Operating Manual

Introduction

Figure 1

The FiberFox OFI Model SFI-10B Probe is a rugged, hand-held, easy-to-use maintenance and installation instrument that identifies optical fibers by detecting the optical signals that are transmitted through a singlemode fiber.
The SFI-10B utilizes non-destructive macro-bend detection, which eliminates the need to identify a fiber by opening it at the splice point. Thus, the probability of interrupting service is eliminated.

Signals that the SFI-10B detect include continuous wave live optical transmission, and low frequency modulated tones at 270, 1000, and 2000 Hz. When the SFI-10B detects traffic on a fiber being tested, LCD display on the SFI-10B illuminates to indicate the presence and direction of transmission. The presence of tone is indicated in LCD display (Figure 1). The relative level of core power within the fiber is also displayed on the LCD display.

Operating the SFI-10B

Operation of the SFI-10B is simple, as outlined in the following steps:

1. Choose an adapter head for the type of fiber to be tested. The SFI-10B is supplied with two adapters (as shown in Figure 2): (A) foam-covered, to accommodate 250 µm bare fiber and 900 µm buffered fiber; (B) foam-covered, for 3 mm and 2 mm jacketed fiber (i.e., pigtails and jumpers) or loose tube fiber.

2. Push adaptor cover, as shown in Figure 3.

3. Select the appropriate adapter and slide it into the mating slotted channel of the body with slight downward pressure, as shown in Figure 4.

4. Pull adaptor cover

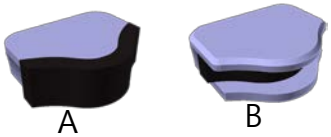

Figure 2

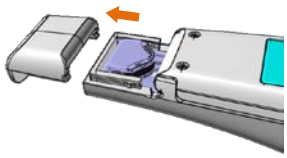

Figure 3

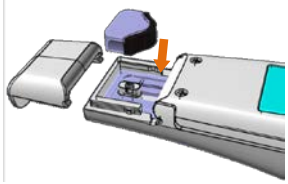

Figure 4

5. Insert the fiber to be tested between the adapter and the top of the clamp (refer to Figure 5). Ensure that the fiber is installed properly in the alignment groove and pull the thumb switch downward.

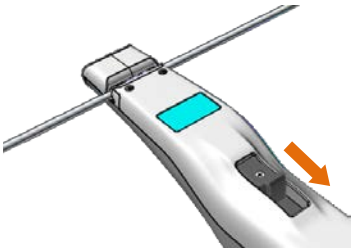

Figure 5

Presence of Traffic.
Arrow of either Traffic Right/Left indicates the detection and direction of traffic. This is useful in determining whether the fiber is transmitting or receiving at equipment terminal locations. (refer to Figure 6)

Test Tone Detection.
Display of any one of the 2 kHz, 1 kHz, or 270 Hz indicates that a test tone is being detected, which ensures accurate identification of the fiber that is under test. (refer to Figure 6)

Relative Power Level.
The relative core power in the fiber is displayed as a minus dB value between 0 and -40 dBm.

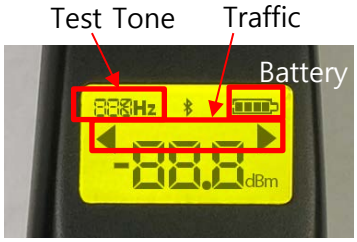

Figure 6

Low Battery Indication.
When the battery voltage becomes low, low gage is displayed after the self test. The unit will continue to operate for some time, but the battery should be replaced with a fresh 1.5-volt alkaline battery x 2ea as soon as possible. (refer to Figure 6)

Maintenance.
It is important that the optical ports remain clean and free of dust, dirt, grease, or other foreign matter. Cleaning with lint-free swabs and isopropyl alcohol is recommended for optimum performance

Warnings and Cautions

The SFI-10B has been designed for discriminating signals in optical fibers. Do not attempt to use this instrument for other applications.
Misuse of the instrument may result in electric shock and/or serious personal injury.

- Read this instruction manual carefully before operating this instrument.
- Store this instruction manual in a safe place.
- Contents of this instruction manual may change without announcement.

The following alert symbols are used in this instruction manual and instrument to indicate warnings and cautions for safe use. Understand the meanings of these symbols.

WARNING
There is a possibility of death or serious injury resulting from improper use by ignoring this indication.

CAUTION
There is a possibility of personal injury or physical loss resulting from improper use by ignoring this indication.


Symbol means "Pay attention"


Pay attention to Explosion!


Symbol means "Must not do"


You must not disassemble!


Symbol means "Must do"


You must disconnect a plug!

Warnings and Cautions

WARNINGS

Remove the battery from the equipment immediately if user observes the following or if the Identifier exhibits the following faults: • Fumes, bad smell, noise or if over-heating occurs. • Liquid or foreign matter falls into the interior of the Identifier. • The Identifier is damaged or dropped. If this occurs, ask our service center for advice. Leaving the Identifier in a damaged state may cause equipment failure, electric shock or fire and may result in personal injury, death or fire. When the equipment is behaving abnormally, there is a possibility of battery leakage. So do not touch the battery directly.
Do not disassemble or modify the Identifier. It can cause an electric shock and fire.
Do not touch the Identifier with wet hands. This may result in equipment failure and electric shock.
Do not heat the battery nor incinerate it. This may result in personal injury by explosion and fire.
Do not short-circuit the electrodes of the battery. Excessive electrical current may cause personal injury, electric shock, fire and equipment damage.
Confirm the polarity of the battery and place it correctly. Incorrect placement may result in battery leakage and personal injury by fire and equipment damage.
Using an improper power source may cause fuming, electric shock or equipment damage and may result in injury, death or fire.

CAUTIONS

Do not store the Identifier under direct sunlight. This may result in equipment failure.
Do not place heavy weight on the Identifier. This may result in equipment failure, electric shock and fire.
Remove the batteries from the equipment when not using it for a long time. Keeping the batteries in the equipment may cause the batteries to leak and damage the equipment.
Do not recharge a non-rechargeable battery, e.g. a dry-cell battery. This may cause heat, leakage or rupture of the unit and injury.
Use the appropriate battery charger specified by the battery manufacturer. Using a charger not specified by the manufacturer could cause injury or fire.
The equipment must be repaired or adjusted by a qualified technician or engineer. Incorrect repair may cause fire or electric shock. Should any problems arise, please contact your distributor.
Perform fall preventive measures, such as attaching a strap, when working at height. Dropping may cause damage of the equipment and personal injury.
Do not press on the LCD panel with sharp materials. It may cause damage to the LCD.

Components

Name	Model	Qty	Appearance & Comments
Identifier	SFI-10B	1pc	
Adapter	AD-01	1pc	
Adapter	AD-02	1pc	
Phillips screwdriver	SC-01	1pc	
Case	SFI-CASE-01	1pc	
Instruction Manual		1pc	

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Instruction Manual		1pc	

a. Rule Part 15.19(a)(3): This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

b. Rule Part 15.21: The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help

SFI-10B Front Side

Description

SFI-10B Back Surface

SFI-10B Bottom Side

Prevent dropping the SFI-10B by attaching a strap when working from height.
Dropping the SFI-10B may cause personal injury.

Power Supply

Battery Operation

1. By using a driver remove the battery cover on the reverse side of the SFI-10B.
2. Place batteries into the battery compartment on the orientation imprinted side of the compartment.
3. Put on the battery cover.

* Caution: Risk of fire or explosion if the battery is replaced by incorrect type.

Use AA Batteries (Voltage: 1.2 to 1.5 V).

SPEC

Power	3V (AA x 2 alkaline)
Size (mm)	194 x 38 x 34
Weight (g)	120 (160 with battery)
Battery life	> 5,000 readings
Interface	Bluetooth(BLE) / Smart Phone
Storage temp.	-40 ~ 60℃
Oper. Temp.	-20 ~ 50℃
Detection sensitivity	-45 dBm @1310nm, -50 dBm @1550nm
Measurment range	-50 ~ +10 dBm
Insertion loss	<0.5 dB @1310nm, <2.0 dB @1550nm
Detected wavelengths	800 ~ 1700nm
Detected tones	270, 330, 1k, 2kHz
Signal direction	Left, Right
Cable diameter range	250um ~ 3mm