Optical Wire Meter tracer

User Manual

Your excellent helper in cable test!

ORIGINAL AUTHENTIC
Patented products Counterfeiting not allowed

VER:V1

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.

CATALOG

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 : Optical power meter & VFL function; Tracing cable location; Test cable continuity; Measuring cable length; PoE test; Port plash function; Crimping test for crystal head and so on. And It has two modes for options to trace cable like anti-jaming & normal mode.

VFL

SCAN

OPM

大彩屏

Power

Confirm

Up

Down

USB Type-C

Transmitter

Lamp   Anti-jammingprobe

Power

Scan

NCV

Length/Flash/PoE

SEN

USB Type-C

Scan mode toggle key

NCV toggle key

Lamp

Power

RJ45

Receiver

QC/Test

Earphone

Back

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.

| 12345678	CONT		SCAN
12345678	FLASH		LENGTH
PoE 12-36 45-78	PoE	12345678	QC Test
00.00	OPM	VFL	VFL
	Set		

Product function instructions

Transmitter

1、Continuity testing

Open the device, select the ⊡ in the main menu, and press the OK , it will show the cable types, then press"confirm to test", the ▲ triangle indicates the position to be plugged in.

Click the OK again, the screen will show "Testing.." , the result displays again.
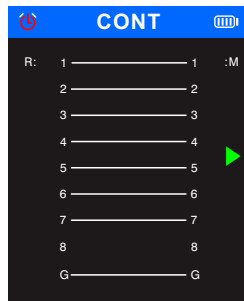If click the OK again, the test again. If click the ↩ it will return to the main menu.
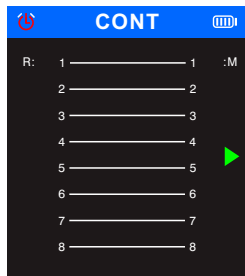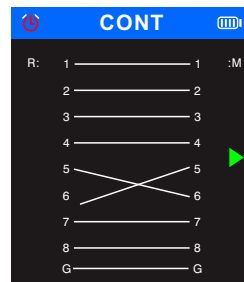

Continuity testing

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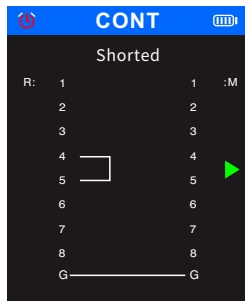
Shorted

Broken

Cross
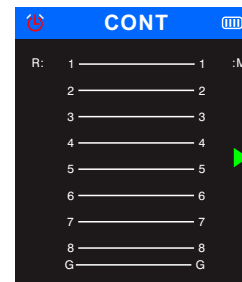
Good Condition

2、SCAN

Select the 🔍 in the main menu, and press the OK , Enter SCAN Function.

Screen displays two options of "Digital Model" and "Analog Mode", you can press the ⌃ or ⌄ to choose scan mode, 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 back the main menu.
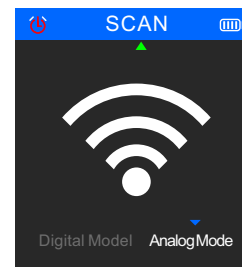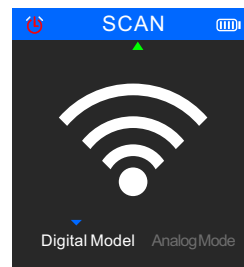
Two scan modes selectable: AC filter mode/Analog mode, up to 300m.

Product function instructions

3、Flash

Select the ⬚ in the main menu, and press the `OK` to enter the port flashing function. The screen displays the words "Link test..", and the ▶ triangle arrow indicates the current position where the cable needs to be inserted.

After finishing test, if test fails, the result will show "Time out", maybe the cable is not plugged in properly or other reasons. If the test is successful, it will display the specific information of the current switch (FDX: full duplex / HDX: half duplex) Protocol (Auto-Nego / Non-Auto-Nego).

And the two lights of the two ports will also flash at the same frequency. The circle in the screen will also flash with the port light, moreover, the solid circle and the hollow circle will flash synchronously.

Flash	Flash	Flash
Link Testing ▶	(green circle) ▶ 100M FDX P: Auto-Nego Blinking,Please Observr the Indicator Light	Test Timeout ▶
Link Testing	Normal status	Test abnormal

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

4、Length

Select the ◺ in the main menu, and press the `OK` to enter the length test function.

When test the cable length, press `OK` to switch the cable type: Cate5 or Cate6.Press the ⌃ or ⌄ to select the unit, and then press the `OK` to switch back and forth betwe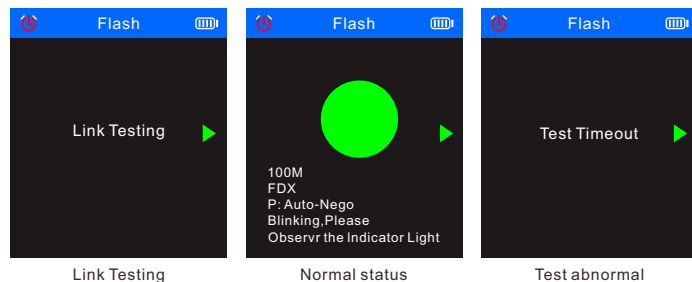en the units (m/yard/feet). The ▶ triangular arrow indicates the current position where the cable needs to be inserted. If a certain cable is abnormally short, it will be indicated by a red line pattern.

When test the cable lenght, you can switch the cable types according to following figure:

Length	Length
TYPE: CAT5 Start Testing Unit: Meter	TYPE: CAT6 Start Testing Unit: Meter
Cable Type	Cable Type

The measurable cable lengths are:

Length	Length	Length
TYPE: CAT5 Start Testing Unit: Meter	TYPE: CAT5 Start Testing Unit: Yard	TYPE: CAT5 Start Testing Unit: Feet
Unit Switching	Unit Switching	Unit Switching
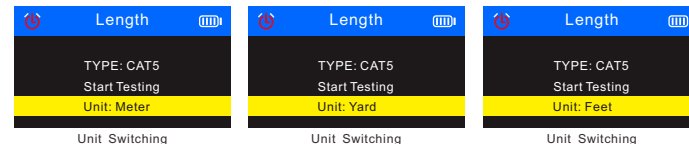
The screen display of length test function is as follows:

Length	Length	Length
Unit: Meter Testing… ▶	Unit: Meter ▶ 1-2 xxxxxxxx 100.2 Meter 3-6 xxxxxxxx 100.2 Meter 4-5 xxxxxxxx 100.2 Meter 7-8 xxxxxxxx 100.2 Meter	Unit: Meter ▶ 1-2 xxxxxxxx 100.2 Meter 3-6 xxxxxxxx 100.2 Meter 4-5 xxxxxxxx 100.2 Meter 7-8 xxxxxxxx 36.8 Meter
Testing	Cable is normal	7-8 Short line
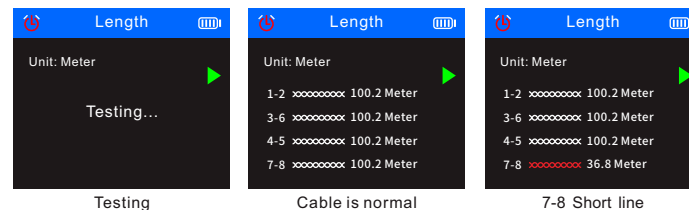
Measure cable (cat5/6) length accurately,the range is 2.5~200m.

5、PoE test

Select the [PoE] in the main menu, and press the [OK] to enter the POE function test. The ▶ triangular arrow indicates the current position where the cable needs to be inserted. Press the [↩] to return back to the main menu.

If plug and unplug the cable connected to the switch, the data will be updated automatically.

(1) It will display: Non-standard/IEEE 802.3af/IEEE 802.3at, when test PoE standard.

(2) It will display: end connection method/middle jumper method/powered by 8 cores, when judging the jumper method.

(3) It will display positive and negative and voltage of the PoE switch, when judging the polarity.

POE
1 ——— 53.7 VDC
2 ——— 53.7 VDC
3 ——— 00.0VDC
4 ——— 53.7 VDC
5 ——— 53.7 VDC
6 ——— 00.0VDC
7 ——— 00.0VDC
8 ——— 00.0VDC
IEEE 802.3af   4 -Pairs

4 -Pairs

POE
1 ——— 52.5 VDC
2 ——— 52.5 VDC
3 ——— 00.0 VDC
4 ———
5 ———
6 ——— 00.0 VDC
7 ———
8 ———
IEEE 802.3af   Endspan

Endspan

POE
1 ———
2 ———
3 ———
4 ——— 52.0 VDC
5 ——— 52.0 VDC
6 ———
7 ——— 00.0 VDC
8 ——— 00.0 VDC
IEEE 802.3af   Midspan

Midspan

PoE testing : identify which pins are providing power and detect how much voltage, identify which the type of PSE（at/af standard）

6、QC testing for crystal head

Select the [□] in the main menu, and press the [OK] to enter the crimping test function. ▶ The triangular arrow indicates the current position where the cable needs to be inserted, and press the [↩] to return back to the main menu.

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

QC Test
1 ——— X
2 ——— X
3 ——— X
4 ——— X
5 ——— X
6 ——— X
7 ——— X
8 ——— X

Error

QC Test
1 ——— √
2 ——— √
3 ——— √
4 ——— X
5 ——— X
6 ——— √
7 ——— √
8 ——— √

Error

QC Test
1 ——— √
2 ——— √
3 ——— √
4 ——— √
5 ——— √
6 ——— √
7 ——— √
8 ——— √

Correct

7、Optical power meter

Select [≡] in the main menu, and press the [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 backto the main menu.
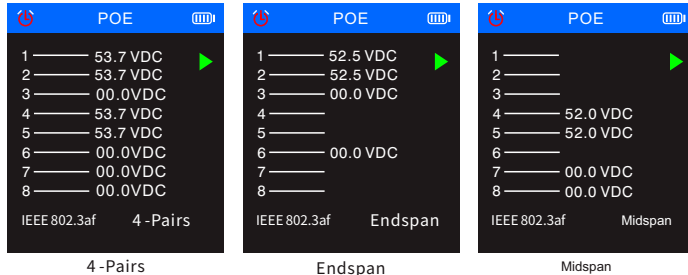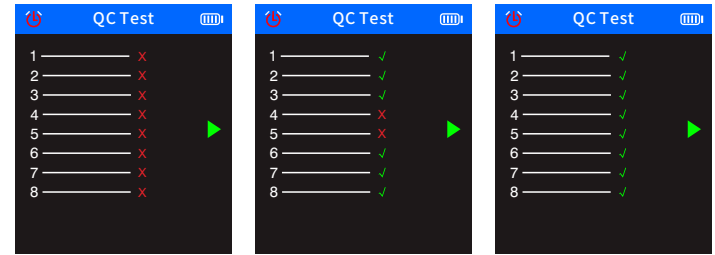
The optical power meter can test the optical power and the attenuation value of the light. The white triangular arrow indicates the current selection item. From top to bottom, the top means the unit can be switched and the bottom means the wavelength can be switched.

(1) Unit switching: can switch as dBm, dB, or mw, uw, nw

(2) Wavelength switching: Enter the option, Click OK then you can switch the wavelength to 850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm.

(3) **REF Switch**

REF is used to test the attenuation value of light, insert the port of the unattenuated end under this option, long press to save the current unattenuated optical power and display the value in the blue display area on the first line of the user area, then plug the interface of the attenuation end into the test end, and click the OK button in this mode to switch the user area. The blue display area on the first row displays the attenuation value or the normal optical power data.

When you use ⌨ meter funcation, can press the ⬆ or ⬇ to select the "unit" item, press the [OK] to switch the unit, select the "wavelength" item to switch the length of the wavelength.

OPM		
▲	Unit: dBm	
850nm		
-70	dBm	
REF		
	dBm	
▶ OP Calibration		
	Factory default	

Unit switching

OPM		
▲	Unit: nw	
850nm		
0.10	nw	
REF		
	dBm	
▶ OP Calibration		
	User value	
User value settings		

Unit switching

OPM		
▲	Unit: dBm	
▶ 1490nm		
-70	nw	
REF		
	dBm	
OP Calibration		
	User value	
User value settings		
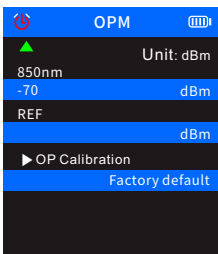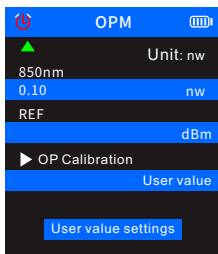
Wavelength switching

When you use ⌨ meter function, can press the ⬆ and ⬇ to select the"User value setting" item, press the [OK] to open the user value, press the [OK] again, then select the "optical power" to be set, and press the ⬆ and ⬇ to set the optical power ± numerical value. Press the ↩ to return to the main menu.

OPM		
▲	Unit: dBm	
1625nm		
-59.77	dBm	
REF		
	dBm	
OP Calibration		
	User value	
▶ User value settings		

User value settings

OPM		
▲	Strength: 0	
Wavelength	OP Power	
850nm	▶ 00.00 dBm	
1300nm	00.00 dBm	
1310nm	00.00 dBm	
1490nm	00.00 dBm	
1550nm	00.00 dBm	
1625nm	00.00 dBm	
Save	Cancel	

OP Power

OPM		
▲	Strength: 0	
Wavelength	OP Power	
850nm	▶ 00.06 dBm	
1300nm	00.00 dBm	
1310nm	00.00 dBm	
1490nm	00.00 dBm	
1550nm	00.00 dBm	
1625nm	00.00 dBm	
Save	Cancel	

Set the optical power

When use ⌨ function, press the ⬆ and ⬇ , select the "REF" item, and press the [OK] the blue area on the first row displays the real-time attenuation data, and the blue area on the second row displays the previously saved unattenuated optical power. At this time, the unit is Forced to dB, and cannot be switched to other units. Press the ↩ to return to the main menu.

OPM		
▲	Unit: dBm	
1625nm		
-19.25	dBm	
▶ REF		
	dBm	
OP Calibration		
	User value	
User value settings		

Select REF

OPM		
▲	Unit: dB	
1625nm		
0.00	dB	
▶ REF		
-19.25	dBm	
OP Calibration		
	User value	
User value settings		

Unattenuated optical power

OPM		
▲	Unit: dB	
1625nm		
3.80	dB	
▶ REF		
-19.25	dBm	
OP Calibration		
	User value	
User value settings		

Real-time attenuation data

⚠ Under the non-attenuation 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

Select the ⌨ in the main menu, and press the [OK] to enter the VFL function test. ▲ The triangular arrow indicates the current position where the cable needs to be inserted. Press the ↩ to return to the main menu.

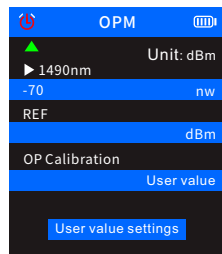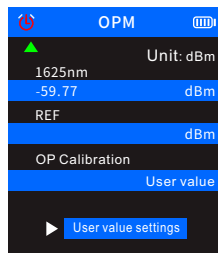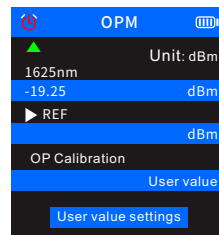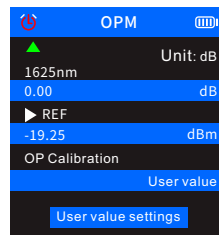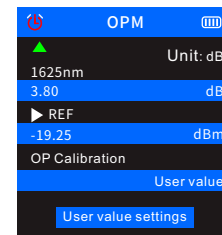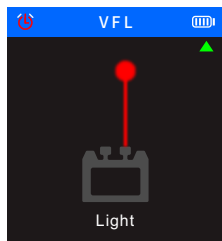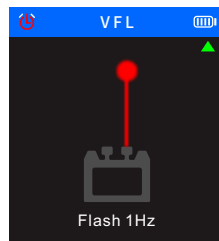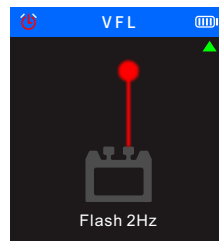Under this function, press the [OK] to switch the red light to: fast flashing, slow flashing, and always on.

VFL
▲
Flash 2Hz

VFL
▲
Flash 1Hz

VFL
▲
Light

Your excellent helper in measuring instruments.

Your excellent helper in measuring instruments.

9、Setting

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

Set
- Language: English → Chinese / English
- Backlight : Level 3
- Backlight Time: MAX
- Auto OFF : 15 min
- Restore Settings
- About Products
- Return

Set
- Language: English
- Backlight : Level 3 → Level 1 / Level 2 / Level 3
- Backlight Time: MAX
- Auto OFF : 15 min
- Restore Settings
- About Products
- Return

Set
- Language: English
- Backlight : Level 3
- Backlight Time: MAX → MAX / 1min / 30S / 15S
- Auto OFF : 15 min
- Restore Settings
- About Products
- Return

Set
- Language: English
- Backlight : Level 3
- Backlight Time: MAX
- Auto OFF : 15 min → 15 min / 30 min / 1 Hour / 2 Hours / OFF
- Restore Settings
- About Products
- Return

Set
- Language: English
- Backlight : Level 3
- Backlight Time: MAX
- Auto OFF : 15 min
- Restore Settings
- About Products
- Return

➡

Set
- Language: English
- Backlight : Level 3
- Backlight Time: MAX
- Auto OFF : 15 min
- Restore Settings

Whether to restore?
YES   No

Set
- Language: English
- Backlight : Level 3
- Backlight Time: MAX
- Auto OFF : 15 min
- Restore Settings
- About Products
- Return

➡

Set
- Product Model:NF-8508-F
- Har dware Version:V0.1
- Software Version: V0.0.1

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

Receiver

1、Power

Press and hold the 🔵 in the off state, and hear a beep to indicate that it has been turned on. At this time, the power indicator lights up green and the scan indicator lights up red, it means it's in anti-jamming method; if the device turns on, long press 🔵 button, it will turn off and all the lights will be off.

2、SCAN

When the receiver scans, you can press the SCAN button to switch "anti-jamming mode" or " normal mode" . When the scan indicator is always on red, it means it is in the "anti-jamming" function. When the SCAN indicator is red and flashes r, it means it is in the "normal mode" function.

3、NCV

When the receiver turns on, press the NCV , the NCV indicator will light up in green, meaning that the receiver is in NCV function.

4、LAMP

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

5、SEN

When scan, you can adjust the sensitivity of the receiver: Rotate clockwise to increase the sensitivity, and rotate counterclockwise to decrease the sensitivity.

6、Type-C Charging

In the charging state, the power indicator will light red, and the red light will turn off when fully charged。

Product Specifications

Model	NF-8508		
Cable type	CAT5/CAT6		
Voltage	60V		
Battery	Type-c charging		
Transmitter	CONT	Wiremap Port	RJ45
		Remote Continuity	≥300m
		Cable sequence and fault test	√
		STP/NTP	√
		Short circuit reminder	√
	Cable Scan	Anti-jamming and Normal mode	√
		Audio transmission frequency	455KHz
		Audio transmission distance	RJ45 300m
	Port Flash	Full duplex / Half duplex	Automatic Identification
		Auto-Nego / Non-Auto- Nego	
		10m/100m/1000m	
	Length Tester	≤20M+/-1.6M, 20M~100M+/-2.4M, ≥100M+/-3.2M	
	PoE Test	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	
	Low voltage prompt	Below 3.5V ± 0.1V power indicator flashes	
	Power supply	3.7V 1500mAh Polymer lithium battery	
	Transmitter size	148 X 70 X32 mm	
Recevier	Sensitivity adjustment		
	No-load shielded network cable/non-empty shielded network cable 300M		
	Anti-jamming and Normal mode	√	
	Scan current	≤300mA	
	Remote Continuity	≥300m	
	NCV detection function	√	
	Lamp	√	
	Low voltage prompt	√	
	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.
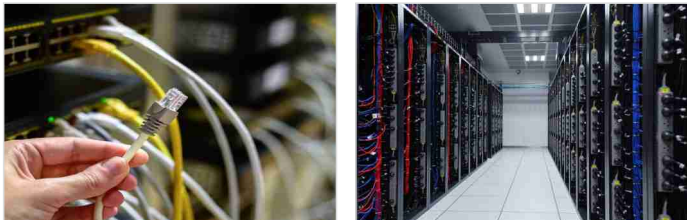
Accessories

Transmitter	1pc	Cable ad aptors	1pc
Recever	1pc	RJ45 adapter line	1pc
Type-c data cable	1pc	User m anual	1pc
Earphone	1pc	Carry bag	1pc
RJ11 adapter line	1pc	Color box	1pc
Quality certificate	1pc		

Note: Please refer to the actual product received.

设 计	品名	样式	印刷要求
HZL	NF-8508说明书-英文V1	骑马订	彩色
日期	品号	页码	
2022.07.12	暂无	20P	
样品	尺寸	材质	
	105x145mm	128g 铜版纸	
变更记录			