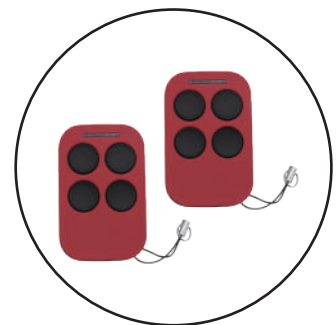
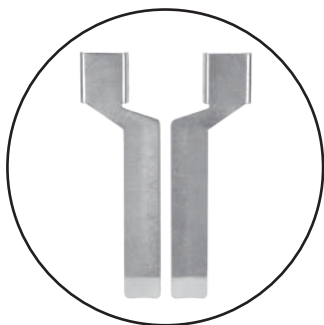


# Automatic Sliding Gate Opener User's Manual



## Attention

The manual should be read cover  
to cover once prior to beginning installation

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## 1. Summary

This equipment is one of the auto gate openers launched by our company adopting a new design and integrated control system. Our new sliding gate opener has many features such as: low noise, light weight, powerful starting torque, stability, reliability and is compact and stylish. The motor will still work for a short period of time using lower voltage. The control board has overload protection. When there is a power failure, the motor drive can be separated by the use of the clutch, by using the specified key the user has the ability to disconnect the clutch enabling the gate to be opened or closed manually. Using the optional infrared photocells the gate will automatically stop and re-open if an obstacle is sensed.

## 2. Appearance and dimensions

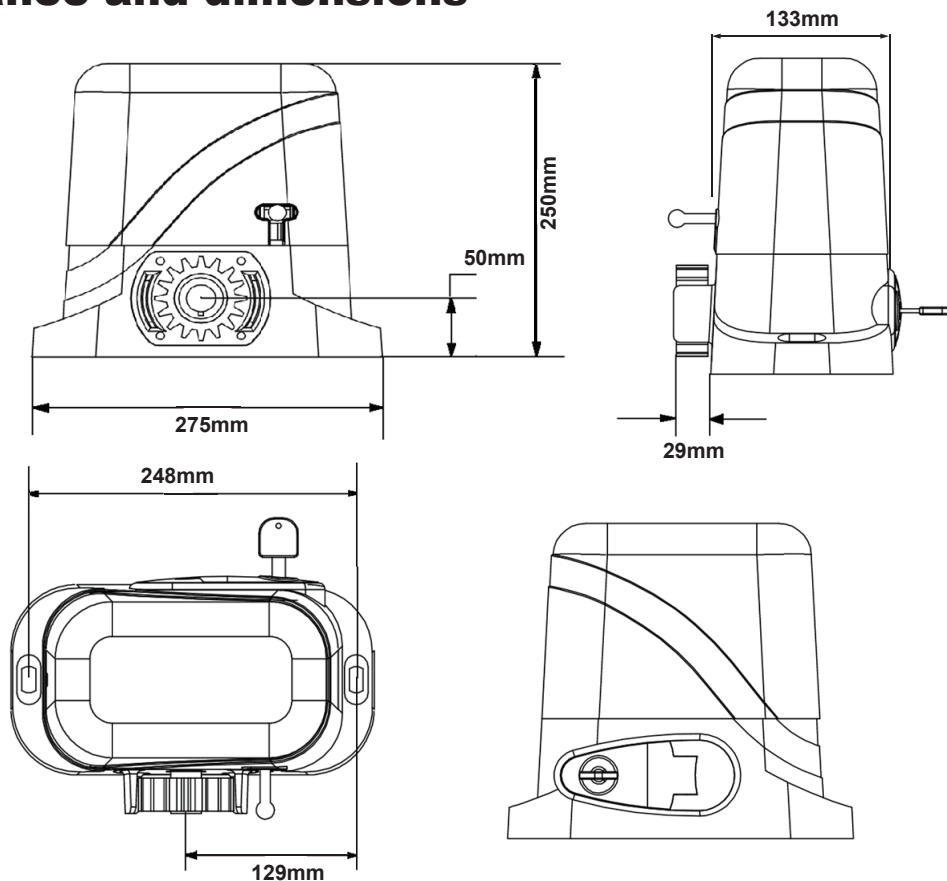


Diagram 1

## 3. Parameters

1. Working Temperature of Motor:  $-25^{\circ}\text{C}\sim+55^{\circ}\text{C}$
2. Power Supply:  $220\text{VAC}\pm 10\%/110\text{VAC}\pm 10\%$  50Hz/60Hz
3. Working Humidity:  $\leq 85\%$
4. Motor Voltage: 24VDC
5. Rated Power: 200W
6. Output Gear Module:  $M=4$
7. Output Gear Number:  $Z=16$
8. Open(Close) Speed:  $V=12\text{m}/\text{min}$
9. Rated Speed: 1400RPM
10. Maximum Pull: 1100N
11. Maximum Load: 500kg
12. Net Weight: 10kg
13. Remote Control Distance:  $\leq 50\text{meter}$
14. Packing: In a Standard Carton
15. Protection Class: B

## 4. Installation of mechanical parts

### 4.1 Installation of motor base plate

1. Depending on the installation size of the motor and mounting height of racks, after determine the installation position of the motor base plate, first let the bolt embedded or use expansion bolt to make base plate fixed on watering good cement foundation. See diagram 2

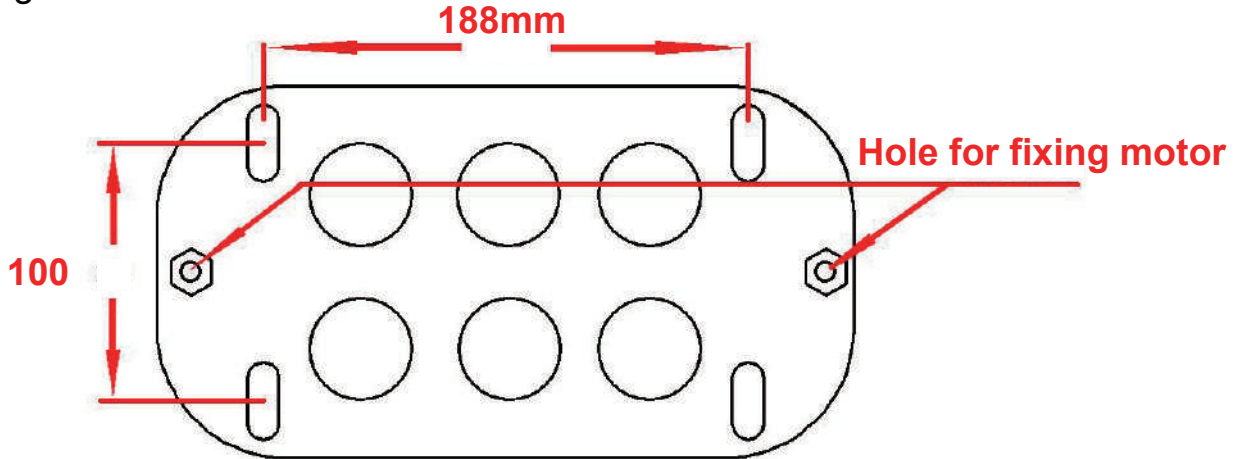


Diagram 2

2. If the rack has been installed on the door, the motor can be fixed on the base plate. use a Allen key rotation to the clutch "off" position, the motor and the gear rack so as to better determine the position of the motor base plate, then remove the motor and fixed base plate.

### 4.2 Installation of gate opener

1. Let the sliding gate opener put on the base plate. use a random matching hexagon screw make the motor fixed on the base plate.
2. Unscrew the screws fixed the motors cover, and then remove the motor cover according to the electrical wiring diagram, connected the power cord, after adjust in good position, Then install cover and use screws to fixed it.

### 4.3 Installation of racks

1. After the motor is installed, the racks teeth the down, then put the gear on the motors. And final connected with screws and gate. push the door with hand. So can let door sliding it and can move it without any problem. after confirmed, fixed the racks.
2. Rack is usually unit assembly, in order to avoid gate run jitter or jammed, rack and joint clearance must be corrected. Suggest use this way, see diagram.
3. With a small correction of the rack, after connecting right with racks 1 and racks 2, then fixed racks 1 and 2.

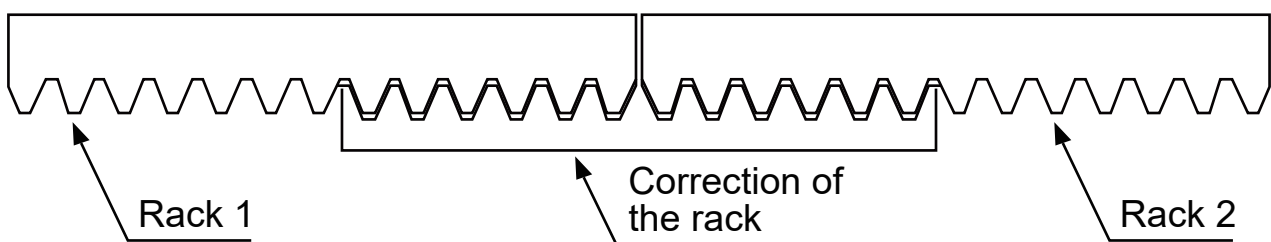


Diagram 3

#### 4.4 Installation of limit levers.

There are 2 limit levers supplied. Note there is a left hand and a right hand lever. The levers should be installed one at either end of the rack. See Diagram 4.

To install the levers in the correct position, open the clutch door and press the “CLOSE” button on the remote, the motor will run but will not drive the gate. Close the gate manually and adjust the limit lever to contact the toggle switch and switch the motor off at the desired gate position. To adjust the stop position of the gate when it is open, press the ‘OPEN’ button, manually open the gate and adjust the other limit lever to contact the toggle switch and switch the motor off.

When you are satisfied the levers are in the correct positions, tighten the screws in the levers to clamp them to the rack, close the clutch door and using the remote control check the gate opens and closes to the desired positions. Adjust the limit levers if necessary.

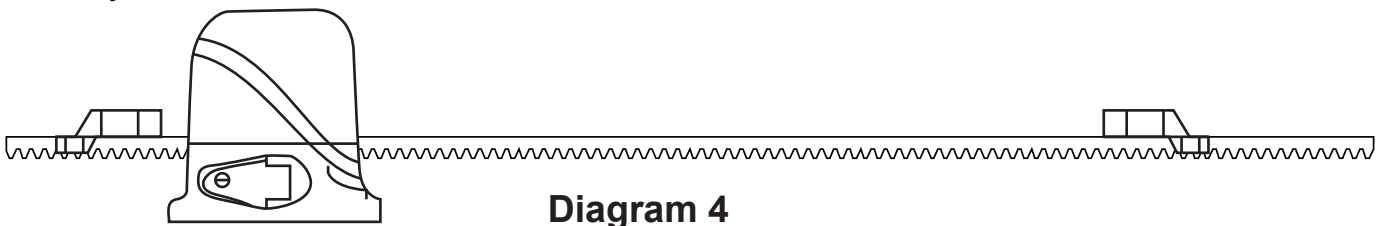
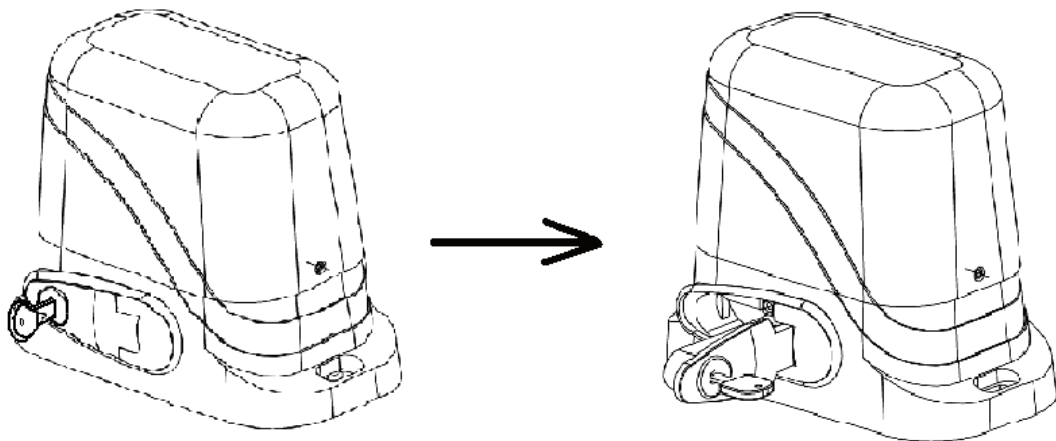


Diagram 4

#### 4.5 Function of clutch.

When the clutch is opened to the open position, you can manually push the door; when closing the clutch, electric door can run on, off, when touching limiting the bezel will stop automatically.



Insert key, rotate 90 degrees CW

Diagram 5

Releasing arm in torsion, wriggle 90 degrees, gate operator will be in releasing state

### 5. Features overview

1. Power Supply: AC 24V; available for connecting external 24V battery and battery charging, 24V output for external power supply.
2. Application Range: applied for DC motor of sliding door.
3. Transmitter Encoder: Custom rolling code, maximum capacity of 120PCS transmitter.
4. Motor: 24V DC Motor

5. Features: the limit function; resistance function, resistance sensitivity adjustable, fast and slow 2 speed running; fast running speed adjustable; motor automatically protected time 90s; auto-closing function can be set on/off optionally; automatic closing time adjustable; control panel single button control; available for connecting photocell, once the obstacle sensed by photocell while the door is closing, the door will stop and bounce back to open state; opening the door by swiping card.
6. Matching remote: RC-SM12G,RC –SM01G,RC-SM27G

## 6. Control board

### 6.1 Technical parameters:

1. Board power supply: DC 24-32V or AC 19.6-24V
2. Battery power supply: DC 24V
3. Remote control: Giant customized rolling code
4. Remote control memory: max support 120pcs

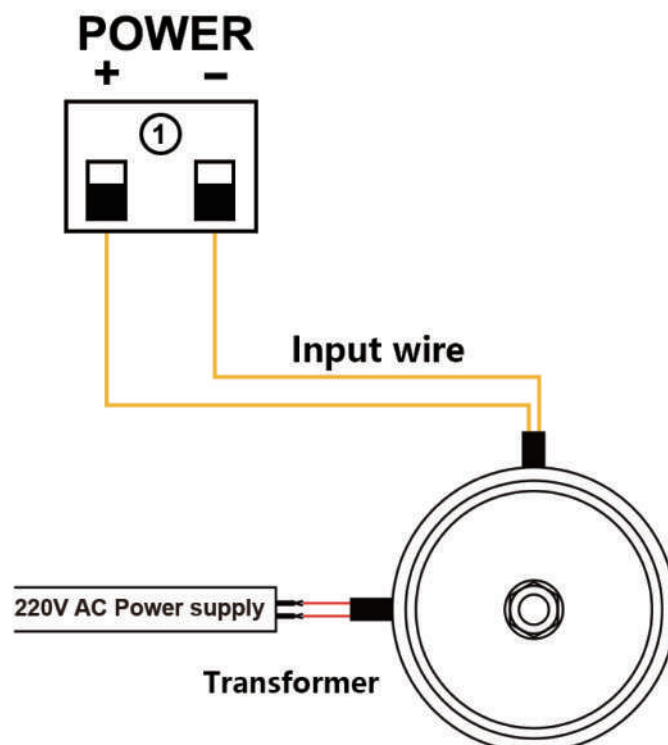
### 6.2 Connection of the power supply:

**WARNING: NEVER** connect the gate opener to the power outlet before all the installations have been done.

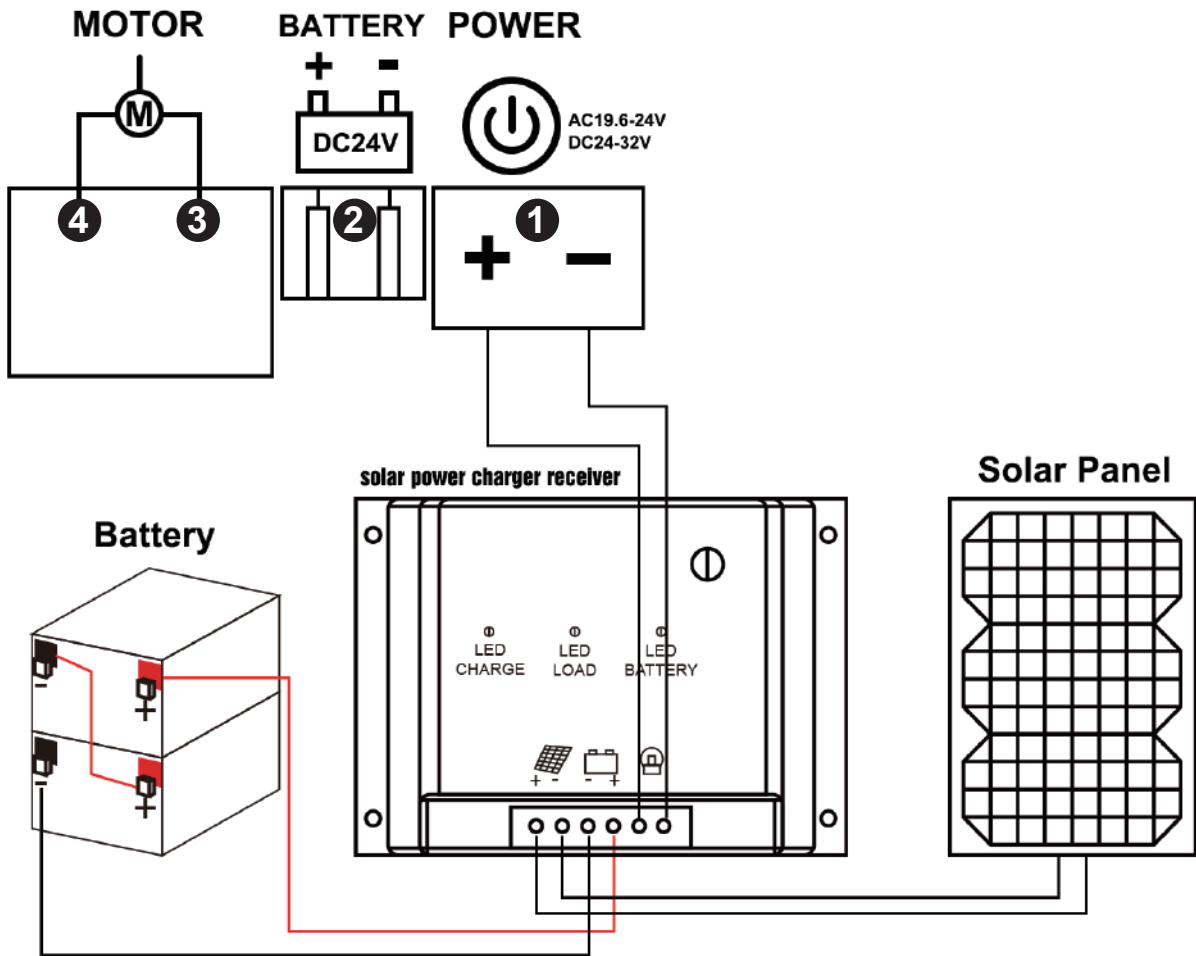
#### NOTE:

1. If batteries are chosen as the power source, the batteries should be waterproof type, or be placed in waterproof circumstances.
2. 2 PCS 12VDC batteries can be connected in series to function as 24VDC. The following diagram shows how to connect 2 PCS batteries in series.
3. Please note that the wire connection of the power supply system is very important. An incorrect wire connection will damage the control board.

**Power Mode 1. By AC electricity and transformer, only use AC transformer to supply the power**

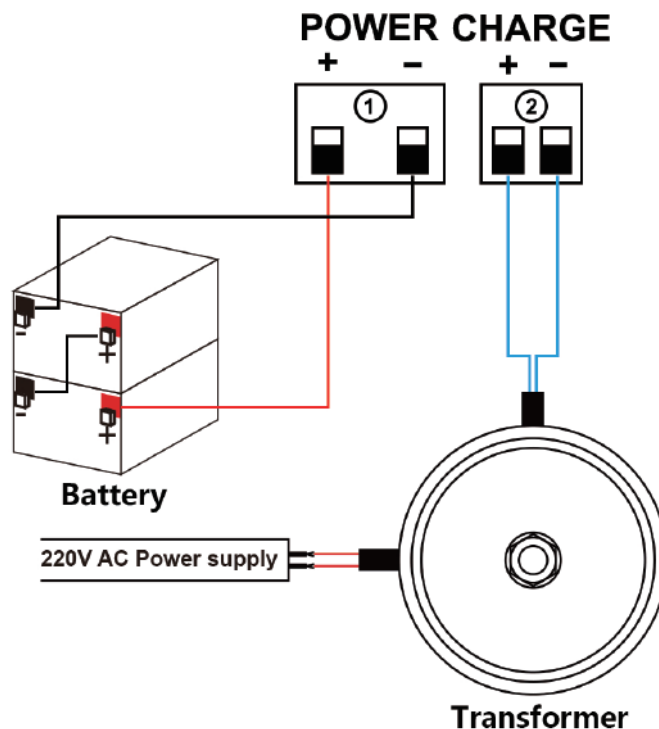


**Power Mode 2. Only use the batteries as the power source, use the solar panel and power charger receiver to charge the batteries.**

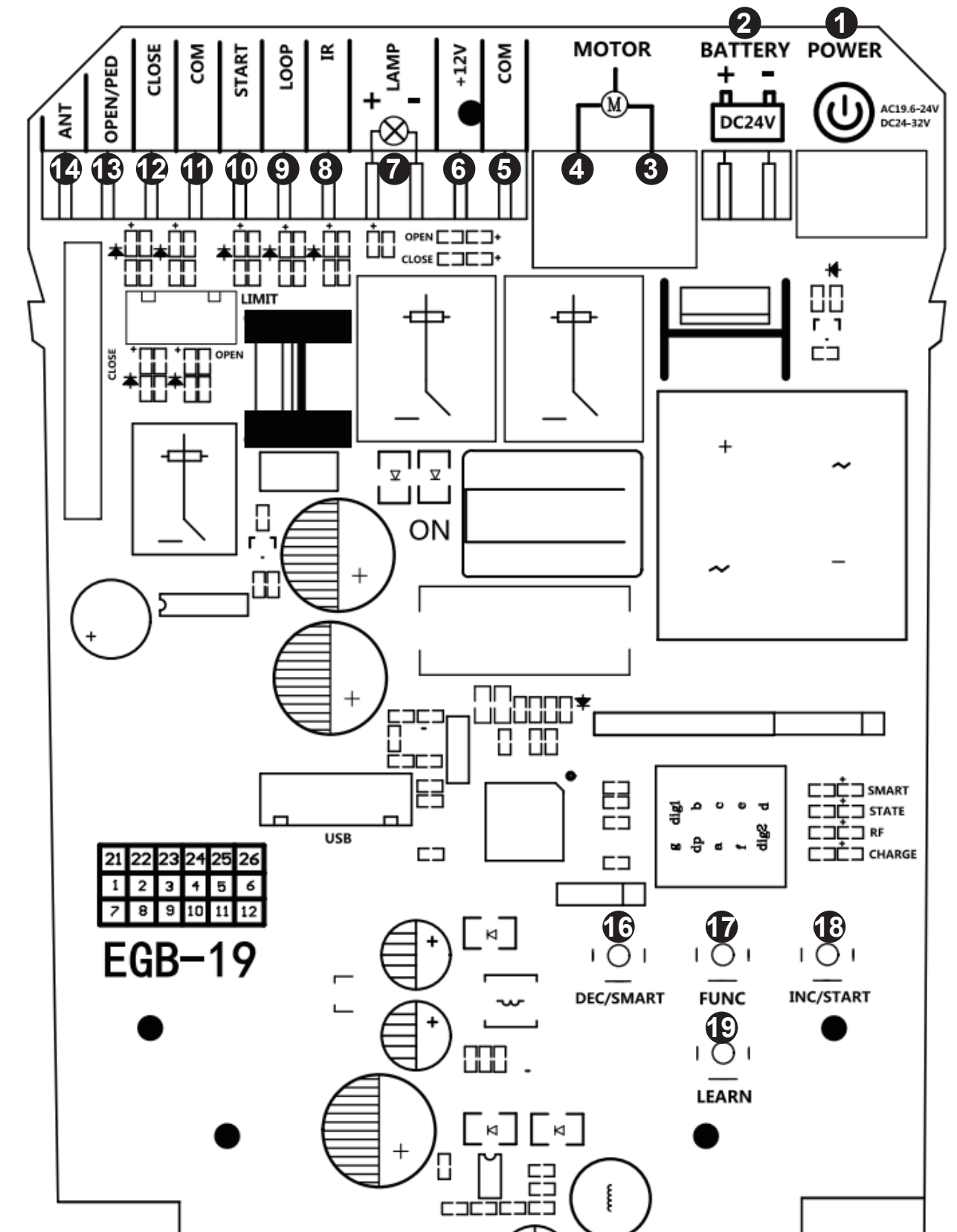


**Power Mode 3. By AC electricity and back-up batteries, only use the AC transformer to charge the batteries**

If AC electricity failure happens rarely (less than 8 hours per day), then you can use a minimum of 2\*12V DC batteries as a back-up power source in case of AC power failure.



## 6.3 Terminal and Buttons instruction



1. POWER: used for connecting with DC 24-32V or AC 19.6-24V.
2. BATTERY: use for connecting with the DC 24V battery.
- 3&4. Motor: used for connecting with DC 24V sliding gate motor.
5. COM: used for connecting with COM terminal or GND.
6. +12V: 12V output is for connecting to an external device. (such as photocell sensor).



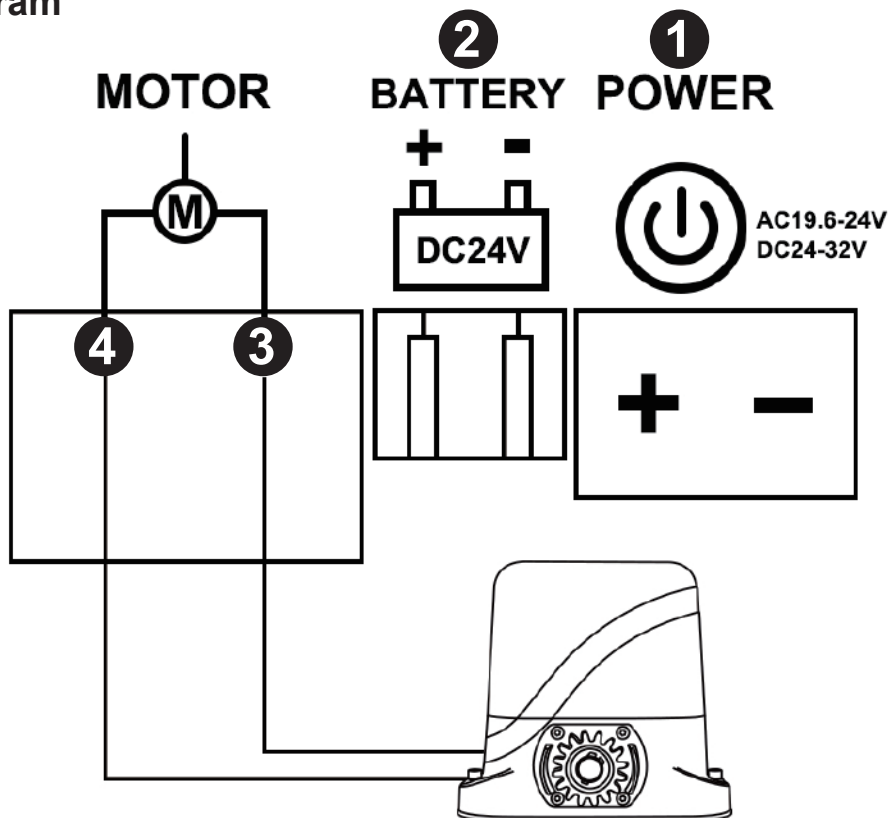
7. Lamp +/-: used for connecting with flashing light, output voltage is DC 24V.
  8. IR: used for connecting with the photocell sensor.
  9. Loop: used for connecting with loop detector etc device.
  10. Start: It is a single button control mode switch for controlling the gate by “open - stop - close - stop - open” cyclically.
  11. COM: used for connecting with the “ground” of external devices.
  12. Close: used for connecting with any external devices that will operate to close the gate.
  13. Open: used for connecting with any external devices that will operate to open the gate.
- PED: user also can switch to pedestrian mode function through the menu.
14. ANT: antenna connection.

Note: Terminals 5 and 6 are supplying power for external devices.

### Buttons function description

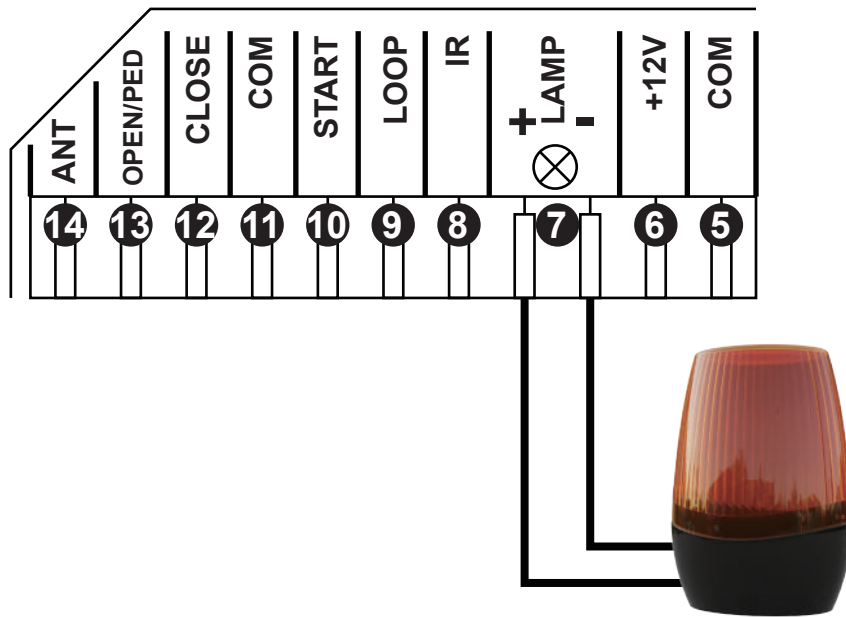
15. Digital display: used for showing you the setting data.
16. DEC/SMART: used for figure decreasing of setting the data or operate the smart module.
17. FUN: used for storing data.
18. INC/START: used for figure increasing of setting the data or operate the single button control mode.
19. LEARN: used for programming/erasing the remote control.

### Motor wire diagram



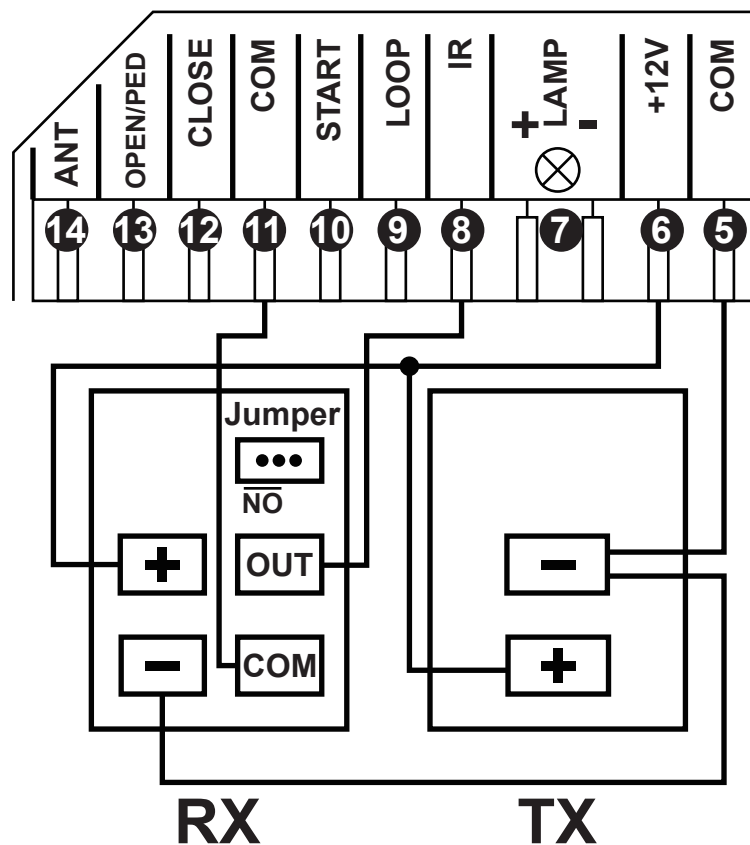
Please note : Our factory setting is install motor on the right of gate!  
 When you want to install motor at the left of gate ,please exchange 3 and 4 motor wire.

## Flash lamp wire diagram



Flashing light: Connect with terminal lamp +/-.

## Photocell sensor wire diagram:



Photocell sensor use for gate meeting resistance:

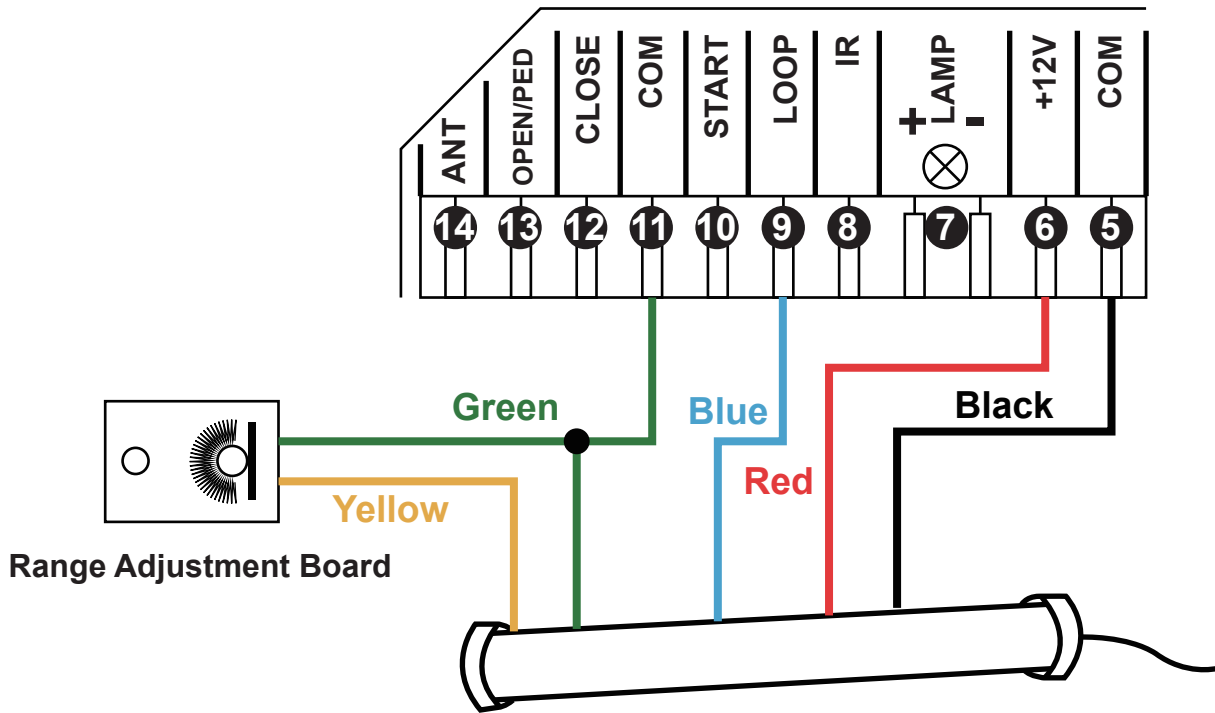
Connect terminal 11 with the "COM " of photocell RX.

Connect terminal 8 with the "OUT " of photocell RX.

Connect terminal 6 with the "+ " of photocell RX and TX.

Connect terminal 5 with the "- " of photocell RX and TX.

## Loop detector wire diagram:



## Loop detector wire information:

Definition of the 5 –core cable

RED →Input Voltage (+)

GREEN →Ground/Common (-)

BLACK →Relay's Common

BLUE →Relay's Normally Open

YELLOW →Range adjustment potentiometer (POT)

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RED →Input Voltage (+)

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Red wire: connect with terminal 6.

Black wire: connect with terminal 5.

Green wire: connect with terminal 11 and range adjustment board.

Blue wire: connect with terminal 9.

Yellow wire: connect with range adjustment potentiometer.

## 7.How to program or erase the remote

- Program the remote: Short press learn button and then release, the LED indicator will light on. Now user needs to press the button on the remote control, with the buzzer short beep, which means the remote code learning is successful, the digital LED will show the quantity of that remotes were learned.

After the user presses the learn button, within 8 seconds, if the controller doesn't receive the signal from the remote, the controller's LED indicator will turn out and exit the code learning state.

Note: Due to the digital display only can show two words, if the controller already learned more than 99pcs remote, from the 100th remote, the digital display will show A to replace the ten and hundred digits. Such as the 100th remote will show A0, and the 101st remote will show A1. If the controller already learned more than 109pcs remote, from the 110th remote, the digital display will show b to replace the ten and hundred digits. Such as the 110th remote will show b0.

Max capacity: 120pcs remote. If the digital LED show “-” with a buzzer short beep 5 times, then means can not learn more remotes.

- Erase the remote: Press and hold the learning button for 5 seconds, while the user hears the buzzer with a long beep, release the button, and the digital display show “00”. Now all remotes can not control the gate.

## 8. How to use the remote to operate your gate opener

- Each remote has 4 buttons, there are two remote control modes for optional. The factory12 setting is a single button control mode. If you want to change to use three-button control mode, please reference the data set of P8 on the digital display
- Single button control mode: the 1st remote button is used to control the gate as “open-stop-close-stop”, button 2 and 3 do have not to control function, the 4th button is used to control the PED mode.
- Three-button control mode: remote 1st button to control gate open, 2nd button to control gate close, 3rd button to control gate stop. 4th button to control gate PED mode.

## 9. Control board function description

Item	Description
Power on	After the control panel powered on, the status indicator LED lit up.
Open/Close LED indicator	While the gate opener work normally, opening the gate will turn on blue, close the gate will turn on red.
Resistance functions	The resistance function can achieve an anti-smashing car. While the gate motor is opening, it meets obstruction and will stop. If the gate motor is closing and meets the obstruction, the gate will be reopened. The motor’s resistance sensitivity of high speed and low speed can be adjusted and set by the digital display menu P1 and P2.
Limit function	When the gate is opened/closed fully, after the user triggers the limit, the motor will stop running. The limit mode can be set through the digital display menu P7.
Loop function	<p><b>The loop detector have 2 function for optional, switch them by the digital display menu PC:</b></p> <p><b>Mode 0:</b> When the gate is opened fully or opening, if user trigger the loop detector, the motor will automatic close after loop signal disappear 3s.</p> <p>When the gate is on closing, if user trigger the loop detector, the motor will reopen the gate at once. And after the loop signal disappear 3s, then the gate start to close.</p> <p><b>Mode 1:</b> When the gate is stopped or on closing, if user trigger the loop detector, the motor will reopen the gate at once. After the gate is opened fully, the system will enter close gate countdown, set the time by the digital display menu PD.</p>

Infrared mode	While the gate is closing, if the infrared is triggered, the gate will rebound to open. When the gate is opening fully, after 3s, the gate will be auto-closed.
Auto close	The auto-closing function is only activated after the open limit switch is enabled. When auto-close start to countdown, the STATE LED will flash one time each second. Auto close time can be set through the digital display menu.
Pedestrian mode PED	When user trigger the PED mode, the gate will be auto open; At the moment, if user also active the auto close function, then the motor will enter auto close countdown and close gate after time end. While user active the PED mode, the gate open time and auto close count down time can set through the digital display menu P4 and P5. When gate is moving, if user trigger the PED mode, the PED mode wouldn't work.
Lamp function	The digital display menu can set the lamp work mode by P9. Mode 0: when the gate is moving, the lamp will light on; after the gate stop moving about 30s, the lamp will turn off; Mode 1: when the gate moving, the lamp will light on; when the gate is stop moving, the lamp will turn off. NOTE: No matter you choose the mode 0 or mode 1, when the gate is on the auto close time counting down statue, the lamp also will light on.
Motor protection	As soon as the motor runs continuously for more than the 90s, the motor will automatically stop working to protect the motor.
Smart charging function	When the battery voltage is lower than $26V \pm 1$ , the control board will active the smart charging function. When the battery voltage exceeds $28V \pm 1$ , the charging circuit is automatically disconnected to prevent overcharging. Note: The main power supply needs to be connected properly before the battery can be charged.
Upgrade control board system by USB device	Before you upgrade the system, please confirm the U disk document is FAT32 or not. If not, please format the U disk as FAT32. Copy the upgrade file into the root directory of the U disk and name it EGB-19.bin Insert the U disk into the upgrade module, and then connect the upgrade module to the USB port. Enter the menu, select PU, select 1 for the value, and start the upgrade after confirmation.
Smart Module (optional)	<ol style="list-style-type: none"> <li>1. Program the 2.4G transmitter: short press DEC/SMART button once, the buzzer will short a beep, and the LED indicator will light on, enter the programming mode. Transmit a signal from the 2.4G transmitter, if the LED flash twice and keep lighting on, means the programming operation is successfully. Otherwise, after 8s exit the programming mode.</li> <li>2. 2.4G control mode: While the module receive the 2.4G signal, it will trigger to open the gate once.</li> <li>3. Add the bluetooth device: <ol style="list-style-type: none"> <li>① Open the XHouse app, enter the add device page, select the bluetooth device.</li> <li>② Select the correct bluetooth device, press the add button. (The bluetooth device mode name is XHOUSE_092BLE_XXXXXX, XXXXXX is its serial number)</li> </ol> </li> <li>4. Bluetooth device control mode: The app page have 3 buttons include open, close, stop.</li> <li>5. Initialize bluetooth device: Hold press DEC/SMART button about 5s, the buzzer will sound short beep twice, release the button, the operation is successfully.</li> <li>6. Reset bluetooth device: Hold press DEC/SMART button about 10s, the buzzer will sound long beep, release the button, the module will clear all 2.4G transmitters and initialize the bluetooth device.</li> </ol>

## 10.Digital display setting

- Press and hold the [FUN] button for 3 seconds, and the digital display will indicate “P0”, then release the button, now the menu can be set to [INC/START] and [DEC/SMART] for increasing and decreasing numbers or values.
- After adjusting the value, press the [FUN] button to store the data, and the buzzer will beep one time to show the store successfully.
- After the menu setting is finished, press the [LEARN] button to exit the menu setting and close the display.

Item	Value	Function description	Factory set	Explanation
P0	0-1	Soft start time 0: off 1: 1s	1s	
P1	0-20 level	Low speed resistance sensitivity	10 level	The value is more bigger, the resistance value is more higher, it is hard to meet resistance
P2	0-20 level	High speed resistance sensitivity	10 level	
P3	0-60 seconds	High speed running time	12 seconds	0 means the motor always run with a low speed
P4	0-20 seconds	Pedestrian mode open gate time	5 seconds	0 means close the function
P5	0-99 seconds	Pedestrian mode auto close the gate time	10 seconds	0 means close the function
P6	0-99 seconds	Auto close time	0 seconds	0 means close the function
P7	0-1	Limit mode optional 0: NC mode 1: NO mode	0: NC mode	
P8	0-1	Single button control mode 0: OFF 1: ON	0:OFF	
P9	0-1	Lamp output mode 0: Mode 0 1: Mode1	0:Mode 0	Mode 0: When the gate is moving, the lamp will light on. After 30s, the lamp will off. Mode 1: When the gate is moving, the lamp will light on. While the gate is stopping, the lamp will off.
PA	0-10	Slow speed torque	6	The larger the value, the faster the slow speed.
PB	0-1	Open terminal function switch 0: Fully open mode 1: PED mode	0: Fully open mode	
PC	0-1	Loop detector mode switch 0: After trigger the signal, the gate will reopen. While the signal is disappearing, after 3s, close the gate.		
PD	0-99s	Loop close gate time countdown	10s	Close the time countdown
PU	0-1	Active USB upgrade function	0:Off the function	1:Active the function
Po	0-10	Factory reset	0	5: It will reset all the value to factory set.

## **11. Control board digital display information show**

1. When the gate is start to open, the digital display will show 1S “OP”
2. When the gate is start to close, the digital display will show 1S “CL”
3. After the gate stop moving, the digital display will show 1S“--”
4. When the gate moves to the full open limit, the digital display will show 1S“LO”
5. When the gate moves to the full close limit, the digital display will show 1S“LC”
6. When the motor reaches max working time, the digital display will show 1S“EC”
7. After the motor trigger the overload protection, the digital display will show 1S“OU”
8. After the photocell is activated, the digital display will show 1S “PH”
9. After the loop is activated, the digital display will show 1S“LP”
10. When the PED mode is activated, the digital display will show 1S“PD”

## **12. Maintenance**

Warning: Please disconnect the power before repairing.

1. Wipe the gate opener shaft with a clean, dry cloth, and then use silicone spray to reduce friction. In cold climates where the temperature reaches 1°C (30°F) or lower, spray silica gel on the actuator every 4 to 6 weeks to prevent freezing.
2. Regularly check the gate hinge to ensure that the gate swings smoothly and freely. If necessary, use grease on the hinges.
3. Check your installation regularly. If the hardware and posts will be replaced, the bracket may need to be adjusted, or the hardware may need to be tightened.
4. Maintain the area around your gate. Keep these areas free of objects that can prevent the gate from swinging freely. Note: If a malfunction is observed or suspected, inspection and service should be carried out in short time. It is recommended to take a multimeter to the operator when working on site.