NOYAFA NF-810

Noyafa NF-810 Multifunctional Network Cable Tester User Manual

Model: NF-810

1. Introduction

The Noyafa NF-810 is a versatile network cable tester designed for professionals and enthusiasts alike. It provides comprehensive functionality for testing various cable types, including LAN and STP cables, and offers advanced features such as PoE detection, wiremapping, and telephone line status detection. This manual provides detailed instructions for the safe and effective use of your NF-810 device.

2. Safety Information

Please read and understand all safety instructions before operating the device. Failure to follow these instructions may result in electric shock, fire, or damage to the device.

- Do not use the device if it appears damaged.
- Ensure batteries are inserted correctly according to polarity markings.
- Avoid testing live circuits with voltages exceeding 60V to prevent damage to the PoE tester function and potential injury.
- Keep the device away from water and other liquids.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Use only specified accessories and attachments.

3. Package Contents

Verify that all items are present in your package:

- Noyafa NF-810 Emitter Unit
- Noyafa NF-810 Receiver Unit
- RJ45 Cable

- RJ11 Cable
- Alligator Clip Cable
- Carrying Pouch
- User Manual

Figure 3.1: Noyafa NF-810 Tester and included accessories.

4. Product Overview

The NF-810 consists of two main units: the Emitter and the Receiver. Familiarize yourself with the components of each unit.

Figure 4.1: Labeled diagram of the NF-810 Emitter and Receiver units.

Emitter Unit

- **RJ45 Port:** For connecting Ethernet cables.
- **RJ11 Port:** For connecting telephone lines.
- **Function Dial:** Selects between CONT (Continuity), SCAN, OFF, TONE, and SHORT modes.
- **Wiremap Indicators (1-8, G):** LEDs to display wire status.

Receiver Unit

- **Probe:** For tracing cables and detecting signals.
- **LED Light:** Illuminates dark work areas.
- **Power/SCAN Indicator:** Shows power status and scan activity.
- **Sensitivity Knob:** Adjusts the sensitivity of the receiver.
- **Earphone Port:** For connecting headphones for clearer tone detection.
- **LED Button:** Activates the LED light.
- **Wiremap Indicators (1-8, G):** LEDs to display wire status (Mid-span, End-span).
- **RJ45 Port:** For connecting Ethernet cables for wiremap testing.

5. Setup

5.1 Battery Installation

The NF-810 requires 1 Lithium Metal battery (9V laminated battery) for operation. Ensure the battery is installed correctly in both the Emitter and Receiver units.

1. Locate the battery compartment cover on the back of each unit.
2. Open the cover by sliding or unscrewing it.

3. Insert the 9V battery, observing the correct polarity (+/-) markings.
4. Close the battery compartment cover securely.

6. Operating Instructions

6.1 Cable Measurement (Wiremapping)

This function detects breaks, shorts, crossovers, and shielding issues in LAN (RJ45) and telephone (RJ11) cables.

1. Connect one end of the cable to the RJ45 or RJ11 port on the Emitter unit.
2. Connect the other end of the cable to the corresponding RJ45 port on the Receiver unit.
3. Turn the Emitter's function dial to the 'CONT' position.
4. Observe the wiremap indicators (LEDs 1-8 and G) on both the Emitter and Receiver.
5. **Normal Connection:** LEDs on both units will light up sequentially from 1 to 8, then G (for shielded cables).
6. **Open Circuit:** If a specific LED does not light up, that wire is open.
7. **Short Circuit:** If two or more LEDs light up simultaneously, a short circuit exists between those wires.
8. **Crossover:** If the sequence of LEDs is incorrect (e.g., Emitter 1 lights up, but Receiver 2 lights up), a crossover is detected.

Figure 6.1: Performing a wiremap test with the NF-810.

6.2 Wire Tracing (Scanning/Tone Function)

This function helps locate and identify specific cables within a bundle or wall.

1. Connect one end of the target cable to the RJ45 or RJ11 port on the Emitter unit. For non-RJ cables, use the alligator clip cable to connect to the wire pair.
2. Turn the Emitter's function dial to the 'SCAN' or 'TONE' position. The Emitter will generate an audible tone.
3. Turn on the Receiver unit and adjust the sensitivity knob to a suitable level.
4. Use the Receiver's probe to scan the cables or wires you suspect are the target.
5. The Receiver will emit a louder sound and/or the yellow-green signal indicator will illuminate more brightly when it detects the tone from the target cable.

Figure 6.2: Using the Receiver for wire tracing.

6.3 PoE Tester Function

The NF-810 can detect Power over Ethernet (PoE) presence, identify PoE switch types, and measure the number of PoE power supply cores.

1. Connect the Ethernet cable from the PoE source (e.g., PoE switch) to the RJ45 port on the Receiver unit.
2. The Receiver will automatically detect PoE presence.
3. Observe the LEDs on the Receiver unit. They will indicate the PoE power supply cores (Mid-span or End-span) and potentially the voltage.
4. **Caution:** The device is designed to withstand voltages up to 60V. Do not test circuits exceeding this voltage to prevent damage.

Figure 6.3: Testing PoE functionality.

6.4 Telephone Line Detection

This feature allows for detecting the polarity, on/off status, and standby status (idle, ringing, talk) of telephone lines.

1. Connect the telephone line to the RJ11 port on the Emitter unit.
2. Turn the Emitter's function dial to the 'TEL' position (if available, or use 'CONT' and interpret the LEDs).
3. The LEDs will indicate the line status:
    - **Idle:** Specific LEDs will light up, indicating a normal standby line.

- **Ringing:** LEDs may flash or change pattern during an incoming call.
- **Talk:** LEDs will indicate the active talk state and polarity.

Figure 6.4: Detecting telephone line status.

6.5 LED Lighting

The Receiver unit is equipped with an LED light to assist in dark environments.

- Press the 'LED' button on the Receiver unit to turn the light on or off.

Figure 6.5: Using the LED light on the Receiver unit.

7. Maintenance

Proper maintenance ensures the longevity and accuracy of your NF-810 tester.

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Battery Care:** Remove batteries if the device will not be used for an extended period to prevent leakage.
- **Probe Protection:** Ensure the Receiver's probe is not bent or damaged during storage or transport.

8. Troubleshooting

If you encounter issues with your NF-810, refer to the following common problems and solutions:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Device does not power on.	Dead or incorrectly installed battery.	Check battery polarity; replace with a new 9V battery.
Inaccurate wiremap readings.	Poor cable connection; damaged cable; incorrect mode.	Ensure cables are fully inserted. Test with a known good cable. Verify Emitter is in 'CONT' mode.
No tone detected during scanning.	Emitter not in 'SCAN' or 'TONE' mode; Receiver sensitivity too low; dead battery in Emitter.	Set Emitter to 'SCAN' or 'TONE'. Increase Receiver sensitivity. Replace Emitter battery.
PoE test not working.	No PoE power on the line; voltage exceeds 60V.	Verify PoE source is active. Do not test lines exceeding 60V.

9. Specifications

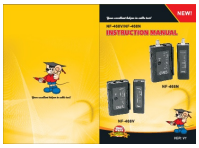
- **Model:** NF-810
- **Applicable Network Cable:** CAT5, CAT6 (RJ45), Telephone Cable (RJ11)
- **Interface Type:** RJ11, RJ45
- **Max Withstand Voltage:** 60V
- **Wiremapping Distance:** Up to 3280 ft (1000m)
- **Power Source:** 1 x 9V Laminated Battery (per unit)
- **Dimensions (Emitter):** Approximately 125mm x 45mm x 27mm
- **Dimensions (Receiver):** Approximately 201mm x 45mm x 28mm
- **Item Weight:** 0.41 Kilograms (total)
- **Color:** Green, Yellow (device accents)

Figure 9.1: NF-810 Emitter and Receiver dimensions.

10. Warranty and Support

NOYAFA is committed to providing quality products and customer satisfaction. If you encounter any issues or have questions regarding your NF-810 network cable tester, please contact NOYAFA customer support. Our support team is available to assist you with product inquiries, troubleshooting, and technical assistance. For assistance, please refer to the contact information provided with your purchase or visit the official NOYAFA website.

Related Documents - NF-810

	[NOYAFA NF-308 & NF-388 Network Cable Tester User Manual] Comprehensive user manual for the NOYAFA NF-308 and NF-388 network cable testers, providing detailed instructions for testing Ethernet, telephone, coaxial, and USB cables, along with wire tracing capabilities.
	[NOYAFA NF-801B Wire Tracker Instruction Manual] Comprehensive instruction manual for the NOYAFA NF-801B Wire Tracker, detailing its interfaces, functions, specifications, and usage for tracing and testing telephone, network, and electric wires.
	[NOYAFA NF-801B/NF-801R Wire Tracker Instruction Manual] Official instruction manual for NOYAFA NF-801B and NF-801R wire trackers. Learn how to test, trace, and identify network, telephone, and electric cables with detailed guides and specifications.
	[Noyafa NF-811 Wire Tracker User Manual] User manual for the Noyafa NF-811 Wire Tracker, providing instructions for tracing and testing network and telephone cables with its transmitter and receiver.
	[Noyafa NF-468V/NF-468N Cable Tester Instruction Manual] Comprehensive instruction manual for Noyafa NF-468V and NF-468N cable testers. Details operation, testing procedures for BNC, RJ45, and RJ11 cables, safety precautions, and troubleshooting tips.
	[NOYAFA NF-806R, NF-806B, NF-889 Wire Tracker User Manual] User manual for NOYAFA NF-806R, NF-806B, and NF-889 wire trackers. Covers features, specifications, operation, and troubleshooting for network and electrical cable testing.