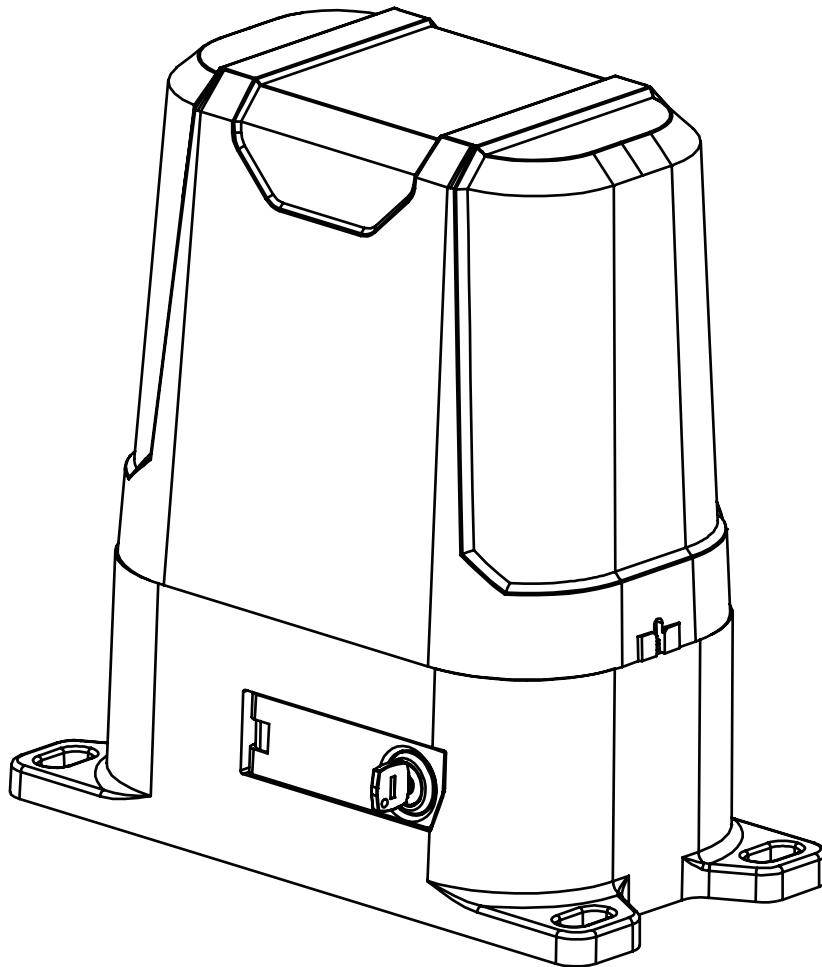


# Sliding Gate Opener

## User's Manual



**Push Button  
Input**



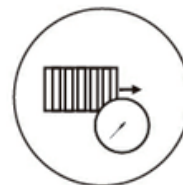
**Safety Beam  
Ready**



**Smart  
Sensitivity**



**Courtesy Light  
Output**



**Auto Close**

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Thank you for choosing this sliding gate opener. Please read the manual carefully before assembling and using it. Do not leave out the manual if you send this product to a third party. This product complies with the recognized technical standards and safety regulations. Our company has the right to change this manual without prior notice.

## **1. General safety**

**Warning:** Incorrect or improper use of this product can cause damage to persons, animals or properties.

- Please ensure that the input voltage used matches with the supply voltage of gate opener (AC 110V/220V $\pm$ 10% 50Hz / 60Hz).
- All modifications to wiring or electrics, and any adjustment or maintenance to 120V or 240VAC MUST be done by a qualified electrician.
- To avoid damaging gas, power or other underground utility lines, contact the relevant authority BEFORE digging.
- All potential hazards and exposed pinch points of the gate must be eliminated or guarded prior to installation of this gate motor.
- Never mount any device that operates the gate motor where the user can reach over, under, around or through the gate to operate the controls. These must be placed at least 1.8m from any moving part of the moving gate.
- Ensure power plug is disconnected from the power socket during installation or maintenance.
- Keep remote control and other control devices out of children's reach, in order to avoid unintentional activation.
- Never allow anyone to hang onto the gate while moving.
- Please ensure a warning sign provided is fitted to the structure.
- To ensure safety, before installing the main motor, make sure Gate End Stop and a Gate Stopper mounted at each end of the rail to prevent the gate travelling off the track.
- If required, install infrared photocells ( sold separately) to detect obstructions and prevent injury or damage.
- Instruct all users about the control systems provided and the manual opening operation in case of emergency.
- Do not install the product in an explosive atmosphere or where there is any danger of flooding.
- This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.
- Only use original parts for any maintenance or repair operation. We decline all responsibility with respect to the automation safety and correct operation when other supplier's components are used.
- The user must avoid any attempt to carry out any works or repairs on the motor, and should always request the assistance of qualified personnel.
- This motor is suitable for use on one sliding gate only.
- Anything which is not expressly provided for in these instructions is not allowed and will void warranty.
- Dispose of all packing materials (plastic, cardboard, polystyrene etc.) according to current guidelines.
- Keep plastic bags and polystyrene out of children's reach.

**Please save these instructions for future use.**

2. Appearance and dimensions

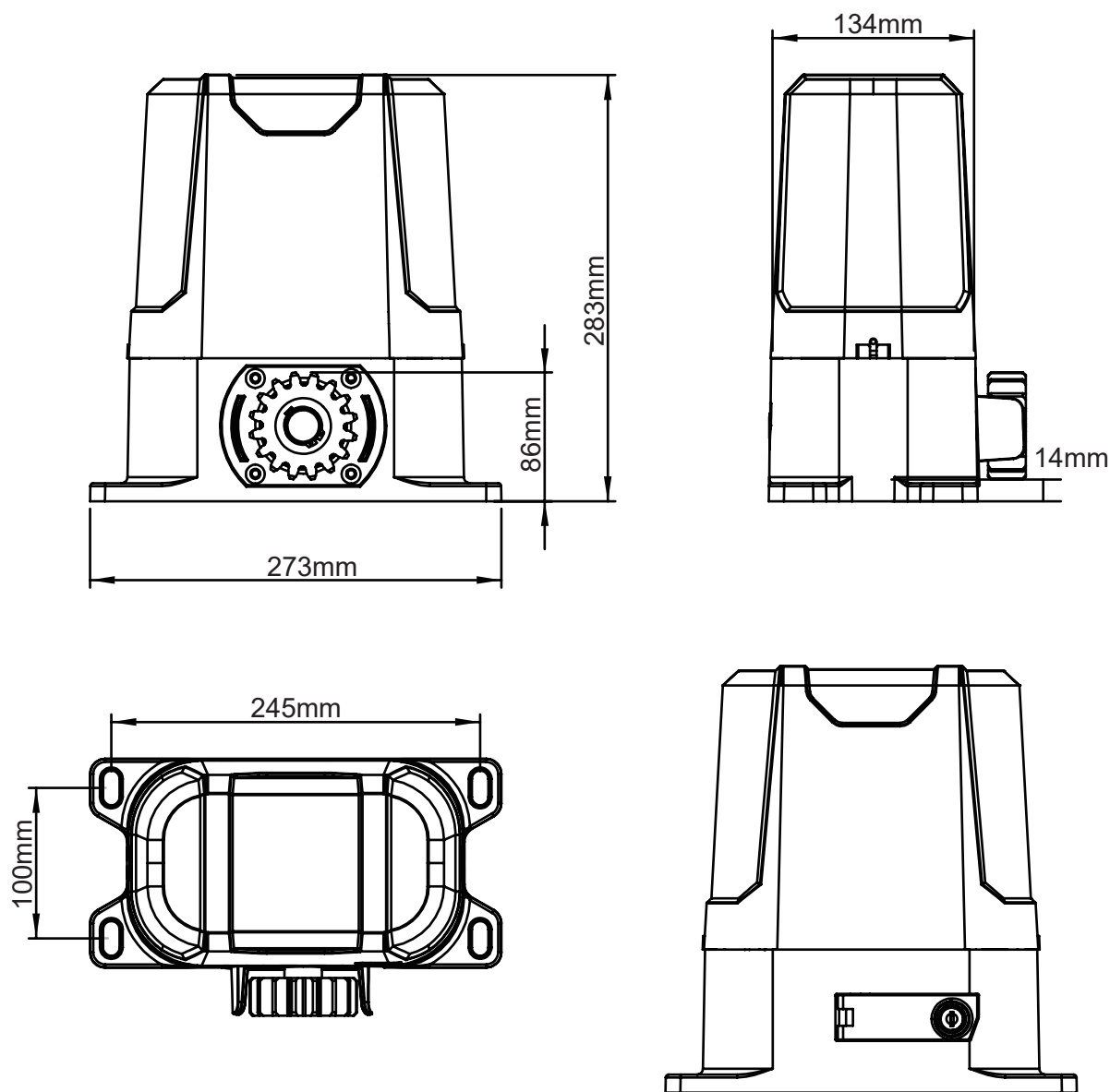
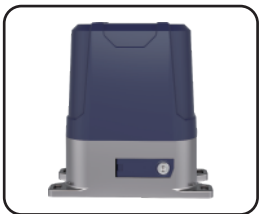


Diagram 1

Part list



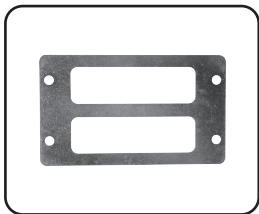
Motorx1



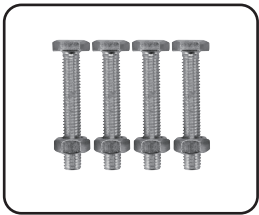
RHS/LHS Limit Switch  
Striker Platex2



Motor to mounting  
plate screwsx4



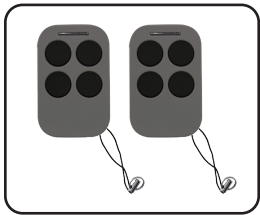
Motor Base Platex1



Adjust Boltsx4



Striker Plate  
Fixing Boltsx4



Remotex2



Override keysx2



### 3. Parameters

Power supply	AC 110V/220V±10% 50Hz / 60Hz
Maximum load	800KGS
Rated power	130W
Rated speed	1300RPM
Output Speed	50r/min±10%
Running speed	12m/min
Output torque	22 N.m
Output gear module	M=4
Output gear number	Z=16
Remote control distance	≤50meter
Working humidity	≤85%
Maximum pull	1100N
Noise	≤55dB
Protection Class	B
Working temperature of motor	-20°C ~ +55°C
Net weight	12KG
Packing	In a standard carton

### 4. Features of sliding gate opener

1. Stylish appearance design and built-in control panel integrated inside the mechanism, no external controller or receiver needed.
2. Built in limit switch allowing the motor to switch off once the cycle is finished.
3. Built in manual override with 2 supplied unique override keys in case of emergency or power failure.
4. The motor is constructed of all metal gears make it durable and long lasting.
5. Pedestrian mode.
6. Condominium mode.
7. Overcurrent value and auto-closing delay time adjustable.
8. Stop/Reverse in case of obstruction during gate opening and closing .
9. Easy installation, firm and solid structure, stable and reliable driving, permanently lubricated, maintaining-free.
10. Single-phase self-lock, anti-pushing, anti-lifting ,safe and reliable.

## 5. Gate opening default setting information

The gate motor will open the gate to the right-hand side as its default setting (Refer to diagram 2).

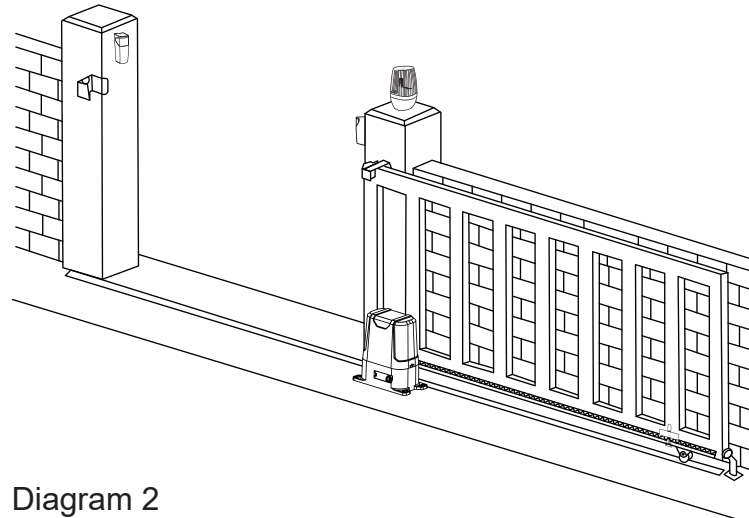
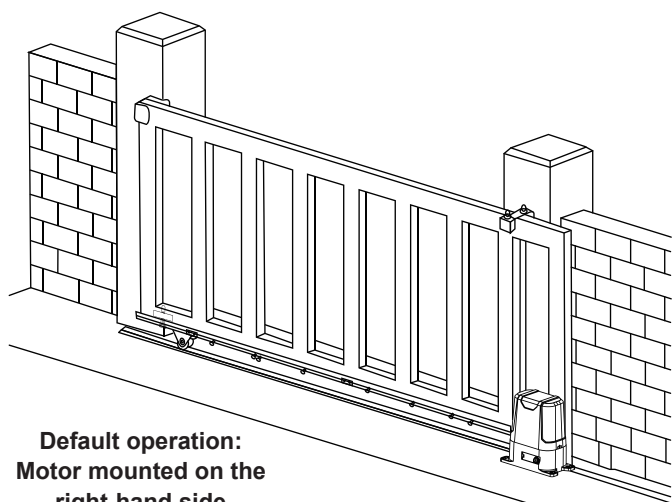
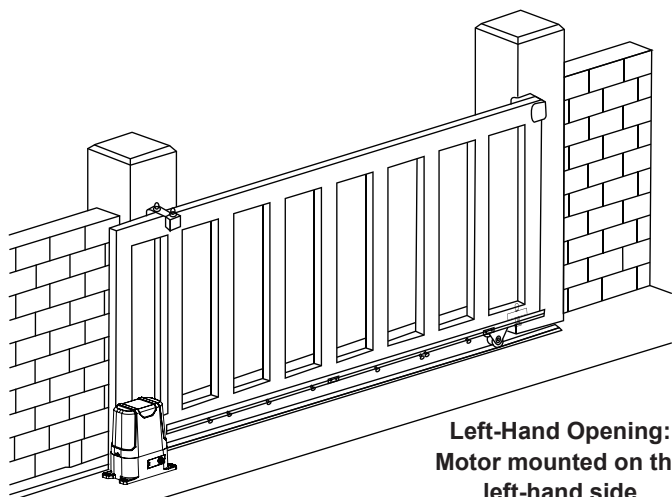


Diagram 2

If your gate needs to open from the other direction (to the left, refer to diagram 3) your motor needs to be mounted on the left-hand side as shown, you will need to switch the open and close wires of motor see(diagram 11).



Left-Hand Opening:  
Motor mounted on the  
left-hand side

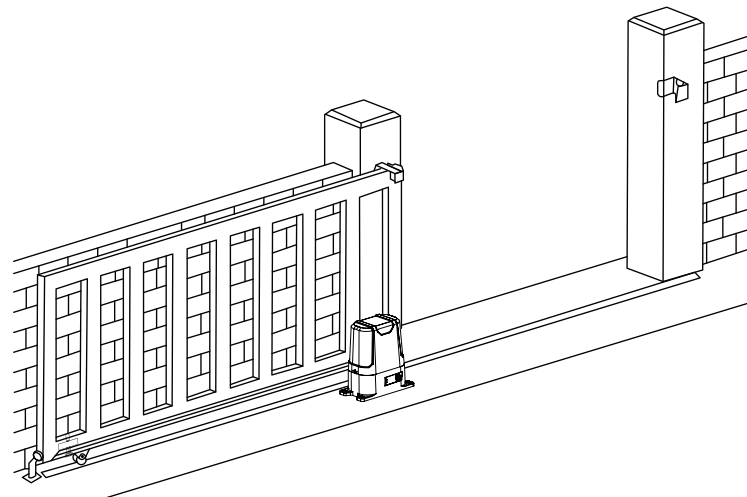


Diagram 3

Any works done to the motor must be completed whilst the power is off, and the motor is unplugged

## 6. Installation of motor

### 6.1 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. (Refer to diagram 4)

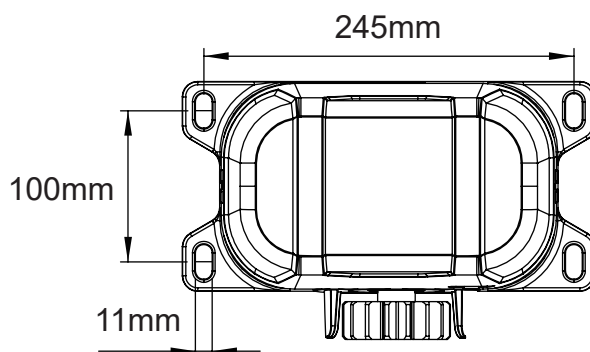


Diagram 4

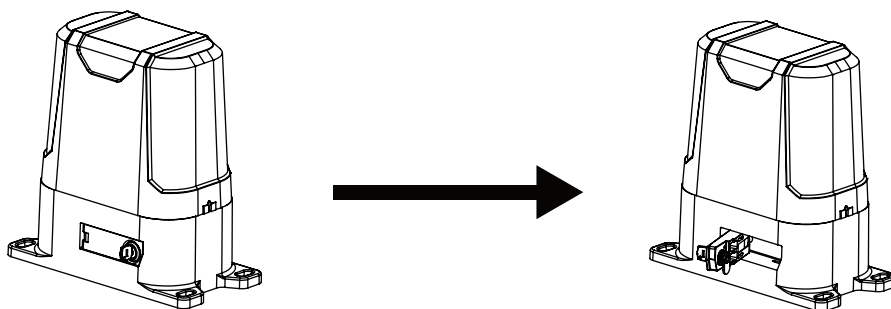
2. If gear rack has been installed on door, motor can be fixed on it, use a allen key rotation to clutch "off" position, after motor gear and gear rack match well to determine position of base plate, then remove motor and fix base plate.

## 6.2 Installation of gate opener

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

## 6.3 Preparing and install gear racks

1. Using the supplied key unlock manual override and pull out manual override lever (see diagram 5) then manually close the gate.
2. Insert the key in the key, barrel and turn the key, clockwise and pull to allow the manual override lever to swing out.



Insert the key, rotate 90 degrees

Releasing arm in torsion. wriggle 90 degrees.

Diagram 5

## 6.4 Install the gear rack onto the gate

1. Each piece of rack will interlock into the next piece (see diagram 6)
- The best method for installation is to first close the gate using the manual override, sit the first piece on the gear of the motor (make sure it is 100% level first) then fix directly to the gate in the centre of the fixing hole of the rack. Now loosen the fixing and adjust the spacing between the motor gear and the gear rack (allow 2-3mm gap).
  - Re-tighten and fix the next remaining holes on the rack.
- Move the gate manually forward and backward along the installed rack to ensure that the gap between the rack and the gear is consistent throughout.
- Clip in the next piece of rack into the first (make sure it is 100% level first) then fix directly to the gate in the centre of the fixing hole of the rack.
- Again move the gate manually forward and backward along the installed racks to ensure that the gap between the rack and the gear is consistent throughout.
- Repeat the above method to complete the racks installation and always be sure to move the gate manually forward and backward every time you install another piece of the rack.

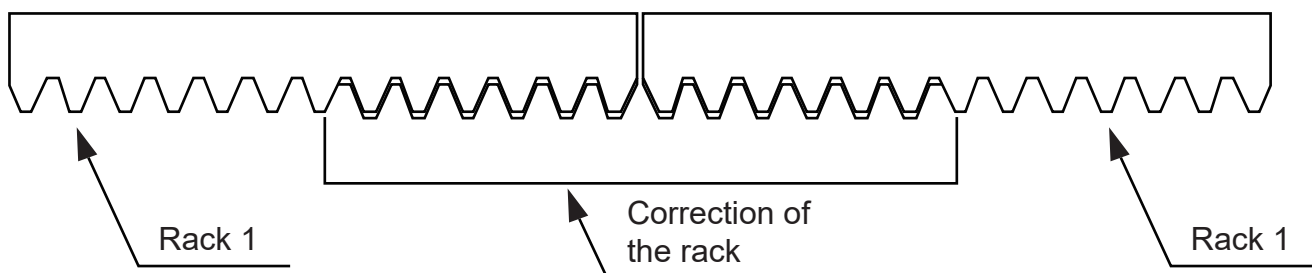
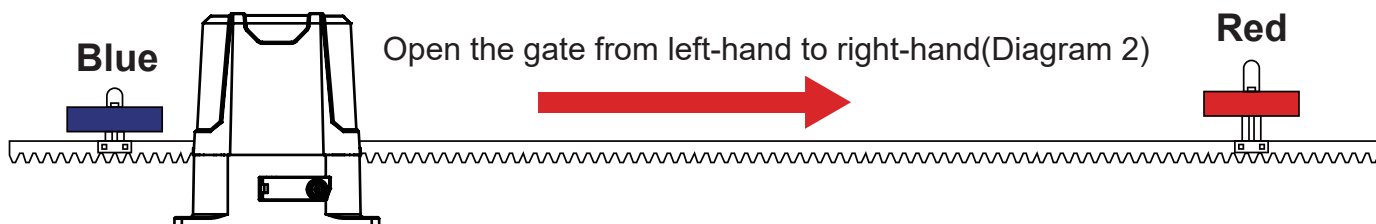


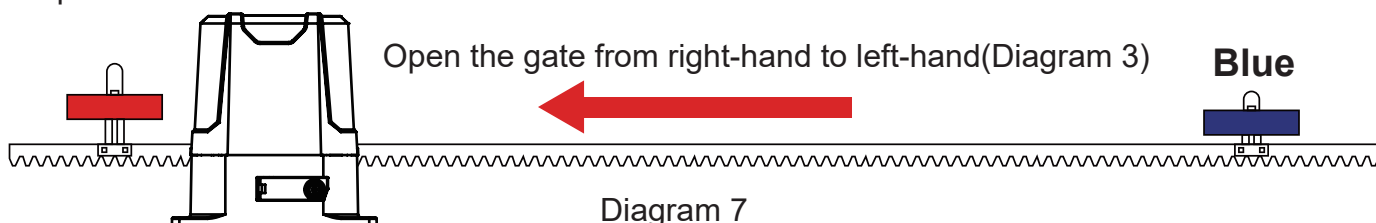
Diagram 6

## 6.5 Installation of the magnet limit switch

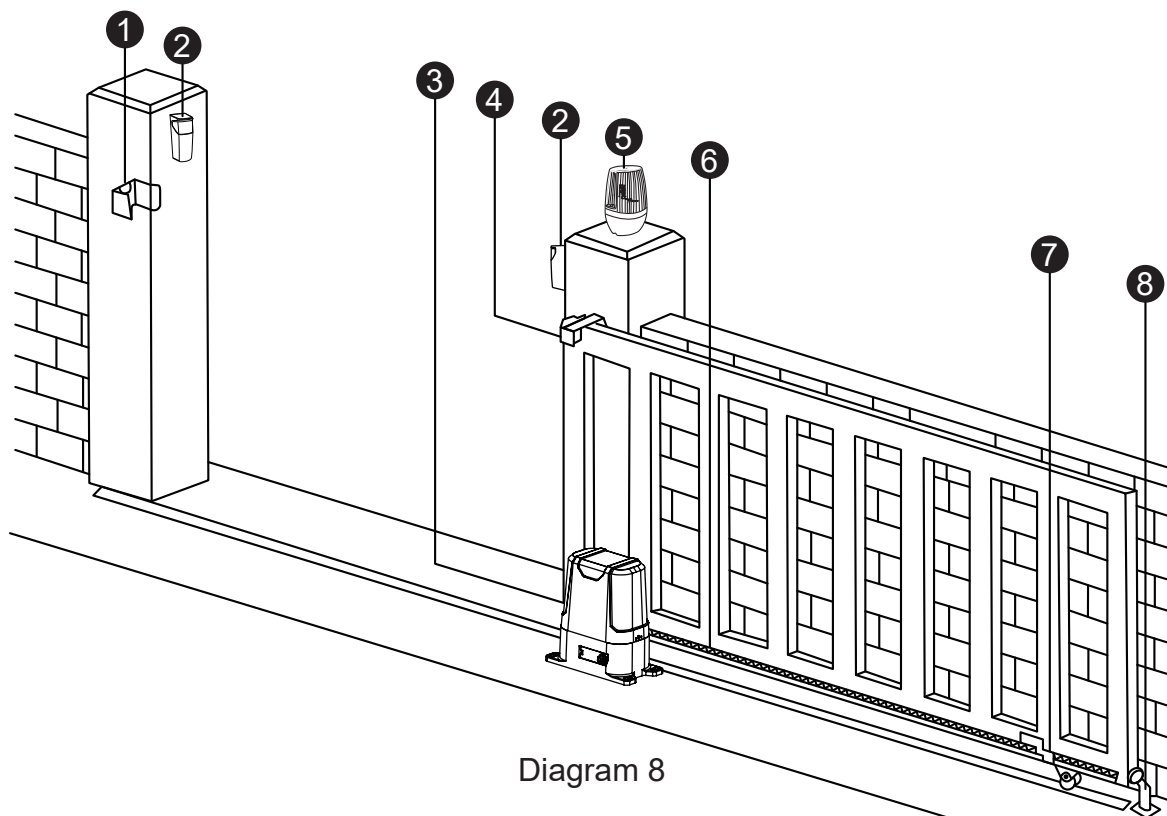
- here are 2 limit magnet supplied. Note there is a left hand and a right hand magnet. The magnet should be installed one at either end of the rack. See Diagram 7
- To install the magnet in the correct position, open the clutch door and press the 'CLOSE' button on the remote, the motor will run but will not drive the gate. Close the gate manually and adjust the limit magnet 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 magnet to contact the toggle switch and switch the motor off.
- When you are satisfied the limit magnet are in the correct positions, tighten the screws in the limit magnet 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 magnet if necessary.



If you install the motor on the left of the gate, please adjust the blue and red limit magnet position as below picture show.



## 6.6 Typical installation layout



- |              |             |               |                |
|--------------|-------------|---------------|----------------|
| ① Gate catch | ② Photocell | ③ Gate motor  | ④ Gate bracket |
| ⑤ Lamp       | ⑥ Gear rack | ⑦ Limit plate | ⑧ Gate stopper |

## 6.7 Installation of infrared sensors(photocell)

1. Unscrew the screws on the motor and the remove the motor cover.
2. Let the signal line and power line coming in from outside, and then connected it according to electrical wiring diagram.
3. With screws fixed base plate in a fixed position.
4. Close the motor cover and tighten screws.
5. According to the required to adjust the transmitter and receiver height position.
6. After installation, to test photocell and adjustment. to make sure can normal work.

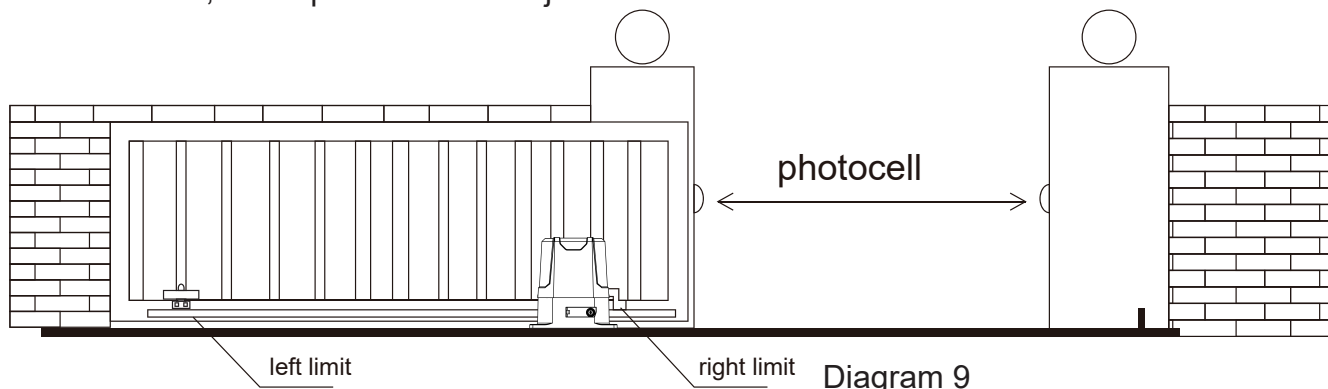


Diagram 9

## 7. Power up and testing procedure

- Check the operating direction wiring and switch again.
  - Close the gate using the manual override.
  - Re lock the manual override.
  - Connect the power cord.
  - Press number 1 on the remote control to start your test.
  - The gate should open and stop when the limit switch spring is triggered.
- If gate not stop when spring triggered then reverse the limit switch directions switch

## 8. Control board

### 8.1 Technical parameters

1. Power supply: AC 110V/220V  $\pm 10\%$  50Hz/60Hz
2. Application: AC sliding gate opener
3. Remote control: Giant customized rolling code
4. Remote control memory: max support 100pcs.

### 8.2 Terminal and buttons instruction

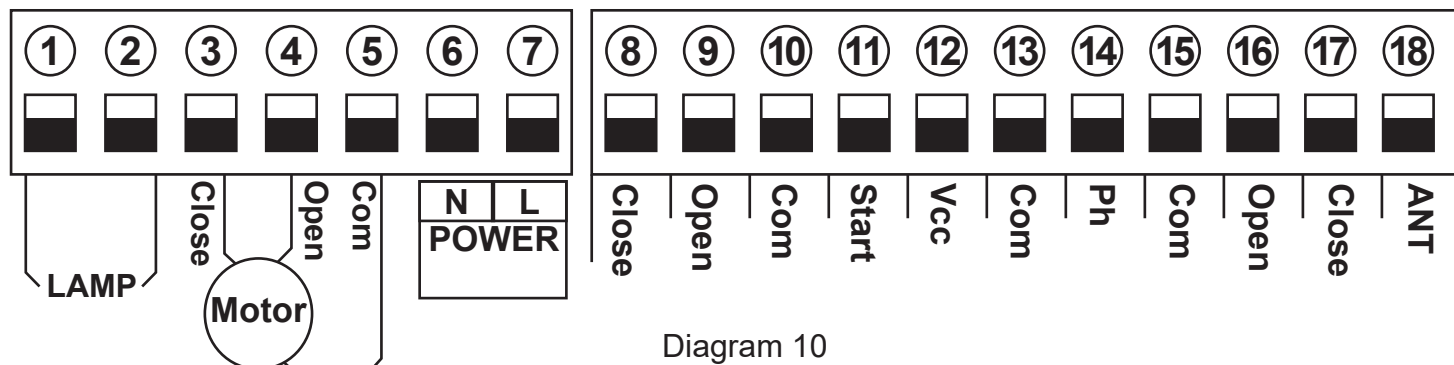


Diagram 10

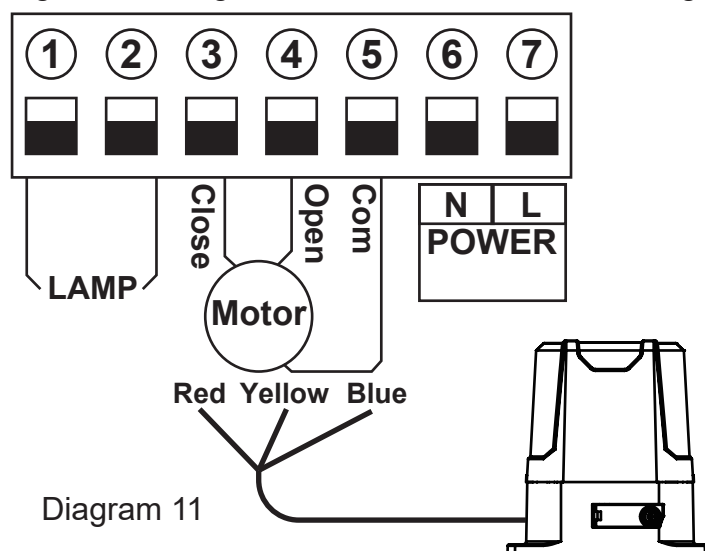
- 1&2. Lamp: used for connecting with flashing light, output voltage is AC 110V/220V.
- 3&4&5. Motor: used for connecting with sliding gate motor's wire.
- 6&7. Power: used for connecting with AC 110V/220V power.

8. Close(Limit): used for connecting with extra gate closing direction limit signal.
9. Open(Limit): used for connecting with extra gate opening direction limit signal.
10. Com: used for connecting with COM terminal or GND.
11. Start: It is a single button control mode switch for controlling the gate by “open - stop-close - stop - open” cyclically.
12. Vcc: DC 12V output used for connecting with external devices, max 200mA.
13. Com: used for connecting with COM terminal or GND.
14. Ph: used for connecting with the photocell sensor.
15. Com: used for connecting with COM terminal or GND.
16. Open: connect with any external devices that will operate to open the gate.
17. Close:connect with any external devices that will operate to close the gate.
18. ANT: antenna connection.
19. LEARN button: It is for programming/erasing the remote control.

### 8.3 Control board wire diagram

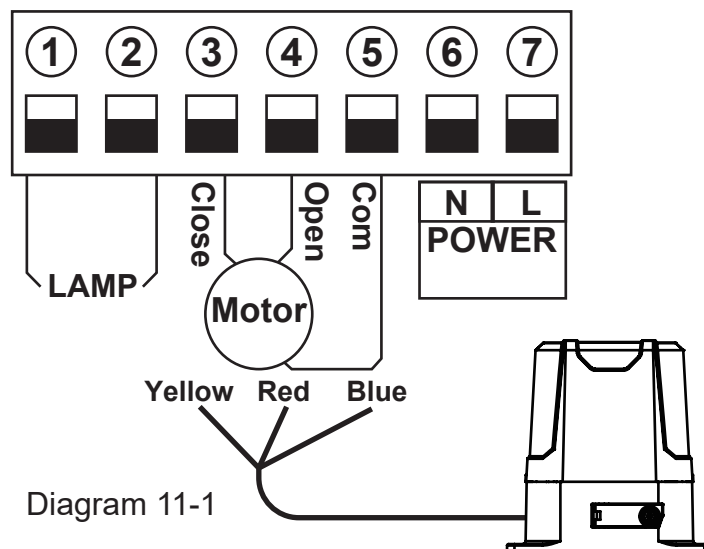
#### • Install the motor on the right-hand of gate

The gate motor will open the gate to the right-hand side as its default setting ( Diagram 2).

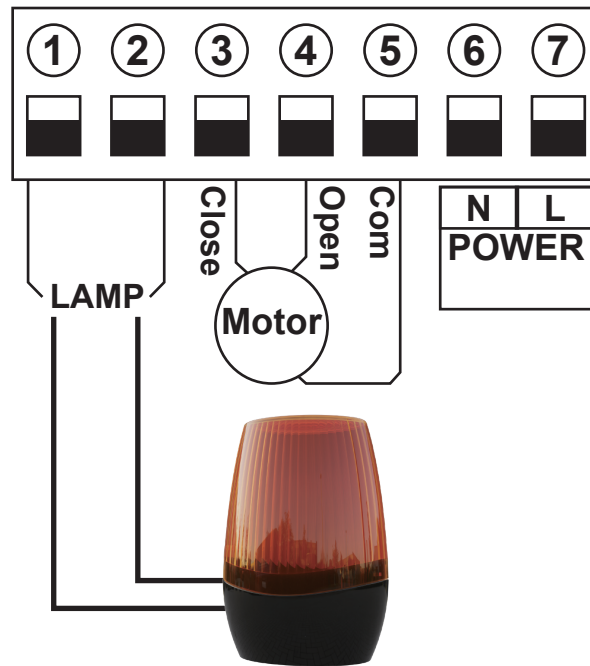


#### • Install the motor in the left-hand of gate

When you want to install motor to the left-hand side as diagram 3, please swap over the 3 and 4 motor wire as blow diagram.

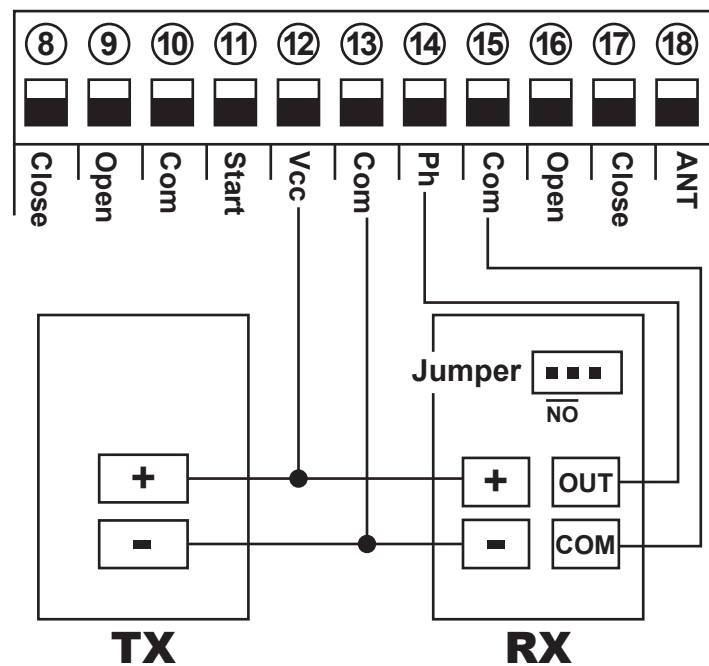


- Connect with flash lamp



Terminal ① and ② are for connecting with the flash lamp .

- Connect with safety beam

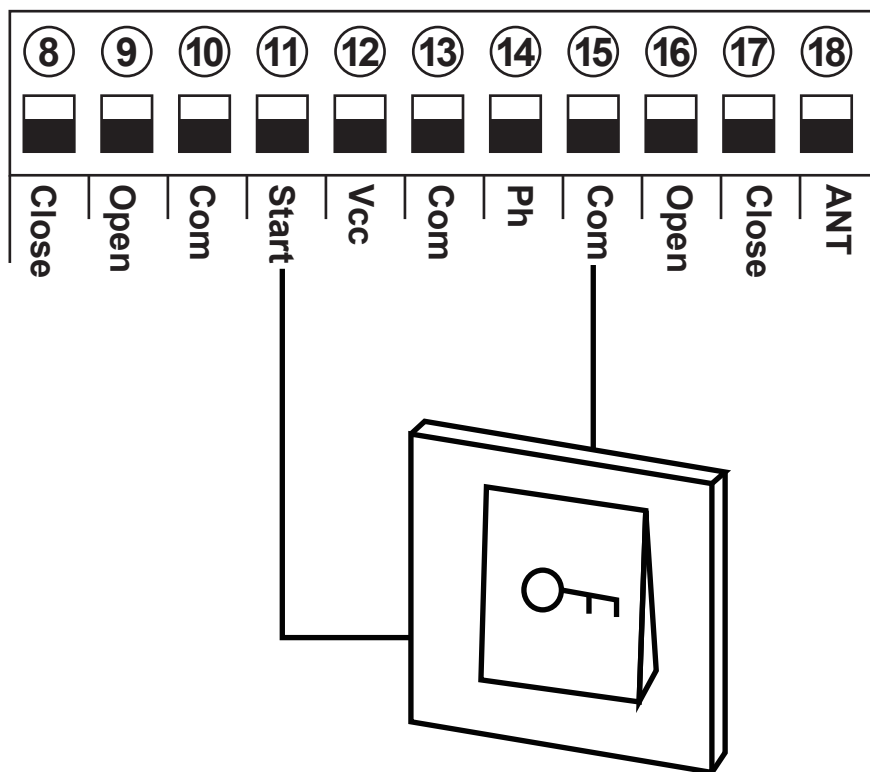


Connect terminal ⑮ with the “COM “ of photocell RX.  
 Connect terminal ⑭ with the “OUT “ of photocell RX.  
 Connect terminal ⑫ with the “+ “ of photocell RX and TX.  
 Connect terminal ⑬ with the “- “ of photocell RX and TX.

- **Connect with start terminal**

Start terminal is used for connecting with some external devices , such push button, swipe card, wired keypad, receiver etc.

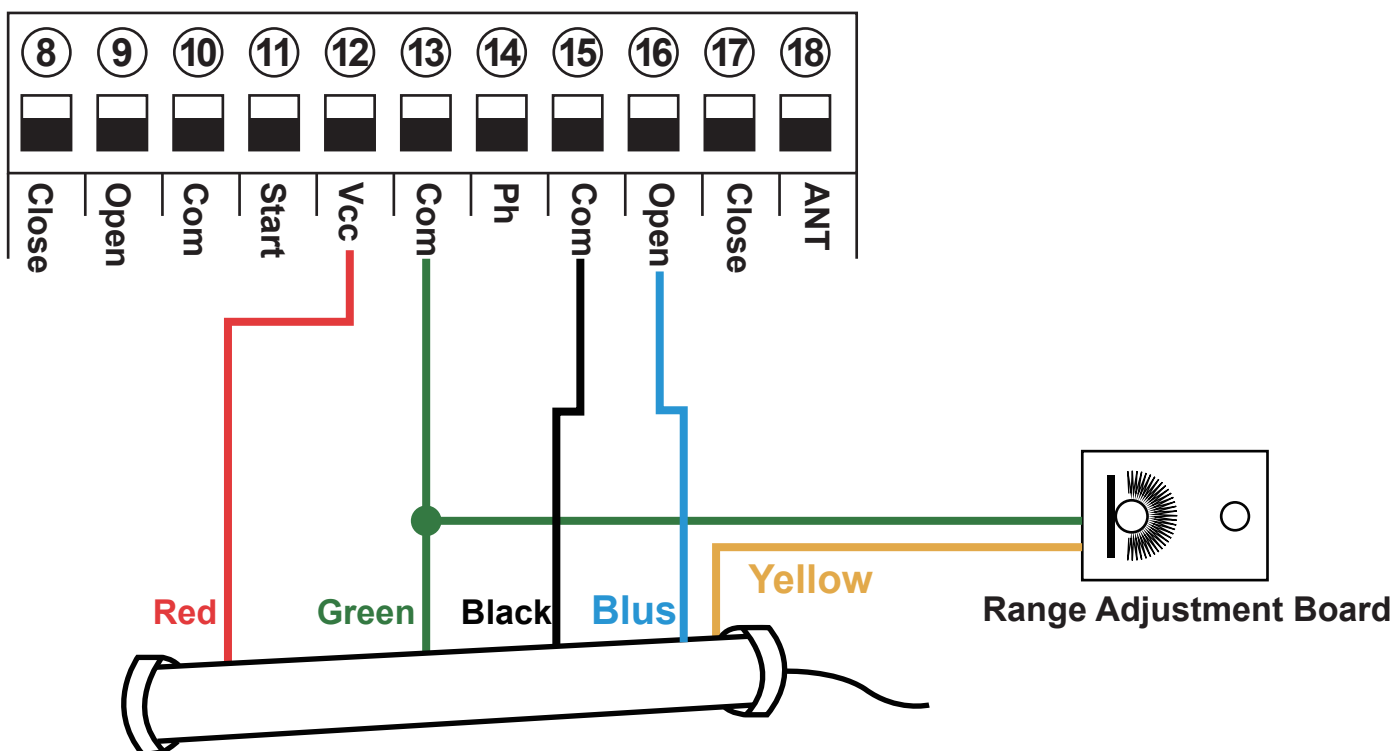
Control gate by “ open-stop-close-stop-open ” mode



Terminal ⑪ and ⑮ are for connecting with the push button.

**Note!** If you connect the swipe card or wired keypad, etc devices, please also connect with ⑫ Vcc and ⑬ Com to get the power supply.

- **Connect with open gate device (Loop detector, swipe card, etc)**





### • 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)

### • Loop detector wire diagram:

Red wire: connect with terminal ⑫.

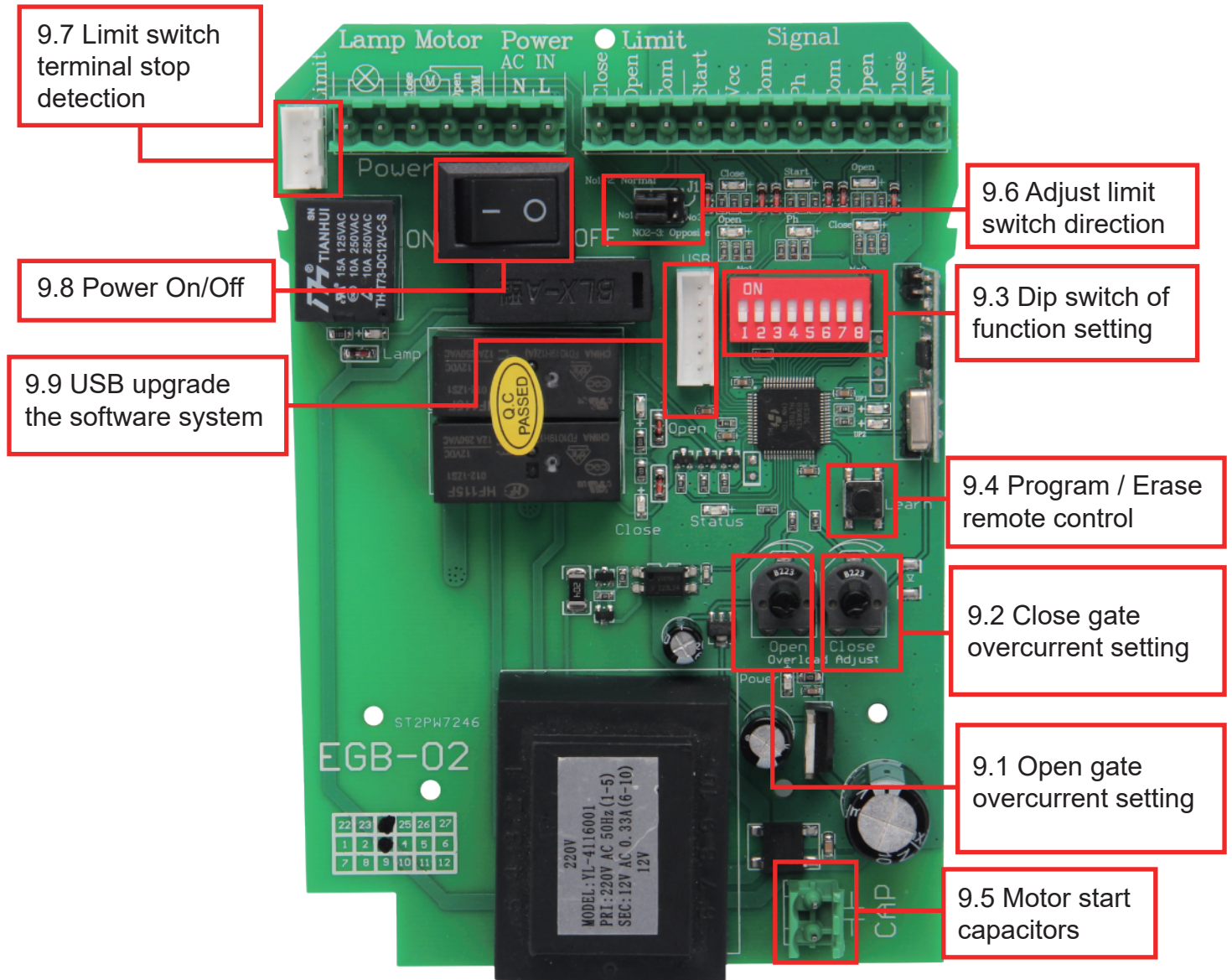
Green wire: connect with terminal ⑬ and range adjustment board.

Black wire: connect with terminal ⑮.

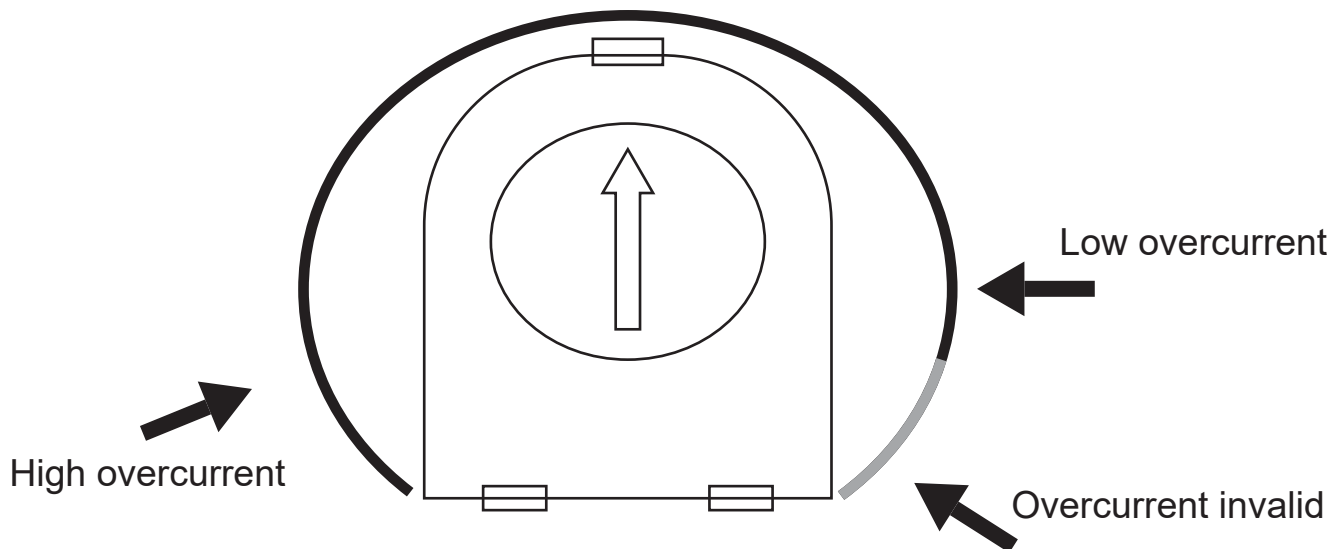
Blue wire: connect with terminal ⑯.

Yellow wire: connect with range adjustment potentiometer.

## 9. Control board function setting



## 9.1& 9.2 Open/Close gate overcurrent setting



There are 2 potentiometer for “ OPEN/CLOSE ” overcurrent adjust to set the open and close overcurrent value separately.

Rotate the potentiometer with clockwise direction to increase the overcurrent value, counter-clockwise to decrease the value.

A. High overcurrent: when the motor is running, will meet some minor overcurrent, then control board will send a signal to let motor stop.

B. Low overcurrent: when the motor is running, will meet bigger overcurrent, then control board will send a signal to let motor stop.

C. As picture show, when pointer rotate to gray part, the stall force sensitivity detecting is invalid.

### Note:

**If the overcurrent value is too low, the gate will stop or reverse very easily while there is no obstruction, or if there is additional overcurrent as strong wind, rain or snow. Otherwise, if the overcurrent value is setting too high, some impacts may not be detected, and injury or damage could occur.**

## 9.3 Function setting by dip switch

A. Dial-up 1: Limit mode optional

OFF: NC mode

ON : NO mode(Factory setting)

Limit switch for opening and closing gate direction setting(J1):

Normal :Short circuit cap simultaneously No1 and No2 of J1 (Factory setting).

B. Dial-up 2: Safety beam mode

OFF: NO mode(Factory setting)

ON: NC mode

● Please don't remove the copper wire, if you don't install the safety beam, it will cause the gate can not be closed.

● If the gate connects with a safety beam, please remove the copper wire from the safety beam terminal in the control board. While it meet obstacles during closing, it will stop and rebound to open. After the gate move to the open position, after 2 seconds the gate will auto close again if the obstacle signal disappear. If not , it will not auto close until the obstacle signal disappear.

#### C. Dial-up 3 &4: Auto close time setting

Auto close function activated after gate complete open to its place and stop by limit switch

Dial-up 3 &4, OFF-OFF: Auto close function disabled(Factory setting)

Dial-up 3 &4, ON-OFF: 10S

Dial-up 3 &4, OFF-ON: 30S

Dial-up 3 &4, ON-ON: 60S

#### D. Dial-up 5&6: Auto-closing timer for swipe card terminal triggering

When remote control triggers the pedestrian mode (remote control button 2 or 4), the gate will stop after open 6s. If auto close function activated, the gate will auto close after gate open to 6s. Auto close time setting as follows:

Dial-up 5 &6, OFF-OFF: Auto close function disabled(Factory setting)

Dial-up 5 &6, ON-OFF: 5S

Dial-up 5 &6 , OFF-ON: 10S

Dial-up 5 &6 , ON-ON: 30S

#### Note:

**1.When the motor is running, the motor will stop immediately if triggers pedestrian mode**

**2.After triggering the pedestrian mode to open the gate for 6s, no mater it enter the countdown to close the gate or stop status, If trigger again, the gate will close the gate immediately.**

#### E. Dial-up 7: Condominium mode setting

OFF: Condominium mode disabled(factory setting)

ON: Condominium mode activated

When the gate is opening, trigger remote control and the start interface are invalid until the door is opened.

When the gate is closing, trigger remote control and the start interface , the gate will stop to close and auto open until the opening limit is reached (the remote control and the start interface are invalid when the gate is opening).

#### F. Dial-up 8: Remote control buttons mode

OFF: Single button control circularly

First button control gate open,stop, close, second button use for pedestrian mode

ON: Three buttons control

First button control gate open,second button control gate stop ,third button control gate close , fourth button use for pedestrian mode

Not:Please choose the remote control mode firstly before remote control code clearing to control board.

### 9.4 Program and erase remote control

The control board can memory more than 100 pcs remote control.

● **Program the remote:** Press the learn button for at least 1 second and then release, the LED indicator will light on. Now user needs to press the button on the remote control, with the learn button indicator LED flash twice, which means the code learning is successful.

After the user presses the learn button, within 6 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 statute.

● **Erase the remote:** Press and hold the learning button for 6 seconds, while the learn button indicator LED light on and flash twice, release the button. Now all remotes can not control the gate.

### 9.5 Motor start capacitors

Capacitors are connected with control board before use motor, please confirmed the interface of capacitors is secure.

## 9.6 Adjust the limit switch stop direction (J1)

Limit switch is used to switch terminal stop detection interface, that direction of open and close the gate.

## 9.7 Limit switch terminal stop detection

Terminal for connecting with the limit switch, such as spring limit or magnetic limit .

## 9.8 Power switch

Switch on /off power stop when the user plan to adjust the parameters on the control board.

## 9.9 Upgrade control board system by USB device

Power off the control board, set up the U disk and upgrade files as required, install the U disk upgrade module in the USB port on the control board, press and hold the Learn button, power on the system, release the button after 3 seconds, the UP1 and UP2 indicators flash quickly to enter the program upgrade burning interface, and the system will automatically restart and enter normal operation after the upgrade is successful.

### Status indication description

1. The UP1 and UP2 indicators flash alternately, indicating that the firmware is being upgraded and written to the chip.
2. The UP1 light is always on and the UP2 light is off, indicating that the U disk mode initialization failed. Please check whether it is plugged in properly.
3. The UP1 light is off and the UP2 light is always on, indicating that the U disk reading failed. Please check whether the U disk is connected or re-plug the U disk.
4. The UP1 light is always on and the UP2 light is always on, indicating that the upgrade file reading failed. Please check whether the firmware file to be upgraded is stored, or the file naming does not match.
5. All upgrade files of this series are named EGB-02.BIN.

### Note:

1. You must use our U disk module (EG-USB).
  2. The USB flash drive used for the first time needs to be formatted as FAT32.
- After the upgrade, the original RF pairing data and menu setting data are still there.

## 10.How to operate your gate opener

- Single button control mode: the 1st remote button is used to control the gate as “open-stop-close-stop”, the 2nd button is used to control the PED mode. Then if needed, the 3rd and 4th button can be programmed into another gate opener controller, same function as the 1st and 2nd button.
- 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.

## 11. Maintenance

- 1.The rack and drive gear should be kept clean. Do not attach any objects to the gate that may interfere with the rack or drive gear.
- 2.Should frequent clean the sundries on the magnet limit.
- 3.Lubricate all moving parts every 3 months.
- 4.If the control board is fitted with an optional back up battery, check the condition once a month and replace if necessary.
- 5.Check power cables and conduit have not been damaged.
- 6.During heavy rainfall or light flooding ensure the motor housing has had no ingress of water.

## 12. Trouble shooting

Problem	Possible causes	Repair method
Gate fails to operate	1.Check the clutch states ,power-driven state or not ? 2.Power no indication, and power trip. 3.The fuse has broken 4.Remote control failure or invalid 5.Damaged power cable 6.Remote control or motor problem	1.Recovery 2.To restore power 3.Change the fuse 4.Detection or change 5.Detection and Repair 6.Detection and Repair
Working distance of remote control reduced	1.Low battery power or damaged 2.Interference from equipment using the same frequency. 3.The receiver of controller was damaged	1.Replace battery 2.Wait eliminate interference 3.Replace the control board
Gate fails to stop at start or end position	1.The terminal stop toggle switch is damaged or obstructed. 2. Limit switch of the motor and the limit detection of the interface PCB board plug off. 3. Limit of open and close is in wrong position.	1.Replace toggle switch or remove obstruction. 2.Insert and fixed it. 3.Adjust of limit switch(J1)
Press open and close key of motor, but cant working and operate	1. Overcurrent value is setting too high (set too bigger). 2. The gate has lifted off the track and disengaged the drive gear from the rack.	1.Decrease the overcurrent value, and check gear and racks can operate normally. 2.Maintenance and replace.