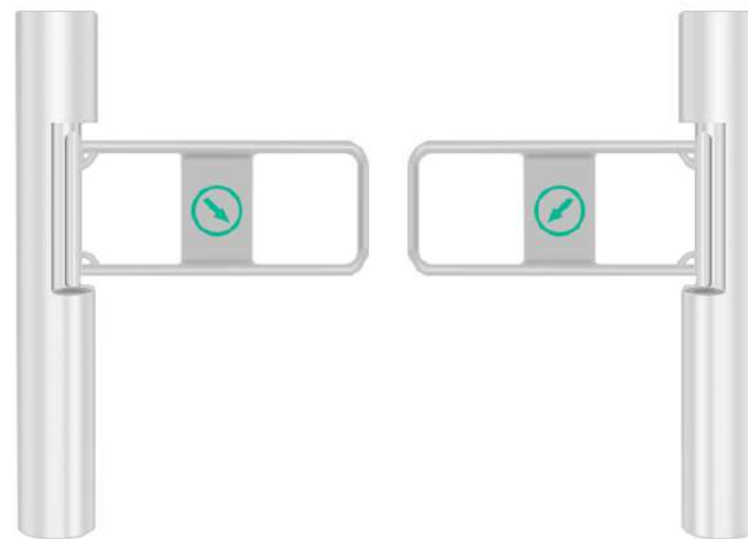


# Swing Barrier



**Dear User:**

**Hello!**

Thanks for your trust. Please read this user manual carefully before using ankuai swing barrier.

The manual includes: main functions (our own advantages), dimensions, parameters, main board wiring diagram, installation instructions, testing, and packing list.

The user manual can help you to know more details about ankuai swing barriers, such as mechanical working theory, using guide, matters need attention. We should use the swing barrier in right way to ensure the working life. The user manual also analyzes some problems which maybe appear during using. And you can find out the way to solve each problem in the manual.

At the same time, we sincerely hope that you can give us some suggestions to make our barrier gates better and better.

**Thanks!**

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## Product introduction

The swing barrier is a carefully designed one by our company that can adapt to the modern "safe, fast, efficient, A new generation of high-quality "management" products. It is widely used as a tool for management in indoor places to enter and exit. It is characterized by stylish appearance, fast traffic speed, and high degree of intelligence. The swing gate is an access control system and is a modern security entrance and exit. One of the important parts of control. It can provide users with fast, safe and efficient two-way access products.

The swing barrier is mainly controlled by authorized methods, and the entry and exit of the management personnel is controlled. At the same time, the latest protection is used.

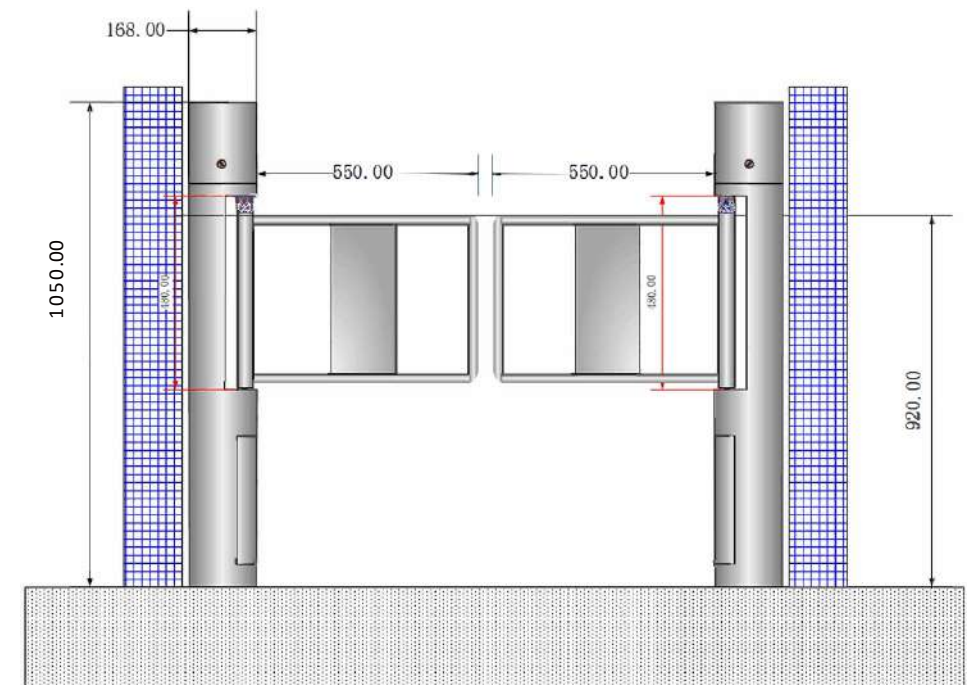
The trailing control technology can quickly and accurately determine whether people are trailing. Unauthorized personnel will not be able to automatically alarm if unauthorized personnel break into the system forcibly, so as to achieve strict and effective management of the personnel, and truly realize the security and security functions of the entry and exit channels.

## 1.Functions and features

- 1.1.The body adopts 304 stainless steel chassis, ergonomic design, beautiful, generous, strong and durable.
- 1.2.The main control adopts full data management, and all functional parameters are digitally set, making the setting and operation easier.
- 1.3.The 24VDC brushless motor drive runs according to the movement curve, the operation is stable and reliable, the state is smooth, and the gate movement is coordinated and synchronized.
- 1.4.The equipment has complete functions, with illegal intrusion alarm, trailing alarm, reverse processing, gate anti-trapping, and free passage settings.
- 1.5.Single or multi-passenger working mode, motor blocking protection, exit channel delay, peak traffic mode, emergency traffic mode and other functions.
- 1.6.Complete interface modes, the NPN normally open infrared beam used on the market can be used.
- 1.7.A variety of pass indicators, green light when passing is allowed, red light when passing is forbidden or illegal intrusion, and blue light when idle.
- 1.8.The control panel can be set for voice broadcast, and the greeting language direction of the entrance and exit can be set in the menu.
- 1.9.Various equipments can be integrated, such as IC/ID/RFID/QR code/barcode reader, fingerprint, face recognition, button etc.

## 2.Appearance and Dimension

### Appearance and Dimension



### Double Channel Appearance and Dimension

**Instruction :** There are single core and double core for swing barrier which is able to be combined as single channel, double channels or even more channels freely. The standard width of lane is **1200MM**.

### 3.Working principle of swing barrier

#### 3.1.Passage of authorized persons

Swipe the card for authorization, the indicator light turns green, the gate opens, and the 90-degree sensor detects the user's entry. After passing the passage, the gate was quickly closed and locked.

#### 3.2.Unauthorized people

Unauthorized people enter the lane, indicated light turns red, swing barrier keeps closing and alarm works. Unauthorized people should exit the lane.

#### 3.3.Unauthorized personnel from both directions enter the swing barrier

If user A and user B are in the passage space at the same time, the two-way traffic indicator will be red at this time, and the first gate opening signal has priority. If user A is authorized first, after user B exits the passage, user A One side of the traffic indicator light turns green, the gate swings and opens according to the direction of user A, after A passes, the gate closes, after user B is authorized, the gate opens in the direction of user B, user B's side The access indicator turns green, and user B can pass at this time. After user B passes, the gate is closed again, waiting for the next authorization.

#### 3.4.Unauthorized person enters speed gate in the opposite direction An

unauthorized user enters the channel from the opposite direction, the sensor detects unauthorized use, the barrier is closed and an alarm is accompanied, and the unauthorized user exits the channel, the alarm state is cancelled, and the channel enters standby mode and waits for the next valid authorization.

### 4.Security function

The swing barrier effectively isolates unauthorized persons, and the infrared detection system effectively prevents trailing, following, entering, lurking, and crossing in the opposite direction.

#### 4.1.Status indicator

4.1.1.The authorization status indicator is embedded in the top plate of each channel of the swing gate, and the indicator is three colors of red,green and blue, of which green indicates normal traffic, red indicates no traffic, and blue indicates waiting machine status.

4.1.2.On each base post of the access door, there is an LED traffic status indicator, and the green generation the meter can pass through this channel, and red means that this channel is forbidden or forbidden to pass.

#### 4.2.Power-off handling

4.2.1.If the fire signal is received, the swing arm can be manually pushed open; the function of power-off and opening is realized, which is convenient for unblocking scattered.

4.2.2.In the event of a power failure, the motor stops running and the swing arm can be manually pushed open; the function of power failure and opening is realized.

#### 4.3.Anti-following,anti-trailing

The swing turnstile is equipped with an infrared sensor system, which can accurately locate the entire passage of the person after they enters the passage, and sense the traffic state. After discovering that unauthorized persons are following, according to customer requirements, the door wing can be quickly moved back to block unauthorized persons out of the passage to prevent them from entering, and activate the alarm system.

#### 5.Safety protection function

Anti-crash function, auto-open after power-off, emergency evacuation, anti-crash function.

#### 6.Parameters

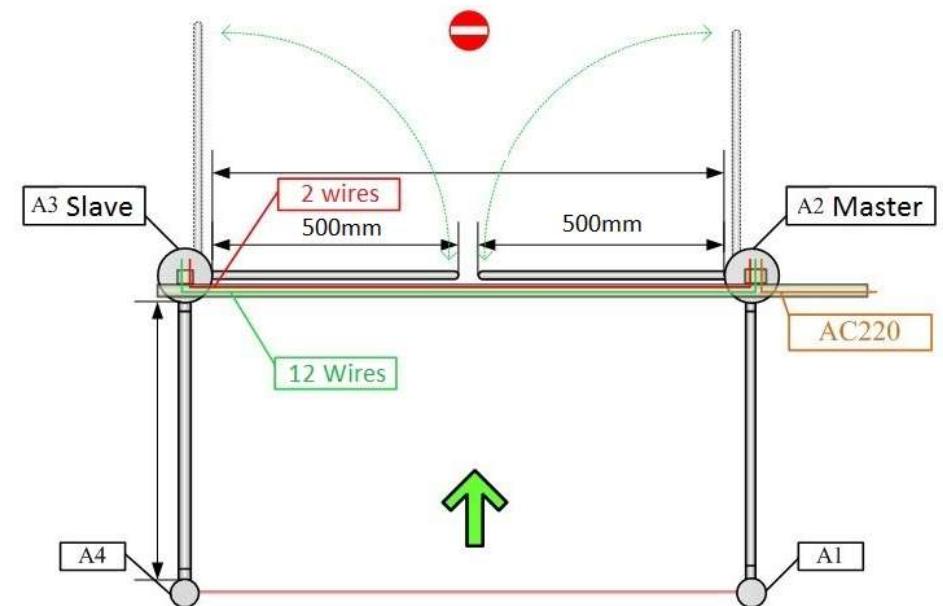
1. Power Supply: AC220V  $\pm$  10V, 50Hz / AC110V  $\pm$  10V, 60Hz
2. Power Consumption: 100W/24V
3. Temperature: -15 to 60 degrees
4. Humidity: <95%, without concretion
5. Passage Width:  $\leq$ 1200mm
6. Passing Speed: 30 persons/min (normal open), 20 persons/min (normal close)
7. Arm Open/Close Time: 2.5s
8. Input Interface: +12V electrical signal or impulse signal with width more than 100ms, drive current >10mA
9. Communication Interface: RS485 (Distance:  $\leq$ 1200m)
10. Dimension:  $\varnothing$  168\*1050mm
11. Arm Length  $\leq$ 700mm
12. Working Environment: Indoors or outdoors with shed
13. Arm Turning: Bi-direction

### Product installation

#### 1.Installation notes

- 1.1.It is recommended to install the equipment on a level ground to ensure smooth operation of the equipment.
- 1.2.Ensure that the system is grounded reliably to prevent accidents.
- 1.3.Reserve 100mm away from the building on the back of the housing installation, which is convenient for opening the cover for debugging and maintenance.

#### 2.Installation site (as shown below)

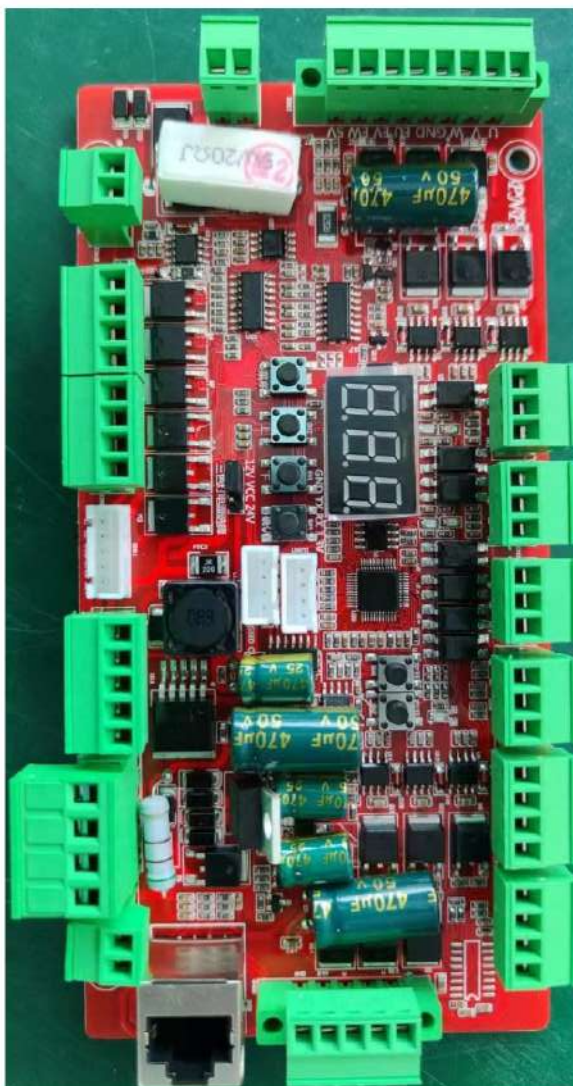


Double channel installation

**Suggestion:** Setting warning line during installation.

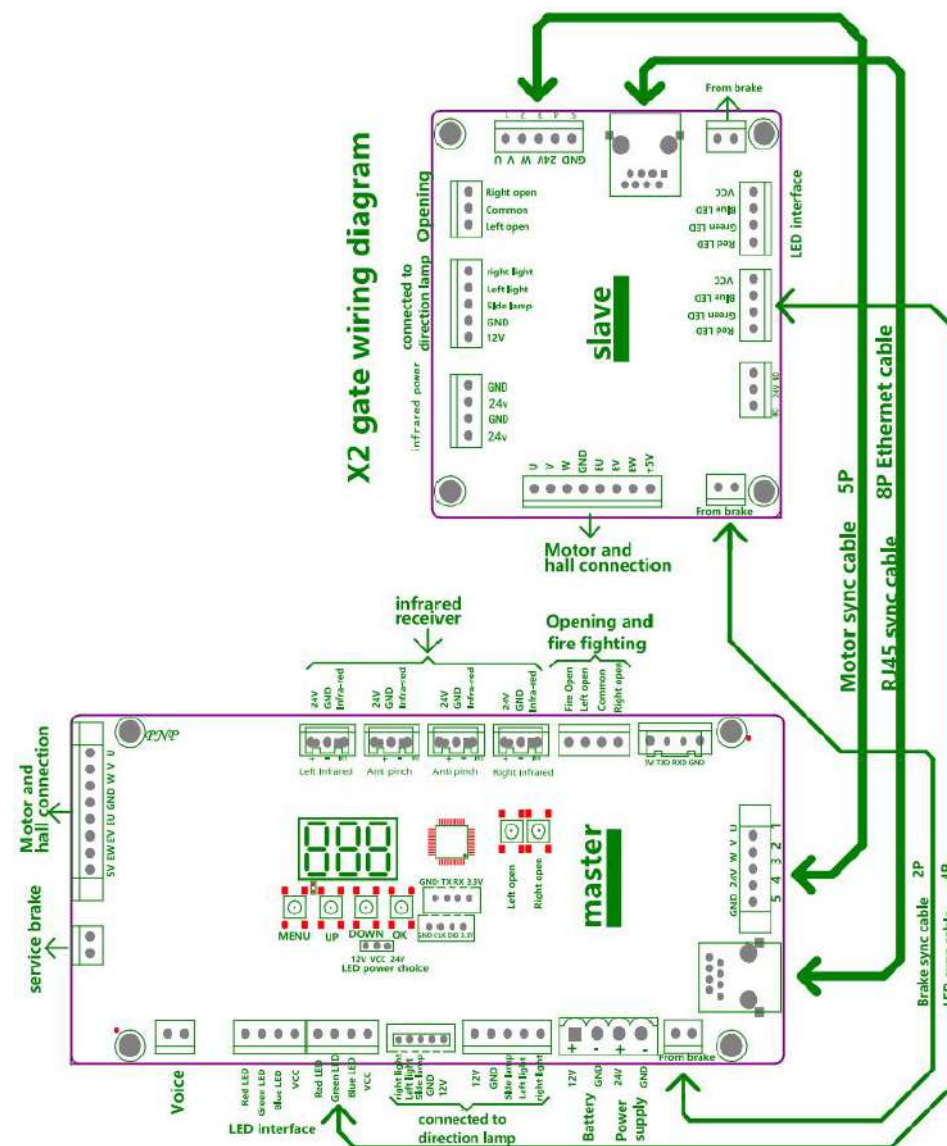
### 3.Wiring diagram

## Instruction of ge-x2 integrated brushless servo control system



## Menu operation and function debugging

### Setting board





## Functional features

- 1: It has the function of fault self check and alarm prompt, which is convenient for user's maintenance and use.
- 2: It can be connected with the control signal or button or remote control output by any control equipment to realize the single and two-way control of traffic.
- 3: Automatic reset function: after 90 degrees of swing and detection of people and objects passing, i.e. automatic reset, or not passing in the specified time (delay and multi gear adjustable), the system will automatically cancel the right to pass and return to the initial position.
- 4: Light indication: high brightness traffic light status indication to guide traffic.
- 5: Fire input: it can be connected with fire alarm signal to realize constant power drop and normally open.
- 6: Alarm prompt function: in case of illegal passage or gate flushing, an alarm prompt will be given automatically.
- 7: Adjustable speed: the opening and closing speed of swing arm can be adjusted at multiple levels, and the user can set it according to the actual demand.
- 8: The new generation of industrial arm control system is equipped with multi-functional digital setting, encryption and reset functions.
- 9: Anti reverse function: in the process of resetting the swing arm, if an external force reverses the swing arm, the swing arm will automatically start the reverse thrust and give an alarm, and then it will automatically return to the zero position to resume traffic after the external force disappears.
- 10: Automatic protection function: when the external force prevents the swing arm from moving normally, and the external force is continuous, the system will automatically detect it for 20 seconds and then automatically protect it and enter the sleep state. When the next legal signal is input, the gate will automatically return to normal.
- 11: Multi level anti-collision buffer function: when illegally passing or flushing the gate, the gate lever buffers the corresponding angle and starts the instant reverse thrust, and starts the alarm, which greatly reduces the mechanical damage caused by frequent or continuous collision while realizing the humanized anti injury.
- 12: Unmanned duty: the power off swing arm is normally open automatically, and the power on reset automatically (blocking the passage).

## Commissioning instructions

## Set operation definition and method:

Note: 1. Press and hold the OK key for a long time in standby mode to change the digital display into 3 horizontal bars, then press the up and down buttons for more than 3 times in total, and press the OK key to restore the factory settings. 2. Since the control panel is one control two mode, the user shall use at least one 24V/Six point fivePower supply of more than ampere (when the output power of the power supply is not matched enough, the operation current overload will cause the power supply to start frequently, and the larger the output power of the power supply is, the stronger the motor resistance is).

FAQ: 1: if E-1 or E-2 appears in the nixie tube, it means that the motor type is wrong. L15 and L16 are adjusted to 1.2. If the door keeps opening and closing, please adjust d-23 to 0.3. If the two door switches are not synchronized, adjust the speed of D-11 host motor and slave host motor D-13 by adjusting the speed of D-11 host motor and slave host motor D-13.

1. Adjustment and prevention method of movement with clutch: change D-6 to 1d-8 to 2D-9 to 4d-10d-12 to 15, if the concentricity of movement is required to be good, otherwise the door will open and close continuously. If you want to be fast, please use 24v10a switching power supply, D19 to 300, Wing gate debugging instructions: the motor needs to be adjusted from

1: D-4 to 1

2: D-5 to 1

3: D-10 to 90 D-12 to 90

4: D-19 to 230.

If the zero position of wing gate is not in the open position, d-16 to 1

Menu number	meaning	Default	set range
L-1	Opening time of entrance and exit (unit: s)	6	0-30
L-2	Gate working mode: 0: swipe card on the left and right 1: swipe card on the left and right 2: swipe card on the right and left 3: left and right infrared	0	0-3
L-3	Delayed closing time (unit: s)	0.2	0.1--10
L-4	Left traffic voice	1	0-18
L-5	Right traffic voice	15	0-18
L-6	Infrared stack time (in seconds)	3	0-30
L-7	Direction of power off and opening	0	0For: left open 1 for: right open
L-8	Alarm voice	0	0Representative: illegal entry, please swipe the card 13 representative: didi

			sound
L-9	Access memory function configuration	0	0 Representative: without memory function 1 representative: with memory function
L-10	Infrared anti pinch action	0	0 Representative: without memory function 1 representative: with memory function
L-11	Infrared quantity	0	0 Representative: 4 1 representative: 6
L-12	Voice Volume	15	0 Min 15 Max
L-13	Voice test		Press OK to exit
L-14	Aging test		Press OK to enter and press menu to exit
L-15	Brand selection of main motor: change E-1 to 1 in main board	0	0 On behalf of CUHK motor 1 on behalf of: Taibang, Lianyi
L-16	From the motor brand selection: the main board appears e -: 2 changed to 1	0	0 Representative: cuhk motor 1 representative: Taibang, Lianyi
L-17	Selection of reverse closing	0	0 Representative: do not close gate 1 representative: close gate
L-18	Two color lamp three color lamp control selection	0	0 Representative: two color lamp 1 representative: three color lamp
L-19			
D-1	Zero setting	If the door is not aligned, the loose shaft of the motor will swing to the desired closing position	
D-2	Left door opening position setting	Enter the rear left opening gate, then loosen the motor shaft and swing it to the desired opening position	
D-3	Right door opening position setting	Enter the rear right opening gate, and then the motor loosens the shaft and swings to the desired opening position	
D-4	Opening and closing speed setting	3	1 Fastest 10 slowest
D-5	Gate mode	0	0 Swing gate 1 wing gate
D-6	Is there a clutch	0	0 None 1 yes
D-7	Rebound mode	0	0: bounce back and continue to drive after hitting the person 1: pause and continue to drive after hitting the person
D-8	Strength of confrontation	10	1-20 The larger the value is, the larger the value is, the smaller the value is, the smaller the resistance is
D-9	Reset time	0	0-40
D-10	Buffer strength of main door closing	50	1-100 The larger the value is, the greater the strength is

D-11	Motor speed of main engine	65	1-100 The larger the value, the faster the motor speed, the smaller the value, the slower the motor speed
D-12	Buffer strength of main door closing	50	1-100 The larger the value is, the greater the strength is
D-13	Slave motor speed	65	1-100 The larger the value, the faster the motor speed, the smaller the value, the slower the motor speed
D-14	Power supply	6	1-10
D-15	Power on zero finding speed	5	1-10 The larger the value is, the faster the zero is, the smaller the value is, and the slower the zero is
D-16	Zero position direction of wing gate	0	0/1 If the wing gate position is wrong, adjust it to 1
D-17	Physical anti pinch sensitivity	75	1-99 The higher the value is, the less sensitive the physical anti pinch is, and the less the value is, the more sensitive the anti pinch is
D-18	Physical anti pinch current time	10	1-99 The higher the value is, the less sensitive the physical anti pinch is, and the less the value is, the more sensitive the anti pinch is
D-19	Acceleration current	160	The larger the value is, the faster the starting speed of the motor is, and the smaller the value is, the slower the starting speed of the motor is
D-20	Acceleration current time	10	The larger the value is, the faster the motor start time is, and the smaller the value is, the slower the motor start time is
D-21	Clutch angle	15	The larger the value is, the larger the suction angle is, and the smaller the value is, the smaller the suction angle is
D-22	Duty cycle of clutch regulation	10	
D-23	Physical anti pinch reaction time	0	The slower the speed, the greater the value
D-24	Locked rotor zero sensitivity	2	The larger the value, the longer the locked rotor, the smaller the value, the shorter the locked rotor
D-25	Duration of current protection	2	The larger the value is, the longer the protection duration is, and the smaller the value is, the shorter the protection duration is
D-26	Counter force of slave	13	1-20 The larger the value is, the larger the value is, the smaller the value is, the smaller the resistance is
D-27	Deceleration stroke	8	The larger the value, the earlier the deceleration



## Product Maintenance

### 4.1.Maintenance

The housing of flap barrier is made of 304 stainless steel and is integrally stamped and formed. External reasons may cause scratches and rust spots on the surface. Use sandpaper and green gauze or putty powder to clean the chassis, and wipe along the long lines during sanding to avoid damage, the surface can be coated with anti-rust oil.

Always use a soft fabric to wipe off the dust and oil on the surface of the chassis to keep it clean.

Regularly check the wiring of the control board whether there are looseness, poor contact, etc., and keep the control equipment in a ventilated and dry place. Do not wash or soak in water to ensure the stability of its performance and increase the service life of the product.

Regularly check the connection of the connecting parts and moving parts of the housing, and tighten the loose fasteners.

Regularly check the reducer motor for oil leakage and other defects. Regularly check whether the infrared pair radio eye is clean, and clean it regularly to avoid triggering false alarms.

Regularly check the connection of the system protection ground to ensure that the system protection ground contact is reliable.

**Remark:Must cut off the power before housing care.**

**Maintenance and Care should be done by professional stuffs.**

## Service term of after-sale

From the date of purchase, under normal use, if the product has quality problems, the whole machine will be guaranteed for free within one year.

1.Warranty service: If there is a quality problem with the product during the warranty period, the user can go to the local after-sales service center to enjoy the warranty service.

2.Maintenance service: For products outside the warranty period or subject to exclusions, if there is a quality problem, the user can go to the local after-sales service center or entrust a dealer to request maintenance service.

3.The following situations are not covered by the free warranty.

A .The user does not install and use in accordance with the instructions, causing damage to the product

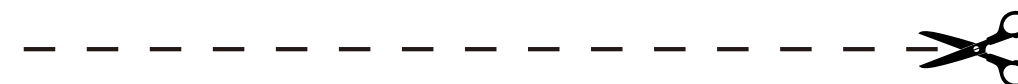
B. The power supply is unstable, exceeds the specified range of the product, or does not meet the national safety power standard, which causes the product to be damaged.

C. The product is damaged due to irresistible factors such as natural disasters.

D. It has been repaired and modified by a service unit or individual not authorized by the company.

### Warranty Card

Client's name		Telephone	
Client's address			
Purchase date		Product number	
<p>1.This card must be completed and it will take effect after being stamped with the seller's seal.</p> <p>2. This product is guaranteed for free within one year, and only the material fee will be charged for lifetime maintenance after the warranty period.</p> <p>3. Use in violation of this product manual or disassemble the machine by yourself is not covered by the warranty.</p>			



Due to product improvements/changes, the contents of the manual may be changed without notice.