1.Safety Requirements

1.1 Environmental Requirements

Precautions

- Avoid high temperatures, open flames, corrosive gases, humid or dusty environments to prevent equipment failure.
- Do not block the detection port of the meter during measurement to avoid affecting the measurement results.

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

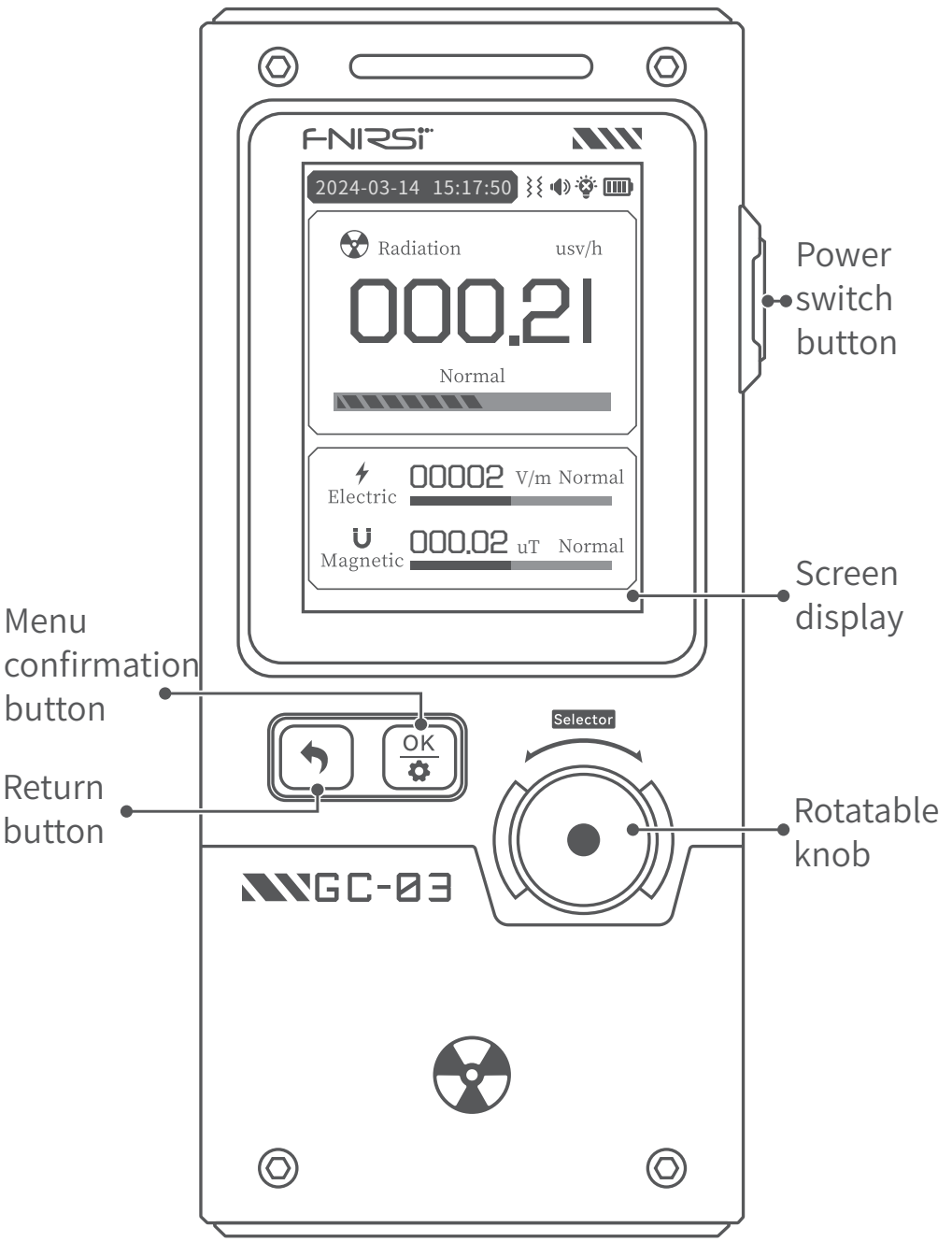
Do not discard used batteries or meters with household waste. Dispose of in accordance with national or local regulations.

2.Product Overview

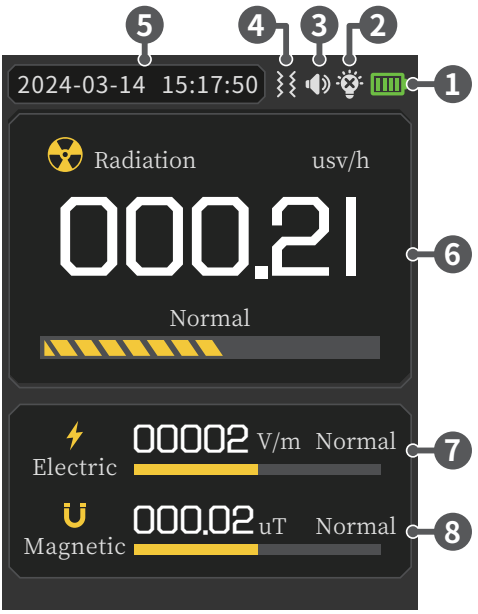
2.1 Product Introduction

GC-03 is a multifunctional radiation detector, a professional instrument for measuring nuclear radiation, mainly used in various occasions such as home, office, car, outdoor environment, etc. It uses a 2.4-inch high-definition color screen and supports real-time monitoring of nuclear radiation, electric field strength, magnetic field strength, etc. The meter supports three alarm modes: sound, vibration, and light.

2.2 Product Description



2.3 Main Page



①**Power Indicator:** Indicates the system power.

②**Indicator Light:** This area displays the activation status of the alarm indicator light.

③**Sound Indicator:** This area displays the activation status of the alarm sound.

④**Vibration Indicator:** This area displays the activation status of the alarm vibration.

⑤**Time and Date:** This area displays the year, month, day, and time. The time can be adjusted in the system settings.

⑥**Nuclear Radiation Detection:** This area displays the nuclear radiation value and corresponding unit measured by the meter in real time, and makes a danger judgment based on the set alarm threshold.

⑦**Electric Field Strength Detection:** This area displays the measured value and corresponding unit of the electric field strength of the environment where the meter is located, and makes a danger judgment based on the set alarm threshold.

⑧**Magnetic Field Strength Detection:** This area displays the measured value and corresponding unit of the magnetic field strength of the environment where the meter is located, and makes a danger judgment based on the set alarm threshold.

Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
OK ⚙	Short Press	Enter the setup menu interface
◉	Rotate	Can switch between the data curve interface, data list interface, and the main interface. Different monitoring interfaces provide diverse and reliable data analysis.

2.4 Menu Page



①**Page Return Indicator:** You can exit this interface by pressing the Return key.

②**Page Introduction Area:**Indicates that this operation interface category is a setting interface.

③**Alarm Settings:**Contains nuclear radiation settings and electromagnetic field settings.

④**Alarm Record:**Records the measurement data and time of the alarm during the measurement process.

⑤**Unit Settings:**Set the display measurement unit, you can set the nuclear radiation unit and magnetic field unit.

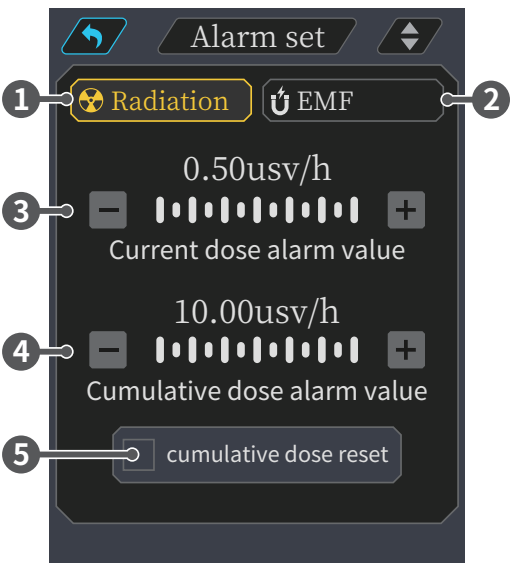
⑥**Function Settings:** You can set the style settings and automatic shutdown time.

⑦**System Settings:**Contains language switching, display | volume, alarm mode, system clock.

⑧**About:**Displays meter information and information related to restoring factory settings.

Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
OK ⚙	Short Press	Confirm to enter and select the corresponding function module settings
◎	Rotate	Adjust the knob to implement the selected function.
↩	Short Press	Return operation and exit the interface

2.5 Alarm Setting



①**Nuclear Radiation Setting:**This area is highlighted, indicating that the nuclear radiation setting has been entered and the corresponding adjustment settings are displayed.

②**Electromagnetic Field Setting:** If this area is highlighted, it means that the nuclear radiation setting has been entered and the corresponding adjustment settings are displayed.

③**Current Dose Alarm Value:** Use the knob to adjust the current dose alarm value. After saving the data, if the detection value reaches the alarm value, the meter will alarm.

④**Cumulative Dose Alarm Value:** Use the knob to adjust the cumulative dose alarm value. After saving the data, if the detection value reaches the alarm value, the meter will alarm.

⑤**Cumulative Dose Clear:** Select this option to clear the cumulative dose.

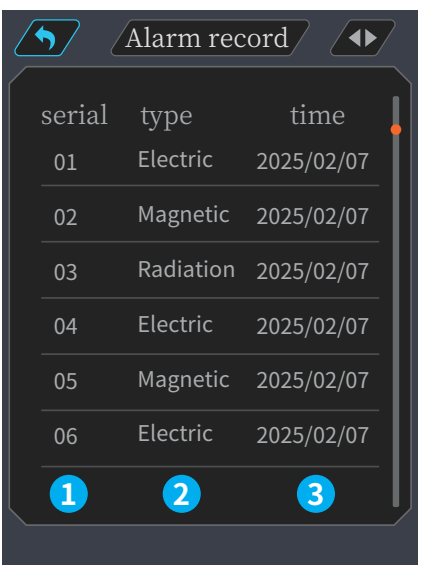
Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
OK ⚙	Short Press	Confirm to enter and select the corresponding function module settings
◉	Rotate	Adjust the knob to implement the selected function.
↩	Short Press	Return operation and exit the interface

2.6 Alarm Record

①**Serial Number:** Record the order of alarm records, increasing from small to large.

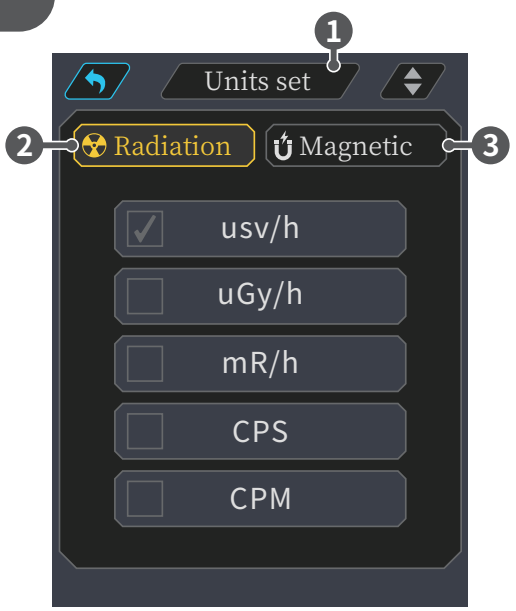
②**Record Type:** Record the type of data that triggers the alarm, such as nuclear radiation, electric field strength, magnetic field strength, etc.

③**Time:** Record the trigger time of each alarm: year, month, day, time.



Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
◉	Rotate	Adjust the knob to implement the selected function.
↩	Short Press	Return operation and exit the interface

2.7 Unit Setting



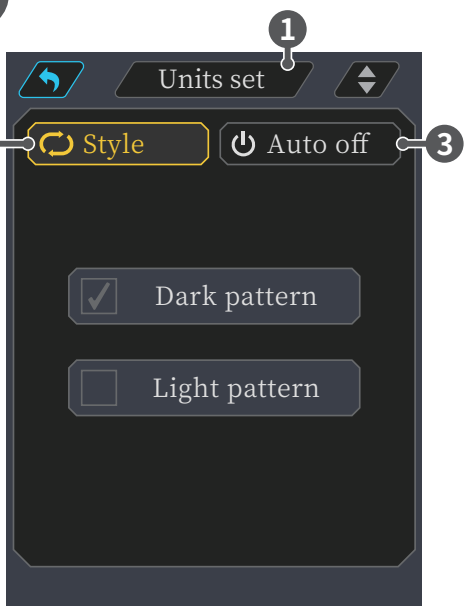
①**Page Introduction Area:**Explain the operation interface category and unit setting.

②**Nuclear Radiation Unit:**This area is highlighted, indicating that the nuclear radiation unit setting is entered and the corresponding unit is displayed. The corresponding unit can be selected by the knob and confirmation key. The units include: usv/h, uGy/h, mR/h, CPS, CPM, etc.

③**Magnetic Field Unit:**This area is highlighted, indicating that the magnetic field unit setting is entered and the corresponding unit is displayed. The corresponding unit can be selected by the knob and confirmation key. The units include: uT, mG, etc.

Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
OK ⚙	Short Press	Confirm to enter and select the corresponding function module settings
◉	Rotate	Adjust the knob to implement the selected function.
↩	Short Press	Return operation and exit the interface

2.8 Function Setting



①**Page Introduction Area:**Explain the category of the operation interface and unit settings.

②**Style Setting:**This area is highlighted, indicating that the style setting is entered and the corresponding function options are displayed. The dark mode and light mode can be selected by the knob and confirmation button.

③**Auto Powe Off:** This area is highlighted, indicating that the auto shutdown setting is entered and the corresponding setting content is displayed. The corresponding auto shutdown time can be selected by the knob and confirmation button. The options include:5min, 10min, 15min, off, etc.。

Button	Operation	Function
⏻	Short Press	Power On
	Long Press	Power Off
OK ⚙	Short Press	Confirm to enter and select the corresponding function module settings
◉	Rotate	Adjust the knob to implement the selected function.
↩	Short Press	Return operation and exit the interface

2.9 System Setting



①**Page Introduction Area:**Explain the category of the operation interface and system settings.

②**Language Switch:**This area is highlighted, indicating that the language switch is entered and the corresponding function options are displayed. Chinese and English can be selected through the knob and confirmation button.

③**Display | Volume:**This area is highlighted, indicating that the display | volume setting is entered and the corresponding setting content is displayed. The corresponding options can be selected and adjusted through the knob and confirmation button. The volume and brightness are adjusted in ten levels, among which the volume can be adjusted to mute and the minimum brightness can be adjusted to 10%.

④**Alarm Mode:** This area is highlighted, indicating that the alarm mode setting is entered and the corresponding setting content is displayed. The corresponding options can be selected and adjusted through the knob and confirmation button. There are three alarm modes: indicator light, vibration, and volume alarm. The three can be matched with each other and can be selected according to the user's wishes.

⑤**System Time:** By operating the knob, confirmation, and return buttons, the time setting can be completed. The setting items include year, month, day, hour, minute, and second.

Button	Operation	Function
	Short Press	Power On
	Long Press	Power Off
	Short Press	Confirm to enter and select the corresponding function module settings
	Rotate	Adjust the knob to implement the selected function.
	Short Press	Return operation and exit the interface

3.Technical Specifications

3.1 Model Parameters

Parameters	Specifications
Screen material	2.4-inch color screen
Backlight	Brightness Adjustable
Power supply	TYPE-C (5V/1A)
Battery	1500mAh
Languages	中文, English
Product size	≈138×63×32mm
Net weight	≈141g

3.2 Measurement Parameters

Parameters	Nuclear Radiation	Electric Field	Magnetic Field
Units	usv/h	V/m	μT
Accuracy	0.01usv/h	1V/m	0.01μT
Range	0.01usV/h-999.99usV/h	1V/m - 1999V/m	0.01μT-99.99μT
Radiation Power	0.2-1000mW/㎡		

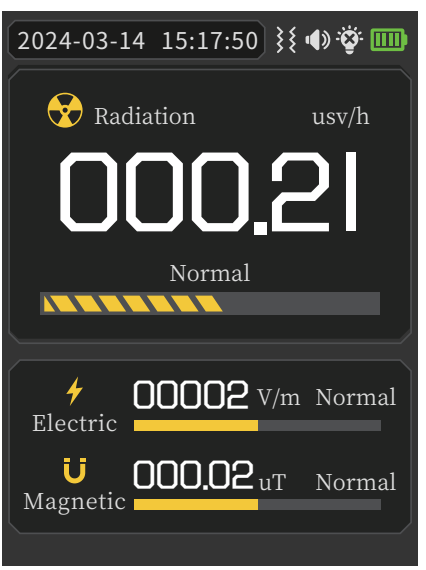
3.3 Nuclear Radiation Detection

Parameters	Specifications
Detection Radiation Type	Ionizing radiation (gamma rays, etc.)
Detector	Energy compensation GM tube (Gege counter tube)
Dose Current Rate	0.00-10000uSv/h (10mSv/h)
Cumulative Dose Equivalent	0.00uSv-500.0mSv
Energy Range	48keV-1.5Mev≤±30% (对137Cs-)
Sensitivity	80CPM/uSv
Dose Unit	uSv/h、uGy/h、mR/h、cps、cpm
Alarm Mode	Light, vibration, sound

4. Operating Instructions

4.1 Boot

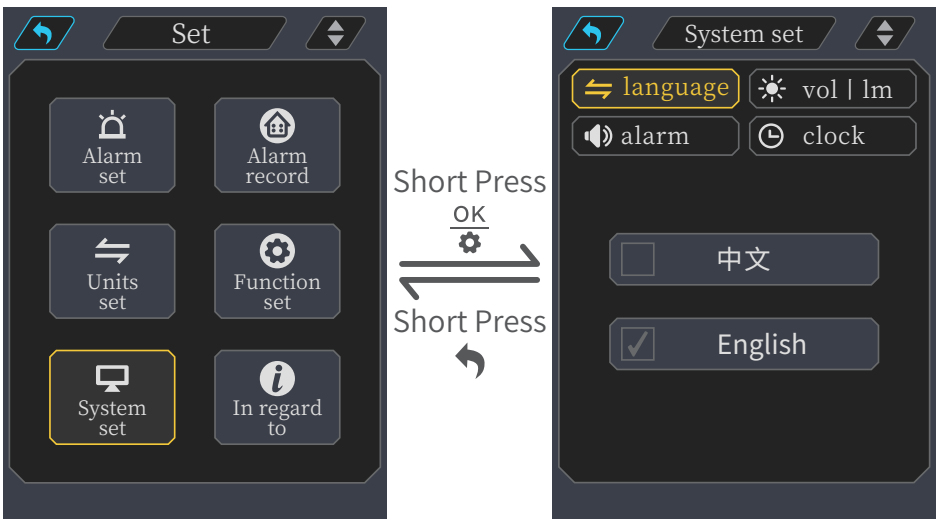
Short press the power button to turn on the device, wait for the system to load, and enter the main interface of the multifunctional radiation detector.



Main Page

4.2 Language Settings

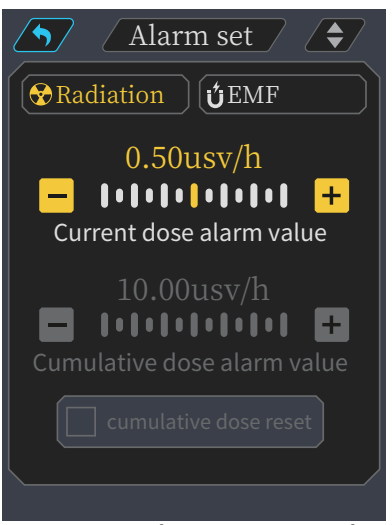
On the main interface, short press the **OK** button to enter the system menu, rotate the knob to select system settings, short press the **OK** button to enter system settings, rotate the knob to select language switching, then short press the **OK** button to enter language switching, rotate the knob to select Chinese or English, and short press the **OK** button to confirm.



Menu Page **System Setting Page**

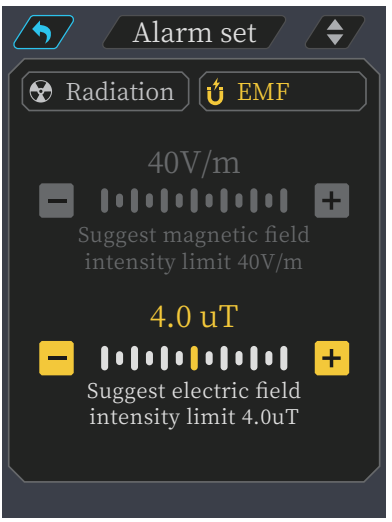
4.3 Setting the alarm thresholds for nuclear radiation and electromagnetic fields

Nuclear radiation alarm settings:



Short press the **OK** confirmation button on the main interface to enter the system menu, rotate the knob to select alarm settings, short press the **OK** confirmation button to enter the alarm settings, rotate the knob to select nuclear radiation settings, and short press the **OK** confirmation button to enter. Adjust the alarm value by rotating the knob, confirmation buttonn, and returning the button, and short press the return button to save and exit.

Electromagnetic field alarm settings:



Short press the OK confirmation button on the main interface to enter the system menu, rotate the knob to select alarm settings, short press the OK confirmation button to enter the alarm settings, rotate the knob to select nuclear radiation settings, and short press the OK confirmation button to enter. Adjust the alarm value by rotating the knob, confirming the button, and returning the button, and short press the return button to save and exit.

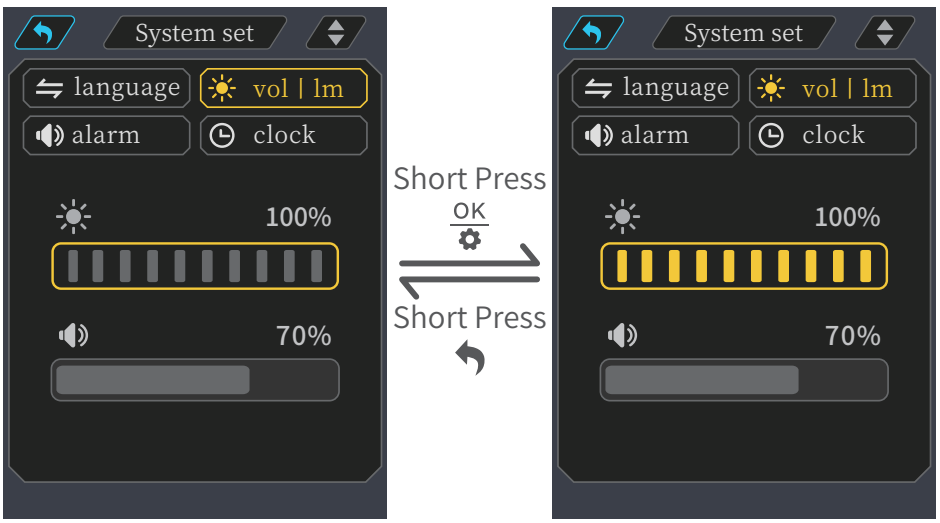
General Settings Other Function Adjustments:

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

4.4 Brightness Adjustment

Brightness Adjustment:

Short press the OK button on the main interface to enter the system menu, and rotate the knob to select System Settings. Short press the OK button to enter the system settings, and rotate the knob to select Display | Volume. Short press the OK button to enter Display | Volume, and adjust the display brightness by rotating the knob, confirming the button, and returning the button. Press the Return button to save and exit.



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 Guide

5.1 Quick Measurement

1.Turn on the multifunctional radiation detector. After the meter is turned on, it measures the nuclear radiation, magnetic field strength, electric field strength, etc. of the environment in which the meter is located in real time.

2.View the measurement data on the main screen interface, rotate the knob to switch the curve page, visualize the data, analyze the data and record the data.

3.Short press the OK confirmation button to select and enter the system menu. You can set the upper limit of nuclear radiation, electromagnetic field strength and other parameter settings.

5.2 Firmware Upgrade

- Turn off the device, long press the OK button and the power button at the same time, the device will pop up the firmware update interface, insert the USB Type-c data cable to connect the computer, enter the firmware update interface to upgrade the firmware.
- After entering the firmware update interface, the computer recognizes the USB flash drive, and the firmware file can be directly copied to the USB flash drive.
- 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.

③If the screen still does not display properly, the display may need to be repaired or replaced.

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. It is recommended to use a protective case or a special bag for 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.

SHENZHEN FNIRSI TECHNOLOGY CO.,LTD

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Tel: 0755-28020752

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E-mail:business@fnirsi.com (Business)

E-mail:service@fnirsi.com(Equipment Service)

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.

保修卡

产品型号	GC-03	数量	
渠道商名称 （购买商店）			
联系方式			
渠道商地址			
发票号 （订单号）			
购买时间	年　　月　　日		

客户姓名:	地址:
联系方式:	故障说明:

Warranty Card

Product Model	GC-03	**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:** 		



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