User Manual

Walk Through Metal Detector

ZK-D3180

Date: August 2021

Doc Version: 1.0

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.

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If there is any issue related to the product, please contact us.

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About the Company

ZKTeco is one of the world's largest manufacturer of RFID and Biometric (Fingerprint, Facial, Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces the operations of the ZK-D3180 Walk-through Metal Detector.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Table of Contents

1 <u>Overview</u>

1.1 Introduction

ZK-D3180 metal-detector is a walk-through metal-detector that is used for security screening at access points in the prisons, courthouses, and airports. Metal-detectors are highly sensitive to magnetic metals and have a high detection capability, with less ability to detect non-magnetic metals. They are used to detect the concealed metal weapons on a person's body. It offers high-speed detection capability. It can detect large metal objects like knives and guns. Its screening capacity is very large when compared to hand-held metal detectors.

1.2 Appearance
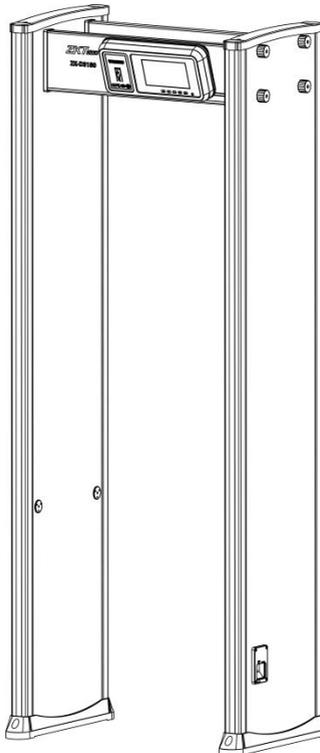
1.3 **Components**
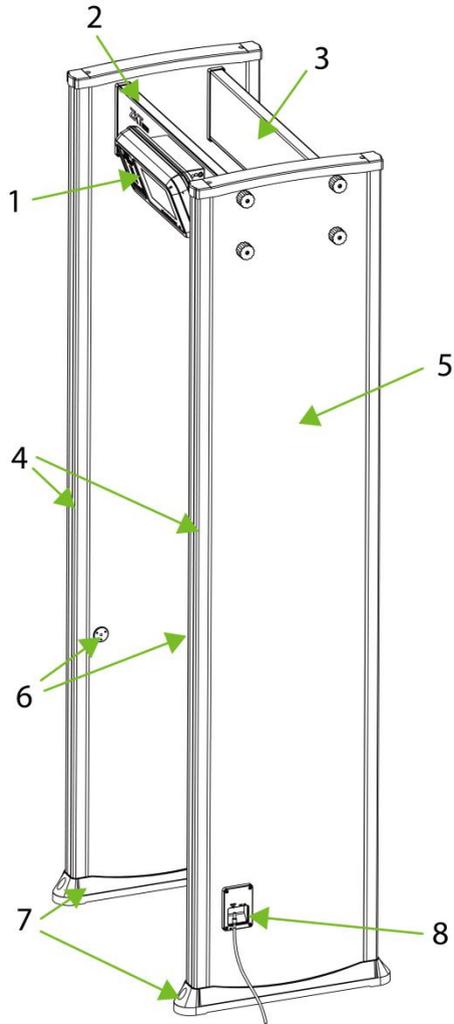
1. Host   2. Front Beam   3. Rear Beam

4. Alarm Indicator Post   5. Built-in Coil   6. Infrared Sensors

7. Waterproof Foot Cover   8. Power Interface

2 Product Specifications

2.1 Dimensions

Front View   **Side View**
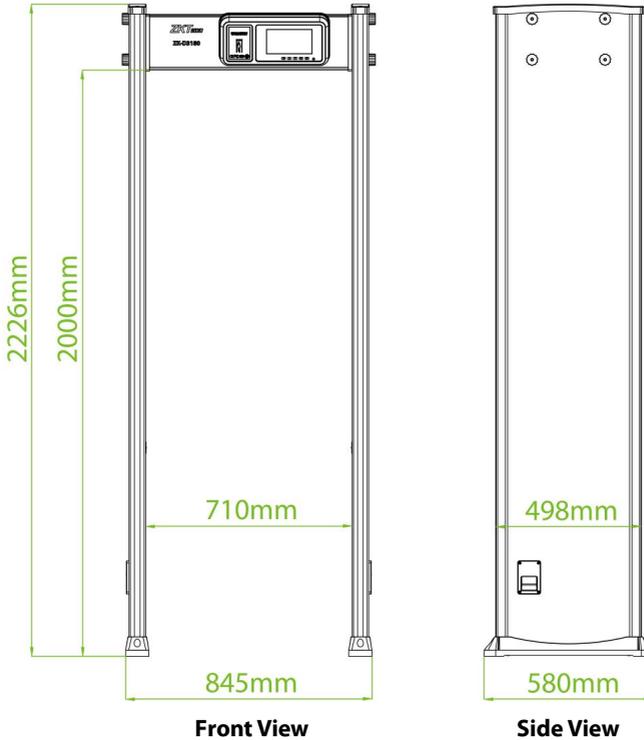
2.2 Technical Specifications

Feature		Specifications
Power		DC 12V, 3A
Operating Temperature		-20℃ to 55℃
Operating Frequency		5.6KHz to 10KHz
Dimensions	**External**	2226(H)x845(W)x580(D)mm
	Channel	2000(H)x710(W)x580(D)mm
Weight		55kg

3 Installation Setup

3.1 Safety Precautions

- Install the detector in a stable and smooth area. Make sure that the detector is installed firmly in the selected area.

- It can be used for both indoor and outdoor purposes. If used outdoor, cover it with a canopy to protect against rain.

- Before installation, make sure the left and right door panels are placed at the corresponding location. Avoid high temperatures and wet environments.

- Wait for 1 minute for the self-diagnosis of the detector when it starts. Do not touch the detector during a security check to avoid false alarm.

- Install the detector away from radio-frequency devices to avoid interference. Make sure that there is no large metal object or strong magnetic field around the detector for at least 2 meters.

- Do not hit the detector hardly, as it may cause false alarms.

- Do not disassemble the unit without the guidance of a professional technician.

- Each device has a warranty card, with which users can have their devices maintained or repaired free of charge within the warranty period.

3.2 Instructions to Pedestrians

- A line must be drawn at 50cm away from the detector. The pedestrians must pass through the detector one-by-one.

- Pedestrians should line up one-by-one to ensure the smooth operation of the detector.

- Pedestrians should walk at a normal speed. They must not intentionally form a crowd, rush, walk slowly, or crush the door panel.

- Before passing through the metal detector, the pedestrians must remove all the carried metal objects (such as keys, mobile phone, watch, coins, etc.), and place it on the security chute or a table, and pick it up after the security check.

- If the detector alarms when someone passes through, that means there is/are some metal object(s) hidden in the body. The security guard can use a hand-held metal detector to accurately detect the hidden position according to the alarm zones.

3.3 Installation Site

The following section describes the requirements of the installation environment.

3.3.1 Stationary Metallic Items

The detector must be installed away at 1m from the stationary metallic items such as aluminum alloy/stainless-steel windows, doors, etc. to prevent false alarms and affecting the sensitivity of the detector.

3.3.2 Portable Metallic Items

The portable metallic objects must be kept away at 2 meters from the detector to avoid false alarms.

3.3.3 Floor Vibration

The installation floor must be flat and fixed to avoid false alarm from the movement of the people walking through the detector.

3.3.4 Electromagnetic Radiation and Interference

Since the detector uses Bilateral receiver technology, the detector must be installed away at a distance of at least 1 meter from the sources of electromagnetic radiation or electromagnetic interference. The parameters that define the distance are determined by the installation environment and the parameters vary for different installation environments.

The sources of electromagnetic radiation and electromagnetic interference are given below:

- Electrical Control Box, Radiofrequency equipment, Interphone, High Power Motor, Power Transformer, Ac Power Lines, Thyristor Control Circuit (High Power Switching Power Supply, Inverter Welder), Engine, Motor, etc.

3.3.5 Parallel Installation

When two detectors are installed parallel to each other, the distance between two detectors must be greater than 50cm. When three detectors are installed parallel to each other, the distance between each detector must be greater than 80cm. They must operate at a different frequency to avoid interference. The distance varies according to the actual working environment, it is not recommended to mount three detectors in parallel, the frequency can be adjusted according to the environment.

3.4 Installation Steps

Make sure that the device is installed as per the following installation instructions. If you want to open the chassis, you should contact the agent for permission. Otherwise, you will bear any consequence resulting from your actions.

After reading the precautions and checking the packing list, please follow the steps below for installation.

Step 1: Open the package, and then place the left and right door panels on the ground in the direction shown in the figure 3-1 below. Pay attention to distinguish the left, right and direction of the door panel (the signal line interface faces upward and inward).
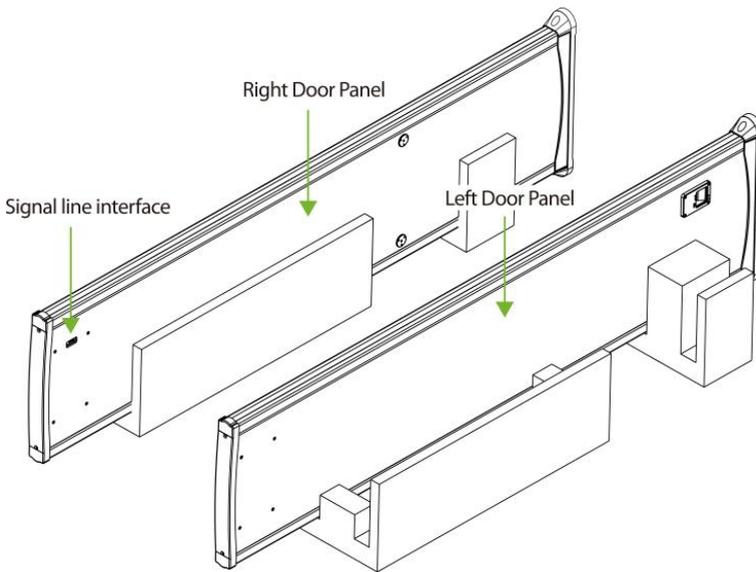

Figure 3-1

Step 2: Connect the rear beam with the left and right door panels with bolts, as shown in the figure 3-2 below (note that the bolts are not tightened at this time).
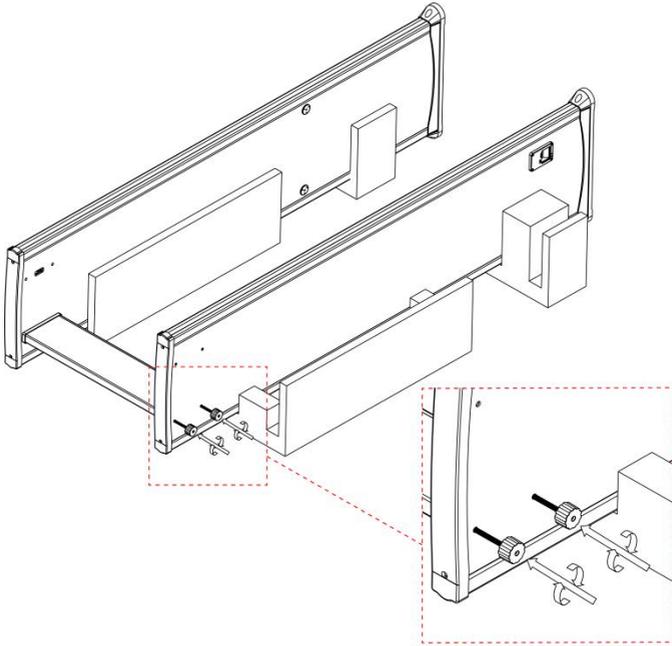
Figure 3-2

Step 3: Install the adjustable metal bracket on the host. The screws and holes on both sides of the bracket can fix and adjust the display angle of the host, as shown in the figure 3-3 below.
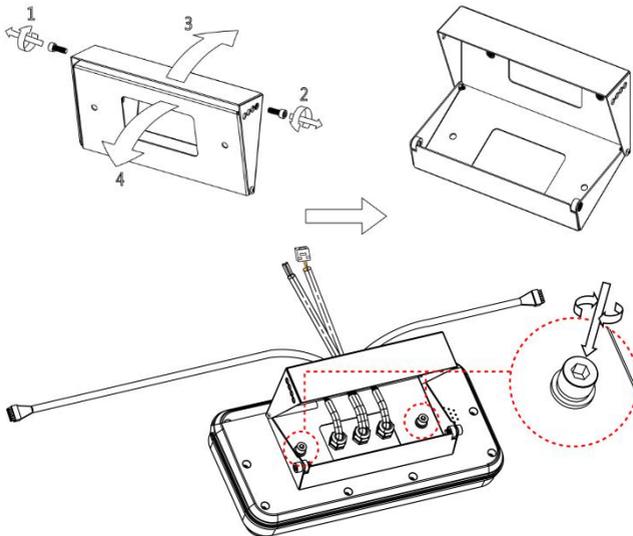

Figure 3-3

Step 4: Open the left and right cover of the front beam, push out the lower cover, as shown in the figure 3-4 below.
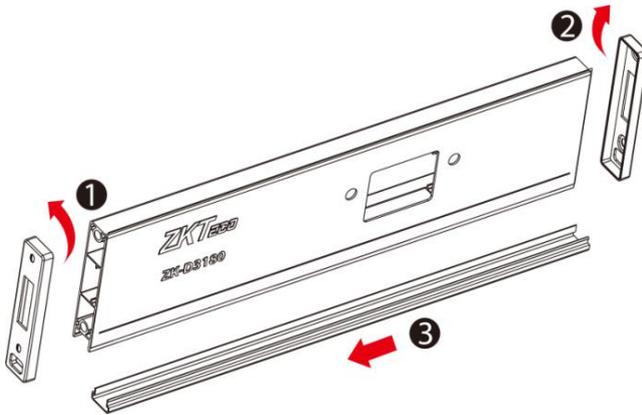

Figure 3-4

Step 5: Pass the Host Signal Line, the Linkage Signal Line and the Network Interface Line through the opening of the front beam, as shown in the figure 3-5 below.
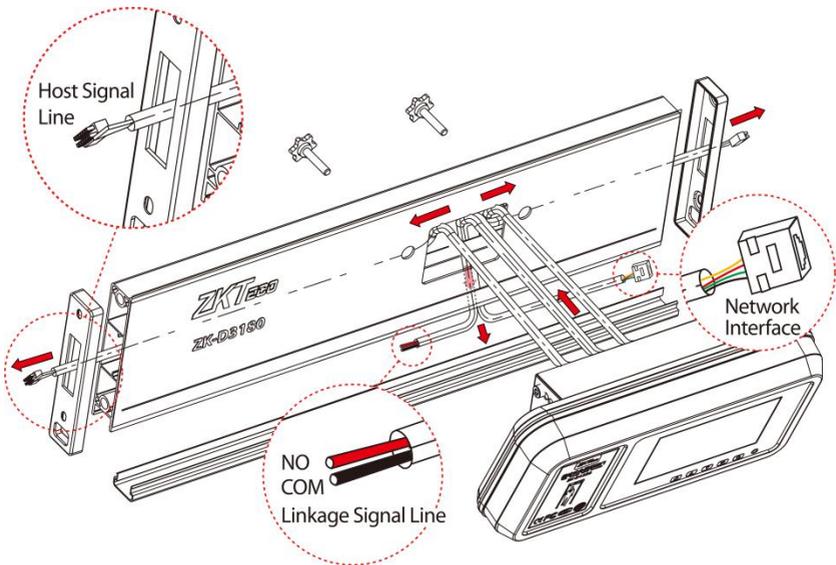

Figure 3-5

Step 6: After covering the beam cover, connect the host to the front beam with bolts, and tighten the screws with two Torx Thumb Screws, as shown in the figure 3-6 below.
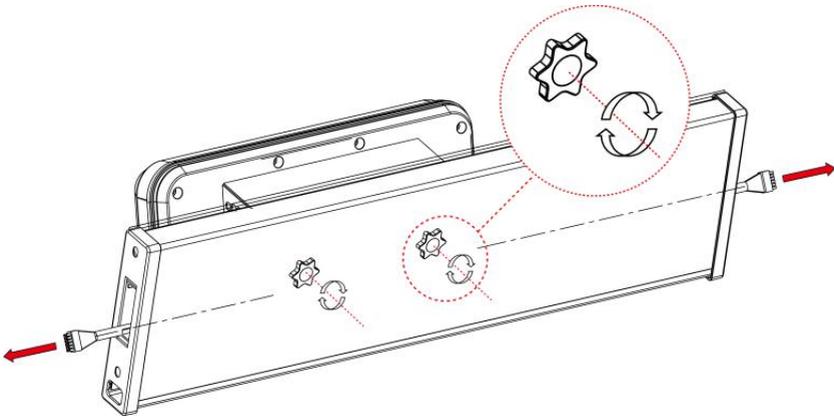
Figure 3-6

Step 7: Insert the left and right signal wire plugs, as shown in the figure 3-7 below (pay attention to distinguish the left and right signal wires).
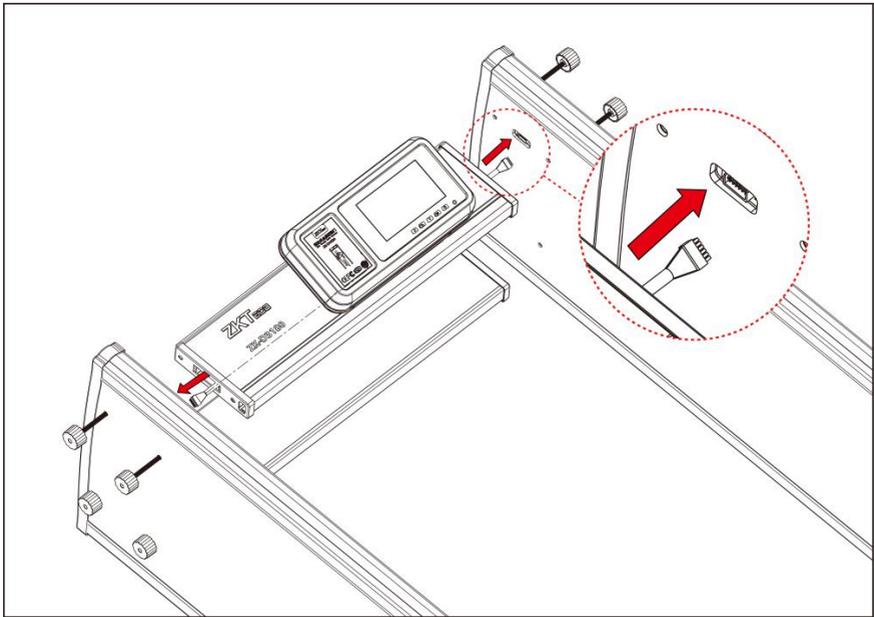
Figure 3-7

Step 8: The User can connect the linkage signal line with the barrier gate according to the needs to realize the linkage function of the Walk Through Metal Detector and the barrier gate. The wiring circuit diagram is shown in the figure 3-8 below.

Figure 3-8

Step 9: Connect the front cross beam with the left and right door panels with bolts and tighten all the bolts, as shown in the figure 3-9 below.

Figure 3-9

Step 10: Lift and move the security gate to the designated working position, connect the side power cord, and press the power switch to enter the working state, as shown in the figure 3-10 below.

Figure 3-10

4 Performance and Technical Features

Accurate Positioning: There is an option to select 1, 6, 12, or 18 overlapping detection zones with bilateral transmit and rec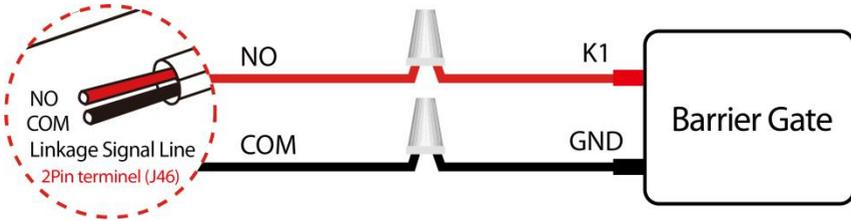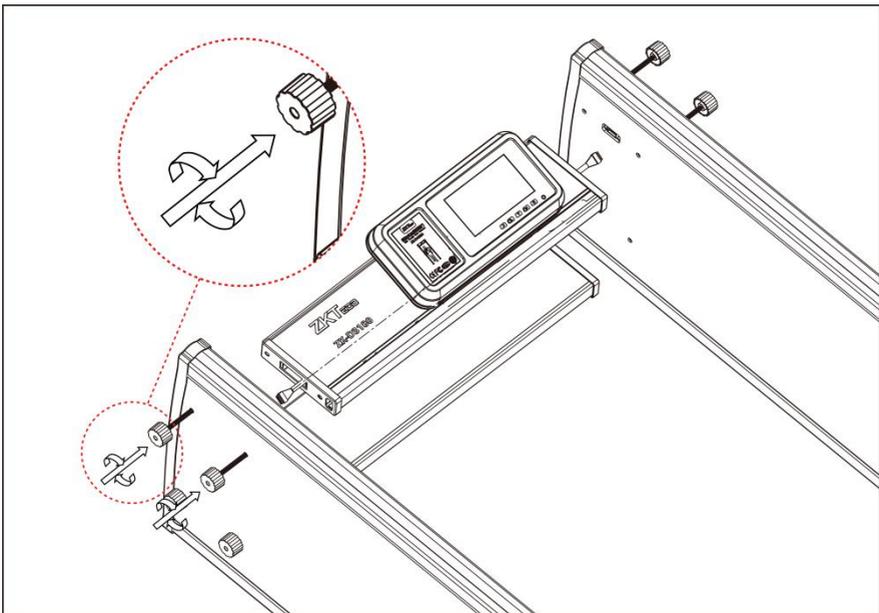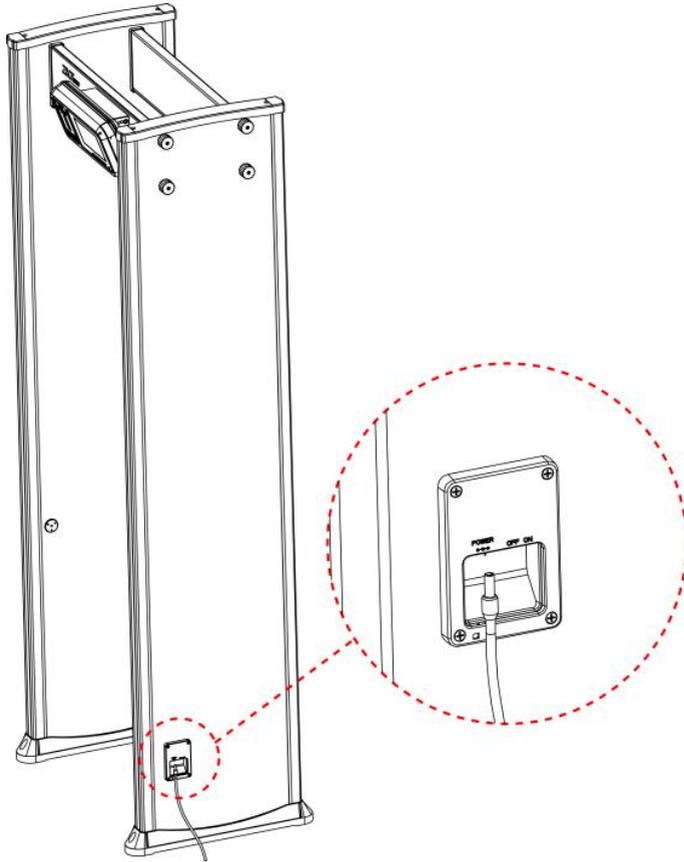eive technology. The detection zones can accurately detect the objects with an intuitive display of the target location.

Micro Processor Technology: The Microprocessor Control Unit generates the electromagnetic waves for scanning. The scanning rate can be precisely controlled.

Adjustable Sensitivity: ZK-D3180 detection zones have 1 to 500 sensitivity levels. You can preset the metal size for excluding items like coins, keys, jewelry, buckle, etc.

Visual Sensitivity Adjustment: When you adjust the sensitivity level of a detection zone, the LED light mapping of the detection zone turns on.

Password Protection: Only the correct password can change the sensitivity and other parameters. The password contains six digits. The default factory password is 100000.

Digital Pulse Technology: Digital signal processing and filtering system in the detector has excellent anti-interference ability.

Count Statistics: The detector displays the number of pedestrians passed and Alarm count accurately.

Harmless: The detector is harmless to heart pacemakers, pregnant women, magnetic floppy disks, recording tapes, etc.

Waterproof Foot Cover: The waterproof foot cover not only can fix the device firmly but also protect the device against water.

**Safety:** The Control Unit case and the panels are waterproof. The cover is made of PVC synthetic material which makes the detector waterproof, fireproof, and shockproof.

Easy to install: The detector has an integrated design and it can be effortlessly installed or disassembled in 15 minutes.

Linkage: Users can connect as needed to realize the linkage function of the metal detector and the turnstile.

5 Detection Zones

5.1 About the Detection Zones
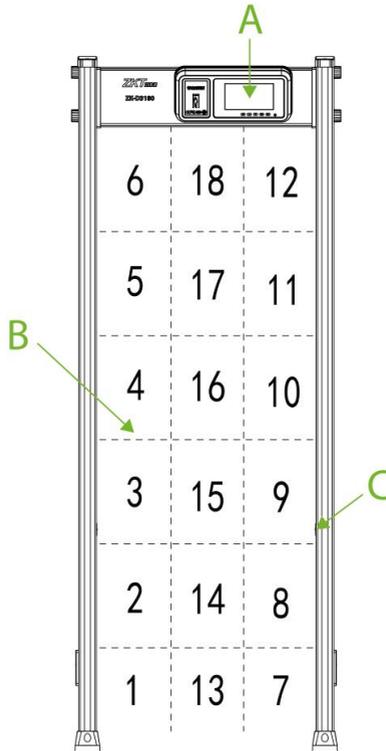
A. 7" LCD and control buttons

7" LCD display with control buttons. The standby interface displays the following content: Device ID Number, Date and Time, Working Channel, Entry Count, Exit Count, Alarm Count, In-Out Difference, Alarm Rate, Total number of alarms and detection signal strength, etc.

B. Detection zone display

There are six sets of precise positioning LEDs evenly distributed on the left and right door panels, showing the status of 18 detection zones, as shown in the image above. The zone indicators can be turned on or off. If the walkthrough metal detector detects metals of the size that reach or exceed the preset value, the alarm indicator of the detection zone turns on, and an alarm is generated. (Note: No alarm is generated if the device is in mute state.)

C. Infrared Sensor

After the power is on, the metal detection door starts to work, and when no person or object passes through the metal detection door, the infrared sensor can effectively stop the alarm, and it can avoid false alarm. And the number of people passing through is counted accurately.

5.2 Adjustment of Detection Zone's Sensitivity

1   The device must be in a stable position to achieve the best detection effect (refer 3.3 Installation Site). To check whether the device is in a stable state, perform the following steps:

    a)   Power on the detector and check whether it is not shaking after one minute.

    b)   The device should not alarm when the testing person did not carry any metal items while walking through the detector.

2   You can exclude the small portable metal objects such as rings, key, belt buckle, shoes, and so on, by following the steps given below:

    a)   Choose a small metal as a sample. Increase the sensitivity, so that when the testing person carries the sample and pass through the detector, and it would alarm.

    b)   Decrease the sensitivity a little, carry the sample, and pass through the detector again. If it still alarms, once again reduce the sensitivity, until the device does not alarm when the sample is passed through.

Note: If you want to decrease the sensitivity in a certain zone, you must only adjust the sensitivity of the relative zone. After implementing the above adjustments, the metal which smaller than the sample will not alarm, but the metal objects bigger than the sample can be detected accurately.

6 Control Panel Description
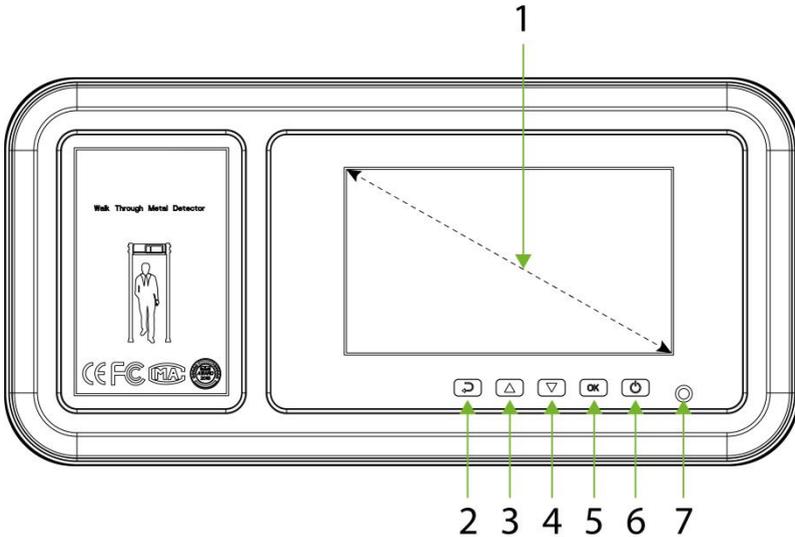
The components of the Control Panel are given below:

1		**7" LCD**	Displays information such as the number of passengers, alarms, detection signal strength, time, and channel etc.
2		**Return Button**	Exits the current menu item.
3		**Up Button**	Selects a menu item or increases a value.
4		**Down Button**	Selects a menu item or decreases a value.
5		**OK Button**	Enters a menu item or save settings.
6		**Power Button**	Power on or off the device.
7		**Light**	Infrared remote signal receive terminal.

7 **<u>Remote Control Description</u>**
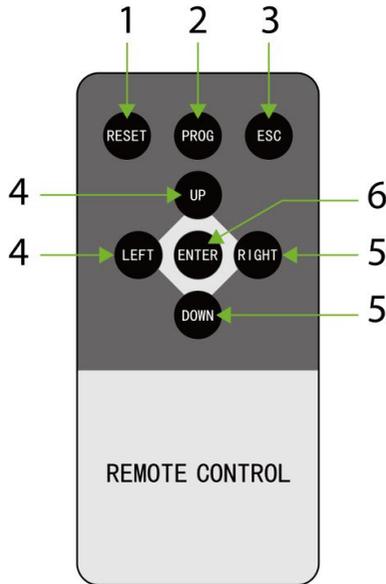
The buttons of the Remote Control and their description are given below:

1	**RESET**	Undefined.
2	**PROG**	Long press 3 seconds to turn off the device.
3	**ESC**	Exits the current menu item.
4	**UP / LEFT**	Selects a menu item or increases a value.
5	**DOWN / RIGHT**	Selects a menu item or decreases a value.
6	**ENTER**	Menu key, confirmation key and adjustment value.

8 Operational Procedure

8.1 Standby Interface

Connect the power supply to the detector. After 2 seconds of initialization, the following standby interface is displayed:
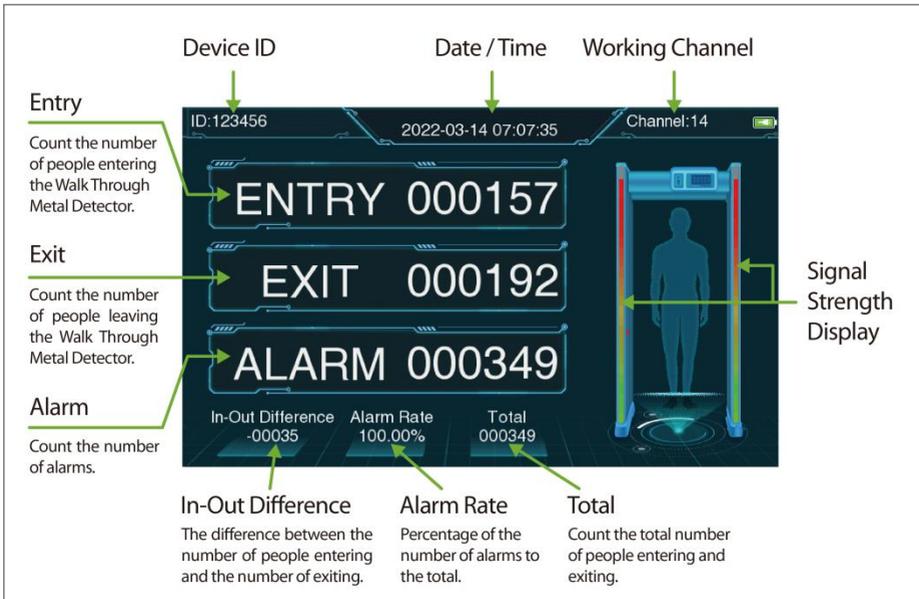
The standby interface displays the following content: Device ID Number, Date and Time, Working Channel, Entry Count, Exit Count, Alarm Count, In-Out Difference, Alarm Rate, Total number and detection signal strength, etc.

8.2 Main Menu

In the standby mode, press the **OK** button on the control panel to enter the verification password input interface. For the first operation of the device, please enter the factory password of the device: **100000**, and select "**Confirm**" after completion. When the prompt "Verify Succeed", the verification is completed.
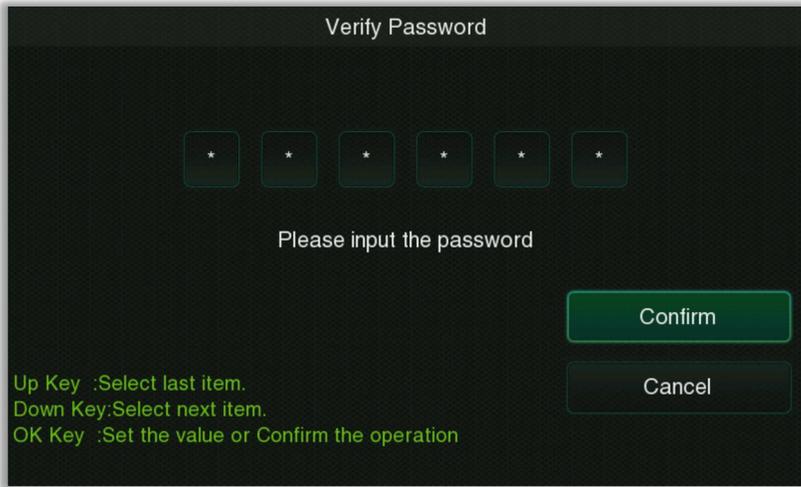
Operation: Press the **[OK]** button to enter the verification password input interface, then press the **[OK]** button to set the value, press the **[▲]/ [▼]** button to switch, select "**Confirm**" and then press the **[OK]** button to save and exit.

After entering the password successfully, you will enter the main menu interface as shown below:

Function Description

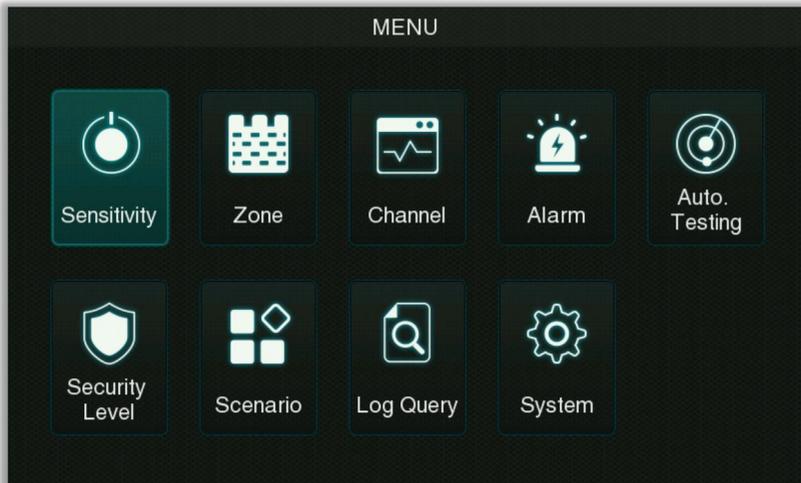| Menu	Descriptions
Sensitivity	Used to set the detection sensitivity threshold, including Global Sensitivity and Zone Sensitivity.
Zone	Used to set up independent zones to facilitate precise positioning of detected objects.
Channel	Used to set the frequency band, including Manual Setting and Auto Setting.
Alarm	Used for alarm settings, including parameters such as Volume, Delay, Ring Tone, Random Alarm, and Alarm Mode.
Auto. Testing	Automatically detect whether the functions of each module are available, including Zone, LED and Speaker test.
Security Level	Used to set the security level.
Scenario	It is used to set the application scenarios of the device.
Log Query	Record query function, convenient for users to query the logs saved in the device.
System	Set the relevant parameters of the system to maximize the function and display of the device to meet user needs, including Password, Screen Sleep, Date / Time, Language, Saved Records, Reset, Detect Mode, Relay Mode, and Custom ID etc.

8.3 Sensitivity Adjustment

Select **Sensitivity** on the **Main Menu** interface, and press **OK** to set the sensitivity level of each detection zone, as shown in the following:
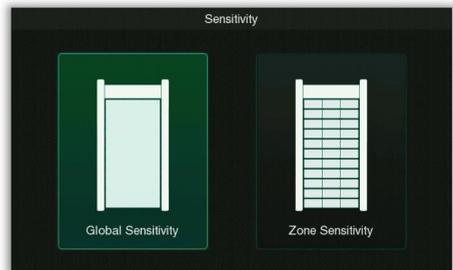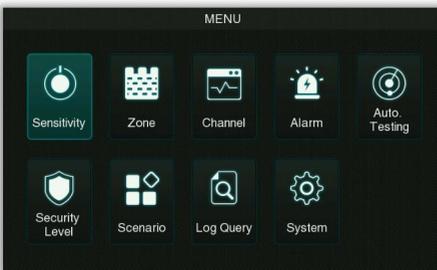
- **Global Sensitivity**

Select **Global Sensitivity** on the **Sensitivity** interface and press **OK** to get into its setting interface, as shown in the following:
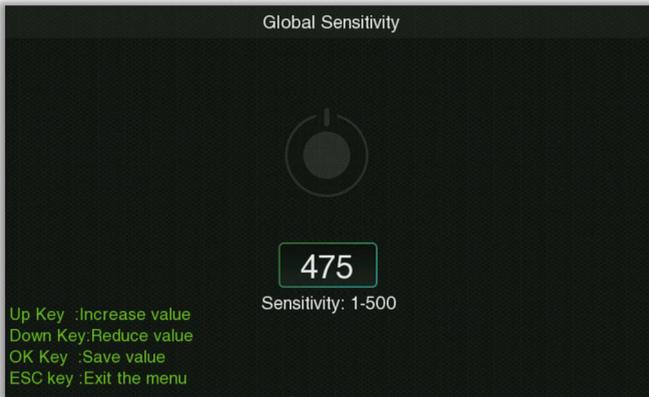
The larger the global sensitivity threshold the higher the sensitivity, and the effective value is 1 to 500, the default value is 460.

- **Zone Sensitivity**

Select **Zone Sensitivity** on the **Sensitivity** interface and press **OK** to get into its setting interface, as shown in the following:

When the partition is selected for setting, the indicator light of the corresponding partition on the walk through metal detector will light up. The greater the regional sensitivity threshold, the higher the sensitivity, the effective value is 1-500, and the default value is 460.

Note: You need to set up independent defense zones in the **Defense Zone Settings** interface first.

Operation: Press the **[OK]** button to enter the sensitivity setting interface, then press the **[▲]/ [▼]** button to increase or decrease the value, press **[OK]** button to save and exit to the upper menu after finishing, directly press **[⏎]** button to exit to the upper menu without saving the current value.

8.4 Zone Mode

In the zone mode, you can select the number of independent zone according to the operational needs of the device.

Select **Zone** on the **Main Menu** interface, and press **OK** to select the particular zone settings, as shown in the following:

Operation: Press the **[OK]** button to enter the zone setting interface, then press the **[▲]/ [▼]** button to select, press **[OK]** button to save and exit.

Remark: Different independent zones, the **Zone Sensitivity** setting interface is as follows:
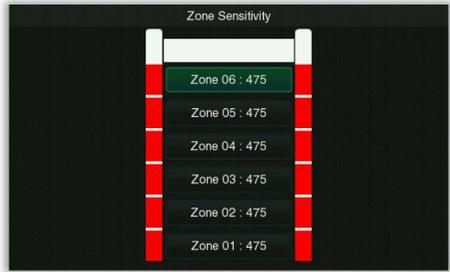
8.5 Channel Settings

Select **Channel** on the **Main Menu** interface, and press **OK** to enter the band setting interface, as shown in the following:
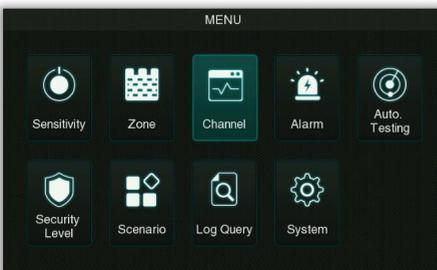
- **Manual Setting**

Select **Manual Setting** on the **Channel** interface and press **OK** to get into its setting interface. The channel range is from 1 to 100, the default value is 14.

Operation: Press the **[OK]** button to enter the manual setting interface, then press the **[▲]/ [▼]** button to increase or decrease the value, press **[OK]** button to save and exit to the upper menu after finishing, directly press **[⏎]** button to exit to the upper menu without saving the current value.

- **Auto Setting**
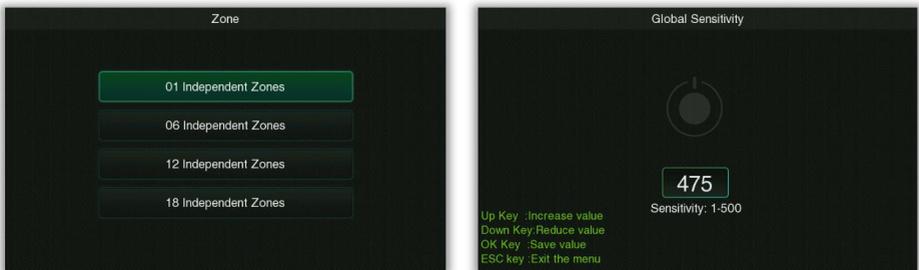
Select **Auto Setting** on the **Channel** interface and press **OK** to get into its setting interface, as shown in the following:

Operation: Press the **[OK]** button to enter the auto setting interface and the device will execute the automatic setting. When it prompts "Settings Completed", it will complete the automatic setting of the frequency band and jump to the main menu.

8.6 Alarm Settings

Select **Alarm** on the **Main Menu** interface, and press **OK** to enter the alarm settings interface, as shown in the following:
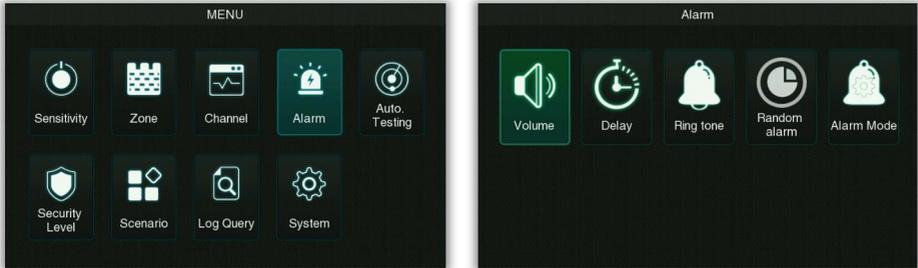
- **Volume**

Select **Volume** on the Alarm setting interface, and press **OK** to enter the alarm volume settings interface, as shown in the following:
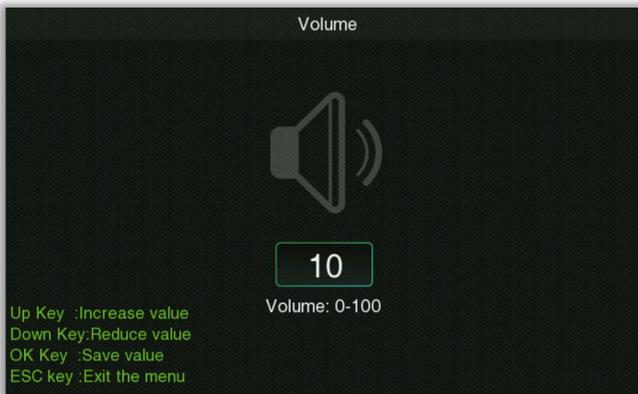
Used to set the alarm volume, the larger the value the higher the volume, valid values are 0 to 100, the default value is 80.

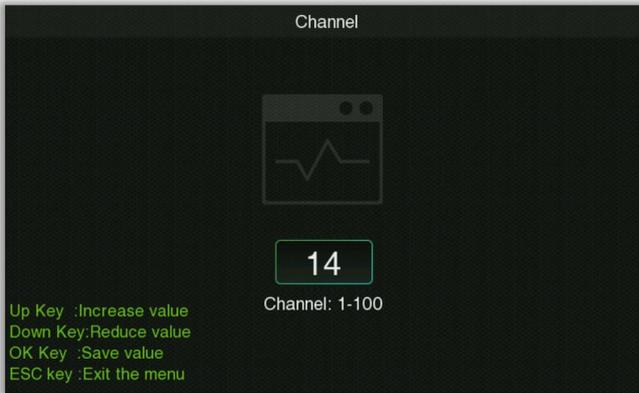**Operation:** Press the **[OK]** button to enter the volume setting interface, then press the **[▲]/ [▼]** button to increase or decrease the value, press **[OK]** button to save and exit to the upper menu after finishing, directly press **[⏎]** button to exit to the upper menu without saving the current value.

- **Delay**

Select **Delay** on the Alarm setting interface, and press **OK** to enter the alarm delay duration setting, as shown in the following:

Used to set the length of time for the alarm to ring, the effective value is 1 to 99 seconds, the default value is 1 second.
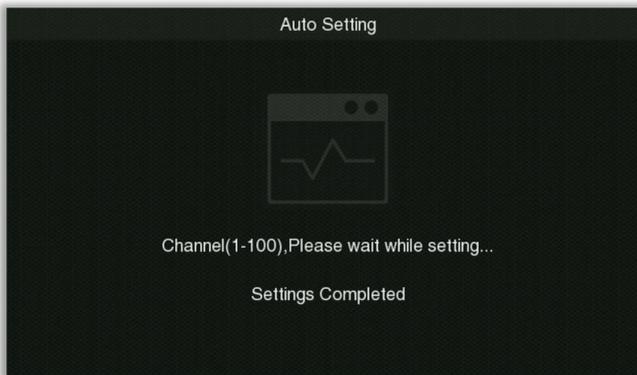

Operation: Press the **[OK]** button to enter the alarm delay duration setting interface, then press the **[▲]/ [▼]** button to increase or decrease the value, press **[OK]** button to save and exit to the upper menu after finishing, directly press **[↵]** button to exit to the upper menu without saving the current value.

- **Ring Tone**

Select **Ring Tone** on the Alarm setting interface, and press **OK** to enter the alarm alarm ring setting interface, as shown in the following:

It is used to set the ringtone when the alarm rings, a total of 16 ringtones can be selected.

Operation: Press the **[OK]** button to enter the ring tone setting interface, then press the **[▲]/ [▼]** button to select, press **[OK]** button to save and exit.

- **Random alarm**

Select **Random alarm** on the Alarm setting interface, and press **OK** to enter the random alarm setting interface, as shown in the following:
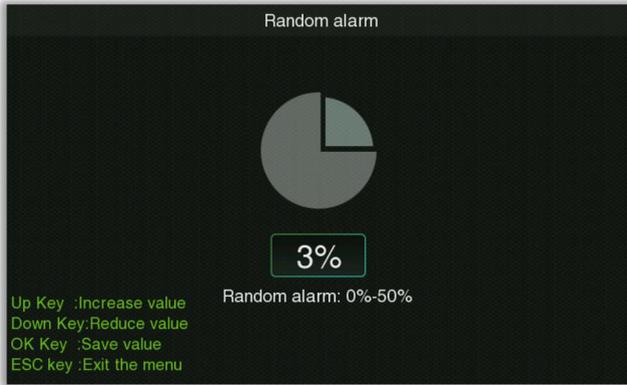
Under normal circumstances, the alarm is generated when the amount of metal signal reaches the set sensitivity threshold, while it can pass normally when it is less than the threshold. When a random alarm value is set, there will be a n% probability that a normal pass without alarm will be turned into an alarm, so that it can be checked and confirmed again manually.
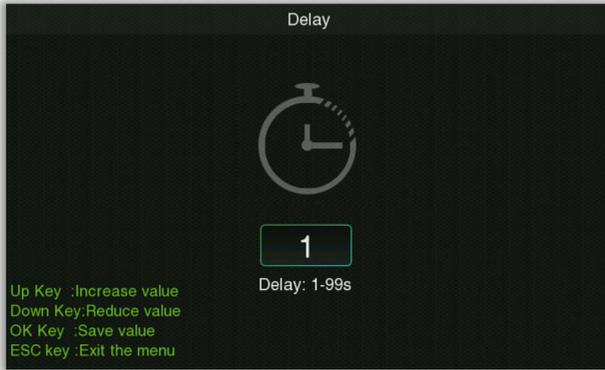

Operation: Press the **[OK]** button to enter the random alarm setting interface, then press the **[▲]/ [▼]** button to increase or decrease the value, press **[OK]** button to save and exit to the upper menu after finishing, directly press **[⏎]** button to exit to the upper menu without saving the current value.

- **Alarm Mode**

Select **Alarm Mode** on the Alarm setting interface, and press **OK** to enter the alarm mode setting interface, as shown in the following:

Function Description

| Menu	Descriptions
All Zone	In the All Zone alarm mode, when the detected metal content reaches or exceeds the set metal content, the area alarm light of the detected metal will be serial lit, and an alarm will sound at the same time. Suitable for normal mode.
Interval Zone	In the Interval Zone alarm mode, the zone warning lights that detect strong metal content will light up at intervals, that is, two consecutive zones will not light up at the same time. Facilitates identification and focused detection of stronger zones by security personnel.
Single Zone	In the Single Zone alarm mode, only the zone with the strongest metal content is detected and the alarm lamp lights up. Facilitate the security personnel to precisely focus on the area for detection.

Operation: Press the **[OK]** button to enter the alarm mode setting interface, then press the **[▲]/ [▼]** button to select, press **[OK]** button to save and exit.

8.7 Auto Testing

Select **Auto Testing** on the **Main Menu** interface, and press **OK** to enter this option where the system self-checks its functions. As shown in the following:
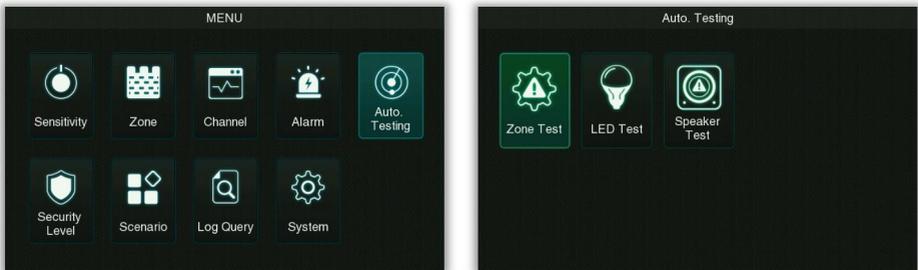
- **Zone Test**

Select **Zone Test** on the Alarm setting interface, and press **OK** to enter the partition test. The test example is shown below.
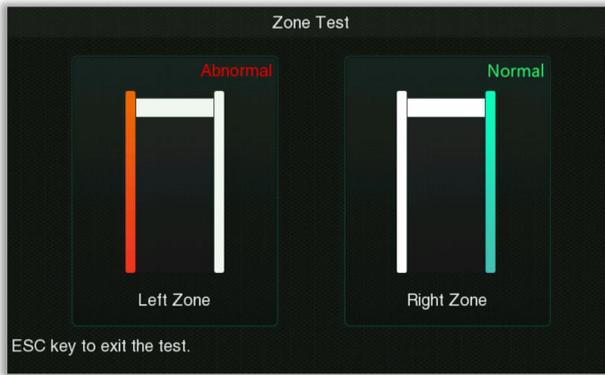
Operation: Press the **[OK]** button to enter the partition test, then press **[⏎]** button to exit to the upper menu.

- **LED Test**

Select **LED Test** on the Alarm setting interface, and press **OK** to enter the lighting test. The test example is shown below.
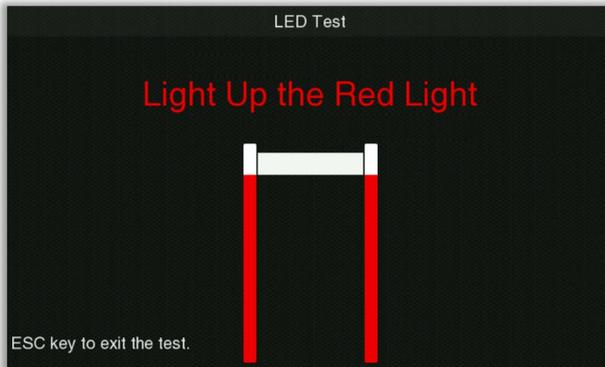
Operation: Press the **[OK]** button to enter the lighting test, then press the **[▲]/ [▼]** button to select the test content. When "Light Up the Red Light" is selected, the red light of the light bar around the door panel will light up immediately. It means that this function is normal, press the **[⏎]** button to exit to the upper menu.

- **Speaker Test**

Select **Speaker Test** on the Alarm setting interface, and press **OK** to enter the voice test. The test example is shown below.
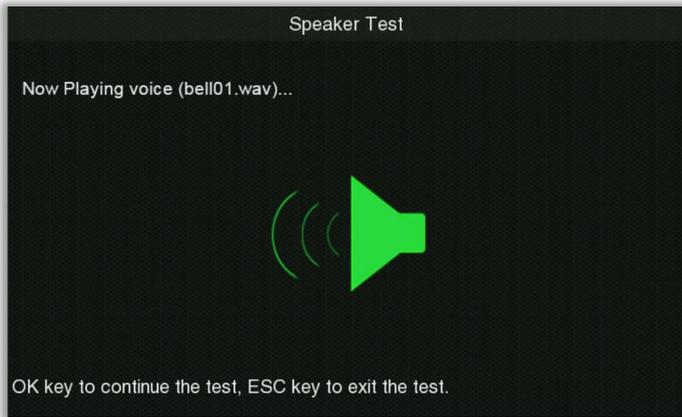
Operation: Press the **[OK]** button to enter the voice test. Then continue to press the [OK] button to play 5 voice content one by one, press the **[⏎]** button to exit and return to the previous menu.

8.8 Security Level

Select **Security Level** on the **Main Menu** interface, and press **OK** to enter the security level setting interface, as shown in the following:

Three security levels can be set as Low, Middle and High. The higher the security level, the higher the corresponding sensitivity.

Operation: Press the **[OK]** button to enter the security level setting interface, then press the **[▲]/[▼]** button to select, press **[OK]** button to save and exit.


8.9 Scenario

Select **Scenario** on the **Main Menu** interface, and press **OK** to enter the application scenario setting interface, as shown in the following:

Scenario 1			
Airport	Trial room	Security Bureau	The office building
Customs	Gymnasium	Archives Center	Mall
Port	Exhibition	Labor camp	The auction
Prison	Courts	Drug rehabilitation	Amusement park
Detention centers	Petition office	Military buildings	The zoo
Police Station	Factory	Ammunition depots	Hotel
Train Stations	Wharf	Border inspection	Wine shop
Bus Stations	Homeland security	Bank	The field
Meeting	The people's procuratorate	Vault	Nightclub
Next Page			

Scenario 2			
Bar	Elite housing	Coal mining	Generating station
Disco	Jewelry industry	Metal industry	Cigarette industry
Ice rink	Chip industry	The food industry	Pharmaceutical industry
Ski rink	Semiconductor industry	Beverage industry	Industrial and mining
School	Electronics industry	Luggage industry	Pressure casting industry
The church	Circuit foundry	Shoe industry	Plumbing equipment industry
Examination authority	Wire industry	Chemical Specialty Industry	Electroplating industry
Villa	Cable industry	The museum	Hardware products
Community	Rare metal industry	Oil depot	Cartridge industry
Last Page			

You can choose different scenarios in Scenario 1 and Scenario 2 for setting.

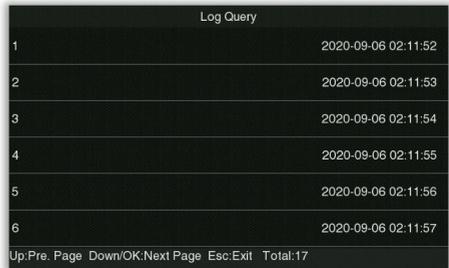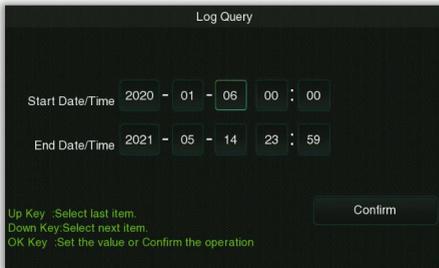**Operation:** Press the **[OK]** button to enter the application scenario setting, then press the **[▲]/ [▼]** button to select the scenarios, press **[OK]** button to save and exit.

8.10 Log Query

Select **Log Query** on the **Main Menu** interface, and press **OK** to enter the log query interface, as shown in the following:

Start Date/Time 2020 - 01 - 06 00 : 00
End Date/Time 2021 - 05 - 14 23 : 59

Confirm

Up Key :Select last item.
Down Key:Select next item.
OK Key :Set the value or Confirm the operation

Log Query	
1	2020-09-06 02:11:52
2	2020-09-06 02:11:53
3	2020-09-06 02:11:54
4	2020-09-06 02:11:55
5	2020-09-06 02:11:56
6	2020-09-06 02:11:57

Up:Pre. Page Down/OK:Next Page Esc:Exit Total:17

Each page of the query result displays 6 historical alarm records, and the total number of alarm records can be viewed at the lower right corner of the page.

Operation: Press the **[OK]** button to enter the log query interface, then press the **[▲]/ [▼]** button to select, press **[OK]** button to set the Start Day/Time and End Day/Time of the query and confirm the query. On the query result page, when there are many records, you can press the **[▲]/ [▼]** button to turn the page to view. Press the **[⏎]** button to exit the record query.

8.11 System Settings

Select **System** on the **Main Menu** interface, and press **OK** to enter the system settings interface, as shown in the following:

It is used to set the relevant parameters of the system so that the device can maximize the user requirements in terms of function, display, etc.

- **Password**

Select **Password** on the System setting interface, and press **OK** to enter the password setting interface, as shown in the following:
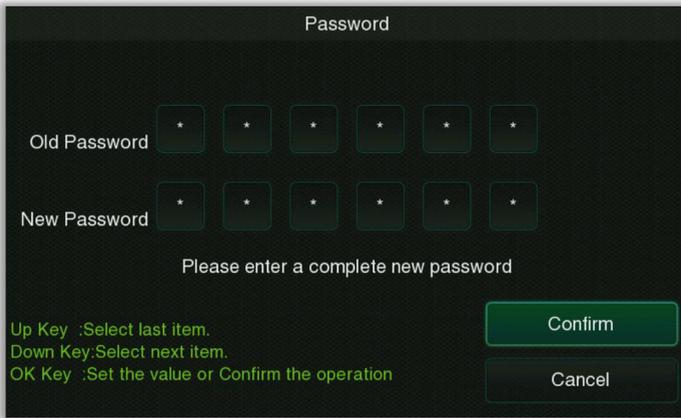
Operation: Press the **[OK]** button to enter the password setting interface, then press the **[▲]/ [▼]** button to select. Press **[OK]** button to set the value, after inputting the old password and new password, select "Confirm" and press **[OK]** button to save and exit.

- **Screen Sleep**

Select **Screen Sleep** on the System setting interface, and press **OK** to enter the screen hibernation setting interface, as shown in the following:

You can set the screen hibernation duration here, there are 0s, 10s, 20s, 40s, 60s and 120s optional. **Note:** The 0s means the screen will not hibernation.

Operation: Press the **[OK]** button to enter the screen hibernation setting, then press the **[▲]/ [▼]** button to select. Press **[OK]** button to save and exit to the upper menu after finishing.

- **Date/Time**

Select **Date/Time** on the System setting interface, and press **OK** to enter the system Date & Time setting interface, as shown in the following:

Operation: Press the **[OK]** button to enter the system Date & Time setting, then press the **[▲]/ [▼]** button to select. Press **[OK]** button to set the value, select "**Confirm**" and press the **[OK]** button to save and exit.

- **Language**

Select **Language** on the System setting interface, and press **OK** to enter the language setting interface, as shown in the following:

Operation: Press the **[OK]** button to enter the language setting, then press the **[▲]/ [▼]** button to switch languages. Press the **[OK]** button to confirm, the device will automatically restart, and the set language interface will be displayed after completion.

- **Save Records**

Select **Save Records** on the System setting interface, and press **OK** to enter the setting interface, as shown in the following:

It is used to set whether to save the number of alarm records after the device is turned off, select "Yes" to save, select "No" to clear, and select "Manually reset the count" to clear count manually.
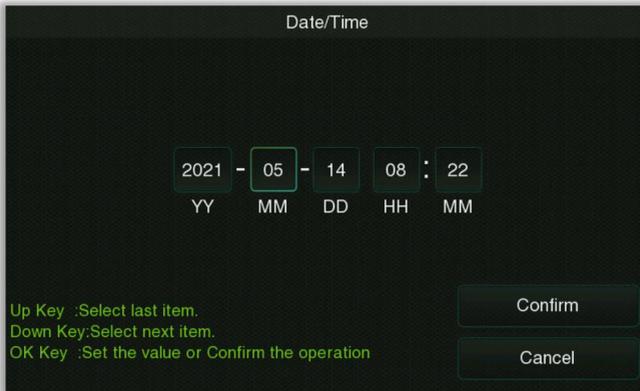
Operation: Press the **[OK]** button to enter the setting interface, then press the **[▲]/ [▼]** button to select. Press **[OK]** button to save and exit to the upper menu.

- **Reset**

Select **Reset** on the System setting interface, and press **OK** to enter the restore factory settings interface, as shown in the following:

Operation: Press the **[OK]** button to enter the restore factory settings, then press the **[▲]/ [▼]** button to choose whether to restore factory settings. Press the **[OK]** button to confirm. After selecting "Yes", the device will automatically restart and restore to factory settings.

- **Detect Mode**

Select **Detect Mode** on the System setting interface, and press **OK** to enter the detect mode setting interface, as shown in the following:

Function Description

Menu	Descriptions
Automatic Detection Mode	In this mode, an alarm is generated when the amount of metal signal reaches the set sensitivity threshold, and no counting statistics are performed.
Infrared Detection Mode	In this mode, when the infrared detector is triggered and the amount of metal signal reaches the set sensitivity threshold, an alarm will be generated, and counting statistics will be performed.

Operation: Press the **[OK]** button to enter the detect mode setting interface, then press the **[▲]/ [▼]** button to select, press **[OK]** button to save and exit.

- **Relay Mode**

Select **Relay Mode** on the System setting interface, and press **OK** to enter the relay control setting interface, as shown in the following:

Function Description

Menu	Descriptions
Normal open	In this mode, when the metal content carried is less than the alarm threshold, the relay will be triggered to output a switch signal when the machine does not alarm;

Abnormal open	In this mode, when the metal content exceeds the alarm threshold, the machine will trigger the relay to output a switch signal when the machine alarms;
None	Means that the relay is always in the off state and does not output a switch signal.

Operation: Press the **[OK]** button to enter the relay mode setting interface, then press the **[▲]/ [▼]** buttonto select trigger setting, press **[OK]** button to save and exit.

- **Custom ID**

Select **Custom ID** on the System setting interface, and press **OK** to enter the custom ID setting interface, as shown in the following:
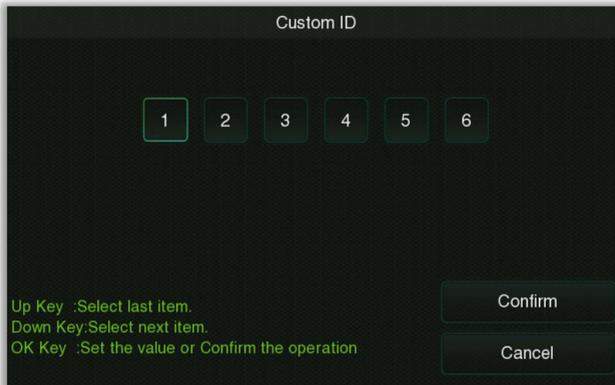
The ID is the device ID (the default value is 123456).

Operation: Press the **[OK]** button to enter the custom ID setting interface, then press the **[▲]/ [▼]** button to select setting item. Press the **[OK]** button to set the value of 0 to 9, select "confirm" and press the **[OK]** button to save and exit.

8.12 Default Parameters

Parameter	Default Value
System Password	100000
Global / Zone Sensitivity	460
Channel	14
Alarm Volume	80
Alarm Delay	1.0 s
Alarm Ringtone	Ring tone 1
Random Alarm	0%
Alarm Mode	All Zone
Security Level	High
Application Area	None
Screen Hibernation	120s
Language	English
Save Records	No
Detect Mode	Infrared Detection Mode
Relay Mode	None
Custom ID	123456

Troubleshooting

What to do if the Sensor could not count?

1   Check whether the host signal lines are connected firmly with the door panels.

2   Check whether there is any infrared interference beside the device, such as infrared surveillance system, infrared remote control, outdoor sunlight, etc.

3   If both a and b are OK, replace the infrared sensor.

What to do if the detector gives a false alarm?

1   If the device gives false alarms frequently after installation, perform the following steps:

   a)   Firstly, check the installation environment. Make sure there are no movable or stationary large metal objects around 1.5 meters from the detector. If there is any metal object, try to place the device away from the large metal objects.

   b)   Make sure that the installation location is stable and free from physical movements.

2   If the false alarm is not caused by the environment, reduce the sensitivity level of all zones.

3   Change the frequency.

4   Change the installation location.

Packing List

The package consists of the following items:

No	Component	Quantity
1	L Side Panel	1 set
2	R Side Panel	1 set
3	Accessory Box	1 set

Accessory Box List

No	Component	Quantity
1	Host	1 pc
2	Adjustable Metal Bracket	1 set
3	Front Beam	1 set
4	Rear Beam	1 set
5	Power Adapter	1 set
6	Remote Control	1 pc
7	Torx Thumb Screw	2 pcs
8	Allen Screw	4 pcs
9	Hexagonal Tool	1 pc
10	Bolt	8 pcs
11	User Manual	1 pc

<u>Warranty Card</u>

1   Please keep this card safe and produce the same during maintenance.

2   This card will be invalid without the signature or stamp of the designated dealer.

3   This card will be regarded as invalid if the details are not filled in three guarantees column and the acknowledgment of the receipt. Please confirm whether the data filled in the three guarantees column and acknowledgment of receipt is correct or not when purchasing it, and then hand it over to the dealer.

4   This card will not be issued again if it is lost.

Model Number	
ID	
Date of Acquisition	
User	
Post Code	
Address	
User's Phone Number	
Fax	

Date of Maintenance	Record of Maintenance	Technician

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