LK225
Game Security Guard

1. Product features

1.1 Standalone Operation Framework

✧ Integrated standalone design. Connect the main unit directly to the alarm device—no networking or additional units required.

✧ Supports single-node deployment for single-point protection, reducing deployment and operating costs.

1.2 High-Precision Interference Detection System

✧ Real-time detection of wireless high-frequency signals and high-voltage shocks.

✧ Built-in intelligent algorithms accurately identify cheating signals such as score and coin theft.

✧ CPU-based dynamic analysis minimizes false alarms caused by electromagnetic interference.

✧ Ultra-fast response with less than 50 ms delay from interference detection to alarm output.

1.3 Smart Diagnostic System

✧ Precisely identifies interference sources and displays the interference type on the LED in real time.

✧ 5-level adjustable sensitivity for reliable operation in complex electromagnetic environments.

1.4 Integrated Power-Off Protection

✧ Supports alarm-triggered power disconnection to cut power to external devices.

✧ The main unit has an independent power circuit and remains powered during alarm-triggered shutdown, ensuring continuous monitoring.

1.5 Intelligent Operation & Maintenance Management

✧ Supports automatic or manual reset after an alarm.

✧ Features 8 LED indicators for comprehensive status monitoring, including sensitivity, high-frequency interference, and electric shock interference, enabling precise fault identification and quick troubleshooting.

1.6 Multi-Output Power Supply

✧ Standard configuration includes one 3-pin socket and one terminal-block 220 V output, supporting both direct plug-in and hard-wired connections.

✧ Flexible power options meet diverse equipment power requirements across various applications.

2. Product Specifications

Working Voltage	AC100~230 V	Individual Packaging	Dimension	16*12.5*11.5 CM
Power Consumption	≤ 30 W		Gross Weight	0.56 KG
Working Temperature	-15 ~ +50 ℃	Carton Packaging	Package	30 PCS/CTN
			Dimension	65*34*37 CM
Alarm Volume	≤120 db		Gross Weight	17.4 KG ±5%

3. Function Description

3.1 Core Function & Status Indicators

3.1.1 Factory Default Settings

✧ The main unit is set to auto alarm and power-off modes by default, with sensitivity set to Level 3 (blue LED, medium sensitivity).

✧ The alarm lamp is set to sound-and-light alarm mode by default, with the volume set to the maximum level (b-5).

3.1.2 Device Status Display

✧ The main unit has 8 LED indicators, from left to right: Sensitivity, Power-On, Power-Off, Manual, Auto, High-Frequency Interference (RFI), Electric Shock (ESD), and Power. The Power LED remains ON continuously.

✧ Sensitivity: Indicates 5 sensitivity levels, with colors from low to high: Green (Level 1) → Indigo (Level 2) → Blue (Level 3) → Purple (Level 4) → Red (Level 5).

✧ Power-On / Power-Off: Indicates the external power output mode. Only one LED can be lit at a time.

✧ Manual / Auto: Indicates the alarm reset mode. Only one LED can be lit at a time.

✧ High-Frequency Interference (RFI) / Electric Shock (ESD): Indicates the type of interference detected. The corresponding LED stays on when triggered.

3.1.3 Alarm Status Description

✧ When an alarm is triggered, the corresponding interference-type LED on the device remains on. The alarm lamp LED flashes, and the display shows the corresponding alarm type.

✧ During an alarm, the alarm lamp operates in the configured mode (such as Buzzer + LED, Buzzer Only, or LED Only).

During an alarm, if the alarm lamp display shows:

- F01: wireless high-frequency alarm
- H01: high-voltage electric shock alarm

Alarm Logic of Different Mode Combination:

1) Auto Mode + Power-Off Mode (Factory Default): When an alarm is triggered, external power is cut off immediately. The alarm stops automatically after approximately 6 seconds and returns to standby. External power is automatically restored after approximately 10 seconds. Pressing any key during the alarm can manually clear the alarm and restore power.

2) Auto Mode + Power-On Mode: The alarm stops automatically after approximately 6 seconds and returns to standby. Pressing any button during the alarm can manually clear the alarm.

3) Manual Mode + Power-Off Mode: When an alarm is triggered, external power is cut off immediately. Pressing any button can manually clear the alarm. External power is restored after the alarm is cleared.

4) Manual Mode + Power-On Mode: The alarm remains active until any key on the device is pressed to manually clear the alarm.

Reset Rules of the Alarm Lamp:

Pressing any key on the device clears the alarm status of both the main unit and the alarm lamp. Pressing any key on the alarm lamp only clears its own alarm status and does not affect the operating status of the main unit.

3.2 Common Function

3.2.1 Sensitivity Setting (K1 Key):

Press the K1 key to cycle through the 5 sensitivity levels:

Level 1: Low sensitivity (green LED)

Level 2: Medium-low sensitivity (indigo LED)

Level 3: Medium sensitivity (blue LED, factory default)

Level 4: Medium-high sensitivity (purple LED)

Level 5: High sensitivity (red LED)

3.2.2 Power-Off / Power-On Mode Switching (K2 Key)

1) Press the K2 key to switch between Power-Off and Power-On modes.

2) Only one of the Power-Off and Power-On LEDs is lit.

3) Power-Off LED on: Power-Off Mode. External power is cut off when an alarm is triggered.

4) Power-On LED on: Power Supply Mode. External power remains on when an alarm is triggered.

3.2.3 Alarm Mode Settings (K3 Key)

1) Press the K3 key to switch between Manual and Auto modes.

2) Only one of the Manual and Auto LEDs is lit.

3) Auto LED on: Auto Alarm Mode. The system automatically returns to standby after an alarm remains active for a preset period.

4) Manual LED on: Manual Alarm Mode. After an alarm is triggered, press any key to manually clear the alarm.

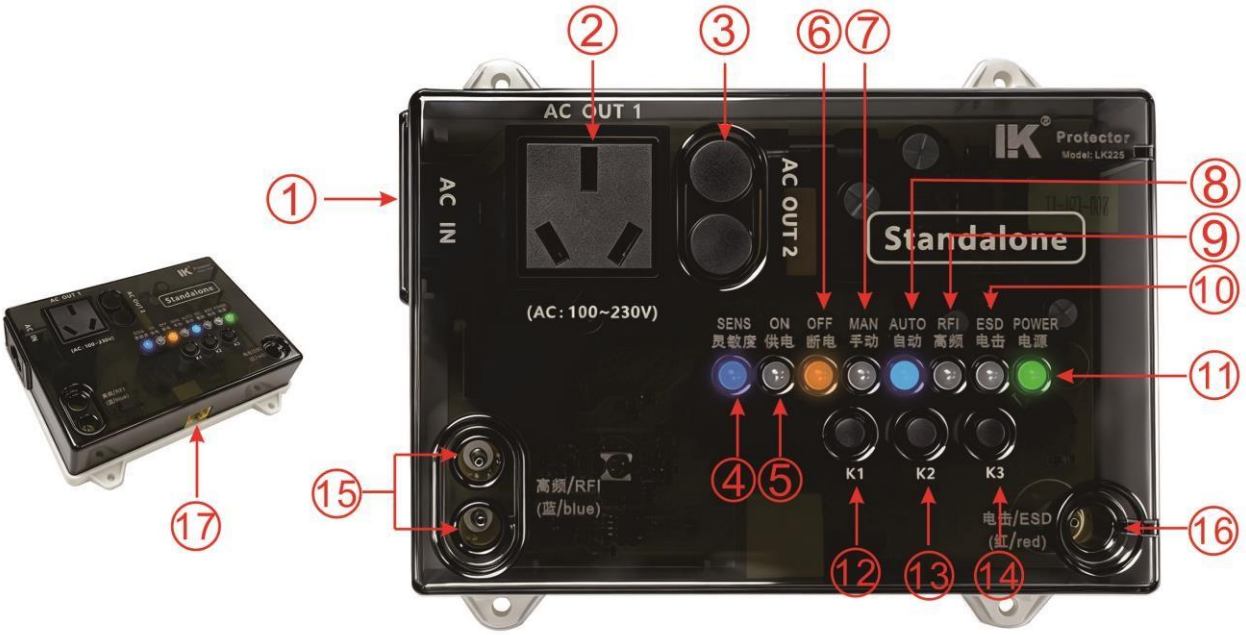
3.2.4 Alarm Lamp Volume Adjustment

✧ Press and hold the “+” key→ all indicators light up → release the key→ the display cycles.

✧ Press the “–” key to select the volume level (b-0 to b-5).

✧ Press the “+” key to confirm.

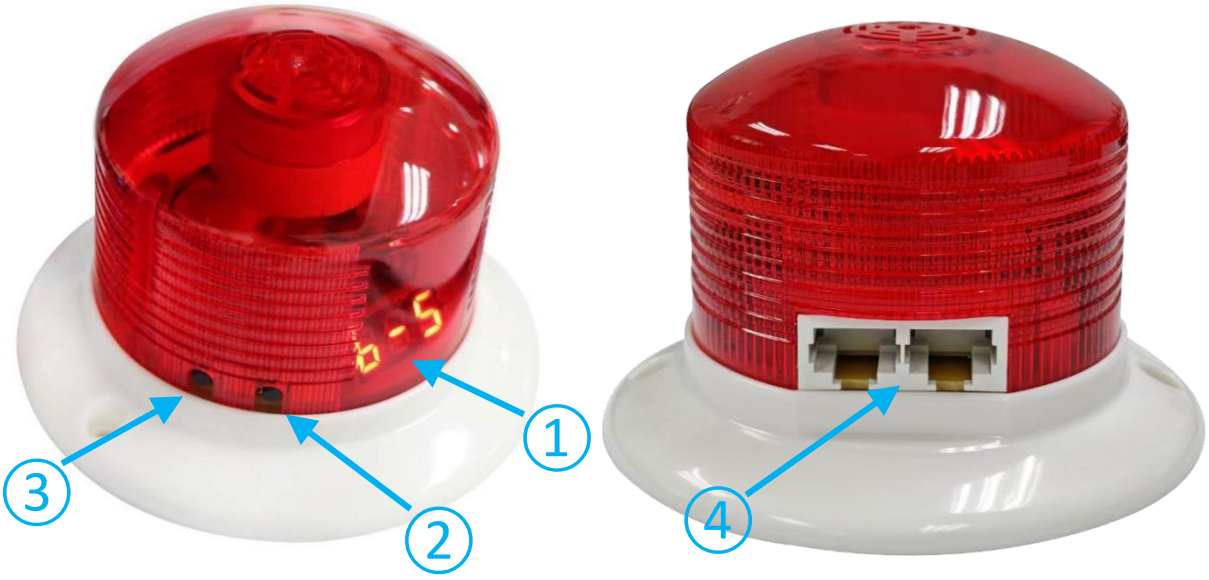
Host Machine



No.	Name	Function Description	Remarks
1	Power Input	AC power input	Operating voltage: AC 100–230 V
2	3-Pin Socket	AC power output	Output voltage matches the input voltage
3	Terminal Block Output	AC power output	Output voltage matches the input voltage
4	Sensitivity Indicator	Displays the current sensitivity level	5 levels, from low to high: Green → Indigo → Blue → Purple → Red
5	Power-On Mode Indicator	Stays on (yellow) in Power-On Mode	External power remains on when an alarm is triggered
6	Power-Off Mode Indicator	Stays on (yellow) in Power-Off Mode	External power is cut off when an alarm is triggered
7	Manual Mode Indicator	Stays on (blue) in Manual Alarm Mode	After an alarm is triggered, it can only be cleared by manually pressing any key. If Power-Off Mode is also enabled, external power will be restored immediately after the system returns to standby.

8	Auto Mode Indicator	Stays on (blue) in Auto Alarm Mode	The alarm is automatically cleared and the system returns to standby 6 seconds after the alarm is triggered. If Power-Off Mode is also enabled, external power is restored 10 seconds after the alarm is triggered.
9	Wireless High-Frequency Interference Indicator (RFI)	Indicates a wireless high-frequency alarm (red)	Stays on when a wireless high-frequency alarm is triggered
10	Electric Shock Interference Indicator (ESD)	Indicates an electric shock alarm (red)	Stays on when an electric shock alarm is triggered
11	Power Indicator	Indicates operating status (green)	Stays on when the power supply voltage is normal
12	K1 Key	Sensitivity Selection	Press K1 to select the desired sensitivity level
13	K2 Key	Power-Off / Power-On Mode Selection	Press K2 to switch between Power-Off Mode and Power-On Mode
14	K3 Key	Auto / Manual Alarm Mode Selection	Press K3 to switch between Auto Alarm Mode and Manual Alarm Mode
15	Wireless High-Frequency Interference Detection Cable	Receives wireless high-frequency interference signals	Wrap the anti-interference antenna (blue) around the power cables of the ticket dispenser and coin acceptor, then around the control panel cables and other areas susceptible to interference.
16	High-Voltage Electric Shock Detection Cable	Receives high-voltage electric shock signals	Attach the electric shock detection antenna (red) to the screws of the coin path, metal parts of the control panel, coin acceptor, ticket dispenser panel, and other connected metal components.
17	RJ45 Port	Communication interface	Connects to the alarm device

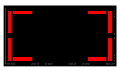
Alarm Lamp



No.	Name	Function Description	Remarks
1	Digtal Tube	Displays the volume level and alarm mode	In normal operation, displays the volume level from b-0 to b-5. b-0 indicates mute, while b-5 is the maximum volume.
2	“+” Key	Combination key used with the “–” key	Press and hold “+” → All indicators light up → Release → The display cycles → Press “–” to enter the volume setting page, then press “–” to select the volume level and “+” to confirm → Press “+” and “–” simultaneously to return to the previous page. Pressing either key will clear an alarm.
3	“–” Key	Combination button used with the “+” key	Press and hold “–” → All indicators light up → Release → The display cycles → Press “+” to enter the alarm mode setting page, then press “+” to select the mode and “–” to confirm. Pressing either key will clear an alarm.
4	Dual RJ45 Ports	Alarm device communication and power interface	No specific port order. Either port can be connected to the device using a network cable.

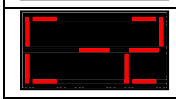
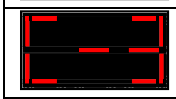
4. Alarm Lamp Settings

Changing the Alarm Mode:

4.1 Press and hold the “–” key until all indicators light up, then release it. The display cycles. 

2. Press the “+” key to enter the alarm mode settings.
3. Press the “+” key repeatedly to select the desired mode.
4. Press the “–” key to confirm.
5. Press the “–” and “+” keys simultaneously to return to the previous step.

Appendix 1: Alarm Mode Menu Overview

No.	Name	Function Description
	Alarm Mode 1	Alarm LED and buzzer are both enabled
	Alarm Mode 2	LED alarm only
	Alarm Mode 3	Buzzer alarm only

5. Detailed Explanation

5.1 Sensitivity Adjustment

1) A higher sensitivity level means a lower detection threshold and a higher likelihood of triggering an alarm. If frequent false alarms occur during use, lower the main unit's sensitivity as needed. If detection is insufficient, increase the sensitivity.

2) Sensitivity adjustment applies only to wireless high-frequency interference alarms. High-voltage electric shock alarms do not have adjustable sensitivity levels.

5.2 Antenna Installation Guidelines

1) Wireless High-Frequency Detection Antenna (Blue): Insert the dual-ended plug into the corresponding port on the main unit. Wrap the other end around the power and signal/control cables of the ticket dispenser, coin acceptor, and other cables susceptible to interference. At least 5 turns are recommended. More turns provide stronger signal detection.

2) High-Voltage Electric Shock Detection Antenna (Red): Connect the terminal to the corresponding port on the main unit. Attach the alligator clip to a metal part of the equipment enclosure, ensuring good contact. Route the red antenna separately from other cables and avoid wrapping it around other cables to prevent false alarms.

5.3 Operation and Usage Instructions

1) In Power-Off Mode, only the external equipment power circuit is disconnected. The main unit remains powered continuously and continues to monitor interference signals during an alarm.

2) Power-Off/Power-On Mode and Auto/Manual Reset Mode can be combined freely. Alarm logic and power restoration rules for each combination are detailed in the Function Description section.

3) The total cable length between the main unit and alarm device should not exceed 200 m to avoid signal attenuation that may affect alarm transmission.

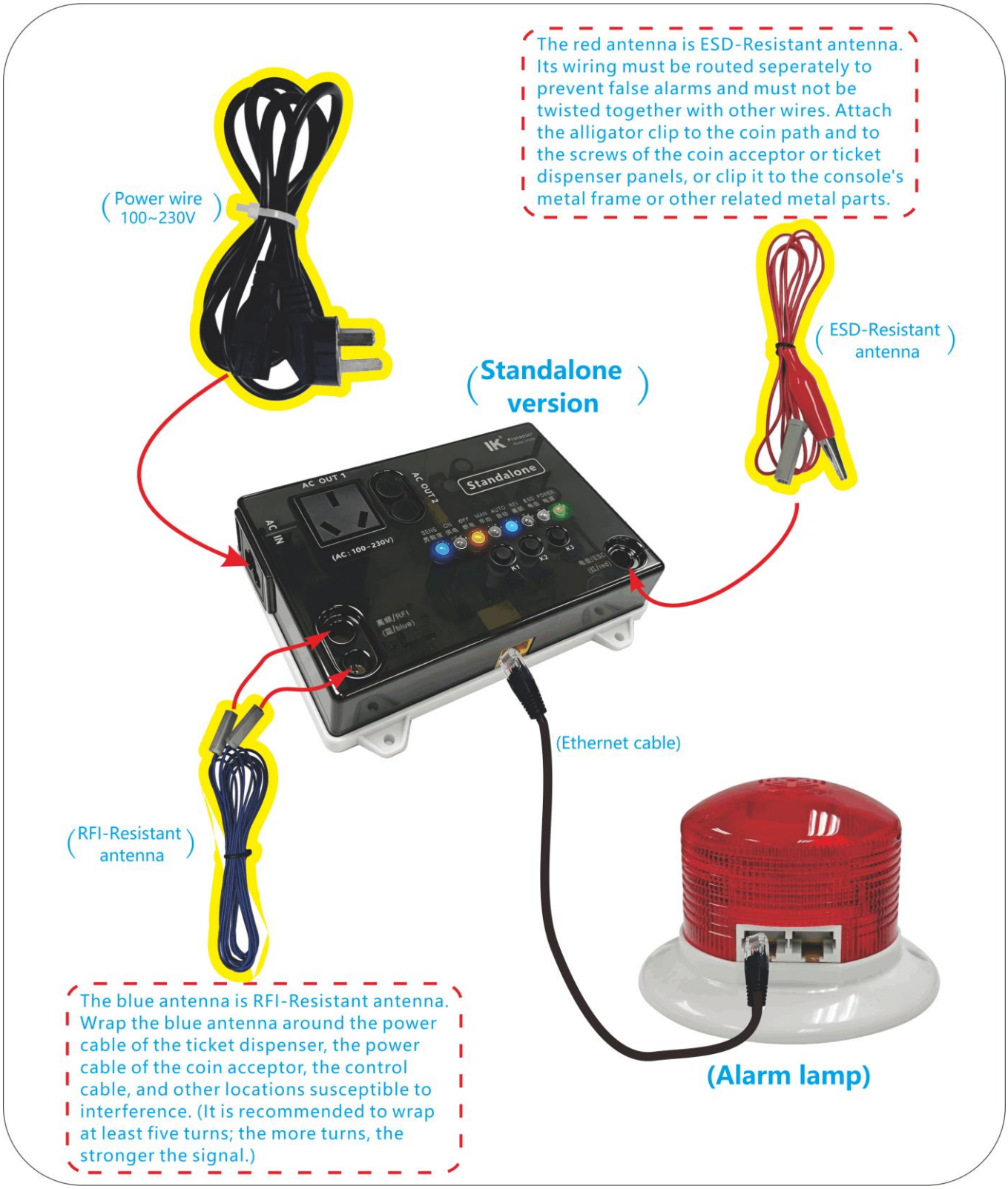
5.4 Factory Default Settings Summary

1) Main Unit: Auto Alarm Mode, Power-Off Mode, Sensitivity Level 3 (blue LED).
2) Alarm Lamp: Audible and visual alarm mode, Volume b-5 (maximum).

6. Fault Handling

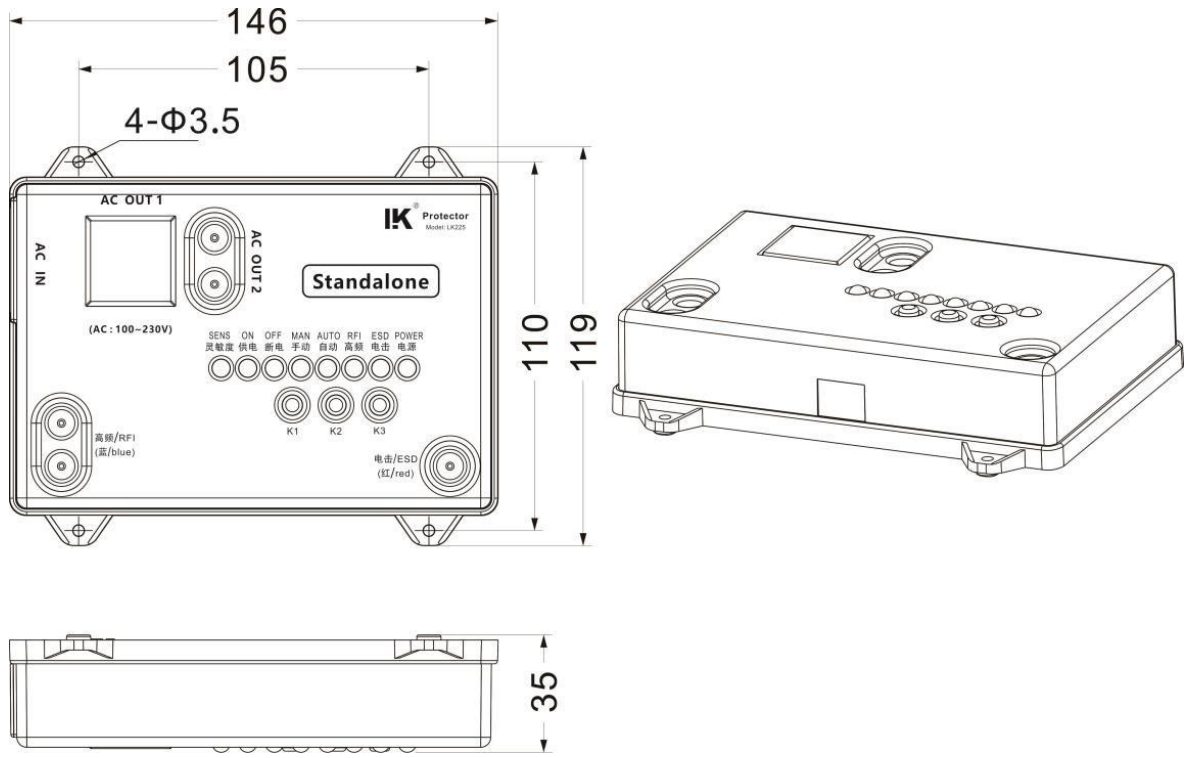
No.	Fault	Solution
1	No response / Status indicators not lit	Check whether the input is properly connected and whether the external power supply is functioning normally.
2	No alarm when exposed to wireless high-frequency interference	A. Check whether the wireless high-frequency interference detection antenna (blue) is properly connected to the main unit. B. Check whether the antenna is installed correctly as specified. Position it as close as possible to areas susceptible to interference. C. Adjust the main unit's sensitivity.
3	No alarm when exposed to electric shock interference	A. Check whether the electric shock detection antenna (red) is properly connected. B. Check whether the alligator clip of the electric shock detection antenna (red) is securely attached to a metal part of the equipment enclosure and has good contact.
4	Intermittent false alarms	A. Reduce environmental interference from sources such as power supplies, large motors, welding machines, and high-power wireless transmitters. B. Adjust the main unit's sensitivity. C. Reduce the number of turns of the wireless high-frequency interference detection antenna.
5	External power output not available	Check whether the wiring at the external power output interface is loose.
6	Alarm lamp does not receive alarm signals	Check whether the network cable connection between the alarm device and main unit is secure. Try replacing the network cable to verify.

7. Usage Diagram

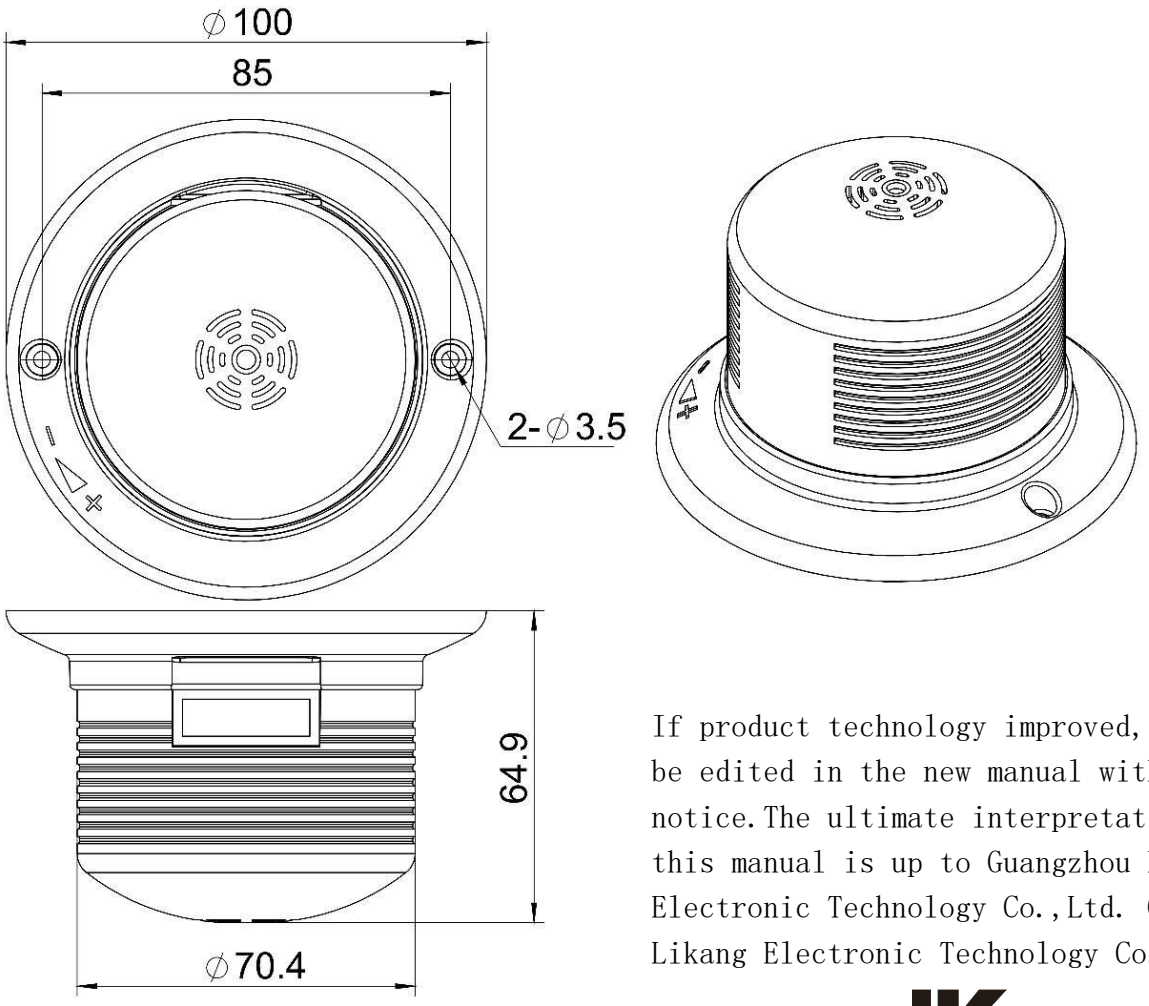


8. Product dimension diagram

● LK225 Host Machine Dimension Diagram:



● LK225 Alarm Lamp Dimension Diagram:



If product technology improved, it will be edited in the new manual without notice.The ultimate interpretation of this manual is up to Guangzhou Likang Electronic Technology Co.,Ltd. Guangzhou Likang Electronic Technology Co.,Ltd.

www.lk.cm