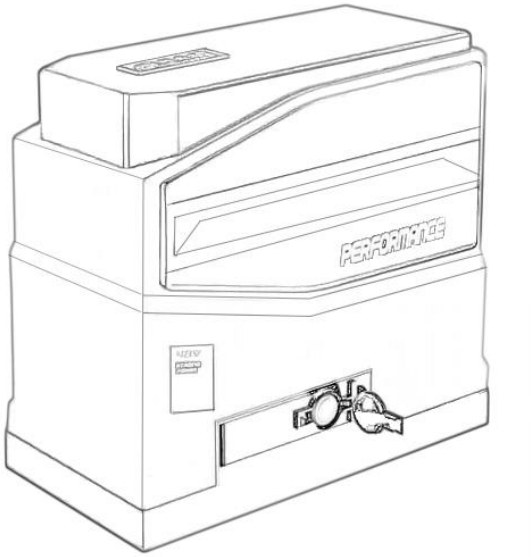
Sliding Gate Opener User Manual

AC1000/AC1500/AC2000/FC1200/FC1500/FC2000 /FC3000/FC4000/DC1000/DC1600/DC2500/DK1000



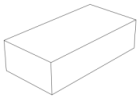
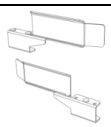
Dear User,：

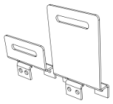
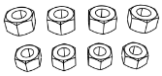
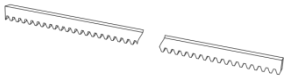
Thank you for choosing this product. Please read the instructions carefully before installing and using this product. If you forward the product to a third party, please do not omit the instructions.

1. **Safety instructions** Make sure that you are using a supply voltage that matches the supply voltage of the host.Do not allow children to touch the controls or play with the remote control.The remote control is a three-button or single-button control mode. (For details about how to use the remote control, refer to the manual.), the remote control indicator will flash when the remote control button is pressed. The release wrench can unlock the host and the door body, and the unlocking back door can be manually operated.When opening and closing doors, ensure that others are away from the host and the door. If the host needs to be repaired or maintained, please suspend the use. The installation and maintenance of the product must be performed by professionals.Please read these instructions carefully before installing, using, maintaining and maintaining this machine. The Company shall not be responsible for any personal injury or property damage caused by the operation of the door opener, the wrong use or the modification of the door opener without authorization.

If necessary, an infrared protection switch can be installed to detect obstacles to prevent injuryHarm or damage to objects.Do not install the product in an environment with explosive gases or any flooding hazard.

2. **Packing List (standard)**

No.	Picture	Name	Quantity
1		Motor	1
2		Manual Release Keys	2
3		Remote Controls	2
4		it Switch Accessories Box/ Magnetic Limi Accessories Box	1
4-1-1		Spring Limit Switch Stop	1 set

No.	Picture	Name	Quantity
		Spring Limit Switch Stop Mounting Screw M6X10	4
		Mounting Plate	1
4-1-2		Magnetic Limit Switch Stop	1 set
		Magnetic Limit Switch Stop Mounting Screws M6X18	4
5-1		Nuts M8	8
5-2		Flat Washers φ10	8
5-3		Spring Washers φ10	4
No.	**icturePackaging list (optiona**	**Name**	**Quantity**
1		Galvanized Gear Rack	1m/pc
2		Nylon Gear Rack	1m/pc
3		Infrared Photocell	1
4		Wireless Keypad	1
5		Alarm Lamp	1

Additional remote controls: Spare/Additional remotes for the automatic gate kit, these will need to be paired to the motor.
Infrared photocell: Detects pedestrians, vehicles and objects that cross an infrared beam and prevents the gate from closing.
Wireless keypad: Allows secure access through the gate used with a user set code.
Wired control: Allow users to control the opening and closing of the door through an external push-button.
Alarm lamp: Alerts people near the gate and users that the gate is in operation.

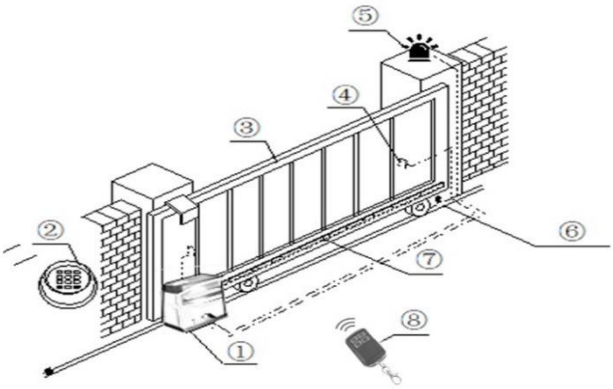
Model	**FC 1200**	**FC 1500**	**FC 2000**	**FC 3000**	**FC 4000**	**AC 1000**	**AC 1500**	**AC 2000**	**DC 1000**	**DC 1600**	**DC 2500**	**DK 1000**
Power Supply	220VAC/50Hz								24VDC/50Hz			
Gate Moving Speed	4-26m/min								13m/min			26m/min
Maximum Loading Weight （kg）	1200	1500	2000	3000	4000	1000	1500	2000	1000	1600	2000	1000
Remote Control Distance	⩽ 50m											
Remote Control Mode	Single button mode / Three button mode											
Limit Switch	Spring limit switch / Magnetic limit switch											
Working Noise	≤ 58dB											
Working Duty	S2, 20min											
Recording of up Remote Controls	Intelligent control board: 128											
Remote Frequency	433.92 MHz											
Working Temperature	-20°C - +70°C											
Package Weight (kg)	14	15	15.5	16	16.5	13.5	15	16	15	15	16	13

4. Install

AC1000/AC1500/AC2000/FC1200/FC1500/FC2000/FC3000/FC4000/DC1000/DC1600/DC2500/ DK1000 door opener are suitable for the door weight less than 1000Kg, 1500Kg, 2000Kg translation door, door body length less than 20 meters. The driving mode adopts rack and gear transmission. The door opener must be installed in the fence or yard to avoid the door opener being damaged.

4.1 system installation diagram

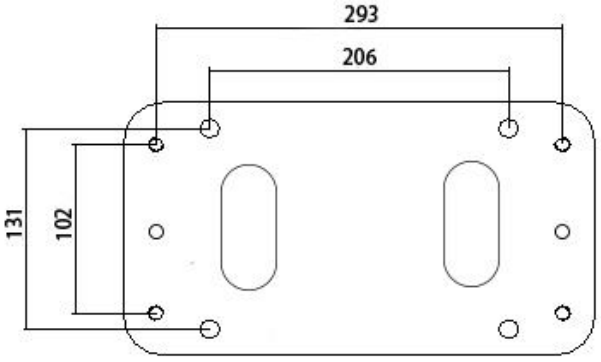
1. **Door Opener 2. Combination Lock (optional)3. Hilum; 4. Infrared Protection Switch (optional) ; 5. Warning lights (optional)6. Safety Blocks; 7. Rack; 8. Remote control;**

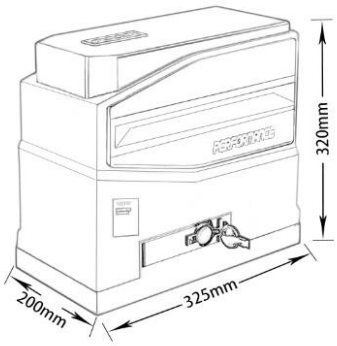


4.2 mainframe and accessories dimensions

4.2.1 mainframe dimensions

4.2.2 dimensions of mounting base plate



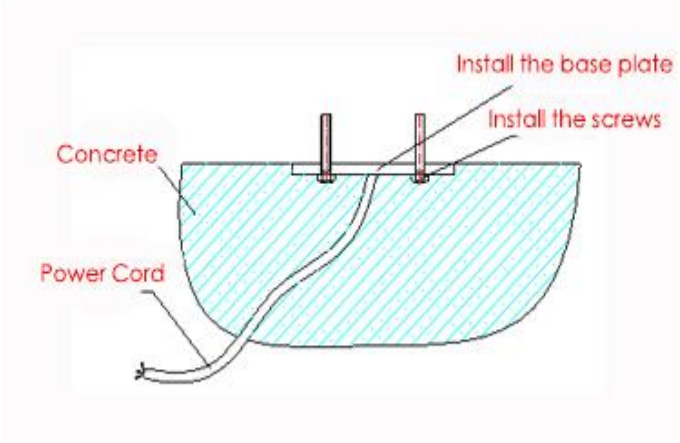


4.3 installation step

4.3.1 pre-installation of the main engine before installing the door opener, please make sure that the door body is properly installed to ensure that the door guide rail level and the door body can be easily operated manually. Cable installation in order to ensure the normal operation of the door opener, and to protect the cable from damage, please use PVC pipe buried motor and power cable, as well as control cable, and separate two PVC pipe, respectively buried (motor and power cable) and (control cable) . Concrete pedestal in order to firmly install the door opener, the concrete pedestal must be pre-poured with a size of 400mm × 250mm and a depth of 200mm.

Before pouring the base, make sure the distance between the door body and the main engine is suitable. Embedded screws.

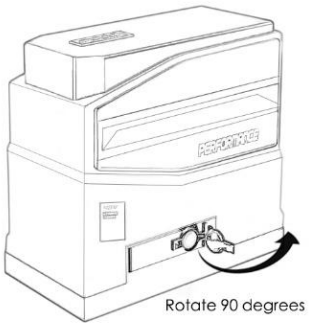
4.3.2 mainframe installation

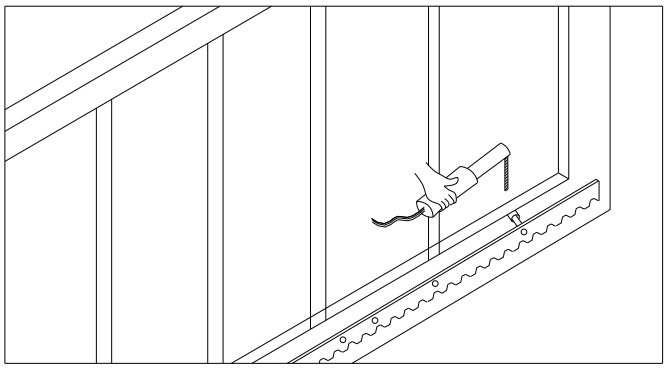


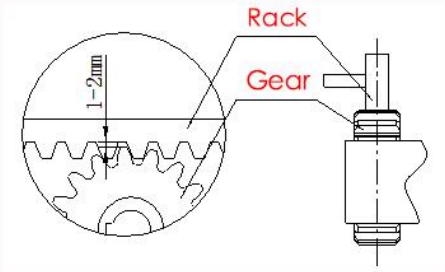
a) . Before installation, remove the plastic housing on the main engine and take good care of the relevant fasteners; b) . Due to the different installation environment, please bring your own power cord (no less than 3 cores, no less than 1.5 mm2, the length is determined by the user according to the situation of the installation site) . Before installation, please unlock the host first, unlock method: take out the key cover, insert the key, open the release wrench, until the release wrench rotation 90 degrees, as shown in Figure 5 state, then turn the output gear, gear can easily rotate;

4.3.3 rack installation,

first the rack installation screw and rack screw together, the rack on the host gear above, so that the rack and gear bite, then the rack installation screws and the door body welding (each screw first point a solder joint) , pull the door body (at this time the host in a free state) can easily move, and according to Figure 7 check rack and gear clearance between whether there is. There is no problem to install the rack screw welding firm, so that all the required rack installation, rack and rack to ensure that between the same line. After the installation, pull the door body, the whole trip to ensure flexible no card lag.



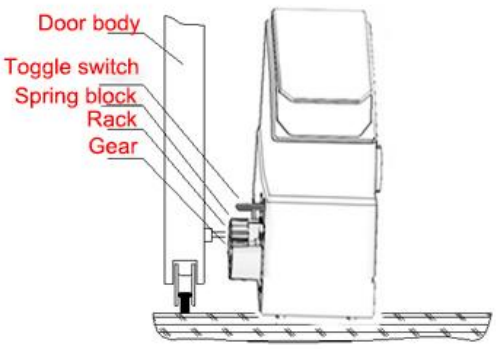




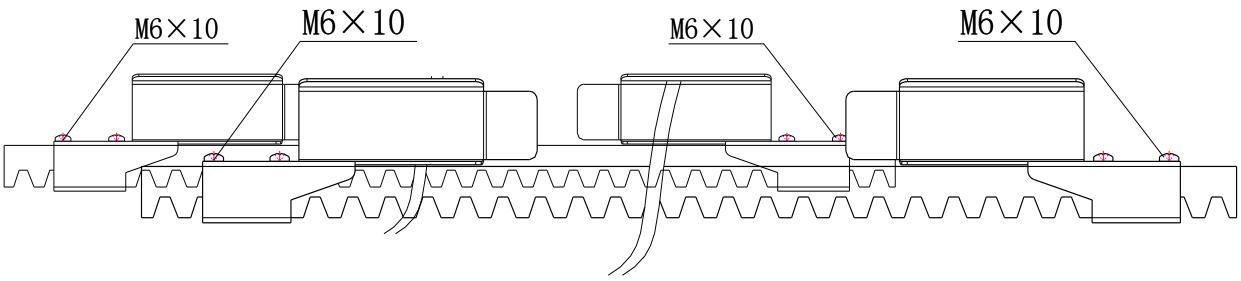
Gear Rack Fit:

Warning:

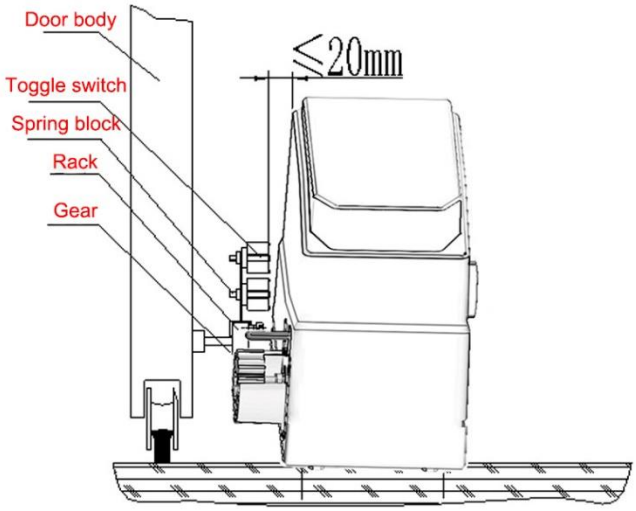
in order to ensure safety, install safety blocks at both ends of the guide rail to prevent the door body from rushing out of the guide rail. Before installing the main engine, please confirm whether the door body safety blocks are installed in place, whether it has the function of preventing the door body from leaving the guide rail and running out of the safe range. Before installing the mainframe, please make sure that the mainframe and parts are in good mechanical performance and that the door body can be operated flexibly by hand. This product can only one control drive a host, otherwise it will cause damage to the control system. The installation of this product must be seen in the operation of the door to install leakage protection switch, installation height must be higher than 1.5 meters, so as not to be touched by children. After the installation of this product, please confirm again whether the mechanical properties are intact, whether the manual unlocking of the rear door body is flexible, and whether the infrared protection switch (optional) is installed correctly and effectively. 4.3.4 limit switches shall be adjusted and spring limit switches shall be installed at



Installation method of spring limit block:

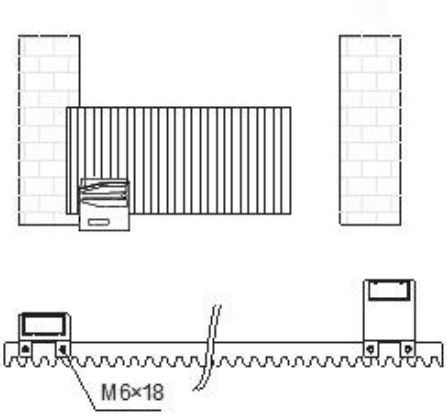


Mounting position of magnetic steel limit switch:

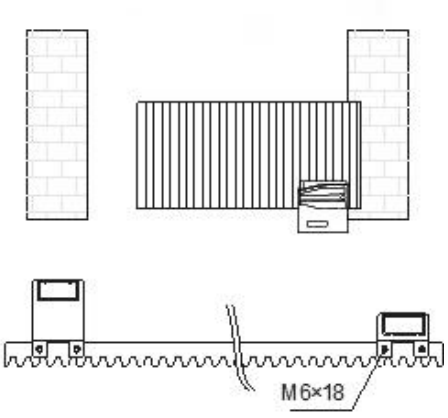


Installation method of magnetic steel limit block:

Door opener installed on the left



Door opener installed on the right



Note: the default factory door opener right (according to the actual situation, reference 4.3.5.1 and 4.3.5.2 notes, to adjust) .

4.3.5 control board wiring

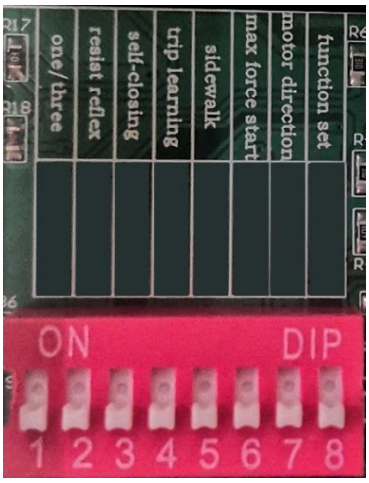
4.3.5.1

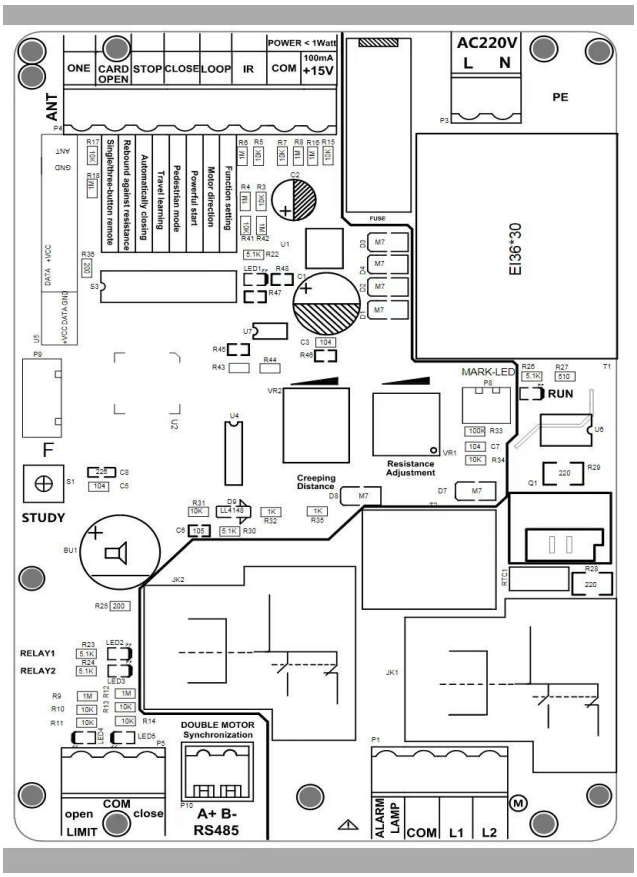
AC Sliding Gate Opener Controller Manual

(Please read the manual book carefully before using)

Features

- Built-in circuit board with s soft start and slow stop
- Irreversible motor. The motor is irreversible, so there is no need to install an electric lock. When there's power failure, the gate can be manually controlled by release key.





❖ **Functions**

1. Automatic closing
2. VR1 adjustment when against resistance**.** The motor has a resistance rebound function. Adjusting VR1 can set the operating resistance of the gate. It also has the ability to automatically detect resistance and provide protection.
3. The operating route can be memorized. Automatically stop after the opening and closing time has expired.
4. The motor running direction can be changed without re-adjusting the wiring.
5. Dual-machine RS485 command synchronization, single button or three button control, strong start, motor running direction adjustment.
6. Lock setting, air coding, long distance adding transmitter without disassembling the case.
7. VR2 creeping distance. Gate creeping distance adjustment 0-15s.
8. Single-button cycle, open, stop, close linear interface, ground-sensing infrared and

external APP interface (close the gate and the infrared rebounds and stop in the open limit or the remote control command a stop)

❖ **Dial Switch Descriptions**

DIP1: Single and three-button remote control: When the dial is turned upward and set to ON, the single-button remote control function is used. when the dial is turned downward and set to OFF, the three-button remote control function is used.

DIP2: Rebound against resistance: When the dial is turned upward and set to ON, the gate will rebound against resistance. when the dial is turned downward and set to OFF, the gate will stop when resistance.

DIP3: Automatically closing: When the dial is turned upward and set to ON, the gate will automatically close with set closing time after the gate opens in place. when the dial is turned downward and set to OFF , automatic closing is invalid.

DIP4: Travel Learning: This function takes effect after the travel time is set. when the dial is turned upward and set to ON, it will automatically stop when the motor is in place; when the dial is turned downward and set to OFF, the running time defaults to 90S.

DIP5: **Pedestrian mode**: When the gate is closed and the dial is upward and set to ON, the gate will open only 1.1 meters wide to for pedestrian passing.

DIP6: Powerful start: when the dial is turned upward and set to ON, the soft start is turned off. It is suitable for low temperature weather or heavy gates.

DIP7: Motor running direction: if you find that the motor direction is reversed, just adjust the DIP7 dialing position after the motor stops running.

DIP8: Function setting: When dialed down and set to OFF, the motor is in normal running state; when dialed up and turned ON, it is in the setting state (cooperate with DIP3/DIP4 or DIP5 to achieve the corresponding functions). For details, Check the below special function settings.

❖ **Special Function Settings.**

1. Automatically closing time setting.

DIP8 and DIP3 are dialed up to ON at the same time, and the other DIPs are dialed down to OFF. Pressing the function key button F (S2) and the sound will beep, one beep for 1s. Set it to the time you need. Then continue to dial DIP5 down to OFF and the setting is completed.

2. Travel time setting

DIP8 and DIP4 are dialed up to ON at the same time, and the other DIPs are dialed down to OFF. Pressing function key button F (S2) for more than 5s, the gate will automatically open and close once, memorizing the travel time. Then dial DIP6 down to OFF. After the setting is completed, the gate will slow down when approaching to open and close limit.

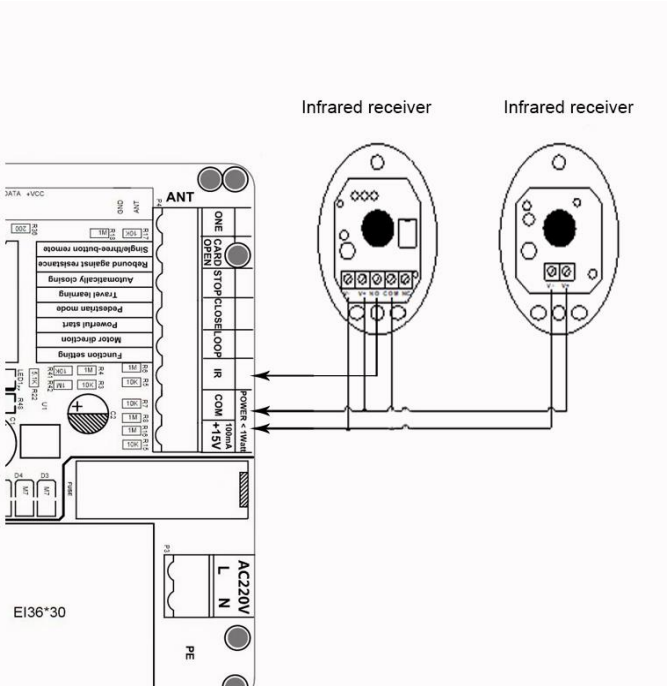
3. Turn on/off slave mode in dual-machine synchronization scenario [factory default is off]

DIP8 and DIP5 are dialed up to ON at the same time, and the other DIPs are dialed down to OFF. Press and hold the function button F (S2) for more than 5 seconds. Two beeps mean the slave mode is turned on, and three beeps mean the slave mode is turned off. Then dial DIP8 and DIP5 down. The setting is completed. [Remarks: Slave mode only receives 485 commands from the host, not receive remote control signals!]

4. Add and delete remote control

(1) Add remote control: Press and hold the function button F (S2) until the light turns on, press the [open] button twice, the learning is successful, and this button is also successfully set for single-button use.

(2) Delete remote control: Press and hold the function key button (S2), the light will turn on, press the [oepn] and [close] button once each and the light will flash to delete the currently operating remotes. Press the [open] and [close] button twice each to delete all learned remotes.



(3) Add a transmitter by air coding: pressing and hold the [Open + Lock] button of the learned remote for more than 3 seconds, hearing the buzzer beep three times (one long and two short), and then press the [open] button twice of the transmitter to be learned, when you hear the buzzer beep three times, the learning is successful. Repeat the above steps to learn the next one.

Infrared protection switch (Figure 13)Functions of the infrared protection switch: In the process of closing the door, if people or objects move within the operating range of the door, the door can be quickly turned to open the door to protect the safety of personnel or property.The distance between the receiving end and the transmitting end of the infrared protection switch shall not be less than 2 meters, otherwise the infrared protection may be affectedThe sensor effect of the switch.If an IR protection switch is connected, remove the short wire between IR and GND on the X5 terminal.

Remote control learning and operation

Remote control operation

When the remote control mode is three channels, the three buttons of the remote control respectively control the opening/closing/stopping of the host.

When the remote control mode is single channel, one button of the remote control cycles to control the opening/stopping/closing/stopping of the host.

Adding and deleting transmitters

(1) Additional transmitter: Press and hold the function key F (S2) to turn off the light, press any remote control key twice, and the learning is successful. This key is also successfully set for single key use.

(2) Delete transmitter: Press and hold the function key F (S2) for more than 5 seconds, the light flashes and the buzzer sounds, then all learned transmitters will be deleted.

(3) Aerial code addition transmitter: Press and hold the [Open+Lock] button of the learned transmitter for more than 3 seconds, and hear the buzzer beep three times (one long, two short), then press the [Open] button of the transmitter to be learned twice. If you hear the buzzer beep three times, the learning is successful. Learn the next step and repeat the above steps.

AC FREQUENCY CONVERSION CONTROLLER MANUAL

This controller employs motor vector control algorithms and features overcurrent protection, over-power protection, overheating protection, reverse reopening upon obstruction during closing, and stopping upon obstruction during opening. It supports full-range speed regulation (30–100Hz) for standard asynchronous motors.

** • * Caution: This product contains high-voltage components. Installation and setup should be performed by qualified personnel to avoid the risk of electric shock!*

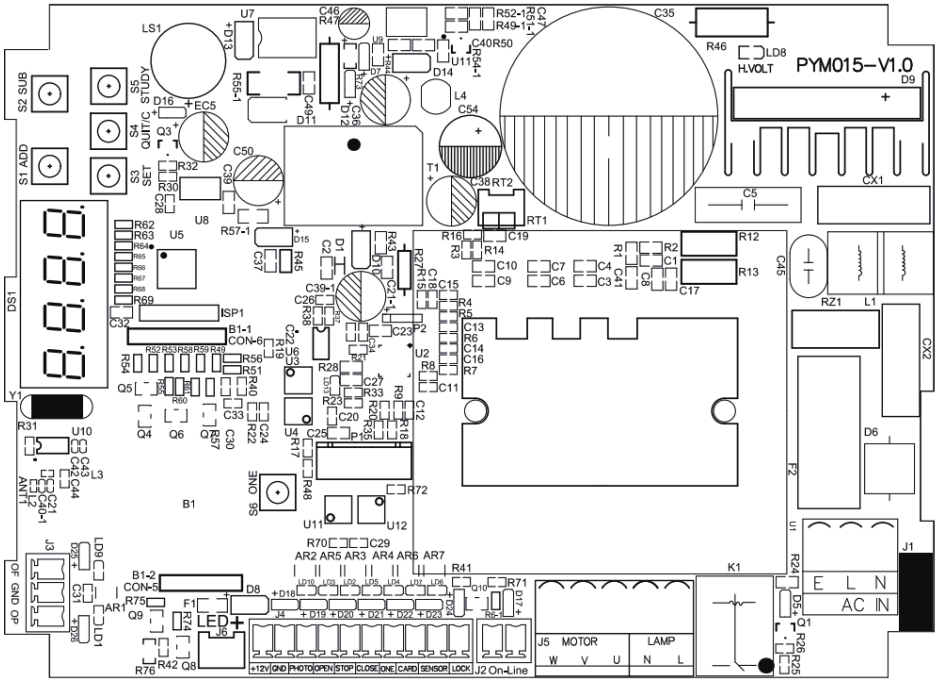
** • *Caution: After initial installation or after changing the motor speed parameters, a travel learning cycle must be performed again!*

** • *Caution: The gate must be equipped with an anti-derailment device independent of the controller!*

** • *Caution: When using the automatic gate closing or ground sensor functions, an infrared anti-pinch device must be installed.*

1.INTERFACE INSTRUCTIONS

L: Live power input.



N: Neutral power input.

U, V, W: Connecting to a three-phase motor. Wiring must be based on the gate's direction of movement.

Running Light: Connecting to a 220V AC warning light to provide a warning when the gate is in motion.

Open Limit: Normally open mode. Used to connect the gate fully open signal.

Close Limit : Normally open mode. Used to connect the gate fully closed signal.

Infrared: Normally open mode. During opening, triggering the infr-ared signal will cause the gate to reverse and fully open.

Open: Normally open mode. Triggers the gate to open when activated.

Stop: Normally open mode. Stops the motor when activated.

Close: Normally open mode. Triggers the gate to close when activated.

Single Button: Normally open mode. Cycles through open-stop-close-stop with each activation.

Access Control: Normally open mode. Connecting to an access control system for authorized opening and automatic closing.

Ground Loop: Normally open mode.

The ground loop input has three operating states:

1. During closing: If a ground loop signal is detected, the gate will reverse to the fully open position, then delay for 2 seconds before initiating the closing action.

2. During opening: If a ground loop signal is detected, the gate will continue ope-ning until reaching the fully open position, then delay for 2 seconds before initiat-ing the closing action.

3. After fully opening: When the gate is already at the fully open position, a ground loop signal will trigger a 2-second delay before the gate begins closing.

Interlock: Cross-connect with the stop interface of the second controller to realize the function of

opening only one gate.

2.SETTING INSTRUCTIONS

System Standby Mode, press the <SET> button briefly to enter parameter settings.

- Adjust parameters using the <+> and <-> buttons.
- Press <SET>briefly again to switch to the next setting item.
- Press <QUIT>briefly to exit setup mode.
- Factory Reset: In setup mode, holding the <SET> button for 15 seconds to restore default parameters.

1. XXX Opening Frequency: Set 30~100Hz (Lower frequency = slower speed,higher frequency = faster speed). (Default: 60)
2. XXX Closing Frequency: Set 30~100Hz (Lower frequency = slower speed,higher frequency = faster speed). (Default: 50)
3. XXX Opening Obstruction Sensitivity: 1~30 (Lower value = more sensitive).Motor stops immediately upon obstruction while opening. (Default: 5)
4. XXX Closing Obstruction Sensitivity: 1~30 (Lower value = more sensitive).Motor reverses to fully open upon obstruction while closing. (Default: 4)
5. XXX Auto-Close Delay Time: 0~100s (0 = disabled). (Default: 0)
6. XXX Slow-Run Frequency for Opening/Closing: 15~30Hz (Default: 20)
7. XXX Motor Power Setting: 370/550/750W (Default: 370)
8. XXX Remote Single-Button Control:

- On: Remote single button cycles through open/stop/close functions.
- Off: Remote uses separate buttons for open, close, and stop (requires designat-ed remote). (Default: Off)

9. XXX Access Control Setting (0~10):

- 0: Disables access control port function.
- Other values: Sets gate-open duration (in seconds) after card swipe. (Default: 4)

A. XXX Host/Slave Mode:

- Off: Host mode.
- On: Slave mode. (Default: Off)

LEAr (Auto-Travel Learning): Must be performed with the gate at mid-travel position (learning is disabled if at limit switch state).

3.INSTALLATION

Installation and commissioning must be performed by professionals with utmost attention. Correcting wiring of the motor and limit switches is critical for the proper operation of the automation system.

1. Confirm Limit Switch Functionality

Test whether the open/close limit switches are functioning properly. The limit switches operate in Normally Open (NO) mode. When not triggered, the corresponding indicator light is off. When triggered, the corresponding indicator light stays on. Pushing the gate to the fully open position, Open limit indicator should light up. Pushing the gate to the fully closed position Close limit indicator should light up.

2.Confirm Motor Rotation Direction

Manually moving the gate to the mid-travel position. Pressing the <Single Button> on the controller. The motor will start, and the LED display will show either "oPEn" (opening) or "cLoS" (closing). Check whether the digital tube display content and the gate running direction are consistent. If the gate moves in the opposite direction of the display, then power off the controller, waiting for the display to turn off, swap

the U/V motor wires, and retest.

3.Travel learning. Push the gate manually to the middle. short press the "SET"button to enter the setting menu interface, switch the menu to the "LEAr"interface, press the "+" button, and the controller will enter automatic travel learning. You can also directly press the "QUIT" button in the standby interface to enter automatic travel learning. The gate will first close slowly, then open slowly,then close slowly, then open at normal speed, and finally close at normal speed.

4.Test opening and closing, and resistance.

Note: Triggering the gate open, close, stop, or remote control signal during travel learning will immediately terminate the travel learning process.

Note: travel learning is best performed when the motor is cool. Motor power decreases when the motor is hot. If stravel learning is performed while the motor is warm, it may result in false detection of resistance when the motor cools down.

4.REMOTE CONTROL LEARNING

Short-press the "code" button. The digital tube displays r.xxx, indicating that the remote control configuration mode has been entered. xxx represents the number of learned remote controls, with a maximum of 128. Simultaneously press and hold the "On" and "Lock" buttons on the assigned remote for one second to enter the remote control over-the-air pairing mode. This mode only allows adding remote controls, not deleting them.Pressing the "Stop" button on any remote control or after 10 seconds will exit remote control configuration mode. (In single-button mode or some remote controls without a combination button, you will not be able to enter over-the-air pairing mode.)

Adding a remote control: In multi-button mode, press the "On" button on the remote control. The buzzer will beep once. Press the "On" button again. The buzzer will beep three times, indicating that the remote control has been successfully added. In single-button mode, briefly press the remote control you want to add. The buzzer will beep three times, indicating that the remote control has been successfully added.

Deleting a specific remote: The remote control must be in multi-button mode. In remote control configuration mode, press the remote control's "On" button. The buzzer will beep briefly. Then press the remote control's "Off" button. The buzzer will beep twice, indicating that the remote control has been successfully deleted.

To clear all remote controls: In standby mode, press and hold the "code" button for approximately 15 seconds until the buzzer beeps three times. Release the "code"
button to complete the clearing process.

5.FAULT CODES

Er01: Open/Close Timeout Er02: Overcurrent Er03: Overvoltage Er04: Undervoltage
Er05: Travel Learning Failure Er06: Overtemperature Er07: Overpower Er08: Resistance
Er09: MCU Communication Loss Er10: Limit Error

PYM012 DC SLIDING GATE OPENER CONTROLLER MANUAL

一. Product Introduction

- Built-in high-speed microprocessor chip, perfect intelligent real-time

monitoring, stop and rebound when encountering obstacles or jams, and motor running time protection, etc.

- Adopt industry-leading variable frequency conversion control technology to achieve soft start, early deceleration to open and close limit when opening/closing, slow stop
- Automatically measure and learn the gate width and weight after power-on, and automatically update system parameters
- Work with the card reader access control to achieve humanized control of opening and closing the gate
- With single-button remote control, one remote control can control multiple gates, easy to carry, and the lock key function can prevent misoperation
- With system use authority, the gate will be automatically locked at a fixed time when it is closed, and it with the anti-theft opening function
- Real-time monitoring of motor operation status and line protection, safer and more reliable
- Automatic gate closing function, used with external gate identification device to achieve automatic gate opening and closing
- Adopt exclusive rolling code encrypted remote control to make the system operation safer and more confidential
- With single-button cycle control, card swipe opening, infrared encounter resistance detection, ground sensor detection, AC warning light, DC warning light and other compatible control interfaces
- The system reserves independent button interfaces for opening, stopping and closing the gate, which is convenient for remote control the gate opener operation.

一、Technical parameters

1．Gate Opener Controller

Power supply voltage: 24V DC/AC　　Motor voltage: DC24V

Fuse: 250V 10A　　Output power: 180W

Humidity: 35～85%RH　　Operating temperature: -20℃～65℃

AC warning light: AC220V　　DC warning light: DC24V 10W

2．Remote Control - Rolling Code

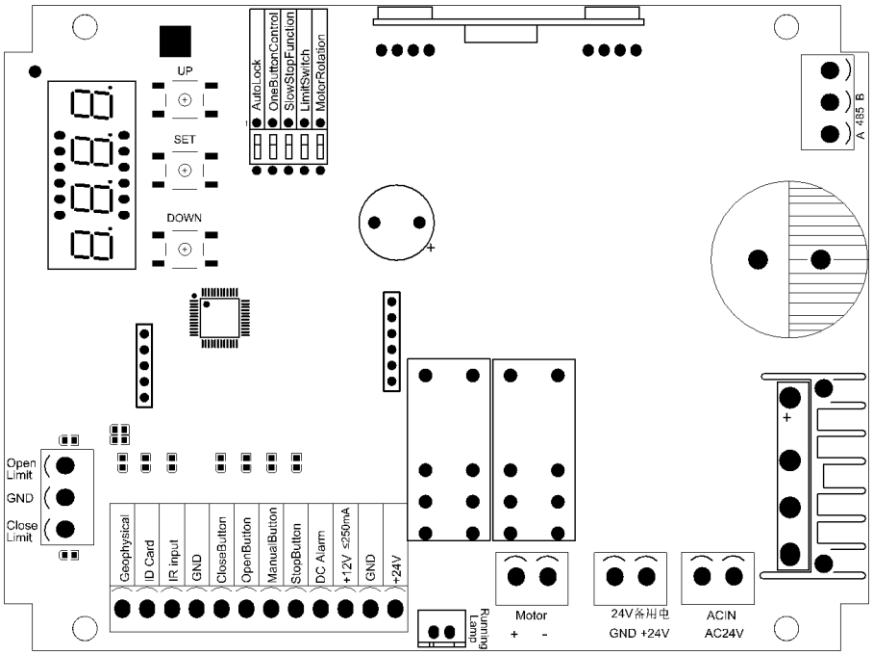
Working voltage: DC6V (two CR2016 button batteries)

Working current: ≤15mA　　Working frequency: 433MHz

Humidity: 35～85%RH　　Transmitting distance: ≤50m

Working temperature: -20℃～65℃　　Weight: about 30g

二、Functions



（一）Remote control

1．4-button self-operated rolling code encrypted remote control;

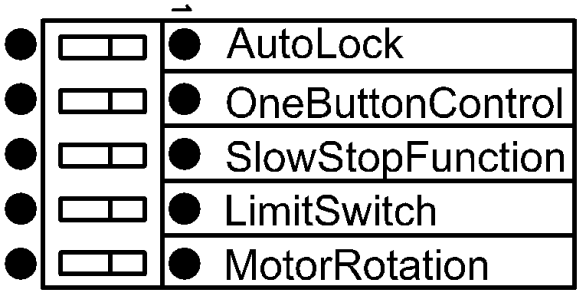
2．Remote control button functions:

open/close/pedestrian button/Stop action/lock/unlock:

① Pedestrian button: Press the open button and the gate will move for 5 seconds, so that the gate opens about 1 meter for one person passes. After 5 seconds, the gate will automatically close to the threshold; (When the closing delay is set to off, the door will automatically close after 5 seconds;

② Stop action/lock/unlock: Short press when working for stop function; press once when the door is locked for unlocking; long press for 5 seconds for locking.)

（二）Dip Switch



1．Auto-lock (DIP switch position 1):

① When turned to the ON position, the gate will be automatically locked if there is no action for 15 seconds after closed to the limit;

② When turned to the OFF position, the gate will not be locked after the gate is closed to the limit.

③ The panel buttons and the open, close, and pedestrian button of the remote

control will be locked when there is no operation within 15 seconds after the gate is fully closed. You must unlock them before you can operate the gate opening and closing buttons normally. After being locked, you can only unlock it by swiping a card or pressing the remote control lock button. (Remarks: Only after the gate is fully closed, the lock button on the remote control works. If it is set to a single remote button, it will not lock because there is no lock button)

2．Remote control single button (DIP switch position 2):

① When dialed to the ON position, single button control. Only open button works. Functions: open→stop→close→stop→open.

② When dialed to the OFF position, four buttons control.

3．Slow Stop Function (DIP switch position 3):

① When turned to the ON position, the slow stop function is turned on, and the gate body enters the slow stop operation in advance before the gate is opened/closed.

② When turned to the OFF position, the slow stop function is turned off.

(Note: This function is only available after the travel learning.)

4．Limit switch (DIP switch position 4):

① When it is turned to the ON position, the limit switch is selected to work in the normally closed mode;

② When it is turned to the OFF position, the limit switch is selected to work in the normally open mode;

(Note: the factory default is OFF, which is the default working mode of normally open)

5．Motor Rotation (DIP switch position 5)

① When turned to the ON position, the default direction is the opposite direction;

② When turned to the OFF position, the default direction.

(Note: If the door moves in the wrong direction, turn the "Motor Rotation" DIP switch to another position)

（三）Digital tube display and key operation

1．Display

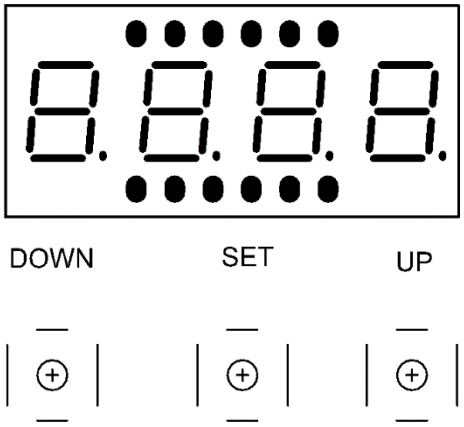
After power on, the digital tube displays the working status, which are:

“OPEN”: the gate is opening;

“CLOS”: the gate is closing;

“STOP”: the gate stops running;

“LOC-”: the gate is locked and needs to be unlocked by pressing the remote control lock button



2．Key Operation

Short press the SET key to enter the setting mode

1) 1-XX: Remote control configuration mode, XX is the number of remote controls to be learned, the value range is 0-C8 (128), and learning will not be possible if the number exceeds this.

① Press the "Stop" button of any remote control or after 10 seconds, the host will exit the remote control configuration mode. At this time, you can verify whether the remote control is effective.

② Air pairing function (press and hold the open button + lock button for 1s at the same time, wait for the buzzer of the receiving box to beep once, and enter the air pairing additional configuration function, which can only be added but not deleted). Some remote controls do not have a combination key function and will not be able to enter the air pairing mode. The control panel cannot be locked under the lock mode.

③ Add remote control

Enter remote control configuration mode or air pairing mode

- Press the "OPEN" button on the remote control, the LED light flashes once, the buzzer sounds once, press the "OPEN" button again, the LED light flashes a few times and then stays on, and the buzzer sounds three times. This remote control has been added (the operation of adding other remote controls is the same)
- When the remote control is single button mode, the air pairing mode cannot be used. After entering the remote control configuration mode, short press the add remote control or change button, the LED light flashes a few times and then stays on, and the buzzer sounds three times.

④ Delete remote control

Enter remote control configuration mode

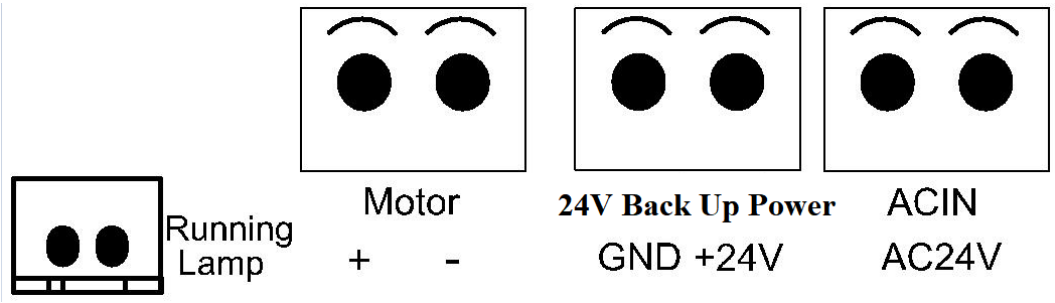
- ✧ Press the "OPEN" button on the remote control, the LED light flashes once, the buzzer sounds once, then press the "CLOSE" button, the LED light flashes a few times and then stays on, and the buzzer sounds twice. This remote control has been deleted (the deletion operation of other remote controls is the same)
- ✧ If you use the same remote control to repeat the above step, the LED will flash and then go out, and the buzzer will sound three times. All remote controls are cleared at this time.

(Remarks: A remote control clearing operation cannot be performed without

learning. Press and hold the setting button on the host for more than 8s, the LED will flash once and then go out, and the buzzer will sound three times. All remote controls are cleared at this time.)

2) 2-XX: Set the resistance adjustment, the setting range is 3-99. The factory default value is 30. The gate will stop when it encounters resistance when opening, and will automatically open the gate when it encounters resistance when closing. (If there is no key operation within 120 seconds, it will also exit the setting mode)
3) 3-XX: Slow speed, the setting range is 15-99, the factory default is 30. (If no key is pressed within 120 seconds, the setting mode will be exited)
4) 4-XX: Set the gate closing delay, the setting range of XX is 0-99 seconds;
   0: No automatic door closing function. The factory default value is 0. (If no key operation is performed within 120 seconds, the setting mode will also be exited). Short press the SET button again to exit the setting mode.
5) 5-XX: Set the gate opening time for the pedestrian mode. The setting range of XX is 2-30 seconds. The gate opens a certain width to allow a pedestrian to pass. The larger the time setting, the larger the gate opening. The factory default value is 5s.
6) 6-XX: Set the gate closing delay for the pedestrian mode, the setting range of XX is 0-99 seconds; 0: no automatic door closing function. The factory default value is 0. Short press the SET key again to exit the setting mode. (If there is no key operation within 120 seconds, the setting mode will also be exited)
7) 7、**7-XX：** Dual-door setting, 0: Set to slave. 1: Set to master. The factory default is 0. When the dual- linkage is needed, the signal input line (door opening, door closing, infrared, etc.) should be connected to the control board set as the master, and after the line between the master and slave is connected, the working state of the master will be transmitted to the slave, so that the two doors can be opened or closed at the same time
8) 8、**8-XX：** Learning to adjust the travel speed. The larger the value of XX, the faster the speed, the smaller the value, the slower the speed.
9) 9、**9-XX：** Infrared interface switch to ground sense interface. When the value of XX is 1, the infrared interface is a ground sense interface, and when the value is0, the infrared interface is infrared. Press the SET key again to exit the setup mode. (No operation within 120 seconds will also exit the setup mode

（四）Input and output interface



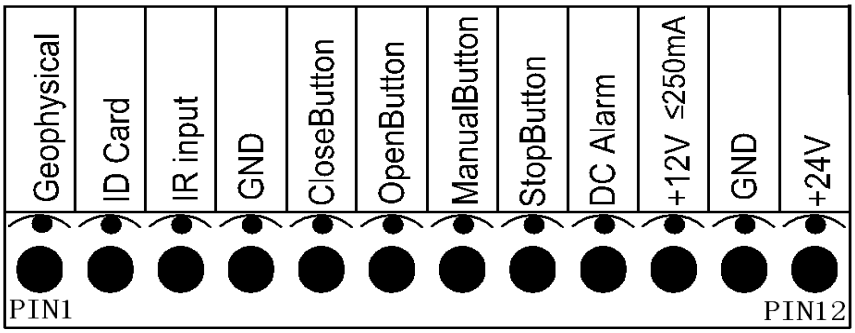
1．Running Lamp Interface: Output voltage 12V. The polarity of the output

voltage is different when the gate is opened and closed, so the running lamp lights with different colors. When the gate is opened or closed, the running lamp flashes (0.5 seconds on, 0.5 seconds off).

2．+24V: Connect to the positive pole of the backup battery.

3．Motor Interface: DC 24V brushed motor

（五）Terminal block port definition and function

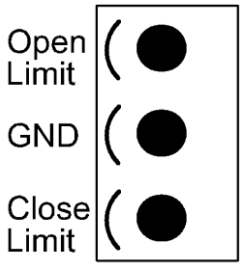


PIN	Description	Function	Detailed Description
PIN1	Geophysical	Ground sensor signal line	Connect with ground sensing device to automatically opening and closing gate (low level is effective); The ground sensing signal can trigger the gate opening to the limit only when the gate is not at the closing limit. The gate will close automatically after the ground sensing signal disappears for 3 seconds
PIN2	ID card	Card swipe signal line	Receive the gate opening command from the external identity collection and recognition system, the controller outputs the gate opening signal, and the gate close automatically (not affected by the state of the automatically closing dial switch, swiping the card can trigger the automatically closing, low level is effective); when the gate reaches the gate opening limit, it will automatically close after 5 seconds
PIN3	IR Input	Infrared signal line	Input pin of infrared signal; normally open. When the infrared ray is blocked during the closing process, the gate will stop immediately and enter the opening state; no detection will be performed when the gate is open.

PIN4	GND	Ground line	Ground wire, common port GND
PIN5	Close Button	Gate Closing Button	Gate closing button signal input terminal, after being triggered, it moves to the closing limit position and stops (low level is valid)
PIN6	Open Button	Gate Opening Button	Gate opening button signal input terminal, after being triggered, it moves to the opening limit position and stops (low level is valid)
PIN7	Manual Button	Manual operation button	An external switch can realize the function of opening, stopping and closing the gate in a cycle (low level is effective)
PIN8	Stop Button	Emergency stop button	Emergency stop button input terminal (low level is effective, self-locking switch); the emergency stop button is effective at any time
PIN9	DC Alarm	DC Flashing light (-)	DC Flashing light negative pole
PIN10	+12V ≤250mA	12V power output	External output 12V 0.25A
PIN11	GND	Ground line	Ground wire, common port GND
PIN12	+24V	12V power output	External output 24V 0.5A

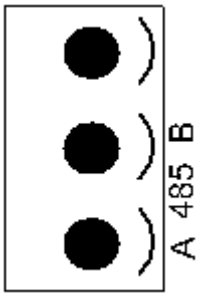
PIN1	Open Limit	Gate opening limit switch input terminal; set to Off, low level is valid; set to On, high level is valid;
PIN2	GND	Ground wire, common port GND
PIN3	Close limit	Gate closing limit switch input terminal; set to Off, low level is effective; set to On, high level is effective

(Note: Changing limit does not require relearning. It is required to change when it



is in the open limit or closed limit to prevent the switch state from being wrong after the change.)

2.6.3、Dual door communication interface



PIN1	COM	GND	RS-485 Common ground line between devices. Generally, no connection is required, only when communication instability occurs in high-interference situations.
PIN2	B	**B wire**	RS-485 Communication line, connect to the B interface of another board
PIN3	A	**A wire**	RS-485 Communication line, connect to the A interface of another board

（六）Infrared obstruction

When the infrared ray is blocked during the closing process, the gate will stop immediately and open about 1 meter (open for 5 seconds). If the gate closing delay is set, the gate will automatically close after the time is up. If the gate closing delay is set to 0, the gate will not automatically close with a delay.

（七）Motor overtime protection

If the motor runs for more than 120 seconds, the motor will stop running immediately and wait for new operation. If you press the opening or closing button again, it can continue to work.

（八）Operation fault code display

❖ When the digital tube displays the working status, press and hold the "UP" key for 1 second to enter the machine parameter display. Press the "UP" key again to switch the displayed parameters in sequence. The parameters are as follows:

E-XX: Displays the fault code that causes the motor to stop automatically.

Fault code	Corresponding Functions
E-00	No fault, the motor stops after reaching the limit switch; or it stops when there is no operation after power-on.
E-01	Motor working overtime
E-02	Motor encounters resistance
E-03	Motor infrared encounters obstruction

- ❖ Press and hold the "UP" button for 1 second again to exit the fault code display.
- ❖ The fault code display will automatically exit after 30 seconds.
- ❖ After a fault occurs, the motor stops working. The automatic closing time is invalid, that is, the motor will not automatically close according to the time set in (4-XX: Set the gate closing delay).
- ❖ Press the button on the PCB or remote control to open or close the gate, the fault code will be automatically cleared and the fault will be re-detected.

三、Travel learning

After power-on, the red light flashes, indicating that the travel learning is not completed.

- ✓ The first time the user uses it (press the open/close button), the gate moves slowly to the limit switch.
- ✓ The second time the user uses it, it moves to another limit switch at full speed.
- ✓ The third time the user uses it, it moves to another limit switch at full speed.

The red light turns solid, and the travel learning is completed.

Note: Before the first learning after installation, the gate must be within the detection range of the two limit switches (i.e., in the open limit or close limit or between the two limit switches)

5. Others

5.1 Maintenance

Check the door body once a month to check if it is running normally.

For safety reasons, it is recommended that each door be equipped with an infrared protection device and inspected regularly.

Please read all user manuals carefully before installing and operating the door opener.

Our company reserves the right to make changes without prior notice.

5.2 Troubleshooting

problem	Possible cause	resolvent
The door cannot be opened and closed normally, and the LED light is not on.	1. Power off. 2. The fuse is burnt out. 3. Control board power wiring issue.	1. Turn on the power switch. 2. Check the fuse (number FU) and replace it if it is burnt out. 3. Rewire according to the instructions.

The door can only be opened, not closed。	1. Infrared wiring issue. 2. Infrared installation issue. 3. The infrared protection switch is obstructed by an object. 4. The recoil force is too small when encountering obstacles. (Intelligent) 5. Hall components are damaged. (Intelligent)	1. If it is not connected to infrared, please ensure that there is a short circuit between the infrared port GND; If infrared is connected, ensure that the wiring is correct and the infrared status is NC. 2. Ensure that the infrared installation positions can be aligned with each other. 3. Remove obstacles. 4. Increase the recoil force. 5. Replace the Hall components.
The remote control is not working.	1. The battery level of the transmitter is low. 2. The transmitter has not learned.	1. Replace the transmitter battery. 2. Learn the transmitter again.
Press to open or close, the door body does not move, and the motor makes noise.	1. Capacitor damage. 2. Poor capacitor contact. 3. The door body is not flexible enough.	1. Replace the capacitor. 2. Check the capacitor wiring. 3. Adjust the motor or door body according to the actual situation.
Keep opening and closing the door to the limit without stopping	1. The direction of the limit is incorrect. 2. Installation issue with magnetic steel limit.	1. Check if the wiring of the limit switch is consistent with the actual operating direction. 2. Check whether the distance and height between the magnetic steel limit and the door opening machine meet the installation requirements。
Leakage switch tripped.	Short circuit in power line or motor line.	Check the wiring.
The remote control distance is too short.	The signal is blocked.	External receiver antenna, 1.5 meters above ground.

Stop or reverse the door when it reaches the middle position。	1. The motor output force is insufficient. (Intelligent) 2. The motor encounters insufficient resistance. (Intelligent) 3. The door body is obstructed.	1. Adjust VR4. 2. Adjust VR1. 3. Remove obstacles.
Automatic door opening	The automatic door closing function has been activated, but the opening direction of the door opener is incorrect.	Refer to the precautions in sections 4.3.5.1 and 4.3.5.2 of the manual to change the direction of the door opening machine.

Maintenance

The gate should be checked every month to make sure it operates normally.
For the sake of safety, each gate is suggested to be equipped with infrared protector, and regular inspection is required.
Before installation and operation of the gate opener, please read all instructions carefully.
Our company keep the right to change the instruction without prior notice.

Warranty Form

Warranty (Notice) Regulations

（1） Repair within the warranty period with this certificate and invoice;

（2） Warranty period: One year from the date of sale;

（3） Any user who fails or is damaged due to product defects without disassembly will be repaired or replaced with parts free of charge by our factory;

（4） Due to improper use, mechanical damage caused by human factors is not covered by warranty.

Maintenance records

Maintenance date	Maintenance content	Repairman