

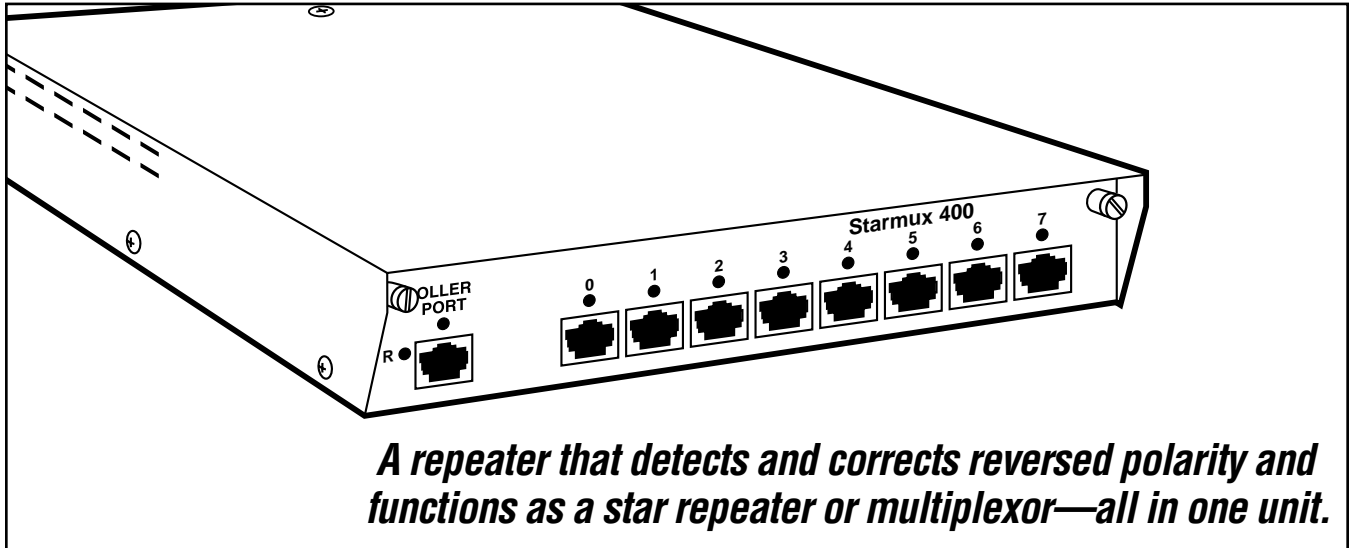


© 2000. All rights reserved.  
Black Box Corporation.

# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### STAR MUX 400



***A repeater that detects and corrects reversed polarity and functions as a star repeater or multiplexor—all in one unit.***

### Key Features

- ▶ ***Polarity detection and correction.***
- ▶ ***Modular design.***
- ▶ ***Functions as a star repeater or multiplexor.***
- ▶ ***DPLL offers superior data integrity.***
- ▶ ***Supports IBM<sup>®</sup>, AT&T<sup>®</sup>, USOC, and EIA 568.***
- ▶ ***Low latency response time.***
- ▶ ***Hot-swappable and field-upgradable chassis cards.***
- ▶ ***Flexibility—can change as your needs do.***

The Star Mux 400 stands out from other repeaters because it automatically detects and corrects reversed polarity. You can even use your existing balun.

The Star Mux 400 also functions as either a star repeater or multiplexor. Just flip the DIP switch on the back panel. The unit you buy today can change as your needs do, or you can expand it at minimal cost.

And the Star Mux 400 meets your future need for 5250 cabling requirements. You can use star or fiber wiring configurations for 5250 devices instead of traditional daisychain configurations for each set of devices. It supports multiple applications and cabling environments—unshielded twisted pair, and fiberoptic.

The Star Mux 400 functions as a repeater by amplifying, regenerating, reshaping, and retiming each 5250 signal to

ensure the greatest transmission distances and reliability of the signal. And an external clocking circuit matches the different data rates of the Star Mux 400 with other twinax peripherals. Every host and device port has transmit and receive drivers so all ports can operate concurrently and independently.

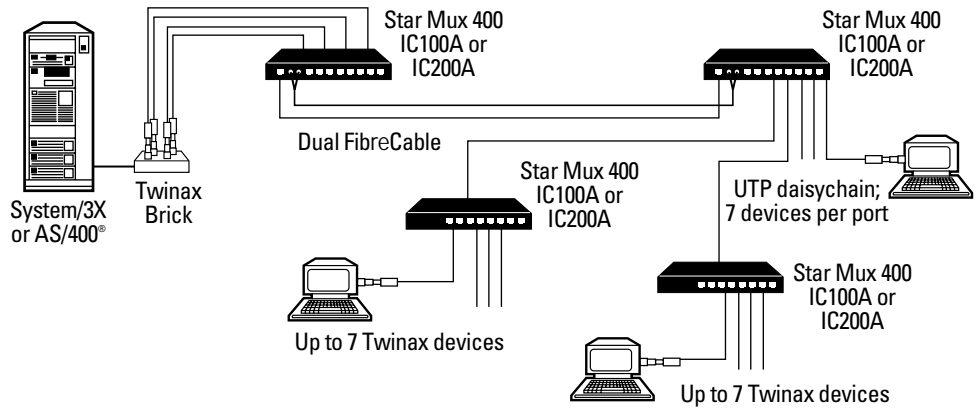
**Additional Features**  
*Digital Phase Lock-Loop (DPLL) circuitry.* The Star Mux 400 offers superior data integrity with DPLL circuitry. DPLL synchronizes incoming data frames from 1 Mbps up to 1.0368 Mbps to maintain the integrity of 5250 passthrough data. And noise-reduction circuitry ensures a reliable connection between host and devices.

*Sync bit regeneration.* The Star Mux 400 ensures proper 5250 communication between itself, the host, and twinax copper-to-fiber converters, line drivers, and 5250 emulation products by regenerating the complete 5250 frame synchronization sequence.

*Quick response time.* Since the Star Mux 400 operates faster than the average hub, it reduces system delay times. Most hubs exhibit delays up to 48 microseconds in mux/demux modes, but the Star Mux 400 has only an 8 microsecond delay.



# Twinax to UTP or Fibre Multiplexing/ Demultiplexing.



## Technically Speaking

The Star Mux 400 has a modular design which means you can easily change RJ-45 pin-outs. The same board can be used in single- or dual-port versions which makes it easy to upgrade to a dual-port version of a star repeater or multiplexor/demultiplexor. You can slide the board out just by removing two thumbscrews. In addition, the boards are hot-swappable and field upgradable.

And the Star Mux is switch-selectable to operate in three modes. In Mux mode it supports up to eight common host/controller ports and multiplexes them into one pair of twisted-pair cable, twinax and/or a duplex fibre cable. The Demux mode demuxes the host/controller ports.

In the Star mode you can connect up to seven devices to a host/controller port over UTP or coax cabling. And if you need to increase distances between the host and twinax peripherals, you can daisychain two Star Mux 400s with fiberoptic cables. The fiber option saves you the cost of a controller, dedicated phone lines, and other related hardware.

You can mount both models in a standard 19" communications rack. The IC200A and IC201A models have the same features except they use fibreoptic instead of UTP or Coax Cable.

## Specifications

**Speed:** 1.04 Mbps

**Maximum Distance:**

Star Mode: to host: 5000 ft. (1524 m) twinax, 2500 ft. (762 m) UTP; to device: 3000 ft. (914.4 m);

Mux/Demux Mode: to host: 2000 ft. (609.6 m) UTP;

Mux/Demux Link: 6600 ft. (2011.7 m) fiberoptic, 4000 ft. (1219.2 m) twinax, 2000 ft. (609.6 m) UTP

**Connectors: Host:** (1) twinax female, (1) RJ-45, (1) telco male;  
**Device:** (7) RJ-45, (1) telco male;  
**Mux/Demux Link:** (2) fiber ST, (1) RJ-45, (1) twinax female

**Cable Requirements:** UTP: Type 3, Category 4 or 5;  
Fiber: Duplex fiber 50/125, 62.5/125, 85/125, 100/140µ;  
Twinax: dependent on host configuration

**Power:** Switch-selectable  
115/220 VAC, 60/50 Hz

**Size:** Single Port: 1.7"H x 11.3"W x 8.5"D (4.3 x 28.7 x 21.6 cm);  
Dual-Port: 1.7"H x 17.1"W x 9.8"D (4.3 x 43.4 x 24.9 cm)

**Weight:** Single Port: 2.7 kg;  
Dual-Port: 5.9 kg

## The Complete Package

Single-port unit:

- 19" rackmount and wallmount ears.
- Power cord
- User's manual

Dual-port unit:

- Wallmount
- Power cord
- User's manual



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

### Additional equipment you may need:

- Fibre Cable
- UTP Cable
- Twinax Baluns

### For these and other components...

Call our Technical Support Staff for all your Interface Converter needs. They'll help you find the best equipment for your application.

## Ordering Information

ITEM	CODE
Star Mux 400	
UTP	Single-Port .....IC100A
	Dual-Port.....IC101A
Fibre Optic	Single-Port .....IC200A
	Dual-Port .....IC201A

