

NF-MANDREL Multimode Mandrels Instruction Sheet

The NF-MANDREL multimode mandrels are used with an LED source and optical power meter when measuring optical power loss in multimode fiber optic cabling.

The mandrels act as mode filters. They remove high-order modes from the optical signal to achieve equilibrium modal distribution (EMD) when testing with LED light sources that overfill the fiber. Mandrels are used to meet the launch conditions specified in TIA/EIA-568B.

The NF-MANDREL-KIT is a kit that comes with the following:

- Two red mandrels for 50/125 μm fiber with 3 mm jackets
- Two gray mandrels for 62.5/125 μm fiber with 3 mm jackets
- Instruction sheet

A NF-MANDREL-50 or NF-MANDREL-625 mandrel comes with the following:

- One red mandrel for 50/125 μm fiber with 3 mm jackets or one gray mandrel for 62.5/125 μm fiber with 3 mm jackets
- Instruction sheet

Using the Mandrels

Figures 1, 2, and 3 show how to use the mandrels.

Note

The mandrels are optimized for use on 3 mm jacketed fiber optic cable. They may not produce the intended results on smaller-diameter cable.

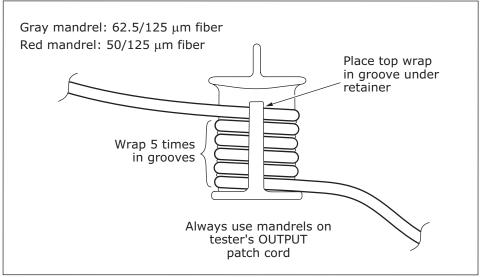


Figure 1. Wrapping the Patch Cord Around the Mandrel

Optical patch cords (SC at tester ends)

Input Output fiber

Fiber tester

Optical patch cords (SC at tester ends)

Input fiber

Fiber tester

Fiber tester

Figure 2. Using the Mandrels During Referencing

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apf03f.eps

Caution

Do not disconnect the patch cords from the tester or remove the mandrels after referencing. If you do, you must set the reference again to ensure valid measurements.

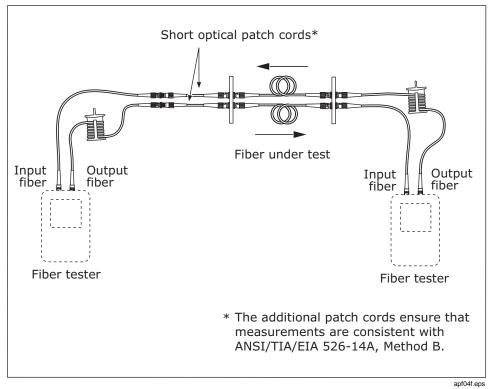


Figure 3. Using Mandrels During Duplex Fiber Testing

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