

FIBER ONESHOT™ PRO

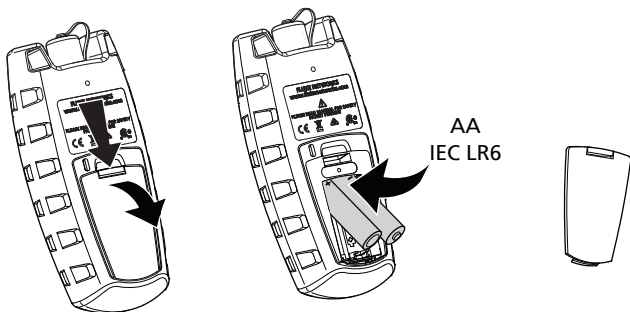
Singlemode Fiber Troubleshooter

Quick Reference Guide

Accessing the Users Manual

This guide provides basic information to help you get started using the FIBER QNESHOT PRO Singlemode Troubleshooter. For additional information, see the *FIBER QNESHOT PRO Users Manual* on the Fluke Networks website.

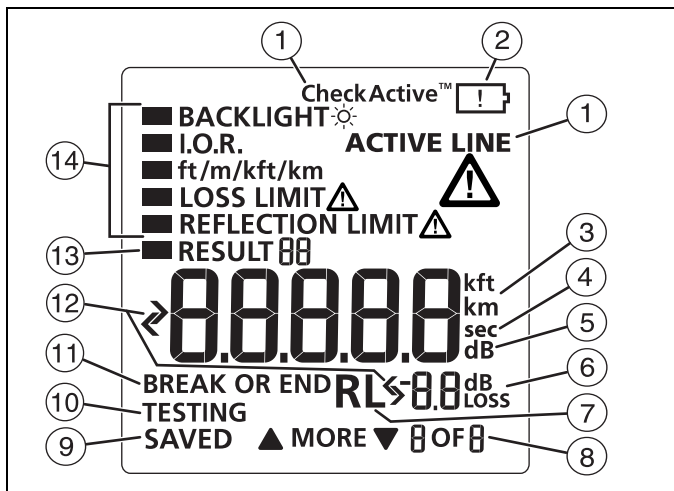
Battery Installation



Note: Fluke Networks recommends alkaline batteries.

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Display Features








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- 1 When you press **TEST**, **CheckActive™** shows and the troubleshooter looks for an optical signal on the fiber. If there is a singlemode signal stronger than approximately -29 dBm on the fiber, **ACTIVE LINE** blinks and the troubleshooter will not do a test.

⚠ Caution










If **ACTIVE LINE** blinks, immediately disconnect the troubleshooter from the fiber. Optical power levels more than +7 dBm can cause damage to the detector in the troubleshooter.

- 2 When the low battery symbol shows, replace the batteries soon. See page 1.
- 3 The digits show the fiber length in feet, kilofeet, meters, or kilometers.

- ④ **sec:** Shows when you look at the setting for the backlight timer. The setting is in seconds.
- ⑤ **dB:** Shows when you look at the setting for the reflection limit. The setting is in decibels.
- ⑥ **dB:** Shows when the display shows the reflectance of an incident on the fiber. The measurement is in decibels.
dB Loss: Shows when the display shows the power loss of an incident on the fiber. The measurement is in decibels.
- ⑦ **RL:** Result loss.
- ⑧ **▼ MORE ▲:** Shows when the troubleshooter finds more than one incident. Press   to see more incidents. The numbers show the number of the incident and the total number of incidents. The troubleshooter shows up to 9 incidents. If there are more than 9 incidents on the fiber, the last 9 blinks when you look at the ninth incident.
- ⑨ **SAVED:** Shows after a test. The troubleshooter automatically saves the test results.
- ⑩ **TESTING:** Shows as the troubleshooter does a test.
- ⑪ **BREAK OR END:** Shows when the troubleshooter shows the distance to a break or the end of the fiber.
- ⑫ : The measurement is above or below the range that the troubleshooter can show, or the troubleshooter cannot give a more accurate measurement.
- ⑬ **RESULT:** Shows when you look at saved results.
- ⑭ Settings for the troubleshooter. **LOSS LIMIT**  and **REFLECTION LIMIT**  blink if a measurement is equal to or greater than the limit you select.

Settings


To change the settings on the troubleshooter:


- 1 Hold down  until the settings menu shows.
- 2 To select a setting to change, press , then press .
- 3 Use   to change the setting.
- 4 Press  or  to save the setting.
- 5 To exit the settings menu, hold down  for 4 seconds. To exit and do a test, press .

BACKLIGHT: Timer for the display backlight.

I.O.R.: Index of refraction.

ft/m/kft/km: Unit for length measurements.

LOSS LIMIT: Sets the minimum level at which the troubleshooter shows the warning **LOSS LIMIT**  for an incident.

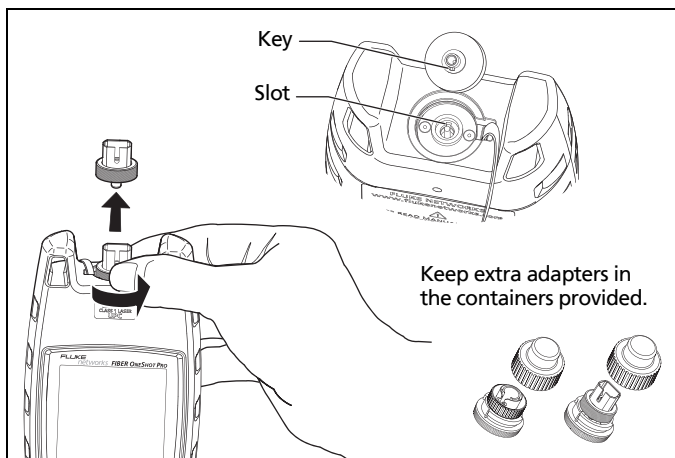
REFLECTION LIMIT: Sets the minimum size at which the troubleshooter shows the warning **REFLECTION LIMIT**  for an incident.

The Connector Adapter

You can change the SC connector adapter to connect to LC, ST, or FC fiber connectors.

Caution

Turn only the collar on the adapter. Do not use tools to remove or install the adapters.



How to Remove and Install the Connector Adapter

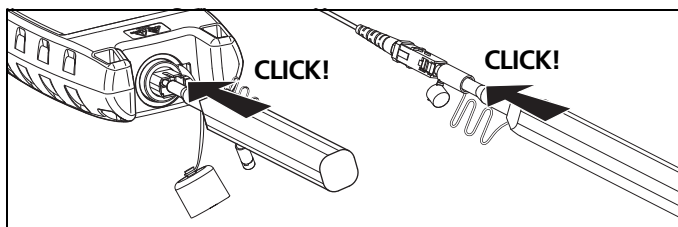
How to Clean Connectors

Fluke Networks recommends that you use a mechanical device to clean connectors. If you do not have such a device, use other optical-grade supplies to clean connectors. See the Users Manual.

Use a video microscope, such as the Fluke Networks FI-7000 FiberInspector™ Pro, to inspect connectors.

Caution

To prevent damage to the device and to connectors, read all instructions and obey all safety precautions given by the manufacturer of the device you use to clean connectors.



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How to Use a Mechanical Device to Clean Connectors

Protect Connectors

Always put protective caps on connectors that you do not use. Clean the caps periodically with a swab or wipers and fiber optic solvent.

About Launch and Receive Fibers

Launch and receive fibers give the troubleshooter a better view of the first and last connectors in the link. If you do not use a launch fiber, the troubleshooter cannot detect the loss of the first connector in the link. If you do not use a receive fiber, the troubleshooter cannot detect the loss of the last connector in the link. Also, the reflectance measurement for the first and last connectors will be inaccurate.

Usually, you do not need to use a launch or receive fiber with the FIBER ONESHOT PRO tester. But you must use them in these situations:

- You must use a launch fiber if you want to detect a loss incident (such as a connector, splice, or macrobend) in the first 30 m of the fiber link.
- You must use a receive fiber if you want to detect the loss of the last connector in the fiber link.

If you use a launch or receive fiber, it must have a minimum length of 30 m (98 ft).


When you use launch or receive fibers, be sure to subtract their lengths from the length measurement to get the actual length of the fiber you are testing.

How to Use the Troubleshooter

Notes

Always use patch cords that comply with GR-326-CORE specifications and have a UPC connector at the end you will connect to the troubleshooter. Other patch cords can cause unreliable measurements and damage to the troubleshooter.

Do not use the troubleshooter to do tests on fibers that have PC connectors. PC connectors cause large reflections that the troubleshooter shows as the end of the fiber.

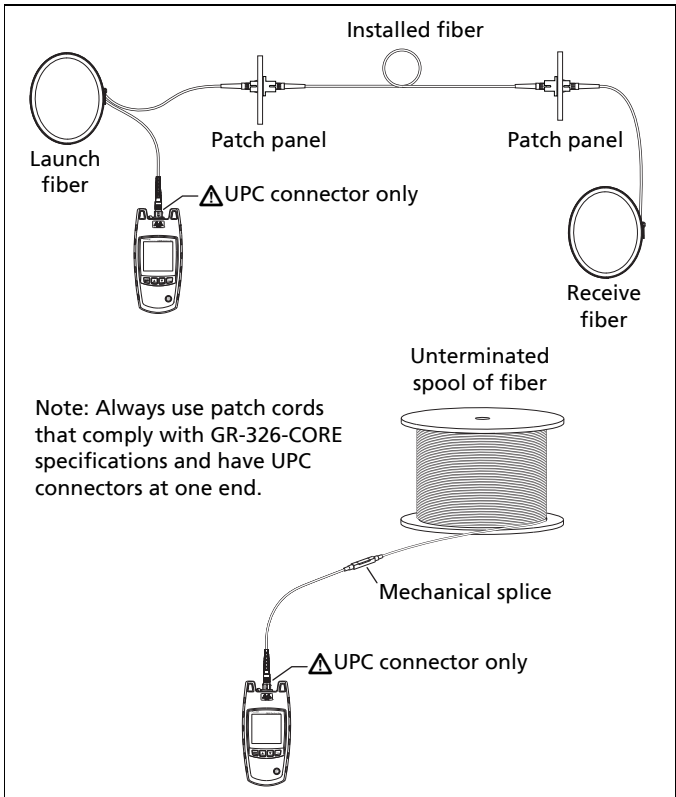
- 1 Clean all fiber connectors.
- 2 Connect the fiber to the troubleshooter.
- 3 Turn on the troubleshooter, then press . The troubleshooter automatically saves the results.

Note

After you turn on the troubleshooter, it shows PASS for a short time to show that it operates correctly.

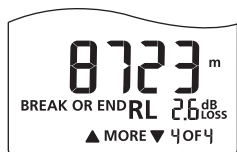
Caution

If ACTIVE LINE blinks, immediately disconnect the troubleshooter from the fiber. Optical power levels more than +7 dBm can cause damage to the detector in the troubleshooter.



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How to Make Connections



The result loss of the fiber (RL) is 2.6 dB.

The receive fiber adds 130 m to the length measurement.




The end of the link. The length of the link (without the launch fiber) is 8463 m.



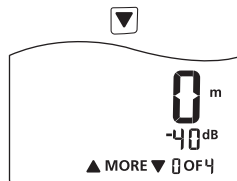
Blinking

A bad splice on the fiber at 2450 m caused a reflectance incident that is larger than -45 dB (the default limit).

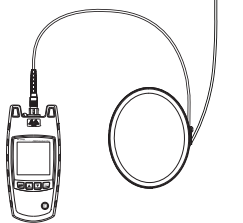
To see the loss measurement, press .



The reflectance of the first connection is -52 dB. The length of the launch fiber is 130 m.



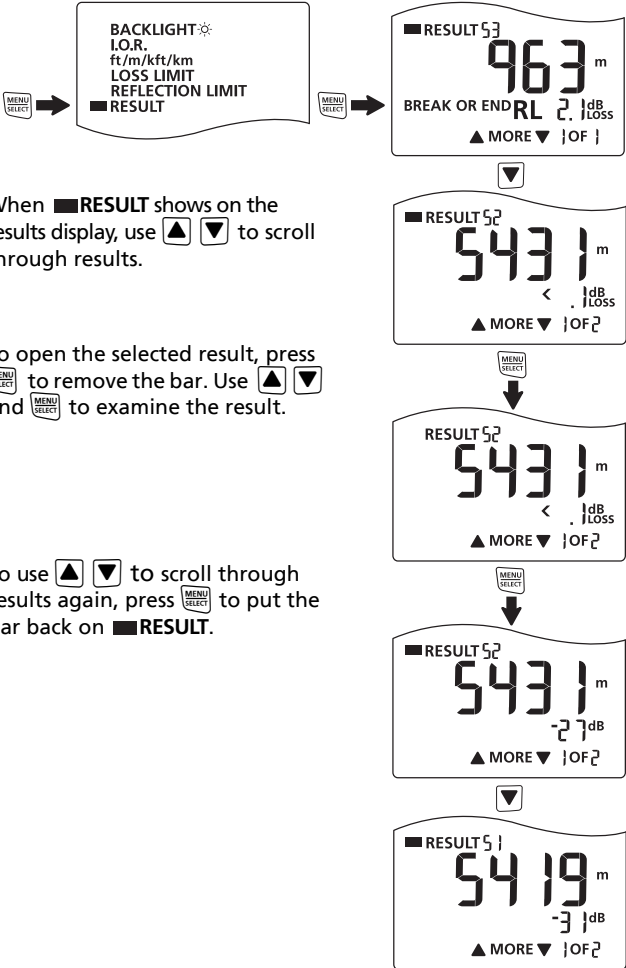
Incident 0 is the connection to the troubleshooter.



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Examples of Measurement Results

How to See Saved Results



When ■ RESULT shows on the results display, use ▲ ▼ to scroll through results.







To open the selected result, press **MENU SELECT** to remove the bar. Use ▲ ▼ and **MENU SELECT** to examine the result.

To use ▲ ▼ to scroll through results again, press **MENU SELECT** to put the bar back on ■ RESULT.

How to Delete Saved Results

Note

This procedure deletes all saved results. You cannot delete individual results.

- 1 Hold down  until the settings menu shows.
- 2 With **RESULT** selected, press  to see the results display.
- 3 Hold down  for 4 seconds. **dEL?** blinks.
- 4 To delete all tests, press . The display shows **dEL** to show you that the tests were deleted.
- 5 To exit and not delete tests, press  or .

Warranty

1-year limited warranty. See the website for details.