

### Overview

This instrument is an intelligent network cable finder that uses advanced digital demodulation to achieve anti-interference and noise free cable finding. The instrument has functions such as cable sequence, cable finding, QC, port flashing, POE, and can also test telephone line polarity recognition, standby, off hook, ringing, and LED light indicators in different states. It is an ideal tool for comprehensive cabling, weak current system installation and maintenance.

# **Product usage instructions**

#### 1. Power on/off

# Transmitter

- (1) Turn the switch to the "ON" position to turn on the device. By default, it will enter the dual mode of cable finding/cable sequence, and the cable finding button indicator light will remain on.
- (2) Turn the switch to the "OFF" position to shut down

#### Receiver

- (1) When turned off, turn the receiver knob clockwise and hear a "click" sound to turn on the device.
- (2) When turned on, rotate the receiver knob clockwise and hear a "click" sound to turn off the device.

#### 2. Cable finding/Cable sequence

 Turn on the transmitter and enter the dual mode of cable finding/cable sequence. At this time, the cable finding button indicator light is constantly on.
 Connect one end of the Ethernet/telephone cable to the RJ45/RJ11 interface of the transmitter.

- (3) Rotate the receiver knob clockwise to turn on the device, adjust the sensitivity of the received signal to the maximum, and use the receiver probe to approach the cable. When the receiver receives the signal, it emits a "beep beep beep" sound to quickly locate the approximate direction of the cable.
- (4) After determining the approximate orientation of the cable, reduce the sensitivity of the receiver's received signal appropriately to accurately locate the position of the target cable.
- (5) After positioning the cable, the other end of the target network cable can be directly inserted into the receiver RJ45 interface. If it is the target cable, the indicator light of the Transmitter cable finding button will flash. Cable detection is mainly used to detect the line sequence, short circuit, open circuit, crossover, and other conditions of network cables, as well as to determine whether they are target cables, and to display the results in the form of cable sequence lights.
- ① Path: The transmitter and receiver cable sequence light should flash red one by one (the shielding wire G light is on).

Transmitter: 1-2-3-4-5-6-7-8-G Receiver: 1-2-3-4-5-6-7-8-G

®Short circuit: Taking 2 and 5 short circuits as an example, when the cable sequence light is on to 2 and 5, both receivers 2 and 5 are on at the same time, but the brightness is dim.

Transmitter: 1-2-3-4-5-6-7-8 Transmitter: 1-2-3-4-5-6-7-8 Receiver: 1-2-3-4-5-6-7-8 Receiver: 1-2-3-4-5-6-7-8

③Open circuit: Taking 2 open circuits as an example, when the cable sequence light is on to 2, both the transmitter and receiver do not light up.

Transmitter: 1-X-3-4-5-6-7-8

Receiver: 1-X-3-4-5-6-7-8

(4) Crossing: Taking the crossing of 2 and 5 as an example, when the cable sequence light is on to 2, receiver 5 lights up.

Transmitter: 1-2-3-4-5-6-7-8 Receiver: 1-5-3-4-2-2-6-7-8

#### 3. OC

Short press the "QC" button on the transmitter to enter the QC test mode. At this time, the QC button indicator light is always on. Connect the Ethernet/telephone line to be tested end to the transmitter QC interface. At this time, the QC line sequence light is on. The result is judged as follows:

(1) Intact: The transmitter OC light flashes simultaneously.

Transmitter: 1-2-3-4-5-6-7-8

(2) For example, if Line 2 is not pressed properly, the situation of transmitter QC light flashing is as follows.

Transmitter: 1-x-3-4-5-6-7-8

#### 4. Port flashing

Short press the "flashing" button, and the flashing button indicator light will remain on. At this time, insert the network cable into the RJ45 interface of the transmitter and connect the other end to the switch/router. The port flashing indicator light will flash every 3-4 seconds and transmit the flashing signal to the switch/router. At this time, the corresponding interface indicator light of the switch/router will flash synchronously at a frequency of 3-4 seconds to determine the target cable.

#### 5. Telephone line status detection

Turn the toggle switch to the "Tel line" position and connect the telephone line to the RJ11 interface of the transmitter. The result is as follows:

(1) Telephone line polarity detection

When the green light is on, the telephone line 3P is positive and 4P is negative. When the red light is on, the telephone line 3P is negative and 4P is positive.

(2) Telephone status detection

The indicator light is constantly on - the phone is idle Green and red lights flash alternately - telephone rings

Indicator light dims - off hook (during phone call)

Attention: The color of the indicator light is based on the polarity detection of the telephone line.

#### 6.NCV

Short press the "NCV" button on the receiver to enter NCV testing mode. The NCV button indicator light will turn on. Use the receiver probe to approach the cable or socket and other equipment. If there is AC power greater than 40V, the receiver will make a "beep beep" sound and the NCV indicator light will flash synchronously.

#### 7. Lighting/Silence (Vibration)

Short press the "Lighting" button on the receiver to turn on the receiver LED flashlight, and press it again to turn it off. Long press the "Lighting" button on the receiver for 2 seconds to turn on the mute (vibration) mode, and the sound indicator light will turn red. Press and hold again to turn off the mute (vibration) mode, and the sound indicator light will turn green.

Vibration function: When testing in noisy environments, the vibration mode can be turned on for operation to avoid external interference.

#### 8. Low battery warning and charging

(1) Low battery warning function: When the battery is fully charged, the green power indicator light remains on. When the battery level is lower than the required level for normal operation of the instrument, the power indicator light will remain yellow and constantly on to indicate. When the battery level is extremely low, the power indicator light flashes yellow.

(2)USB charging function status indicator: When charging, the red indicator light at the power indicator flashes, and the charging indicator light near the charging port stays on. When the battery is fully charged, the green indicator light at the power indicator light stays on, and the charging indicator light near the charging port goes off.

#### 9. POE testing method

(1) Connect one end of the network cable properly to the POE test socket on the left side of the tester, and the other end to the working network switch. Note: Testing can be done without turning on the tester switch.

(2) When the End span LED lights up, it indicates that the 12/36 cable in the port is powered on.

(3) When the Mid span LED light is on, it indicates that the 45/78 cable in the port is powered on.

(4) When the lights of Mid span and End span are on simultaneously, it indicates that the 12/36/45/78 cables in the port are powered simultaneously.

Mid-span	End-span	Result
√	×	45/78 cables provide power simultaneously
×	√	12/36 cable powered simultaneously
√	√	12/36/45/78 Four sets of cables supply power simultaneously

## Application area

Daily network communication maintenance, comprehensive cabling network engineering, other metal wire line engineering and maintenance work.

# **Product parameters**

Project	Parameter
Name	Transmitter
Applicable Ethernet cable	CAT5 CAT6
Anti interference cable finding	Yes
POE	Yes
Response speed of pressure cable	<1s
Power supply battery	3.7V, 1500mAh Polymer lithium battery
Battery life	≥36h
Interface type	RJ11、RJ45
Power supply conditions	DC USB power supply (Tybe-C) 5V±10%
Working temperature	-10°C~+50°C
Storage conditions	-40°C~+70°C
Humidity	0~95%No condensation
Weight	135g
Appearance size	59x135x28mm
Project	Parameter
	rarameter
Name	Receiver
Name	Receiver
Name Applicable Ethernet cable	Receiver CAT5 CAT6
Name Applicable Ethernet cable Sensitivity modulation	Receiver CAT5 CAT6 Yes
Name Applicable Ethernet cable Sensitivity modulation NCV function	Receiver CAT5 CAT6 Yes Yes
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight	Receiver CAT5 CAT6 Yes Yes Yes Yes
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function	Receiver CAT5 CAT6 Yes Yes Yes Yes Yes
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function Power supply battery	Receiver CAT5 CAT6 Yes
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function Power supply battery Battery life	Receiver  CAT5 CAT6  Yes  Yes  Yes  Yes  Yes  3.7V, 1500mAh Polymer lithium battery  ≥36h
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function Power supply battery Battery life Power supply conditions	Receiver  CAT5 CAT6  Yes  Yes  Yes  Yes  Yes  3.7V, 1500mAh Polymer lithium battery  ≥36h  DC USBpower supply (Tybe-C) 5V±10%
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function Power supply battery Battery life Power supply conditions Working temperature	Receiver  CAT5 CAT6  Yes  Yes  Yes  Yes  3.7V, 1500mAh Polymer lithium battery  ≥36h  DC USBpower supply (Tybe-C) 5V±10%  -10°C→+50°C
Name Applicable Ethernet cable Sensitivity modulation NCV function Flashlight Line function Power supply battery Battery life Power supply conditions Working temperature Storage conditions	Receiver  CAT5 CAT6  Yes  Yes  Yes  Yes  3.7V, 1500mAh Polymer lithium battery  ≥ 36h  DC USBpower supply (Tybe-C) 5V±10%  -10°C-+50°C  -40°C-+70°C

## Daily maintenance and upkeep

 $\label{eq:Keep the interface clean, free from grease and contamination;} \\$ 

Be careful when plugging and unplugging power supply interfaces and network cable interfaces to avoid damage;

Do not operate equipment in damp or corrosive gas environments;

Avoid strong vibrations or collisions with equipment during use;

Avoid high temperature environments to avoid affecting equipment stability.

#### **Ouality assurance**

Dear customer:

Thank you very much for purchasing our company's products! In order to protect your legitimate rights and interests and improve after-sales service to customers, this warranty policy is specially formulated. Please read it carefully and welcome valuable opinions and suggestions.

1. This product comes with a free warranty of 18 months from the date of purchase. If it exceeds the warranty period, it will be considered a malfunction and a zero accessory cost fee will be charged.

2. During the free warranty period, if any of the following situations occur, our company has the right to refuse warranty services and charge repair and service fees depending on the situation.

A: Product malfunction caused by improper use or incorrect operation by users;

- B: Accidents caused by lightning strikes or improper installation resulting in burning; C: Damaged labels or unauthorized disassembly of equipment for repair;
- 3. Please package and transport the repaired products properly. Our company is not

4.Please read the product manual carefully before installing and testing our company's products.

5.The warranty card must be stamped and dated by the sales unit to ensure your rights.

## **Warranty Regulations**

We do not approve of users repairing the instrument themselves.

responsible for any damage or loss during transportation.

1. Within 18 natural months after the user receives the goods, our company will promise the quality and craftsmanship of their products, and the warranty period is within 18 months from the date of receipt; When quality issues are found with the purchased product during this period, our company will take corresponding measures or replace it, but in any case, our responsibility will not exceed the purchase value of the product.

If there is a problem with the instrument during use and the common fault prompt solution still cannot solve it, the user is not allowed to open the casing without authorization. Please contact our company.

3. For product defects causing malfunctions, our company is responsible for free repair or replacement of the product.

Note: This guarantee only applies to normal use of the equipment, and if there is no damage or malfunction caused by product quality or material defects during normal use, our company is responsible for free repair or replacement. Our company has the right to refuse warranty for unexpected situations such as improper use or unauthorized start-up and repair.



# Ethernet Cable Finder Operation Instructions

