NOYAFA NF-918S

NOYAFA NF-918S Network Cable Tester User Manual

Model: NF-918S | Brand: NOYAFA

1. Introduction

The NOYAFA NF-918S is a versatile network cable tester designed for comprehensive network and fiber optic cable diagnostics. It integrates multiple functions including network cable scanning, continuity testing, optical power measurement, visual fault location, PoE testing, and non-contact voltage detection. This device is suitable for engineering wiring, network maintenance, and equipment troubleshooting.

2. Package Contents

Verify that all items listed below are present in your package:

- NF-918S Transmitter (Main Unit)
- NF-918S Receiver
- RJ11 Alligator Clip Wire
- RJ11 Telephone Line
- RJ45 Network Cable
- Headphones
- Charging Cable
- Tool Kit
- Instruction Manual / Certificate

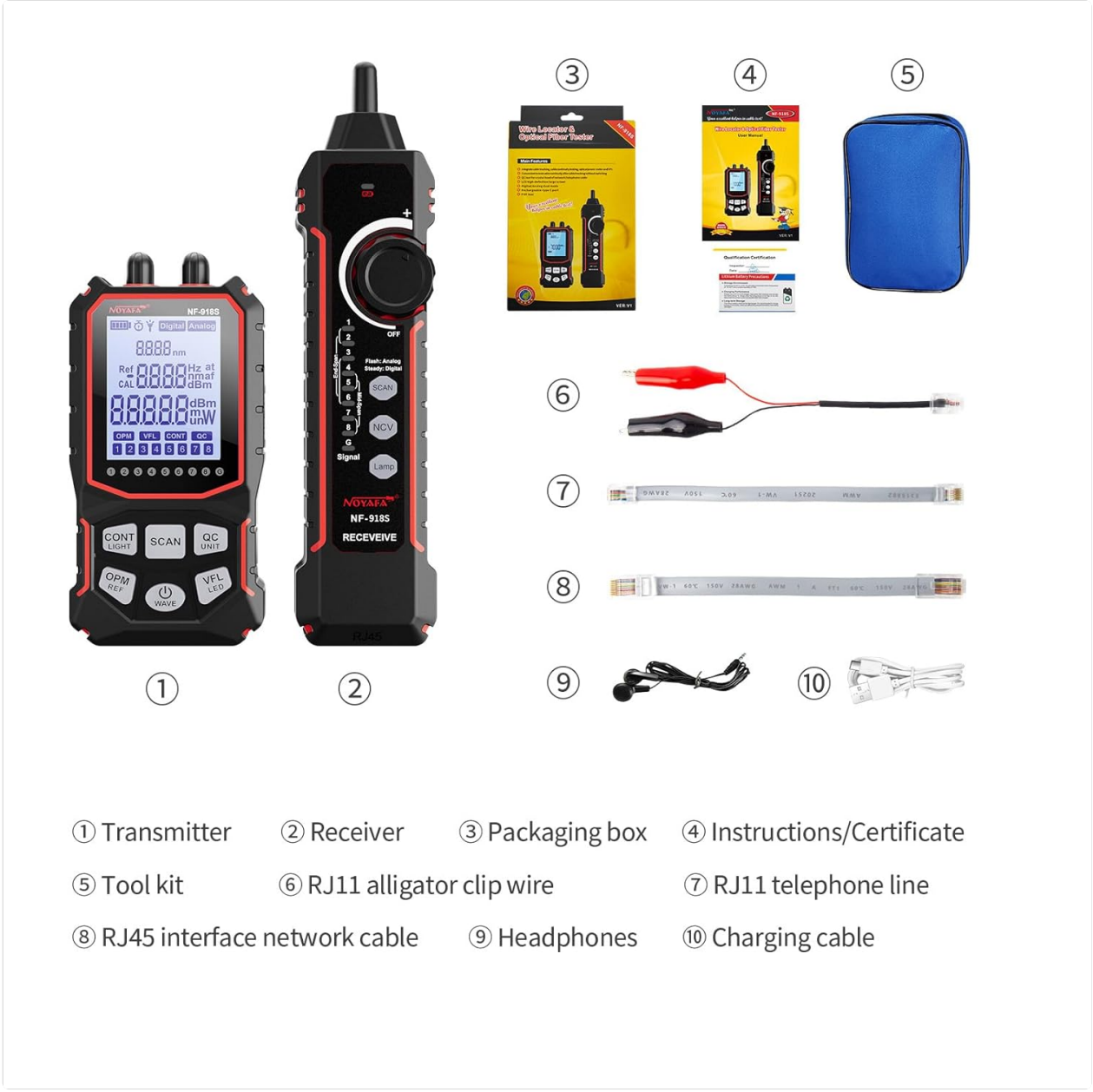

Figure 2.1: Components included with the NOYAFA NF-918S Network Cable Tester. This image displays all the components included in the NF-918S package, such as the transmitter, receiver, packaging box, instructions, tool kit, RJ11 alligator clip wire, RJ11 telephone line, RJ45 network cable, headphones, and charging cable.

3. Product Overview

The NF-918S consists of a main unit (transmitter) and a receiver. The main unit features an LCD display for clear readings and various function buttons. The receiver is equipped with a rotary switch for mode selection and an NCV sensor.

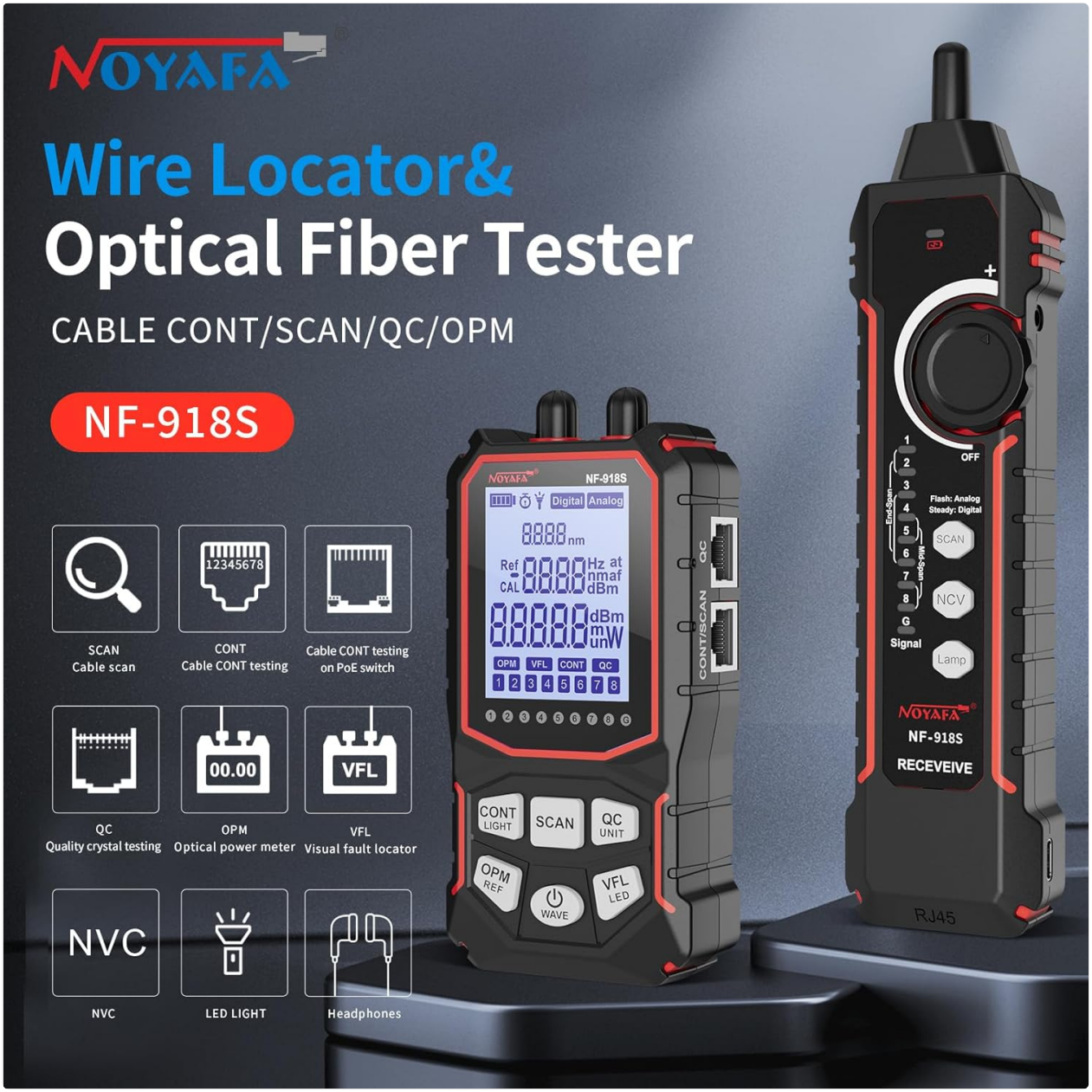

Figure 3.1: NOYAFA NF-918S Network Cable Tester and Receiver. This image displays the NOYAFA NF-918S main unit (transmitter) and the receiver, highlighting their design and the various functions available, such as cable scan, continuity test, optical power meter, visual fault locator, NCV, and LED light.

4. Key Features

- **Anti-interference Network Cable Tester:** Utilizes advanced digital, analog, and PoE modes for high sensitivity and reduced noise interference, enabling accurate cable location in complex environments.
- **PoE Test:** Automatically identifies 8-core middle span, end span, and power types. Detects both standard and non-standard PoE equipment.
- **Optical Power Meter (OPM):** Supports seven standard wavelengths (850/1300/1310/1490/1550/1625nm). Allows unit switching between dBm, dB, mW, uW, nW, and includes a REF switch for reference power settings. Measurement range: -70 to +10 dBm.
- **Visual Fault Locator (VFL):** Features a 10mW 10KM VFL for easy identification of fiber breakpoints, poor connections, bends, or cracks. Essential for fiber tracing, routing, and continuity checking.
- **Cable Length Test:** Measures cable length up to 200m for RJ45 network cables, telephone lines, and BNC coaxial cables.

- **Multifunctional Testing:** Includes port flash, cable scan, length measurement, PoE test, OPM, VFL, NCV function, and an integrated LED light for convenience.

5. Setup

5.1 Battery Installation

The NF-918S requires 1 Lithium Metal battery (included). Ensure the battery is correctly installed according to the polarity markings inside the battery compartment. Charge the device fully before first use.

5.2 Powering On/Off

To power on the main unit, press and hold the power button. To power off, press and hold the power button again. The receiver is typically activated by selecting a function using its rotary switch.

6. Operating Instructions

6.1 Cable Scan (Digital/Analog/PoE Mode)

This function helps locate target cables among bundles. Connect the network cable to the RJ45 port on the main unit. Select the desired scan mode (Digital, Analog, or PoE) on the main unit. Use the receiver to trace the cable. The receiver will emit an audible tone, which intensifies as it approaches the target cable.

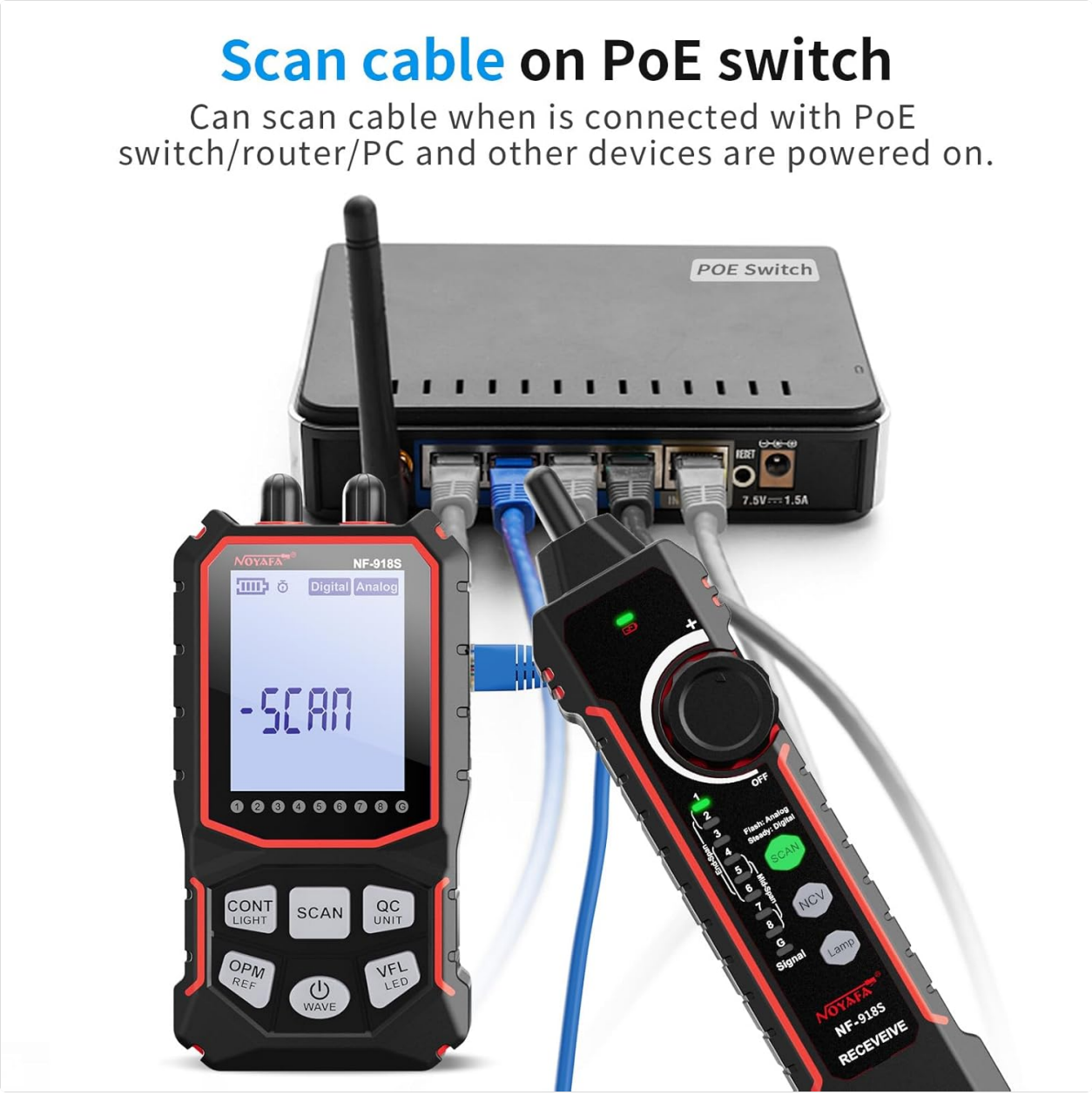

Figure 6.1: Scanning a cable on a PoE switch. The image depicts the NF-918S receiver being used to scan a cable connected to a PoE switch, demonstrating its ability to trace cables even when connected to powered devices.

6.2 Cable Continuity Test

To check for open circuits, short circuits, cross-overs, or other wiring faults in network cables:

1. Connect one end of the network cable to the 'CONT' port on the main unit.
2. Connect the other end of the cable to the 'RECEIVE' port on the receiver.
3. Select the continuity test mode on the main unit. The display will show the wiring status (e.g., open, short, cross). A green LED (G LED) indicates an STP cable.

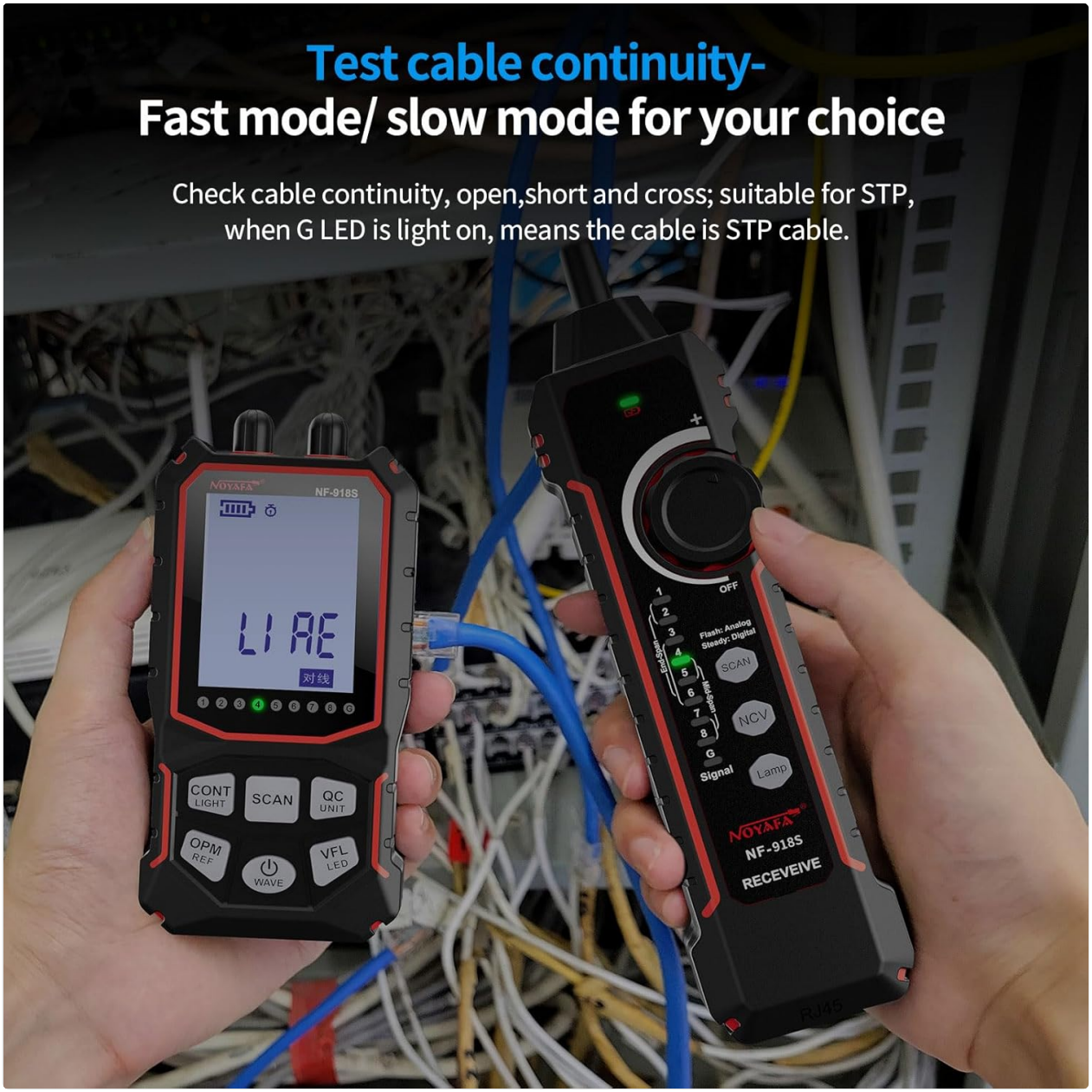

Figure 6.2: Cable Continuity Test. This image illustrates the NF-918S main unit and receiver connected to an RJ45 network cable, performing a continuity test. The display shows "LINE" indicating a successful connection test.

6.3 Optical Power Meter (OPM)

To measure optical power in fiber optic cables:

1. Connect the fiber optic cable to the OPM port on the main unit.
2. Select the OPM function on the main unit.
3. Use the 'WAVE' button to cycle through the available wavelengths (850nm, 1300nm, 1310nm, 1490nm, 1550nm, 1625nm) to match your fiber.
4. Use the 'UNIT' button to switch between dBm, dB, mW, uW, nW.
5. The 'REF' button allows setting a reference power level for relative measurements.

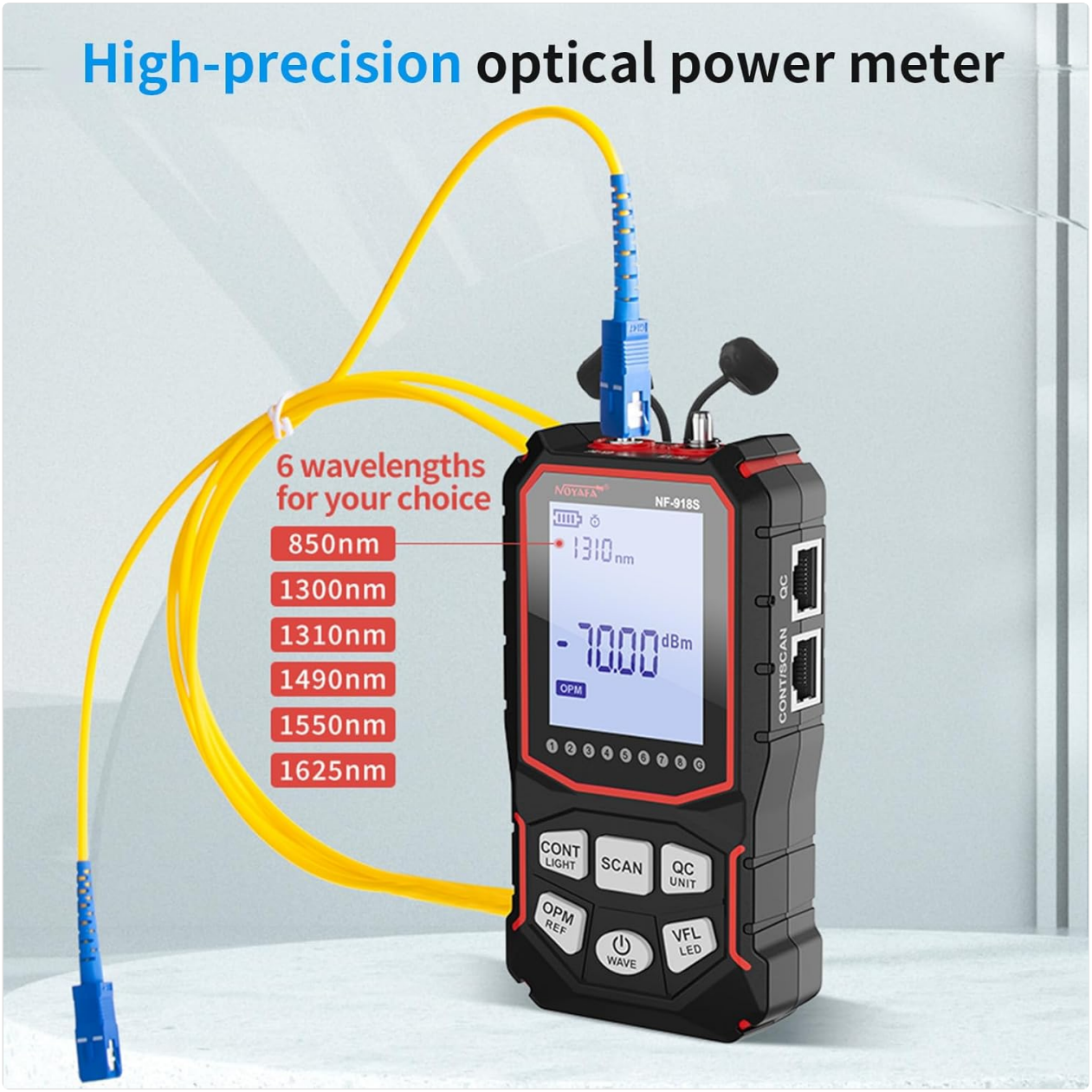

Figure 6.3: Optical Power Meter in use. The image shows the NF-918S main unit connected to a fiber optic cable, demonstrating its high-precision optical power meter function with selectable wavelengths.

6.4 Visual Fault Locator (VFL)

To visually identify faults in fiber optic cables:

1. Connect the fiber optic cable to the VFL port on the main unit.
2. Activate the VFL function. A strong red laser light will be emitted into the fiber.
3. Observe the fiber along its path. Breaks, bends, or poor connections will cause the red light to escape or scatter, making the fault visible.

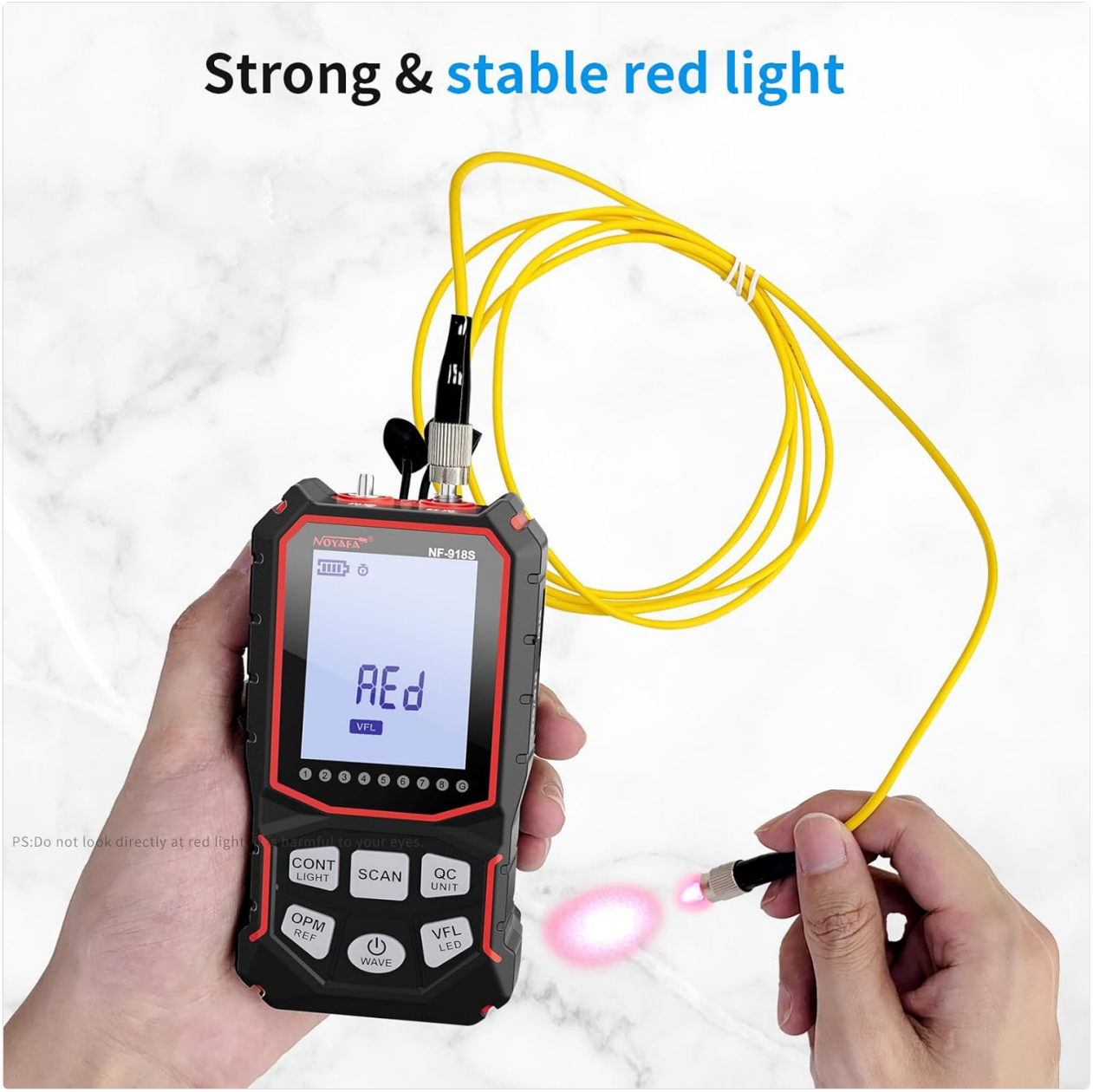

Figure 6.4: Visual Fault Locator. This image shows the NF-918S main unit with its Visual Fault Locator (VFL) function active, emitting a strong red light into a fiber optic cable to help identify breaks or bends.

6.5 PoE Test

To test Power over Ethernet (PoE) functionality:

1. Connect the network cable from the PoE source (e.g., PoE switch) to the main unit's RJ45 port.
2. Select the PoE test mode. The device will automatically identify the power supply type (middle span/end span) and whether the equipment is standard or non-standard PoE.

6.6 Cable Length Measurement

To measure the length of various cables:

1. Connect the cable to be measured to the appropriate port on the main unit (e.g., RJ45 for network cables).
2. Select the length measurement function. The device will display the cable length up to 200m. This function supports network cables, telephone lines, and BNC cables.

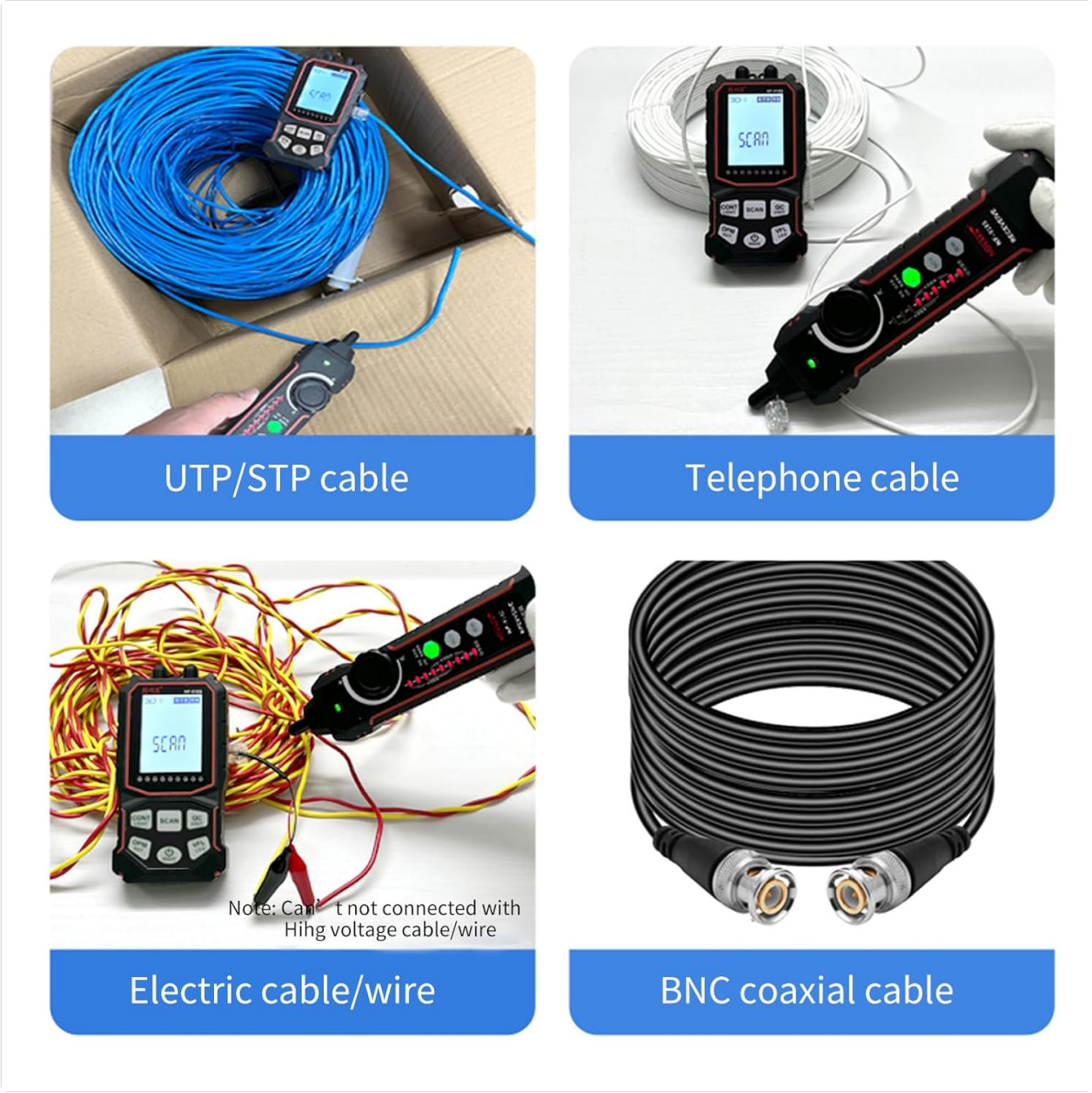

Figure 6.5: Testing various cable types. A collage of four images showing the NF-918S testing different cable types: UTP/STP network cables, telephone cables, electric cables/wires, and BNC coaxial cables, demonstrating its versatility.

6.7 Non-Contact Voltage (NCV) Detection

The receiver unit includes an NCV function for detecting live AC voltage without direct contact. Rotate the receiver's dial to the NCV position. Bring the NCV sensor close to an electrical source (e.g., power outlet, live wire). The receiver will indicate the presence of voltage through visual and/or audible alerts.

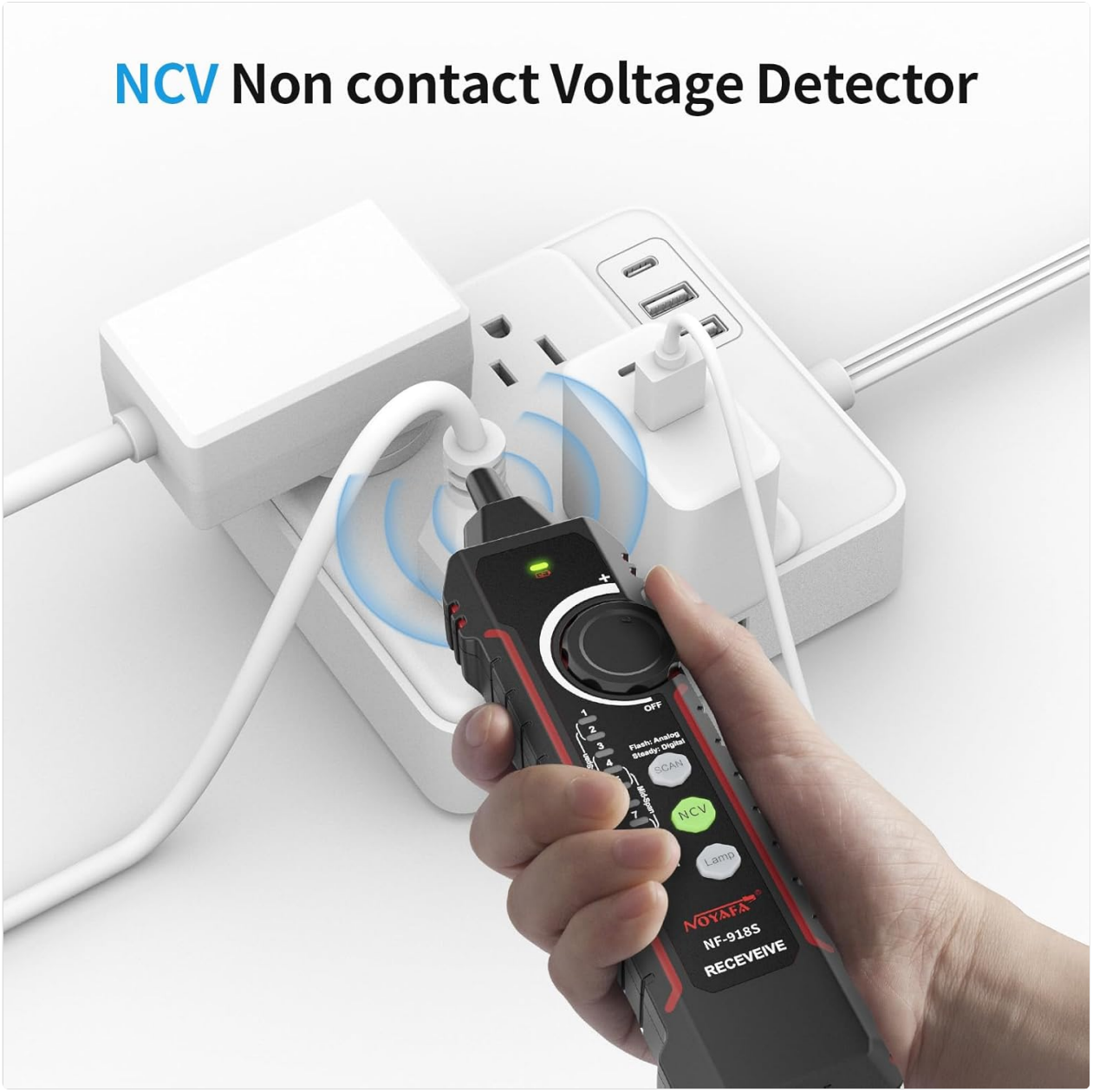

Figure 6.6: NCV Non-contact Voltage Detector. The image shows the NF-918S receiver being used to detect non-contact voltage near an electrical outlet, indicating its NCV safety feature.

6.8 Port Flash

The port flash function helps identify the corresponding port on a switch or router. Connect the main unit to a network port. Activate the port flash function. The corresponding port's LED on the switch/router will flash, making it easy to locate.

6.9 LED Light

The integrated LED light on the main unit provides illumination in dark working environments. Activate it as needed for better visibility.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the device. 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:** If the device will not be used for an extended period, remove the battery to prevent leakage. Recharge the battery periodically to maintain its health.

- **Protection:** Avoid dropping the device or subjecting it to strong impacts. Keep the ports free from dust and debris.

8. Troubleshooting

- **Device not powering on:** Check battery level. Ensure the battery is correctly installed and charged.
- **Inaccurate readings:** Ensure cables are properly connected and undamaged. Verify that the correct test mode is selected for the task. Clean ports if necessary.
- **No signal during cable scan:** Ensure the main unit is transmitting and the receiver is in the correct scan mode. Check for excessive interference in the environment.
- **VFL light not visible:** Ensure the VFL function is activated and the fiber optic cable is properly connected. Check for severe damage to the fiber.

9. Specifications

Feature	Specification
Model Number	NF-918S
Brand	NOYAFA
Power Source	Battery Powered (1 Lithium Metal battery included)
Item Weight	499 g (1.1 Pounds)
Product Dimensions (LxWxH)	11.94 x 6.86 x 1.78 cm (4.7 x 2.7 x 0.7 Inches)
Measurement Type	Optical Power Meter, Cable Length, Continuity, PoE
Optical Power Meter Wavelengths	850/1300/1310/1490/1550/1625nm
Optical Power Meter Range	-70 to +10 dBm
Visual Fault Locator Output	10mW, 10KM range
Cable Length Measurement Range	Up to 200m
Supported Cable Types	RJ45 Network, Telephone, BNC Coaxial
External Certification	CE

10. Safety Information

- Do not look directly into the Visual Fault Locator (VFL) laser output. It can cause eye damage.
- Do not attempt to disassemble or modify the device. Refer all servicing to qualified personnel.
- Keep the device away from water and other liquids.
- Use only the provided charging cable and accessories.
- Exercise caution when using the NCV function near live electrical circuits.

11. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact NOYAFA customer service. Keep your purchase receipt as proof of purchase.