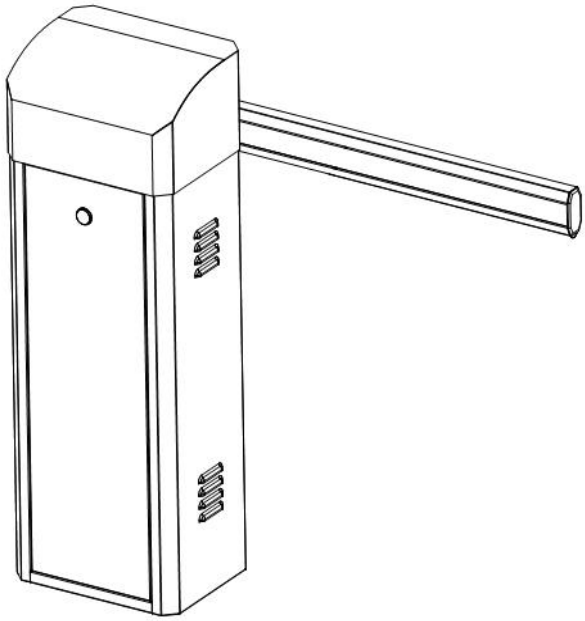
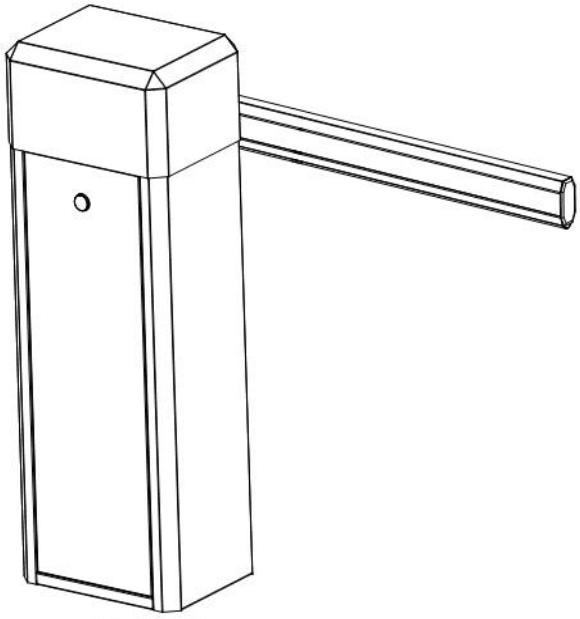
Boom Barrier series

User Manual



AX-D009



AX-D006

Please read this manual carefully before using the product

Dear users:

First of all, thank you for choosing the gates that have been carefully manufactured by our company! We are very honored to be able to provide you with services!

In order to ensure the safe use of this product, give full play to the excellent performance of this product, and improve the service life of the product, please read this manual to understand the relevant product information.

By reading this manual, you can learn more about the performance characteristics and related technical parameters of this product, and clarify the product structure through relevant diagrams. This manual describes the problems that may be encountered during the installation process, and makes relevant analysis and provides corresponding solutions to facilitate the user to install and debug the product and maintain it.

Some pictures in this document are schematic diagrams and are for reference only. If the pictures do not match the actual items, please refer to the actual items.

Ou company is solely responsible for the revision and interpretation of this information, and reserves the right to change the product and technical parameters without prior notice, please understand.

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1. Product performance characteristics

A new type of barrier designed and manufactured by our company is easy to use, safe and reliable, simple and elegant, beautiful and beautiful. It is widely used in access passages of government units, communities, parking lots, factory gates, etc.

1. Movement characteristics

● Adopt the most stable non-equal speed running mechanism to make the brake lever start slowly, run fast, stop slowly, and eliminate the jitter caused by the brake lever in the operation opening and closing. Extend product life.
●The left and right gates can be reversed. The lifting direction of the gate can be changed freely according to the needs of the site. The scope of application is more extensive.
●Using high-negative load-bearing bearing to make the movement part more stable.
●The mechanical limit is adjustable, making installation and debugging more convenient and quick.
● Adopt high-sensitivity limit switch to instantly control the starting rod and the falling rod in place.
●Integrated worm gear transmission deceleration asynchronous motor, stable transmission, low noise and compact structure.
●The motor is equipped with intelligent overheat protection system. Under frequent use, the temperature rise of the motor is controlled, making the motor not easy to burn out.
● Manually open the brake mechanism. When the power is cut off, the brake lever can be automatically lifted and lowered by the motor hand wheel without restriction.

2. Control system

● Adopt digital chip technology, anti-mite, ground sense, IC interface set as one, good stability, zero misoperation probability, especially with delay protection function, with dual control effect.
●Use lifting timeout and motor overheat protection to prevent abnormal damage of the gate.
●Using imported high-power relays to ensure reliable operation of the gates.
●Using imported photoelectric isolation protection circuit to ensure signal integrity and strong interference.
● Integrated wireless high-performance receiver module with high-performance million-group learning code to ensure the stability of operation.
● Adopt unique arc-extinguishing circuit to ensure the service life of the control board.
●The transformer with original imported magnetic core is used for stable operation in outdoor tidal environment.

3. Security features

● Resist the rebound (pressure wave anti-mite): When the brake lever is in the process of falling, if it encounters the external force blocking, it will automatically lift the rod to reduce the damage caused by the mistake.

●The sense of ground protection: When the brake lever is in the process of falling, if the ground signal is received, it will automatically start the pole. During the triggering period, the pole will not fall. After the signal is restored, the brake lever will automatically fall to ensure safety.

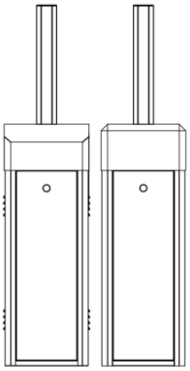
●Open priority protection: When the brake lever is in the process of falling, in case of emergency, no matter what state is running, as long as the opening signal is received, the brake lever will perform the opening action;

●Anti-smashing rubber strip: The rubber bar is equipped with rubber strip to reduce the loss caused by accident.

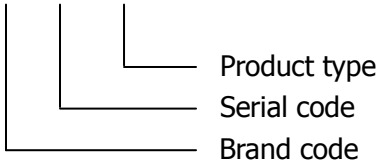
4. Product specifications and structural parameters

1. Specifications

AX-D006 series

Model	Picture	Model D006	Length limit（m）	Raise time（s）	Drop time (s)	Arm height（mm）	Weight (KG)	Size（MM）
D006 D009		AX-D006-ZM	6	6	6	830	45	350*280*1020
		AX-D006-ZH	4.5	4	4	830	45	350*280*1020
		AX-D006-ZK	3.5	1.5	1.5	830	45	350*280*1020
		AX-D006-QM	6	6	6	830	45	350*280*1020
		AX-D006-QH	4.5	4	4	830	45	350*280*1020
		AX-D006-QK	3.5	1.5	1.5	830	45	350*280*1020
		AX-D006-LM	6	6	6	830	45	350*280*1020
		AX-D006-LM	4.5	6	6	830	45	350*280*1020
		Arm specifications: aluminum alloy 86mm*44mm*1.2mm (stickers can be matched according to customer requirements), super long arms can be assembled in sections.						

Product Number Description:：AX-D006-ZM



Among them, the product type includes series type and speed code;

1) series type: **Z** - Straight arm **Q** - Folding arm **L** - Fence
2) speed code: **M** - Slow speed **H** - Medium speed **K** - Fast speed

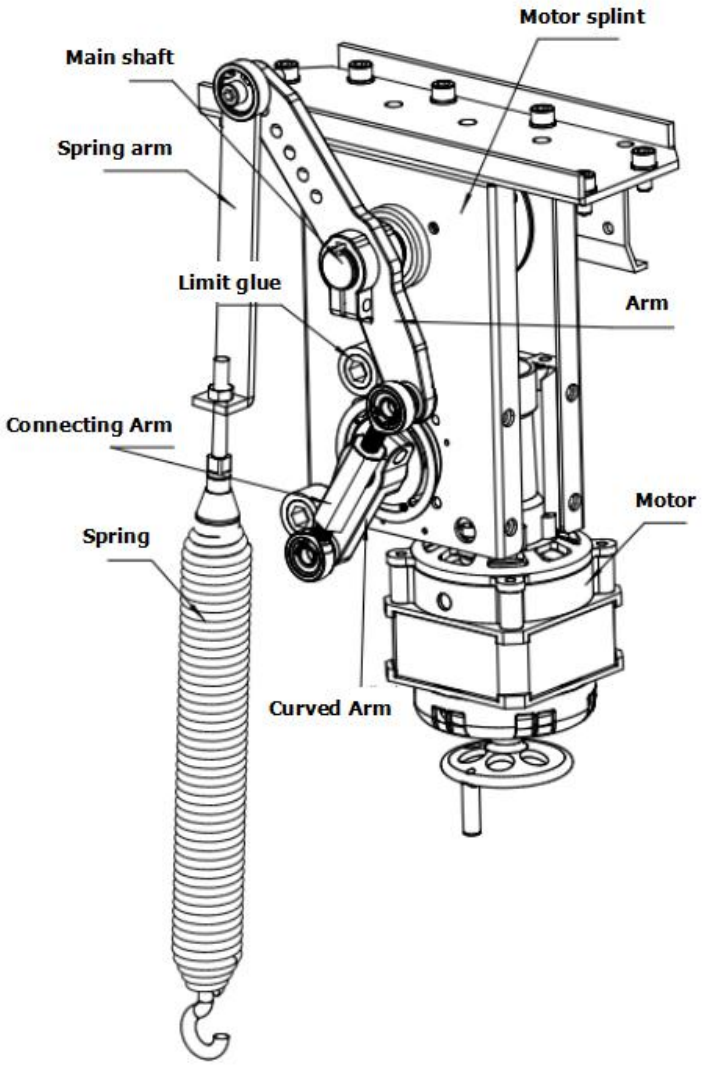
2. Technical parameters

Input power	AC220/AC110 50/60HZ
Rated power	90W
Motor operating temperature (degrees Celsius)	-30 degrees ~ 80 degrees
Chassis weight	55
Protection level	IP44
Height of the arm	830
Remote control distance	Not less than 30 meters

3. Working principle

The mechanical power is driven by the motor through the worm gear reducer to drive the output shaft, and the motion is transmitted to the lever through the plane four-bar mechanism. The magnet sense switch is used to accurately position the horizontal and vertical positions of the brake lever during operation, thereby achieving Control of the brake lever.

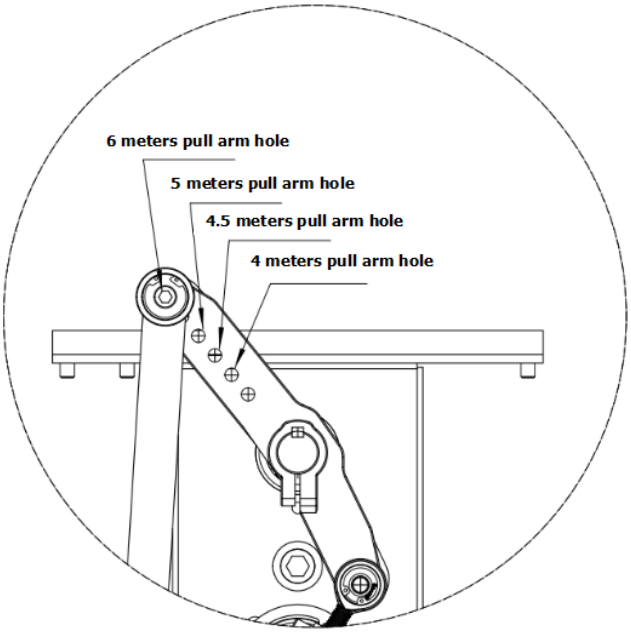
1. Core structure



2. Spring pull hole description

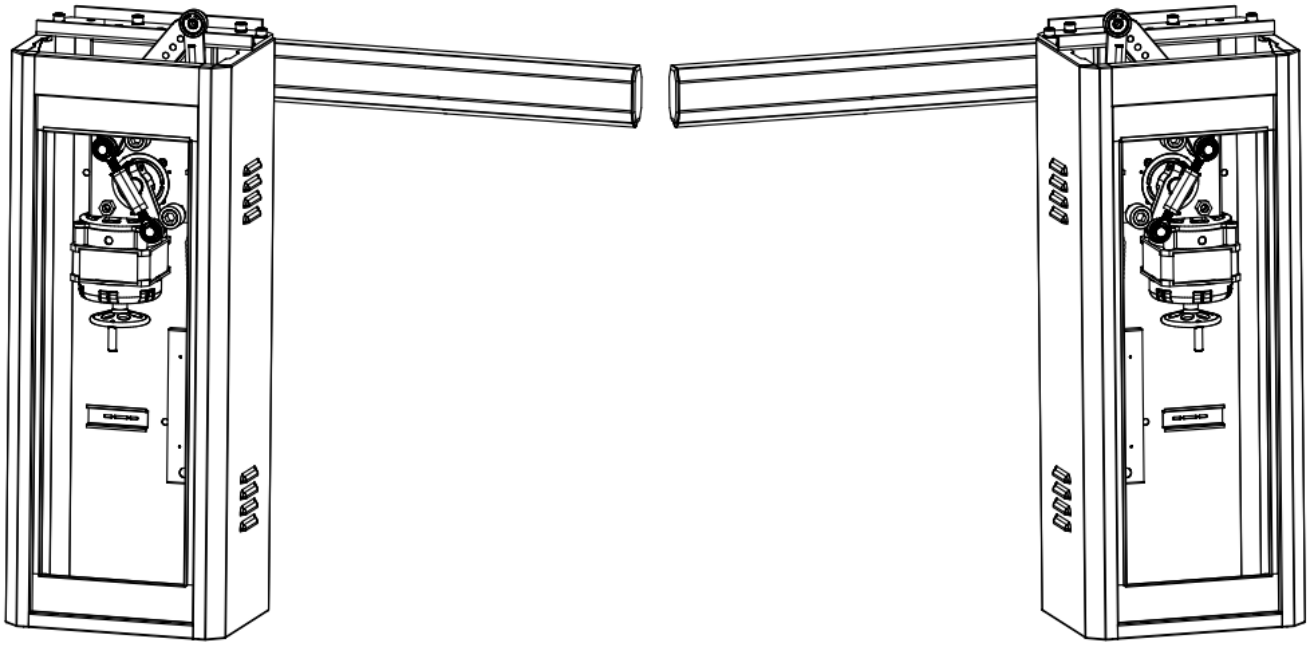
A balanced tension spring is installed inside the chassis to balance the weight of the gate. During the commissioning and installation, the force arm between the spring hole and the spindle can be changed according to the length of the gate (6m, 5m, 4m, etc.). Size, to change the tension of the spring, so that the brake lever reaches equilibrium without the need to replace the spring. When the length of the rod changes, re-adjust the spring hole as shown.

(spring pull hole, as shown)



3. Left and right interchange

According to the actual installation situation on the site, if you need to change the direction of the falling rod of the gate, you can replace it according to the corresponding method. (detailed, as shown)



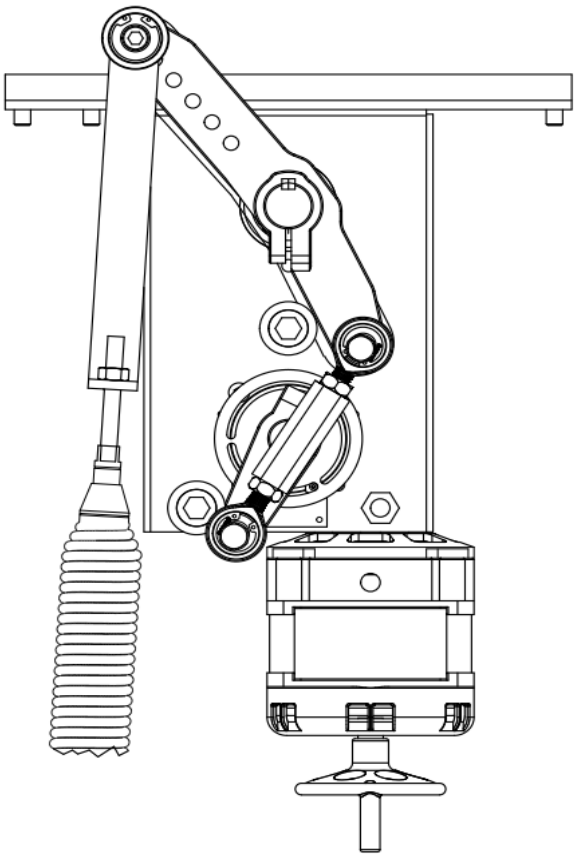
(Left fixed right direction) **(Right fixed left direction)**

Reversing method:

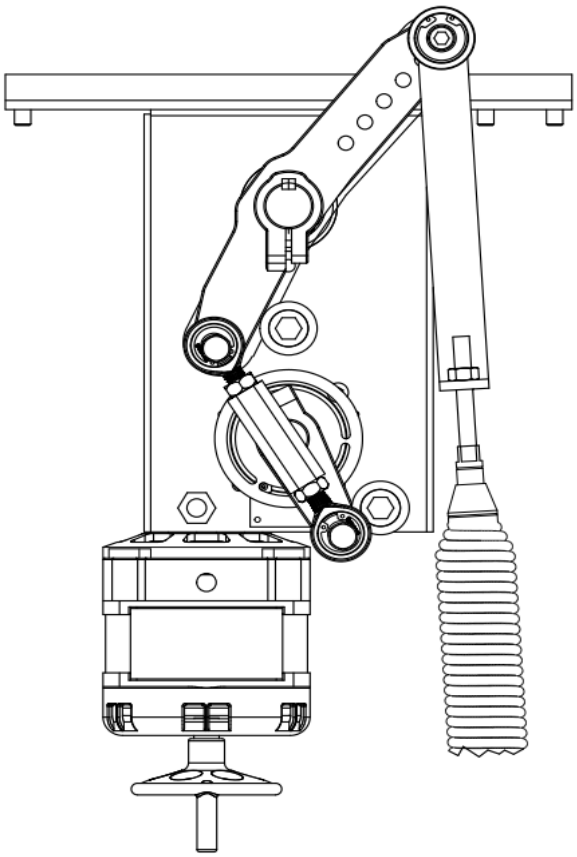
(1) The position of the brake lever is still in the vertical state, and the spring is loosened and then taken out from the bottom hook;

(2) Remove the lever arm fixing screw and the circlip to re-tighten the lever arm and then tighten the corresponding connecting arm and the crank arm;

(3) reversing the mechanical limit assembly as a whole; finally, fixing the spring assembly to the corresponding pull hole according to the length of the rod;



(Right installation diagram)



(Left installation diagram)

(4) Shake the motor with the hand wheel, adjust the arm to the state of the falling rod, and adjust the mechanical limit to the appropriate state;

(5) After adjusting the splint (fixed brake lever) to level, install and lock the brake lever.

(6) Reverse the opening limit of the gate control panel and the closing limit wiring, and reverse the wiring of the motor. (See wiring instructions for details)

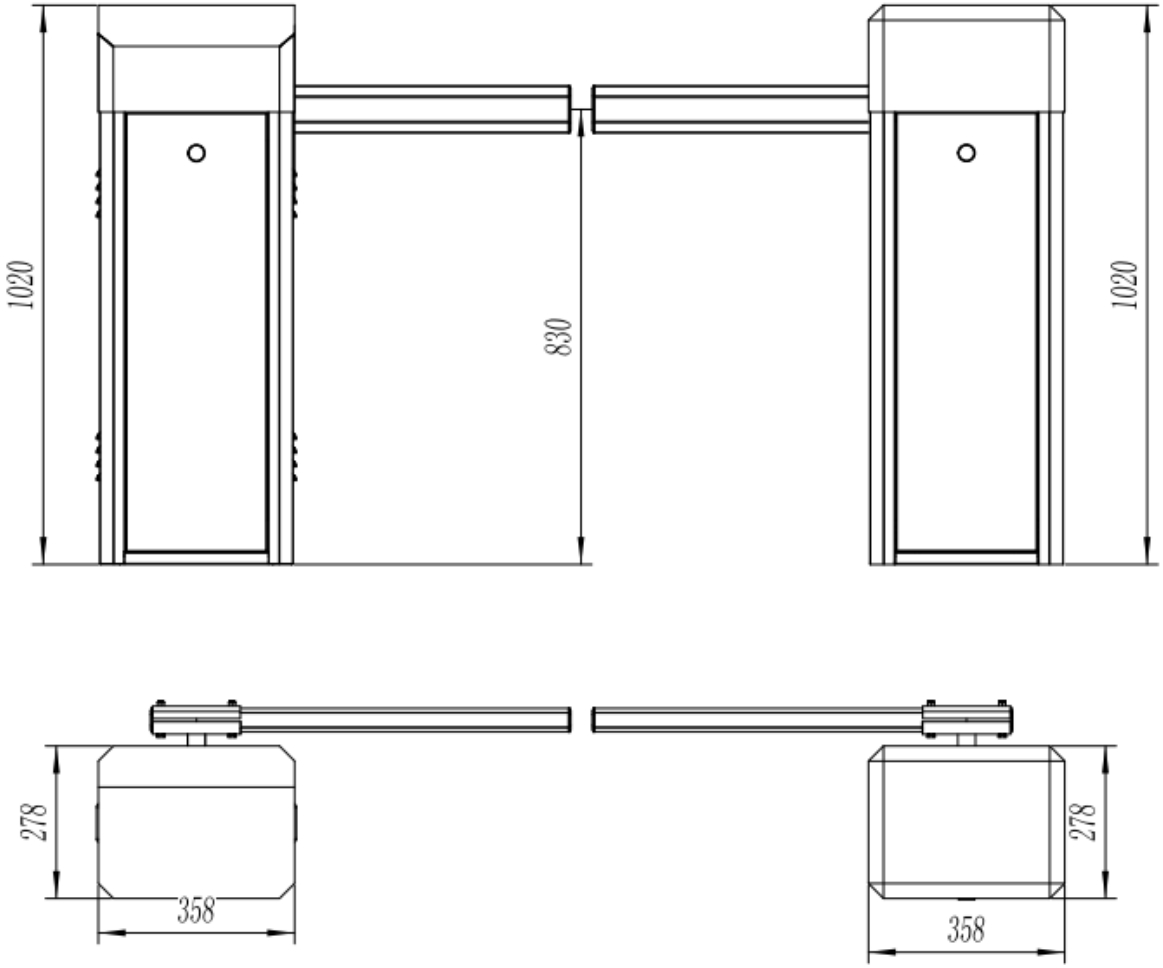
(7) Adjust the magnet of the magnet limit fixing plate, move it to the corresponding position, make its horizontal limit indicator light constantly, lock the screw and fix the magnet position.

(8) Shake the hand wheel, or directly power on the remote control, so that the brake lever is in the vertical state, then adjust the magnet of the magnet limit fixing plate, move to the corresponding position, make the vertical limit indicator light constantly, lock the screw ,

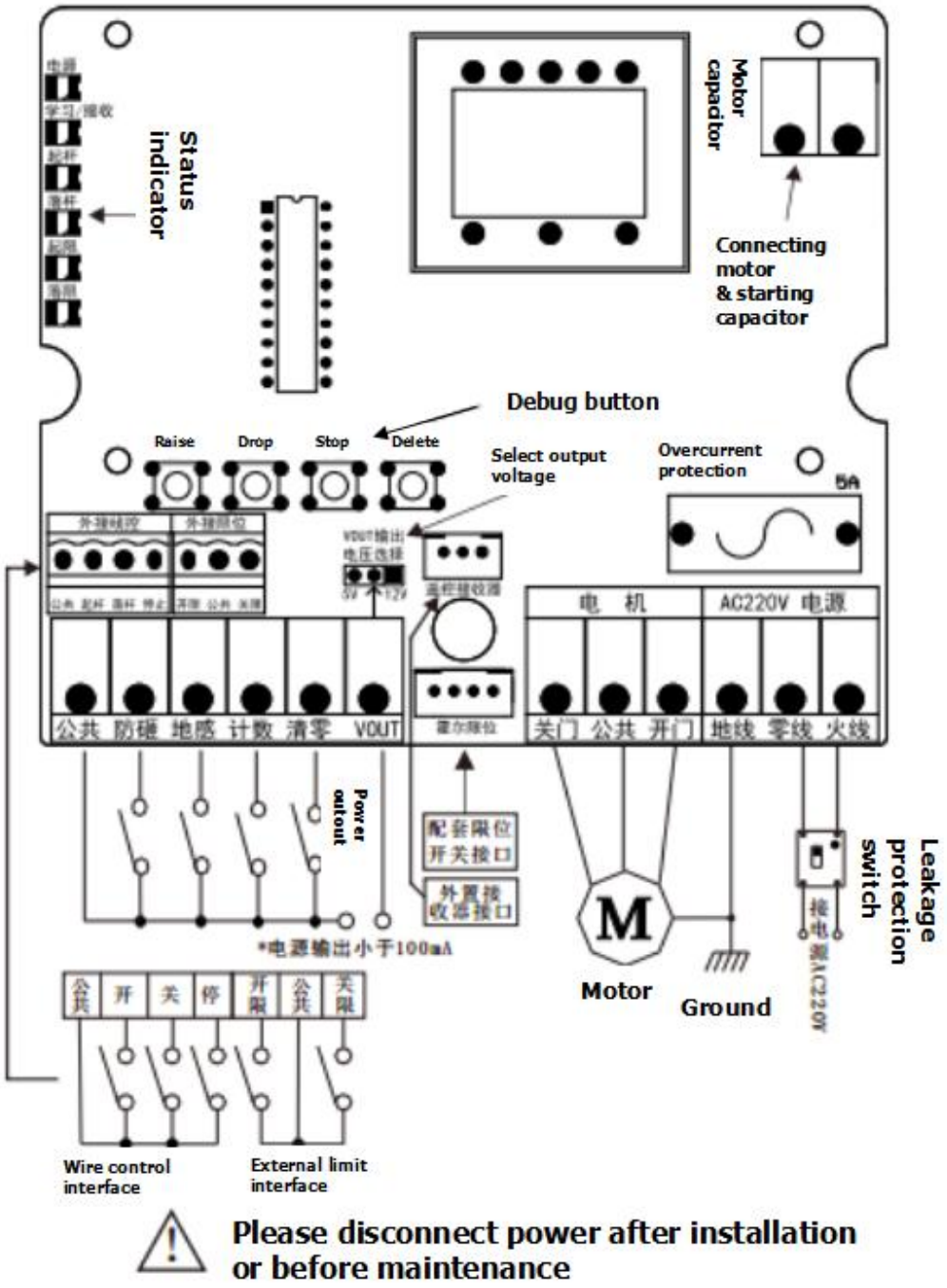
fixed magnet position.

(9) Finally, in the vertical state of the brake lever, the spring is tightened and the conversion is completed.

4. Product size specification chart



5. Wiring diagram



Note: When the replacement gate is reversed, after the parts are changed according to the steps, only the "open limit (**green**)" and "off limit (**yellow**)" need to be adjusted; "connected to the yellow line" and " Connect the red line of the motor "to adjust the tone, re-adjust the "limit magnet", and vice versa.

6. Installation and commissioning

A. Installation Notes

● Open the package and check the related spare parts according to the parts list.

● According to the left and right direction of the selected gate and the actual situation of the installation site, determine the installation position of the gate master. For the installation of slopes on non-concrete foundations or gates, it is recommended to build concrete foundations and ensure that the foundation and foundation are firmly combined. The vertical plane of the main body of the gates is less than 1°.

● According to the position of the control room or the booth, lay the power line and control line according to the relevant provisions in the "Code for Construction and Acceptance of Installation of GB232 Electrical Installations" (it is recommended that the power line and control line are respectively worn in different line tubes).

● Install the expansion screw at the installation position of the gate mainframe (determined according to the accessories actually installed in the list), and fix the brake mainframe before it can be used.

● Use the hand to shake the brake lever to the horizontal position, determine the mounting position of the end rod of the brake rod, and fix the fork rod firmly with screws (no need to install without fork).

● Carefully check the wiring diagram and connect the power cord and related control line to the control panel of the gate. After confirming that it is correct, tighten the adjustment.

Note: All of the above operations should be performed in the event of a power failure.

B. Specific operation

(1) Line pre-buried

According to the customer's request, the position of the chassis is fixed. If the concrete foundation needs to be poured, it can be completed in advance (the size of the base is about 100-150mm larger than the size of the bottom of the gate), and the center of the fixed position of the chassis can be controlled to the control room or Pre-embed or excavate the cable trench between the booths, embed the conduit, and use the 3X1.5 square millimeter power cord and the 4X0.5 square millimeter control cable for the equipment (not required for wireless station control). Concrete. (with photos)

(2) fixed chassis

Place the chassis in a fixed position, open the chassis door, and then mark the center of the screw hole on the bottom plate of the chassis and the edge of the chassis base, remove the gate, and drill the hole vertically on the screw hole with the mark (the size of the drill bit should be The expansion bolts are matched with the equipment and the depth is to comply with the length of the expansion screw. Move the chassis to its original position, insert the expansion screw and tighten it to secure it.

(3) Installation of the brake lever

After the gate housing is fixed firmly, the brake lever can be installed in the lever position,

tightened with the equipped screws, and the brake lever is not tilted. If you need to install the fork rod, after debugging the vertical and horizontal state, shake the gate to the horizontal position by hand, determine the installation position of the end rod of the brake rod, and fix the fork rod with screws (no fork is required without installation)).

(4) Installation of peripheral equipment

The gate gate is installed firmly, and after the commissioning is completed, the control circuit of the chassis line and related peripheral equipment can be connected according to the customer's needs, according to the wiring diagram of the gate control panel, and relevant debugging can be carried out.

7. Use and maintenance instructions

A. Instructions for use

● Before use, check whether the power supply voltage is consistent with this product, that is, 220V±10%. In order to consider the under voltage phenomenon in some areas, the voltage will remain reliable when the voltage is as low as 180V.

● When you need to open the brake lever, press the "Push" button on the controller or remote control. At this time, the brake lever will automatically lift the lever and stop automatically when it is in position.

● When you need to close the brake lever, press the "Lower" button on the controller or remote control. At this time, the brake lever will automatically drop the lever and stop automatically when it is in position.

● During the falling stroke, if there is a vehicle and pedestrians can press the "Pull" button, the brake lever will run in the direction of the lifting rod immediately, or press the "Stop" button, the brake lever will be interrupted. (Note: Please do not press the "Stop" button during normal operation)

● If the brake lever is in a horizontal state during power failure; open the door of the gate and lift the lever with your hand. After the call, press the "Lower" button directly, the brake lever will automatically drop the lever and resume normal use.

B. Safety Precautions

● To ensure safe use, the power supply for this device requires an outlet with leakage protection.

● Operators must pay attention to the fact that it is strictly forbidden to park any items under the brake lever and it is strictly forbidden to pass vehicles, pedestrians and all other animals when the brake lever is running.

C. Maintenance instructions

● Always use a soft, fine cloth to remove dust and oil from the surface of the chassis and keep the surface of the chassis clean.

● Regularly check the wiring part of the control panel for looseness, poor contact, etc. Keep the control equipment in a ventilated and dry place. Do not wash or soak water to

ensure stable performance and improve product life.

● Regularly check the connection of each connecting part and moving part of the gate and tighten the loose fasteners.

● Check the balance spring regularly to ensure that the spring is free of cracks or cracks.

● Regularly check the gear unit for any oil leakage and other undesirable phenomena.

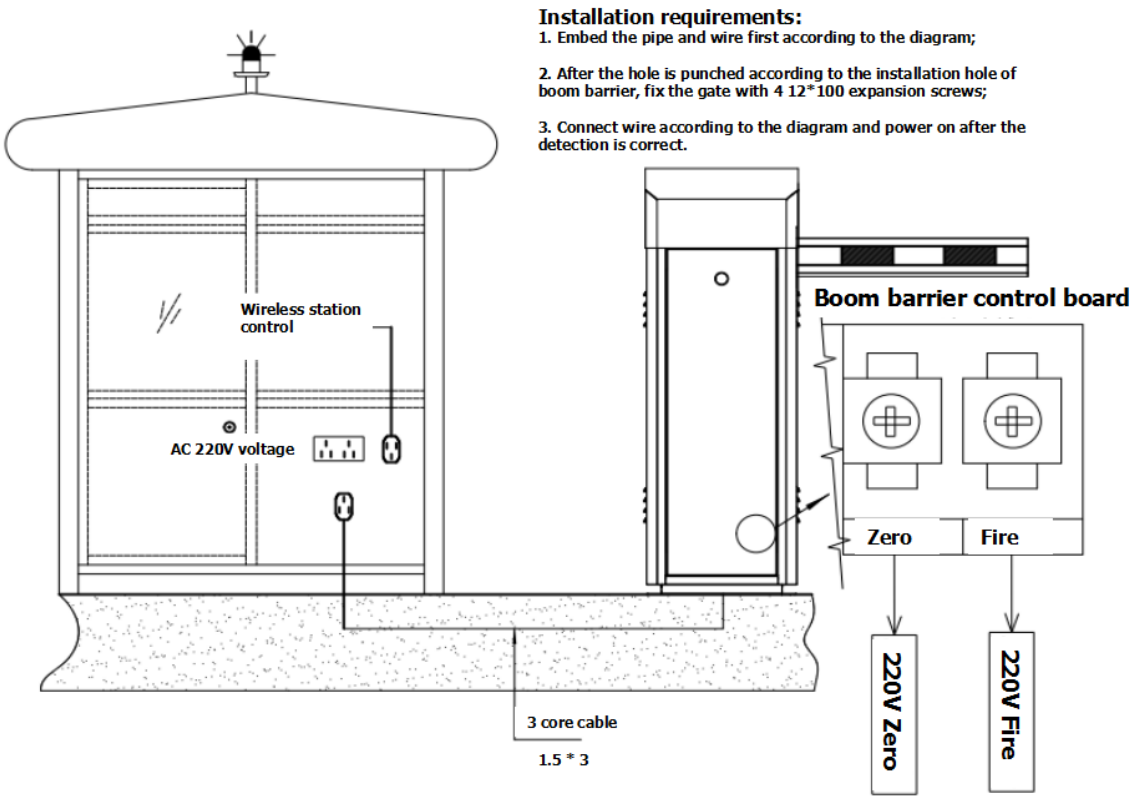
● Regularly check the connection of the system protection ground to ensure reliable contact with the system protection.

D. failure analysis and solution

If there is any abnormality after checking following items, please contact us immediately.

Cause of issue	Detection method	Test results	Solutions
Arm cannot raise and drop properly	(1) Check the power socket with 220V voltage with electric pen or multimeter 250 voltage file	no	Check the mains supply
	(2) Cut off the power supply and use the multimeter R×1 file to measure whether the two ends of the power plug are connected. If it is not clear, the fuse or power transformer is broken.	no	Replace the fuse or controller of the same specification
	(3) Cut off the power supply Use the multimeter voltage to measure whether the red, white and yellow red motors have a resistance of 15Ω～30Ω.	Yes	Replace the motor
	(4) Cut off the power supply Use the multimeter R×1 file to measure whether the three leads of blue, green and gray have a resistance of 15Ω～30Ω.	Yes	Replace the same size travel switch or underground cable
	(5) Using a thermometer to measure whether the motor temperature is above 130 degrees	Yes	Wait for the motor to cool before starting
	(6) Open the cover of the chassis and check the components of the crank-link mechanism in sequence to check whether it is stuck or idling.	Yes	Replace damaged parts or re-weld
	(7) Open the door or cover of the cabinet and run the gate to check if the transmission is stuck or idling.	Yes	Replace the same size transmission
Abnormal noise inside chassis	Check if the bearing and the moving connection are abnormal	Yes	Add lubricant or replace bearing
The arm is not in place	Check if the travel switch is adjusted and the travel flange is loose.	Yes	Adjust the position of the stroke controller and the tightening stroke
The arm shakes when moving	Check if the balance spring tension is too loose or too tight	Yes	Adjust the strength of the spring or replace the spring that fits the force

Wiring diagram



Product quality warranty card

Customer name		Phone	
Customer address			
Date of purchase		Model number	
1. This card must be completed and validated after the seal of the seller is stamped; 2, the product is free of charge within one year, the warranty period is full of lifetime maintenance, only the material fee is charged; 3. Violation of this product manual or disassembly of the machine itself is not covered by the warranty; remote control, brake lever and manual button are not covered by the warranty.			

Standard configuration list

Number	name	Number (pcs)	Remark
1	Gate master	1	
2	remote control	2	
3	Expansion screw	4	M 12*100
4	Product Manual	1	
5	Certificate	1	