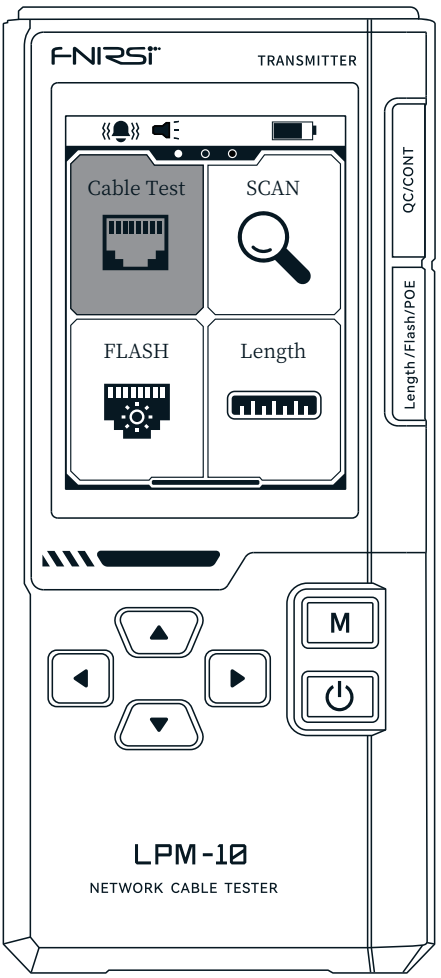
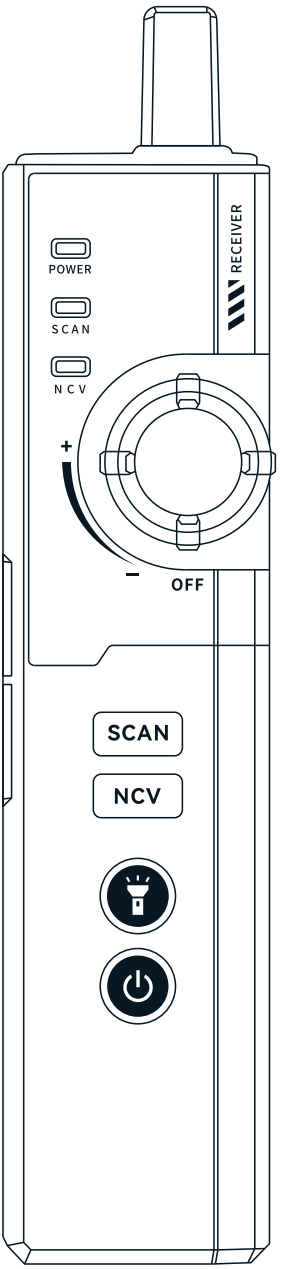
FNIRSI 菲尼瑞斯

LPM-10A | LPM-10B | LPM-10C

MULTIFUNCTIONAL CABLE TRACKER USER MANUAL V1.0

(Basic/Laser/Network)





※Please read this instruction manual carefully before using the product and keep it properly.

CONTENTS

1. SAFETY REQUIREMENTS

1.1 Environmental Requirements

Precautions

- Avoid high temperature, open flame, corrosive gas, humid or dusty environment to prevent equipment failure.
- When measuring, make sure that there is no debris in the connection port before connection to prevent the connection from being reduced and causing incorrect measurement results.
- Make sure the device is connected correctly. In the case of incorrect connection, the device may cause measurement errors.
- To ensure your user experience, please carefully follow the connection method in the instruction manual.
- Do not open the battery cover when measuring.

Keep away from the following items:

- Heaters: Avoid overheating or fire risks.
- Water, chemicals: Solvents: Leakage may damage the meter or cause a fire.
- Strong magnetic meters: Prevent magnetic fields from interfering with the normal operation of the meter.

Waste Disposal

Do not discard used batteries or meters with household waste. Dispose of in accordance with national or local regulations.

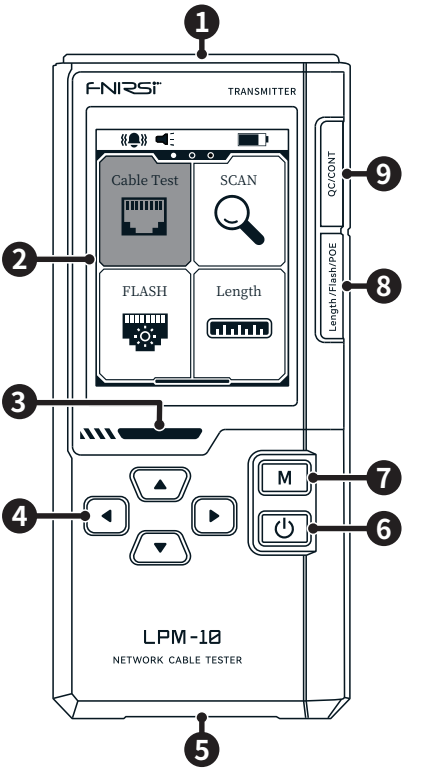
2. PRODUCT OVERVIEW

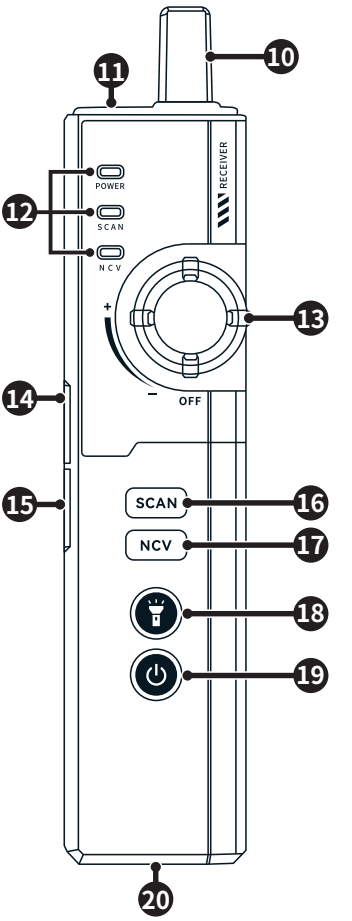
2.1 Product Introduction

LPM-10 is a multifunctional smart cable/wire tracker, designed for measuring and locating network cables. It plays a key role in network installation and troubleshooting. This device offers several features, including line detection, length testing, crimping check, network cable speed test, anti-interference, port flashing, cable docking, PoE power testing, non-contact voltage (NCV) detection, and a built-in flashlight. With easy operation, powerful functions, high accuracy, and wide applicability, it meets various needs in network setup, testing, and maintenance. Whether you are a network technician or manager, the LPM-10 can help you improve work efficiency, reduce difficulties, and ensure the network runs smoothly.

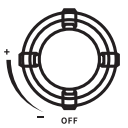
2.2 Product Description

①Wire tracing interface: RJ11/RJ45 connection port.
②LCD display: This area displays the function test results, color screen.
③Function indicator: Idle is blue, error is red, and correct is green.
④Selection key area: operation keys up, down, left, and right.
⑤Charging port with power cover: USB Type-C.
⑥Power on/off/return key: long press to power on, short press to execute the selected operation return key.
⑦Measurement/confirmation key: measurement key, selection operation confirmation key.
⑧Length measurement/end flash/POE interface: This interface is used for length test, port flash, and PoE test.
⑨Wire crimping/wire alignment interface: This interface is used for wire crimping test and wire alignment test.
⑩Probe: Enhance signal receiving capability, accurately locate the line position and adapt to different working environments.
⑪Lighting lamp: Light is emitted from here.
⑫Indicator lamp: Power indicator lamp, wire tracing signal lamp, NCV signal lamp.
⑬Sensitivity knob: Used to adjust the wire tracing sensitivity.
⑭Headphone jack: 3.5mm headphone jack.
⑮Receiver charging port with power cover: USB Type-C.
⑯wire tracing button: Switch wire tracing mode button.
⑰NCV button: Switch NCV mode button.
⑱Flashlight button: Turn on/off the lighting function.
⑲Power button: Long press to turn on/off the device power.
⑳RJ45 port: Used to connect the transmitter.





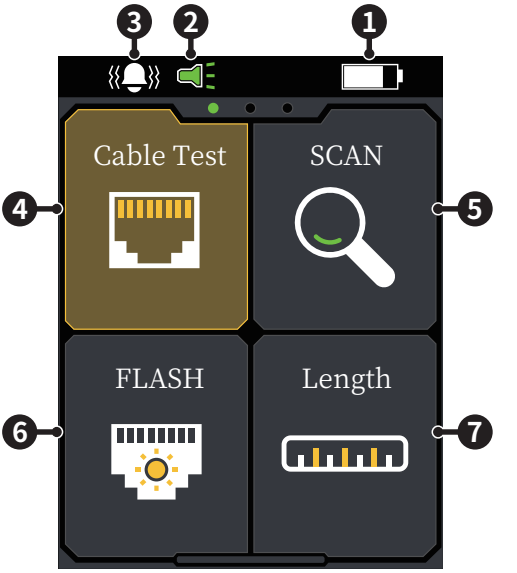
2.3 Receiver button description

Button	Operation	Function
⏻	Short Press	Power on the receiver device
	Long Press	Power Off the receiver device
	Rotate	Turn the knob clockwise to increase the wire tracing sensitivity
寻线	Short Press	The receiver switches to the wire tracing mode
NCV	Short Press	The receiver switches to the NCV mode
	Short Press	Turn on/off the flashlight lighting

2.4 Transmitter button description

Button	Operation	Function
⏻	Short Press	Operation Return Button
	Long Press	Device Power On/Off
	Short Press	Perform a selection operation
	Long Press	Left and right buttons wait for 1s, continuously perform selection operations, release the button to stop the operation
M	Short Press	It is the confirmation button in the operation interface. It is the measurement button in the test interface.

2.5 Multifunctional Intelligent wire tracing



① Power Indicator: Indicates the system power.
② Alarm Indicator: Reports error warnings during the wire tracing test.
③ Volume Indicator: Indicates the on status of the device volume, and the icon disappears when the volume is turned off.
④ Network Cable Docking: The function is network cable docking detection, which enables fast and convenient network cable connection.
⑤ Cable/wire Tracing Measurement: The function is wire tracing, which is divided into anti-interference wire tracing and ordinary wire tracing. It is used for network cabling, detection and maintenance, and can quickly locate the target cable.
⑥ Port Flashing: The function is port flashing, which can quickly locate and identify the network port connected to the wire tracing.
⑦ Length Test: The function is a length test, which measures the propagation time of the electrical signal in the cable to calculate the length of the cable. There are three units for measurement: inches, centimeters, and meters.
⑧ Crimp Test: The function is a crimp test, which ensures stable and accurate transmission of network signals by detecting the electrical connection between the internal metal sheet and the core wire of the network cable.
⑨ Network cable speed: The network speed can be quickly measured in duplex mode.
⑩ POE test: The test includes: power supply line pair, switch standard, power supply mode, standard protocol, power level.
⑪ Settings: This function module can set language, screen brightness, volume, automatic shutdown, about (device information and restore factory settings)

Button	Operation	Function
⏻	Short Press	Operation Return Button
	Long Press	Device Power On/Off

Button	Operation	Function
▲◀▶▼	Short Press	Perform a selection operation
	Long Press	Left and right buttons wait for 1s, continuously perform selection operations, release the button to stop the operation
M	Short Press	It is the confirmation button in the operation interface.It is the measurement button in the test interface.

2.6 System Settings

① Power Indicator: Indicates the system power.
② Language Settings: The left and right buttons can be set to Simplified Chinese/English.
③ Brightness Setting: The brightness can be set to 0~10 levels.
④ Volume Setting: The volume can be set to 0~10 levels.
⑤ Auto Shutdown: The left and right buttons can set the shutdown options: OFF, 5 minutes, 10 minutes, 15 minutes.
⑥ About: Display device information, and restore to factory settings through the Confirm key and the Return key.

Button	Operation	Function
⏻	Short Press	Operation Return Button
	Long Press	Device Power On/Off
▲◀▶▼	Short Press	Perform a selection operation
	Long Press	Left and right buttons wait for 1s, continuously perform selection operations, release the button to stop the operation
M	Short Press	It is the confirmation button in the operation interface.

3.TECHNICAL SPECIFICATIONS

3.1 Model Parameters

Parameters	Product Model		
	LPM-10A	LPM-10B	LPM-10C
Screen material	2.4-inch color screen		
Backlight	Adjustable backlight brightness		
Power supply	TYPE-C (5V/1A)		
Battery	1500mAh		
Language	Chinese, English		
Product size	≈152×68×31mm	≈167×68×31mm	≈152×68×31mm

3.2 Transmitter Parameters

Function	Description	Product Model		
		LPM-10A	LPM-10B	LPM-10C
Network cable connection test	Line interface:RJ45	✓		
	Line	✓		
	Line sequence and fault test	✓		
	Error prompt	✓		

Function	Description		Product Model		
			LPM-10A	LPM-10B	LPM-10C
wire tracing test	Normal wire tracing			✓	
	Anti-interference wire tracing			✓	
Port flashing	Full-duplex, half-duplex	Automatic identification		✓	
	Auto-negotiation, non-auto-negotiation			✓	
Network cable rate	10M/100M/1000M			✓	
	Duplex Mode (Full Duplex, Half Duplex)			✓	
Length test	⩽20M+/-1.6M, 20M~2.4M, ⩾100M+/-3.2M			✓	
POE test	Standard and Non-standard	Automatic identification		✓	
	End Jumper/ Middle Jumper/ 8-core Power Supply			✓	
	Power Supply Mode			✓	
	Power Level			✓	
Line pressure test	RJ45-8-core			✓	
Red light function	Optical Power Test Power 10mW		✗	✓	✗
Optical power Meter function	580/1300/1310/ 1490/1550/1625(Wavelength)		✗	✓	✗
PING test	IP Connection Ping Test		✗	✗	✓
IP scan	IP Scan		✗	✗	✓

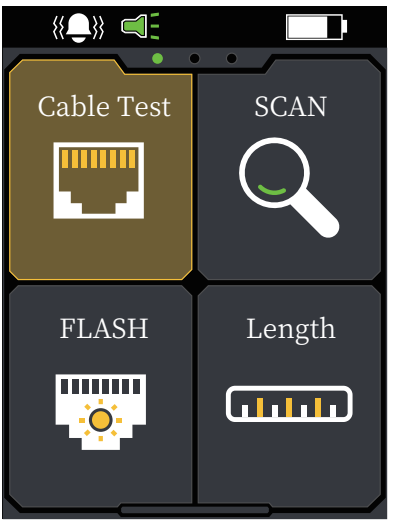
3.3 Receiver parameters

Receiver	Sensitivity adjustment	✓
	wire tracing method	Normal/anti-interference
	Line alignment	✓
	NCV detection function	✓
	Flashlight function	✓
	Low voltage warning	✓
	Headphone function	✓

4.OPERATION GUIDE

4.1 Power on

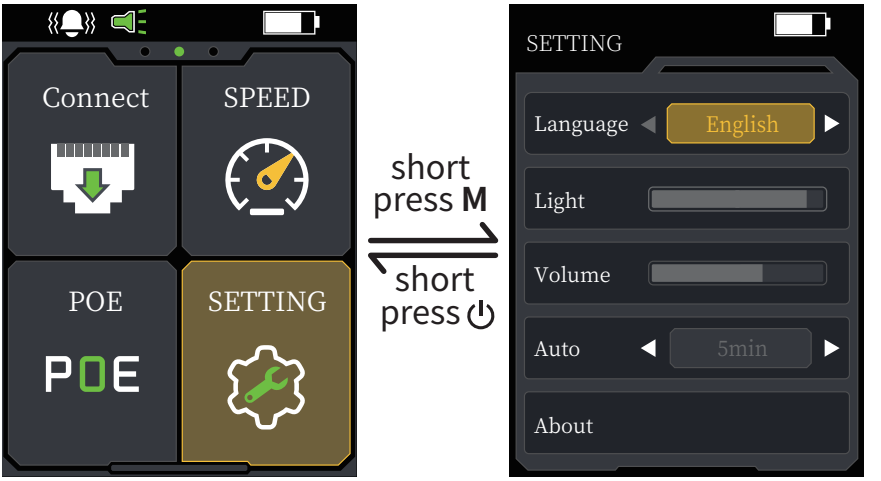
- Long press the power switch of the transmitter to turn on, wait for the system to load, and enter the main interface of the multifunctional intelligent wire tracing.
- Short press the power switch of the receiver to turn on. Quickly start the device.



Main interface

4.2 Language Settings

- Short press the select button on the transmitter main interface to switch to settings, short press the M confirmation button to enter system settings, short press the left and right buttons to switch languages arbitrarily, and save and exit.

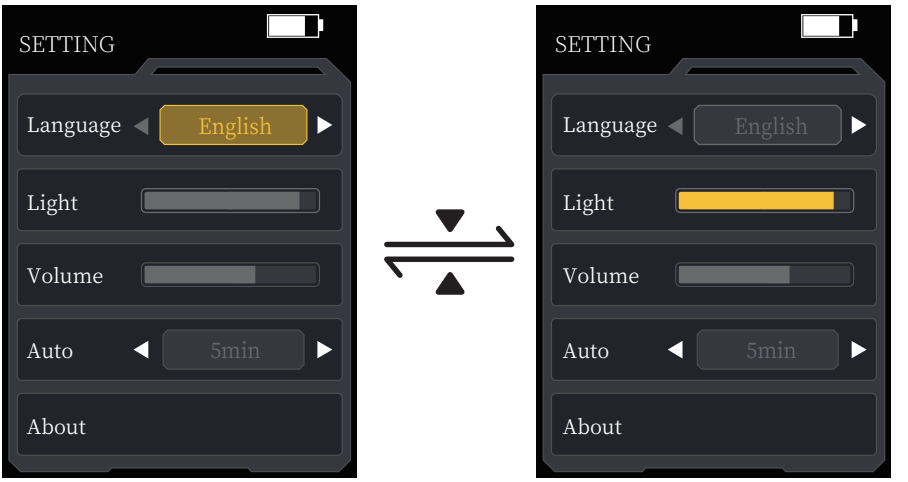


Menu **System setting**

4.3 Brightness adjustment

Brightness adjustment:

After turning on the transmitter and loading the system, the screen displays the default main interface of the transmitter. Short press the selection button to switch to the system settings, and then click the **M** confirmation button to enter the system settings. The user short presses the selection button to select brightness, and then clicks the **M** confirmation button to enter the brightness setting. Use the left and right selection buttons to adjust the screen brightness, and click again to save and exit to complete the brightness adjustment.



System Settings Other Function Adjustment:

The corresponding function selection and activation are roughly the same as the above operation navigation, and the step description is omitted.

5.QUICK START

5.1 Quick Measurement

- Turn on the multifunctional intelligent wire tracing, after the device is turned on, enter the system menu, select the corresponding test function, connect the interface, and start the test.
- View the measurement data on the main screen interface to quickly know the measurement results.
- Enter the system menu and select the setting function. You can set the device language, volume, screen brightness and other parameter settings.

5.2 Cable/wire Tracing Measurement

- Turn on the receiver and transmitter, enter the transmitter wire tracing function interface, there are two wire tracing methods: anti-interference wire tracing and ordinary wire tracing, select according to the actual use.

  Ordinary wire tracing: search through analog signals, strong discrimination, can quickly find the target cable.

  Anti-interference wire tracing: search through digital signals, less noise interference, high sensitivity.

  ※ It can quickly detect unshielded network cables and shielded network cables, suitable for engineering wiring, computer room maintenance, equipment update and other scenarios.
- Connect the transmitter port to the port waiting for wire tracing.
- Press the M button on the transmitter, and use the receiver to find the target line with the loudest sound in the harness, which is the target line to be found.

5.3 Port flashing

- Turn on the transmitter and connect the network cable to be tested to the end flashing interface on the side of the transmitter.
- Enter the transmitter system menu, select the function port flashing, and press the M button to enter this function.
- In the router or switch to be tested, the port indicator light connected to the test network cable will flash, accurately locating the line or port.

5.4 Length test

- Turn on the transmitter and connect the cable to be tested to the length measurement interface on the side of the transmitter.
- Enter the transmitter system menu and select the length test function. Use the left and right keys to select the measurement unit and press the M button to start the measurement.

- The device starts to automatically detect the line length.
- Finally, the device will display the measured length of the cable, and the length of the cable will be known after insertion.

5.5 Crimping test

- Turn on the transmitter and connect the crystal head of the cable to be tested to the crimping interface on the side of the transmitter (supports single-end).
- Enter the crimping test function to automatically determine whether the cable is crimped accurately.
- The transmitter screen will display the test results, ■ indicating that the crimping of the wire core is normal, ✕ indicating that the crimping of the wire core is abnormal.
- If a pop-up window appears on the test interface, long press the right button on the crimping test interface to calibrate.

5.6 NCV test

- Turn on the receiver, press the receiver **NCV** button, and switch to NCV mode.
- Put the receiver probe close to the test wires, sockets, etc. to quickly identify live equipment.
- When the probe is close to the live equipment, the receiver speaker prompts to avoid the danger of strong electricity.

5.7 Network cable speed test

- Turn on the transmitter and connect the network cable to be tested to the end flash interface on the side of the transmitter.
- Enter the network cable speed function of the wire tracing to measure the network cable speed.
- The device uses duplex mode to measure the network cable speed to ensure the accuracy of the network cable speed.

5.8 POE test

- Turn on the transmitter and connect the device to be tested to the POE interface on the side of the transmitter.
- Enter the wire tracing POE test function to quickly identify POE devices.
- In this test, the network cable switch standard, power supply mode, standard protocol, power level, and 8-core power supply status are detected, and the detection is more comprehensive!

※The receiver has a built-in flashlight function. Press the flashlight switch and turn on the lighting to experience auxiliary lighting!

5.9 Network cable docking test

- Turn on the transmitter and connect the network cable to be tested to the line interface on the side of the transmitter.
- Enter the transmitter system menu, select the function network cable docking, and press the M button to enter this function.
- Detect and calibrate the network cable sequence, short circuit, crossover, etc.

5.10 Optical Power Meter (LPM-10B)

- Turn on the transmitter and connect the optical fiber to be tested to the optical power interface on the left side above the transmitter.
- Enter the optical power meter function of the device. After inserting the test optical fiber, it automatically detects the optical fiber frequency, corresponding wavelength, optical power and other high-precision tests.
- The measurement results will be displayed and recorded in the corresponding function module, which is convenient for viewing the measurement data.

5.11 Red light function (LPM-10B)

- Turn on the transmitter and connect the laser line to the red light interface on the upper right side of the transmitter.
- Enter the device function menu and enter the red light function module.
- At this time, the laser is divided into three modes: fast flash, slow flash, and constant light.
- Note that when using the red light function, you cannot look directly at the laser, which is harmful to your eyes. Remember this.

5.12 PING test (LPM-10C)

- Turn on the transmitter and connect the network cable to be tested to the PING interface on the right side of the transmitter.
- Enter the device PING test interface, which will display the local IP, destination IP, number of Ping connections and sending time. The number of sends, number of receives and number of losses are displayed at the bottom.
- In order to successfully connect the device to the detection network, the IP needs to be set. The IP address is set according to the actual device to ensure that the IP connection is correct.
- After the IP is set, you can press the M button to perform a ping test to quickly test the network rate problem.
- The device can have multiple low-power Ping servers, and can also detect the response rate. Similarly, the website response speed can also be tested.

5.13 IP Scan (LPM-10C)

- Turn on the transmitter and connect the network cable to be tested to the IP interface on the right side of the transmitter.
- Enter the device IP scanning function, set the IP, and set the IP address according to the actual situation. The scanned IP address can be one or more.
- After confirmation, press the M button to start scanning.
- After the scan is completed, the wire tracing will display the scanned IP address and complete the function.

5.14 Firmware Upgrade

- Turn off the device, press and hold the M button and the power button at the same time, and the device will pop up the firmware update interface. Insert the USB Type-c data cable to connect the computer and enter the firmware update interface to upgrade the firmware.
- After entering the firmware update, the computer recognizes the U disk and directly copies the firmware file to the U disk.
- In the firmware update interface, long press the power button to shut down.

6.TROUBLESHOOTING

6.1 Unable to boot

Possible causes:

•Battery exhausted •Loose or damaged battery connection

Solution:

①Check battery charge and charge if low.

②If battery fails to charge or device still does not power on, try reinstalling or replacing the battery.

6.2 Screen does not display

Possible causes:

•The screen backlight is off. •Display hardware malfunction.

•System software abnormality

Solution:

①Check and adjust the backlight brightness settings according to the manual.

②Try restarting the device to ensure the system returns to normal.

③Try to disconnect the device from the power supply, disassemble the device, and reconnect the device power interface.

④If the screen still does not display properly, the display may need to be repaired or replaced.

6.3 Network cable test error

Possible reasons:

•There are debris in the test interface •Test interface aging

•System software abnormality

Solution:

① Clean the test interface and test again.

② If cleaning is ineffective, the test interface may need to be repaired and replaced.

③ Download the firmware upgrade file from the official website and update the system version.

7.MAINTENANCE

Cleaning the outside of the device

- **Frequency:** Clean once a month, depending on the usage environment.
- **Method:** Use a soft cloth to gently wipe the surface of the device. Avoid using chemical cleaners, especially those containing alcohol or strong acids or alkalis, to avoid damaging the casing or screen.
- **Note:**
  - Clean the dust around the device and buttons regularly to keep the device in good condition.
  - Ensure that no liquid, dust or debris enters the device interface.

Check the battery and power:

- **Battery maintenance:**For meter with built-in batteries, check the health of the battery regularly. Avoid complete battery discharge. It is recommended to charge regularly and avoid not using the device for a long time.
- **Charging specifications:**Use the official charger to charge, avoid overcharging or over-discharging, and ensure that the battery is in the appropriate operating voltage range.
- **Battery replacement:**If the battery shows excessive attenuation (such as failure to charge normally or extremely fast discharge), it should be replaced in time.

Storage and Carrying:

- **Storage environment:** The meter should be stored in a dry and ventilated environment, avoiding high temperature, high humidity or drastic temperature changes. Avoid placing it in direct sunlight.
- **Carrying:**Be careful to avoid falling when using, especially when carrying.

Software Update:

- Regularly check whether the device has new firmware to update. The latest firmware can fix known bugs and improve device performance.
- When updating, make sure the operation steps are correct, use the officially released firmware files, and avoid power outages or other interference.

Restore factory settings

- If the device is abnormal or does not work properly, try to restore the factory settings. After restoring the settings, the device will clear all custom configurations and return to the initial state.
- For methods to restore factory settings, please refer to the user manual or contact the manufacturer's customer service

8.CONTACT US

Any FNIRSI users who contact us with questions will receive our promise of a satisfactory solution, plus an extra 6-month warranty as a token of our appreciation for your support! By the way, we have created an exciting community, and we welcome you to contact FNIRSI staff to join.

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http://www.fnirsi.com/

9.WARRANTY INFORMATION

※**This page is the basic warranty card. Please keep it.**

Thank you for choosing our company's products. The warranty period of this product starts from the date of sale. During the product warranty period, if the product is installed and used in accordance with the product manual and used in normal environment and conditions, and the fault is caused by defects in the original materials and processing, you can enjoy free repair services according to the content of this warranty clause. Please keep this warranty card properly as a warranty certificate. No reissue will be issued if it is lost.

The following situations will incur paid repair services

1.Unable to present the original valid warranty card.

2.Damage caused by improper installation not meeting product requirements, standards, or relevant specifications.

3.Damage caused by accessories in the installation environment not meeting product requirements, standards, or relevant specifications.

4.Damage caused by improper use, improper storage, unauthorized disassembly, or unauthorized repairs by the user.

5.Expiration of the warranty period.

Warranty Card

Product Model	☐ **LPM-10A** ☐ **LPM-10B** ☐ **LPM-10C**	**Qty.**	
Distributor Name (where to buy)			
Contact			
Address			
Invoice Number (Order Number)			
Purchase Date (as per invoice)	**Year** **Month** **Day**		
User Name:	**Address:**		
Contact:	**Fault Description:**		

Download User Manual &
App & Software