

# User Manual

Walk Through Metal Detector: ZK-D3180S

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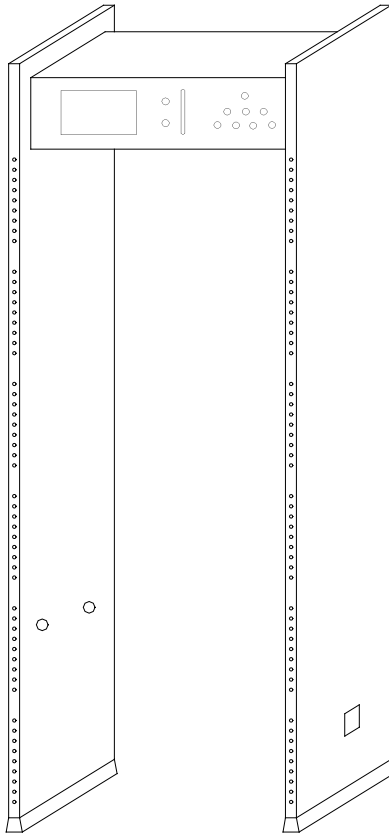
# Notes

PLEASE READ THE FOLLOWING INSTRUCTION CAREFULLY BEFORE OPERATION:



1. It's available for both indoor and outdoor use, if need use outdoor, please use canopy to protect it against rain.
2. Choose the smooth and stable installation place, don't touch the detector during security checking to avoid false alarm.
3. Make sure there's no big metal object or strong magnetic field around the detector within 2 meters.
4. Detector probe mustn't install in high temperature or wet circumstance.
5. Please wait 1 minute for its self-diagnosing when machine starts.
6. Do not disassemble the control units except the professional technician.
7. Follow the user manual and make sure the right wire connection when the device starts.

# Product Specification



Walk Through Metal Detector is mainly used to check the metal items hidden on the body. When the passengers pass through the device, if they carried metals more than preset parameters value, the device would immediately alarms, and display alarm location, let the security guard find the people with the prohibited metal articles timely.

# Installation Environment

## 1. Stationary Metallic Items

When installing walk through metal detector, it should stay away from the stationary or fixed bulk metal items 50cm; otherwise it will affect the sensitivity, causing false alarm. Metal items such as: aluminum alloy / stainless steel doors and windows, etc.

## 2. Movable Metallic Items

The big metal items can be moved, should stay away from the device about 2 meters to avoid false alarm.

## 3. Floor Vibration

The floor should be flat and fixed, to avoid false alarm after installation by the movement of people walking or moving and shaking of metal objects.

## 4. Electromagnetic Radiation And Electromagnetic Interference

Because the device uses bilateral transceiver technology, therefore, any electromagnetic interference sources and electromagnetic radiation source is not allowed to close the device, the recommended distance is 1

meter. The parameters of the distance are determined by the installation environment, and different installation environments with different parameters.

The electromagnetic interference sources and electromagnetic radiation sources as following:

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

## **5. Side-By-Side Using**

When installing the devices side by side, the distance between two walk through metal detectors cannot be less than 50cm and the device work frequency must be different. Specific distance parameters according to the actual environment and the selection of the work frequency to adjust.

# Performance and Features

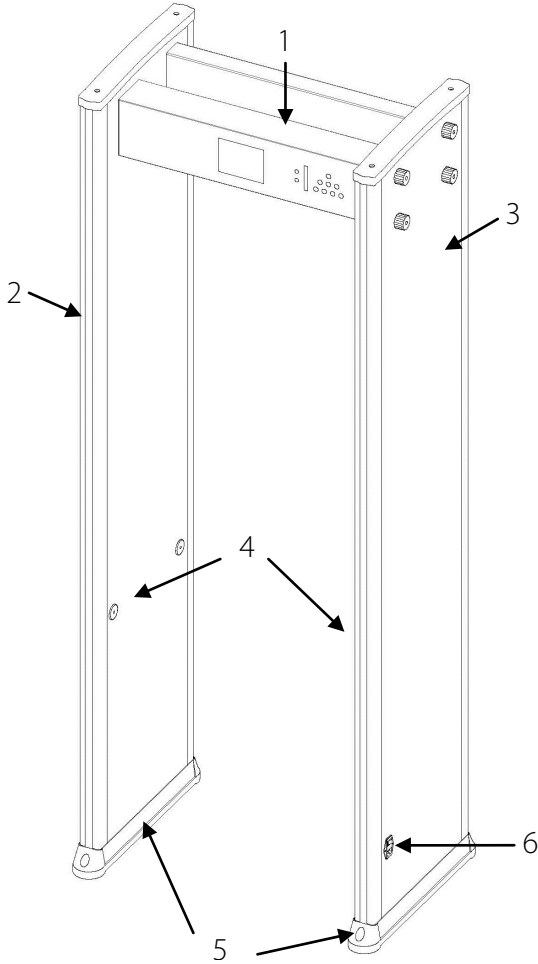
- **Accurate Positioning:** 18 overlapping network detection zone, bilateral transmit and receive, can be accurately positioned to detect objects, intuitive display of the target location.
- **Micro Processor Technology:** the scanning electromagnetic wave generated by the microcomputer control circuit, the scanning rate can be precisely controlled.
- **Sensitivity Adjustable:** Each detection zone has 256 sensitivity levels (0 ~ 255). Preset metal size, you can exclude the coins, keys, jewelry, belt buckle etc.
- **Digital Pulse Technology:** Digital signal processing and filtering system, has excellent anti-interference ability.
- **Password Protection:** Only the correct password can change the sensitivity and other parameters. Password with four digits can be set by the user.
- **Count Statistics:** Pass count and alarm count.
- **Harmless to human body:** Harmless to heart pacemaker, pregnant women, magnetic floppy disk, recording tapes etc.
- **Power Supply Security:** The power supply on the top of the control

box, waterproof.

- **Waterproof Foot Cover:** Not only can fixed the device, but also waterproof.
- **Waterproof:** Using PVC synthetic material, special technology, waterproof, fireproof, and shockproof.
- **Easy to install:** The system is integrated design, just 15 minutes to complete the installation or disassemble.



# Parts



1. Beams

2. Alarm zone LED

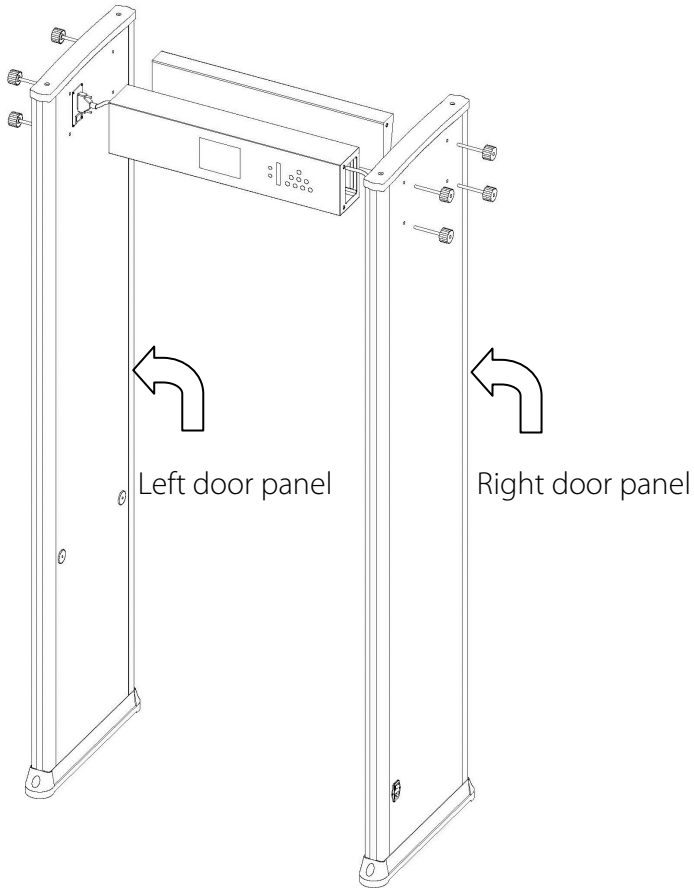
3. Built-in Probe

4. Infrared Sensors

5. Waterproof Foot Cover

6. Power Line Interface

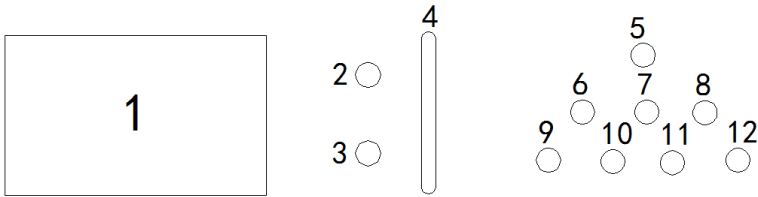
# Installation



1. Remove the package of control unit and door panel.
2. Put the control unit case and door panels as above picture shown, then connect the left and right door panel with the control unit case by bolts and nuts. Tightening screws.
3. Probe line of the left and right door panel tight inserted into the motherboard corresponding socket respectively.

4. Lift the walk through metal detector to the vertical position and move to the assigned position.
5. Plug power cable.

# Control Panel



1. LCD display: Display pass count, alarm count, password settings and other information
2. Standby indicator lights: Non alarm status indicator (green light)
3. Alarm indicator light: Alarm status indicator (red light)
4. Signal interference indicator: Indicating the current environment interference
5. ↑ : UP
6. ← : Adjustment, increasing parameter values
7. ↓ : Down
8. → : Adjustment, decreasing parameter values. If press “→” for 5 seconds at the main interface (Showing PASS CNT and ALARM CNT), can setting total sensitivity (5-50 adjustable, 5 is the highest total sensitivity).

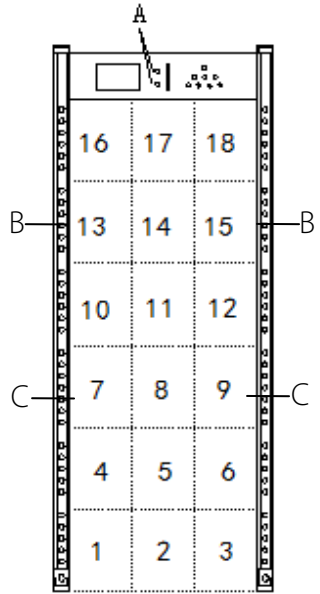
9. MENU: Menu interface
10. ENTER: Save settings, exit menu
11. EXIT: Do not save the settings, exit menu
12. RESET: Reset PASS CNT and ALARM CNT. In addition, press "RESET" for 5 seconds to startup or shutdown.

# Detection Zones

**A. Standby Indicators:** Indicate standby working status.

**B. Alarm zones display**

There are Eighteen unique sets of precise positioning LED evenly distribution on the door panels, means 24 detection zones (from bottom to top is zone 1-3, zone 4-6, zone 7-9, zone 10-12, zone 13-15, zone 16-18). If the metal reaches or exceeds preset value, the red LED alarm. If there are multiple alarm targets, the LED light of each target location would be lit and with sound alarm (mute except).



**C. Infrared sensor**

After connected power supply, the metal detector starts to work. When there is no person or object passes the device, the infrared sensors can effectively stop alarming to avoid false alarm. And accurate count passengers and alarm times.

# Operation

Connect the power supply. After 2 seconds into the working status, the operation method as follows:

- A. Showing PASS CNT and ALARM CNT

PASS CNT	000000
ALARM CNT	000000

- B. Press "MENU" to input the password. The initial password is 1234.

<b>PASSWORD INPUT</b>
INPUT PASSWORD -XXXX

- C. Press "ENTER". If you have input the wrong password, you can not entering the menu.

<b>PASSWORD INPUT</b>
INCORRECT PASSWORD! PRESS ANY KEY TO CONTINUE

- D. If you have forgot password, you can input the universal password "8888" to reset a new password.

After input the correct password, press "ENTER", the main menu as below:

<b>SETTING</b>
1. SENSITIVITY LEVEL
2. ALARM DELAY
3. FREQUENCY SPAN
4. QUICK SETTING
5. SELECT LANGUAGE
6. DETECTOR ID
7. CHANGE PASSWORD
8. RESTORE TO DEFAULT

### **1. SENSITIVITY LEVEL**

Under main menu interface, select "SENSITIVITY LEVEL", press "ENTER" to set the sensitivity. Press "←" and "→" to change the sensitivity value, press "↑" and "↓" to select detection zones. Then press "ENTER" to save the settings.



<b>SENSITIVITY LEVEL</b>
1~3 SENS. LEVEL -255
4~6 SENS. LEVEL -255
7~9 SENS. LEVEL -255
10~12 SENS. LEVEL -255
13~15 SENS. LEVEL -255
16~18 SENS. LEVEL -255

## 2. ALARM DELAY

Under main menu interface, select "ALARM DELAY"; then press "ENTER".

The alarm time is 1 second, 2 seconds and 3 seconds for option. Default is 1 second. Press "ENTER" to save the settings.

<b>ALARM DELAY</b>
ALARM DELAY -1 SEC

## 3. FREQUENCY

Under main menu interface, select "FREQUENCY SPAN", then press "ENTER".

The FREQUENCY from 1 to 12 is for option. Press "ENTER" to save the settings.

FREQUENCY SPAN SELECTION
FREQUENCY SPAN -1

#### 4. QUICK SETTING

Under main menu interface, select "QUICK SETTING", then press "ENTER" and select the applications. Press "ENTER" to save the settings.

QUICK SETTING
1. NIGHTCLUB
2. COURT
3. HARDWARE FACTORY
4. SCHOOL
5. HOSPITAL
6. BARRACKS, EMBASSY
7. EXHIBITION HALL
8. AIRPORT,STATION,CUSTOMS
9. PRECIOUS METALS,ELECTRONICS
10. PRISON

#### 5. SELECT LANGUAGE

Under main menu interface, select "SELECT LANGUAGE", then press "ENTER". Press "←" and "→" to change the language. Press "ENTER" to save the settings.

<b>LANGUAGE SELECTION</b>
LANGUAGE - ENGLISH

## 6. CHANGE PASSWORD

Under main menu interface, select "CHANGE PASSWORD", then press "ENTER". Press "←" and "→" to shift, press "↑" and "↓" to change password. Press "ENTER" to save the settings.

<b>CHANGE PASSWORD</b>
NEW PASSWORD  -XXXX

## 7. RESTORE TO DEFAULT

Under main menu interface, select "RESTORE TO DEFAULT". It would show below interface after press "ENTER".

<b>RESTORE TO DEFAULT</b>
ARE YOU SURE TO RESTORE?  [ENT] - ENTER  [ESC] - CANCEL

# Detection Adjustment

1. The device must be in a stable status to achieve the best detection effect (refer to the "Installation Environment"), to check whether the device in a stable status, the steps as follows:
  - a) The device is not shaking after power ON for 1 minute.
  - b) The device would not alarm when the tester did not carry any metal items walk through the detector.
2. Excluding small portable metal objects such as rings, key, belt buckle, shoes and so on, according to the following steps to adjust:
  - a) Choose a small metal as the sample, such as keys.
  - b) Increasing the sensitivity, so that when the tester carry the sample and pass through the device, the detector would alarms.
  - c) Decreasing the sensitivity a little, carry the sample pass through the device again, if it still alarms, once again to reduce the sensitivity, until the device not alarm when the sample passed through.

**Note:** If you want to decrease the sensitivity in a certain zone, only have to adjust the sensitivity of relative zone. After finished the above adjustment, the metal which smaller than the sample will not alarm, but

the metal objects bigger than the sample can be detected accurately.

3. Traffic regulations:

- a) Draw a waiting line for 50cm away from the device, so that the passengers can line up and pass one by one.
- b) Before the passengers walk through the device, they should remove all the carried metal objects (such as keys, mobile phone, watch, coins, etc.), place on the side of security chute or a table, and pick it up after security checking.
- c) Passengers should line up one by one to pass the device, do not crowd, walk through with normal speed, can not intentionally rush or postponed, and do not crash the door panel.
- d) If the devices alarms when someone pass through, that means there are some metal objects were hidden in his body. The security guard can use a hand-held metal detector accurately detect the hidden position according to the alarm zones.

# Brief Maintenance

## 1. Infrared sensor cannot count:

- a) Check the probe cables were well connected with the door panels.
- b) Check whether there are some infrared interferences beside the device, such as: infrared surveillance system, infrared remote control (when press button), outdoor sunlight, etc.
- c) If both a and b are OK, please replace the Infrared sensor.

## 2. False alarm

- a) After installation, if the device gives false alarms frequently, firstly, check the installation environment. Make sure there is no movable or stationary large metal objects around in 1.5 meters. if any, try to make the device away from the large metal objects. In addition, make sure the installation location no wind cause shaking.
- b) If the false alarm not caused by the environment, please reduce the sensitivity of all zones.
- c) Change the frequency.
- d) Change the installation location.

# Packing List

Package should contain the following items:

- (1) L side panel                    1set
- (2) R side panel                    1set
- (3) Beams                            2pcs
- (4) Remote control                1pc
- (5) User manual                    1pc
- (6) Power cord                    1pc
- (7) Threaded bolt                  8pcs
- (8) Hexagon wrench               1pc
- (9) Probe cable                    2pcs
- (10) Key                             1pc

# Warranty Card

1. Please keep this card with reasonableness, and show it when maintaining it.
2. This card will be invalid if without the signature or stamp of the designated dealer.
3. This card will be regarded as invalid if it has not been filled in details three guarantees and acknowledgment of receipt. Please confirm whether the data filled in the three guarantees and acknowledgement of receipt is correct or not when purchasing it, and then hand it over to the dealer.
4. This card will not be supplied again if losing it.

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



Date of Maintenance	Record of Maintenance	Maintainer

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