10BASE-T RJ-45 Connector
One RJ-45 switch is provided for selecting the type of RJ-45 connector as follows:

RJ-45 Switch	RJ-45 Type
X position	MDI-X
II position	MDI

| RJ-45 Pin	MDI-X type	MDI type
1	Rx+	Tx+
2	RX-	Tx-
3	Tx+	Rx+
6	Tx-	Rx-

It allows you to make all UTP connections using common straight-through UTP.

10BASE-T UTP Cable
Cable type: Category 3, 4 or 5
Maximum cable distance: 100 meters (328 feet)

Fiber Optic Connectors
Two connectors are provided for fiber optic cable connection. One is labeled "Tx" for transmitting operation. The other is labeled "Rx" for receiving operation.
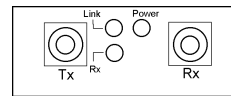
Model	Converter/T	Converter/C	Converter/S
Wavelength	850nm	850nm	1300nm
Fiber mode	Multimode	Multimode	Single mode
Connector	ST type	SC type	ST type
Fiber cable*[1]	62.5/125μm	62.5/125μm	8/125μm
Cable length	2000 meters	2000 meters	14K meters

Fiber cable*[1]: Recommended fiber cable

LEDs
Unit LED   Power
Port LEDs   UTP Link, UTP Rx, Fiber Link, Fiber Rx
      (Rx: receiving status)

Environment
Temperature $0°$ - $40°C$
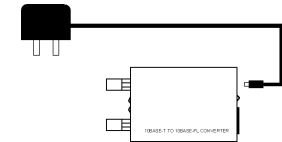Humidity   10-90% non condensing

Dimension
74mm x 51mm x 20mm

Power
+12V / 500mA minimum

DC plug type: − ——⊙—— +

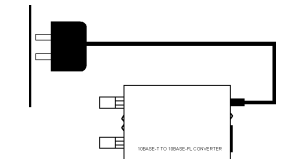## Installation

1. Install the media converter with the DC power adapter provided. (+12VDC, 500mA)


2. Connect the power adapter cable to the media converter before connecting the adapter to the AC outlet.
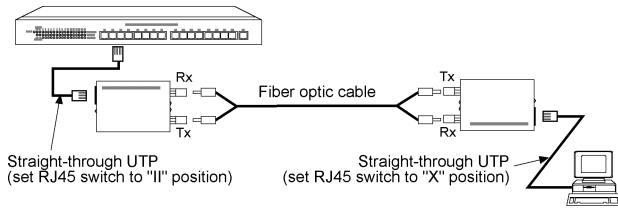

3. Do not connect more than two media converters in series.
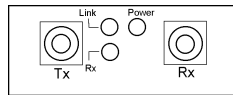
Making Network Connections

The following example illustrates a connection from a 10BASE-T port of one hub to a 10BASE-FL port of another hub through a media converter.

10BASE-FL compliant device   10BASE-T compliant device

Fiber optic cable
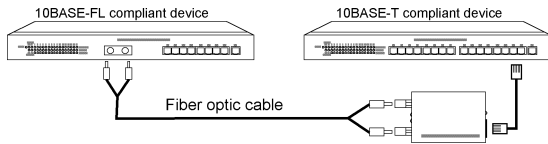
The following example illustrates a connection from a 10BASE-T port of one hub to a 10BASE-T NIC on a computer through a media converter.

Rx   Tx
Fiber optic cable
Tx   Rx

Straight-through UTP
(set RJ45 switch to "II" position)

Straight-through UTP
(set RJ45 switch to "X" position)

Interpreting LED Indicators

Link   Power
Tx   Rx   Rx

LED	Status	State	Interpretation
Power	Power status	On	Converter is on.
		Off	Converter is off.
Link	Fiber link	On	The fiber link is ok.
		Off	No link or the link is faulty.
Rx	Receiving status	Blink	Receiving is in operation.
		Off	No fiber receiving.

Link
UTP   Rx   +12V/500mA
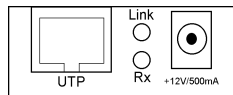
LED	Status	State	Interpretation
Link	UTP link	On	The UTP link is ok.
		Off	No link or the link is faulty.
Rx	Receiving status	Blink	Receiving is in operation.
		Off	No fiber receiving.

The information contained in this document is subject to change without prior notice.

TRADEMARKS
Ethernet is a registered trademark of Xerox Corp.

WARNING:
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 installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense.
NOTICE:
(1) The changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment.
(2) Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

CISPR A COMPLIANCE:
This device complies with EMC directive of the European Community and meets or exceeds the following technical standard.
EN 55022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment. This device complies with CISPR Class A.
WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE NOTICE
Marking by the symbol **CE** indicates compliance of this equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:
EN 55022: Limits and Methods of Measurement of Radio Interference characteristics of Information Technology Equipment.
EN 50082/1:Generic Immunity Standard -Part 1: Domestic Commercial and Light Industry.
EN 60555-2: Disturbances in supply systems caused by household appliances and similar electrical equipment - Part 2: Harmonics.