● Keep the tester in right place to avoid hurt with the sharp probe.

● Never put the equipment in the place with much dust, humidity and high temperature (over 40 degree).

● Please use the battery according to the specification. Other wise it may result in damage to equipment.

● Please never dimout 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.

● Never use the equipment to detect power cord with electricity (such as power supply circuit of 220V). Otherwise 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 softy.

Table of Contents

1. Brief Introduction

NF-858 Cable length tester made up with one Emitter, one Tone generator and 4 remote identifiers. Not only with cable tracing, cable length, wire map functions, also with VFL and Telephone status test function. It's a new breakthrough and new mould to NOYAFA.

2. Main functions

1. CAT 5 , CAT 6 and Coaxial cable continuity test;
2. Measure CAT 5 , CAT 6 and Coaxial cable length up to 2000M;
3. Trace network cable & Coaxial cable;
4. Port flash directly locate target cables connected with POE switch;
5. Red Light check the fiber cable faults;
6. Detect the voltage on POE switch;

3. Interfaces:

Item No: NF-858C
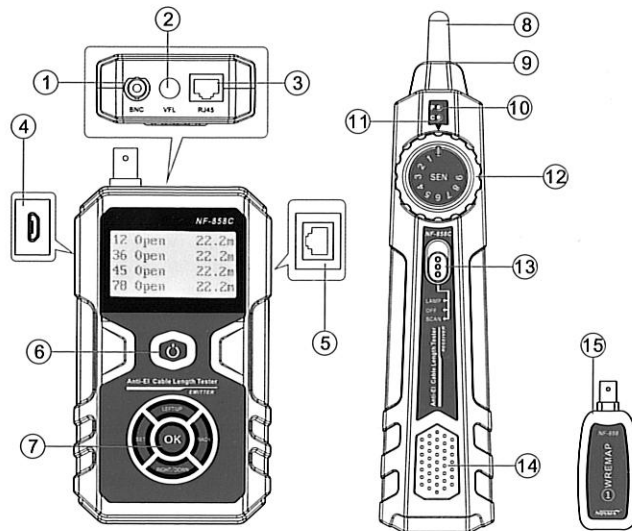
1. Coaxial cable
2. Visible fault locator
3. Network cable
4. Battery charge
5. Connect switch to identify the target cable
6. Power button
7. Enter next step
8. Probe
9. Lamp
10. Tracing led light
11. Charging led light
12. Adjust sensitivity
13. OFF/ ON button
14. Trumpet
15. Remote identifier

4.Technical indexes:

NF-858 Transmitter specifications

Indicator	LCD 58x40 mm, with back light
Tone frequency for trace	130 KHz
Max. distance of tracing	2000M
Max. distance of cable map	2000M
Test cable type	Cat 5 , Cat 6, Coaxial
Compatible connectors	RJ45,Coaxial, VFL, MIC USB
Max. signal voltage	9 ±1 Vp-p
Function and faults LCD display	LCD display (length ,wire map, scan , short, , No adapter, Low battery)
Test record Store	6 groups
Voltage protection	DC 48V 5mA
Battery Type	3.7V 1000mAh lithium battery
Dimension(LxWxD)	135x78x35mm

NF-858 Receiver specifications

Frequency	130 KHz
Low battery indicate	3.5 ± 0.2V
Battery Type	3.7V 1000mAh lithium battery
Dimension(LxWxD)	203x45x33 mm

NF-858 Remote unit specifications

Compatible connectors	RJ45,Coaxial
Remote	4
Dimension(LxWxD)	107x30x24mm

5. Function & Operation

5.1 Main menu explanation

1. CONT : Check cable continuity, such as cross , short , split , open;
2. Length: Measure network cable & Coaxial cable length and judge breakpoint;
3. SCAN: Trace and locate the cable place;
4. TEL: Test telephone status and polarity;
5. Flash: Another method to trace cable on switch;
6. POE: Test Power over Ethernet voltage;
7. VFL: Visible fault locator function;
8. Record: 6 sets of cable length and wire map records for query;
9. Setting: Set for Language , backlight , power off time set , Contrast , reset default , software version ;

5.2 Trace for Network cable

1. Directly insert target line (RJ45, or BNC cable) into the corresponding port of Emitter.
2. Choose "SCAN" on the main menu, and press "OK" to start work, And when you press "OK" button again, you can trace the cable which connects POE switch.
3. Push the button to SCAN mode for the receiver (or LIGHT mode if work in dark condition), the power led is lit.
4. Use the probe to trace wires according to the audio signals. You can adjust the sensitivity switch from 1 to 9 to locate the accurate position of the wire.
5. Remember to turn off after using to save energy. Take out the batter if long time no use.
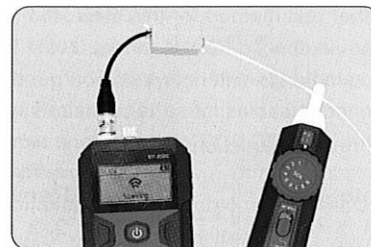
5.3 Trace for Electricity cable

Trace electricity cable under POE status, shown Figure as below:

5.4 Trace for Telephone cable

Since the device doesn't have RJ11 port, users need a RJ11-BNC adaptor and a RJ11 module to test telephong cable.

5.5 Cable Continuity test

1. Choose "CONT "on the LCD screen, and choose the relative tested cable type (CAT 5, CAT 6, and BNC).

2. Insert one end of network cable into emitter RJ45 port and another end to receiver RJ45 port.

3. Choose "CONT Model: 1-1"and Press "OK" button on emitter and the tester will check the Continuity of the network cable.

```
┌─────────────────────┐   ┌─────────────────────┐
│      Remote:1       │   │      Remote:1       │
│ R: 1 2 3 4 5 6 7 8  │   │ R: 1 2 3 4 5 6 7 8  │
│    | | | | | | | |  │   │     X | | | | | |    │
│ M: 1 2 3 4 5 6 7 8  │   │ M: 1 2 3 4 5 6 7 8  │
└─────────────────────┘   └─────────────────────┘
        NORMAL                    CROSS

┌─────────────────────┐   ┌─────────────────────┐
│      Remote:2       │   │        Short        │
│ R: X X 3 4 5 6 7 8  │   │ R:                  │
│        | | | | | |  │   │                     │
│ M: X X 3 4 5 6 7 8  │   │ M: 1 2 3 4 5 6 7 8  │
└─────────────────────┘   └─────────────────────┘
         OPEN                     SHORT
```
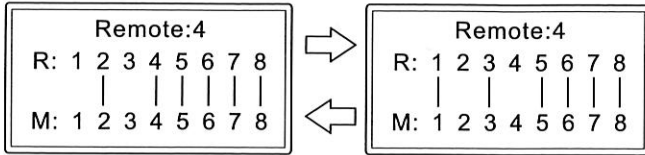
4. There is another test method for this step : the same connect steps , but should choose "CONT Model: 1-4" , the other side connect remote identifiers to help you get the test result (you can connect 4 cables into 4 remotes to save your time).

5. Different test result Instruction:

```
┌─────────────────────┐     ┌─────────────────────┐
│     Remote:4        │  ⇨  │     Remote:4        │
│  R: 1 2 3 4 5 6 7 8 │     │  R: 1 2 3 4 5 6 7 8 │
│     | | | | | | | | │     │     | |   | | | |   │
│  M: 1 2 3 4 5 6 7 8 │  ⇦  │  M: 1 2 3 4 5 6 7 8 │
└─────────────────────┘     └─────────────────────┘
        SPLIT                       SPLIT
```

5.6 Measure cable length

1. Choose "Length "on the screen, press OK to choose the cable type, then start testing.
2. Insert cable one side into the relative port , and the other side keep empty.
3. Test result show on the screen.
4. CAT5, CAT6 and Coaxial cable length can be measured, and distance range 10-2000M.

5.7 Port Flash Function

This function should be used on condition that you know target line is connected with POE switch or router, but you don't know the exact plug it was inserted.
1. Insert the cable one side into "PORT FLASH "on emitter.
2. Choose" FLASH" on the screen.
3. The corresponding led on switch or router will be flashing in different frequency. Image as below:
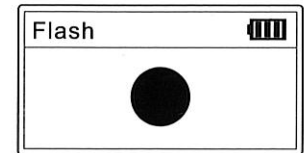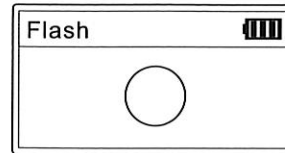

5.8 POE Test Function

Insert one side into the main tester PORT FLASH port, the other side into the POE switch for network cable. POE namely Power over Ethernet, you can test the POE switch voltage for this step:
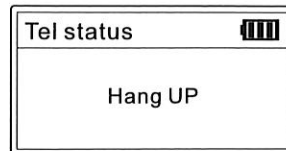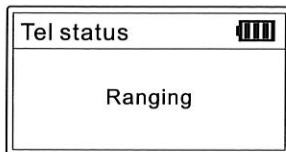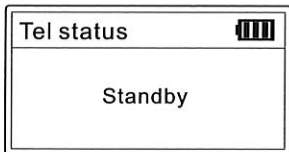
5.9. Visual fault locator

1. Connect the fiber cable into "VFL" port and choose "VFL" in the main menu;
2. If there is a breakage in the middle of the cable, red light will be leaked from this point.
3. Fiber cable for 10Km can be detected.
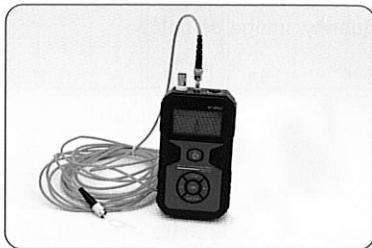
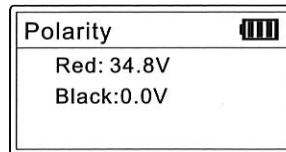## 5.10 Telephone line condition & Polarity test

a. Telephone line condition test:
1. Choose TEL on emitter .Insert the BNC - electricity adaptor cable to BNC plug.
2. The other side connects the telephone;
3. Result Instruction:

```
┌─────────────────────────┐
│ Tel status        ▐▌▌▌▌  │
│                          │
│        Standby           │
│                          │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│ Tel status        ▐▌▌▌▌  │
│                          │
│        Ranging           │
│                          │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│ Tel status        ▐▌▌▌▌  │
│                          │
│        Hang UP           │
│                          │
└─────────────────────────┘
```
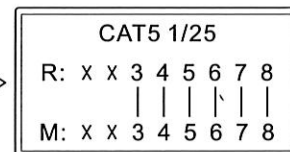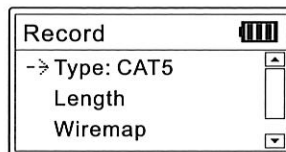
b. Positive and negative polarity test:
1. Choose TEL on emitter .Insert the BNC - RJ11 cable to BNC plug.
2. Use clips connect with the telephone cable or connect the 8P extender adaptor for the telephone port.
3. Result Instruction:

```
┌─────────────────────────┐
│ Polarity          ▐▌▌▌▌  │
│   Red: 34.8V             │
│   Black:0.0V             │
│                          │
└─────────────────────────┘
```

5.11 Record

There are 3 types of cable result can be saved into the device, CAT5, CAT6, BNC for cable length result & wire map .

```
┌─────────────────────────┐      ┌─────────────────────────┐
│ Record            ▐▌▌▌▌  │      │      CAT5 1/25          │
│ ->Type: CAT5        ▲   │ ⇨    │ R: X X 3 4 5 6 7 8       │
│   Length                │      │      | | | | | |         │
│   Wiremap           ▼   │      │ M: X X 3 4 5 6 7 8       │
└─────────────────────────┘      └─────────────────────────┘
```

5.12 Setting

Language: English or Chinese
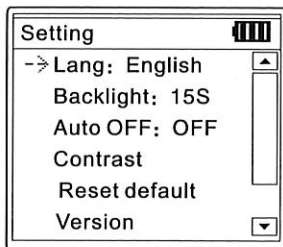Backlight: 15s, 30s, 1min, OFF
Auto OFF: 15min, 30mins, 1hour, OFF
Contrast: 24
Reset default: YES or NO
Version: Software number

```
Setting                    ▉▉▉
-> Lang： English            ▲
   Backlight： 15S
   Auto OFF： OFF
   Contrast
   Reset default
   Version                  ▼
```

6. Accessories:

Emitter	1 ps
Receiver	1 ps
Remote identifier	4 pcs
Earphone	1 pc
Alligator clip	1 pc
BNC - RJ11 adaptor cable	1 pc
Cloth pouch	1 pc
Instruction manual	1 pc
8P network cable	1 ps
Charging adaptor	1 ps only for NF-858C
8P extender adaptor	1 pc
Battery	lithium battery

Note: The only difference between NF-858A & NF-858C & NF-858B is the battery type : A=1.5V, C=3.7V Li-battery , B=9V battery .

Diagram of Series Products

NF-868   NF-708   NF-8601
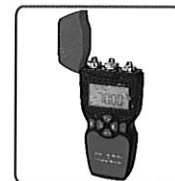
NF-806B   NF-816   NF-820

NF-300   NF-813C   NF-803A

NF-468B   NF-2100   NF-911

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