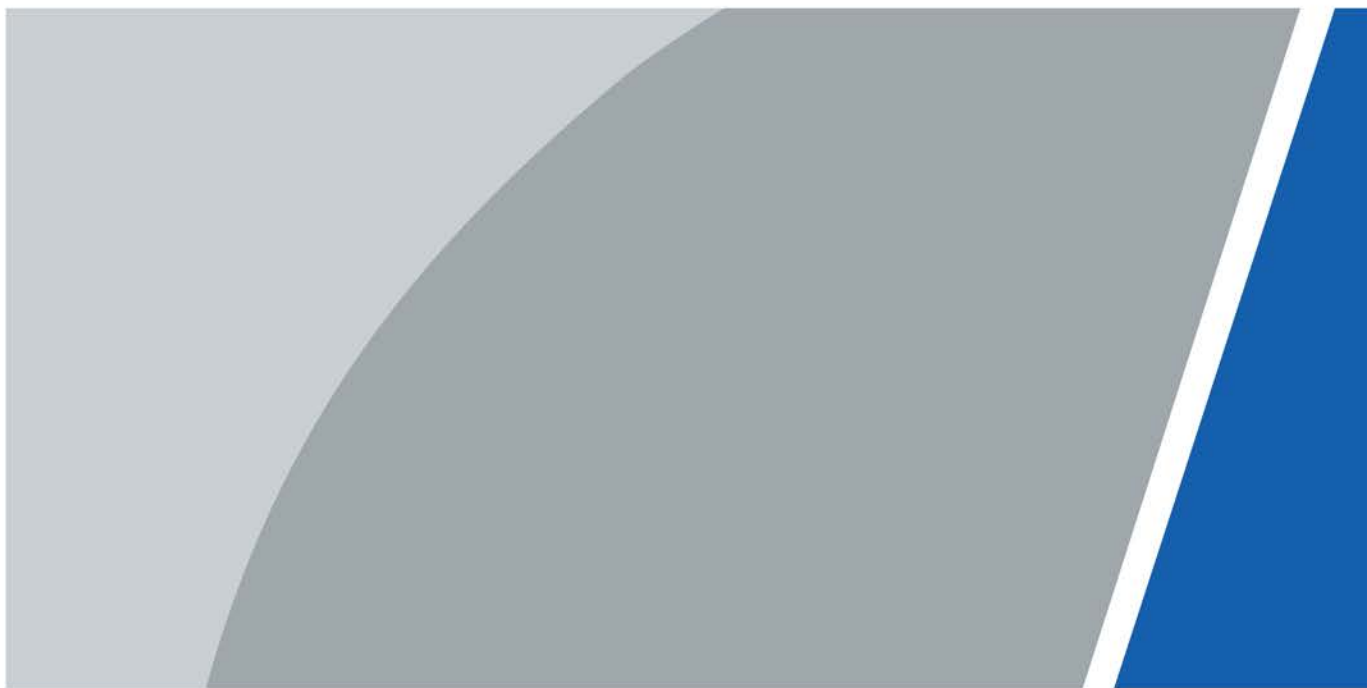


Walk-through Metal Detector

User's Manual



V1.0.0

Foreword

General

This manual introduces the functions and operations of the walk-through metal detector (hereinafter referred to as the "Device").

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	April 2024

Interface Declaration

This manual mainly introduces the relevant functions when you use the Device. The interfaces used for manufacture, returning to the factory for inspection, and locating fault are not described in this manual. Please contact technical support if you need information about these interfaces.

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and car plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit

our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.

- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the Device, hazard prevention, and prevention of property damage. Read carefully before using the Device, and comply with the guidelines when using it.

Transportation Requirements



Transport the Device under allowed humidity and temperature conditions.

Storage Requirements



Store the Device under allowed humidity and temperature conditions.

Installation Requirements



- Keep the Device installed horizontally or install the Device in a stable place, to prevent the Device from falling.
- Do not install or place the Device in a location that exposes it to sunlight or heat sources.
- Keep the Device away from dampness, dust or soot.
- Install the Device in well-ventilated places, and do not block its vent.

Operation Requirements



- We recommend using the Device indoors on a level surface; if used outdoors or on a non-level surface, we recommend securing it with screws.
- Do not drip or splash liquid onto the Device, and make sure that there is no object filled with liquid on the Device to prevent liquid from flowing into it.
- Operate the Device within the rated range of power input and output.
- Use the Device under allowed humidity and temperature conditions.

Maintenance Requirements



Do not disassemble the Device.

Power Requirements



WARNING

- Be sure to use the batteries as required, otherwise there might be risks of fire, explosion or combustion.
- When replacing batteries, use only batteries of models from the same manufacturer.
- Use the recommended power cables in the region and conform to the rated power specification.
- Use the power adapter provided with the Device; otherwise, it might result in people injury and device damage.



- Make sure that the power supply meets the SELV (Safety Extra Low Voltage) requirements and rated voltage conforms to the GB8898 (IEC60065) or GB4943.1 standard (IEC60950-1 or IEC62368-1 complies with Limited Power Source). The requirements of the power supply are subject to the device labels.
- Make sure that the power supply of the class I electrical appliance is connected to a power socket with protective earthing.
- The appliance coupler is a disconnection device. When using the coupler, keep the angle for easy operation.

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Appendix 1 Cybersecurity Recommendations	错误!未定义书签。

1 Overview

1.1 Introduction

The Device is a high-performance walk-through metal detector. It is light-weighted and has high metal detection sensitivity, strong anti-interference capabilities and stable performance. The device, made of high-strength special materials, is light-weighted and easy to transport and install. The Device has a modular design and is manufactured on unified assembly lines, ensuring the good stability. It also delivers a simplicity and user-friendly interface.

The walk-through metal detector is suitable for use in the following scenarios: Security screening of prohibited metal items in law enforcement sites such as public security, the procuratorate, tribunal, labor camp, and detention house. It is also suitable for security checks at the entrances of public spaces, including stadiums, entertainment places, airports, customs, exhibition halls and museums.

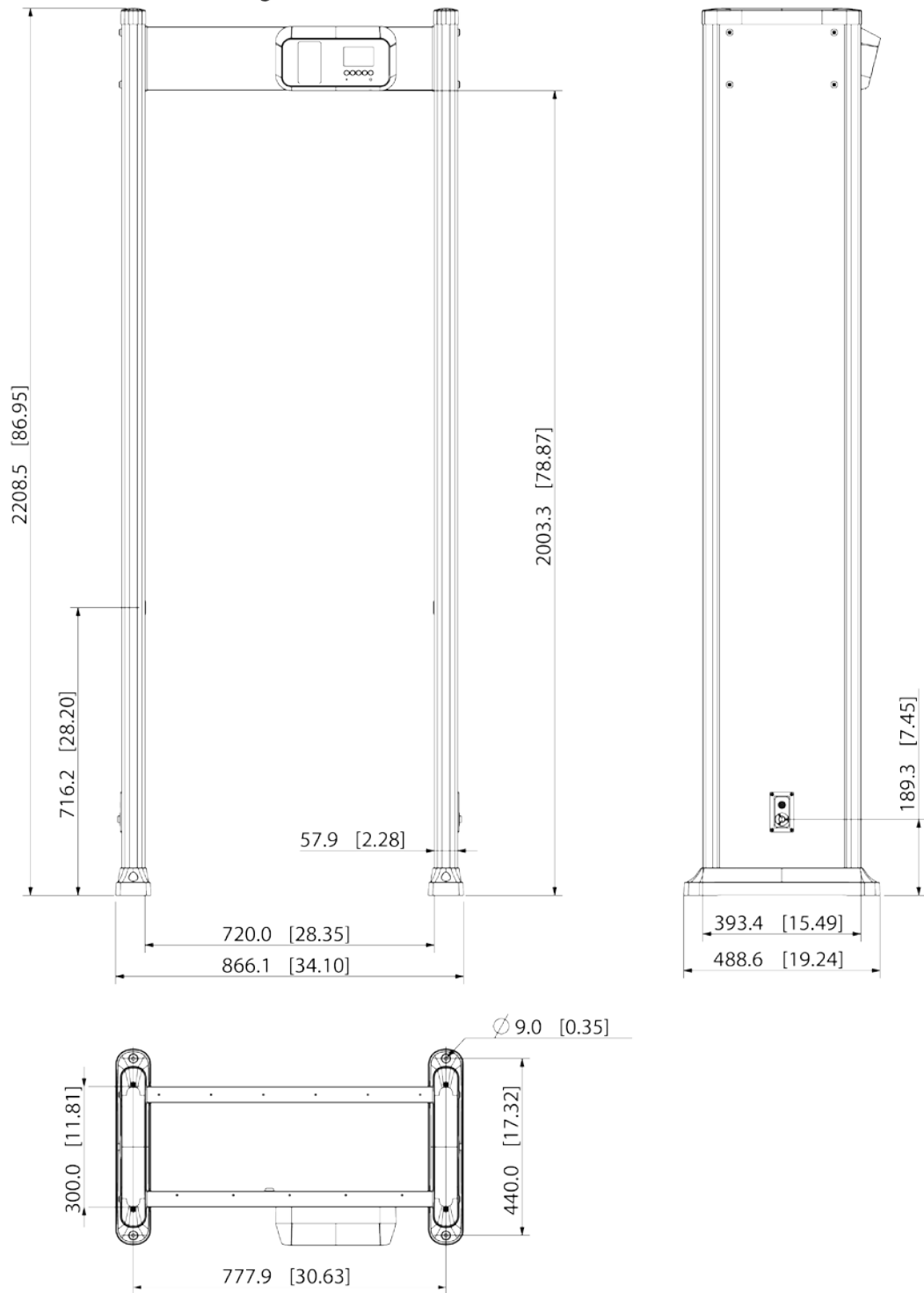
1.2 Technical Advantages

- **Multi-zone alarm**
Locate multiple metal positions at the same time.
- **Composite circuit design**
Designed with scattering infrared unit for fast sensing and automatic system identification, reducing false alarms and missed alarms, automatic counting of the number of alarms and the number of people passing through.
- **3 counting modes**
The number of people passing through is counted in flexible ways, applicable to various places.
- **Digital pulse technology**
With digital signal processing filtering system, it has excellent anti-electromagnetic interference capability.
- **Adjustable sensitivity**
Each detection zone has 9,999 sensitivity levels (0–9999). The zones can be adjusted to the appropriate sensitivity according to the detection requirements (the larger the value, the more sensitive of the detection).
- **Password protection setting**
Only by entering the correct password can you modify the program, sensitivity and other parameters. The password consists of six characters, and can be set by the user.
- **Magnetic field emission technology**
In line with the international safety standards, it adopts weak magnetic field technology, which is harmless to people wearing cardiac pacemakers, the pregnant and other personnel, and at the same time, has no effect on floppy disks, film, video tapes and so on.

2 Structure

2.1 Dimensions

Figure 2-1 Dimensions (mm [inch])



2.2 Port

Figure 2-2 Port (1)

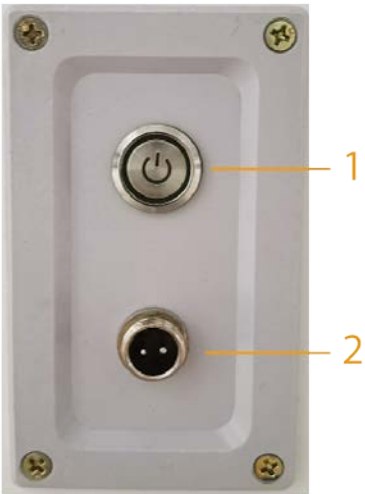


Figure 2-3 Port (2)

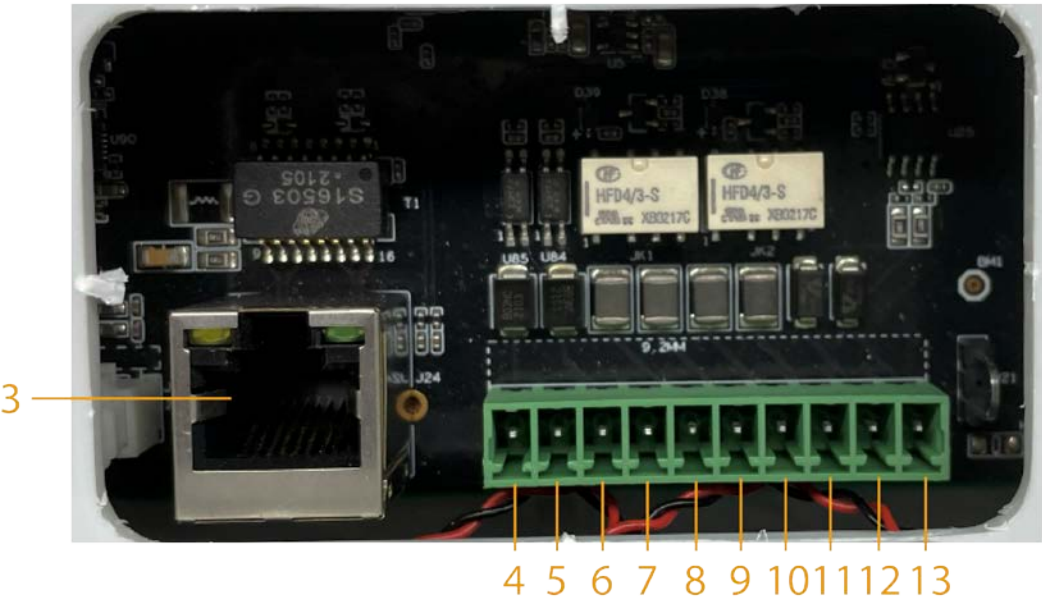


Figure 2-4 Port (3)



Table 2-1 Port description

No.	Name	Description
1	Power supply switch	Turns on or off the Device.
2	Power input port	Connects to power cable to get power supply.
3	Ethernet port	Connects to network with network cable.
4	Alarm in +	Receives the signal of external alarm source.
5	Alarm in –	 When connecting to external alarm source, only port 4 and port 5, port 6 and port 7 can be used together.
6	NC	Reserved port.
7	NC	
8	Alarm out NO	Outputs alarm signal to alarm device.
9	Alarm out NC	 - When connecting to alarm device, only port 8 and port 9, port 10 and port 11 can be used together. - Alarm out is only available on ISC-D118.
10	NC	Reserved port.
11	NC	
12	RS-485 B	Controls external devices, such as PTZ.
13	RS-485 A	
14	DB25	Signal port for metal detection.
15	Power in	Inputs 12 VDC power. Be sure to supply power as instructed in the manual.  Device damage might occur if power is not supplied correctly.
16	Power out	Outputs 12 VDC power.  Supports connecting to a thermal camera.

3 Installation

3.1 Checklist

After receiving the product, check against the table below. If there are any problems, contact the after-sales service personnel.

Table 3-1 Checklist

No.	List		Description
1	Overall packaging	Appearance	Obvious damage
		Packaging	Accidental impact
		Accessories (see Table 3-2)	Complete or not
2	Host	Appearance	Obvious damage
		Model	Whether consistent with the order contract

Table 3-2 Packing list

Name	Quantity
Detector panel	2
Host box	1
Beam	2
Power cable (power input)	1
DB25 cable	2
Fixing screws (M6 × 16)	4
Fixing screws (M8 × 80)	8
Remote controller	1
Wrench	1
Storage Battery	1
Key	1
Power adapter	1
DC to DC power cable	1
Quick start guide	1

3.2 Environment Requirements

- Keep away from fixed metal objects.
Large metal objects that are fixed or immobile should be at least 50 cm away from the detector (detecting large metal objects), to avoid false alarm.
- Keep away from moving metal objects.
Large moving metal objects should be kept at least 100 cm away from the Device to avoid false alarms.



When installing the Device at factory gates and first floor of buildings, pay attention the impact of rolling gates, iron security doors and mesh iron doors on the Device. The larger the area of the metal object, the greater the distance between the Device and the door.

- The installation ground is flat and sturdy.
The installation ground should be flat and sturdy, so that no false alarms will be caused by device shaking when people move around. Do not install the Detector on a metal ground.
- Keep away from sources of electromagnetic interference and electromagnetic radiation.
The Device uses bilateral transceiver technology, so when installing the Device, keep the Device at least 100 cm away from electromagnetic interference sources and electromagnetic radiation sources, to avoid false alarms.



Sources of electromagnetic interference and electromagnetic radiation that might affect the Device include: electrical control boxes, radio frequency devices, electronic computers and peripheral devices, video monitors, high-power motors, high-power transformers, AC power cables, thyristor-triggering circuits (high-power switching power supplies, inverter welders), engines, machines with motors, and fluorescent lamps with electronic ballasts attached.

- Keep away from windy locations.
Avoid windy locations when installing the Device; otherwise the door of the Device is easy to sway slightly when influenced by the wind, resulting in false alarms.
- Keep distance among devices when installing several devices of different series side by side.
When installing more than one device, turn on the automatic frequency setting function, and turn on the power in sequence, so that the frequency of each device will not repeat, and the distance between the devices should not be less than 50 cm.

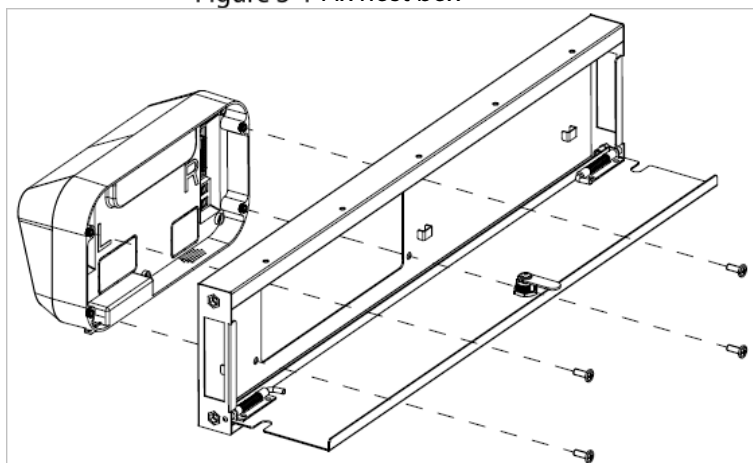


When using devices side by side, the devices will influence each other to a certain degree, which is related to the distance between the devices and the choice of operating frequency.

3.3 Installing Device

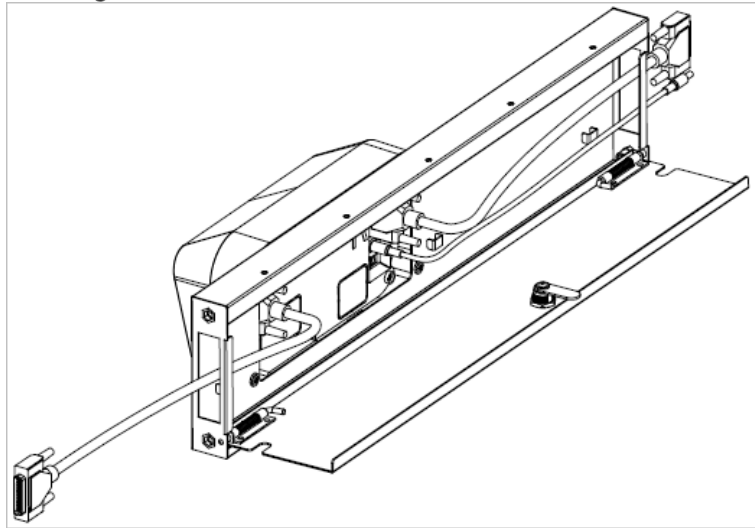
- Step 1** Check whether the package is complete and open the box.
- Step 2** Take out the accessories from the box.
- Step 3** Open the front beam with the key, and then fix the host box to the front beam with four M6 × 16 screws.

Figure 3-1 Fix host box



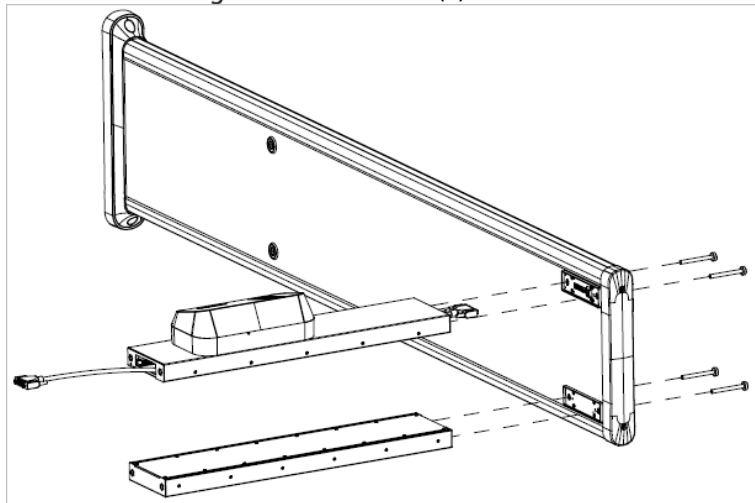
- Step 4** Connect two DB25 cables and one power cable to the host box, and then run the two DB25 cables through the two holes at the two ends of the beam separately. Select one end of the beam, and then run the power cable.

Figure 3-2 Connect DB25 cables to host box



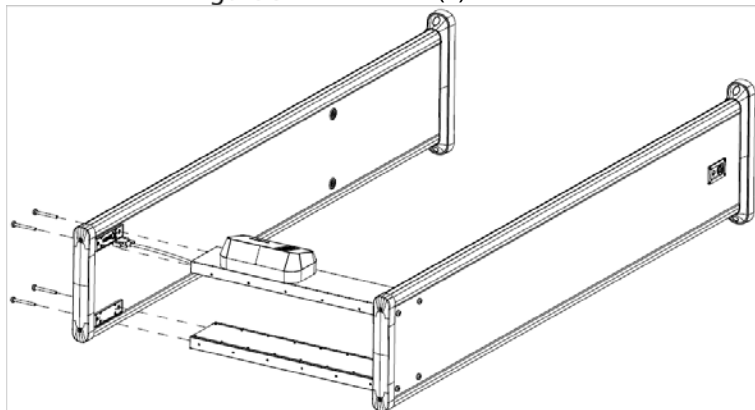
Step 5 Connect one end of the two DB25 cables and power cable to one detector panel, and then fix the front beam and rear beam to the detector panel with four M8 × 8 screws.

Figure 3-3 Fix beams (1)



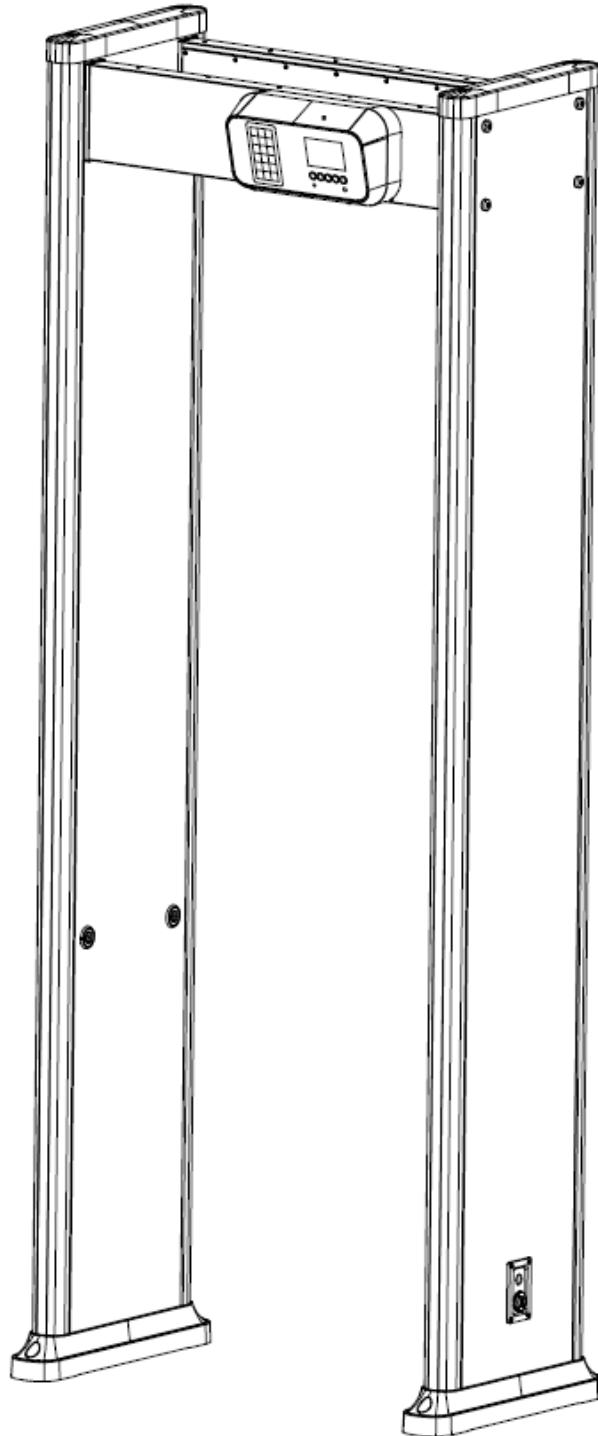
Step 6 Connect the other end of the two DB25 cables and power cable to one detector panel, and then fix the front beam and rear beam to the detector panel with four M8 × 8 screws.

Figure 3-4 Fix beams (2)



Step 7 Stand the Device up.

Figure 3-5 Stand the Device up



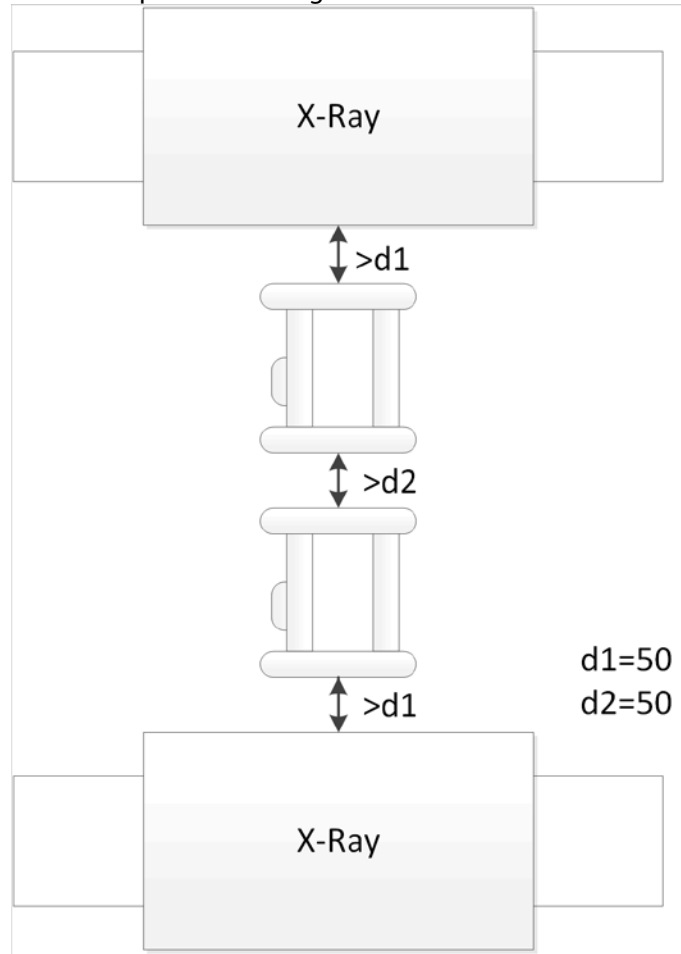
Step 8 Connect the power supply to the Device, and then turn on the power switch to start the Device.

3.4 Multiple Walk-through Detectors Site Installation

When installing multiple devices, space the devices at least 50 cm, and also space the device and X-ray larger than 50 cm. This recommended spacing can make the little metal objects (such as coin) detected. If you install the devices with space smaller than 50 cm, there might be false alarm. If the spacing needs to be shortened because of limited installation site, you need to adjust the frequency, lower the security level and sensitivity according to the actual situation; otherwise, small metal objects might not be detected. If there is strong interference, you can open the broadband function

according to Chapter 4.3.6, and then set different frequency of more than 2 frequencies for each device. Such as the frequency of the Device A is 2, the frequency of the Device B is 5 or more, stagger the settings.

Figure 3-6 Multiple walk-through detectors site installation



3.5 Stabilizing Device

To make the Device work normally, stabilize the Device before use by tightening the fixing screws.

Figure 3-7 Tighten the fixing screws



4 Configuration

4.1 Configuration Panel

Figure 4-1 Configuration panel

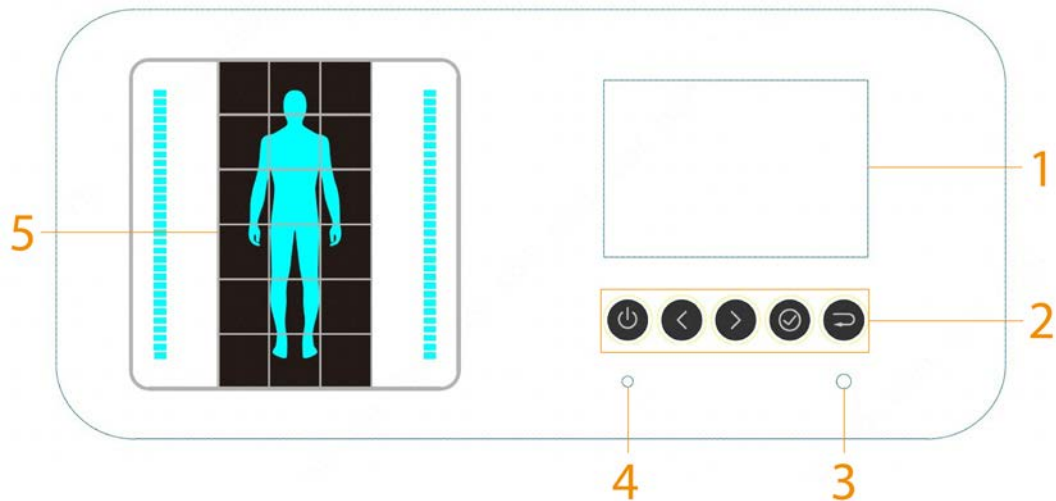


Table 4-1 Configuration panel description

No.	Description	
1	Displays number of passes, alarm times, signal strength bar, mode (normal, test, or alarm), current working frequency, volume and time.  - With increase of the detected metals, the color will grow from green to red. There are 10 degrees: Degree 1-4 is green, degree 5-7 is yellow, and degree 8-10 is red. When the degree is up to 8, an alarm will be triggered. - Different colors of mode icon indicate different modes: - Yellow: Test mode. - Green: Normal mode. - Red: Alarm.	
2		- Power switch. Turn on or off the Device. - Press and hold the button for 3 s to clear the counting data.
		Select buttons. Press  or  to move the cursor.
		- Go to the parameter setting page. - Set parameter value. - Confirm and save settings.
		Returns to the previous menu or exits the menu setting page.
3	IR sensor.	
4	Power indicator light.	
5	Displays metal position indication with 18 indicators (red zone).	

4.2 Remote Controller

You can set the parameters of the Device remotely through the remote controller. Install the batteries before using the remote controller.

Figure 4-2 Remote controller



Table 4-2 Operation description

No.	Name	Description
1	Power	Turn on or off the Device.
2	Reset	Press the button, and the number of passes and alarm times will be cleared.
3	Direction	- Press the buttons to switch and select menus. - When setting a parameter, press left or right button to move the cursor, and then press up or down button to change the number or parameter value.
4	Confirm	- Go to the parameter setting page. - Confirm and save the setting.
5	Menu	Press the button to switch menus quickly. If the current parameter is the last one, press this button to switch to the first one.
6	Back	Returns to the previous menu or exits the menu setting page.
7	Home	Go to the home page.

4.3 Device Operations

4.3.1 Password Setting

4.3.1.1 Login

You can log in to the Device with the default password (000000). Change the password the first time you use it.

Step 1 Connect the power supply, press the switch button.
The main page is displayed.

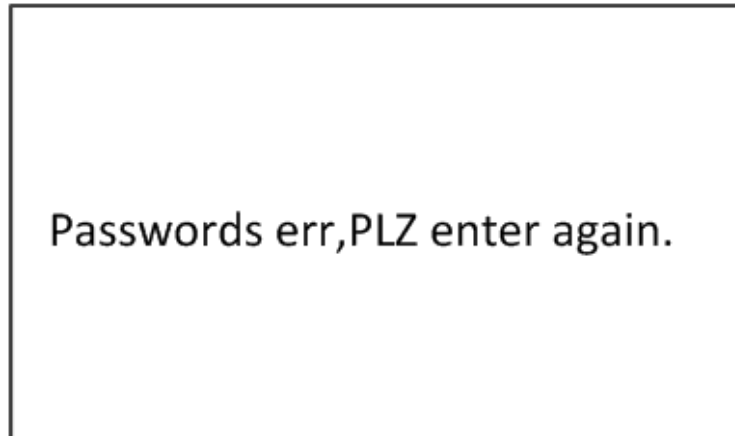
Step 2 Enter the password.

Press ◀ or ▶ to move the cursor, and then press ⏹ to set the number.

Step 3 Press ▶ to move the cursor to **OK**, and then press ⏹ to confirm the password.

If the password is wrong, the error note will be displayed.

Figure 4-3 Password error



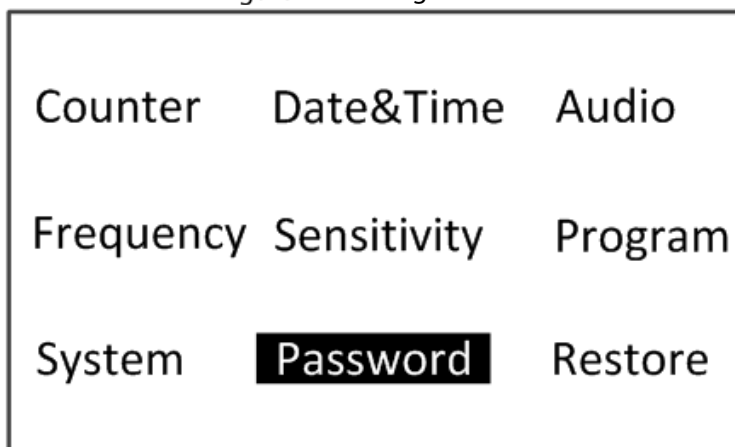
4.3.1.2 Changing Password

Change the password regularly for the device safety.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press ◀ or ▶ to move the cursor to **Password**, and then press ⏹ to go to the password setting page.

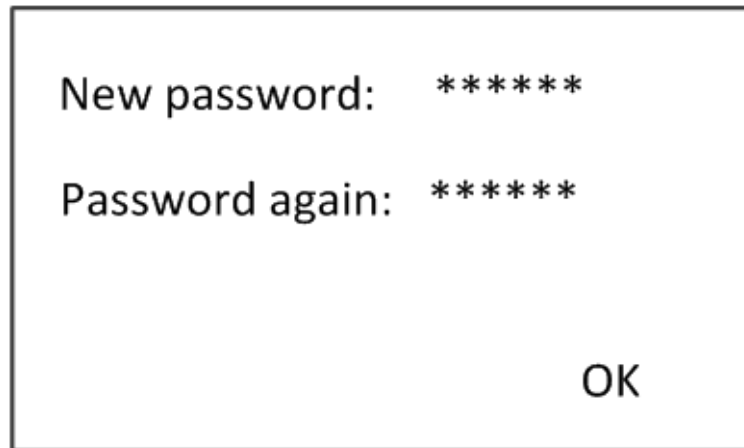
Figure 4-4 Setting



Step 3 Enter a new password, and then confirm the password. Move the cursor to **OK**, and then press ⏹ to confirm the setting.

For details of entering password, see "4.3.1.1 Login".

Figure 4-5 Password setting



New password: *****

Password again: *****

OK

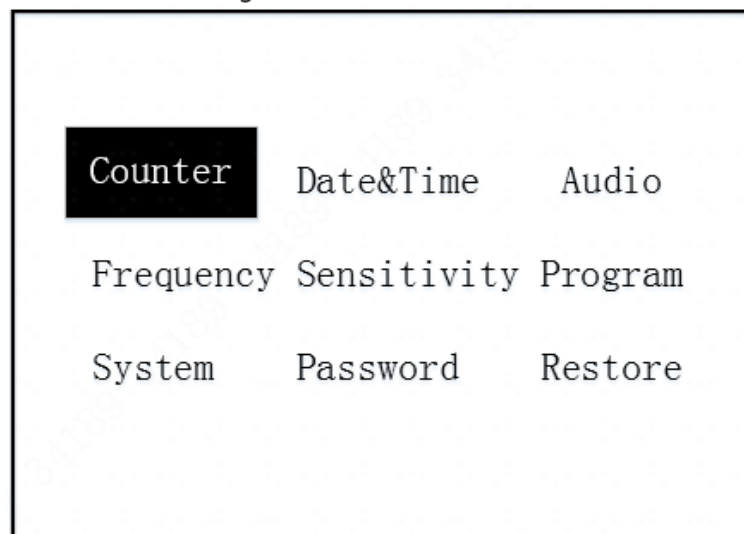
4.3.2 Data Search

4.3.2.1 Event Search

You can view records of each time people pass through the Device, and whether it was an alarm or not.

Step 1 On the parameter setting page, press  or  to select **Counter**, and then press .

Figure 4-6 Counter



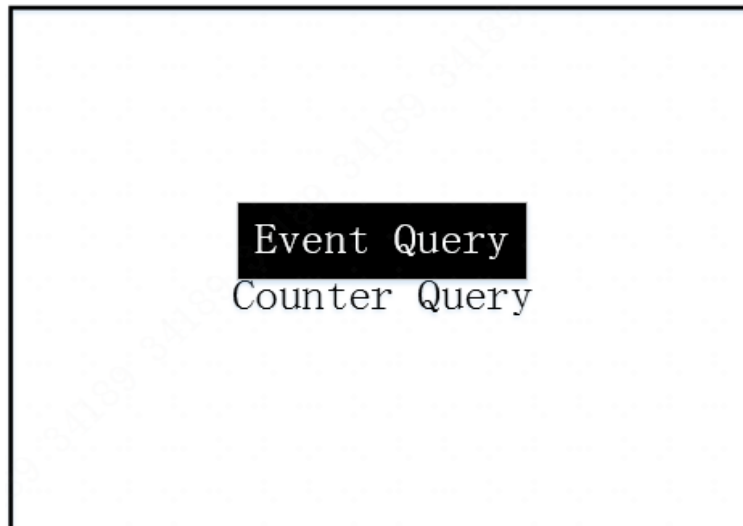
Counter Date&Time Audio

Frequency Sensitivity Program

System Password Restore

Step 2 Press  or  to select **Event Query**, and then press .

Figure 4-7 Event query



Step 3 Press  or  to select previous or next page, and then press  to view the records.

Figure 4-8 View records

NO.	Data	Alarm
1	11-16 11:35:24	yes
2	11-16 11:35:19	yes

Page-

Page+

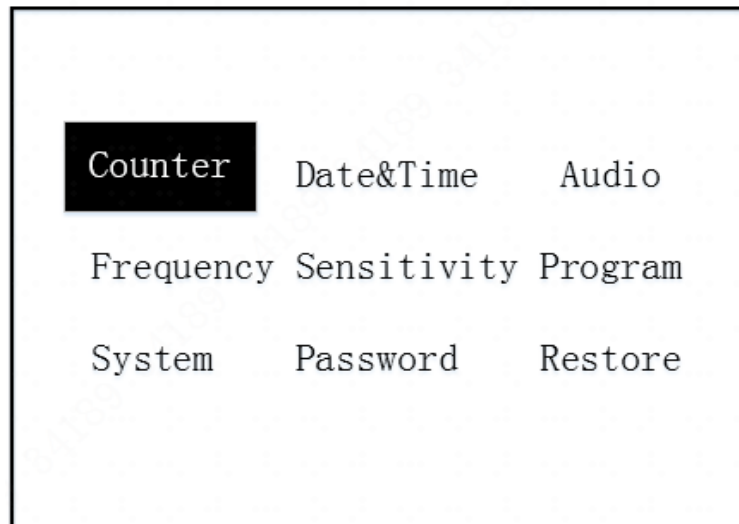
Exit

4.3.2.2 People Counting Search

You can view the passed number and alarm times on the counter page.

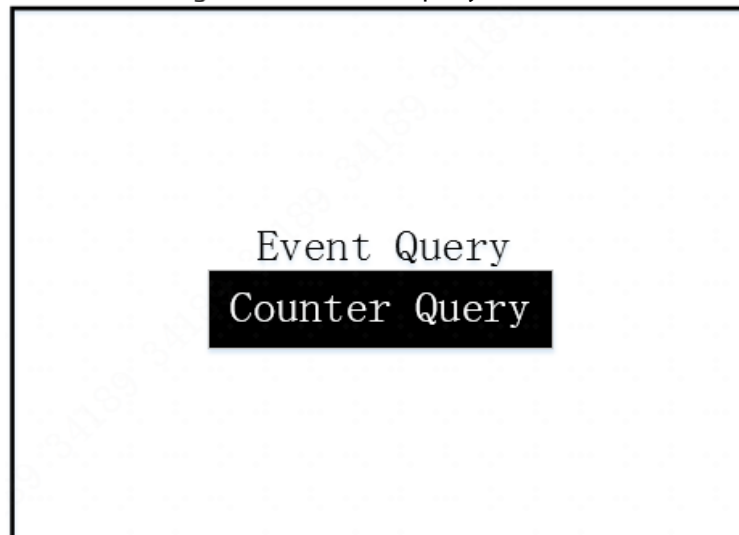
Step 1 On the parameter setting page, press  or  to select **Counter**, and then press .

Figure 4-9 Counter



Step 2 Press or to select **Counter Query**, and then press .

Figure 4-10 Counter query



Step 3 Press or to select previous or next page, and then press to view the records. Then you view the pass number (pass/return) and alarm times (pass/return).

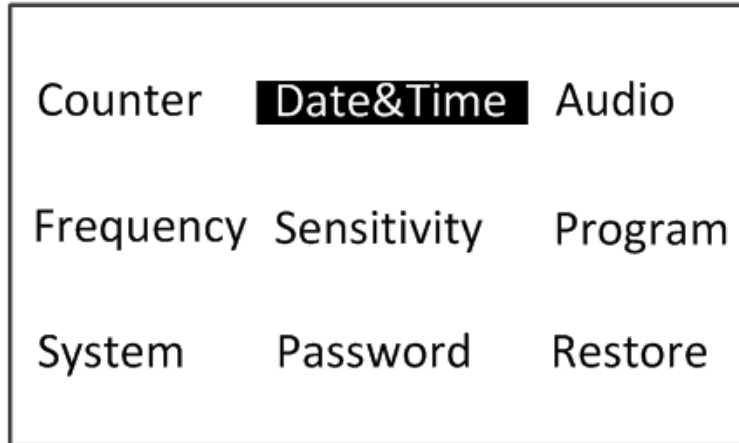
Figure 4-11 View records

Data	Passed	Alarm
11-16	7/7	6/5
11-13	1/1	1/1
Page- Page+ Exit		

4.3.3 Setting Date&Time

- Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".
- Step 2 Press  or  to move the cursor to **Date&Time**, and then press  to go to the time setting page.

Figure 4-6 Date&Time setting



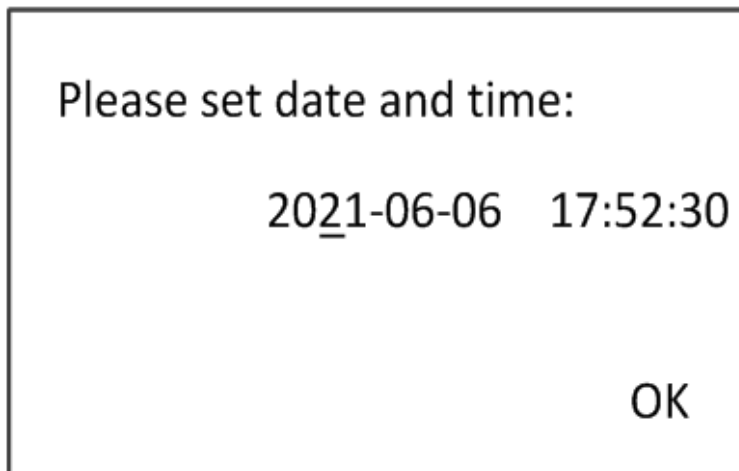
- Step 3 Press  or  to move the cursor, and then press  to set the value.



The time format is YYYY-MM-DD.

- Step 4 Press  to move the cursor to **OK**, and then press  to save the settings.

Figure 4-7 Set time



4.3.4 Setting Sensitivity

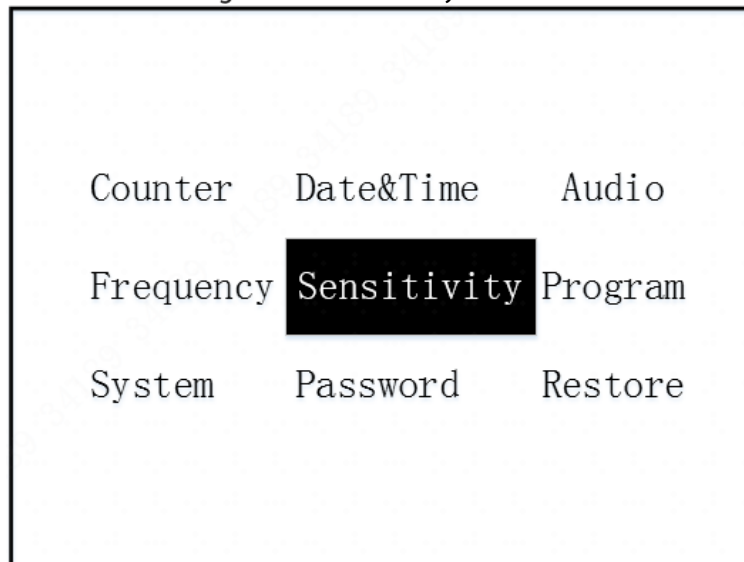
4.3.4.1 Manual Sensitivity

Set the sensitivity of each zone separately, and you can also quickly set the values to the same one. The range of the sensitivity is 0–9,999. The larger the value is, the higher the sensitivity is; the greater the sensitivity multiple is, the lower the sensitivity is.

- Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

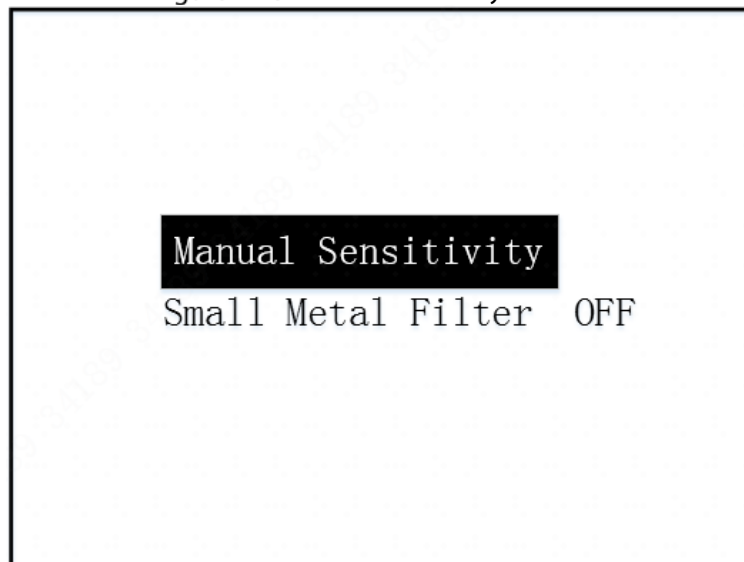
- Step 2 On the parameter setting page, press  or  to select **Sensitivity**, and then press  to go to the page of setting the sensitivity.

Figure 4-12 Sensitivity



Step 3 Press  or  to select **Manual Sensitivity**, and then press  to go to the page of manually setting the sensitivity.

Figure 4-13 Manual sensitivity



Step 4 Press  or  to select the sensitivity digit in the zone, and press  to modify the selected digit.

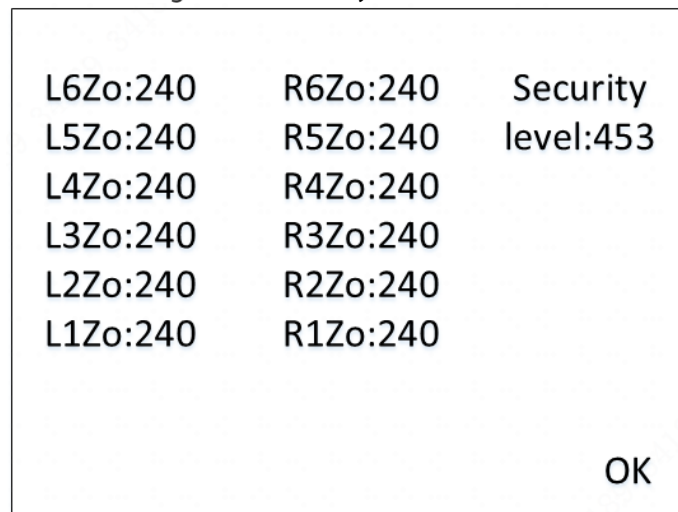
Set the **All** value to a non-zero value, and then you can quickly set the sensitivity of one to six zones. For example, if the zone is 6, set **All** to 255. After saving the settings, the sensitivity of zones 1–6 will all be set to 255.

Figure 4-14 Zones



Step 5 Press or to select a multiple of **Reduce Sensitivity**, and then press to modify the value.

Figure 4-15 Modify value



Step 6 Select **OK**, and then press . The system goes back to the previous page.

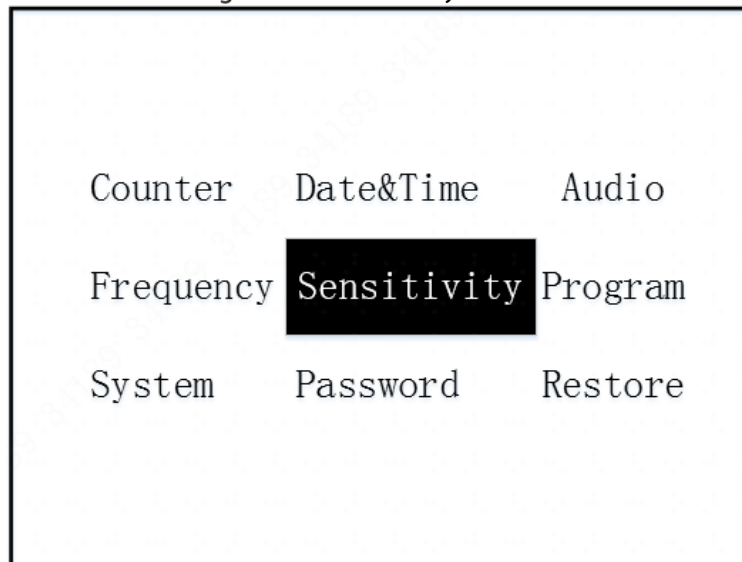
4.3.4.2 Filtering Small Metals

Turn on the small metal filter function, and then follow the debugging steps to exclude small metals that you do not want to trigger alarms.

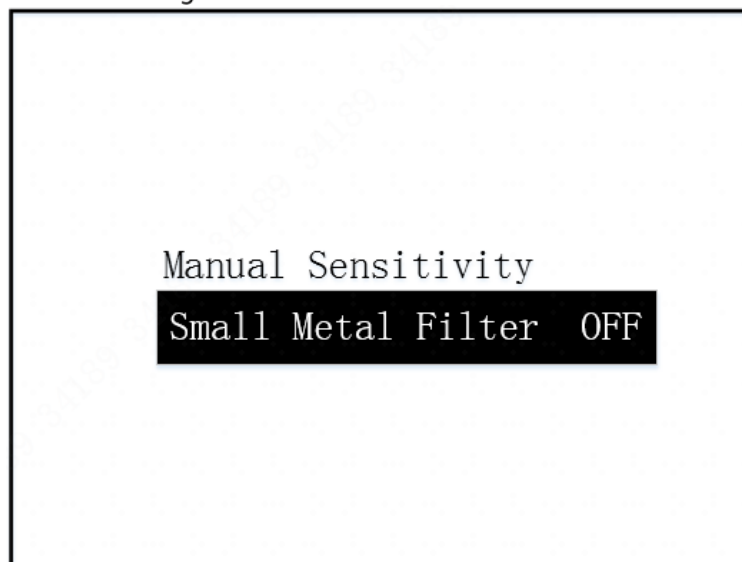
Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 On the parameter setting page, press or to select **Sensitivity**, and then press to go to the page of setting the sensitivity.

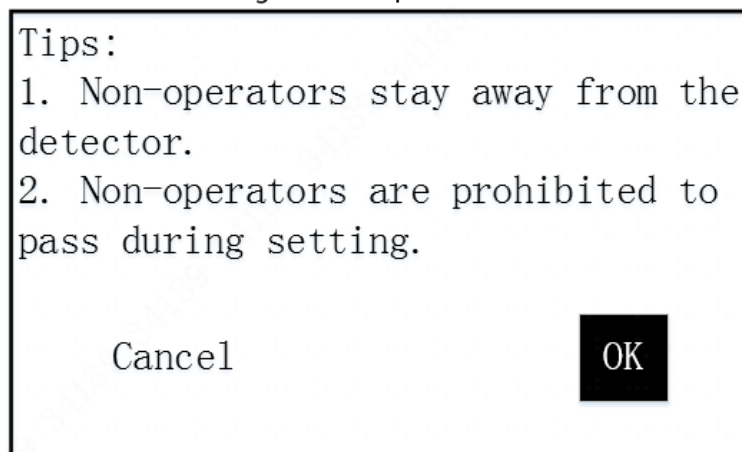
Figure 4-16 Sensitivity



Step 3 Press  or  to select **Small Metal Filter**, and then press  to go to the **Tips** page.
Figure 4-17 Small metal filter

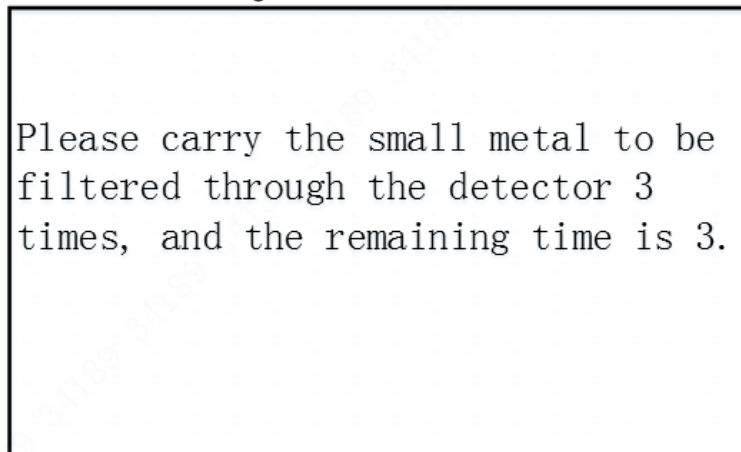


Step 4 Press  or  to select **OK**, and then press  to go to the **Small Metal Filter** page.
Select **Cancel** to go back to the previous page.
Figure 4-18 Tips



Step 5 On the **Small Metal Filter** page, the testing personnel need to carry the small metal to be filtered through the Device for 3 times. After the test, the test result page will appear.

Figure 4-19 Test

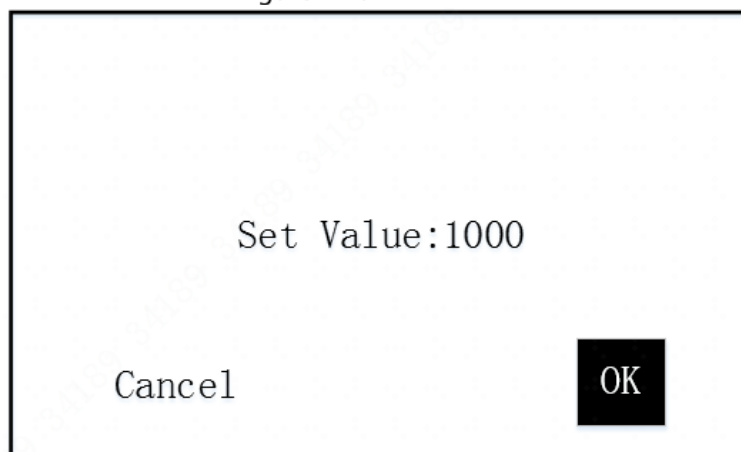


Step 6 Press  or  to select **OK**, and then press  to save the settings. Press  or  to select **Cancel**.



After setting the small metal filter function, the **Small Metal Filter OFF** information on the **Sensitivity** page will change to **Small Metal Filter ON**. It automatically changes to **OFF** after restoring factory defaults or setting the sensitivity manually.

Figure 4-20 OK



4.3.5 Setting Security Level

Security level is the detection sensitivity of the Device. It ranges from 1 to 512. The higher the value is, the more sensitive the Device is.

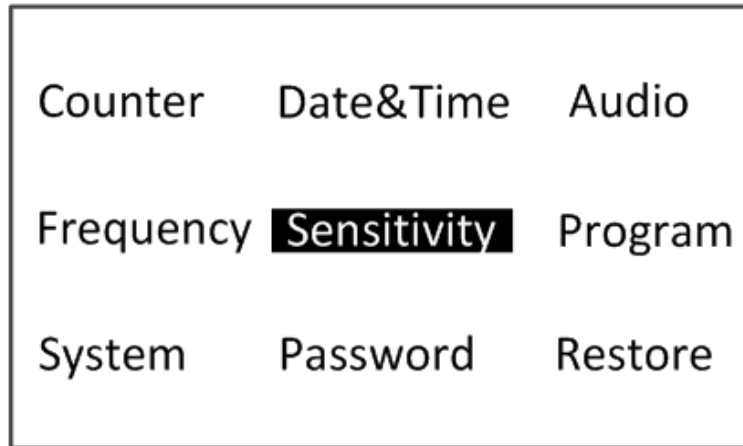


Security level setting is not required in daily use.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press  or  to move the cursor to **Sensitivity**, and then press  to go to the security level setting page.

Figure 4-21 Security level setting

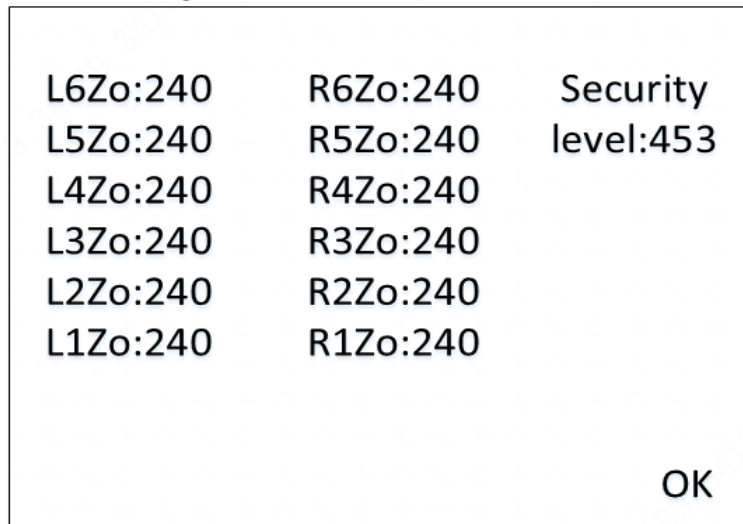


Step 3 Set security level.

Press ◀ or ▶ to move the cursor to **Security Level**, and then press ⏹ to set the value.

Step 4 Press ▶ to move the cursor to **OK**, and then press ⏹ to save the setting.

Figure 4-22 Set security level



Result

When both the defined threshold of security level and sensitivity are reached, an alarm will be triggered. For the details of sensitivity, see "4.3.3 Setting Sensitivity".

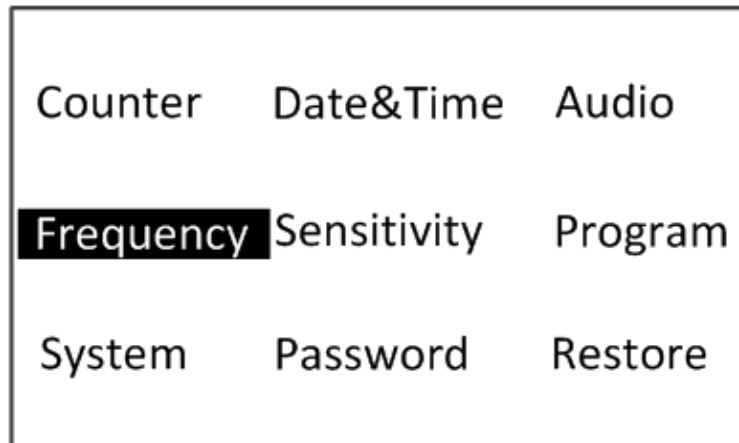
4.3.6 Setting Frequency

Electromagnetic interference from ambient environment varies with different frequencies. The frequency for lower interference makes the Device have higher sensitivity. When multiple devices work simultaneously, set different frequencies for each device to reduce mutual interference. The Device can search the frequency for lowest interference, and sets it to the working frequency. You can also set the frequency manually. It ranges from 1 to 20.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press ◀ or ▶ to move the cursor to **Frequency**, and then press ⏹ to go to the frequency setting page.

Figure 4-23 Frequency setting



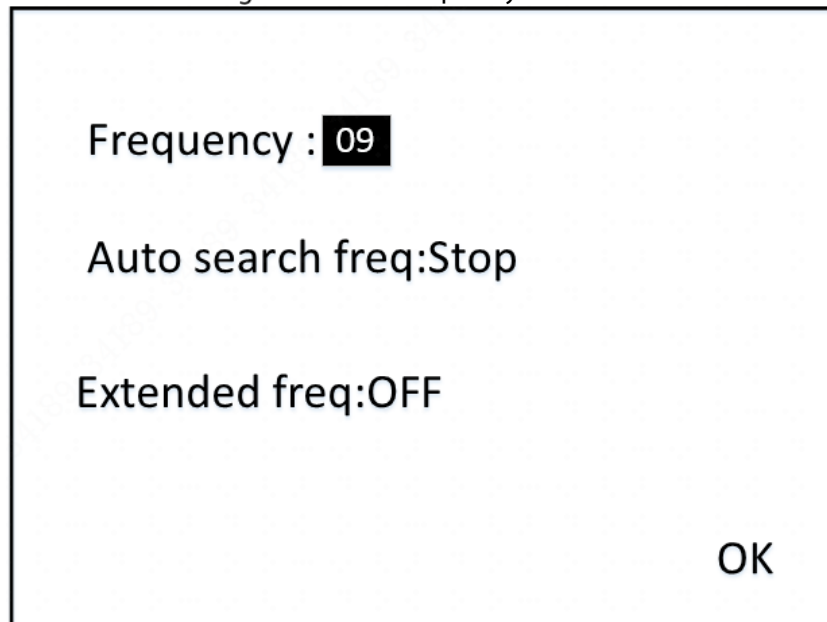
Step 3 Set the frequency.

- Auto search frequency: Press ◀ or ▶ to move the cursor, and press ⏹ to enable the auto search frequency function. The Device will set the suitable working frequency automatically. If the working frequency still needs to be adjusted, you can set the value manually.

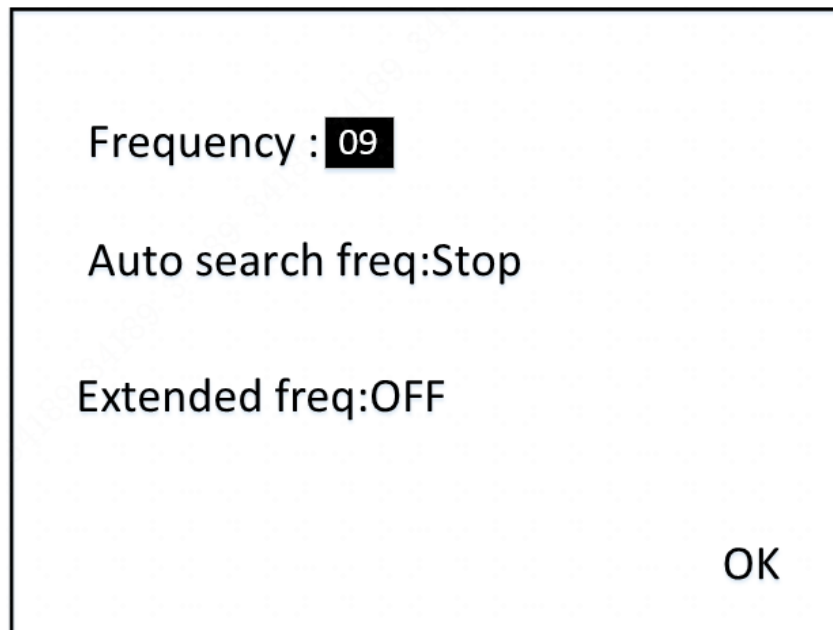


- ◇ Do not pass or approach to the detector during auto searching.
- ◇ Alarm might be triggered during auto searching. Auto-searching function lasts about 2 minutes
- Set frequency manually: When the auto search frequency function is not enabled, press ◀ or ▶ to move the cursor, and then press ⏹ to set the value manually.

Figure 4-24 Set frequency



- Setting Extended Frequency: For multiple walk-through metal detector operation, you can extend the frequency range to reduce interference, press ◀ or ▶ to move the cursor, and then press ⏹ to enable extended frequency.



Step 4 Press  to move the cursor to **OK**, and then press  to save the setting.

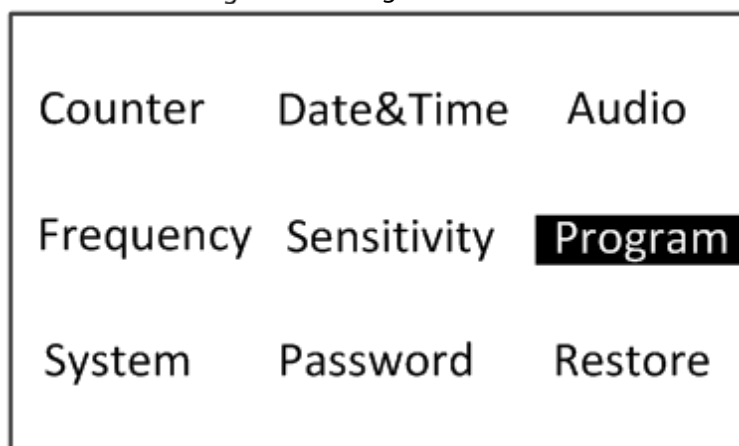
4.3.7 Setting Application Program

The Device supports 12 programs, which correspond to different sensitivity levels. After selecting the scene, the Device sets the suitable sensitivity level for each scene automatically.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press  or  to move the cursor to **Program**, and then press  to go to the application scenarios setting page.

Figure 4-25 Program



Step 3 Press  or  to move the cursor to select an application scenario, and then press .

Figure 4-26 Set application scenarios

Custom	Building	School
High	Middle	Low
Prison	Airport	SpecialEvent
Arena	Count	TrafficStation

Table 4-3 Application scenes

No.	Scenes	Description
1	High, Court	The detection capacity is largest, and he detection targets include harmless items and hazardous items, the minimum detection target is a CNY coin.
2	Middle, Building	Detects mini guns, and filters harmless metals such as glasses, watches, belt buckles, and coins.
3	Low	Detects gun, and filters harmless metals such as glasses, watches, belt buckles, and coins.
4	School, SpecialEvent, Arena	Detects guns, knives longer than 12 cm, and filters harmless metals such as glasses, watches, belt buckles, and coins.
5	Logistics, Airport, TrafficStation	Detects guns, knives longer than 10 cm, pocket knives, and daggers; filters harmless metals such as glasses, belt buckles, and coins.

4.3.8 Setting Alarm Audio

You can set alarm audio parameters, including tone, volume, and duration.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press  or  to move the cursor to **Audio**, and then press  to go to the audio setting page.

Figure 4-27 Audio setting

Counter	Date&Time	Audio
Frequency	Sensitivity	Program
System	Password	Restore

Step 3 Press  or  to move the cursor to **Alarm tone**, **Volume**, or **Alarm on time**, and then press  to set the value.

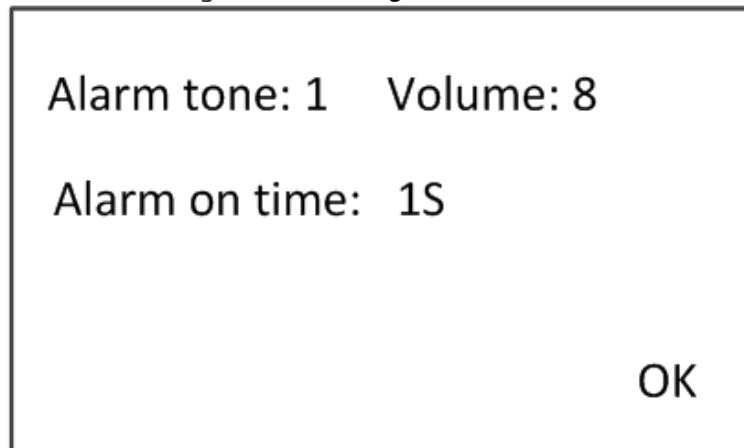
- Alarm tone: Select one alarm tone from 9 built-in tones and it will be played when an alarm is triggered.
- Volume: Adjust the alarm volume. The bigger the number is, the higher the volume will be.
- Alarm on time: Set alarm duration (0 s–10 s).



When the alarm duration is 0 s, the alarm light of the detector panel is not on.

Step 4 Press  to move the cursor to **OK**, and then press  to save the setting.

Figure 4-28 Setting audio



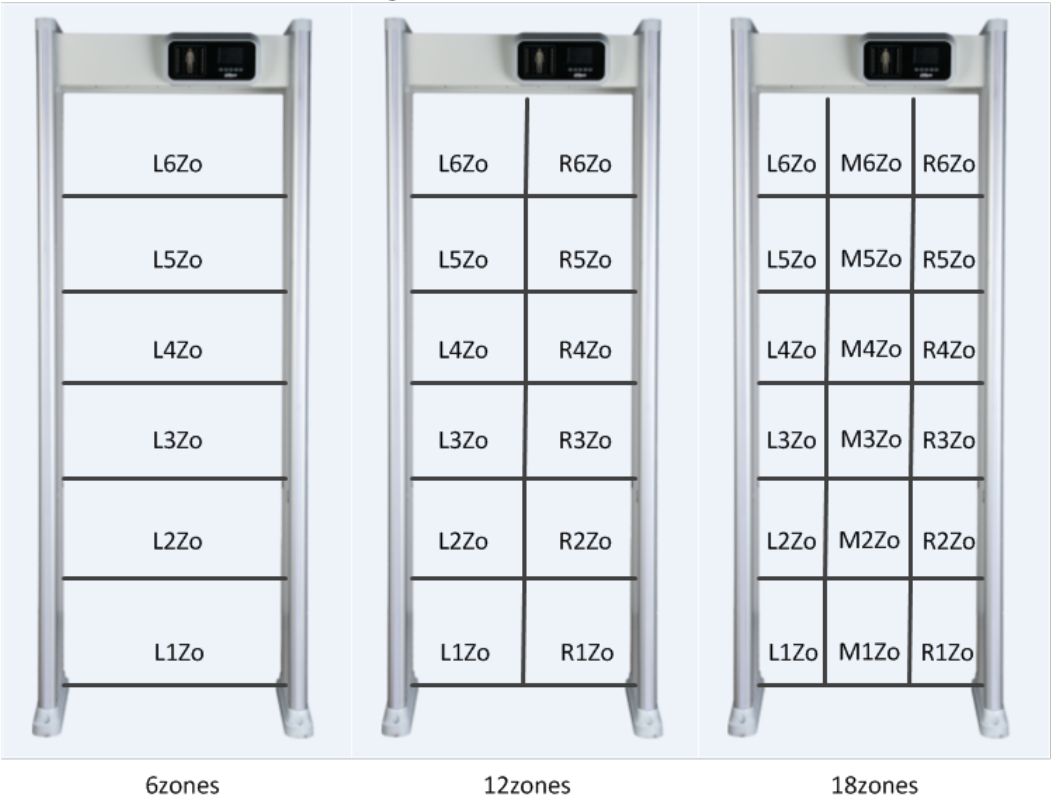
4.3.9 Setting System Parameters

Set system parameters, including zone management, network, alarm rules, infrared start-stop, diagnosis and view device information.

4.3.9.1 General

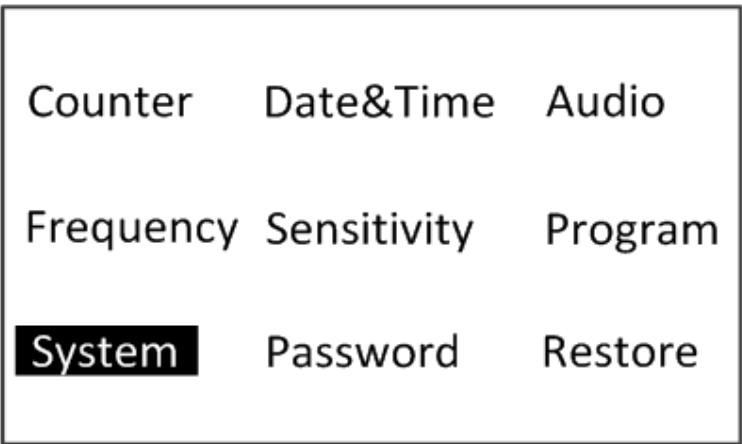
For ISC-D118, the detector panel can be set to 18, 12 or 6 zones, and ISC-D106 supports 6 zones.

Figure 4-29 Zones



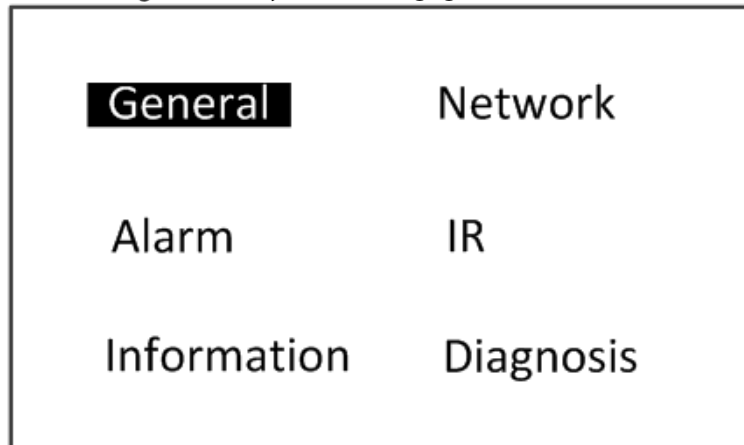
- Step 1** Log in to the Device with the right password. For details, see "4.3.1.1 Login".
- Step 2** Press  or  to move the cursor to **System**, and then press  to go to the system setting page.

Figure 4-30 System



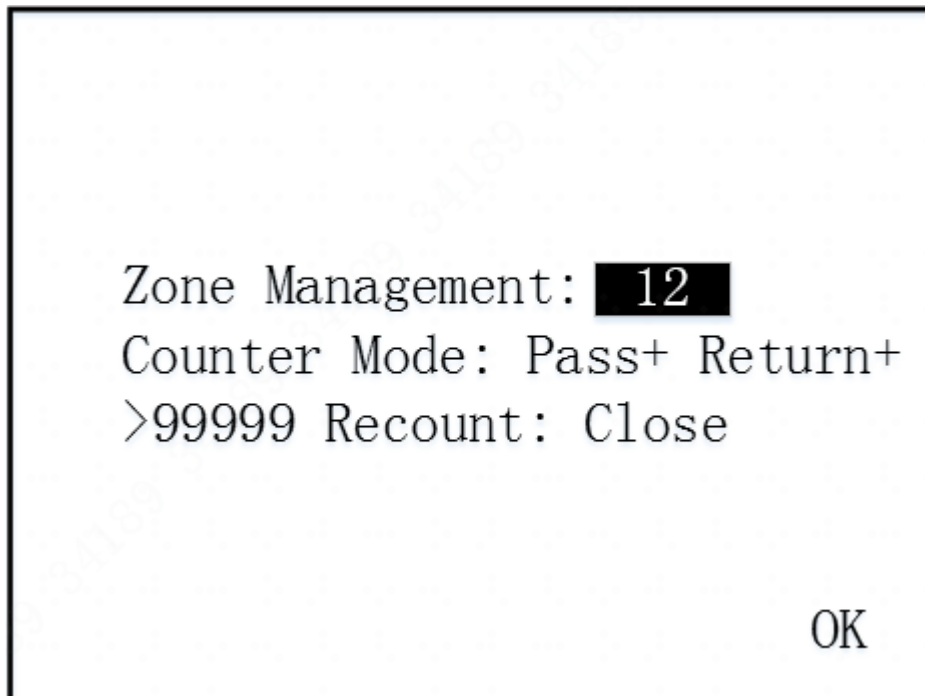
- Step 3** Press  or  to move the cursor to **General**, and then press  to go to the general setting page.

Figure 4-31 System setting (general)



Step 4 Press ◀ or ▶ to move the cursor, and then press ⏹ to set the zone number and counter mode.

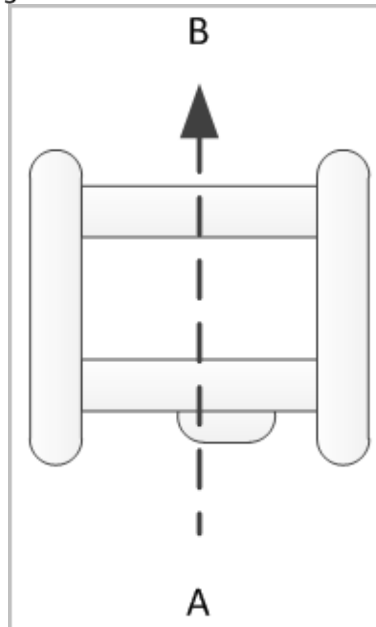
Figure 4-32 General setting



There are 3 counter modes:

- **Pass+ Return+:** Only one number is displayed on the screen. When people pass the detector from A to B or B to A, the number will increase.
- **Pass+ Return-:** Only one number is displayed on the screen. When people pass the detector from A to B, the number will increase; when people pass the detector from B to A, the number will decrease.
- **Pass+/Return+:** 2 numbers are displayed on the screen. When people pass the detector from A to B, the pass number will increase; when people pass the detector from B to A, the return number will increase.

Figure 4-33 Counter modes



Step 5 Press ◀ or ▶ to select the mode next to >99999 **Recount**, and then press ⏻ to turn on or off the mode.

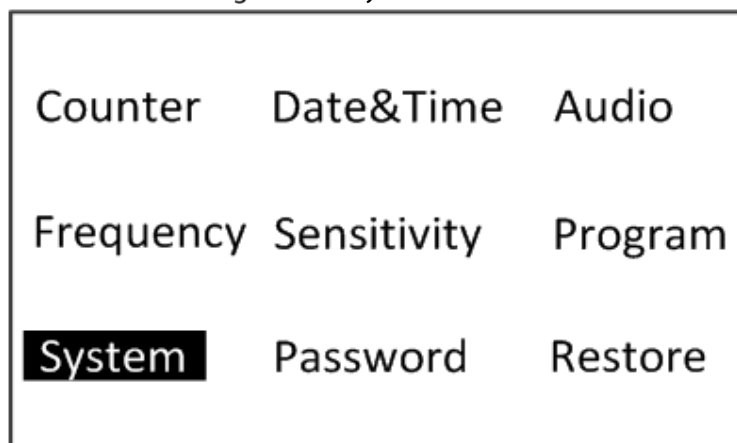
Step 6 Press ▶ to move the cursor to **OK**, and then press ⏻ to save the setting.

4.3.9.2 Setting Network

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press ◀ or ▶ to move the cursor to **System**, and then press ⏻ to go to the system setting page.

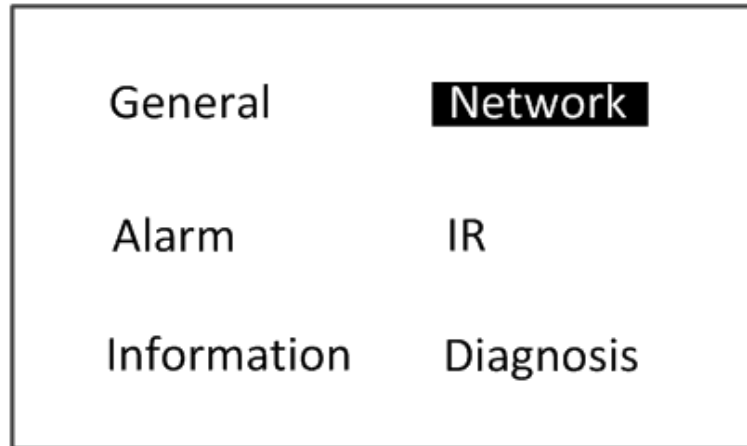
Figure 4-34 System



Step 3 Press ◀ or ▶ to move the cursor to **Network**, and then press ⏻ to go to the network setting page.

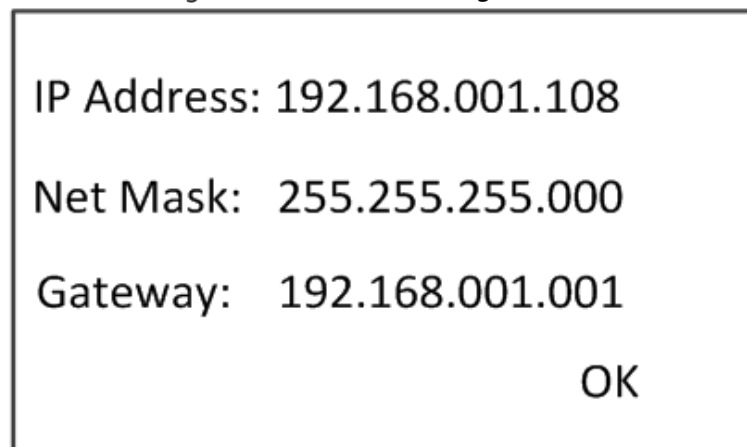
The IP address is 192.168.001.108 by default.

Figure 4-35 System setting (network)



Step 4 Press ◀ or ▶ to move the cursor, and then press ⏹ to set IP address, net mask, and gateway.

Figure 4-36 Network setting



Step 5 Press ▶ to move the cursor to **OK**, and then press ⏹ to save the settings.
The Device restarts after network setting, and the configuration takes effect after restating.

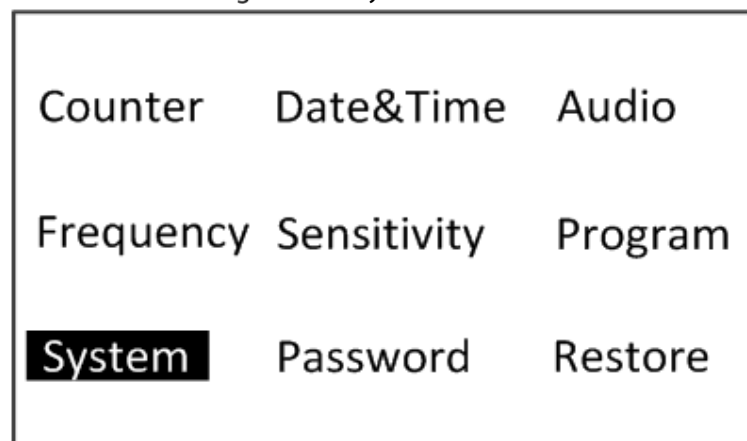
4.3.9.3 Setting Alarm Rules

You can set alarm rules when an alarm is triggered.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

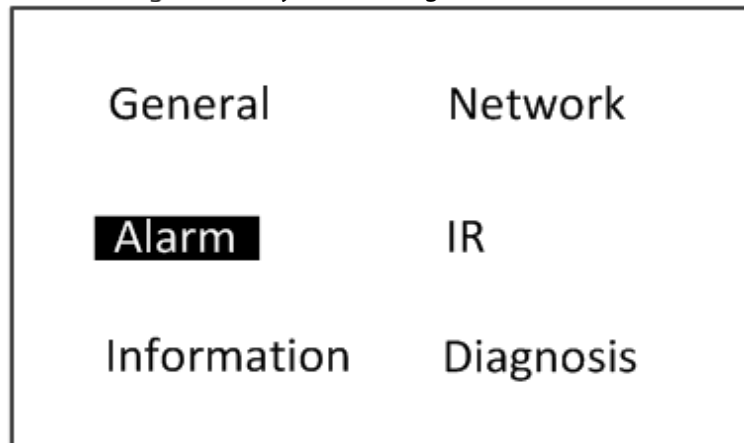
Step 2 Press ◀ or ▶ to move the cursor to **System**, and then press ⏹ to go to the system setting page.

Figure 4-37 System



Step 3 Press ◀ or ▶ to move the cursor to **Alarm**, and then press ⏹ to go to the general setting page.

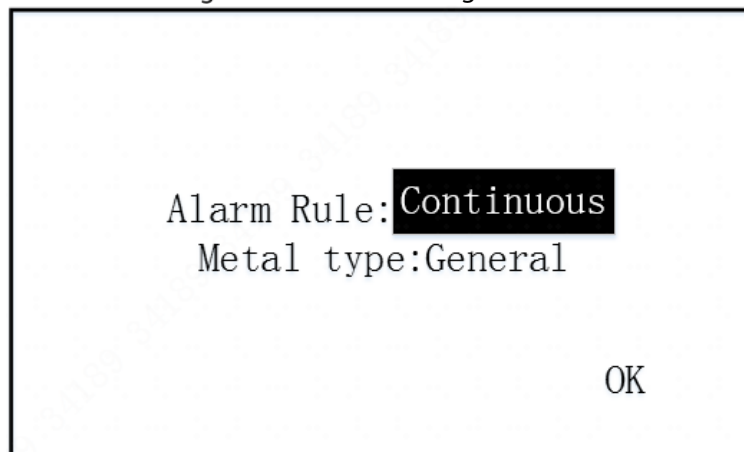
Figure 4-38 System setting (alarm)



Step 4 Press ⏹ to select the rule. It is **Continuous** by default.

- **Continuous:** Alarm can be triggered in all zones.
- **Single:** Alarm can be triggered in one zone each time. For example, when an alarm is triggered in L3Zo, no alarm can be triggered in other zones.
- **Interval:** Alarm cannot be triggered in two adjacent zones (from upper to bottom) at the same time. For example, when an alarm is triggered in L3Zo, alarms cannot be triggered in L2Zo or L4Zo, and can be performed in L1Zo, L5Zo and L6Zo.

Figure 4-39 Alarm setting



Step 5 Press ◀ or ▶ to select the parameter next to **Metal type**, and then press ⏹ to change the metal type.

Select the metal category according to the actual needs:

- **General:** the mode that has better results of detecting ferromagnetic metals.
- **Non-ferromagnetic:** the mode that has better results of detecting non-ferromagnetic metals.

Step 6 Press ▶ to move the cursor to **OK**, and then press ⏹ to save the setting.

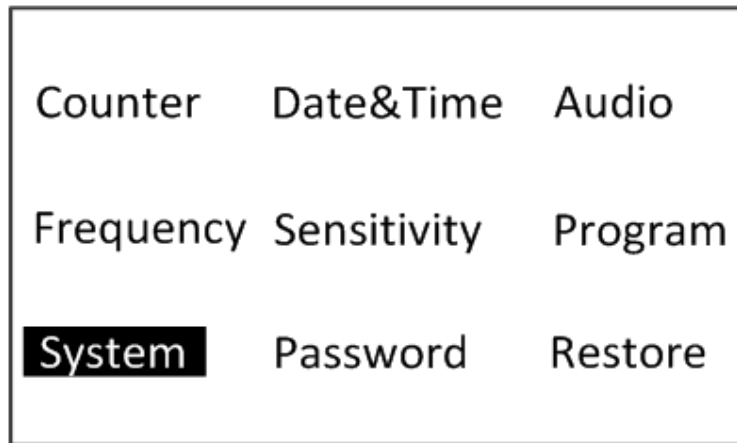
4.3.9.4 Setting Infrared Start-stop

Infrared start-stop function is designed for reducing false alarm and people counting. You can set three modes of the light alarm: Start the front group, start the rear group, and start both groups.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press ◀ or ▶ to move the cursor to **System**, and then press ⏹ to go to the system setting page.

Figure 4-40 System

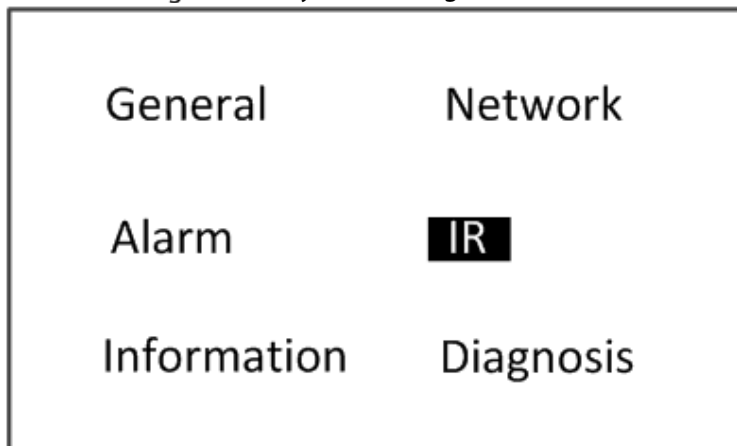


Step 3 Set alarm mode.

Press ◀ or ▶ to move the cursor to **IR**, and then press ⌂ to set the mode.

- **IR:** The IR mode is enabled. Metal alarm be associated with IR.
- **TEST:** The IR mode is not enabled. Metal alarm is not influenced by IR.

Figure 4-41 System setting (IR)



Step 4 Set the IR mode.

- **Both Enable:** The 2 groups of IR sensors will be on when an alarm is triggered, and the passing numbers of both directions are counted.
- **Both Disable:** The 2 groups of IR sensors will not be on when an alarm is triggered, and the Device enters IR test mode. The passing numbers of both directions are not counted.
- **Front Enable:** The front group of IR sensors will be on when an alarm is triggered, and only passing number of one direction is counted.
- **Rear Enable:** The rear group of IR sensors will be on when an alarm is triggered, and the passing number increases.

Figure 4-42 Alarm mode

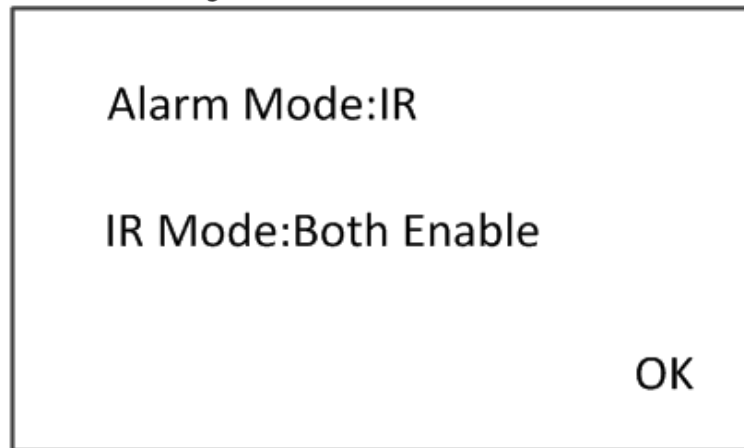


Figure 4-43 IR mode



Step 5 Press  to move the cursor to **OK**, and then press  to save the settings.

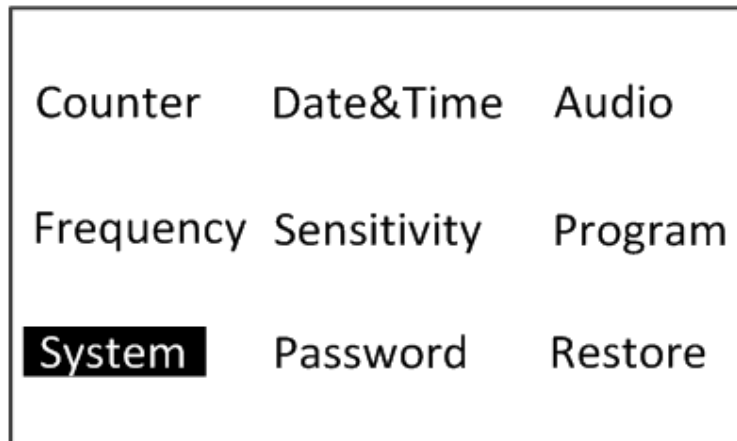
4.3.9.5 Viewing Device Information

You can view the device information, including version, and build time.

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press  or  to move the cursor to **System**, and then press  to go to the information page.

Figure 4-44 System



Step 3 Press ◀ or ▶ to move the cursor to **Information**, and then press ⌂ to go to the information page.

Figure 4-45 System setting (information)

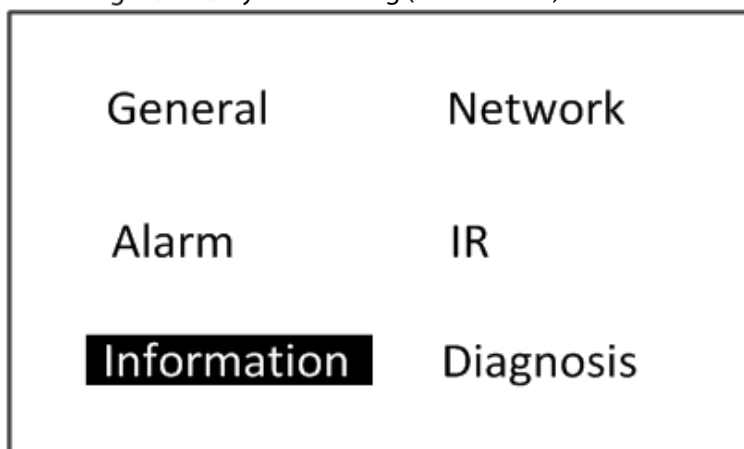
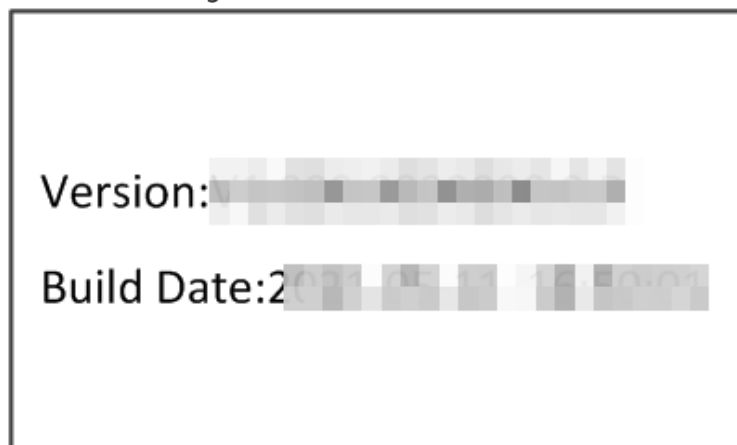


Figure 4-46 Information



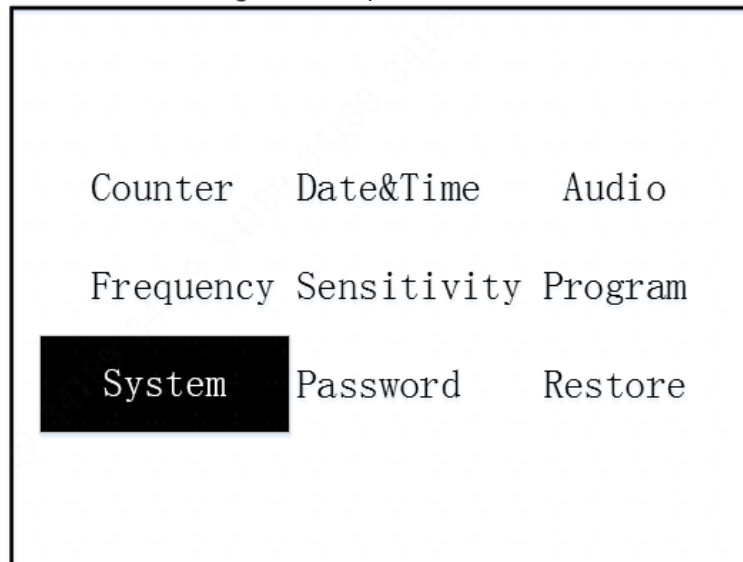
4.3.9.6 Diagnosis

4.3.8.6.1 IR Diagnosis

Infrared diagnostics is used to make sure that the infrared of the Device functions properly.

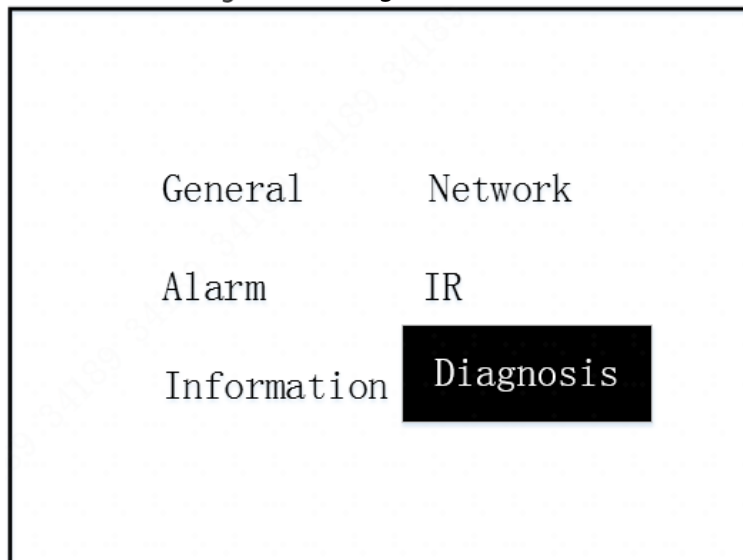
Step 1 On the parameter setting page, press ◀ or ▶ to select **System**, and then press ⌂.

Figure 4-47 System



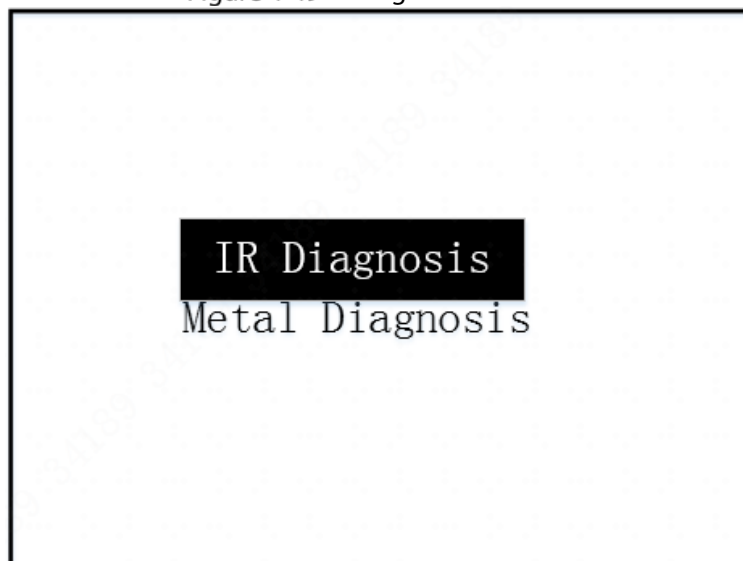
Step 2 Press ◀ or ▶ to select **Diagnosis**, and then press ⏹.

Figure 4-48 Diagnosis



Step 3 Press ◀ or ▶ to select **IR Diagnosis**, and then press ⏹.

Figure 4-49 IR diagnosis



Step 4 The testing personnel passes through the Device in 10 seconds. After the testing personnel passes or the 10 seconds timed out, it goes to the test result page, which shows whether the front IR and rear IR are normal or not.

Figure 4-50 Test

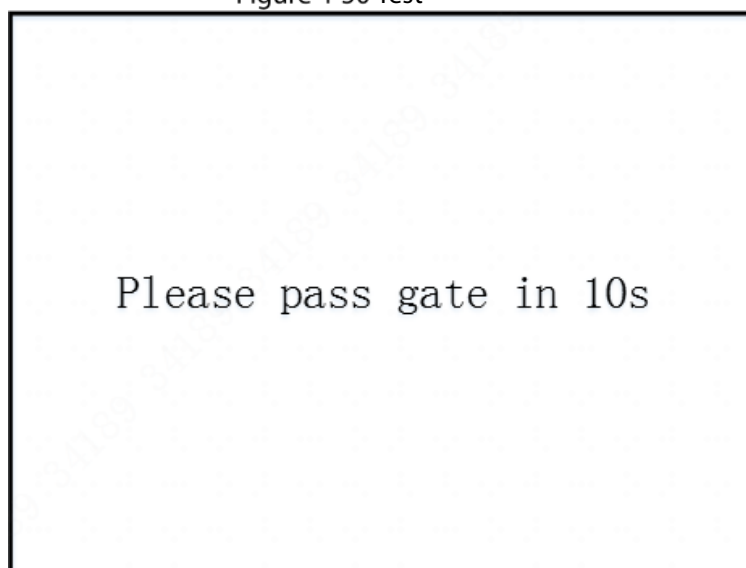
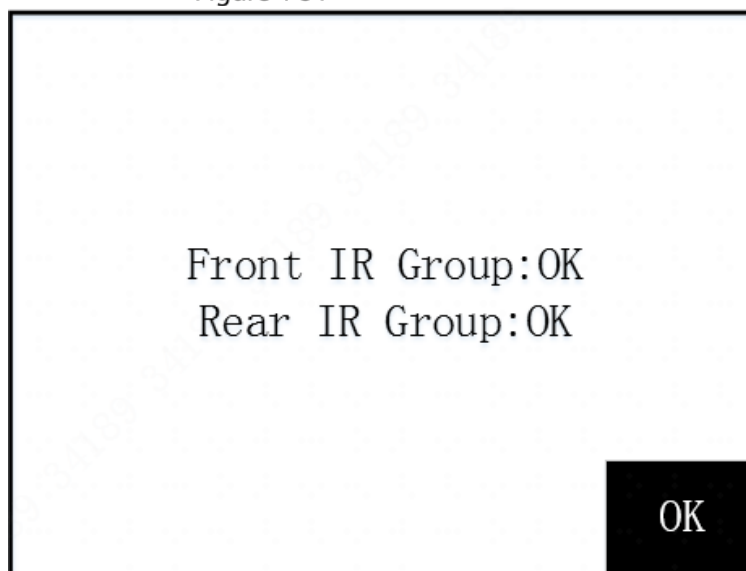


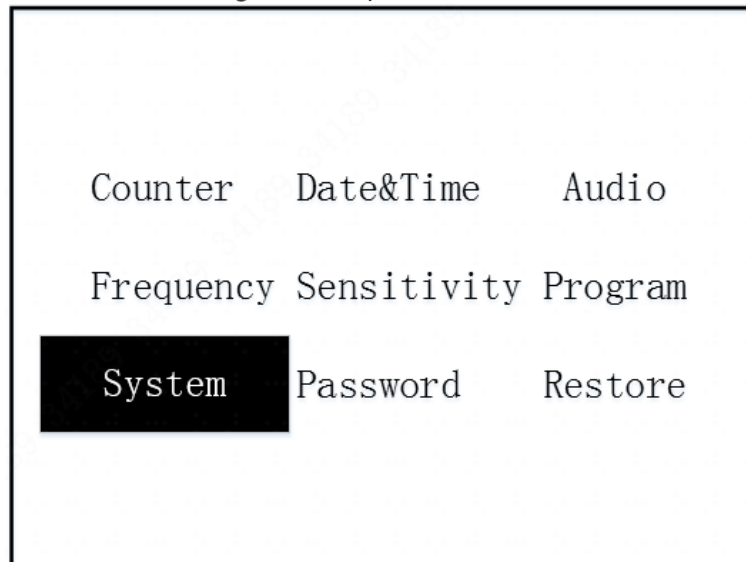
Figure 4-51 Test results



4.3.8.6.2 Metal Diagnosis

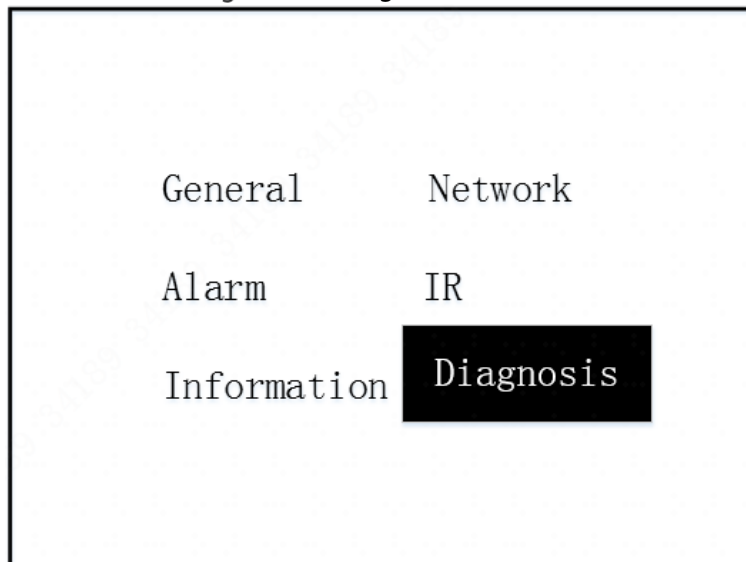
Step 1 On the parameter setting page, press  or  to select **System**, and then press .

Figure 4-52 System



Step 2 Press ◀ or ▶ to select **Diagnosis**, and then press ⏹.

Figure 4-53 Diagnosis



Step 3 Press ◀ or ▶ to select **Metal Diagnosis**, and then press ⏹.

Step 4 The testing personnel carries the metal and passes through the Device within 5 seconds. After the testing personnel passes or the 5 seconds timed out, the system goes to the test result page, which shows the current metal value carried by the personnel.

Figure 4-54 Test

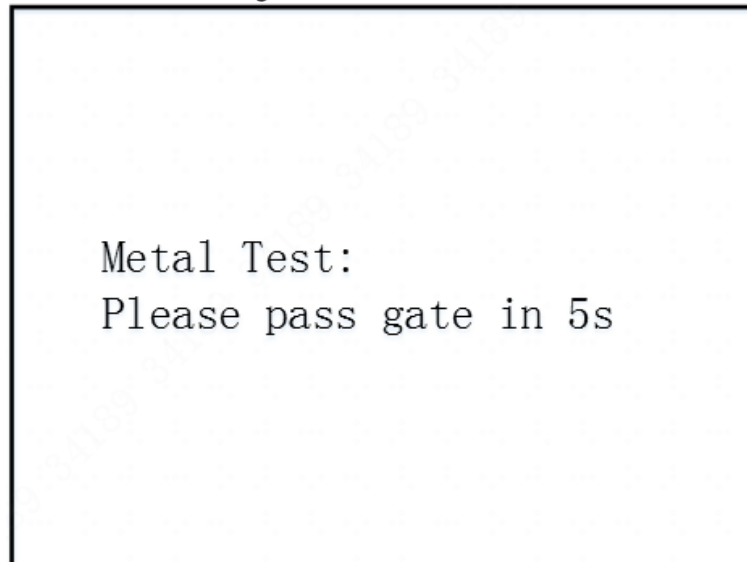
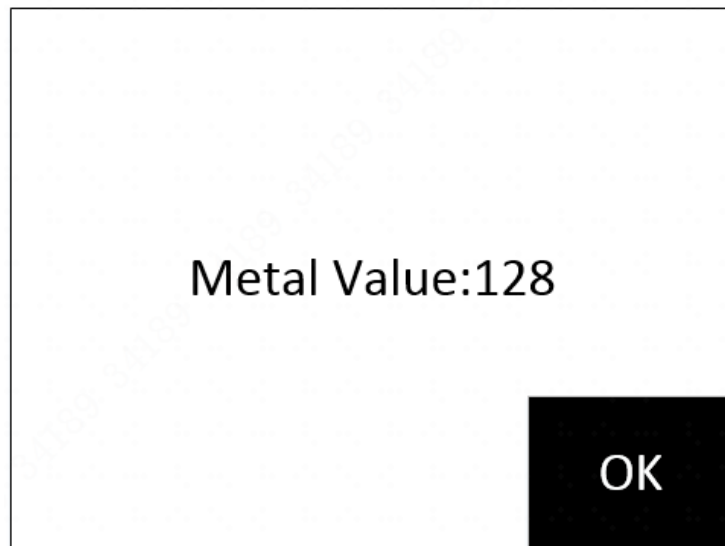


Figure 4-55 Test results

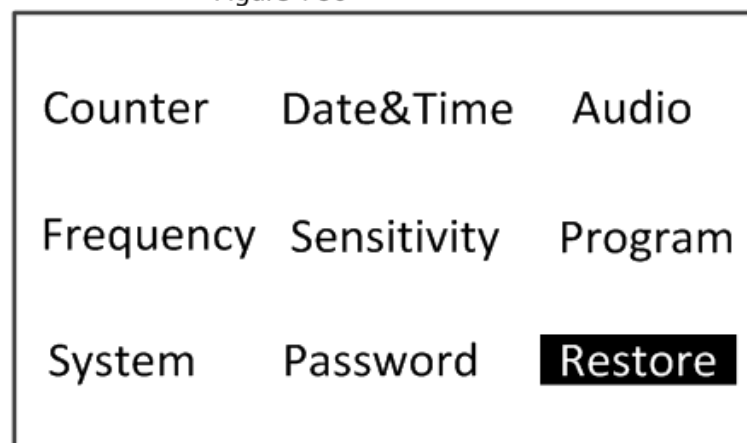


4.3.10 Restore

Step 1 Log in to the Device with the right password. For details, see "4.3.1.1 Login".

Step 2 Press ◀ or ▶ to move the cursor to **Restore**, and then press ⏹.

Figure 4-56 Restore



Step 3 Move the cursor to **Yes** to restore the device, and then the Device restart. The counting records and configuration will be cleared.

Figure 4-57 Restore

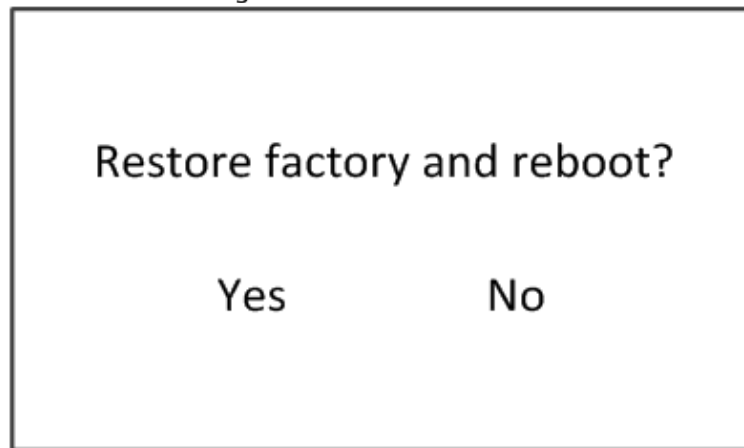


Table 4-4 Factory defaults

Parameter	Default
Alarm tone	1
Volume	8
Alarm on time	1 s
Frequency	9
Security	453
Sensitivity	120
Program	Building
Zone Management	18
Counter Mode	Pass+ Return+
Network	IP Address: 192.168.1.108 Net Mask: 255.255.255.0 Gateway: 192.168.1.1
Alarm Rule	Continuous
Alarm Mode	IR
IR Mode	Both enable

4.4 Adjusting Detection Ability

Adjust the detection ability to improve the accuracy rate of detection.



- The detection sensitivity reduces from the two sides to the middle area, so the detection ability in the middle area is the weakest.
- When detecting the detection ability with a flat metal sheet, do not make the flat panel parallel to the detector panels; otherwise the alarm will not be triggered.
- It is easier to detect the metal objects with good magnetic property than the ones with poor magnetic property.

Step 1 Select the installation scene as needed.

- Step 2 Set alarm mode to test mode. If false alarms continue, adjust the frequency. Use the function of auto search frequency first. If the result is not good, adjust the frequency manually.
- Step 3 Test the detection ability of each zone with a metal object.
If the alarm is not triggered, turn up the sensitivity of the corresponding zone, until the alarm can be triggered.
- Step 4 Set alarm mode to IR mode.

5 Upgrading Detector

You can use ConfigTool to upgrade the Detector software.



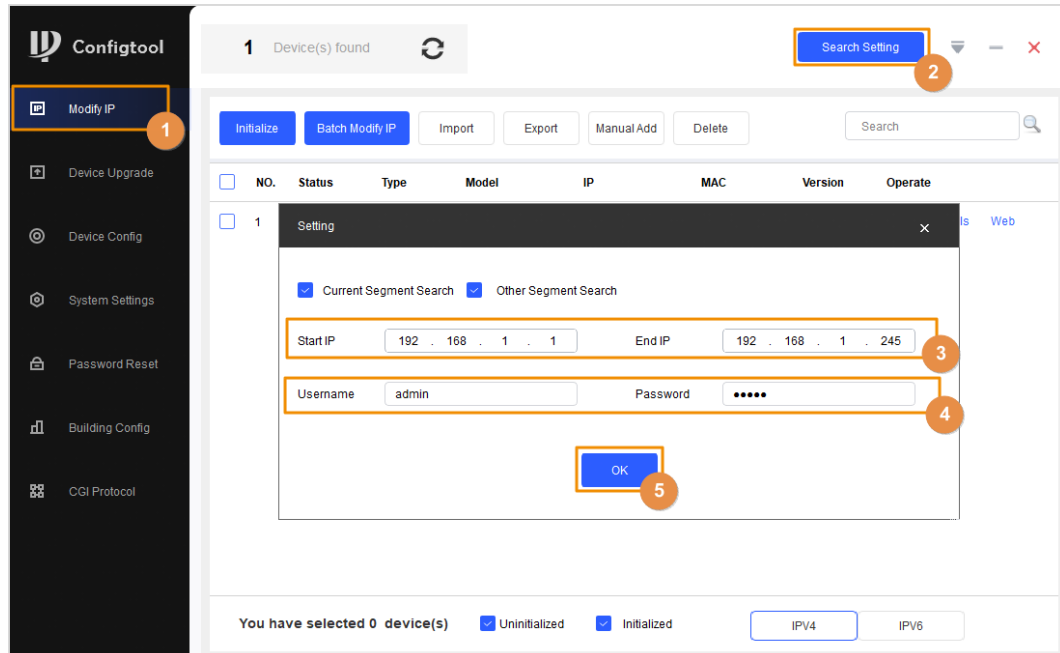
Go to <https://www.dahuasecurity.com/support/downloadCenter/tools/MaintenanceTools?child=332> to download ToolBox, and then install ConfigTool.

5.1 Configuring Network

Before upgrading the Detector, you need to connect your computer and the Detector to the same local network first.

- Step 1** Connect a network cable to the network port of the door panel, so that the Detector and your computer are in the same LAN.
- Step 2** Set the IP of the Detector and the computer on the same network segment. For example, if the IP of the Detector is 192.168.1.108 by default, you can set the IP of the computer as 192.168.1.111.
- Step 3** Open ConfigTool, and then select **Modify IP > Search Setting**.
- Step 4** Enter the network segment of the Detector in the **Start IP** box and **End IP** box.
- Step 5** Enter the username and password of the Detector. The password is the same as the login password of the admin account.

Figure 5-1 Search for the Detector on ConfigTool

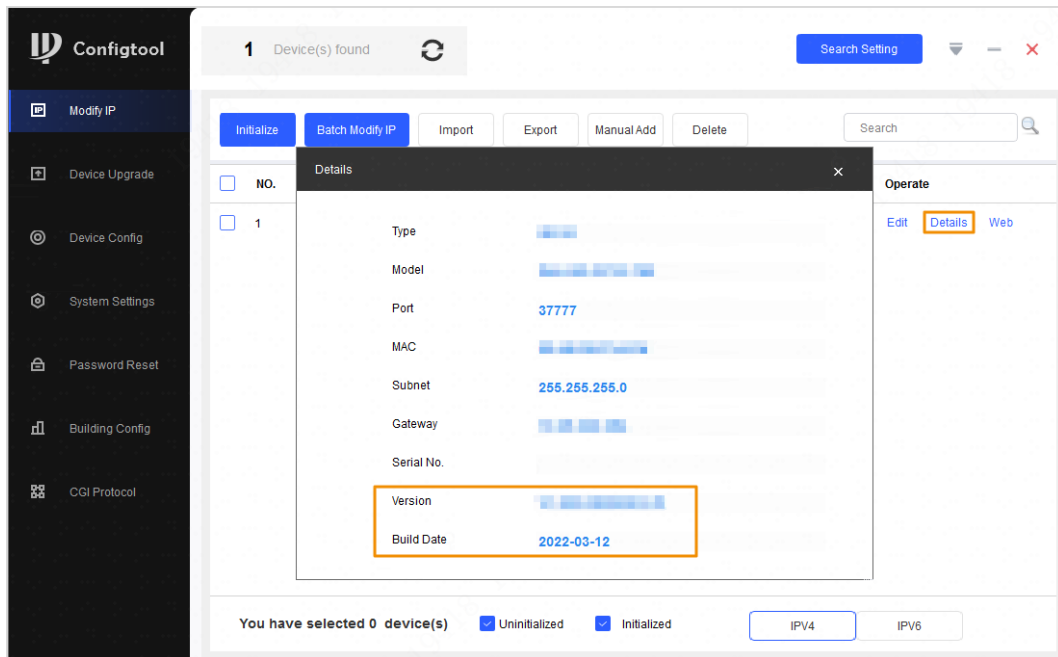


- Step 6** Click **OK**.

5.2 Viewing Current Version

Click **Details** to view the current software version of the Detector.

Figure 5-2 View current version



5.3 Upgrading Detector

Select the bin file to upgrade the Detector.

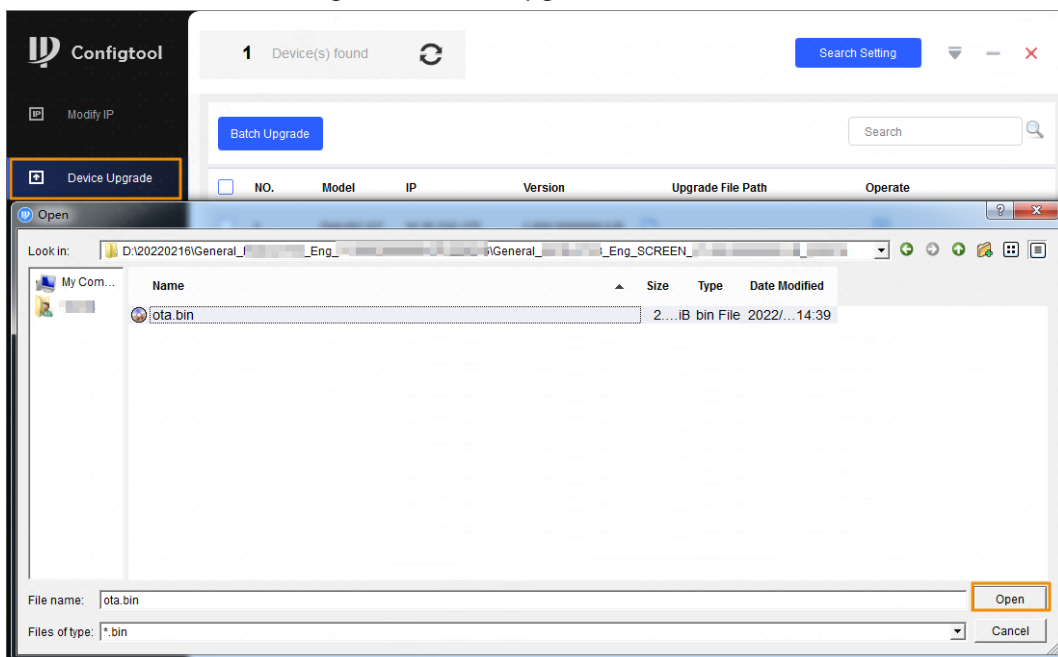
1. Click **Device Upgrade**.

2. Upgrade the program.

- Upgrade the screen program.

Click , select the ota.bin file from the General_ISC-D7xx_Eng_SCREEN_V1.000.000000.0R_XXXXXX directory, and then click **Open**.

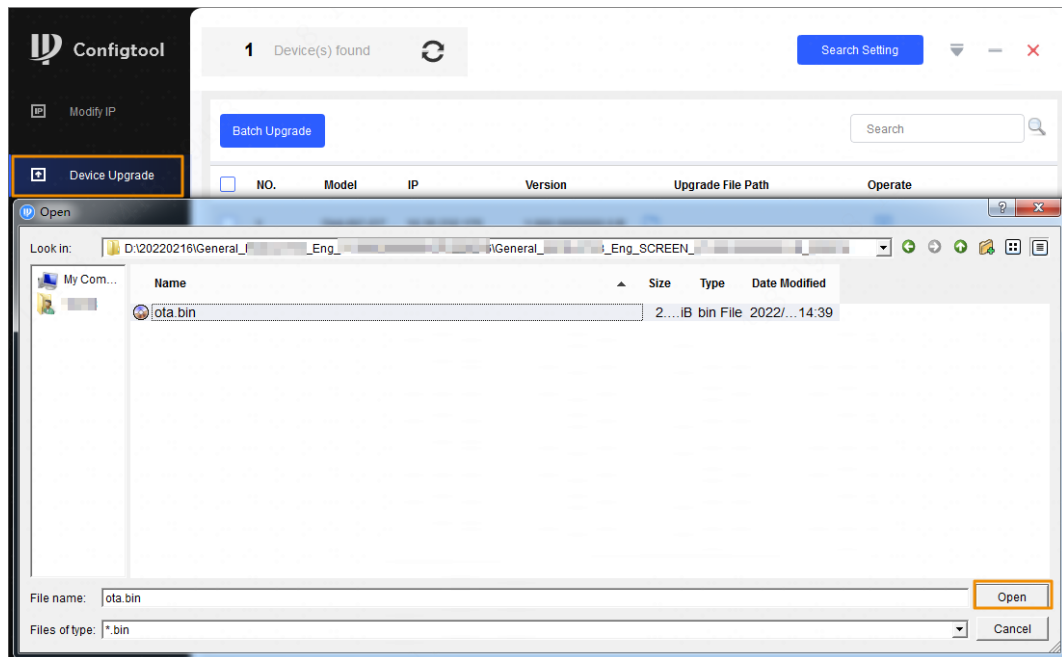
Figure 5-3 Select upgrade file



- Upgrade the main control module program.

Click , select the General_ISC-D7xx_Eng_App_MCU_V1.000.0000000.0.Rxxxxxx.bin file from the General_ISCD-D7xx_Eng_MCU_V1.000.0000000.0.R_xxxxxx directory, and then click **Open**.

Figure 5-4 Select upgrade file



3. Click  to start upgrading.

After upgrade is complete, a notice dialog box will be displayed indicating the Detector will be restarted. Then the Detector restarts automatically.

4. A green tick is displayed after the upgrade is successful.

Figure 5-5 Upgrade completed

☐	NO.	Model	IP	Version	Upgrade File Path	Operate
☐	1	DHI-ISC-D7...		✓	D:/20220216/General_...	

5. If you need to reset the Detector to factory default, see "4.11.2 Factory Reset", and then configure parameters.

6 FAQ

1. **Deal with the replaced spare parts.**

Contact our overseas service center to check whether you need to send back the spare parts.

2. **The Device cannot start.**

- a. Check whether the power is switched on.
- b. Check whether the host box is powered on.
- c. Check whether the power cable is loose or broken.
- d. Replace the host box.

3. **The screen cannot display content after the Device starts.**

- a. Check whether the power is switched on.
- b. Check whether the host box is powered on.
- c. Check whether the cable between the detector panel and the host is connected well.
- d. Replace the host box.

4. **The passed people cannot be counted. (The indicator light cannot work normally, or the Device might alarm without people passing.)**

- a. Check whether the IR mode is both enabled.; if not, select the mode to **Both Enabled**.
- b. The Device enters diagnosis menu, and check whether the two groups of IR lights work normally.
- c. Remove the host and test it with the detector panels that can work normally. If the problem still cannot be solved, replace the host box; otherwise, replace detector panels.

5. **There are false alarms.**

- a. Check whether the environment influences the detection rate of the Device. For example, check whether there is direct light to the infrared sensors, and whether there are large metals within 1 meter's range.
- b. Adjust the frequency. Use the function of auto search frequency first. If the result is not good, adjust the frequency manually. To set the suitable frequency quickly, we recommend 3 levels for an adjustment. For example, when the current frequency is 3, adjust it to 6, and then check whether there are false alarms; if yes, adjust it to 9, and then check whether there are false alarms again. Repeat the operation until there is no false alarm..
- c. Adjust the sensitivity or security level lower.
- d. Replace the host detector for testing.
- e. If the problem still cannot be solved, replace the detector panels.

6. **An alarm is not triggered when carry-on metal is passing.**

- a. Adjust the sensitivity of each zone higher.
- b. If the alarm is not triggered with the highest sensitivity or security level , replace the host detector for testing.
- c. Check the alarm duration, make sure the value is not 0.
- d. If the problem still cannot be solved, replace detector panels.

7. **Alarm lights are not on.**

- a. Check whether the power supplies of host and detector panel are normal.
- b. Check whether the ribbon cables of the alarm light are loose or broken.
- c. Check the alarm duration, make sure the value is not 0.
- d. If the problem still cannot be solved, replace the host detector.

8. **No alarm is triggered in zones.**

- a. Adjust the sensitivity value higher
- b. Replace the host detector.

- c. If the problem still cannot be solved, replace detector panels.
- 9. **No alarm sound.**
 - a. Check whether the alarm sound is not enabled.
 - b. Check the alarm duration, make sure the value is not 0.
 - c. Replace the speaker.
- 10. **There are big differences among the zone sensitivity values.**
 - a. Configure the sensitivity values according to the actual situation of each zone.
 - b. If the problem still cannot be solved, replace detector panels.
- 11. **Buttons on the host box cannot work normally.**
 - a. Check whether buttons are in good contact.
 - b. If buttons are in good contact, replace the mainboard.
- 12. **The remote controller cannot work normally.**
 - a. Replace the batteries.
 - b. Check whether the buttons work normally.
 - c. Check whether the IR sensor on the host box is blocked or interfered.
- 13. **The network of host box is not connected successfully.**
 - a. Check whether the network cable is connected well, and whether the Device IP and the default IP are in the same network segment.
 - b. Check whether the connection board and cable are connected well, or whether they are broken.
 - c. Install the mainboard program again.
 - d. If the problem still cannot be solved, replace the related accessories.
- 14. **Forget Password.**

Contact our overseas service center or service hotline.

Appendix 1 Security Commitment and Recommendation

We attach great importance to cybersecurity and privacy protection, and continues to invest special funds to comprehensively improve the security awareness and capabilities of our employees and provide adequate security for products. We have established a professional security team to provide full life cycle security empowerment and control for product design, development, testing, production, delivery and maintenance. While adhering to the principle of minimizing data collection, minimizing services, prohibiting backdoor implantation, and removing unnecessary and insecure services (such as Telnet), our products continue to introduce innovative security technologies, and strive to improve the product security assurance capabilities, providing global users with security alarm and 24/7 security incident response services to better protect users' security rights and interests.

Product security requires not only the continuous attention and efforts of manufacturers in R&D, production, and delivery, but also the active participation of users that can help improve the environment and methods of product usage, so as to better ensure the security of products after they are put into use. For this reason, we recommend that users safely use the device, including but not limited to:

1. Account Management

1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

1.5 Set and update password reset information in a timely manner

Our device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

2. Service Configuration

2.1. Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

3. Network Configuration

3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3.3. Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;
- According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;
- Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

4. Security Auditing

4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

5. Software Security

5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

5.2 Update client software in time

We recommend you to download and use the latest client software.

6. Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).