

Supplement

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This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1

On the second panel, prior to Preparing to Measure Optical Loss, 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.

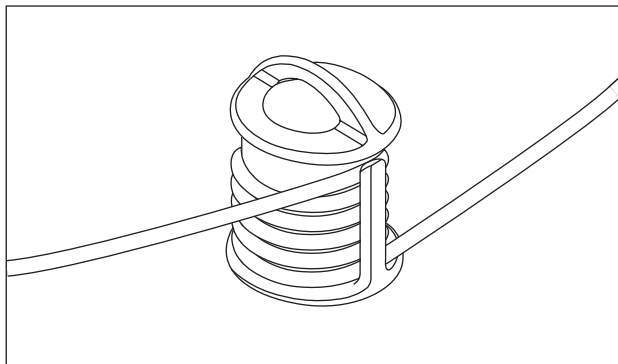


Figure 1. A Fluke Networks Mandrel

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 μm 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)