ANTI-INTERFERENCE WIRE TRACKER
USER MANUAL

NF-168S

NF-168V

Your excellent helper in measuring instruments.

VER: V1

Find target wire required from numerous telephone wires and LAN cables

Example I

Trace cable in telephone exc hanger

Connect launcher and telephone wire port to be traced in right way

Trace cable at the other end with receiver

Example II

Trace cable in distribution frame

Connect launcher and LAN cable port to be traced in right way

Trace cable at the other end with receiver

⚠ **Please read and learn safety instructions before use or maintain the equipment**

- Never expose the equipment directly in the sun.

- Never put the equipment in the place with much dust, humidity and high temperature (over 40℃)

- Please use battery according to the specification; otherwise, it may result in damage to equipment.

- Please never dismount the equipment arbitrarily. The maintenance and care shall be conducted by professional personnel.

- Please take out the battery in launcher and receiver if the equipment is not used for a long time so as to prevent that the battery liquid is leaked in future.

- Never use the equipment to detect power cord with electricity (such as power supply circuit of 220V), other wise, it may result in damage to equipment and personal injury.

- Never conduct related operation of communication line in thunderstorm weather so as to prevent lightning stroke and impact on personal safety.
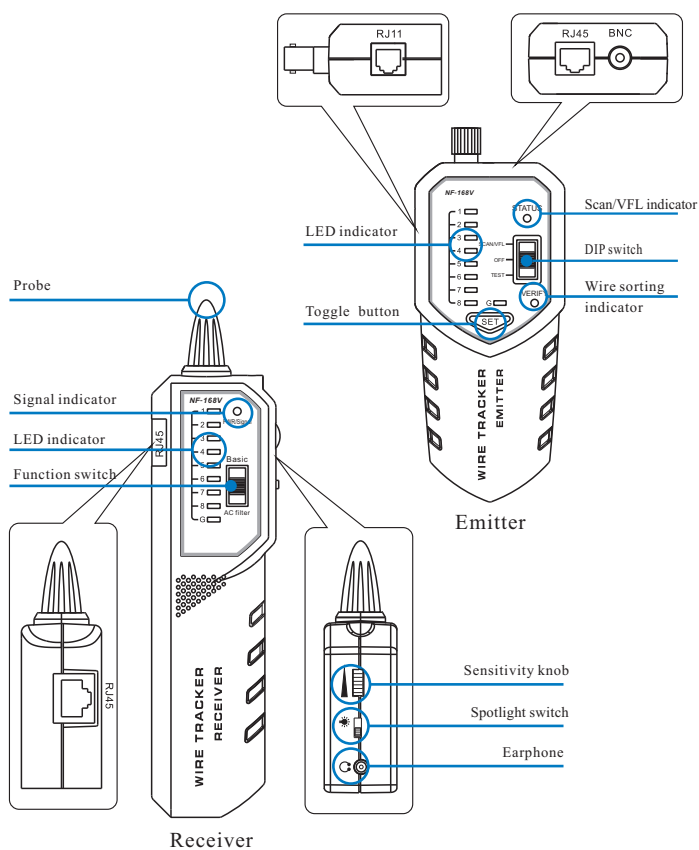
Contents

1. Brief introduction

NF-168V/NF-168S is an updated item with multifunction of cable tracing, mapping and Visual fault locator (this function is only for NF-168V)according to sales requirements. It follows the shells of NF-168 emitter and receiver. But compared to series products, it's highlights is three tracing modes, three mapping mods, and Visual fault locator. Tracing modes---Ordinary tracing, Anti-interference, PoE switch; Cable mapping--Fast mode, Slow mode, Manual mode; Visual fault locator-Continuous mode, Pulse mode.

Emitter   Receiver   Emitter   Receiver

NF-168V   NF-168S

(Details of VFL function, pls refer Page 05)

2.Product Interface and Keypad Introduction

RJ11

RJ45 BNC

NF-168V

1
2
3 SCAN/VFL
4 OFF
5 TEST
6
7 VERIF
8 G

STATUS — Scan/VFL indicator

LED indicator

DIP switch

Toggle button — Wire sorting indicator

SET

WIRE TRACKER EMITTER

Emitter

Probe

NF-168V

Signal indicator

LED indicator

Function switch

RJ45

Basic

AC filter

G

WIRE TRACKER RECEIVER

RJ45

Sensitivity knob

Spotlight switch

Earphone

Receiver

3.Operation methods
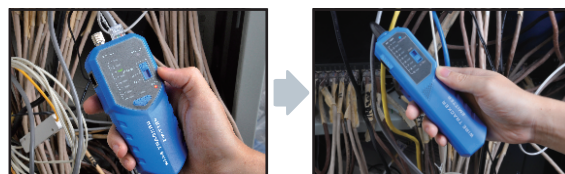
Cable tracing

1)Basic tracing

Emitter

Push the key to "SCAN" to enter the basic tracing mode, then blue indication flashes, which means the emitter works well. Connect one end of network cable/telephone cable(BNC cable only for NF-168S) to the RJ45/RJ11 (BNC cable only for NF-168S) port of launcher.

Receiver

Push the key to "Basic", the brightness of indicator and the sound of the speaker is dynamically changed according to the the signal strength. (note that in this mode, even if there is no signal, the indicator and the speaker will have a weak changed), which means the receiver works well, then hold the receiver to find the target line.

2) AC filter tracing

Emitter:

In the basic mode, short press the "SET" button to enter the AC filter mode, then the blue indicator flashes, which means the emitter works well.

Connect one end of network cable/telephone cable (BNC cable only for NF-168S) to the RJ45/RJ11(BNC cable only for NF-168S)port of launcher.

Receiver:

Push the key to "AC Filter", the brightness of indicator and the sound of the speaker is dynamically changed according to the signal strength, which means the receiver works well, then hold the receiver to find the target line.

3)PoE switch

Emitter:

In AC filter mode, short press "SET" key to enter POE scan mode, then the indicator flashes red and blue, which means the emitter works well.
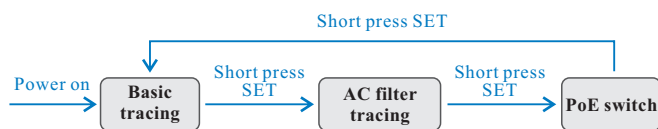Connect one end of network cable to the RJ45 port of launcher.

Receiver:

Push the key to "AC Filter" to enter PoE switch mode, the brightness of indicator and the sound of the speaker is dynamically changed according to the signal strength, which means the receiver works well, then hold the receiver to find the target line.

⚠ NOTICE

When the battery of the emitter is low, the red light below will flash , otherwise it will not light. When the battery of the receiver is low, the red light above flashes, otherwise it is always on; the user can adjust the sensitivity on the right to achieve the best scanning effect according to the usage scenario.

Cable tracing mode switching graphic

2. Tracing mapping (RJ45 as an example)

1. Connect two ends of network calbe to the RJ45 port of launcher and receiver separately.
2. And push the key to "test", the wire sort indicators will flash, which means the transmitter works well.
3. If the wire is normal, and the GND is not connected, then the 8 indicators will flash one by one. And if GND is connected, then the 1 to 8 and G indicators will flash one by one.
4. If there is miswires as below. If line"2" is open, then the 2 indicator of emitter and receiver will not flash. If there is several lines are open, the corresponding indicators will not flash. And if less than 2 lines are connected, none of the lights is on.
   When the line are cross, for example, line"2" and line"3" disorder, the indicators flash as follows,
   Transmitter : 1-2-3-4-5-6-7-8-G
   Receiver: 1-3-2-4-5-6-7-8-G
   When there is short circuit of line"2" and "3", the 2 and 3 indicators of receiver will not flash while the other lights still do.
   The wire tracker has three mapping modes as below:

1) Fast mode(0.5 second)

Emitter: Push the key to "test" to enter Fast mode, the wire sort indicator flashes, then the LED indicator will flash by one bye one per 0.5 second.

2) Slow mode(1 second)

Emitter: In the fast mode, short press the "SET" button to enter the slow mode, the wire sort indicator flashes, then the LED indicator will flash by one bye one per 1 second.
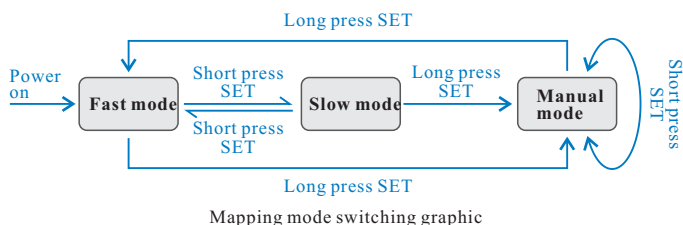
3) Manual mode

Emitter: In fast/slow mode, long press "SET" button to enter manual mode, user need to short press "SET" button, the wire sort indicator flashes, then the LED indicator will flash stage by stage.

⚠ **NOTICE**

When the battery of emitter is low, the red light above will flash, otherwise it will not light. When mapping, Only connect the cable to be tested to the Rj45 port of emitter and receiver, at this time the LED light status will show the cable continuity.

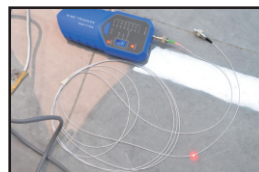Mapping mode switching graphic

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3. Visual fault loactor (this function is only for NF-168V)

This function can inspect fiber failure when they connect with optical interface. It's light has two mode as below.

1)Continuous mode

In any cable tracing mode, long press the "SET" button enter the continuous mode, this mode is defaulted. You will see the red laser emitting from the optical interface. At this time, the upper red light also will flash. (Please don't stare at the beam, for fear of damaging your eyes).

2)Pulse mode

In the continuous mode, short press the "SET" button enter the pulse mode, the LED synchronize with light-emitting (pulse frequency will be controlled at 1-2 Hz). At this time the upper red light also will flash.

⚠ **NOTICE**

When they battery of emitter is low，the indicator below will flash, otherwise it will not light.

VFL mode switching graphic