



Supplement

Manual Title:	DSP-FTA420/30/40 Users	Supplement Issue:	5
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This supplement contains information
necessary to ensure the accuracy of
the above manual.

Change #1

On page 3,

Change:   **Warning**


To:   **Warning** CLASS 1 LASER PRODUCT

Add:

- Do not start any optical tests before completely connecting all of the fiber optic cables.

On page 42, under General Specifications,

Change:  

To:  Complies with EN60825-2 and FDA 21 CFR Subchapter J

Add:   CLASS 1 LASER PRODUCT

Under Optical Transmitter, Power output,

Change: FTA420 -20 dBm (10 μ W), typical (into 62.5/125 μ m fiber)

To: FTA420 -20 dBm typical (into 62.5/125 μ m fiber)

Change: FTA430 and FTA440 -10 dBm

To: FTA430 and FTA440 -8 dBm typical

Change #2

On page 29, following Table 6, add:

If Loss Readings are Negative

Negative loss values can occur under the following conditions:

- The connections to the fiber test adapters were disturbed after referencing.
- The fiber ends were dirty during referencing.
- There was a kink in the reference patch cords during referencing.

- The connectors were not properly aligned during referencing.
- The fiber test adapters were much cooler during referencing than during testing.

If a loss value is negative, reset the reference and retest the fiber.

Change#3

On page 30, under Single Tests, add the following to the end of the paragraph:

The tests stop after 10 minutes to help conserve battery life.

Change #4

On page 43, change the following:

From: Power measurement accuracy: ± 0.25 dBm at 23 °C, 45 % RH to 75 % RH, -20 dBm for 850 nm and 1300 nm, -10 dBm for 1550 and 1625 nm

To: Power measurement accuracy: ± 0.25 dBm at 23 °C, 45 % RH to 75 % RH, -20 dBm for 850 and 1300 nm, -10 dBm for 1550 and 1310 nm
 ± 0.35 dBm at 23 °C, 45 % RH to 75 % RH, -10 dBm for 1625 nm

From: Detector type: InGaAs

To: Detector type: Various Technologies

From: Power measurement range: +3 dBm to -50 dBm

To: Power measurement range 0 dBm to -50 dBm

Change #5

On page 3, under Safety Information, add the following Warnings:

- Use a FiberInspector video probe to periodically inspect the tester's OUTPUT connector for scratches and other damage.
- Do not use a video microscope to inspect the fiber module's INPUT connector. This connector has different dimensions than the OUTPUT connector, and may be damaged by a fiber inspection probe.

Change #6

On page 11, prior to *Setting a Reference* add the following:

Using Multimode Fiber Mandrels

Fluke Networks strongly recommends the use of standardized mandrels when using an LED source and an optical power meter to measure optical power loss in multimode fiber optic cabling. The mandrels act as mode filters. They remove unwanted high-order modes from the optical signal when testing with an LED source that overfills the fiber. The resulting launch condition is more uniform, which generally improves instrument-to-instrument measurement consistency and loss measurement repeatability.

Fluke Networks offers TIA/EIA-568-B compliant multimode mandrels for 3 mm test jumpers. Figure 1 shows one of these mandrels. The Fluke Networks NF-MANDREL Instruction Sheet, part number 1997813, provides additional information on these mandrels. You may download the instruction sheet from the manuals page for your fiber product on the Fluke Networks web site at www.flukenetworks.com.

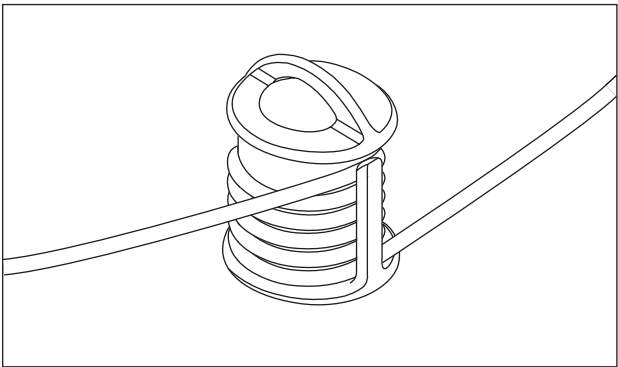


Figure 1. A Fluke Networks Mandrel

Industry standards specify mandrel diameters and number of wraps. Refer to your local standards for details. Table 1 lists recommended mandrel diameters for several of the key standards.

You install the mandrel on the test jumper connected to the LED optical source. Make a reference power measurement with the mandrel in place. Leave the mandrel in place while measuring insertion loss.

Table 1. Recommended Mandrel Diameters

Fiber Core Size	Standard	Wraps	Mandrel Diameter for 250 μ m Buffered Fiber	Mandrel Diameter for 3 mm (0.12 in) Jacketed Fiber
50 μ m	TIA/EIA-568-B.1 7.1	5	25 mm (1.0 in)	22 mm (0.9 in)
	ISO/IEC TR 14763-3 6.22	5	15 mm (0.6 in)	12 mm (0.5 in)
	ISO/IEC 61300-3-34	5	18 mm (0.7 in)	15 mm (0.6 in)
62.5 μ m	TIA/EIA-568-B.1 7.1	5	20 mm (0.8 in)	17 mm (0.7 in)
	ISO/IEC TR 14763-3 6.22	5	20 mm (0.8 in)	17 mm (0.7 in)
	ISO/IEC 61300-3-34	5	20 mm (0.8 in)	17 mm (0.7 in)