

**NF-820**

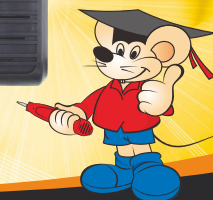
*Your excellent helper in cable test!*

# INSTRUCTION MANUAL

Anti-jamming underground cable detector



*Your excellent helper in cable test!*



VER: V4

## **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.

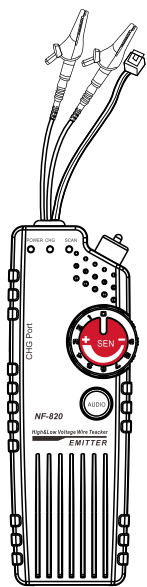
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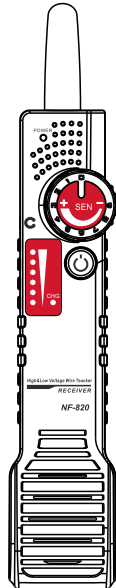
## Overview

NF-820 is a new breakthrough, 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 etc.



Tone generator



Amplifier probe

## Introduction

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

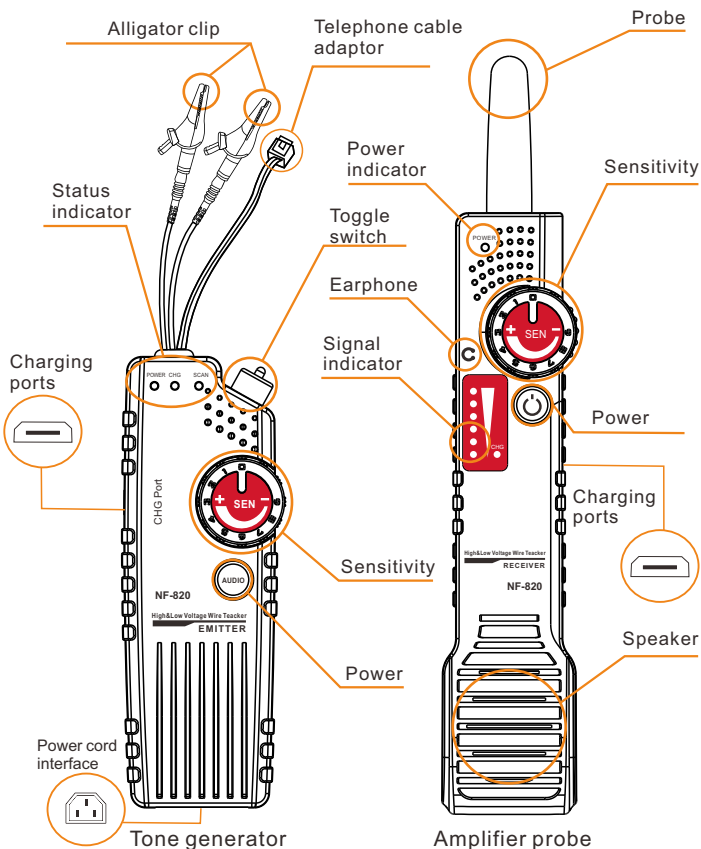
### 1.1 Features & Specification

- 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.
- 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.
- Rechargeable Lithium battery.

### 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. Toggle switch to "ON" place, the POWER led will light up to green , switch to " OFF" to turn down the device.
2. Adjust the Sensitivity signal button from 1-8, turn to 4 or 5 the signal will be more stronger to hear the trace voice , but 8 is the strongest.
3. Charging port to charge for transmitter when connect with Micro USB cable, the battery is 1800Amh.
4. Charging Indicator turns red, which means charging mode, indicator turns green, which means fully charged.
5. Press the AUDIO button enter SCAN mode to trace the target cable , at the same time , SCAN led will light up..

### 1.2 Receiver interface instruction

1. Sensitivity adjust signal strength and volume from 1-8.
2. Probe the device will generate "do do do" when probe get close to targeted cable.
3. Long press to turn on or turn off for the POWER button.
4. Earphone can help you identify the target voice when 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.

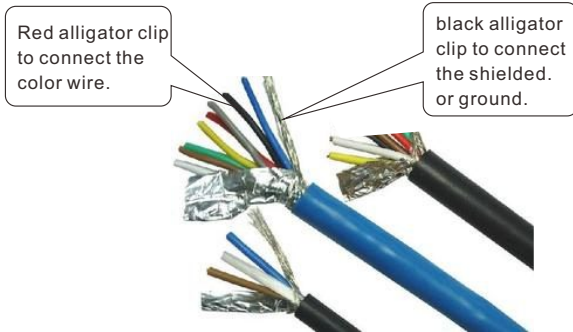
6. You can charge it when out of power , the charging port on the right middle side, the battery is 1100Amh.

## operating instructions

### 1.1 Scan mode

Firstly , Toggle the switch to "ON" to turn on the device ,and press AUDIO button if you enter the SCAN function , the POWER & SCAN led will light up.

Secondly,use the black alligator clip to connect ground, the red clip connects any core of the cable.Then adjust the sensitivity button from 1-8, choose the fittable number.



Thirdly, take the amplifier probe to the other side to detect the cables after restart , will send out the loudest voice when you closed the target wire. If 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.

## Usage method for Receiver.

1. Long press the power button to turn on the device.
2. When the "power" indicator is on, which means the receiver works well.
3. 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 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.

### 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	3.7V lithium battery 1800Amh
	Receiver	3.7V lithium battery 1100Amh
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	Same as Emitter
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.NF-820 can test low voltage and also can detect high voltage which with AC voltage cable.
- 2.When use NF-820 to detect live, make sure the insulation of the alligator clip is good to avoid electric shock.
- 3.Keep the device in a dry environment.

## Standard packing

Name	Number
Tone generator	x 1ps
Amplifier probe	x 1ps
3.7v lithium battery	x 2pcs
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