

MODEL: NF-816/NF-817

Your excellent helper in cable test!

INSTRUCTION MANUAL



Your excellent helper in cable test!



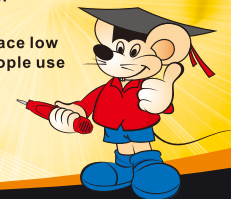
NF-816

NF-817

Parts Included:

- 1 x Wire Locator Transmitter
- 1 x Wire Locator Receiver
- 1 x Premium Durable Case
- 1 x Earphones

Note: The underground wire locator is ideal for users to trace low voltage cables. It is not recommended that unqualified people use this equipment to trace cables that are above 32 Volts.
(Requires 2 x 9V Batteries)



VER: V3

Table of Contents

- 1.Safety**1
- 2.Function comparision**1
- 3.Glossary**2
- 4.Specifications**.....4
- 5.Operation &Maintenance**.....6
 - A.Polarity Testing (Only for NF-817).....6
 - B.Transmitter Connection6
 - C.Tracking Buried Irrigation or Garden Lighting cables7
 - D.Detecting Cable Break.....7
 - E.Locating Alarm, Sound & Computer Wires7
 - F.Measuring Depth8
 - G. Pinpointing Drill Sites9
 - H. External Earphone10
 - I. White LED Flash Light10
- Battery Replacement**11

1. Safety

WARNING - READ INSTRUCTION MANUALS BEFORE USE

Read & understand this material before operating or servicing this equipment. Failure to understand how to safely operate this tool could result in an accident causing serious injury or death.

The underground wire locator is suitable for use on Un-energized or Low voltage installations only.

At no time should this device be used on utility mains powered devices or cabling connected to the utility mains! If in doubt do not use this device and call in a suitably qualified electrical contractor.

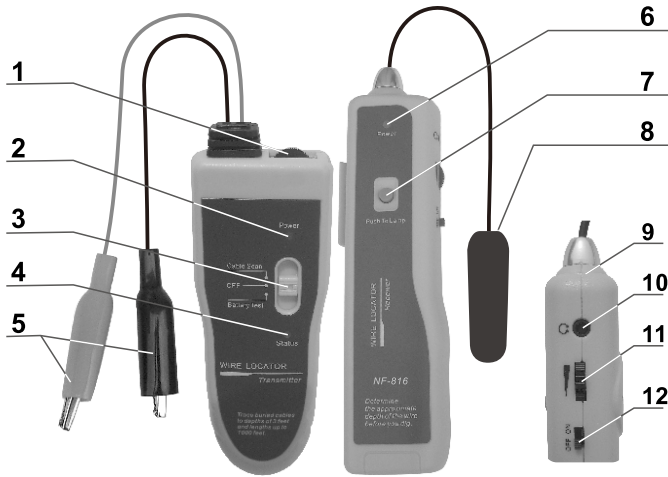
Parts included: 1 x Wire Locator Transmitter, 1 x Wire Locator Receiver, 1 x Premium Durable Case, 1 x Earphones, 1 x Instruction Manuals, 1 x charging adaptor (NF-817).

2.Function comparision

Description	NF-816	NF-817
Trace underground cable pipe	√	√
Check polairty	×	√
Depth range	50cm	50cm
Max cable length	500m	1km
Working environment	NO/Low voltage	NO/Low voltage
Sensitivity adjustable	NO	Yes
Power supply for transmitter	9V battery	3.7V Lithium battery
Power supply for Receiver	9V battery	9V battery

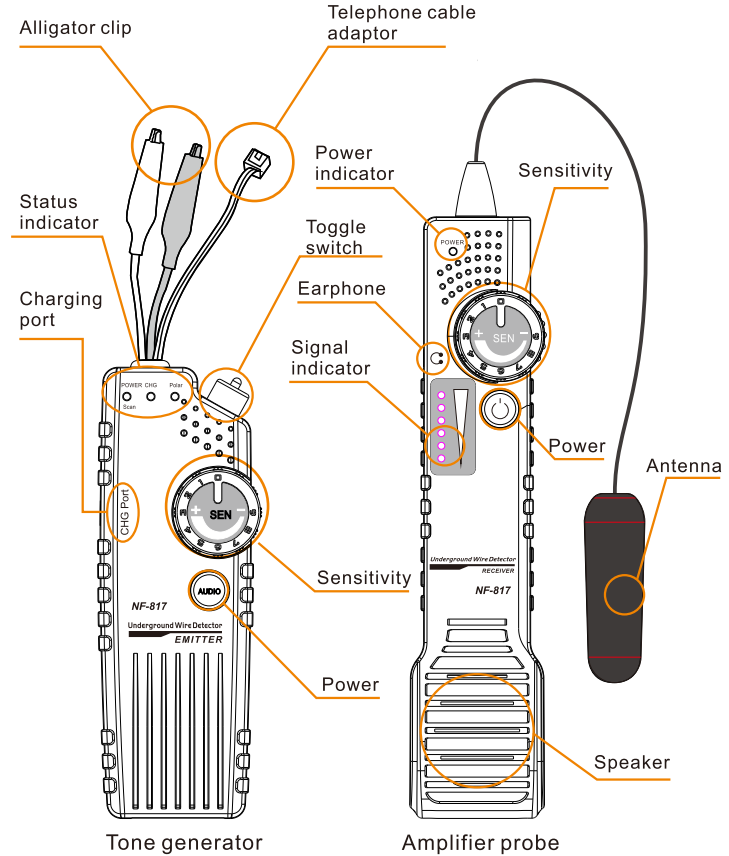
3. Glossary

Item No: NF-816



1	Thumb Wheel Switch	7	Push For Light Button
2	Transmitter LED	6	Antenna
3	Transmitter Switch	9	LED Flash Light
4	Status LED	10	Earphone Jack
5	Alligator Clips & Leads	11	Thumb Wheel Switch
6	Receiver LED	12	ON/OFF Switch

Item No: NF-817



4. Specifications

NF-816 Transmitter specification	
Tone frequency	200kHz
The Max length distance	500m (1640 feet)
The Max depth distance	50cm (20 inch)
The Max. working current	Less than 70mA
Max. signal voltage	15Vp-p
Signal display	Tone
Battery type	DC9.0V (NEDA 1604/6F22) x 1pc
Dimensions (LxWxD)	49 x 135 x 33mm
NF-816 Receiver specification	
Frequency	200kHz
The Max. working current	Less than 70mA
Earphone jack	1
Battery type	DC9.0V (NEDA 1604/6F22) x 1pc
Dimensions (LxWxD)	43 x 168 x 27mm

NF-817 Transmitter specification	
Cable lead	RJ11 adaptor, Red & black alligator clip
Polarity testing	Polarity testing
Cable type	RJ11 , single conductor
Tone signal	Dual-frequency
Signal intensity	Adjustable
Max signal Vp-p	18V±1V
Max transmission range	1km (3280 feet)
Detect depth range	50cm (20 inch)
Power supply	Lithium battery 3.7V 1800mAh
Low voltage for battery	3.4V±0.1V
Max working current	≤130 mA
Dimension	152*55*34mm
NF-817 Receiver specification	
Signal intensity	Adjustable
Singal display	6 leds
Anti-current ability	Yes
Power supply	9V battery
Low voltage for battery	6.5V±1V
Max working current	≤100mA
Dimension	200*45*28mm

5. Operation & Maintenance

Introduction

The underground wire locator is designed to allow the user to track low voltage cables used for garden and landscape automatic watering systems, and also low voltage garden lighting systems.

It can also be used to trace other metal cables.

The system uses a “transmitter” to send a signal down the cable being traced or to a solenoid valve that is being located.

A “receiver” is then used to pick up the signal and follow the cable or locate the coil.

A. Polarity Testing (Only for NF-817)

Firstly long press the power button to turn on the device, push the toggle button of emitter to “polar” position, then use the clips to connect the two sides of battery with the two clips. If the indicator “polar” is green, it means that the red clip connects positive pole, the black clip connects negative pole. If the indicator “polar” is red, it means that the red clip connects negative pole, the black clip connects positive pole.

B. Transmitter Connection

To locate a cable follow the following procedure:

1) Connect the transmitter to the cable you are looking for. If the cable is connected to an irrigation controller, Disconnect the cable from its normal power source and clip the RED alligator clips from the transmitter onto the cable.

2) There are several options for connections of the black alligator.

2.1) to a blade of a screw driver pushed into the ground (preferably wet ground),

you might require to connect via a short length of cable.

2.2) to the ground wire.

2.3) to Nothing, just let the black alligator clip dangle in the air.

3) For NF-816, Move the transmitter switch to the “Cable scan” position. For NF-817, firstly long press the power key to turn on the transmitter, then shift the function switch on the top-left side to “SCAN” mode.

C. Tracking Buried Irrigation or Garden Lighting Cables

Once the transmitter is attached to the cable and the ground or common as in “B” above, ensure the transmitter switch is in the “Cable Scan” position and turn the “Thumb Wheel” switch to high tone.

Locate approximately the route of the cables and swing the receiver antenna (8) in a pendulum type action at right angles to the cable path starting at least 3 meters away from the transmitter.

As the receiver antenna swings past the underground cable, a tone will be heard on either side of the cable path, when you are right over the buried wire, you'll get a gradual increase in the tone and hear the loudest sound.

You can adjust the transmitter and receiver controls to move further distances according to your wire depth.

You can also use the ear phones to assist with the detection.

D. Detecting Cable Break

A cable break will be detected by the loss of signal in the receiver antenna.

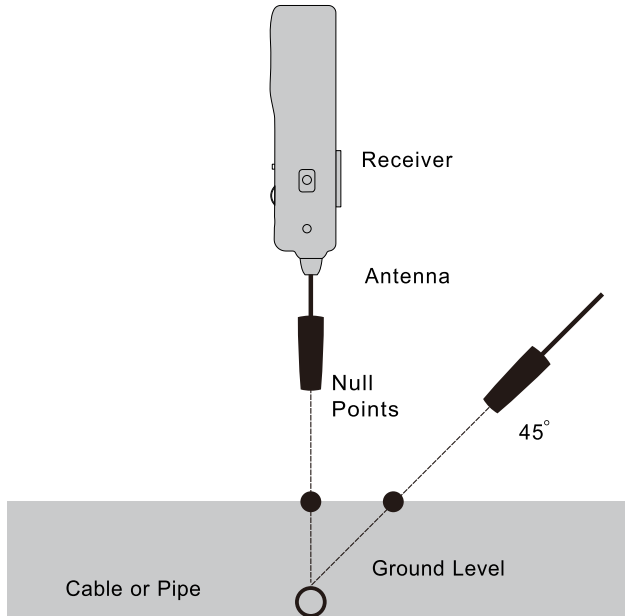
E. Locating Alarm, Sound & Computer Wires

To locate other wires, it is best to disconnect the wire in question and directly attach only one transmitter lead to the subject wire, letting the other lead hang. Trace the path as outlined in point 'C' (Locating & Tracking Buried Irrigation Wires).

F. Measuring Depth

Once the path has been determined, mark the ground at a null point along the path.

Hold the Receiver antenna at a 45-degree angle to the ground and move at a right angle away from the path of the wire until another null is found. Mark this point. The distance between the two marks is the approximate depth of the wire. (fig.01)



(Fig.01) Measuring Depth Cable or Pipe

G. Pinpointing Drill Sites

Setup the Transmitter as described in (Fig.01)

Locate and mark the path of any signal near your drill site. If you have reason to believe that other installations are present near your drill site, use the procedures outlined in section 'C' (Locating & Tracking Buried Irrigation Wires).

The signal generated by the Transmitter can be detected through walls and ceilings, to pin point the transmitter's location (specific point), wrap the alligator clip leads around the Transmitter, short the leads together, turn the transmitter on and secure it to the opposite side of the wall or ceiling with tape. Scan the wall with the antenna flat against the wall. The PEAK signal will be heard when the antenna passes directly over the transmitter location. (Fig.02)

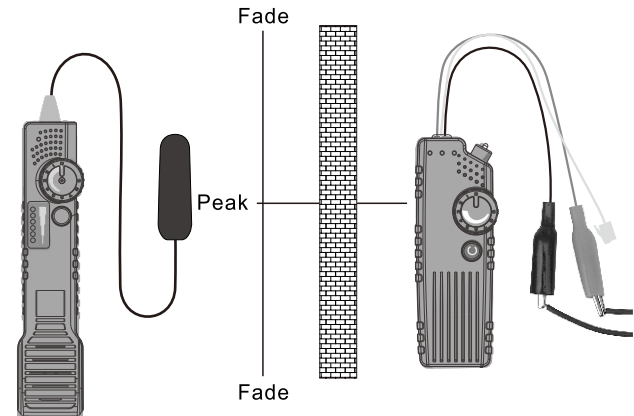


Fig - 02-Pinpointing Drill Sites

H. External Earphones

The 3.5mm earphones can be connected to the Receiver earphone jack to improve efficiency in a noisy environment. (Fig.03)



Fig • 03

I. White LED Flash-Light

The user can activate the LED flash-light by pressing the 'Push For Light' button. (Fig.04)

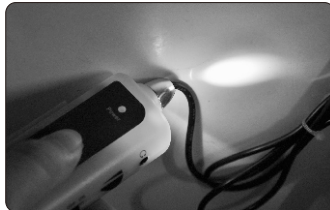


Fig • 04

The only field service required for maintaining proper operation is the periodic replacement of the batteries in the Transmitter and Receiver.

Battery Replacement

- 1.Slide off battery compartment cover.
- 2.Replace the 9V battery. Observe polarity.
- 3.Replace cover.

A. Battery Replacement



WARNING

Before opening the case, remove the test leads from the circuit and shut off the unit. Failure to observe these warnings can result in severe injury or death.

B. Cleaning

Periodically wipe with a damp cloth and mild detergent; do not use abrasives or solvents.

C. Service

Should you need for any reason to return the tester for repair or replacement take prior agreements with the local distributor from whom you purchased the item. Use only original packaging for any transit of shipment. The manufacturer will not be responsible for any damage to persons or things.

End of life



Caution:

This symbol indicates the equipment and its accessories shall be subject to a separate collection and correct disposal.

Diagram of Series Products



NF-868



NF-268



NF-8601



NF-806B



NF-800



NF-820



NF-468L



NF-300



NF-2100



NF-708



NF-905



NF-911