

OFI-200 Optical Fiber Identifier Quick Reference Guide

The OFI-200 is powered by a standard 9 volt alkaline battery that typically provides over 10,000 operations. Power is controlled by the clamping trigger located on backside of the instrument. The OFI-200 operates only when the trigger is engaged. This ensures extended battery life and minimizes ambient light influence. The fiber under test is placed in the fiber groove and depressed into the optical assembly by gently pulling the clamping trigger. The OFI-200 will turn on when the plunger is closed and the fiber is in the appropriate position.

Front Panel Indicators

Once the OFI's plunger is closed, the front panel indicators will illuminate to indicate an optical signal detection. An audible signal generator will "beep" when the unit is energized and will produce continuous sound when a Tone signal is detected.

INDICATOR	FUNCTION
 Direction of Traffic	Left and Right arrows identify the direction of the detected "Traffic" signal and will illuminate accordingly when a traffic signal is present .
 TRAFFIC	Illuminates when a "Traffic" signal is present regardless of the transmission rate. Note: Traffic is a light signal modulated by a random data sequence.
NO SIGNAL 	Illuminates to indicate absence of an optical signal.
TONE 	Illuminates when the OFI-200 detects the 2 kHz "Tone" signal. An audible beeper is also activated.
LOW BATT 	Illuminates when a standard 9V alkaline battery requires replacement.

Safety and Precautions

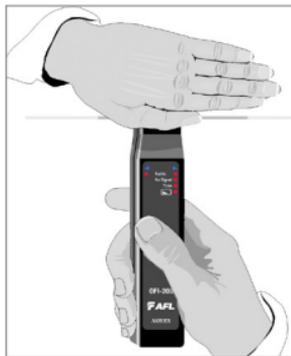
Safety

Caution: To avoid serious eye injury, never look directly into the optical outputs of fiber optic network equipment, test equipment, patch cords, or test jumpers. Always assume that optical outputs are on.

Precautions

It is important that the precautions given below be followed to ensure operating efficiency and to prevent inducing excessive signal loss during testing.

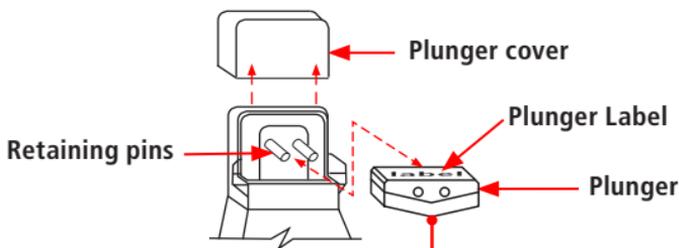
- The OFI-200 identifier utilizes an optical assembly, which must be kept free of dirt, grease and other contaminants.
- The OFI-200 head is designed to guide the fiber being tested to a precise position relative to the optical assembly. The user should be careful to place fibers gently and in the provided fiber groove. Forcing the fiber into the head assembly or misaligning it may induce optical losses above specifications.
- **Important:** The OFI-200 identifier will not falsely indicate “Tone”. Therefore, only fibers identified as carrying a Tone signal should be cut.
- **Caution:** Displayed power levels on the OFI-200 identifier should not be used to determine actual signal strength in the optical fiber.
- **Note:** Actual results can vary by several dB depending on fiber type, coating material, jacket color, jacket hardness, and other factors.
- **Note:** Bright ambient room or outdoor light can cause the OFI-200 to give false “Traffic” readings when testing dark fibers. To be sure that the fiber is carrying live traffic, shield the optical assembly area of the OFI-200 with your hand. Bright ambient light cannot cause false “No Signal” readings, however, low level traffic signals in color-coated fiber may not be detected.



Configuring the Proper Plunger Position

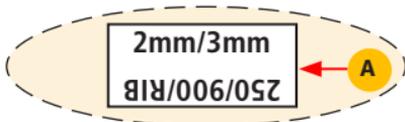
It is very important to place the OFI's plunger in the correct position for testing 250 μ m and 900 μ m coated and ribbon fibers or for testing 2 mm and 3 mm jacketed fibers.

- Remove the plunger cover and observe the plunger position.
- Make sure the plunger is oriented correctly for the type of fiber to be tested.
- If not, lift the plunger from the two retaining pins.
- Rotate the plunger such that the correct side is facing out and will be used for the fiber under test alignment.
- Replace the plunger and cover.



**Position for testing 250 μ m,
900 μ m and ribbon fibers**

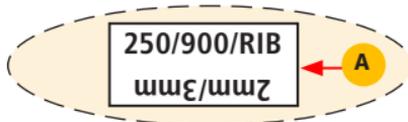
Plunger Label - Top View



The "250/900/RIB" side faces out for the 250 μ m and 900 μ m coated and ribbon fibers testing

**Position for testing 2 mm
and 3 mm jacketed fibers**

Plunger Label - Top View



The "2mm/3mm" side faces out for the 2 mm and 3 mm jacketed fibers testing

Testing Fibers

Note: Prior to testing, make sure the plunger is oriented correctly for the type of fiber to be tested.

1. Select the fiber to be tested and gently insert it into the fiber groove located at the top of the OFI's head.
2. Pull down and hold the trigger to depress the fiber being tested against the optical assembly.
3. Once the trigger is completely retracted, the OFI-200 will power up and discriminate optical signals transmitted through a single-mode fiber.
 - If the fiber is carrying service, the "TRAFFIC" indicator will illuminate showing the presence of service and the signal direction.
 - If the fiber is carrying the 2 kHz Tone, then the OFI-200 will activate the beeper (continuous beep) and illuminate the "TONE" indicator.
 - When no signal is present, the "NO SIGNAL" indicator illuminates.

Additional Information for Ribbon Fibers Testing

Ribbon fiber is typically comprised of 4, 8, or 12 fibers with a 250 μm coating attached together. The OFI-200 models will test ribbon fibers, however, the user should be aware of some limitations.

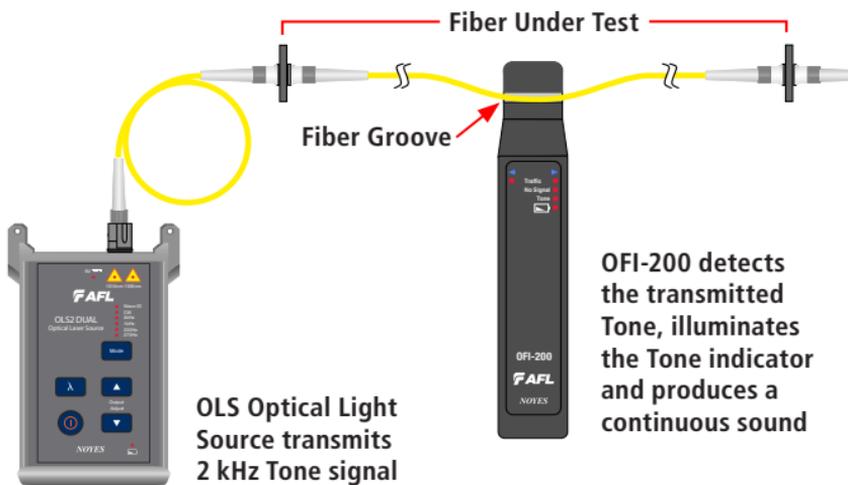
- The OFI-200 will not isolate a specific fiber from the group in a ribbon. If the ribbon being tested is carrying a Tone signal on one fiber and service Traffic signal on any of the other fibers in the group, the OFI-200 will only identify the ribbon as carrying a Tone signal and no Traffic will be indicated.
- **Caution!** When testing ribbon fiber that is not carrying a Tone signal, the OFI-200 could possibly give false "No Signal" identification if two service fibers in the ribbon are carrying equal power in opposite directions. The signals will cancel one another resulting in a false reading.
- Due to detector positioning and to ensure accurate readings, it is recommended to flip ribbon fiber to test both sides.

Identifying a Specific Fiber

During installations, maintenance, rerouting, or restorations it is often necessary to isolate a specific fiber from a bundle without disrupting service. By simply clamping an OFI-200 onto a fiber before making any cuts, the identifier will indicate if there is "Traffic", "Tone", or "No Signal" and display the detected Traffic signal direction. An audible tone generator will "beep" when the unit is energized and will produce continuous sound when a Tone signal is detected.

When used in conjunction with a light source capable of generating a frequency-modulated Tone signal, the OFI-200 identifier will isolate the fiber carrying the 2 kHz Tone from service fibers and dark fibers.

1. Connect an optical laser source producing the 2 kHz Tone to the fiber to be tested.
2. Insert the fiber to be tested in the fiber groove.
3. Pull down and hold the clamping trigger to depress the fiber under test into the optical assembly.
4. When the 2 kHz Tone signal is detected, the OFI-200 illuminates the "TONE" indicator and produces a continuous sound.



Cleaning Optical Assembly

Optical assembly of the OFI-200 must be kept free from dirt or other contaminants to ensure operating efficiency and accurate measurements.

Follow your company's approved cleaning procedures.

AFL recommends using lint free FiberWipes™ and FPF1 or FCC2 cleaning fluid.

1. Remove the OFI's plunger cover.
2. Lift the plunger from the two retaining pins.
3. Dampen the wipe with the FPF1 or FCC2 cleaning fluid and gently clean the exposed prism and optical windows.
4. Once completed, replace the plunger and plunger cover.

Battery Replacement

When the "LOW BATT" indicator illuminates on the OFI-200 front panel, the discharged 9V alkaline battery requires replacement.

To replace the discharged battery:

1. Remove the retaining screw and slide the battery plate away from the unit.
2. Replace the discharged battery.
3. Replace the battery plate and retaining screw.

Repair and Calibration

All NOYES test equipment products are warranted for a period of (1) one year from the date of delivery to the end user.

NOTICE! NOYES Optical Fiber Identifiers contain no user serviceable parts. Except for changing batteries, these units must be returned to NOYES or authorized agents for repair and calibration.