NOYAFA NF-859GT

NOYAFA NF-859GT Network Cable Tester User Manual

Comprehensive Guide for Operation and Maintenance

1. Product Overview

The NOYAFA NF-859GT is a versatile 10-in-1 multi-function network cable tester designed for comprehensive network and fiber optic testing. It integrates various essential tools into a single, portable device, making it ideal for electricians, network technicians, and engineers working with phone lines, network cables, and fiber optics.
Key functionalities include:

- **POE Test:** Detects Power over Ethernet information, including voltage and standard compliance (802.3af/at).
- **Cable Continuity Test (CONT):** Verifies proper wiring and identifies faults in RJ11, RJ45 (CAT5e/CAT6/CAT6a), and telephone lines.
- **Wire Tracing (Scan Mode):** Locates target cables using digital and analog modes.
- **Port Flashing:** Identifies network port locations by flashing the port light on Hub/Switch devices (10M/100M/1000M compatible).
- **Cable Length Measurement:** Accurately measures cable length from 2.5m to 200m (8.2ft to 656ft).
- **QC Test (Crimping Test):** Checks the quality of RJ45 crimps.
- **Optical Power Meter (OPM):** Measures optical power across 7 standard wavelengths (850/1300/1310/1490/1550/1625/1650 nm) with a power detecting range of -70 to +10 dBm.
- **Visual Fault Locator (VFL):** Features a 10mW, 650nm dual-head VFL for identifying fiber optic cable breaks and faults.
- **NCV Function:** Non-contact voltage detection for enhanced safety.
- **Built-in LED Light:** Assists in working in dark environments.

The device is powered by a 1500mAh rechargeable lithium battery, offering long working hours and quick charging.

Image 1.1: NOYAFA NF-859GT Main Tester Unit and Receiver.

2. Package Contents

Upon opening the package, verify that all the following items are included:

- 1 x NOYAFA NF-859GT Main Tester Unit
- 1 x NOYAFA NF-859G Receiver Unit
- 1 x USB-C Charging Cable
- 2 x RJ45 Extension Cables
- 1 x Alligator Clip Test Leads
- 1 x Carrying Case
- 1 x User Manual

Image 2.1: Overview of the NF-859GT and its included accessories.

3. Setup Guide

3.1 Charging the Device

Before initial use, fully charge both the Main Tester Unit and the Receiver Unit using the provided USB-C charging cable. The device features a 1500mAh lithium battery that charges quickly.

- Connect the USB-C cable to the charging port on each unit.
- Connect the other end of the USB-C cable to a compatible USB power adapter (not included).
- The charging indicator on the device will show charging status. A full charge typically takes approximately 2 hours and provides up to 10 hours of working time.

Image 3.1: Battery life and charging details for the NF-859GT.

3.2 Powering On and Basic Navigation

To power on the Main Tester Unit, press and hold the power button located on the side. The digital interface will display the main menu with various testing options. Use the navigation buttons (OK, Up, Down, Left, Right) to select and confirm functions.
The Receiver Unit has a simple on/off switch and LED indicators for signal strength and mode.

4. Operating Instructions

The NF-859GT offers a wide range of testing capabilities. Below are instructions for common functions:

4.1 Cable Continuity Test (CONT)

This function verifies the integrity of network and telephone cables, identifying open circuits, short circuits, and cross-connections.

1. Connect one end of the cable to the RJ45/RJ11 port on the Main Tester Unit.
2. Connect the other end of the cable to the corresponding port on the Receiver Unit.

3. Select 'CONT' from the main menu on the Main Tester Unit.
4. The screen will display the wiring status, indicating if the cable is good, has a cross, short circuit, or open circuit.

Image 4.1: Visual representation of cable continuity test results (Good, Cross, Short Circuit, Open Circuit).

4.2 Wire Tracing (Scan Mode)

Use this function to locate specific cables within a bundle or wall.

1. Connect the cable to be traced to the 'SCAN' port on the Main Tester Unit.
2. Select 'Scan' from the main menu. You can choose between Digital Mode and Analog Mode.
3. Use the Receiver Unit to trace the cable. The Receiver will emit an audible tone and display signal strength as it gets closer to the target cable.

4.3 Port Flashing

This feature helps identify the corresponding port on a network switch or hub.

1. Connect the Main Tester Unit to a network port on the switch/hub.
2. Select 'Port Flash' from the main menu.
3. The indicator light on the connected port on the switch/hub will flash, allowing for easy identification. The tester also displays port information like operating speed and duplex mode.

Image 4.2: Demonstrating the Port Flashing function to identify a network port.

4.4 Cable Length Measurement

Measure the length of network cables.

1. Connect one end of the cable to the RJ45 port on the Main Tester Unit.
2. Select 'Length' from the main menu.
3. The device will display the cable length in meters or feet. The measurement range is 2.5m to 200m (8.2ft to 656ft).

4.5 POE Testing

Tests Power over Ethernet (PoE) devices and power supply.

1. Connect the Main Tester Unit to a PoE port or device.
2. Select 'POE' from the main menu.
3. The screen will display PoE information, including voltage, power supply type (End-span/Mid-span), and compliance with 802.3af/at standards.

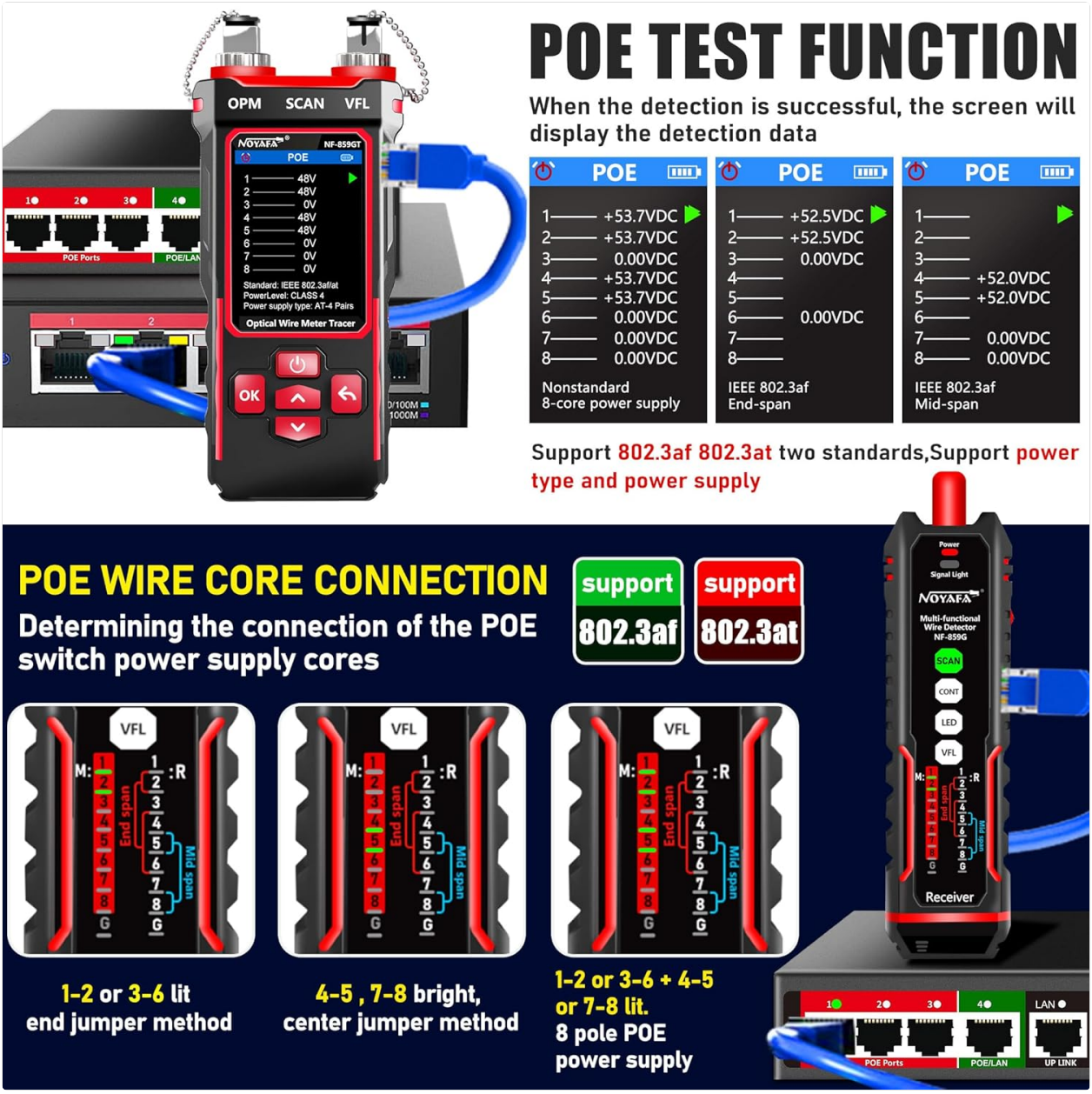

Image 4.3: Displaying POE test results and wire core connection types.

4.6 QC Test (Crimping Test)

Checks the quality of RJ45 crimps.

1. Connect the crimped RJ45 connector to the 'QC TEST' port.
2. Select 'QC TEST' from the main menu.
3. The device will indicate if the crimp is good or if there are issues with specific pins.

4.7 Optical Power Meter (OPM)

Measures the power of optical signals.

1. Connect the fiber optic cable to the OPM port on the Main Tester Unit.
2. Select 'OPM' from the main menu.
3. Choose the desired wavelength (850/1300/1310/1490/1550/1625/1650 nm).
4. The screen will display the optical power in dBm.

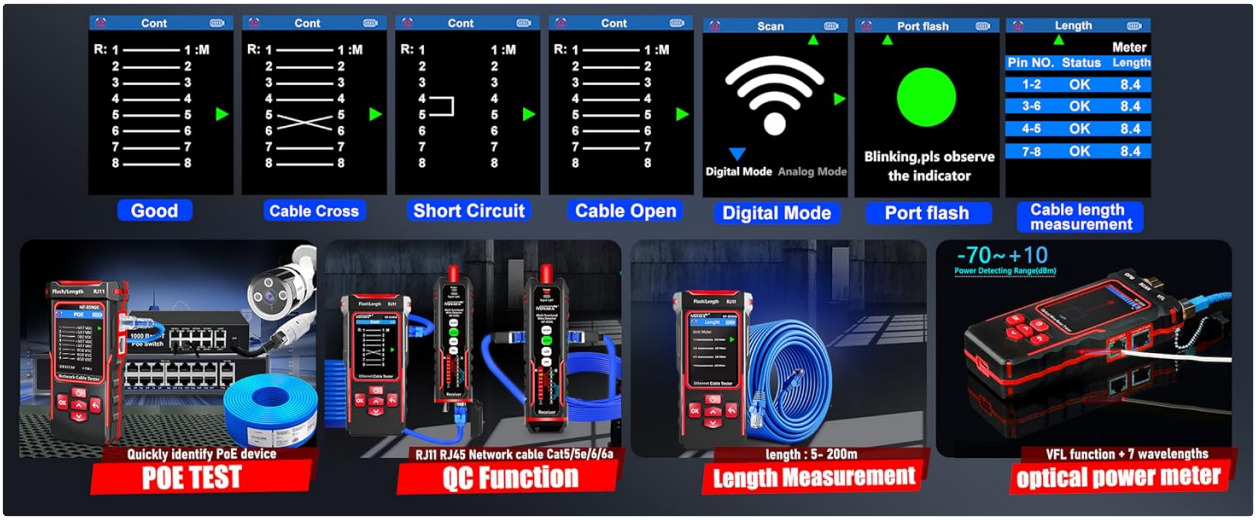

Image 4.4: Optical Power Meter interface showing wavelength selection and power readings.

4.8 Visual Fault Locator (VFL)

Identifies breaks and bends in fiber optic cables using a visible laser light.

1. Connect the fiber optic cable to the VFL port on the Main Tester Unit.
2. Select 'VFL' from the main menu.
3. The 10mW, 650nm laser will emit light through the fiber. Visible light escaping from the cable indicates a break or fault.
4. The NF-859GT features a dual-head VFL function for enhanced testing.

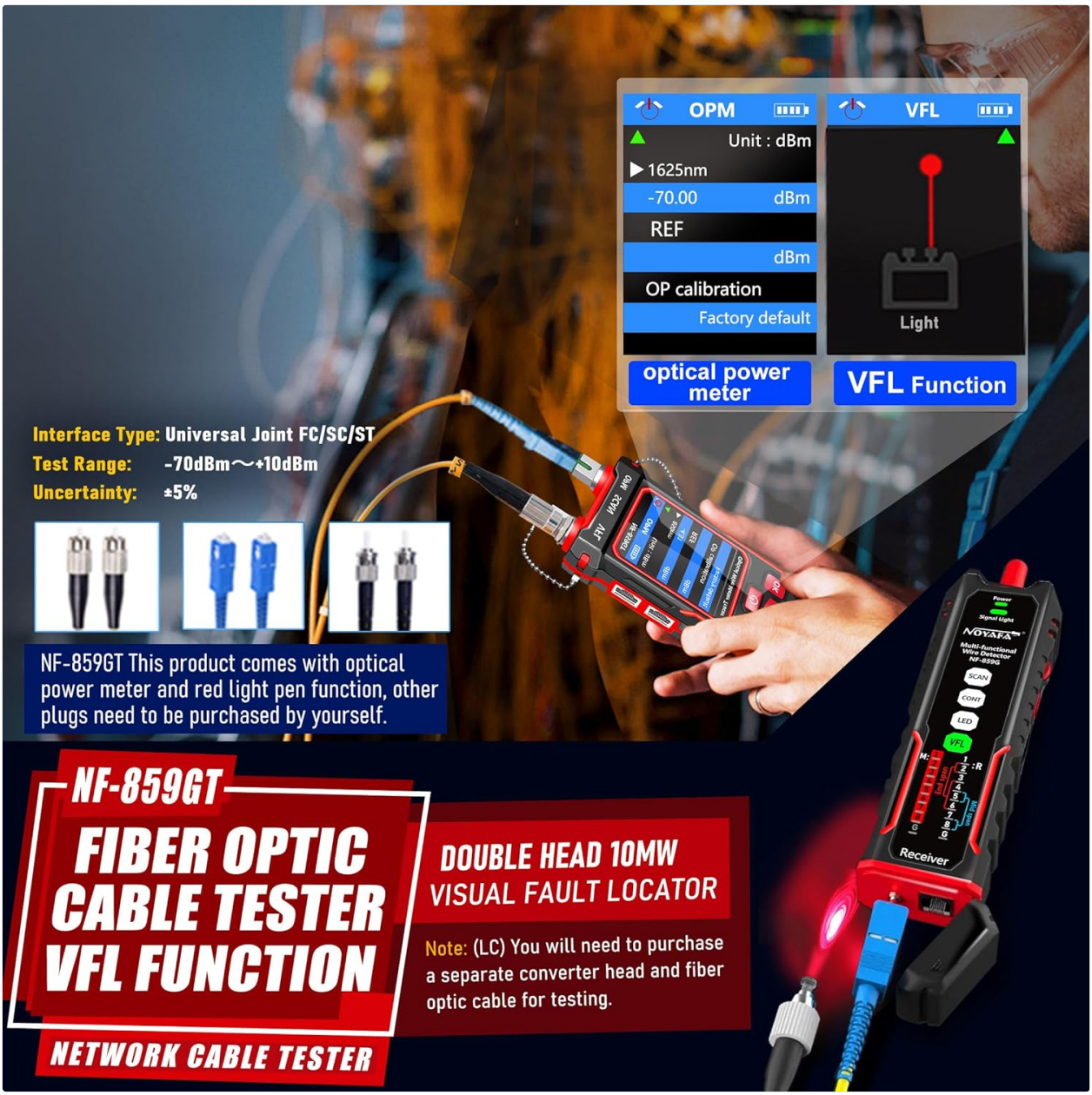

Image 4.5: Illustration of the VFL function in use, showing light emission from a fiber optic cable.

5. Maintenance

To ensure the longevity and accuracy of your NOYAFA NF-859GT, follow these maintenance guidelines:

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents. Keep the optical ports clean and free of dust.
- **Storage:** Store the device in its carrying case in a cool, dry place when not in use. Avoid extreme temperatures and direct sunlight.
- **Battery Care:** Recharge the battery regularly, even if the device is not used frequently, to maintain battery health. Avoid fully discharging the battery for extended periods.
- **Port Protection:** Always use the protective caps for the optical and RJ ports when not in use to prevent dust and damage.

6. Troubleshooting

If you encounter issues with your NF-859GT, refer to the following common troubleshooting steps:

- **Device Not Powering On:** Ensure the battery is sufficiently charged. Connect the device to the charger and try again.
- **Inaccurate Cable Length Measurement:** Verify that the cable is properly connected and undamaged. Ensure the cable type is within the device's measurement capabilities.
- **No Signal in Scan Mode:** Check that the cable is correctly connected to the 'SCAN' port on the Main Tester Unit. Ensure the Receiver Unit is powered on and in the correct mode (Digital/Analog).
- **VFL Not Emitting Light:** Confirm the VFL function is selected and the fiber optic cable is clean and properly connected. Check for severe bends or breaks in the fiber.
- **Optical Power Meter Readings Incorrect:** Ensure the correct wavelength is selected for the fiber being tested. Clean the OPM port and fiber connector.
- **Buttons Unresponsive:** Try restarting the device. If the issue persists, contact customer support.

For more complex issues, consult the detailed manual or contact NOYAFA customer support.

7. Specifications

Feature	Detail
Brand	NOYAFA
Model Number	NF-859GT
Style	Network cable tester
Color	Grey
Power Source	Battery Powered (1500mAh Lithium Battery)
Cable Length Measurement Range	2.5m - 200m (8.2ft - 656ft)
Optical Power Meter Wavelengths	850/1300/1310/1490/1550/1625/1650 nm
Optical Power Meter Range	-70 ~ +10 dBm
Visual Fault Locator Output Power	10mW
Visual Fault Locator Wavelength	650nm
Supported Cable Types	RJ45, RJ11, CAT5, CAT6, CAT6a, CAT3, Phone Lines, Fiber Optic
Item Weight	0.64 Kilograms (1.41 Pounds)
Package Dimensions	11.14 x 6.42 x 2.24 inches
Manufacturer	NOYAFA
Country of Origin	Switzerland
Date First Available	January 17, 2024

8. Warranty & Support

For warranty information and customer support, please refer to the documentation included with your product or visit the official NOYAFA website. NOYAFA is committed to providing high-quality products and reliable customer service.
If you experience any issues or have questions regarding the operation, maintenance, or troubleshooting of your NF-859GT, please contact NOYAFA customer support directly. Keep your purchase receipt or order details handy for faster service.

Documents - NOYAFA – NF-859GT

[pdf] Catalog

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SHENZHEN NOYAFA ELECTRONIC CO.,LTD sale noyafa.com www.noyafa.com Wanjing Business Center, Xinyu ... 3 mm NF-859GE NOYAFA--Your Cable Tester Expert NF-859GK www.noyafa.com Lithuim battery NF-859GS **NF-859GT** 12 Cable Tracker NF-810 Wire Tracker 1. Tracking RJ11, RJ45, cables or other metal wire. ... lang:en score:27 filesize: 9.1 M page_count: 16 document date: 2025-03-04