



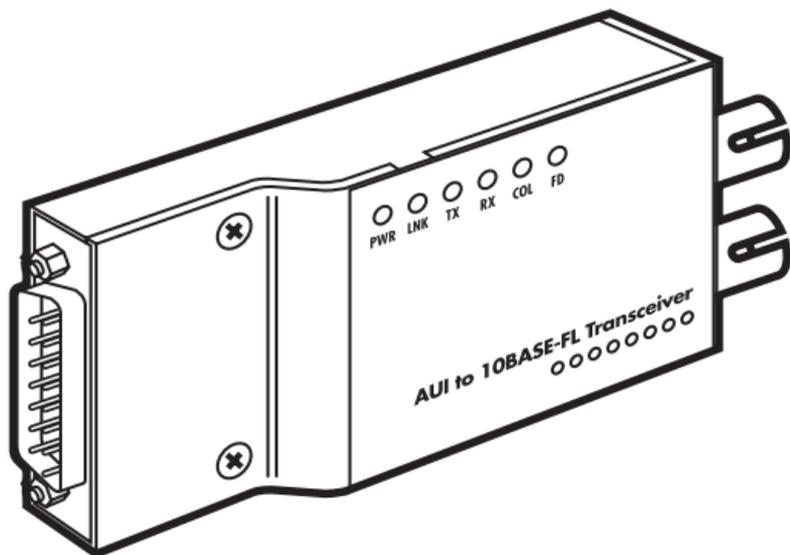
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# AUI to 10BASE-FL Transceiver



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## CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)  
FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**  
Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018  
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## FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

*This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.*

# **AUI TO 10BASE-FL TRANSCEIVER**

**FEDERAL COMMUNICATIONS COMMISSION  
AND  
INDUSTRY CANADA  
RADIO FREQUENCY INTERFERENCE STATEMENTS  
(continued)**

*Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.*

## TRADEMARKS USED IN THIS MANUAL

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ST is a registered trademark of American Telephone and Telegraph Company.

*Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.*

# Contents

<b>Chapter</b>	<b>Page</b>
1. Specifications . . . . .	5
2. Introduction . . . . .	7
3. Installation. . . . .	8
3.1 Setting the 4-Position DIP Switch . . . . .	8
3.2 Installing the Transceiver . . . . .	9
3.3 LED Functions. . . . .	12
4. Troubleshooting. . . . .	14
4.1 Calling Black Box . . . . .	14
4.2 Shipping and Packaging. . . . .	15

# 1. Specifications

**Standards:** IEEE 802.3

**User Controls:** (1) 4-position DIP switch

**Connectors:** (1) DB15 AUI M, (2) ST®

**Indicators:** (6) LEDs: (1) Power, (1) Link,  
(1) Transmit, (1) Receive, (1) Collision,  
(1) Full Duplex

**Temperature Tolerance:**

Operating: 32 to 122°F (0 to 50°C);

Storage: -40 to +212°F (-40 to +100°C)

**Relative Humidity:**

Operating: 8 to 80%, noncondensing;

Storage: 5 to 98%, noncondensing

**Power:** From the AUI interface

## AUI TO 10BASE-FL TRANSCEIVER

**Size:** 0.8"H x 1.6"W x 3.4"D  
(2 x 4.1 x 8.6 cm)

**Weight:** 0.2 lb. (<0.1 kg)

## 2. Introduction

The AUI to 10BASE-FL Transceiver connects an AUI interface of an Ethernet device (such as a LAN card installed in a PC, or a bridge, router, hub, or repeater) to the fiberoptic cabling of a 10BASE-FL network. The transceiver complies with the IEEE 802.3 10BASE-FL specification.

The transceiver features two tests: A selectable SQE test allows SQE (heartbeat) to be disabled when used with a hub or repeater. When SQE test is enabled, it sends a heartbeat signal to the attached Ethernet card, bridge, or router.

A link integrity test automatically checks fiber cables.

## 3. Installation

### 3.1 Setting the 4-Position DIP Switch

Position	Switch Name	Description
1	SQE (Signal Quality Error)	When the transceiver is attached to a LAN card, bridge, or router, position 1 should be ON (DOWN).
		When the transceiver is attached to a hub or repeater, position 1 should be OFF (UP).
<b>NOTE</b> The default switch setting for the SQE test is OFF (UP).		
2	LN ALT (Link Alert)	If the TX or RX fiberoptic cable is not connected properly or is defective, the Link LED will blink when switch-position 2 is ON (DOWN).
		When position 2 is OFF (UP), the Link Alert is disabled.

<b>Position</b>	<b>Switch Name</b>	<b>Description</b>
3	LNK (Link)	If a good connection has been established on the RX fiberoptic cable, the Link LED will remain steadily ON when switch-position 3 is ON (DOWN).
		When position 3 is OFF (UP), the Link LED is disabled.
4	FD (Full Duplex)	When position 4 is ON (DOWN), the network can operate in full duplex mode.
		When position 4 is OFF (UP), the network can only operate in half-duplex mode.

## **3.2 Installing the Transceiver**

1. Turn the power to the network device off.

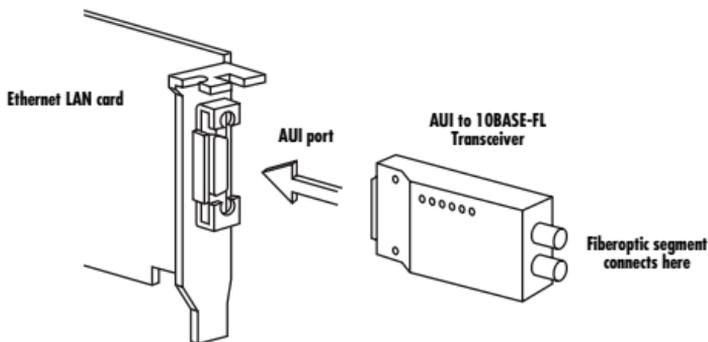
## AUI TO 10BASE-FL TRANSCEIVER

2. Plug the AUI to 10BASE-FL Transceiver's DB15 male connector into a DB15 female AUI connector on an Ethernet device as shown in Figures 3-1 and 3-2.
3. If the port has a slide latch, slide it until the mounting posts on the transceiver lock into place.
4. Plug the transceiver's two female ST connectors into the male ST connectors of a full duplex fiberoptic segment.

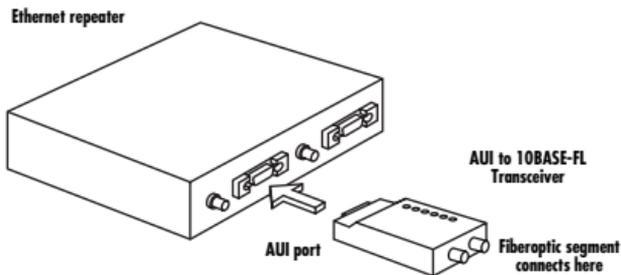
### NOTE

The transceiver supports 50/125-, 62.5/125-, 80/125-, or 100/140- $\mu$ m duplex fiberoptic cable.

5. Turn the power to the network device on.



**Figure 3-1. Connecting to an Ethernet LAN card via the AUI port.**



**Figure 3-2. Connecting to an Ethernet repeater via the AUI port.**

## AUI TO 10BASE-FL TRANSCEIVER

### 3.3 LED Functions

LED	State	Description
Power (PWR)	On	The transceiver is receiving power from the AUI interface.
	Off	The transceiver is not receiving power from the AUI interface.
Link (LNK)	On	A good link has been established with a functioning 10BASE-FL device over the fiberoptic cable.
	Off	No link has been established with a functioning 10BASE-FL device over the fiberoptic cable.
Transmit (TX)	Blinking	A data packet is transmitted.
	On	A large amount of data is being transmitted.
	Off	No data packet is transmitted.

<b>LED</b>	<b>State</b>	<b>Description</b>
Receive (RX)	Blinking	A data packet is received.
	On	A large amount of data is being received.
	Off	No data packet is received.
Collision (COL)	On	A collision is detected on the fiberoptic port.
	Off	No collision is detected.
Full Duplex	Off	Half-duplex operation.
	On	Full duplex operation.

# 4. Troubleshooting

## 4.1 Calling Black Box

If you determine that your AUI to 10BASE-FL Transceiver is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.

- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

### 4.2 Shipping and Packaging

If you need to transport or ship your AUI to 10BASE-FL Transceiver:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the transceiver for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.