BLACK BOX®
NETWORK SERVICES

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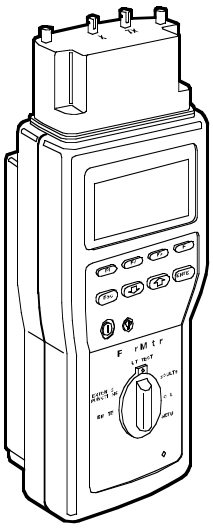
FIBERMETER



The efficient way to test and certify multimode fibre optic cable in the field.

Key Features

- ***Tests two multimode fibres with one setup.***
- ***Measures bidirectional loss at 850 nm and 1300 nm simultaneously.***
- ***Calculates the link loss budget.***
- ***Measures cable length to 1.2 mi. (1.9 km).***
- ***Stores up to 2000 Autotest reports.***
- ***Uploads test reports to a PC for archiving and printing.***

Certifying multimode fibre in the field has never been easier—just use the FiberMeter! The tester compares bidirectional, dual-wavelength 850-nm and 1300-nm loss, length, and propagation-delay measurements against an industry testing standard that you select. Results are shown in a pass or fail status.

Two identical handsets are included. Configure one as the Main Unit and the other as the Remote Unit. The FiberMeter can store up 2000 Autotest records (1000 in each handset). After you store the results, print them directly to a serial printer or upload them to a PC using the included Report Manager software.

Each handset has a rotary dial to select its operation mode. Choices include SETUP, CAL, RESULTS, AUTOTEST, EXTENDED FUNCTIONS, and REMOTE.

Before testing, set the rotary dial on one tester to REMOTE. Then use the other tester as the Main Unit. (When you start testing, you will set the rotary dial on the Main Unit to SETUP, CAL, AUTOTEST, EXTENDED FUNCTIONS, or RESULTS.)

Define basic operational settings for the FiberMeter in SETUP mode. Options include test mode (One-Way or Two-Way), number of connections (0–99), number of splices (0–99), core diameter of the cable you will be testing (50 or 62.5 µm), units of measure (feet or metres), time until the tester powers down, time the backlight remains on, and power frequency (60 or 50 Hz). You can also set the baud rate, flow control (hardware, XON/XOFF, or none), date, time, audible tones, circuit names, company name, and reset to defaults.

Use CAL mode to calibrate the FiberMeter to the cable's index of refraction (IOR) and set the Autotest reference. Each time you test a cable from a different manufacturer or spool, you should set the IOR.

Autotest allows you to measure optical power, length, and propagation delay of your cable. In AUTOTEST mode, first set the loss budget and reference power, then run the Autotest.

There are two fibres in a cable, RX (receive) and TX (transmit). You can run Autotests on one or both fibres. In One-Way testing, loss measurements are made on each fibre (RX) in one direction. In Two-Way testing, Autotest pauses after completing the first set of loss measurements so that you can swap test jumper connections at both ends of the fibre and test both RX and TX fibres.

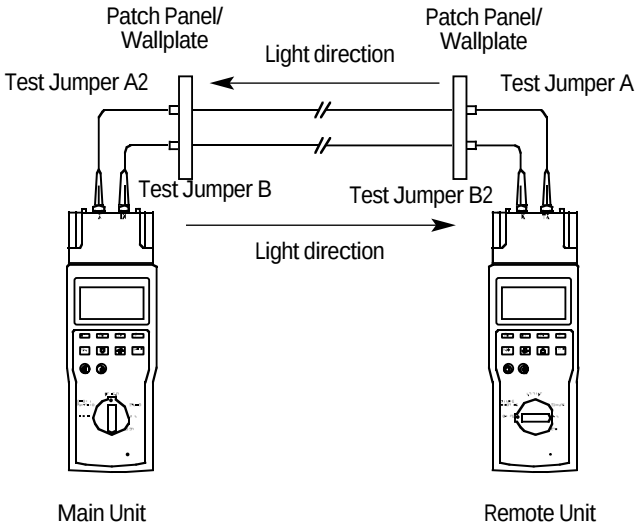
The tester's EXTENDED FUNCTIONS include allowing two handsets to function as an audio communication system over duplex multimode fibre (LinkTalk), self-testing, downloading firmware, and uploading reports. Other EXTENDED FUNCTIONS include power metre, multimode loopback measurements, and LED source.

RESULTS lets you view test reports before printing or uploading, print all or selected reports to a printer, or delete reports.

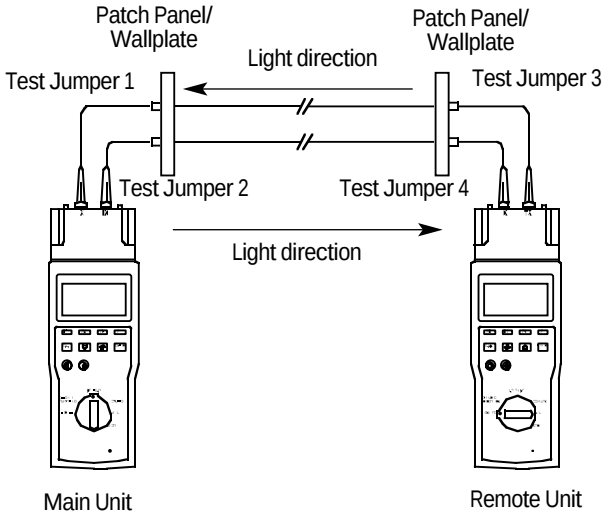
Once you have your results, Report Manager software (a PC-based utility program) enables you to upload, display, print and save test reports, and download firmware upgrades.

Two common methods of making Autotest measurements with a pair of handsets.

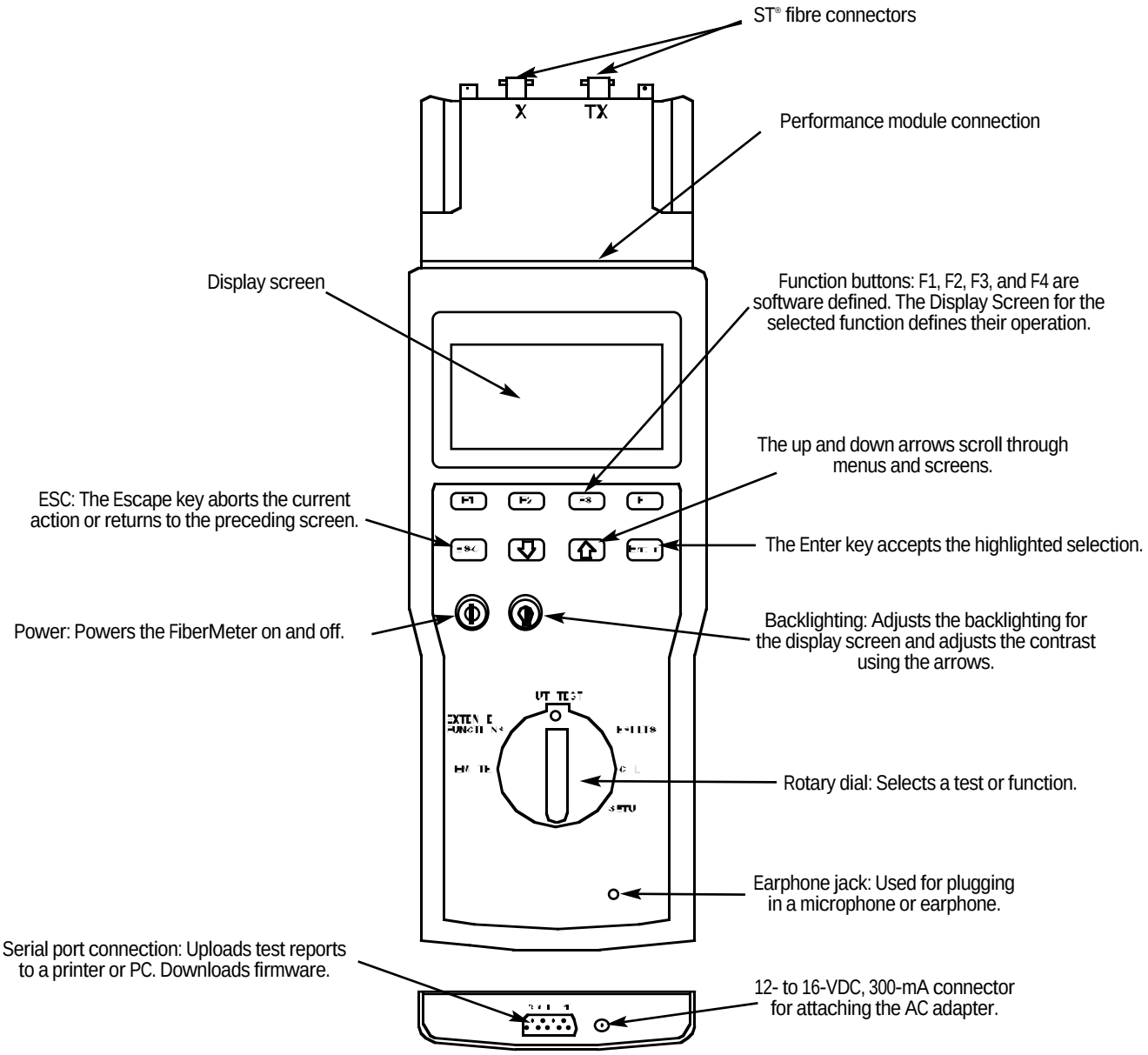
Multimode fibre optic cable testing per TIA OFSTP-14A, Method B.



Multimode fibre optic cable testing per TIA OFSTP-14A, Method A.



Handset Components



Specifications

Wavelengths Measured: 850 nm, 1300 nm

Multimode Length:
Range: 1.2 mi. (1.9 km);
Resolution: 1 ft. (0.3 m)

Multimode Length Accuracy:
0 to 1000 ft. (0 to 304.8 m)
± 2 ft. (± 0.6 m) ± 2%
± IOR uncertainty;
1001 to 6600 ft. (305.1 to 2011.7 m)
± 2 ft. (± 0.6 m) ± 3%
± IOR uncertainty

Multimode Propagation Delay:
Range: 10 to 10,000 ns

Multimode Loss: Dynamic range: +3 dBm to -50 dBm;
Resolution: 0.01 dB/dBm;
Accuracy: ± 0.3 dB @ -20 dBm

Photodiode Detector: Indium Gallium Arsenide (InGaAs)

Light Source: Light-emitting diode (LED) over multimode fiber

Display: (1) backlit, graphical LCD per handset

User Controls: (10) buttons: F1, F2, F3, F4, ESC, up arrow, down arrow, ENTER, Power, Backlight;
(1) 6-position rotary dial (positions include SETUP, CAL, RESULTS, AUTOTEST, EXTENDED FUNCTIONS, and REMOTE)

Connectors: (1) DB9 serial port, (2) ST® per handset, (1) barrel connector for power, (1) earphone jack

Temperature Tolerance: Operating: 32 to 122°F (0 to 50°C);
Storage: -4 to +140°F (-20 to +60°C)

Humidity Tolerance: 10 to 90%, noncondensing

Power Source (per handset):
Batteries: (8) AA alkaline batteries, AC/mains battery eliminator and charger, Nickel Metal Hydride (NiMH) rechargeable battery pack (optional);
Battery-charge life: 12 hours

Size: 12"H x 3.9"W x 2.5"D (30.5 x 9.9 x 6.4 cm)

Weight: 2.4 lb. (1.1 kg)

What the Package Includes

- (2) FiberMeter handsets
- (4) test jumpers
- (2) earphones
- (16) AA alkaline batteries
- (1) carrying case
- (2) handset impact cases
- (1) PC interface cable
- (1) Report Manager software
- (1) AC/mains battery eliminator and charger
- (1) users' manual

Ordering Information

ITEM	CODE
FiberMeter	TS1250A
You might also need…	
Bulk Fibre Optic Cables (Distribution Style), Custom	
6-Fibre, PVC, SC–SC w/Pulling Eye	EFN2006AC
6-Fibre, PVC, ST–ST w/Pulling Eye	EFN2006AT
12-Fibre, PVC, SC–SC w/Pulling Eye	EFN2012AC
12-Fibre, PVC, ST–ST w/Pulling Eye	EFN2012AT
24-Fibre, PVC, SC–SC w/Pulling Eye	EFN2024AC
24-Fibre, PVC, ST–ST w/Pulling Eye	EFN2024AT

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognise any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p. m. and you need help, but your vendor's tech support line is closed.

According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.