NOYAFA NF-8601S

NOYAFA NF-8601S Cable Tester User Manual

Model: NF-8601S

1. Introduction

The NOYAFA NF-8601S is a versatile cable testing instrument designed for network technicians. It provides comprehensive cable tests for various network categories, coaxial, and telephone cables. This device offers wiremap display and fault location, utilizing Time Domain Reflectometry (TDR) technology to identify cable length, shorts, split pairs, or open circuits with an intuitive graphical interface. Additionally, it features AC filter tone tracing for easier cable identification, a hub blink function to locate network ports, and capabilities to verify Power over Ethernet (PoE) presence and perform PING tests.

2. Product Structure and Components

The NF-8601S system consists of three main units: the Emitter (main unit), the Receiver, and the Remote Unit. Familiarize yourself with the components shown below.



This diagram illustrates the various parts of the NOYAFA NF-8601S, including the Emitter with its LCD screen, RJ45, RJ11, BNC, and PoE/PING interfaces, the Receiver with its probe and sensitivity knob, and the compact Remote Unit. Key features like the power indicator, function buttons, and charging interface are also highlighted.

3. Key Features

- **Fault Distance Measurement:** Measures cable length and displays distance to faults, including graphical wire mapping, open circuits, and short circuits.
- **PoE & PING Testing:** Identifies PoE presence and voltage. PING tests network performance, data packet transmission, and minimum/maximum response times.
- **AC Filter Tone Tracing:** Provides cable tracing with effective AC interference rejection, functional even on common switches and PoE switches.
- **Hub Blink Function:** Locates network ports by causing the port indicator light on a server, switch, hub, or router to

flash.

- **Additional Benefits:** Includes a TF card for data export to PC, a voltage detector (90-1000V) integrated into the receiver, and a rechargeable lithium battery for extended operation.

4. Setup

1. **Unpack Components:** Carefully unpack the device and ensure all components are present: Emitter (main unit), Receiver, Remote Unit, charging adapter, telephone line adapter, network cable adapter, cable clips, and TF memory card.
2. **Charge Batteries:** Charge the built-in lithium batteries of both the Emitter and Receiver units using the provided charging adapter. The charging indicator will show the charging status.
3. **Insert TF Card:** If you intend to use the data export functionality, insert the TF memory card into the designated slot on the Emitter unit.
4. **Power On:** Press and hold the power button on the Emitter and Receiver units to turn them on.

5. Operating Instructions

5.1. Wiremap Testing

1. Connect one end of the cable to be tested to the RJ45, RJ11, or BNC port on the Emitter unit.
2. Connect the other end of the cable to the corresponding port on the Remote Unit.
3. Power on both the Emitter and Remote units.
4. On the Emitter, navigate to the main menu and select the 'Mapping' function.
5. The LCD screen will display the wiremap, indicating continuity, open circuits, short circuits, or split pairs. Fault distances will also be shown.



This image illustrates the wiremap testing interface on the NF-8601S Emitter unit. The screen shows the mapping of wires (R for remote, M for main) and indicates open circuits with their respective distances, such as 'Open map: 1=0.0m, 3=4.9m, 5=4.9m, 6=0.0m'.

5.2. Cable Length Measurement

1. Connect one end of the cable to the appropriate port on the Emitter unit. The Remote Unit is not required for length measurement.
2. On the Emitter, navigate to the main menu and select the 'Length' function.
3. The device will measure and display the cable length using TDR technology.



This image shows the NF-8601S Emitter unit displaying cable length measurements. The screen lists various cable lengths, such as '3&6=5.7m', '4&5=5.9m', '1&2=5.9m', '7&8=5.9m', and '10.8m', indicating the measured length for different cable pairs.

5.3. PoE Testing

1. Connect the network cable to the dedicated PoE/PING test interface on the Emitter unit.
2. On the Emitter, navigate to the main menu and select the 'PoE' function.
3. The device will detect the presence of Power over Ethernet and display the voltage.

5.4. PING Testing

1. Connect the network cable to the dedicated PoE/PING test interface on the Emitter unit.
2. On the Emitter, navigate to the main menu and select the 'PING' function.
3. The device will perform network performance tests, including data packet transmission and response times.

5.5. Cable Tracing (AC Filter Tone)

1. Connect the cable to be traced to the appropriate port on the Emitter unit.
2. On the Emitter, navigate to the main menu and select the 'Scan' function to activate the tone generator.
3. Use the Receiver unit to trace the cable. Move the probe along the suspected cable path.
4. Adjust the sensitivity knob on the Receiver for optimal detection of the tone. The AC filter helps in tracing cables even in environments with electrical interference.



This image displays the NOYAFA NF-8601S cable tester setup. The Emitter unit is connected to a blue network cable, which is also connected to the Remote Unit. The Receiver unit is positioned next to the Emitter, demonstrating a typical cable testing scenario.

5.6. Hub Blink Function

1. Connect the network cable to the RJ45 port on the Emitter unit.
2. On the Emitter, navigate to the main menu and select the 'Port Flash' function.
3. The device will send a signal to make the corresponding port indicator light on the connected network device (hub, switch, router) flash, helping to identify the port.

6. Maintenance

- **Cleaning:** Keep the device clean and free from dust and moisture. Use a soft, dry cloth for cleaning. Do not use abrasive cleaners or solvents.
- **Storage:** Store the NF-8601S in a cool, dry place when not in use. Avoid extreme temperatures and direct sunlight.
- **Battery Care:** Recharge the built-in lithium batteries regularly to maintain optimal performance, especially if the device is stored for long periods. Avoid fully discharging the batteries.
- **Physical Protection:** Avoid dropping the device or subjecting it to strong impacts, which can damage internal components or the LCD screen.

7. Troubleshooting

- **Device Does Not Power On:**
  - Ensure the batteries are sufficiently charged.
  - Press and hold the power button firmly for a few seconds.
- **Inaccurate Measurements or Wiremap Errors:**
  - Ensure all cable connections are secure and correct.
  - Check the cable for visible damage or kinks.
  - Ensure the correct cable type is selected in the device settings, if applicable.
- **No Tone Detected During Tracing:**
  - Verify that the Emitter unit is in 'Scan' mode and generating a tone.
  - Adjust the sensitivity knob on the Receiver unit.
  - Ensure the cable is properly connected to the Emitter.
- **LCD Screen is Blank or Frozen:**
  - Try restarting the device by powering it off and then on again.
  - If the issue persists, contact customer support.

8. Specifications

Feature	Specification
Brand	NOYAFA
Model	NF-8601S
Power Source	Lithium Battery

Test Ports	RJ45, RJ11, BNC
Test Length Range	<2000m
Tone Frequency	130 kHz
AC Filter Tone Mode	2 tones, adjustable
PoE Detection	Yes
PING Test	Yes
Voltage Detection (Receiver)	90-1000V
Emitter LCD Screen	60 x 45 mm
Emitter Dimensions (LxWxD)	185 x 80 x 32 mm
Receiver Frequency	30kHz
Receiver Max. Operating Current	<70mA
Receiver Dimensions (LxP)	218 x 46 x 29 mm
Remote Unit Dimensions (LxP)	107 x 30 x 24 mm
Included Accessories	Built-in lithium battery (x2), Carrying case, Charging adapter, Telephone line adapter, Network cable adapter, Cable clips, TF memory card

9. Warranty and Support

For detailed warranty information, technical assistance, or customer support, please refer to the official NOYAFA website or contact your authorized NOYAFA distributor. It is recommended to retain your purchase receipt as proof of purchase for any warranty claims.

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Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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