User Manual

Walk Through Metal Detector: ZK-D4330
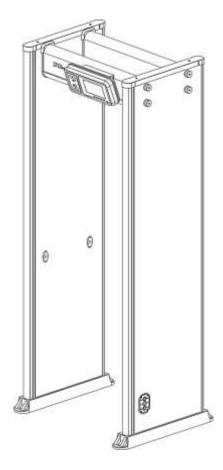
Version: 1.0

Date: June. 2017

Contents

Notes

PLEASE READ THE FOLLOWING INSTRUCTION CAREFULLY BEFORE
OPERATION:

⚠️

1. It's normal for indoor use. If it needs long-term outdoor work, please
    use canopy to protect it against rain.
2. Install the device steadily on a smooth ground without vibration.
    Violent shaking may cause false alarms.
3. Passengers should pass the device one by one after the preset
    standby duration or alarm duration elapses. Crowding around the
    device will interfere with the infrared induction.
4. Choose to install in areas away from high frequency devices and
    large mobile metals to avoid interference.
5. Pay attention to bolts and screws of the connecting parts of the
    door body to ensure that the door body is firmly installed without
    shaking.
6. Each device has a warranty card, with which users can have their
    devices maintained or repaired free of charge within the warranty
    period.

Product Specification

Walk Through Metal Detector is mainly used to check the metal items hidden in the body. When the passengers pass through the device, if they carried metals more than preset parameters value, the device would immediately alarm and display alarm location for security guards to identify 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 30cm; 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 that can be moved should stay away from the device about 50cm to avoid false alarm.

3. Floor Vibration

The floor should be flat and fixed to avoid false alarms triggered by the movement (walking or moving) of people and shaking of metal objects.

4. Electromagnetic Radiation And Electromagnetic Interference

Because the device uses bilateral transceiver technology, therefore, any electromagnetic interference source and electromagnetic radiation source is not allowed to close the device. The recommended distance is 50cm and above. The parameters of the distance depend on the installation environment, and different installation environments with different parameters.

The electromagnetic interference sources and electromagnetic radiation sources are as follows:

Electrical Control Box, Radio Equipment, Interphone, High Power Motor, High Power Transformer, AC Power Line, Thyristor Control Circuit (High Power Switching Power Supply, Inverter Welder), Engine, Motor, etc.
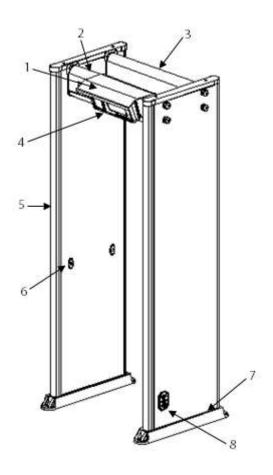
5.   Side-By-Side Use

When installing the devices side by side, the distance between two walk through metal detectors cannot be less than 30cm 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: The device supports single zone, six zones, 11 zones, and 33 zones overlapping network detection modes, 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 300 sensitivity levels (0 ~ 299). Preset metal size, you can exclude the coins, keys, jewelry, belt buckle etc.

- Visual Sensitivity Adjustment: test and adjust the sensitivity according to the alarm status of LED lights.

- 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 six digital, can be set by the user.

- Count Statistics: precision passenger counting and alarm counting, maximum supports 100,000 counts.

- Harmless to human body: harmless to heart pacemaker, pregnant women, magnetic floppy disk, recording tapes etc.

- Alarm Records: supports 10 million alarm record queries.

- Advantage structure: adapts beam structure, modular design, and hidden wiring design. This design not only is more convenient for installation, maintenance and logistics, but also enables higher security level.

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

- Waterproof: The device uses PVC synthetic materials and special technologies and is waterproof, fireproof, and shockproof.

- Easy to install: The system uses the integrated design, and it takes you just 15 minutes to complete the installation or uninstallation.

- Linkage: A signal cable connector is delivered with the device. You can connect the signal cable connector to implement linkage between the turnstile and the walk through metal detector.

- Optional items: waterproof cover and Universal wheel, the waterproof cover can keep the device away from rain and dust, and the pulley makes the equipment move more easily.

Parts

1. (Optional) Transparent rainproof canopy
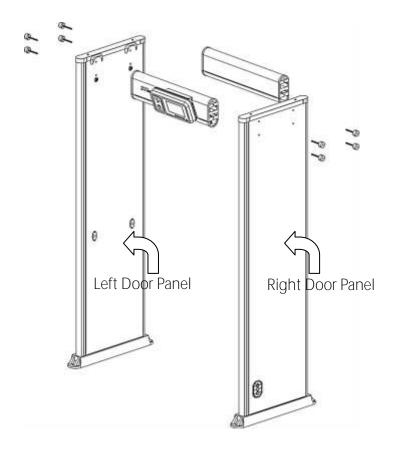
2. Front beam   3. Rear beam

4. Host   5. Alarm zone LED

6. Infrared sensors   7. Waterproof foot cover

8. Power interface, power button, and reserved linkage interface
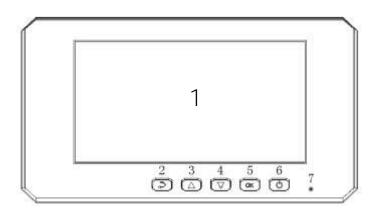
Installation

Left Door Panel   Right Door Panel

1. Remove the package of the host, beams, and door panels.

2. Put the door panels on the ground as above picture shown, and use bolts to connect the door panels to the beams. The bolts must be tightened.
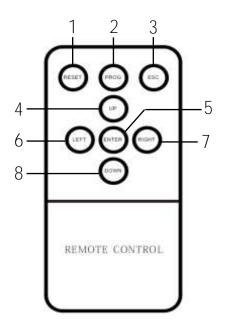
3. Use screws to connect the host to the adjustable metal bracket. The screws must be tightened.

4. Open the cover under the front beam, and insert the probe cable of the host into the hole on the beam.

5. Use bolts to connect the host to the beam and tighten the bolts.

6. Plug the signal cables into the corresponding holes on the left and right door panels tightly, tighten the fix ring, and close the cover.

7. Erect the walk through metal detector and move it to the specified installation position.

8. Connect the power cable to the power interface on the side of the panel, and press the power button, enter working status.

Panel Description

1. 7 inch LCD: displays information such as the number of passengers, alarms, detection signal strength, time, and working channel.

2. Return button: exits a 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.

6. Power button: powers on or off the device.

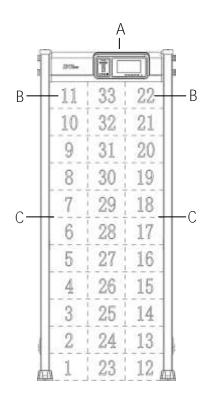7. Infrared remote signal receive terminal.

Remote Control Description

1. RESET: power key   2. PROG: key for entering the menu

3. ESC: exit key

4. UP: up key for selecting a menu item or increasing a value

5. ENTER: OK key

6. LEFT: left key for selecting a menu item

7. RIGHT: right key for selecting a menu item

8. DOWN: down key for selecting a menu item or decreasing a value

Detection Zones

A. 7 inch LCD and control buttons

B. Alarm zone display

There are four unique sets of precise positioning LEDs evenly distributed on the door panels, showing status of 33 detection zones, as shown on the right. 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

1. Connect the power supply. After 5 seconds into the working status, the LCD is shown in the following figure.

```
PASS CNT      0 0 0 0 0
ALARM CNT   0 0 0 0 0
```

2. Press the OK button to access the interface for entering the password (default: 100000).

```
Input Password
******
```

3. Enter the correct password and access the program setting menu, which consists of 12 submenus.

Program Setting	
Sensitivity	Zone
Alarm	Diagnosis
Location	Safety grade
Language	System
Time	Display
Password	Records

4. On the program setting interface, press the up or down button to select Sensitivity and press the OK button. The interface for setting the sensitivity is displayed.

Sensitivity	
Overall	Zone
Anti-shock Sensitivity 000	

Press the up or down button to select Overall and press the OK button. Select Level and press the OK button. Then, press the up or down button to adjust the overall sensitivity level. A larger value indicates a higher sensitivity level.

Overall Sensitivity
0–300
Level 000

Press the up or down button to select Zone and press the OK button. Select *XX*Zone and press the OK button. Then, press the up or down button to adjust the zone sensitivity level. A larger value indicates a higher sensitivity level.

Zone Sensitivity	
06Zone: 000	12Zone: 000
05Zone: 000	11Zone: 000
04Zone: 000	10Zone: 000
03Zone: 000	09Zone: 000
02Zone: 000	08Zone: 000
01Zone: 000	07Zone: 000

5. On the program setting interface, press the up or down button to select Alarm and press the OK button. The alarm setting interface is displayed.

Alarm Setting
Audio alarm Lasts: 1.0S
LED alarm lasts: 1.0S
Alarm volume: 10
Alarm tones: 9

Press the up or down button to select Audio alarm Lasts and press the OK button. Then, press the up or down button to adjust the alarm duration, which ranges from 1s to 9s. You can set LED alarm lasts (1s to 9s), Alarm volume (1–20), and Alarm tones (1–F, 16 types) in a similar way.

6. On the program setting interface, press the up or down button to select **Location** and press the OK button. Then, press the up or down button to select a scenario, and press the OK button.

Application Spot		
Airport/Sea port/Boarder	Prison/detention center	Gold jewelry Industry
Coach Station/Train Station	The public security bureau	Electronic chip processing plants
The gym/Exhibition hall	The court/petition offices	Crystal semiconductor
Shopping mall/Auction	the people's procuratorate	Electronic circuit factory
Playground/Zoo	Secrecy Bureau/archives	Wire/Cable factory
Restaurant/Hotel	Labor camp	Rare metal processing plants
Nightclub/Bar/Disco	The military building	coal Metal mining
Rink/Ski resort	Frontier inspection	Food/Beverage Industry
School/Church	Bank/vault	Bags/Shores factory
Villa/Mansion	The office building	special industries

7. On the program setting interface, press the up or down button to select **Language** and press the OK button. Then, press the up or down button to select a language, and press the OK button.

Language Setting
简体中文
ENGLISH
Others

8. On the program setting interface, press the up or down button to select Time and press the OK button. The time setting interface is displayed.

Time Setting
2017-08-08
10:00

9. On the program setting interface, press the up or down button to select Password and press the OK button. On the password setting interface that is displayed, press the up or down button, enter the old and new passwords, and press the OK button.

Password
Old: ******
New: ******

10. On the program setting interface, press the up or down button to select Zone and press the OK button. Then, press the up or down button to select the detection zone mode, and press the OK button.

Zone Setting
01 detect zone
06 separate detect zone
11 separate detect zone
33 separate detect zone

11. On the program setting interface, press the up or down button to select Diagnosis and press the OK button. Then, press the up or down button to select a diagnosis object, and press the OK button.

Diagnosis	
Left door	Right door
Audio Alarm	LED

12. On the program setting interface, press the up or down button to select Safety grade and press the OK button. Then, press the up or down button to select a safety grade, and press the OK button. A higher safety grade indicates a higher sensitivity level.

Safety grade
High
Middle
Low

13. On the program setting interface, press the up or down button to select System and press the OK button. The system setting interface is displayed.

System Setting
Working channel: 00
Detect speed: 100
Power condition: ON

Press the up or down button to select Working channel and press the OK button. Then, press the up or down button to select one from 100 operating frequency bands and press the OK button.

14. On the program setting interface, press the up or down button to select Display and press the OK button. On the display setting interface that is displayed, press the up or down button to adjust the LCD backlight and press the OK button.

Display Setting
LCD back Light: 100%

15. On the program setting interface, press the up or down button to select Records and press the OK button. The records query interface is displayed.

Records
Working hours 00000H Passenger No. 0000000 Alarm Records: 　From: 2017-01-01 8:30 　To: 2017-01-02 8:30

Press the up or down button to edit alarm records and press the OK button. Then, press the up or down button to set the start time and press the OK button. Set the end time similarly.

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 and walk through with normal speed. Do not crowd or intentionally rush or postponed, and do not crash the door panel.
    d) If the devices alarms when someone pass through, it indicates that 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.

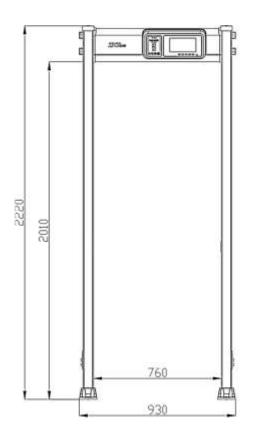# Brief Maintenance

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.
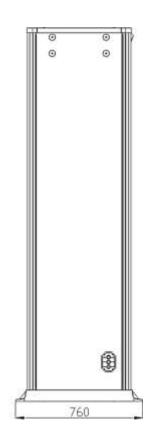   c) If both a and b are OK, please replace the Infrared sensor.
2. False alarm
    a) After installation, if the device gives false alarms frequently first check the installation environment. Make sure there is no movable or stationary large metal objects around in 1 meters. If any, try to make the device 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

Technical Parameters

Input voltage: 100-240 V，50/60 Hz

Working temperature: -20℃ ~ 50℃

External Dimensions (H x W x D): 2220 mm x 930 mm x 760 mm

Channel Dimensions (H x W x D): 2010 mm x 760 mm x 760 mm

Package Dimensions (H x W x D): 2300 mm x 335 mm x 800 mm

Gross Weight: 70 [kg]

Factory Settings

Default Password	100000
Audio alarm lasts	1s
LED alarm lasts	1s
1–12 Zone Sensitivity	220
Overall Sensitivity	230
Language	English

Packing List

Thank you for purchasing the walk through metal detectors of our company. Please check whether the articles in the packing list are all contained in the packing case. Contact us if any article is missing or damaged.

Packing list:

(1) L side panel	1
(2) R side panel	1
(3) Front beam	1
(4) Rear beam	1
(5) Accessory box	1
(6) (Optional) Universal wheel	4
(7) (Optional) Transparent rainproof canopy	1

Accessory box list:

(1) Host	1
(2) Adjustable metal bracket	1
(3) Power adapter	1
(4) Remote control	1
(5) Bolt	10
(6) Hexagon wrench	1
(7) Allen screw	4
(8) User manual	1
(9) Signal cable connector	1

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

ZKTeco Dongguan Industrial Park, No. 26, Pingshan 188, Tangxia, Dongguan, China

Tel: +86 769-8210991/8210992/8210993

www.zkteco.com