



*Your excellent helper in cable test!*

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*Your excellent helper in cable test!*

**NF-8508**

# Optical Wire Meter tracer

## User Manual



VER:V1

# CATALOG

 **Read the precautions before your operation**

The transmitter and receiver of this device are powered by lithium polymer batteries.

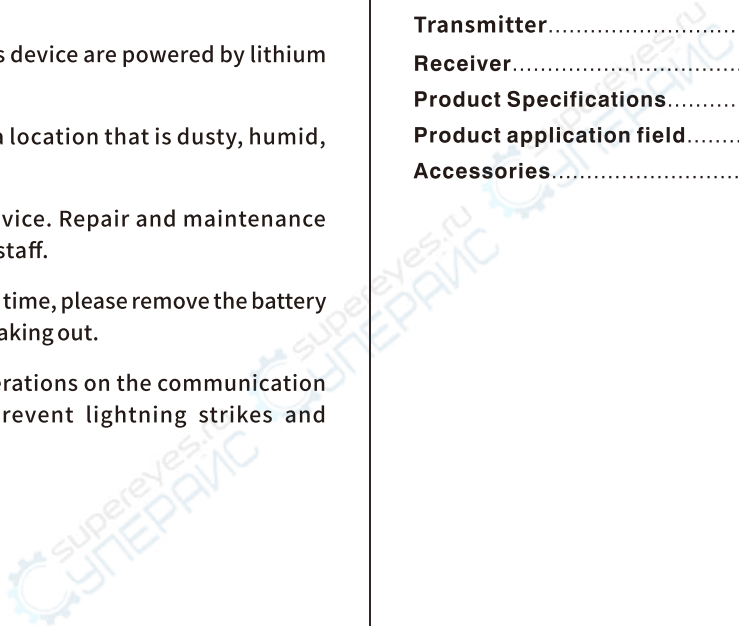
Please do not place the device in a location that is dusty, humid, or hot (above 40°C).

Please do not disassemble the device. Repair and maintenance should be done by a professional staff.

When not using the device for a long time, please remove the battery to prevent the battery liquid from leaking out.

Please do not perform related operations on the communication line during thunderstorms to prevent lightning strikes and personal safety.

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## Product button and interface description

NF-8508 is an Optical wire meter tracer for home and public facility network cable repair.

Its main functions includes Multi-Function Network Cable Tester (cable faults testing, cable length measurement, PoE testing, port flash, Crystal head QC test function) and optical power meter & Visual Fault Locator function. Also it has two modes for options to track cable like Digital mode & Analog mode, all these makes it a must-tool for cabling engineers.



## Auto power off icon



When this icon is displayed it means that the auto power off function is on and when this icon is not displayed it means that the auto power off function is off.

## Power display icon



Displays the current power and charging status, green means it is in the charging status, but white means non-charging status.



CONT



Flash



PoE



OPM



Set



SCAN



Length



QC Test






VFL

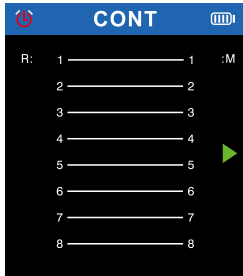
## Product function instructions

### Transmitter

#### 1. Continuity testing

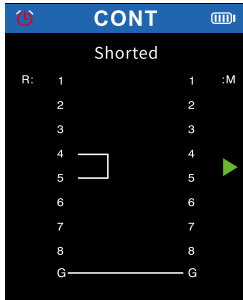
Connect one cable end to "QC/TEST" port of the transmitter on the right side, and the other end connect "RJ45" port of the receiver on the bottom. Select  in the main menu, and press **OK**, it will show the cable types, then press **OK** the screen will show the test result, the  triangle indicates the position to be plugged in.

Click **OK** again, it means test again and the result will show again. Click  can return to the main menu.

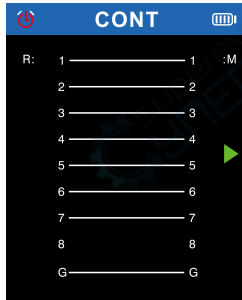


Continuity testing

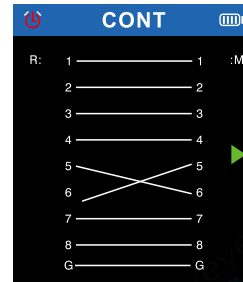
Open, short, cross, and good condition status are as follows



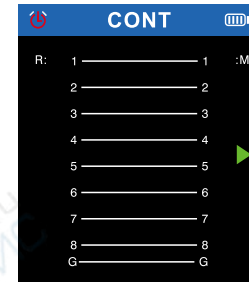
Shorted



Broken









Cross



Good Condition

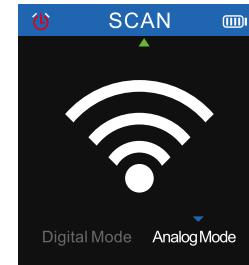
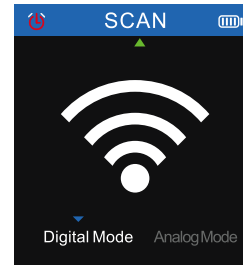
#### 2. SCAN

1. Connect the cable to be tested to "SCAN" port of transmitter on the top, enter  in the main menu, press  or  to choose scan mode you prefer, digital mode or analog mode, then set the corresponding mode on receiver accordingly. After that, hold the receiver to locate cable at the other end, the loudest voice is the correct one.

The  triangle arrow indicates the current function, and the  triangle arrow indicates the current position where the cable needs to be inserted. Click **OK** or  to return the main menu.

Two scan modes selectable: Digital mode/Analog mode, up to 300m.


**Attention:** If the transmitter is in digital scan mode, the receiver must be in digital mode. the analog scan in transmitter matches analog mode in receiver. If the modes are not matched correctly, even the receiver touch the correct cable, it won't generate tone, either.



## Product function instructions

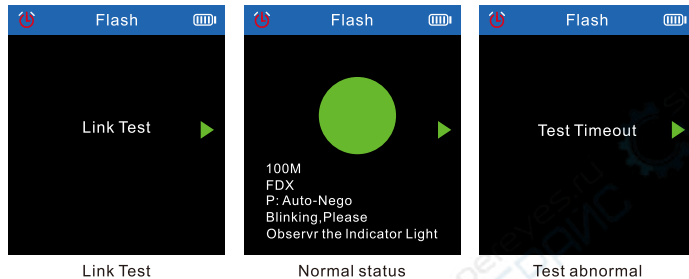
### 3. Port flash

Connect one cable end to the "Length/Flash/PoE" port of the transmitter on the right side, select the  in the main menu, and press **OK** to enter the port flash function.

The screen displays the words "Link test.", and the  triangle arrow indicates the current position where the cable needs to be inserted.


If test successfully, the screen will display the green circle and the specification of the current switch (FDX: full duplex / HDX: half duplex) Protocol (Auto-Nego / Non-Auto- Nego). The circle, and the port on the router (or switch) will flash, if there is a port whose flash frequency is same as the circle on transmitter, the frequency is around 3 secs, also the other ports are flashing more quickly, then you can easily identify it is your target port. But if test fails, the screen will display "Test Timeout", maybe because the cable is not plugged in properly.


And the two lights of the "Length/Flash/PoE" port will also flash at the same frequency. The circle in the screen will also flash with the port lights, moreover, the solid circle and the hollow circle will flash synchronously.



Hub blink for locating network port by the flashing port light on Hub / Switch. Available to 10M/100M/1000M Hub/ switch.

### 4. Length

Connect one end of cable to "Length/Flash/PoE" port, disconnect the cable at far end, choose  on the main menu, and select the cable type and unit (meter/ yard/ feet ) before testing.

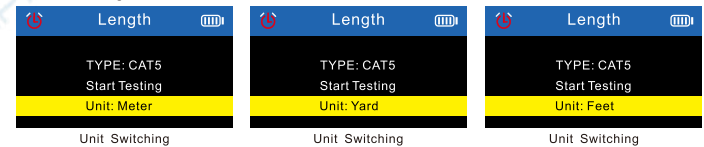
Choose "Start Testing" to press **OK** to measure and the result will show on the screen. The  triangle arrow indicates the current position where the cable needs to be inserted. If the cable is short or broken, the the data will be red.

1. The lan cable to be tested must be de-energized.
2. Disconnect the cable at the far end, no other devices connected!
3. The range must be 2.5m~200m, otherwise, it would be display 0 meter.

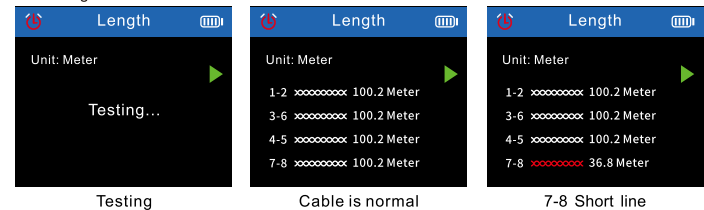
Available cable types



Available length units



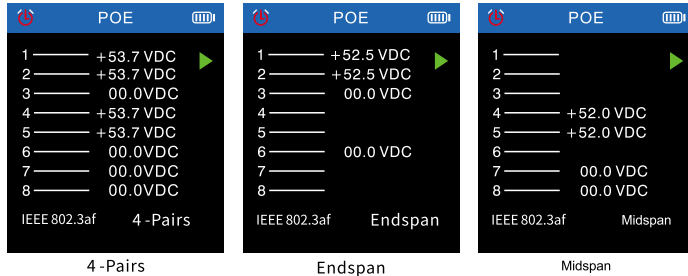
Test images and results



## 5. PoE test

It can test the information of standard PoE device, such as POE voltage, power supply polarity, power supply mode and also the type of PSE(af or at standard). If the PoE device is non-standard, it can also test POE voltage, power supply polarity, power supply mode, but it can't tell the type of PSE, just display "Non standard".




Connect the cable into "Length/Flash/PoE" port, the testing result display as below image.



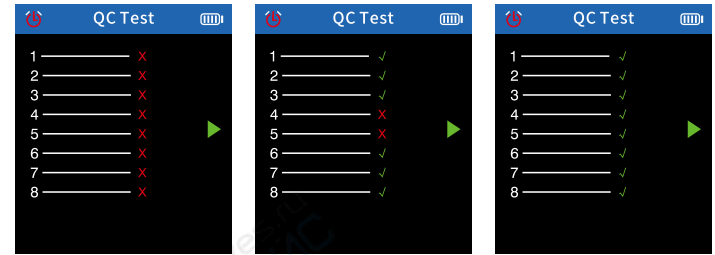
### Attention:

1. If all the 8 pins are providing power, it won't display polarity.
2. If connected with PoE device, the result can be displayed after a few secs, if there is no result displayed after 30secs, then the device connected may not be PoE device.

## 6. QC testing for crystal head

Connect one of cable end to the "QC/TEST" port, Select  in the main menu, and press **OK** to start test.  The triangular arrow indicates the current position where the cable needs to be inserted, and press  can return to the main menu.

Plug and unplug the cable tested, the result will be updated automatically. ✓ indicates that the channel is normal, and X indicates that the channel is abnormal.




Error



Error


Correct

## 7. Optical power meter

The optical power meter can test the optical power and the attenuation value of the light.

Insert one end of fiber cable into OPM port, select  in the main menu, and press **OK** to enter the optical power meter function.

 The triangular arrow indicates the current position where the cable needs to be inserted, and the data can be updated in real time. Press  return to the main menu.




The icon  indicates the current selection item. From top to bottom, the top means the unit can be switched and the bottom means the wavelength can be switched.

(1) Available Unit: dBm, dB, or mw, uw, nw

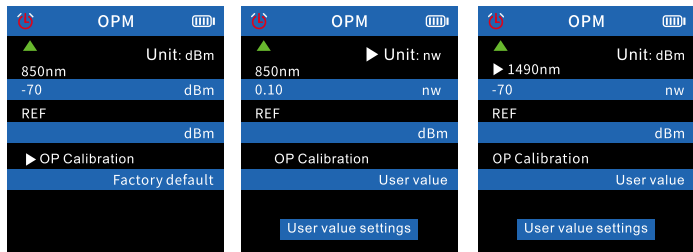
(2) Available Wavelength: 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm.

Insert one end of the fiber cable end into OPM port, choose the unit and wavelength you needed before test.

### (3) REF Switch

REF is used to test the attenuation value of light. After testing the optical power, press  or  to select REF, when the icon  is the front of REF, long press **OK** key to automatically save the current optical power value to be the second blue area, which means that you have saved the test result of measured optical power this time. When measure again, you can compare the previous result with current result to know the attenuation value of the device testing.

Press the icon or can switch Unit, Wavelength. When the icon is in the front of the certain item, means can switch them through press **OK**. Refer below operation pictures.

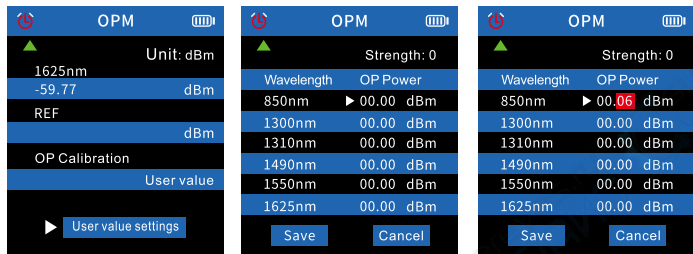


Unit switching

Unit switching

Wavelength switching

Press the icon or can select the "User value setting". Press **OK** to open User value setting, press **OK** again to start set the "optical power", press and to  $\pm$  (increase or decrease) numerical value. Press return to the main menu.

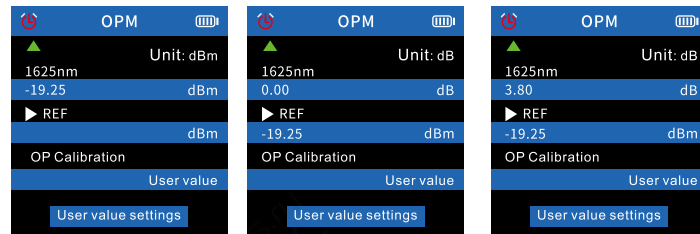


User value settings

OP Power

Set the optical power

Press the icon or can select the "REF", when the icon is in the front of REF, long press **OK** can automatically save the current data of optical power to be in first blue area. At this time, the unit is forced to dB, and cannot be switched to other units. Press return to the main menu.



Select REF

Unattenuated optical power

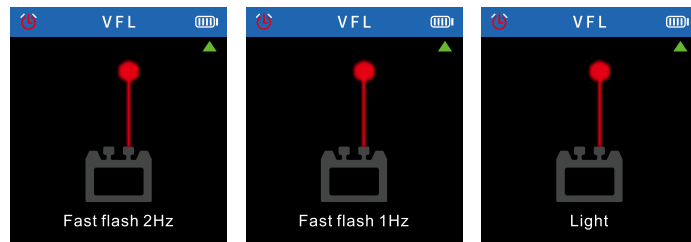
Real-time attenuation data

Without in REF function, the blue display area on the second row of the user area will not display the value, and the blue display area on the first row of the user area will display normal optical power data.

## 8. VFL

Insert one end of fiber cable into the VFL port, select in the main menu, and press **OK** to start test. The triangular arrow indicates the current position where the cable needs to be inserted. Press to return to the main menu.

Press **OK** can switch three modes : Fast flash, Slow flash and Light.









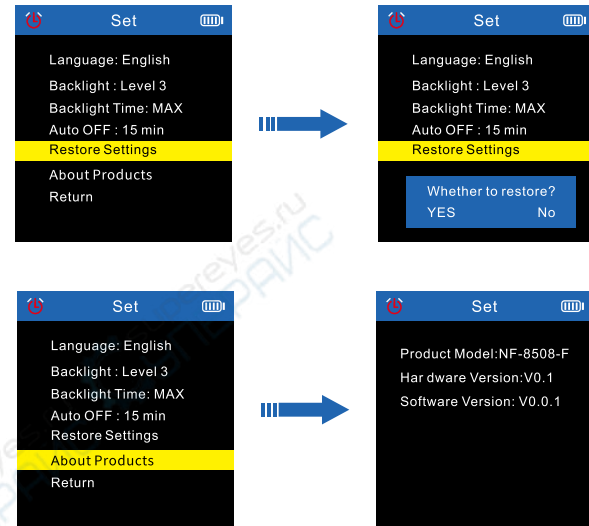
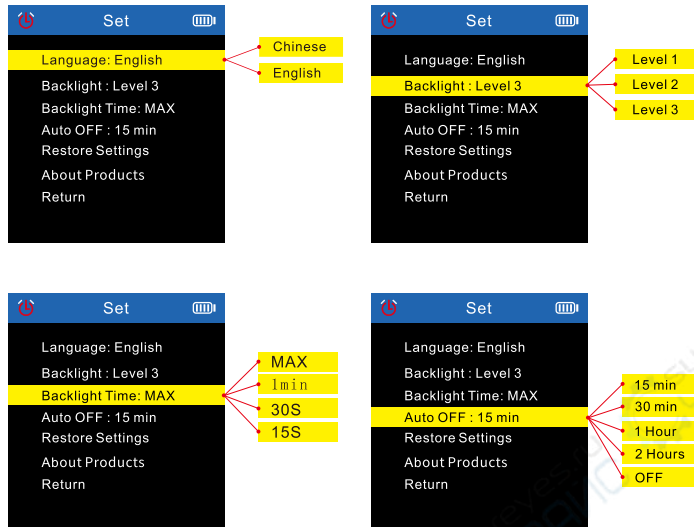
Fast flash 2Hz

Fast flash 1Hz

Light

## 9. Setting

Select  in the main menu, and press  to enter the setting function, press  and  to switch options up and down, press  again to switch various modes of the current option, and press  to return to the main menu.




In the  menu, select "Return" and press the , Return to the main menu.




## Receiver

### 1. Power

Long press  hear a beep, it means the device has been turned on. At this time, the power indicator lights up green and the scan indicator lights up red, the default is digital mode. Long press power button, it will turn off and all the lights will be off.

### 2. SCAN

When the receiver turns on, press  can switch "digital mode" or "analog mode". Scan indicator is red, means it is digital mode. Scan indicator flashes red, means it is analog mode.

### 3. NCV

When the receiver turns on, press  the NCV indicator lights green, means NCV function turns on.

### 4. Lamp

When the receiver turns on, press  to control the light to turn on or off.

### 5. SEN

When scan, can adjust the sensitivity of the receiver to track the cable. Rotate clockwise to increase the sensitivity, rotate counterclockwise to decrease the sensitivity.

### 6. Type-C charging

The power indicator lights red, means it is charging, the red light turns off means it is fully charged.

## Product Specifications

Model		NF-8508	
Cable type		CAT5/CAT6	
Voltage protection		60V	
Battery		Type C charge	
Transmitter	CONT	Wiremap Port	RJ45
		MAX range	300m
		STP/NTP	√
		Digital mode and Analog mode	√
	Scan	Frequency	455KHz
	Port Flash	Full duplex / Half duplex	Automatic Identification
		Auto-Nego / Non-Auto- Nego	
	10m/100m/1000m		
	Length	≤20M+/-1.6M, 20M-100M+/-2.4M, ≥100M+/-3.2M	
	PoE	Standard/Non standard	Automatic Identification
End connection /Middle jumper / Powered by 8 cores			
PoE Power supply		Voltage detection	
NVL	10Mw		
Power meter	850/1300/1310/1490/1550/1625 ( Wavelength )		
Crimping	RJ45-8 Cores, Min length is ≥10cm		
Lowvoltagewarning	< 3.5V ± 0.1V		
Power supply	3.7V 1500mAh Polymer lithium battery		
Transmitter size	148 X 70 X32 mm		
Receiver	Sensitivity adjustable	√	
	MAX range	300m	
	Digital mode and Analog mode	√	
	MAX working current	≤300mA	
	NCV	√	
	Lamp	√	
	Lower voltage warning	√	
	Power supply	3.7V 1500mAh Polymer lithium battery	
	Receiver size	198 x 50 x 28 mm	

## Product application field

- 1、Telecommunication bureau/Internet cafe/telecommunication engineering company, network engineering company/power force and other weak current projects, line maintenance and other departments that require metal lines.
- 2、Telecommunication network line engineering and general maintenance work; computer network line engineering; other metal conductor line engineering and maintenance work.



## Accessories

Transmitter	1pc	Alligator clip adaptor	1pc
Receiver	1pc	RJ45 Adaptor cable	1pc
USB Type-C cable	1pc	User manual	1pc
Earphone	1pc	Carry bag	1pc
RJ11 adapter line	1pc	Color box	1pc
Quality certificate	1pc		

Note: Please refer to the actual product received.