FLUKE networks

SimpliFiber® Pro

Optical Power Meter and Fiber Test Kits

Getting Started Guide

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Accessing the Users Manual

This guide provides basic information to help you get started using the SimpliFiber® Pro meter and source and the FindFiber™ source. For additional information, see the *SimpliFiber Pro Users Manual* on the Fluke Networks website.

Safety

⚠ Warning

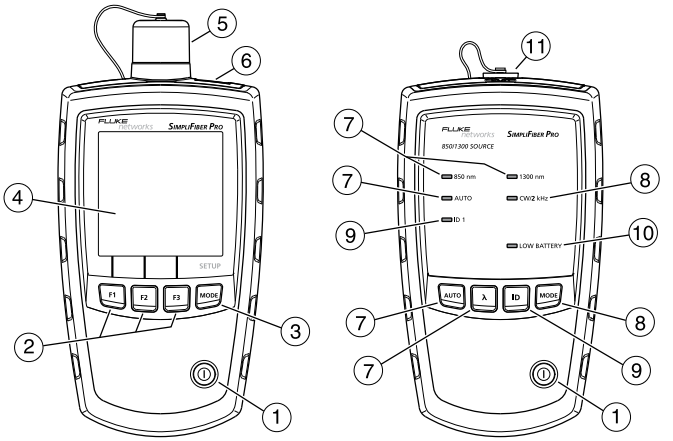
To avoid possible eye damage caused by hazardous radiation, never look directly into optical connectors. Some sources produce invisible radiation that can permanently damage your eyes.

⚠ Caution

To avoid damaging fiber connectors, to avoid data loss, and to ensure maximum accuracy of test results, use proper cleaning procedures to clean all fiber connectors before every use. Cover all connectors with protective caps when not in use.

Read the additional safety information in the *SimpliFiber Pro Users Manual* before using the meter or source.

Meter and Source Features



ffk01.eps

① ⏻: On/off key.

② F1 F2 F3: Softkeys, which provide functions related to the current display. The functions are displayed above the keys.

③ MODE: Selects the meter's measurement mode. To enter setup mode, hold down MODE for 4 seconds. See page 6.

④ LCD display.

⑤ Input port with interchangeable connector adapter. See page 7.

⑥ USB port for uploading test records to a PC. See the Users Manual.

⑦ AUTO: Selects auto wavelength mode. The **AUTO** LED lights. Press λ to change the wavelength. The wavelength LEDs indicate the wavelength. See page 7.

⑧ MODE: Switches between continuous wave and 2 kHz modulated output signals. The **CW/2 kHz** LED lights if

the output is continuous. It blinks if the output is modulated. Use these modes if using the source with a meter other than a SimpliFiber Pro meter.

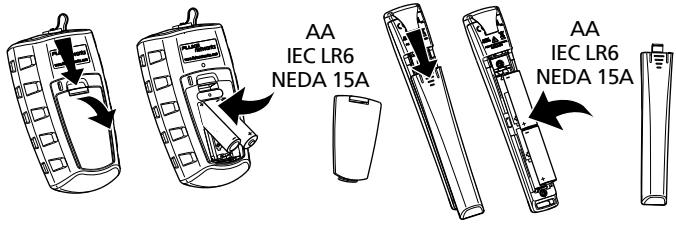
Also enables or disables auto power-off. See page 6.

⑨ [ID]: Selects FindFiber mode. The **ID** LED lights if the source is in FindFiber mode. See page 9.

⑩ The **LOW BATTERY** LED blinks continuously if the battery is low. The LED blinks occasionally if auto power-off is disabled. See page 6.

⑪ Output port with SC adapter.

Battery Installation, Life, and Status



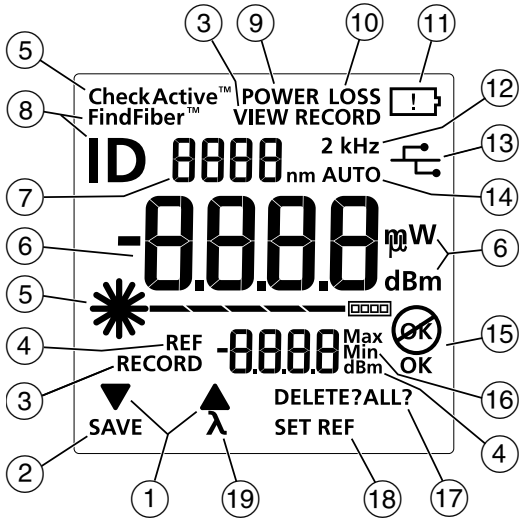
Note: Fluke Networks recommends alkaline batteries.

ffk02.eps

Device	Battery Life[1]	Low Battery Indicator
Meter	>50 hours	[!] (blinks continuously)
Multimode source	40 hours	**LOW BATTERY** LED blinks continuously[2]
Singlemode sources	30 hours	
FindFiber source	>80 hours	LED blinks continuously

1. Typical. See the Users Manual.
2. The **LOW BATTERY** LED blinks occasionally if auto power-off is disabled. See page 6.

Meter Display Features



ffl01.eps

① ▼▲: Indicates that pressing F1 or F2 scrolls through choices in the current mode.

② **SAVE**: Indicates that pressing F1 saves the power or loss measurement. See page 14.

③ **RECORD**: Label for the record number. **VIEW RECORD**: Indicates the meter is displaying saved measurements. See page 14.

④ **REF** (reference): Label for the reference level in loss mode. **dBm**: Measurement unit for the reference level. See page 11.

⑤ ✳ **CheckActive™**: Indicators for **CheckActive™** mode. **CheckActive™** indicates the meter is testing for fiber activity. See page 8.

⑥ Numeric display with units for loss (**dB**) and power measurements (**mW, µW, dBm)**.

⑦ Numeric display for the wavelength.

⑧ **FindFiber**™: Indicates the meter is testing for a FindFiber source. **ID** is the label for the source's identification number, which appears on the numeric display (⑥). See page 9.

⑨ **POWER**: The meter is measuring power. See page 10.

⑩ **LOSS**: The meter is measuring power loss. See page 11.

⑪ [!]: Low battery indicator. See page 3.

⑫ **2 kHz**: The meter detects a 2 kHz modulated optical signal. See the Users Manual.

⑬ : The meter is connected to a PC through the USB port. See the Users Manual.

⑭ **AUTO**: The meter detects a wavelength identifier in the optical signal. See page 7.

⑮ **OK** (OK): The operation succeeded (**OK**) or failed (OK).

⑯ **Max Min**: Indicators for maximum (**Max**) and minimum (**Min**) power measurements. See the Users Manual.

⑰ **DELETE?**: Indicates that pressing [F3] deletes the current record. **DELETE ALL?** indicates that pressing [F3] deletes all records. See page 14.

⑱ **SET REF**: Indicates that pressing [F3] saves the power measurement as the reference value. See page 11.

⑲ **λ**: Indicates that pressing [F2] changes the wavelength being measured.

Setting User Preferences

For the meter:

1 To enter setup mode, hold down MODE for 4 seconds.

2 To scroll through the setup items, press MODE. To change settings, press F1 ▼.

3 To exit setup mode, press MODE until the meter is in the desired test mode.

Meter Setup Item	Choices
-88.88 Max Min -88.88	Enable or disable **Min Max** mode for power measurements. See the Users Manual
mW µW dBm	Select a unit for power measurements.
oFF on	Turn the backlight off or on.
PoFF -- 10 20 30 60	Select a time period for the meter to turn off automatically if no keys are pressed. The meter will not turn off if it is connected to a source that is in **AUTO** or **ID** mode. Dashes (--) indicate auto power-off is disabled.

For the source:

If auto power-off is enabled, the source turns off after 30 minutes if no keys are pressed.

To disable or enable auto power-off, hold down MODE for 4 seconds.

- If auto power-off is enabled, all LEDs turn on for 3 seconds.
- If auto power-off is disabled, all LEDs blink for 3 seconds and the **LOW BATTERY** LED blinks occasionally.

Auto Wavelength Mode

In auto wavelength mode the source's signal includes an identifier that tells the meter which wavelength to measure. You can set the source to one wavelength or to automatically switch between wavelengths. When the source is automatically switching, the meter can automatically measure loss or power at each wavelength in one test. If you save the measurements, the meter saves all wavelengths measured in one record.

To set the source to auto wavelength mode:

1 If the **AUTO** LED is not on, press AUTO.

2 Press λ to manually switch wavelengths (one wavelength LED is on) or to set the meter to automatically switch between wavelengths (wavelength LEDs blink alternately).

If the meter detects the auto wavelength signal, **AUTO** appears on the display, and the meter automatically measures at the correct wavelength.

Cleaning Connectors and Adapters

Always clean and inspect fiber connectors before making connections. Use fiber optic solvent and optical-grade wipes or swabs to clean connectors as described in the Users Manual.

Changing the Connector Adapter

You can change the meter's connector adapter to connect to SC, ST, and LC fiber connectors. See the Users Manual for more information.

Testing Your Test Reference Cords

You must test your test reference cords at regular intervals. See the Users Manual.

Detecting Active Fibers

The meter's CheckActive mode lets you quickly determine if a fiber is connected to active equipment. This mode helps you locate active links and avoid exposure to hazardous radiation.

To use CheckActive mode:

1 Press MODE until **CheckActive™** appears.

2 Connect the meter to a fiber. The meter indicates fiber activity as follows:

The fiber is inactive

The fiber is active. The meter emits a continuous tone.

Note

Ambient light can activate the CheckActive tone. To avoid this, keep a patch cord connected to the meter if the meter is in CheckActive mode.

Locating Fibers

The FindFiber mode helps you identify links at patch panels.

To use FindFiber mode:

1 Connect the meter and a SimpliFiber source or one or more FindFiber sources to the links as shown on page 10.

2 Turn on the meter and the source or FindFiber sources.

- If you are using a SimpliFiber source, press ID on the source.
- To change the number transmitted by a FindFiber source, turn the source off, hold down the power key for about 4 seconds; then release the key when the desired LED turns on.

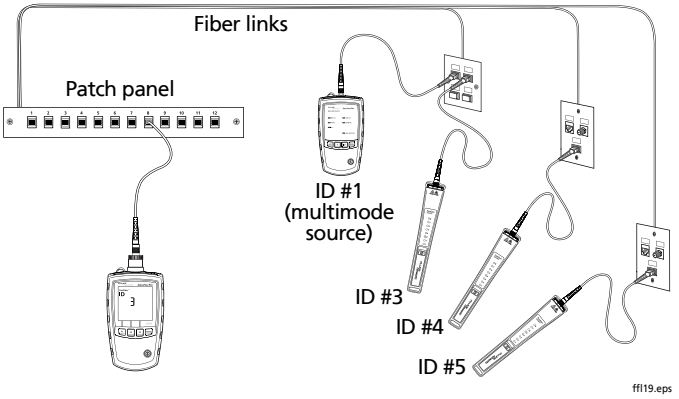
3 On the meter, press MODE until **FindFiber™** appears.

4 The meter indicates connectivity as follows:

Source Connected	Number on Meter
SimpliFiber Pro multimode source	1
SimpliFiber Pro singlemode source 1310 nm /1550 nm	2
SimpliFiber Pro singlemode source 1490 nm/1625 nm	3
FindFiber source	Number indicated by the LED on the source
No continuity or incompatible source connected	----

Note

In power or loss mode, **ID** *blinks if the meter is connected to a FindFiber source or a source in ID mode.*

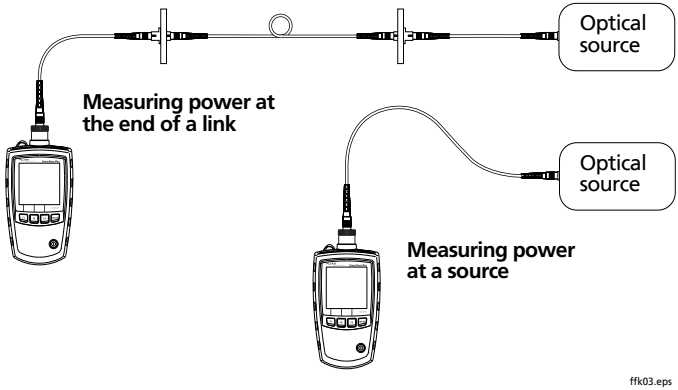


Using FindFiber Mode to Locate Fibers

Measuring Power

The power measurement shows the optical power level produced by a source such as an optical network interface card or optical test equipment.

1. Clean the connectors on the link to be tested. Use fiber optic solvent and optical-grade wipes or swabs to clean connectors as described in the Users Manual.
2. On the meter, press MODE until **POWER** appears.
3. Make the connections shown on page 11.
4. If the source's **AUTO** LED is not on, press AUTO.
5. If you want the source to automatically switch wavelengths, press λ until the wavelength LEDs blink alternately. Or you may press λ to switch wavelengths as needed.
6. To save the measurement, press F1 **SAVE**.



Power Measurement Connections

Measuring Loss

The loss measurement shows how much optical power is lost in a link's fiber and connectors.

Setting the Reference

For the most accurate test results, you should set the reference at these times:

- At the beginning of each day.
- Anytime you reconnect a test reference cord to the source.
- Anytime you see a negative loss measurement.

You may set the reference from power or loss mode. Fluke Networks recommends using power mode because the meter shows the actual power level produced by the source. In loss mode, the meter shows the difference between the power level and the previous reference level.

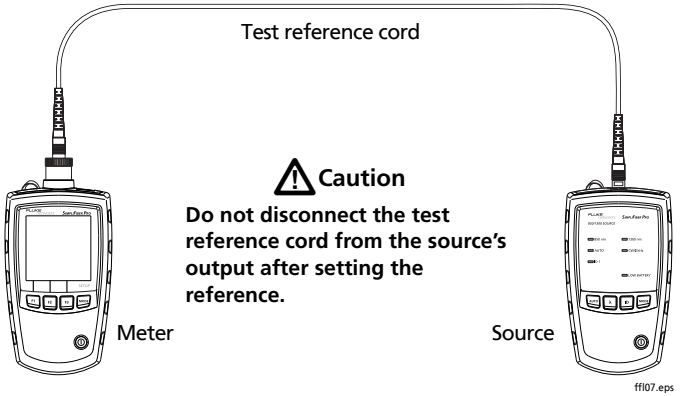
To set the reference:

1. Clean the connectors on the meter, source, and a test reference cord. Use fiber optic solvent and optical-grade wipes or swabs to clean connectors as described in the Users Manual.
2. Turn on the meter and source and let them warm up for 5 minutes. Allow additional time if the equipment has been stored above or below ambient temperature.
3. Make the connections shown below.
4. If the source's **AUTO** LED is not on, press AUTO.

   If you want to set the reference for both wavelengths, press λ until the wavelength LEDs blink alternately.
5. On the meter, press MODE until **POWER** appears.
6. Press F3 **SET REF**. The meter switches to loss mode, the display shows 0.00 **dB**, **OK** appears briefly, and the new reference value appears.

⚠ Caution

If you disconnect the source's output after setting the reference, you must set the reference again to ensure valid measurements.



Reference Connections

Measuring Loss

1 Set the reference as described on page 12.

2 Clean the connectors on the link to be tested and on a second test reference cord. Use fiber optic solvent and optical-grade wipes or swabs to clean connectors as described in the Users Manual.

3 Disconnect the test reference cord from the meter; then make the connections shown below.

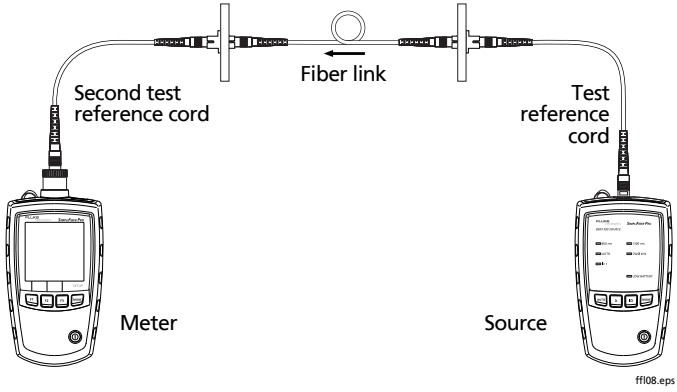
⚠ Caution

Do not disconnect the test reference cord from the source's output. If you do, you must set the reference again to ensure valid measurements.

4 On the meter, press MODE until **LOSS** appears.

5 If the source's **AUTO** LED is not on, press AUTO.

-continued-



Loss Measurement Connections

6 If you want the source to automatically switch wavelengths, press [λ] until the wavelength LEDs blink alternately.

7 To save the measurement, press [F1] **SAVE**.

If the source was automatically switching wavelengths, the meter saves measurements for all wavelengths in one record.

Memory Functions

- The meter stores up to 1000 loss or power records.
- If memory is full, the meter shows FULL when you try to save a measurement.
- To view records, press [MODE] until **VIEW RECORD** appears.
- Press [F1] ▼ or [F2] ▲ to scroll up or down through records.
- To delete the record you are viewing, press [F3] **DELETE** twice.
- To delete all records, hold down [F3] **DELETE** until **DELETE ALL?** appears; then press [F3] again.
- Deleted records show ---- in the numeric display.
- To upload records to a PC, use LinkWare™ PC software and the USB cable provided. See the Users Manual.

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Visit our website for a complete list of phone numbers.