Your excellent helper in cable test!

NEW!

INSTRUCTION MANUAL

ORIGINAL
AUTHENTIC

VER: V1

WARNING

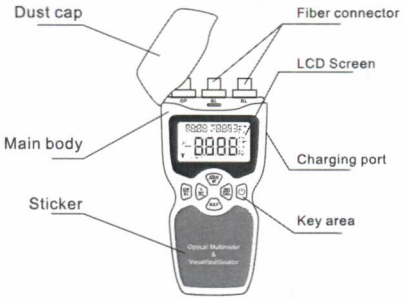
- Don't exposure the instrument directly under Sun.
- Pls avoid the laser directly to your eye when it works.
- Pls avoid operate the instrument at high temperature.
- Clean the connector before use.
- Don't push or pull the connector when connected fiber cable.
- lock the dust cap when you don't use it.
- Take out the battery when you don't use it.

Attention:

The instrument has charging port, users can only charge the instrument when use rechargeable battery.Do avoid charging when you use disposable battery.

1. Brief introduction

All the details including operation procedure & technical parameters and as well as others related can be found in this operation manual as shown in the following.



1.1 Summarize

Portable optical fiber test instruments are newly-developed. Equipped with ∮1.0mm large-area detector so that the stability and reliability can be enhanced effectively; it is a kind of portable tester used for the installation, debugging and maintenance of fiber network specially. It has been widely used in various fields, such as cable construction and maintenance, optical fiber transmission, optical fiber communication, fiber optical sensor, CATV, etc.

1.2 Product features

- New REF user-defined.
- 1.5V battery with 200hrs battery life.
- With FC/SC/ST general-purpose interfaces, no need of adaptor.
- Optional auto-off function and backlight switch.
- Low battery reminding.
- User self-calibration function.
- Dust cap to protect the connectors from dust.

1.3 Applications

- ◆Detect and locate fiber fault
- ◆Measuring power output.
- ◆Measuring loss in fiber cable or device.
- ◆Fiber installation and maintaince.
- ◆Fiber transimission and telecommunication field.

1.4 Technical parameters

Optic Probe: Power meter (InGaAs) Light source (FP-LD) Visual fault locator (LD trap model)
Wavelength: Power meter (800-1700nm) Light source (1310/1550nm) Visual fault locator(650nm)
Resolution:0.01dB
Battery: 1.5V 3pcs
Working Temperature: -10℃~+60℃
Storage Temperature: -25℃~+70℃
Size: 175*80*32mm
Weight: 205g (without battery)

2. Functional description

2.1 Description for the information on LCD

Press ⏻ to turn on the device, you will see the below screen.

(1) 🔋 is battery icon, when operate the device, the icon will be bright.When the battery is running out, the content of icon will be less. Users need to replace new battery when it is empty.

(2)When use AC adaptor, the icon will be bright. And 🔋 will be too.

(3) Auto-off function selection: The auto-off function is working when turn on the device. if there is no operation over 60mins, the power meter will be off automatically.

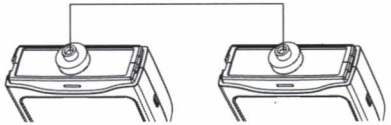
(4)The value in the mid of screen is power, units: dBm, W, Db. The value in the up-right of screen is power reference. Unit: dBmThe value in the up-right of screen is wavelength: Unit: nm

2.2 Wavelength selection

Users can select desired wavelength among 850nm, 1300nm, 1310nm, 1490nm, 1550nm,1625nm by pressing ◁.

2.3 Absolute power measurement

(1). Use one major bridle wire to connect the output port of light source and the detecting port of fiber power meter as shown in the following fig:



(2).Turn on the light source to enter working mode and select wavelength to be tested.

(3).Turn on the fiber power meter and select specified wavelength.

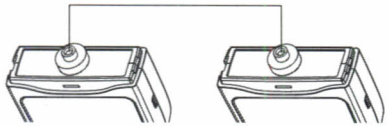
(Selection method: press the ◁ key to select the desire wavelength value)

(4).The current power value on screen is just the absolute power value of current output of light source as shown in the following Fig(the current value is -09.73dBm):

2.4 Relative power (LOSS) measurement

Relative power measurements are used to determine the power loss between two points in the system.The power level is first measured at one point and that value is saved in the meter as a reference. The power is then measured at another point. The meter subtracts the reference value from the new reading and displays the difference in dB.

(1). Connect the desired connector to the meter, connect the two endsof optical fiber jumper with light source and power meter.

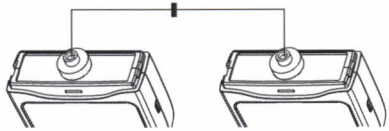


(2). Turn on the light source and select wavelength to be tested

(3). Turn on the power meter and select the same wavelength as light source.

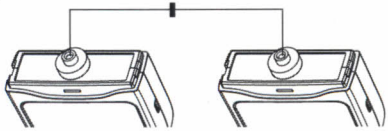
(4).When the output power of light source has been detected, just press REF key, this power value will be stored as the current reference valve (this power value consists of actual output power of light source and loss value caused by major test bridle wire).

(5). Connect the tested optical fiber jumper with light source and power meter.

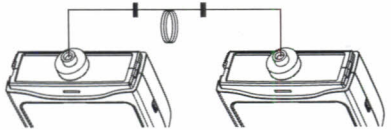


(6). Shortly press REF key, the value on screen is the loss value of the bridle wire being inserted.

(7). If to measure the loss of optical fiber link, it is necessary to carry out local initialization reference for light source and optical power meter, as shown in the following Fig, read the initial reference value on optical fiber meter, and it is available to press the REF key continuously to save this reference value.



(8). Connect the optic fiber link with light source and power Mete respectively, the value on power meter is just the loss value of optical fiber link being tested (including the loss of linker).



2.5 Visual fiber fault testing (650nm)

(1) Open the battery cover, put 3 pcs 1.5V battery in the device. (pls avoid to put the battery in the opposite direction.)

(2) Open the dust cap,take out the rubber cap,connect the fiber cable; then turn on the device, press the togglekeys to be VFL Model,at this time,you can see red light at the connector.(Note: don't let the red light to meet your eye directly)

(3) Frequency selection:

NF-907: press to choose your desired frequency.

NF-911: press to choose your desired frequency.

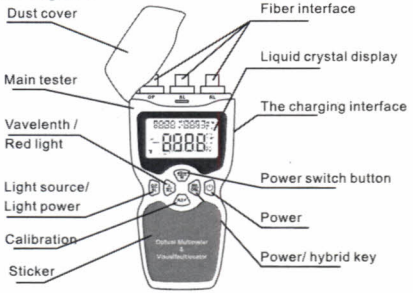
(4) Connect the fiber cable into the connector, press the switch to choose frequency and working model: Continuous or pulse.

(5) When users don't operate the device, put the dust cap to protect the connectors. And take out the battery if you won't use it for a long time.

(6) The above functions are only for NF-907 and NF-911.

3. Operation instruction

3.1 Block diagrams



3.1.2 The key explanation

(1) Power button

Press button to turn on this device , the default is to turn off the device after 1 hour.(1 hour later will be closed if no any opreation)

If you want to close the auto-off fucntion , just short press if you want to close the device , please long press

(2) Wavelength / Visual fault locator

They are 2 models to choose: when you are in the model of power meter test, press that button to choose the wavelength which you need, such as 850nm, 1300nm,1310nm, 1490nm, 1550nm, 1625nm. At the same time , the data will show you on the upper left corner;

When the device is used as VFL, press that button, you can choose different working mode: pulse or continuity.

(3) Power switch
To convert between relative measurement and absolute measurement.
(4) Calibration
Please long press that key to keep current value to a reference Power value, and it show you on the top right Short press it will be changed to relative power test. The reference power value will show on the top right.at that time , you can see the Relative power value . Unit : dB.
(5) Light source/ Power meter
The system default light power model,if you want to transfer into red light source , just long time press that button .
(6) Power/ hybrid key
When machine under light source testing model,this button like model transfer key; if you long press , the device will in the mixture testing model , at that time , you press the wavelength button , the tester can measure the frequancy which send out from the light source.

3.1.3 Operation method
(1) Fiber opwer measure method
When open the power , it will enter the system default light power model.
Short press can transfer fiber power mesure wavelength.
Shot press can change the unit.
Shot press can bring up the basic value which kept last time (The default value is 0).
Long press tell you take the present fiber value into the baseline REF.

(2_) Light source test method
Short press enter into light source test function , then short press change to wavelength , and transfer to frequency if you short press .
(3) Red light testing method
Long press ,the red light testing will be stared,then short press to test the frequency change.
(3) Light source / power light mixture test
After open the machine,long press enter into light source test function,after that short press change to wavelength, transfer to modulation frequency if you short press .

4. Maintenance
Some part of accessories was not include in our maintenace scope , but some inportant parts included , such as Optical device,electronic components. When you not use it,pls put into the relative box to keep them clean and safe. They are several tips to tell you:
* Clean the fiber connector before you use.
* Put the dust cover to avoid the dust.
* Put it in the clean and dry place to avoid the sunlight.
* To avoid high temperature or strong humidity.
* Keep it safe to avoid the strong impact vibrat.
* Pls close the power directly and till it was dry if the liquid flow on the device.

4.1 Clean the probe of the fiber tester
(1) Open the dust cover firstly
(2) Spin off the connect adapter slowly.
(3) Use 2.5mm Cotton swabs with little anhydrous alcohol to wipe the surface.

Attention : when you clean the fiber tester probe , pls don't use to hard thing to touch it that avoid damage it; pls solftly that keep the test accuracy; after use it , pls cover the dust cover immediately.

4.2 Battery installation and replacement

Fiber tester use DC 3x 1.5V battery behind the cover and they are several tips need to pay attention as below:

* When you see this sign on the device , it tells you low power or not instllate the battery.
* Please use the qualified battery.
* Rebember take the battery out to avoide demage the device when you not operate it.

Attention: We are equipped with charging interface to power supply the charging battery ,there will face dagerous if you connected the charging interface to the one-time battery.

4.3 Calibration and measurement

In order to keep the device accuracy of measurement,pls measure it again each year; when can find some deviation please calibrate it again to keep the accuracy.

4.4 transportation

When you traspote the machine , you should keep the temperature in a normal scope to avoid some damage. there are some advice to reduce the losses.

* Use the original package .
* To avoid humidity is too high or the temperature change too large.
* Direct sunlight shoud be avoid.
* To avoid unnecessary impact and vibration.

5. Common troubleshooting and solutions

Common problems	Possible reasons	solutions
fiber optical meter can't test the power inaccurate	Work with light wavelength does not match	Change the working wavelength of optical power meter
Can't open device or display screen	Lack of battery	Change the battery
LCD display weak	Lack of battery	Use the battery adapter/ change battery
Optical power fluctuations when open it	Laser without preheating	Open source, activate the working wavelength, preheat test after 30 minutes
Weak light source output power	Light source connection not clean power weakening	Correct clean source connection

6. The standard configuration

(1)Handheld optical fibers tester-----1pcs
(2)User manual----------1pcs
(3) 1.5V battery----------3pcs
(4) Clean cotton swabs----------1bag
(5)Certificate of approval ----------1pcs
(6)Carry bag----------1pcs
(7) Color box ----------1pcs
(8) The charging adapter----------1pcs(Can be choose)
(9)1.5V charging battery ----------3pcs(Can be choose)