Fiber Ranger User Manual

fis
The Solutionists®

TABLE OF CONTENTS

1. Overview

1.1 Description

The FIS E-Series Fiber Ranger is a portable, hand-held fault finder. It adopts OTDR technology to detect the location of optical faults location with just the touch of one button fast and accurately.

1.2 Features

- Portable, rugged, lightweight; Easy to use
- Fast and accurate testing results
- Live fiber detection
- Up to 4 physical faults can be detected in each measurement;
- Automatic Pulse Width Control design to ensure a convenient operation;
- Easy to identify the faults location
- Built-in visual fault locator (VFL), to find any faults in dead zone; or indentify a fiber
- Long battery life, up to 5000 measurements operation.
- Data storage function, up to 200 test records
- USB communication port for saved test records; can be downloaded on a PC with included software

2. Specifications

Operating Wavelength		1550nm
Fiber Type		9/125um SM Fiber
Optical Connector Type		FC/SC (UPC or APC option available)
Detector Type		InGaAs
Peak Power of laser(mW)		≥60
Max. Displaying Distance	**Reflection Event(km)**	60 (≥1dB)
	Non-reflection Event(km)	20 (≥2.5dB)
Measurement Unit		M
Reflection Event Dead Zone		15m
Wavelength of VFL Option (nm)		650
Output Power of VFL Option (mW)		≥1mW
Date storage capacity		200
Communication Port		USB
Power Supply		Alkaline Battery (3pcs AA 4.5V Batteries)
Battery Operating Time		≥5000 measurements
Working Temperature (°C)		-5~40
Storage Temperature (°C)		-10~60
Humidity		0~85% Non-condensation
Dimensions (mm)		200 X 90 X 50
Weight (g)		320

3. Standard Configuration

(1) Fiber Ranger
(1) Software (in CD)
(1) USB cable
(1) User manual
(3) AA Battery
(1 bag) Clean swab
(1) Carry case

4. Function

4.1 Connector ports

The connector of OTDR can be FC or SC, and as well as the connector for the VFL .

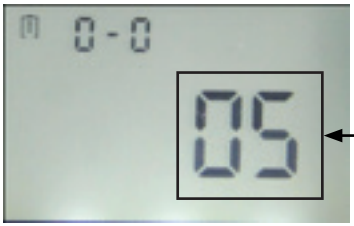
4.2 Display Screen

Power On Interface

4.2.2 Warm-up before measurement interface

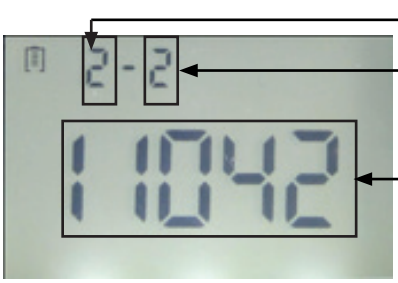
(in order to make sure the core components are working properly inside the fiber ranger, the tester will do a quick warm-up work before testing)

4.2.3 Measurement interface



The tester displays the count down from 00 to 07, and then displays results.

4.2.4 Result



Current events No.

Total events

The tester displays the count down from 00 to 07, and then displays results.

This fiber ranger can detect up to 4 reflective event points, the unit will display the end (last) event first, and in turn display the next event points by toggling the arrow keys.

When the tester connects with a live fiber, "LIVE" will display on the screen If the fiber ranger does not connect with a fiber, or connects with a fiber that is shorter than the dead zone (15m), or the measured fiber is out of the range, the tester will display OPEN. OPEN and LIVE displaying is designed for protection of the tester, if one of these conditions is displayed, restart the tester connect with the measured fiber and press scan to test. If the previous measurement is within the range, and the measurement distance is displayed, the OPEN and LIVE condition can be cleared after restarting the tester.

4.3 Keypad instruction

Power key, long press to turn on/off the tester, short press to Enable/disable the auto-off function.

Short press this key to start the OTDR function to find the event point. Long press this to Enter or quit the IOR setting, and saving the IOR setting before quit the IOR setting.

VFL key, press this key to Enter or Quit the VFL function and the laser source can be visually checked, this function normally used in the short distances events finding, and the short distance fiber checking as well.

Saving key, press to save the current data.

1. When in the interface of data checking interface, this button can check the record data
2. When in the VFL interface, can shift the ON/OFF of modulation of 2Hz
3. When in the IOR setting interface, these arrows can change the IOR value

5. Maintenance

To ensure the reliable operation of the tester, the user should take notice for the following:

5.1 It is important to keep all optical connectors and surfaces free from oil, dirt or other contamination. So when the tester is not in use, just make sure that you place the protective caps over the optical interface properly. This will reduce the chance for there to be an error in measurement caused by the abnormal connection of the patch cord and connector.

5.2 Make sure the patch cord and the connector is matched, the wrong connection will cause an error in the results.

5.3 The tester will display NULL if the measurement is in the dead zone or out off the measurement range.

5.4 Do not directly see the laser source port, to prevent the harm for the eyes.

5.5 Before selecting "SCAN", the connector and the patch cord should be well connected, and during the operation of SCAN, pulling the patch cord from the connector port is not encouraged and could damage the tester.

6. Trouble Shooting

Problem	Possible Reason	Solution
Unit won't turn on	Power Battery power	Change the battery
Measurement result is not accurate	Wrong refractive index setting (IOR)	Set the IOR value as per the original manufacture's specs
	Polluted fiber end face	Clean it with pure alcohol
	Polluted output ports	Clean it with pure alcohol
	Wrong fiber connector	Use the fiber with the matched connector or hybrid adapter

Warranty:

Please contact Fiber Instrument Sales if any problems cannot be solved. This product is guaranteed for one year from date of invoice. If there is an issue with the unit within the one-year warranty period, please send it into us and we will send back a replacement.

Warranty Registration Card

Serial Number: _____

Model Number: _____

Date of Purchase: _____

Company Name: _____

Company Address: _____

TEL: _____ FAX: _____

E-mail: _____

Note: Please fax this note within one month from the date of receiving units.

Do you have any comments on the quality of this product or the service from our company.

_____

_____

_____

_____

Notes:

Notes:

161 Clear Road
Oriskany, NY 13424

Ph: 315.736.2206 Toll Free: 1.800.5000.FIS(347) Fax: 315.736.2285
www.fiberinstrumentsales.com email: info@fiberinstrumentsales.com