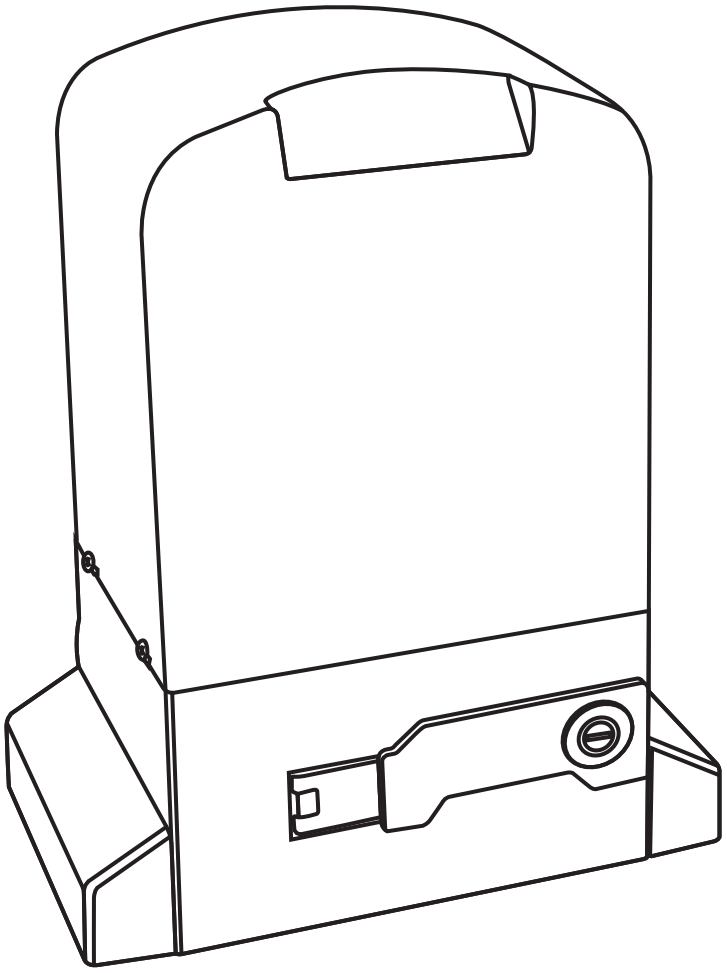
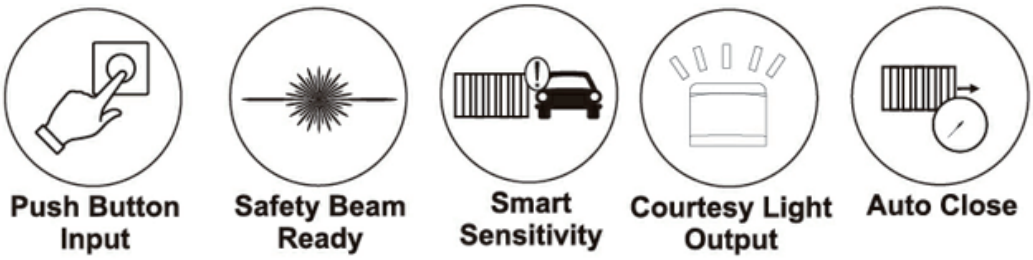
Sliding Gate Opener
User's Manual





V7.2.2

Contents

1.General safety ····· 1

2.Appearance and dimensions ····· 2

3.Part list ····· 2

4.Parameters ····· 3

5.Gate opening default setting information ····· 3

6.Installation of motor ····· 4

6.1 Installation of motor base plate ····· (4)
6.2 Installation of gate opener ····· (4)
6.3 Preparing and Install gear racks ····· (5)
6.4 Install the gear rack onto the gate ····· (5)
6.5 Typical installation layout ····· (6)
6.6 Installation of infrared sensors(Photocell) ····· (7)

7.Power up and testing procedure ····· 7

8.Control board ····· 7

8.1 Technical parameters ····· (7)
8.2 Terminal and buttons instruction ····· (7)
8.3 Control board wire diagram ····· (9)

9.How to program or erase the remote ····· 12

10.How to use the remote to operate your gate opener · 13

11.Control board function description ····· 13

12.Digital display menu setting ····· 14

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±10% / 220V±10% 50Hz / 60Hz).
- All modifications to wiring or electrics, and any adjustment or maintenance to 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

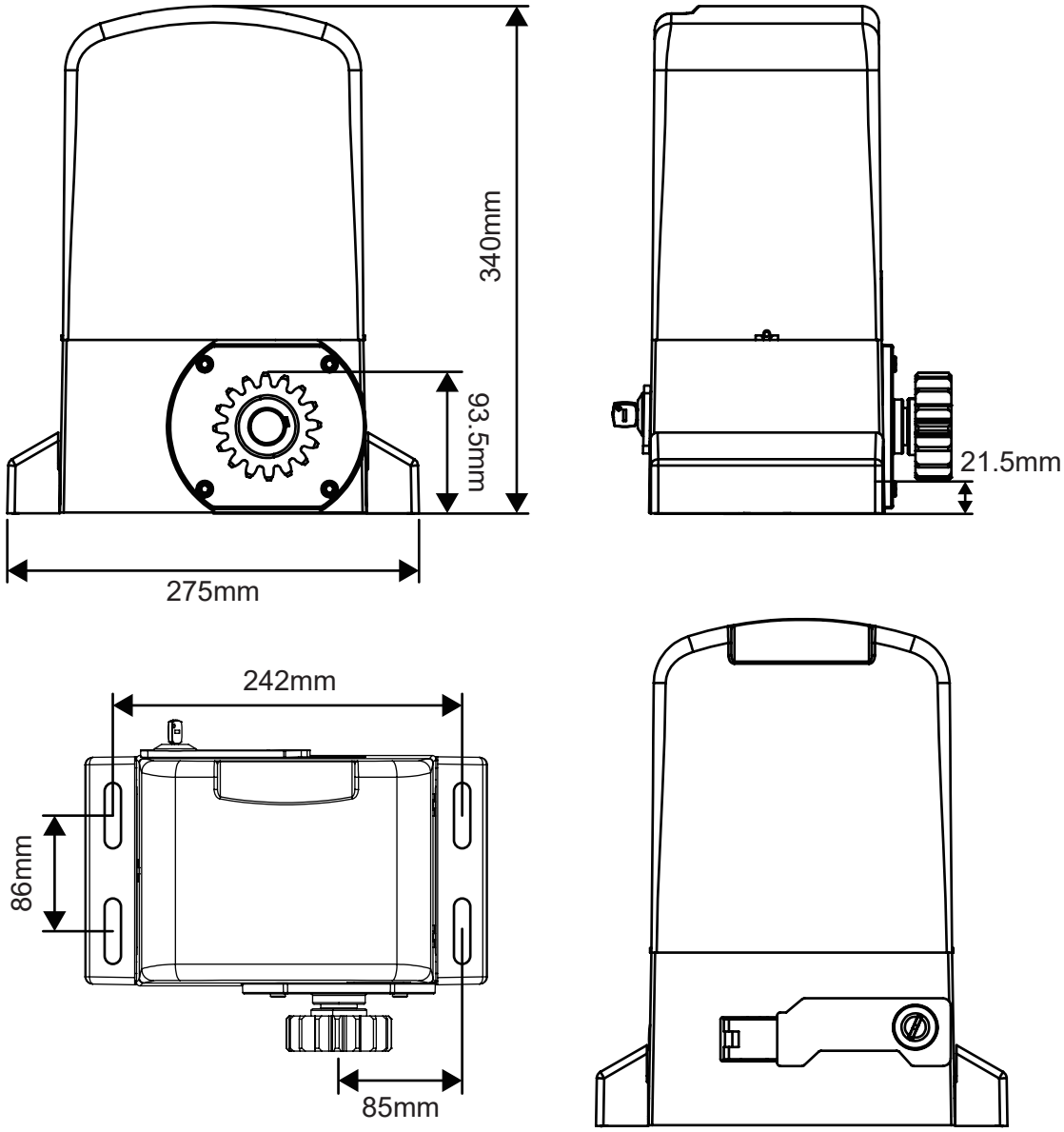
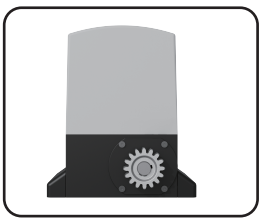
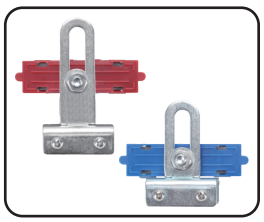


Diagram 1

3. Part list

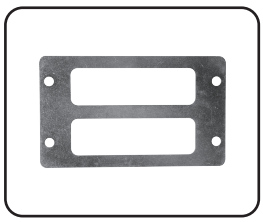


Motorx1

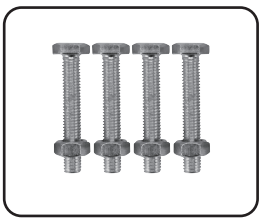


RHS/LHS Limit Switch Striker Platex2

Motor to mounting plate screwsx4

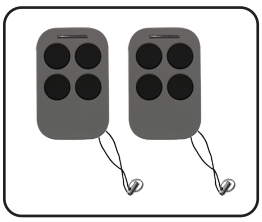


Motor Base Platex1



Adjust Boltsx4

Striker Plate Fixing Boltsx4



Remotex2

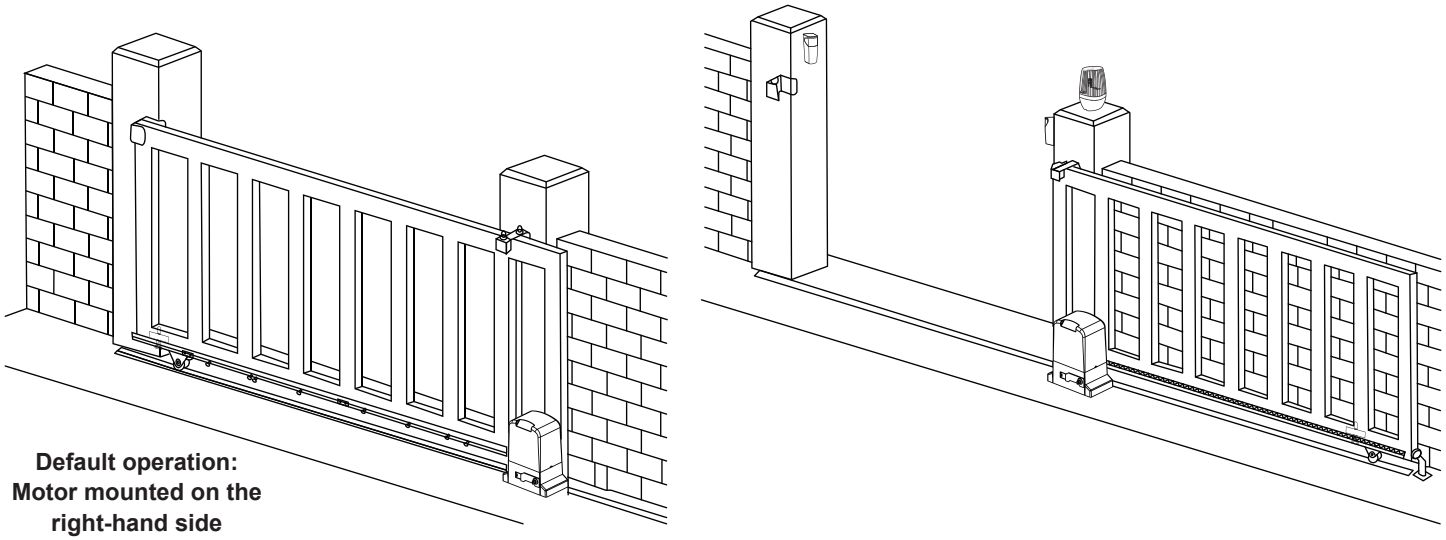
Override keysx2

4. Parameters

Power supply	220VAC±10% 50Hz	110VAC±10% 60Hz
Maximum load	2000KGS	1800KGS
Rated power	550W	550W
Rated speed	1300RPM	1400RPM
Output Speed	50r/min±10%	
Running speed	12m/min	
Output torque	37 N.m	36 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	12KG
Packing	In a standard carton	In a standard carton

5. Gate opening default setting information

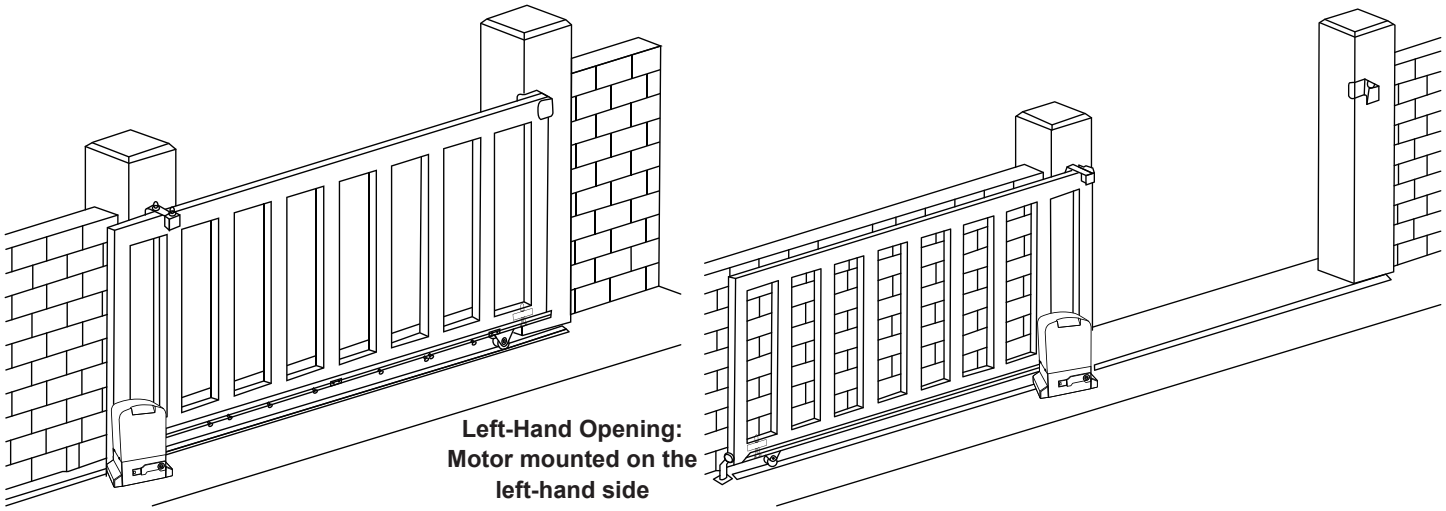
The gate motor will open the gate to the right-hand side as its default setting (Refer to diagram 2).



Default operation: Motor mounted on the right-hand side

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 10) .



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

Diagram 3

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)

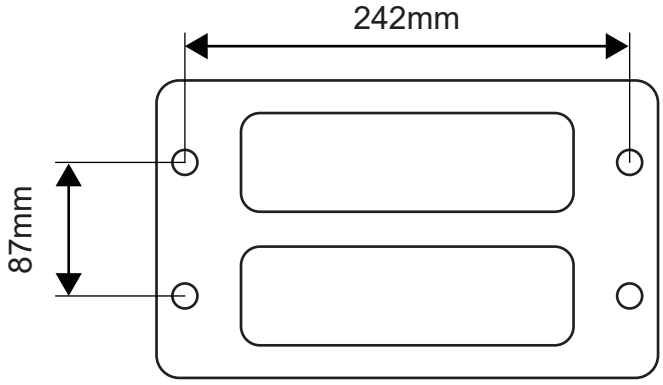


Diagram 4

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.

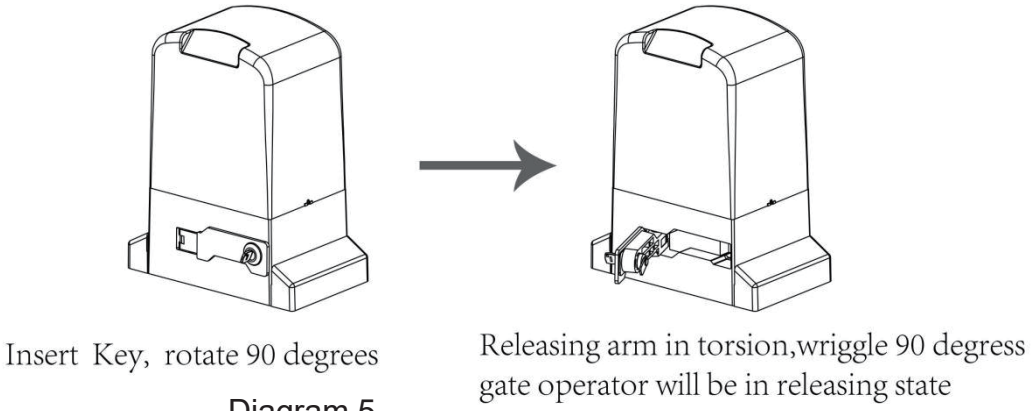


Diagram 5

2. Insert the key in the key, barrel and turn the key, clockwise and pull to allow the manual override lever to swing out.

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.

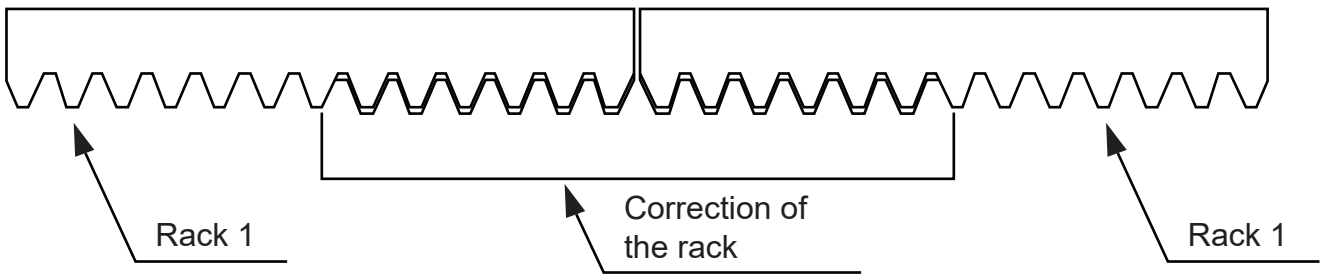
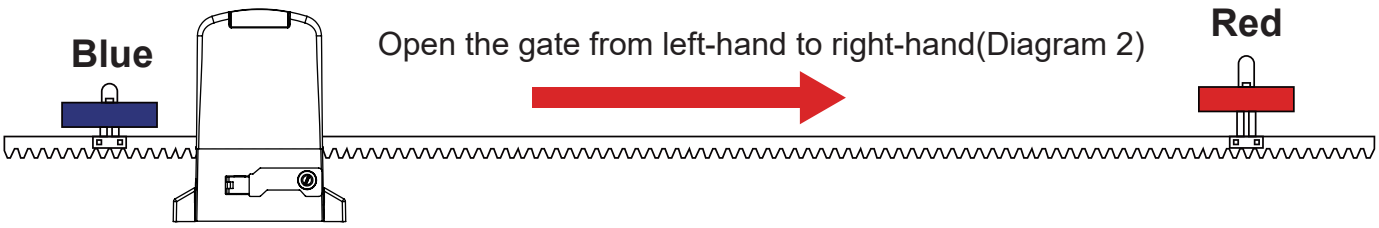


Diagram 6

- 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.

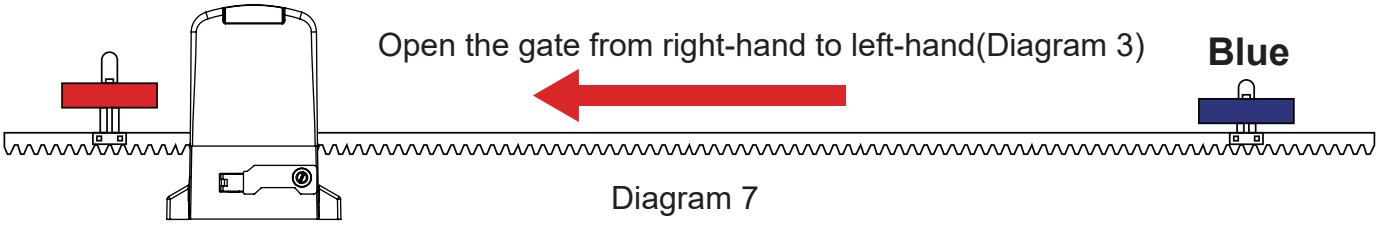
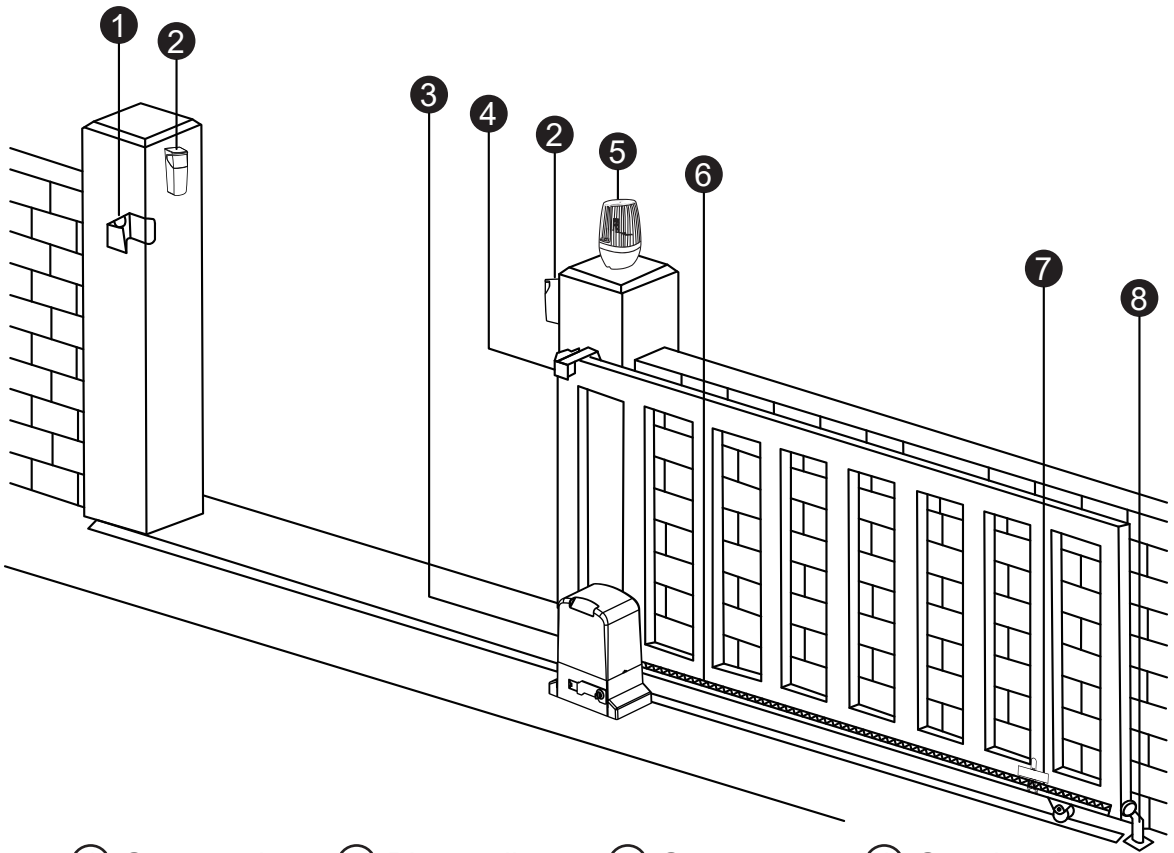


Diagram 7

6.5 Typical installation layout:



① Gate catch ② Photocell ③ Gate motor ④ Gate bracket
⑤ Lamp ⑥ Gear rack ⑦ Magnet limit ⑧ Gate stopper

6.6 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.

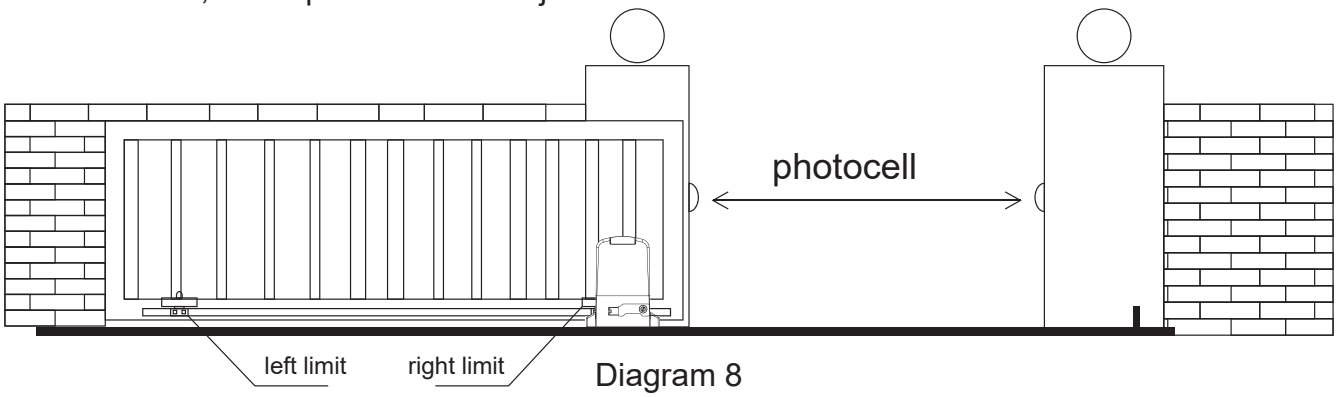


Diagram 8

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: AC110 or 220V / 50Hz/60Hz
2.Application: AC sliding gate opener
3.Remote control: Giant customized rolling code
4.4.Remote control memory: max support 120pcs

8.2 Terminal and buttons instruction

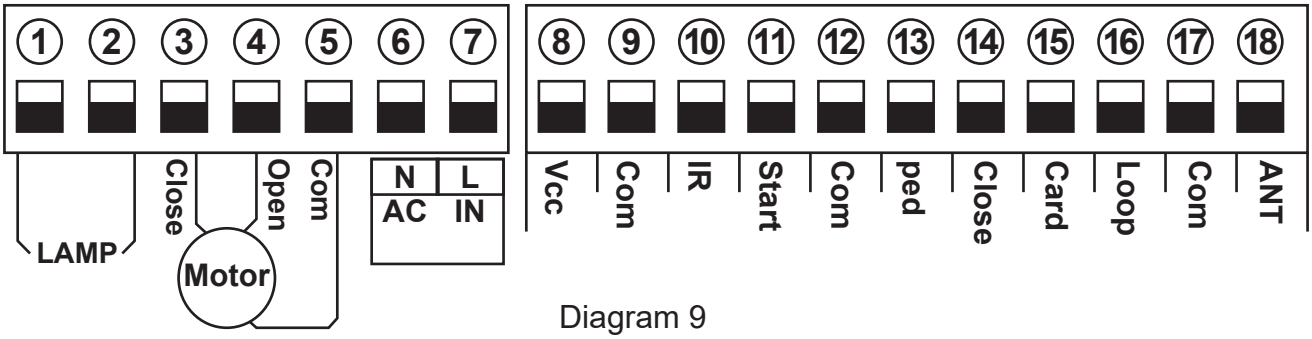


Diagram 9

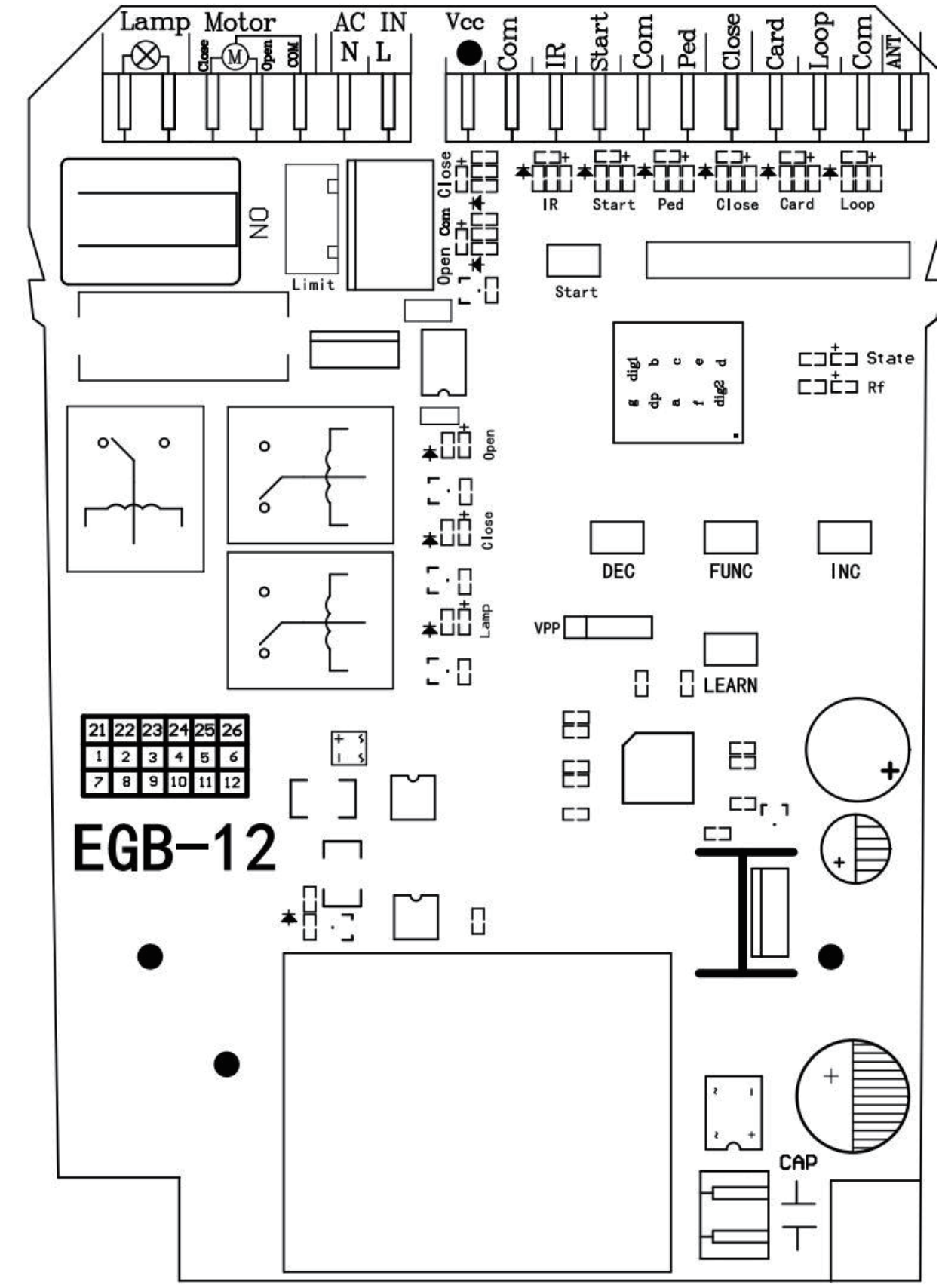


Diagram 9-1

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. AC IN: used for connecting with AC 110V/220V power.
8.Vcc: DC 12V output used for connecting with external devices, max 200mA.
9.Com: used for connecting with COM terminal or GND.

10.IR: used for connecting with the photocell sensor.
11.Start: It is a single button control mode switch for controlling the gate by “open -stop-close - stop - open” cyclically.
12.Com: used for connecting with COM terminal or GND.
13.Ped: Pedestrian mode signal (gate open signal) input port.
14.Close: used for connecting with any external devices that will operate to close the gate.
15.Card: used for connecting with any external devices that will operate to open the gate.
16.Loop: used for connecting with loop detector etc device.
17.Com: used for connecting with COM terminal or GND.
18.ANT: antenna connection.
19.Digital display: It is for showing you the setting data.
20.DEC- button: It is for figure decreasing of setting the data.
21.FUN: Used for enter the menu setting and confirm the data.
22.INC+ button: It is for figure increasing of setting the data.
23.LEARN button: It is for programming/erasing the remote control.

8.3 Control board wire diagram

● Install motor on the right side of gate

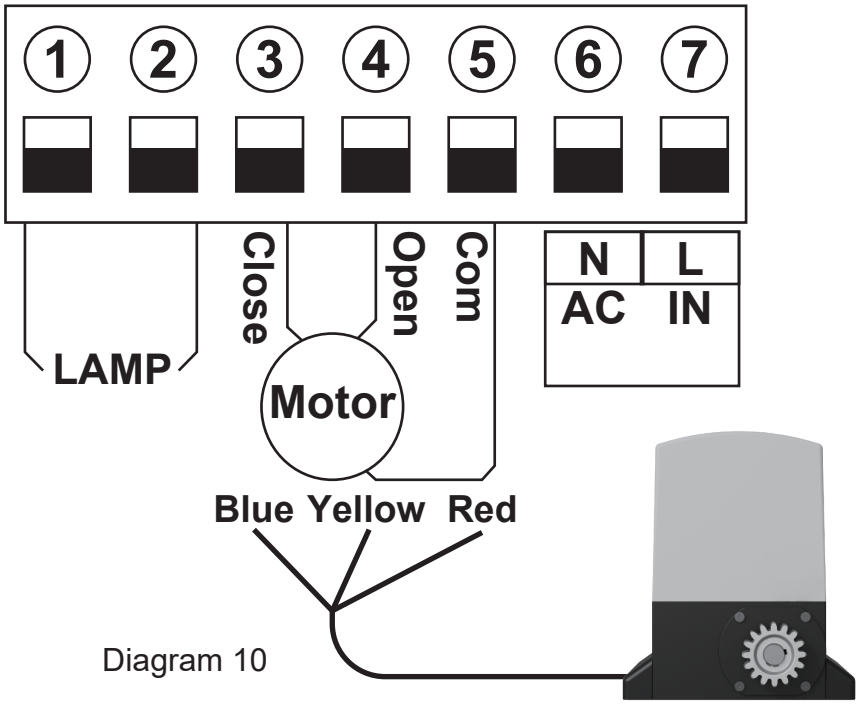


Diagram 10

Terminal ③, ④ determines the forward and backward direction of the motor
Terminal ⑤ is for connecting with Com(GND)

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

● **Connect with flash lamp**

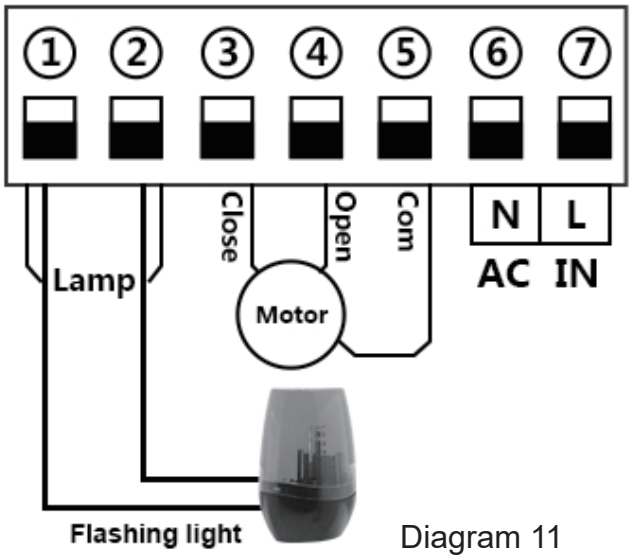
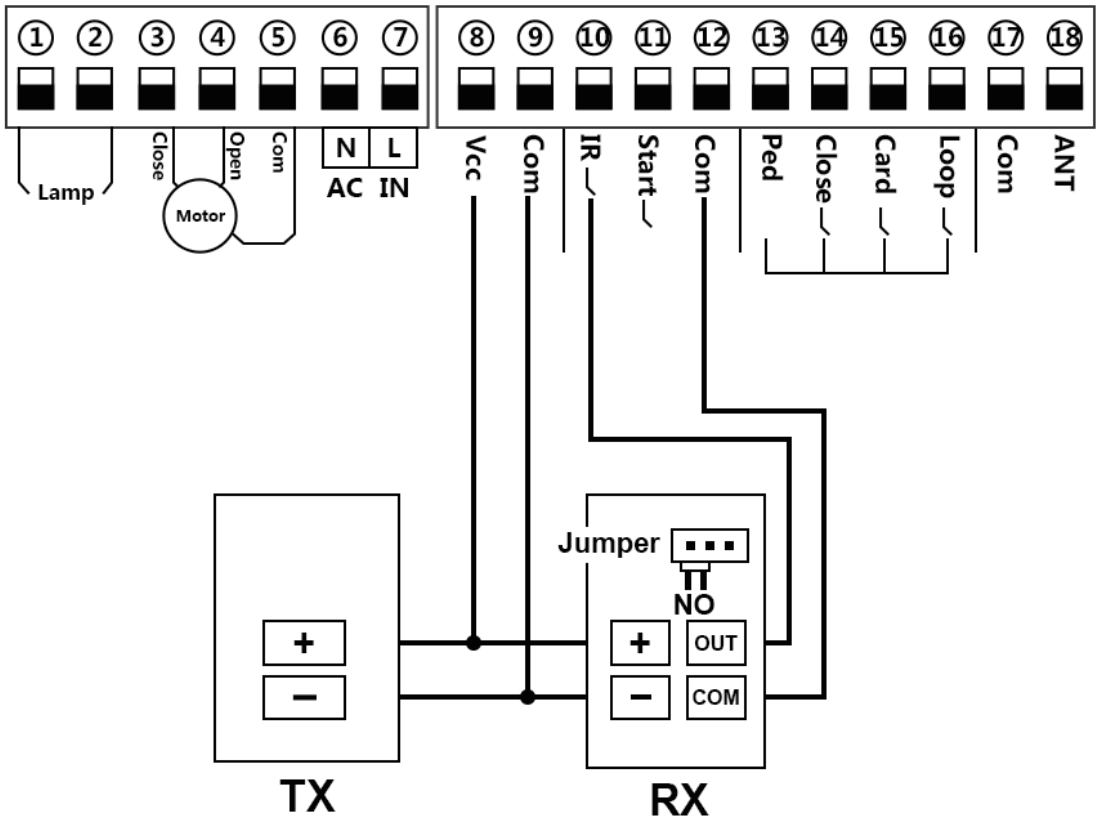


Diagram 11

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

● **Connect with safety beam**



Connect terminal ⑫, with the “ COM ” of photocell RX.
Connect terminal ⑩, with the “ OUT ” of photocell RX.
Connect terminal ⑧, with the “ + ” of photocell RX and TX.
Connect terminal ⑨, with the “ - ” of photocell RX and TX.

● **Connect with start terminal**

Start terminal is used for connecting with some external devices , such push button, wired keypad, receiver etc. **Control gate by " open-stop-close-stop-open " mode**

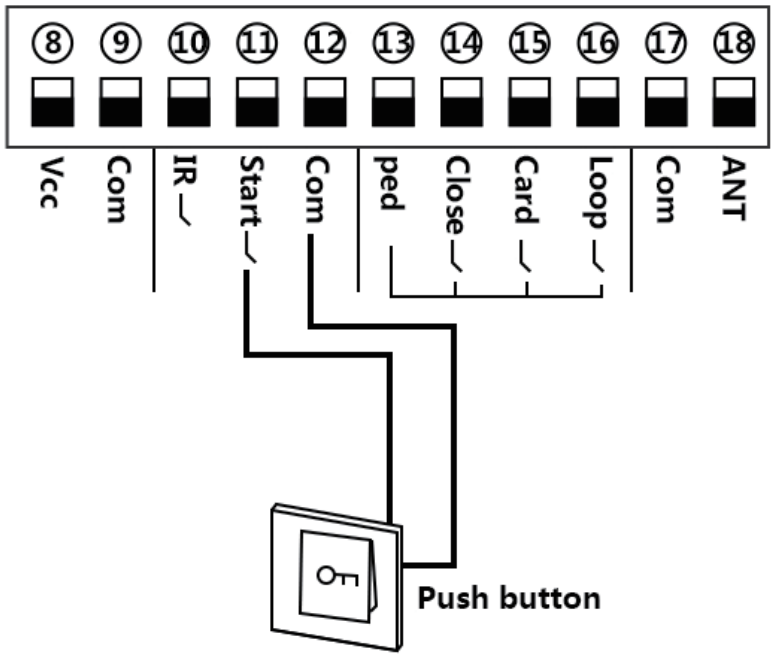


Diagram 13

Terminal ⑪ and ⑫ is for connecting with the push button.

Note! If you connect the swipe card or wired keypad, etc devices, please also connect with ⑧ Vcc and ⑨ Com to get the power supply.

● **Connect with swipe card**

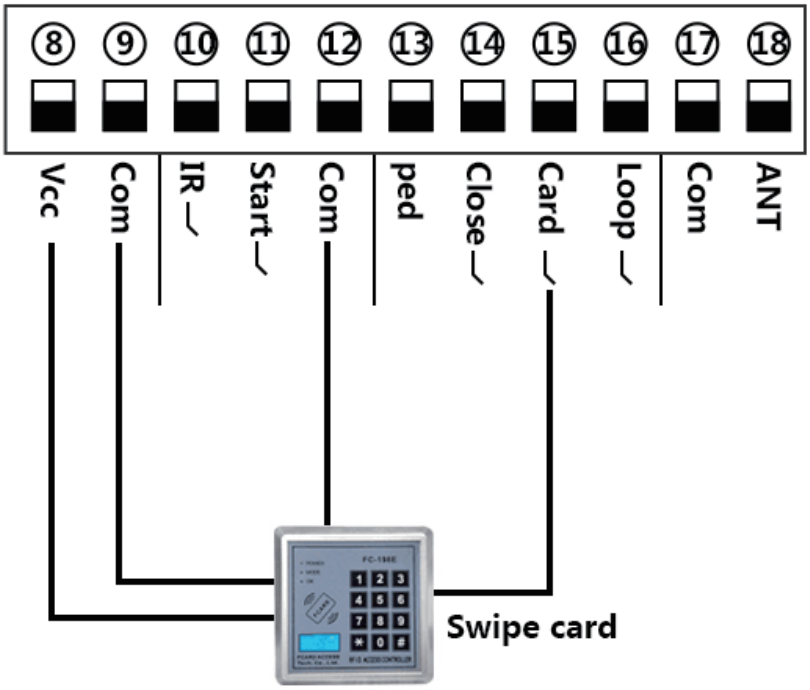


Diagram 14

Terminal ⑮ is for opening the gate only , for external device such swipe card, wired keypad etc.

Terminal ⑮ and ⑫ is for connecting with the swipe card.

Terminal ⑧ and ⑨ is for supplying the power to the swipe card.

● **Connect with loop detector**

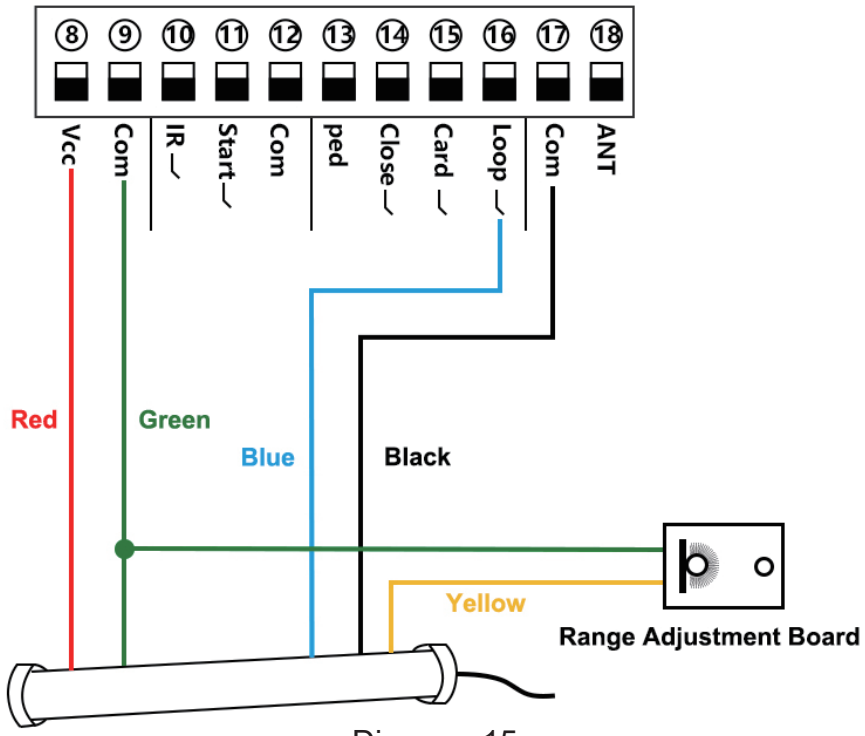


Diagram 15

● **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)

Red wire: connect with terminal ⑧.

Green wire: connect with terminal ⑨ and range adjustment board.

Black wire: connect with terminal ⑰.

Blue wire: connect with terminal ⑯.

Yellow wire: connect with range adjustment potentiometer.

9. How to program or erase the remote

● Program the remote: Press 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 buzzer short beep, which means the 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 statute.

Note: Due to the digital display only can show two numbers, 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.

10. How to use the remote to operate your gate opener

Each remote has 4 buttons, there are two remote control modes for optional. The factory default is single button control mode. If you want to change to use three-button control mode, please reference the data set of P7 on the digital display menu.

- **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 uses to control gate open, 2nd button uses to control gate close, 3rd button use to control gate stop and 4th button use to control gate PED mode.

Note: If you adjust the remote control mode, please program the remote into your gate opener again to operate it.

11.Control board function description

Item	Description
Power on	After the control board powered on, the buzzer will sound, and the digital display will show model number and version,and the state indicator LED lit up.
Open/close gate indicator LED	While the gate opener work normally, opening the gate will turn on blue, close the gate will turn on red.
Lamp indicator LED	While the lamp is working, the LED will light on, and the lamp port will output AC power.
Overcurrent	The overcurrent function can achieve an anti-smashing car. While the gate is opening, it detects the overcurrent and stop. If the gate is closing and detects the overcurrent, the gate will be reverse back to the opened position. The overcurrent setting in the high speed can be set through the digital display menu P1.
Limit switch mode	1.When the gate is fully opened/closed, and trigger the limit switch, the motor will auto stop. 2.The limit switch mode NO mode and NC mode can be set through the digital display menu P0. 3. Factory defaults NC mode.
Safety beam mode	While the gate is closing, if the IR terminal is triggered, the gate will reverse back to open. When the gate is opened, the safety beam signal is gone for 2s, the gate will auto close.
Auto-closing timer for fully opening	1.The auto-closing function is only triggered after the gate is fully opened. 2.Auto close timer for fully opening can be set through the digital display menu P5. When auto-close timer start to countdown, the STATE LED will flash one time each second.

Item	Description
Pedestrian mode	1.The remote 2nd and 4th button can trigger the Pedestrian mode, the gate will partially open then stop, not fully open. This mode is convenient for users walking in and out. 2. The pedestrian opening time could be set through the digital display menu P6. 3. When the gate complete the command, it will trigger the auto-closing timer after Pedestrian mode. The timer can set through the digital display menu P4.
Setting of Loop terminal	1.When the gate is opened or opening, trigger the loop terminal, when the loop signal is gone for about 2s, will auto close immediately. 2.When the gate is closing, detect an obstacle and triggering the loop terminal, gate will reverse back to open, when the loop signal is gone for about 2s,will auto close immediately. **Note: When the digital display menu P9 set 0, means No auto-closing function for loop terminal.**
Auto travel learning	Steps: Move the gate to close limit position, press the button “INC” and “DEC” at the same time about 2s, you can hear a long beep from the buzzer on board, the motor will start working a complete cycle of open/close. After the auto travel learning operation is successfully, you will hear a long beep, the board will automatically set the high speed and slow speed working time, and the digital display will show the time. Note: 1.Before the auto travel learning, if the gate don’t stay in close limit position(close limit indicator is off), the buzzer will sound 2 short beep, it means can not operate the function. 2.While user trigger the auto travel learning operation, the remote control/push button/infrared/loop detector/resistance can not be activated, every auto travel learning operation need to cost over 2s, otherwise it will cause the failure. User not only can press the button “INC” and “DEC”, but also can set the digital display menu to enter the auto travel learning operation.
Maximum motor working time protection	If motor works continuously more than 90s, motor will stop running for protection.

12. Digital display menu 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+] and [DEC-] 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	Function description	Value	Factory set	Explanation
P0	Limit switch mode	0~1	0	0: NC mode 1:NO mode
P1	Overcurrent setting in high speed	0~20	9	The bigger the value is, the harder the motor to stop.
P2	Setting slow speed running time	0~5s	2s	0: No slow speed running time.
P3	Auto-closing timer after swipe card	0~99s	10s	0: No auto-closing timer after swipe card
P4	Auto-closing timer after Pedestrian mode	0~99s	10s	0: No auto-closing timer for after Pedestrian mode
P5	Auto-closing timer for fully opening	0~99s	0	0: No auto-closing timer for fully opening
P6	Pedestrian mode	0~20s	5s	
P7	Remote button control mode	0~1	1	0: Three-button control mode 1st button is opening, 2nd button is closing, 3rd button is stopping, 4th button is Pedestrian mode. 1: Single button control mode
P8	Flash lamp mode	0~1	1	0: Flashing light and motor will operate and stop at the same time. 1: Flashing light will turn off 30 seconds after the motor stop.
P9	Setting of Loop terminal	0~1	1	0: No auto-closing function for loop terminal. 1: Triggering the loop terminal, when the loop signal is gone for about 2s, will auto close immediately.
PA	Safety beam mode	0-1	0	0: NO, 1: NC
PB	Auto travel learning	0-10	0	Set 5 and confirm, the buzzer will sound a long beep, trigger the auto travel learning operation.
Po	Reset	0-10	**0**	Set 5 and confirm, then start the reset operation, the buzzer will sound a long beep. Other values are invalid.

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 PED mode is activated, the digital display will show 1S“PD”
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”