

NF-819/NF-820

Your excellent helper in cable test!

INSTRUCTION MANUAL

Anti-jamming underground cable detector



Your excellent helper in cable test!



ORIGINAL
AUTHENTIC

*Original product,
Counterfeit and others*



VER: V2

Please read and learn safety instructions before use or maintain the equipment.

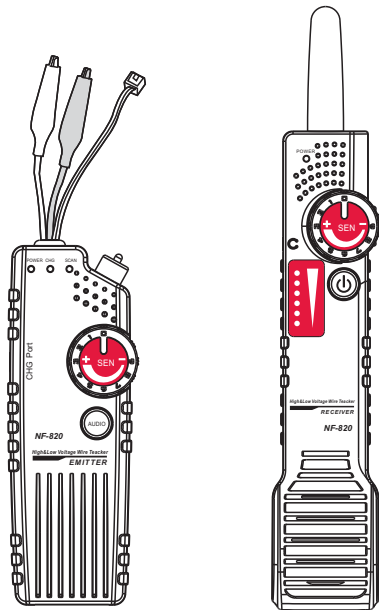
- Never put the equipment under strong sunshine.
- Never put the equipment in the place with much dust, humidity and high temperature (over 40°C)
- Please use battery according to the specification; otherwise, it may result in damage to equipment.
- Please never dismount the equipment arbitrarily. The maintenance and care shall be conducted by professional personnel.
- Please take out the battery in Transmitter and Receiver if the equipment is not used for a long time so as to prevent that the battery liquid is leaked in future.
- Never use the equipment to detect power cord with electricity (such as power supply circuit of 220V), otherwise, it may result in damage to equipment and personal injury.
- Never conduct related operation of communication line in thunderstorm weather so as to prevent lightning stroke and impact on personal safety.

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Overview

NF-819 & NF-820 is a new breakthrough after model NF-816, which are anti-jamming cable detectors for underground, inside-wall or other invisible cable & pipe. The detection range can be up to 2 meters. Besides, NF-820 is even capable of tracing cable in high voltage environment (0~400V). The current or other live devices can't make influence on it for its anti-jamming function. It is a practical tool for the engineers, mainly applied in home decoration, cabling installation and telecommunication ect.



Tone generator

Amplifier probe

Introduction

NF-819 & NF-820 are mainly used to detect cable location in underground, inside-wall, ceiling or other invisible cable. But NF-819 is only for de-energized cable, and NF-820 is for both live cable and de-energized cable. ($\leq 400V$)

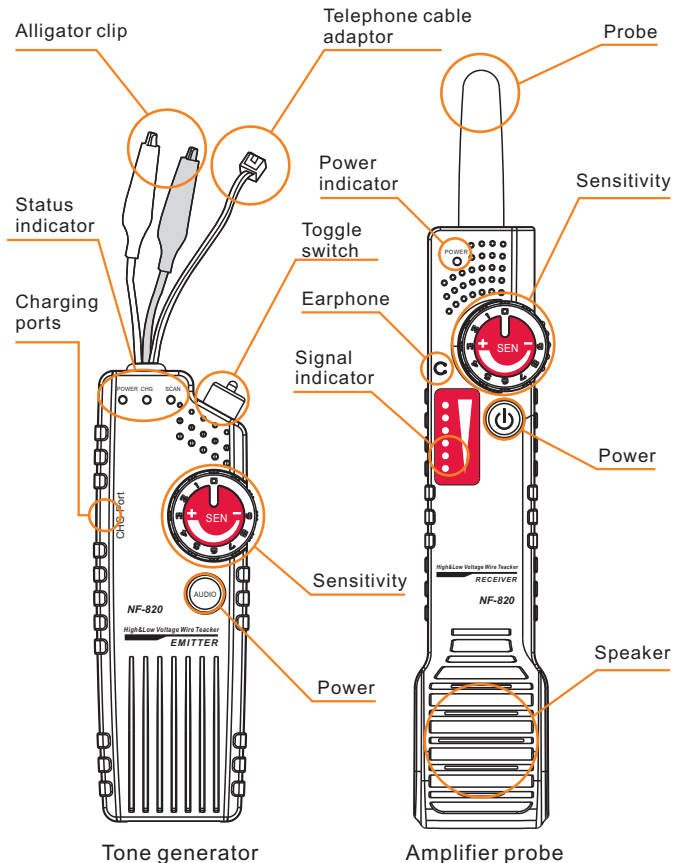
1.1 Features & Specification

- Detect cable location in underground or other invisible cable, the range is 0-2m.
- Signal sensitivity for transmitter and receiver is adjustable. (0-2m)
- Trace cable without current interference.
- The cable lead can clamp cable with 220V AC to avoid burning and damage of device. (only for NF-820)
- Capable trace cable, such as single metal line, 2-core or multi-core cable.
- Earphone helps work in noisy environment.
- Cable lead and socket can be used at the same time.
- Low battery indicator function.
- Identify power polarity. (only for NF-819)
- Rechargeable Lithium battery for transmitter.

1.2 Main application

Detecting cable type: power cable, coax cable, telephone cable, network cable, multi-core metal line, ect.

Product interface and keypad functions



1.1 Transmitter interface instruction

1. Function switch
to shift between "Scan cable" and "Polarity testing"
2. Sensitivity
adjust signal strength
3. Power button
Long press to turn on or turn off the transmitter.
4. Charging port
to charge for transmitter when connect with Micro USB cable.
5. Charging indicator
Indicator turns red, which means charging mode, indicator turns green, which means fully charged.
6. Polarity indicator
To identify the polarity.
7. Power & Scan indicator
The power indicator will be on when power on or in scan mode.
8. Cable lead & telephone cable adaptor
To connect with the cable to be detected.

1.2 Receiver interface instruction

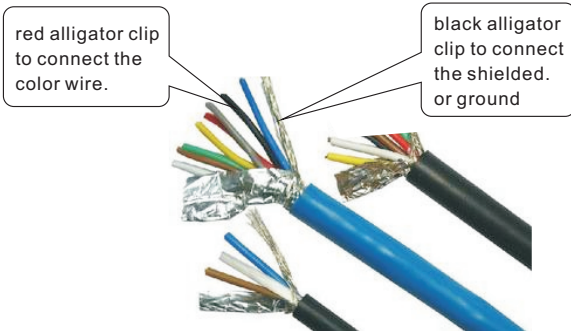
1. Sensitivity
Adjust signal strength and volume
2. Probe
The device will generate "do do do" when probe get close to targeted cable.
3. Power
Long press to turn on or turn off the receiver.
4. Earphone
It helps work in noisy environment.
5. Power indicator & Speaker
The indicator will be on when turn on the receiver.
"do do do" will come from the speaker when the probe get close to targeted cable

operating instructions

1.1 Scan mode

For NF-819, long press the power button to turn on the device, push the toggle switch of emitter to “scan” position. Then the indicator “scan” will be on. For NF-820, push the toggle switch to “ON” position, the indicator “scan” will be on. (when turn on the emitter of NF-820, the audio signal is on, if press Audio button, the signal will be off. Press again, will be on again.)

Secondly, use the black alligator clip to connect ground, the red clip connects any core of the cable. Then adjust the sensitivity to proper degree.



Next step, take the amplifier probe to the other side to detect the target cable which will send out the loudest voice, if you can't identify the target cable, you can adjust the sensitivity constantly for the amplifier probe.

CAUTION: This device and operate method also fit Telephone cable, you can connect the cable into RJ11 port and the steps keep the same.

1.2 Polarity testing (only for NF-819)

Test the battery polarity. (positive / negative pole).

Firstly long press the power button to turn on the device, push the toggle button of emitter to “polar” position, then the indicator “polar” will flash alternately between red and black. After this, 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.

Usage method for Receiver.

Install the 9V battery, long press the power button to turn on the device.

When the “power” indicator is on, which means the receiver works well.

Hold the receiver to get close to cables, adjust the sensitivity to proper degree, you will hear “do do do”. When the probe touches the target cable, the tone would be loudest and clear, and more signal indicators will flash.



CAUTION: When you are scanning, you can adjust the sensitivity button to the best location according to the work place you are.

Other functions

1.1 Earphone

Under a loud noise place to work, you can put on the earphone to avoid interference.

1.2 Low battery indicate

When the emitter's battery is lower than 3.5V, the power indicator will flash, which indicates user to charge.

When lower than 3.4V, the power indicator will flash more rapidly and then the device will be off automatically.

When the receiver's battery is lower than 6V, the power indicator will also flash, which indicates use to replace a new battery.

1.3 Power charging for the Lithium battery

Users need to charge for the battery when it is low. If you don't operate the device for a long time, you should also charge the battery regularly.

When charging for the battery, the CHG indicator turns red. If fully charged, the indicator will turn green. the whole charging process needs about 8 hours.

Technical parameters

Item	Standard	
Name	Anti-jamming underground cable detector	
Power supply	Emitter	DC 3.7V lithium battery
	Receiver	9V battery
Low battery indicate	Emitter	$\leq 150\text{mA} \pm 10\%$
	Receiver	$\leq 80\text{mA} \pm 10\%$
Working current	Emitter	$\leq 3.5\text{V}$ LED light flashing
	Receiver	$\leq 6\text{V}$ LED light flashing
Charging current	800mA	
Signal transmission format	Multi-frequency pulse	
Signal output level	21Vp-p	
Signal transmission distance	$< 10\text{km}$	
Signal sensitivity distance	0~2m	
Dimension (L×W×H)	Emitter	152×55×34 mm
	Receiver	252×45×28 mm
	One set	262×135×60 mm
Weight (battery include)	Emitter	0.143kg
	Receiver	0.200kg
	One set	0.343kg

Common faults maintain

Faults	Possible reasons	Maintenance methods
Start up, power LED not bright	1.LED power light was broken; 2.Battery low voltage; 3.PCB problem for the emitter;	1.Check the other functions; 2.Connect the power charging or replace battery; 3.Contact us directly;
Can open the device , but can't scan	1. sensitivity not adjust the best place; 2.PCB problem for the emitter;	To adjust the sensitivity;
Cannot adjust voice	PCB problem for the emitter	Contact our factory
Earphone cannot work	1. Earphone was broken; 2. PCB problem for the emitter	Earphone replaced;

CAUTION:

- 1.They are 2 versions for the Tone generator: high voltage (NF-820) & low voltage (NF-819), NF-820 can test low voltage and also can detect high voltage which with AC voltage cable.
- 2.Low voltage version for NF-819 cannot detect high voltage & AC voltage cables to protect personal safety.
- 3.When use NF-820 to detect live, make sure the insulation of the alligator clip is good to avoid electric shock.
- 4.Keep the device in a dry environment.

Standard packing

Name	Number
Tone generator	x 1ps
Amplifier probe	x 1ps
DC 9v battery	x 1ps
DC 3.7v lithium battery	x 1ps
5V 1A power charging adaptor	x 1ps
USB charging line	x 1ps
Earphone	x 1ps
User manual	x 1ps
Carry case	x 1ps
Color box	x 1ps
certificate of quality	x 1ps

Diagram of series products



NF-868



NF-268



NF-8601



NF-806B



NF-800



NF-816



NF-468L



NF-300



NF-2100



NF-708



NF-905



NF-911