

NOYafa NF-816LS

NOYafa NF-816LS Underground Wire Locator Instruction Manual

Model: NF-816LS

1. INTRODUCTION

The NOYafa NF-816LS is an underground wire locator designed to quickly and accurately trace buried wires, detect cable breakpoints, and follow the direction of underground or in-wall cables. This device is suitable for various applications including pet fence cables, network cables, wall wiring, irrigation lines, and pipelines. It features a rechargeable lithium battery, an LED flashlight, and an upgraded "T-shaped" probe coil for enhanced stability and precision.

2. SAFETY INFORMATION

WARNING: Read all safety warnings and instructions before using this product. Failure to follow the warnings and instructions may result in electric shock, fire, or serious injury.

- This device is designed for single-stranded or parallel double-stranded wires. It is **not suitable for multi-stranded wires or live testing**.
- Do not use on circuits with a live voltage greater than 60V DC to avoid damaging the device or causing injury.
- Always ensure proper grounding when connecting the transmitter to a wire. Incorrect grounding can lead to inaccurate readings or device malfunction.
- Keep the device away from water and moisture.
- Do not attempt to open or repair the device yourself. Refer all servicing to qualified personnel.
- Store the device in a dry, cool place when not in use.

3. PRODUCT OVERVIEW

The NOYafa NF-816LS consists of two main units: a Transmitter and a Receiver. Key features include:

- Precise underground wire tracking and cable break detection.

- Upgraded "T-shaped" probe coil for stable and accurate positioning.
- Wide detection range: up to 2-3 feet deep and 1000 feet long (depth may vary).
- Rechargeable 3.7V 1100mAh lithium-ion batteries in both units.
- Built-in LED flashlight for low-light conditions.
- Headphone interface for noise reduction in noisy environments.
- Battery polarity test function (9-60V).

3.1 Components

Familiarize yourself with the main components of the NF-816LS:

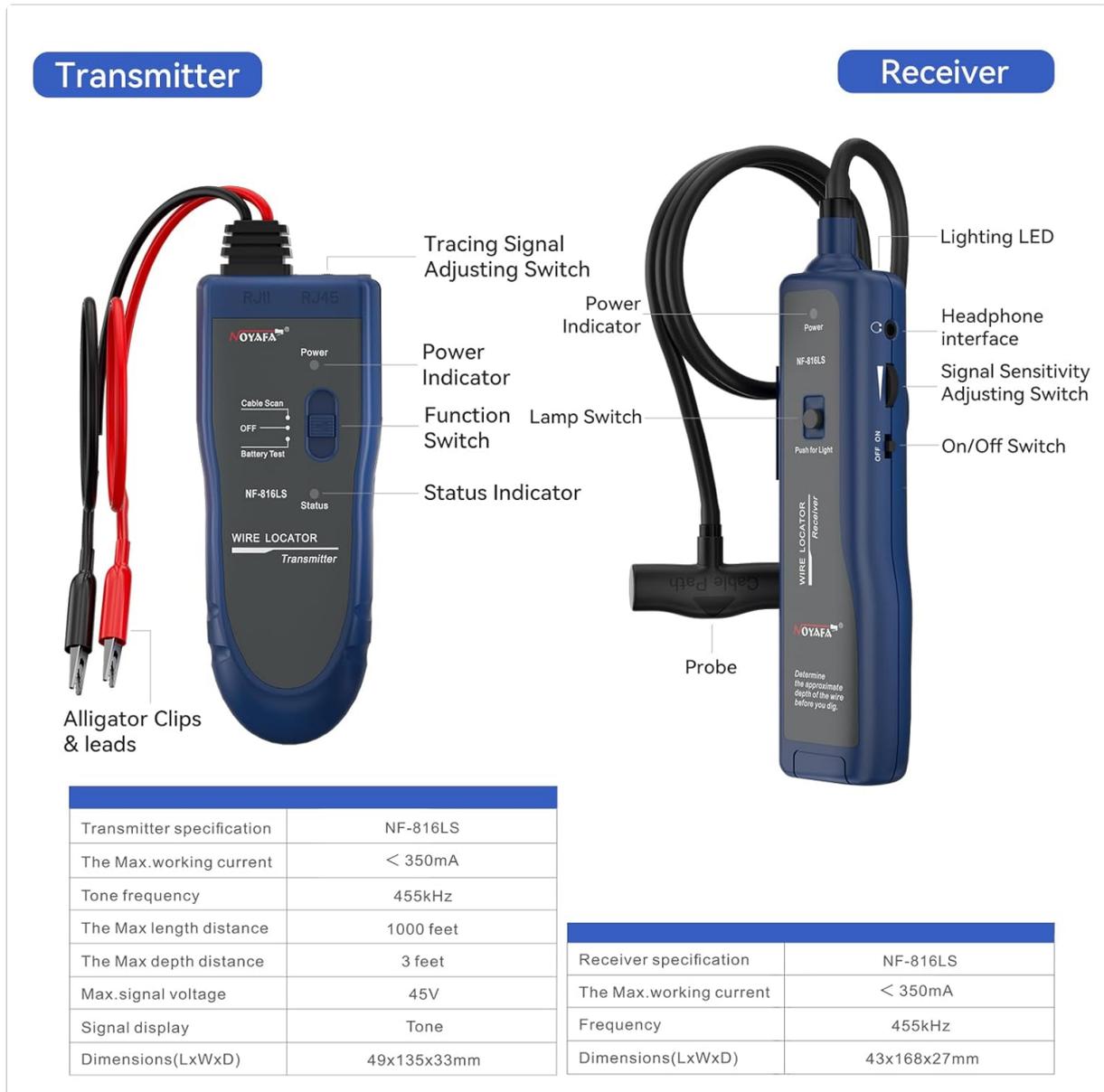


Figure 1: Diagram showing the Transmitter and Receiver units with their respective controls and features.

- **Transmitter:** Connects to the wire to be traced. Features a Power indicator, Cable Scan/OFF/Battery Test switch, Status indicator, and Alligator Clips & leads.
- **Receiver:** Used to detect the signal from the transmitter. Features a Lighting LED, Headphone interface, Signal Sensitivity Adjusting Switch, On/Off Switch, and a flexible Probe with a T-shaped coil.

4. SETUP

4.1 Charging the Batteries

Both the Transmitter and Receiver are equipped with rechargeable lithium-ion batteries. Use the provided charging cable to charge both units before first use and whenever the battery is low. The Power indicator LED will show charging status.

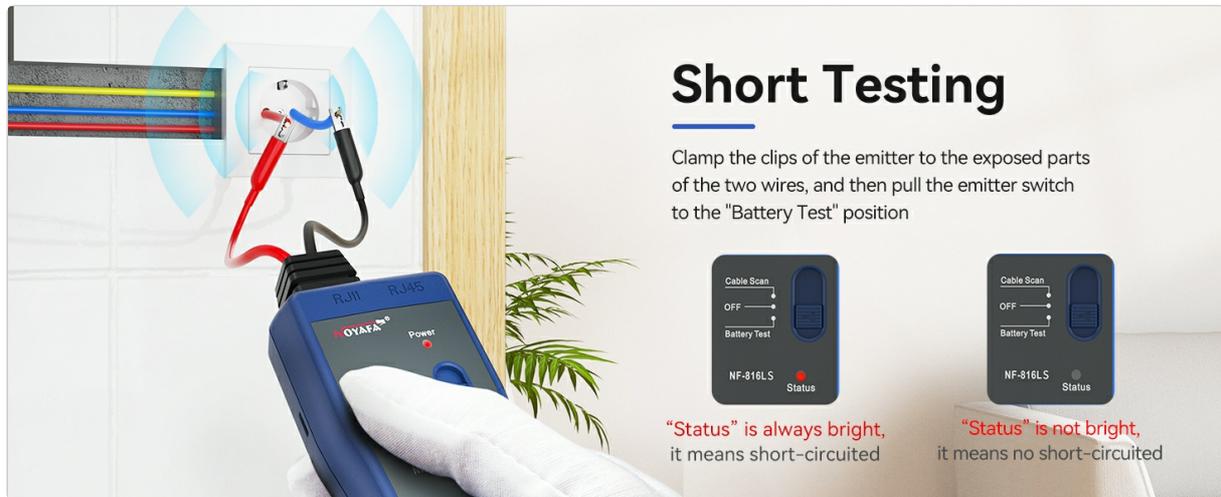


Figure 2: Both the Transmitter and Receiver units can be charged using a standard USB power source.

4.2 Connecting the Transmitter

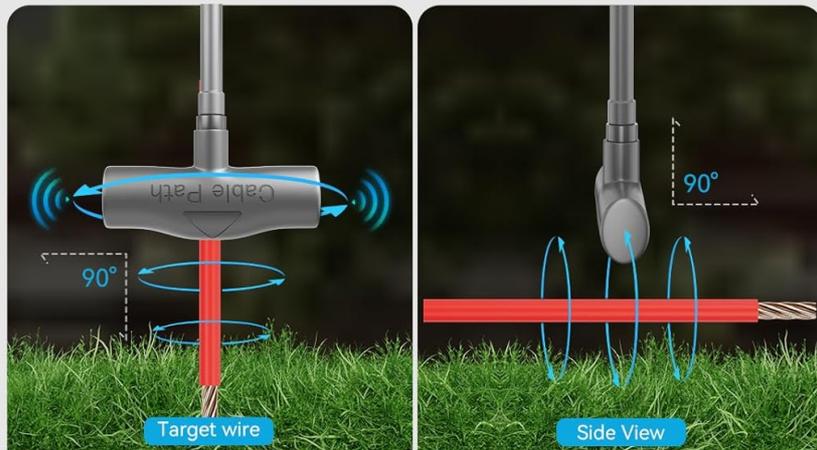
To trace a wire, connect the transmitter to the wire using the alligator clips. Ensure a secure connection.

- Connect the red alligator clip to the wire you wish to trace.
- Connect the black alligator clip to a reliable ground source. For underground wires, this typically means a metal stake driven into the earth.
- Ensure the wire is **not live** and has no voltage exceeding 60V DC.

How to Detect Cable Routing and Locate Cable Positions

01

When the beeping sound is loudest, the probe is directly above the cable and at a 90-degree angle to it, indicating that the target cable is perpendicular to the probe.



If the sound becomes louder, the target cable is perpendicular to the probe.

02

When the probe is parallel to the cable direction, the signal is weakest, with no sound or weak sound.



Figure 3: The transmitter connected to a wire (red clip) and a ground stake (black clip) for tracing.

5. OPERATING INSTRUCTIONS

5.1 Powering On and Function Selection

- **Transmitter:** Slide the "Cable Scan" switch to the "Cable Scan" position to activate the tracing signal. The Power indicator will light up.
- **Receiver:** Slide the On/Off switch to the "ON" position. The Power indicator will light up.

5.2 Wire Tracing

To locate and trace wires:

1. Ensure the transmitter is connected and powered on in "Cable Scan" mode.
2. Turn on the receiver. Adjust the "Signal Sensitivity Adjusting Switch" on the receiver to an appropriate level. Start with a lower sensitivity and increase as needed.
3. Hold the receiver with the T-shaped probe near the suspected path of the wire.
4. Move the probe slowly across the area. The receiver will emit a sound, and the signal strength will be indicated.
5. The sound will be loudest when the probe is directly above the cable and at a 90-degree angle to it.

This indicates the target cable is perpendicular to the probe.

6. When the probe is parallel to the cable direction, the signal will be weakest or absent.



Figure 4: Visual guide on how to interpret signal strength and probe orientation for accurate wire location.

The detection range is typically up to 2-3 feet deep and 1000 feet long, though depth can vary based on soil conditions and wire type (e.g., 1-2 feet in steel/iron/PVC pipes).



Figure 5: Illustration of the device's tracing range and depth in various environments.

5.3 Cable Break Detection

To detect a cable break, follow the wire tracing procedure. The signal will significantly weaken or disappear at the point of the break.

5.4 Short Testing

To test for short circuits:

1. Clamp the alligator clips of the transmitter to the exposed parts of the two wires you want to test.
2. Slide the transmitter switch to the "Battery Test" position.
3. Observe the "Status" indicator LED on the transmitter:
 - If the "Status" LED is **always bright**, it indicates a short circuit.
 - If the "Status" LED is **not bright**, it means there is no short circuit.

How to Detect Cable Routing and Locate Cable Positions

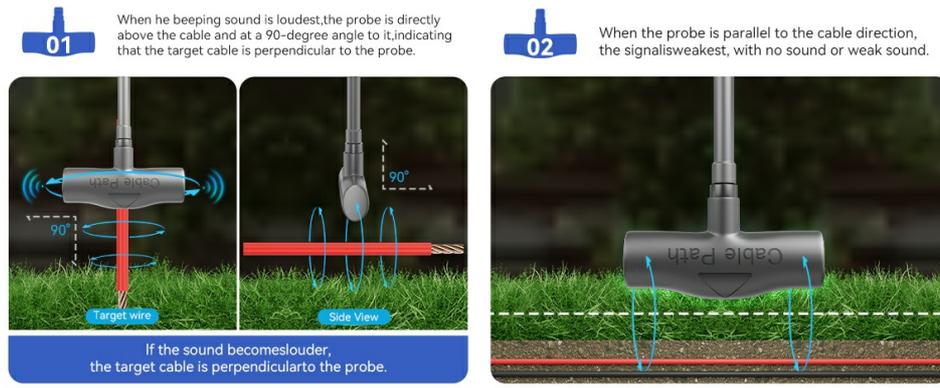


Figure 6: How to perform a short circuit test using the transmitter's "Battery Test" mode.

5.5 Battery Polarity Test (9-60V)

The transmitter can also test battery polarity:

1. Connect the red and black alligator clips to the positive and negative terminals of a 9-60V battery, respectively.
2. Slide the transmitter switch to the "Battery Test" position.
3. Observe the "Status" indicator LED:
 - If the "Status" LED is **not bright**, it means the red clip side is the positive terminal.
 - If the "Status" LED is **bright**, it means the red clip side is the negative terminal.



Figure 7: How to use the transmitter to test battery polarity.

5.6 Using the LED Flashlight

The receiver has a built-in LED flashlight for use in dark or low-light conditions. Press the "Push for Light" button on the receiver to turn the LED on or off.



Figure 8: The receiver's LED flashlight provides illumination for working in dim environments.

5.7 Noise Reduction with Headphones

For noisy environments, you can plug headphones into the receiver's headphone interface to better distinguish the tracing sound. This helps in isolating the signal from ambient noise.



Figure 9: Using headphones with the receiver for clearer signal detection in noisy conditions.

6. MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in its carrying case in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Battery Care:** Recharge the batteries regularly, even if the device is not in frequent use, to maintain battery health. Avoid fully discharging the batteries for extended periods.
- **Probe Care:** Ensure the T-shaped probe is clean and free from debris for optimal performance.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No signal or weak signal from receiver.	<ul style="list-style-type: none">◦ Transmitter not powered on or low battery.◦ Receiver not powered on or low battery.◦ Incorrect connection to the wire or poor ground.◦ Wire is too deep or too far.◦ Receiver sensitivity set too low.◦ Wire is multi-stranded or live (device not suitable).	<ul style="list-style-type: none">◦ Check power and battery levels of both units.◦ Ensure secure connection of alligator clips and a good ground.◦ Increase receiver sensitivity.◦ Verify the wire type is single-stranded or parallel double-stranded and not live.
Inaccurate wire location.	<ul style="list-style-type: none">◦ High interference from other electrical sources.◦ Probe not held correctly (perpendicular to wire).◦ Multiple cables in close proximity.	<ul style="list-style-type: none">◦ Try to minimize interference sources.◦ Ensure the probe is held perpendicular to the suspected wire path for strongest signal.◦ Adjust sensitivity carefully and move slowly to pinpoint the signal.
Transmitter "Status" LED not responding during short test.	<ul style="list-style-type: none">◦ Transmitter not in "Battery Test" mode.◦ Poor connection to wires.	<ul style="list-style-type: none">◦ Ensure the switch is set to "Battery Test".◦ Check alligator clip connections for secure contact.

8. SPECIFICATIONS

Feature	Specification
Model	NF-816LS
Brand	NOYAF A
Power Source	Battery Powered (Rechargeable Lithium-ion)
Transmitter Max. Working Current	< 350mA
Receiver Max. Working Current	< 350mA
Tone Frequency	455kHz
Max. Length Distance	1000 feet
Max. Depth Distance	3 feet (depth may vary with environment)
Max. Signal Voltage	45V
Signal Display	Tone
Transmitter Dimensions (LxWxD)	49x135x33mm
Receiver Dimensions (LxWxD)	43x168x27mm
Included Components	Cable tester x1, User manual x1

9. OFFICIAL PRODUCT VIDEO

Your browser does not support the video tag.

Video 1: An official product video demonstrating the NOYAF A 816LS Underground Wire Locator in use, showcasing its features and operation.

10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact NOYAF A customer support directly. Refer to the contact information provided with your product packaging or visit the official NOYAF A website.

NOYAF A Official Store: [Visit the NOYAF A Store on Amazon](#)