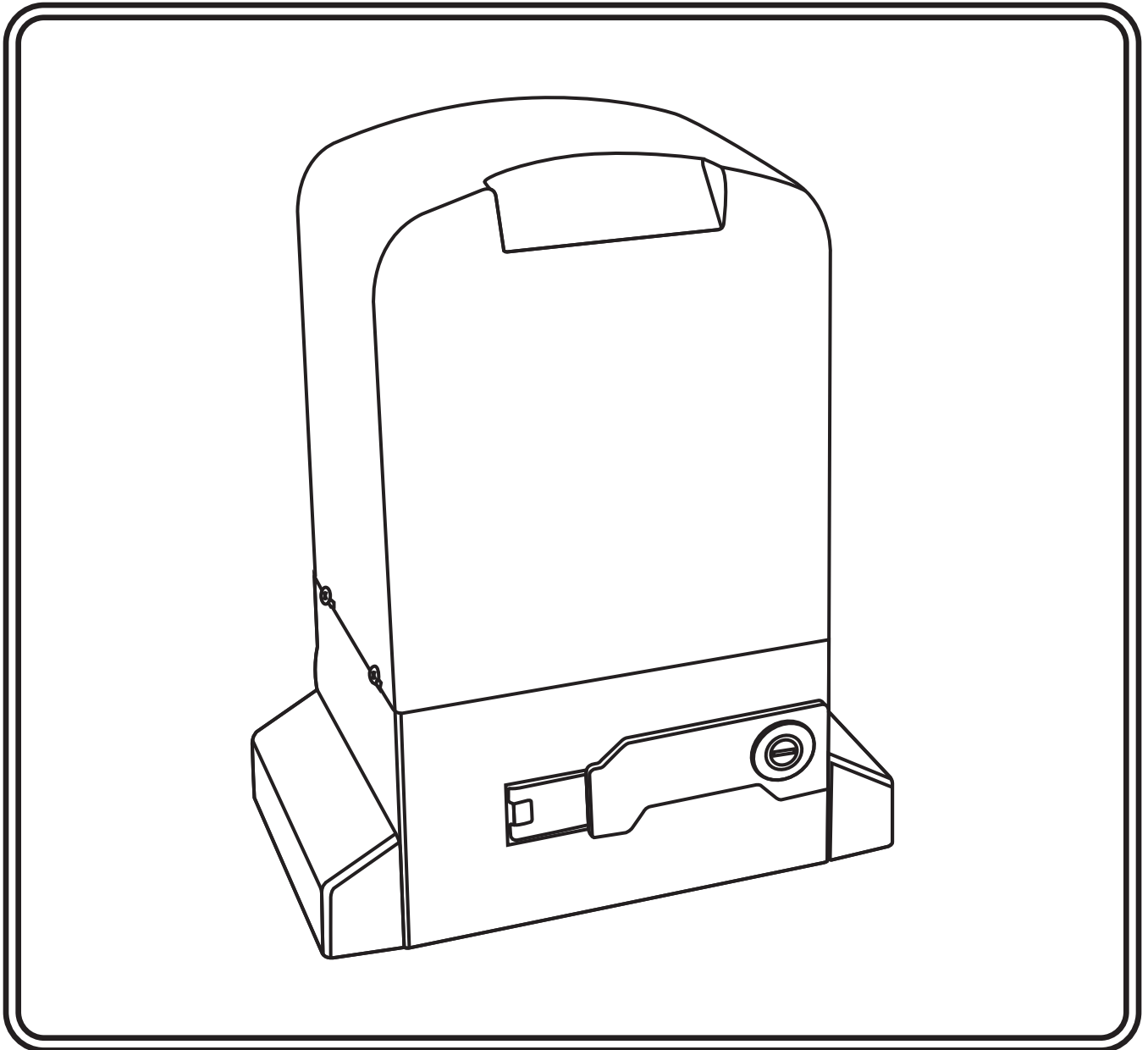
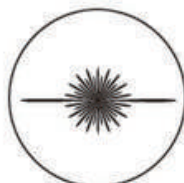


Sliding Gate Opener

User's Manual



Push Button
Input



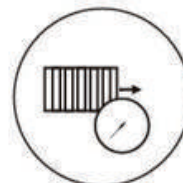
Safety Beam
Ready



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 (AC220V±10% 50Hz).
- 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

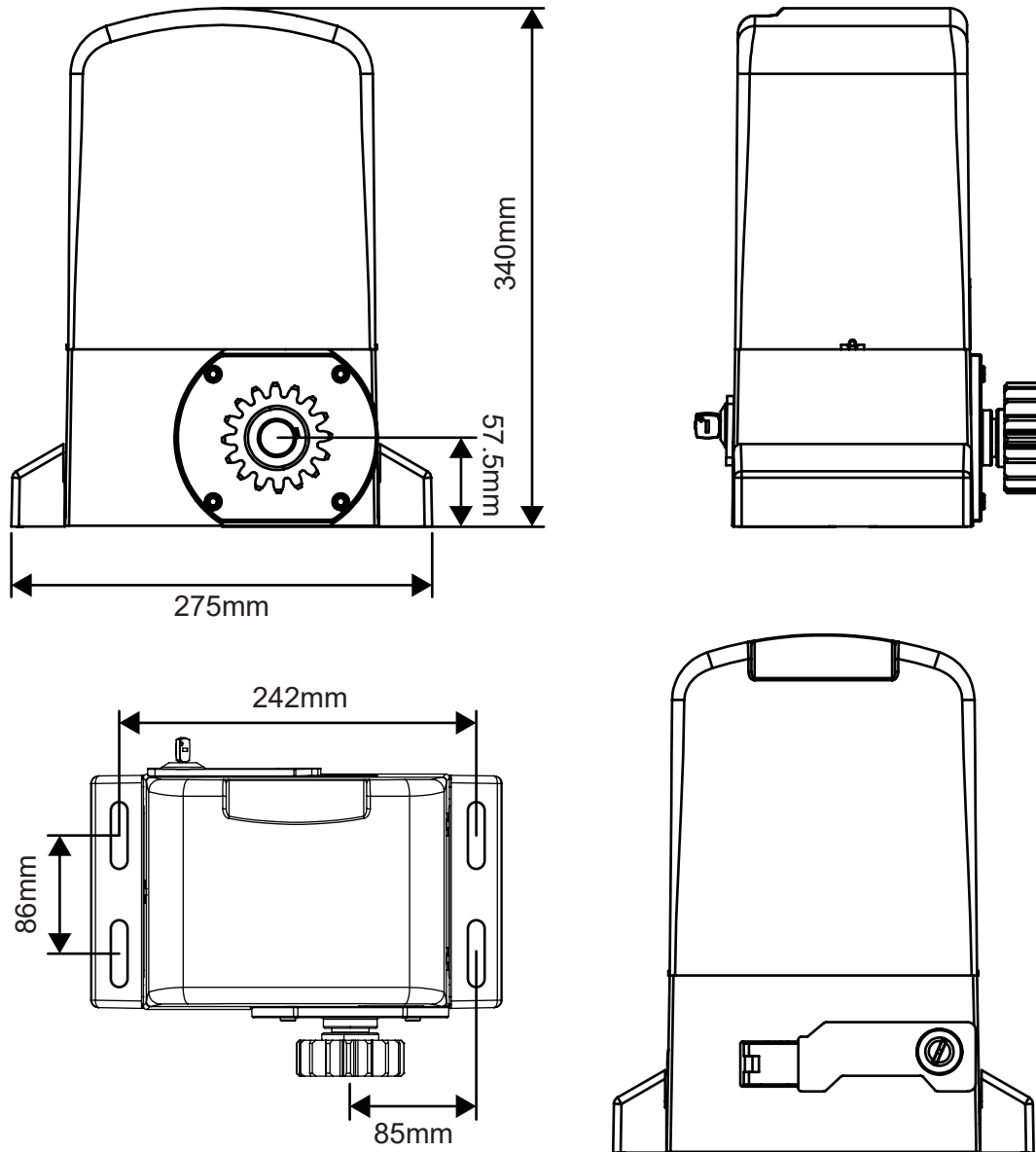
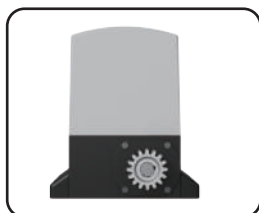
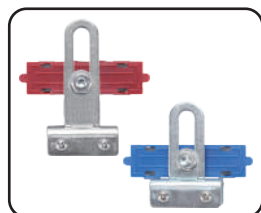


Diagram 1

3. Part list



Motorx1



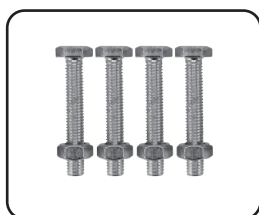
RHS/LHS Limit Switch
Striker Platex2



Motor to mounting
plate screwsx4



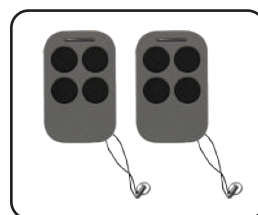
Motor Base Platex1



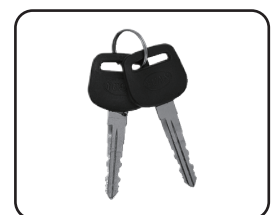
Adjust Boltsx4



Striker Plate
Fixing Boltsx4



Remotex2



Override keysx2

4. Parameters

Power supply	220VAC±10%/110VAC±10% 50Hz/60Hz	110VAC±10%/110VAC±10% 50Hz/60Hz
Maximum load	2000KGS	1800KGS
Rated power	370W	370W
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).

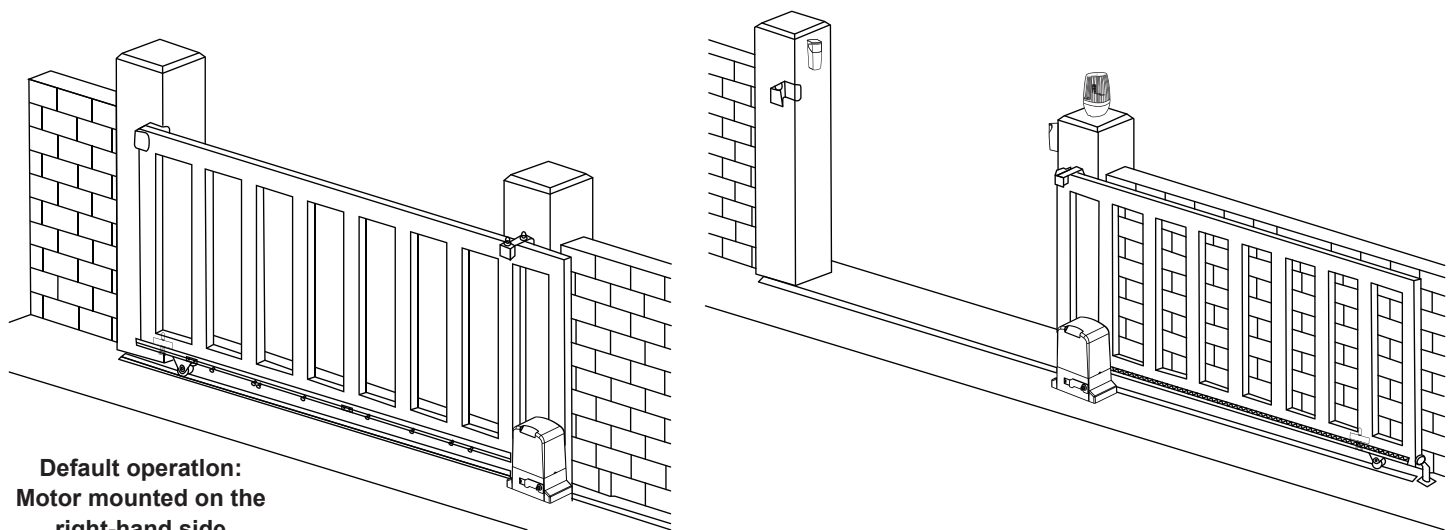
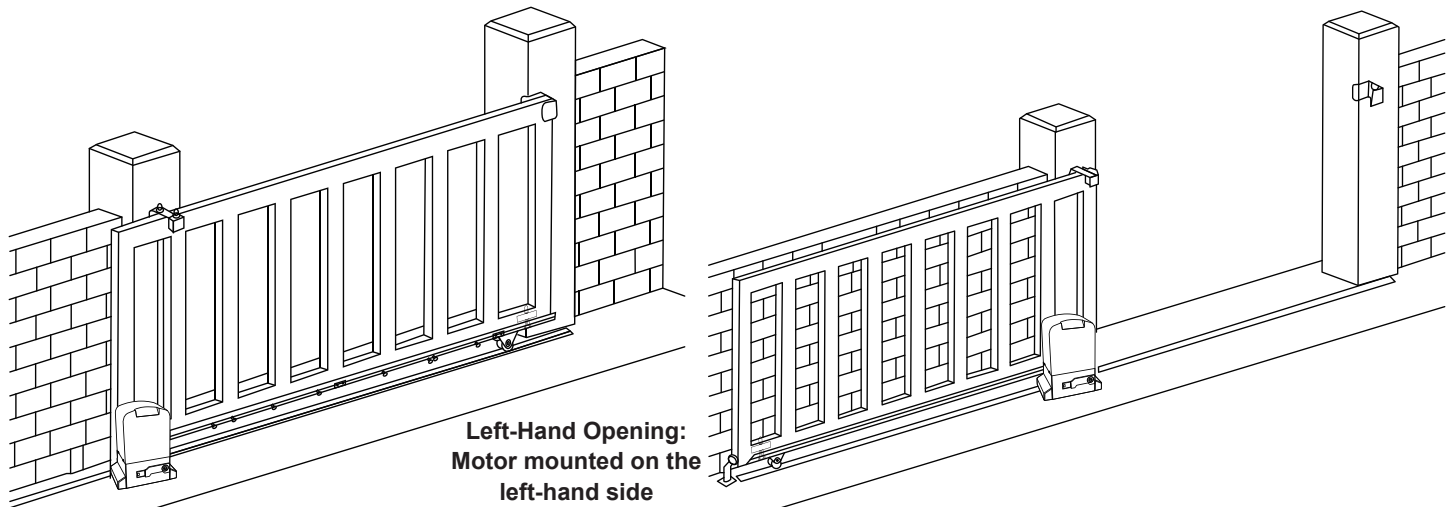


diagram 2

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 8) and move the jumper J1 from pin1 and pin 2 to pin 2 and pin 3.



Any works done to the 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)

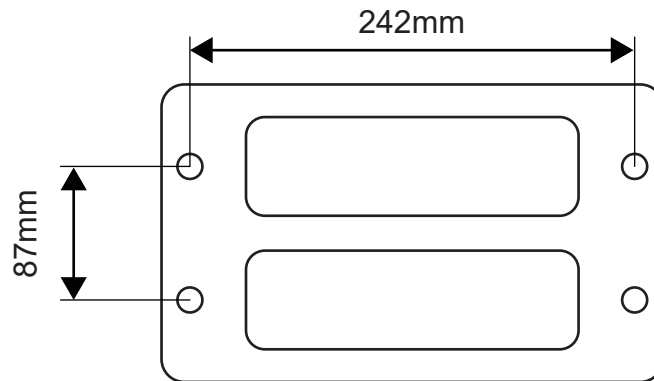


Diagram 4

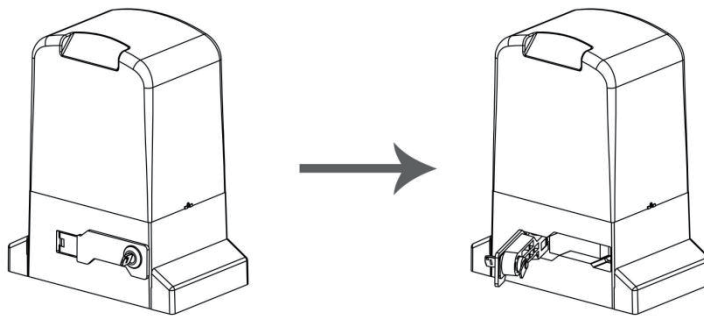
2. If gear rack has been installed on door, motor can be fixed on it, use a allen key rotation to clutch "off" position, after motor gear and gear rack match well to determine position of base plate, then remove motor and fix base plate.

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.



Insert Key, rotate 90 degrees

Diagram 5

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

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.

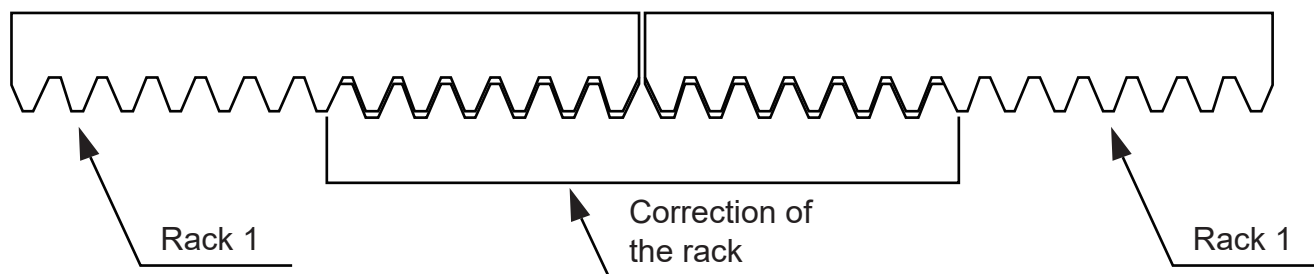
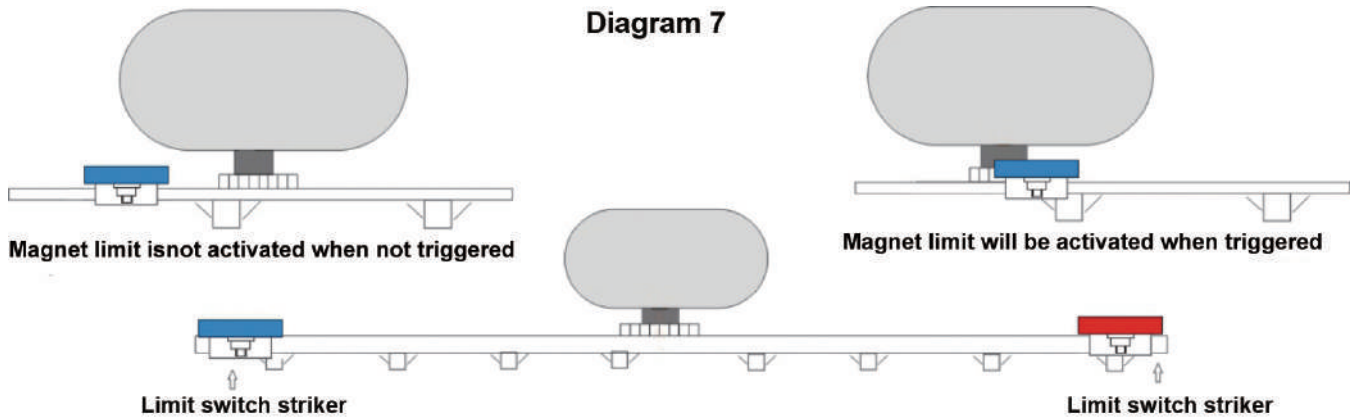


Diagram 6

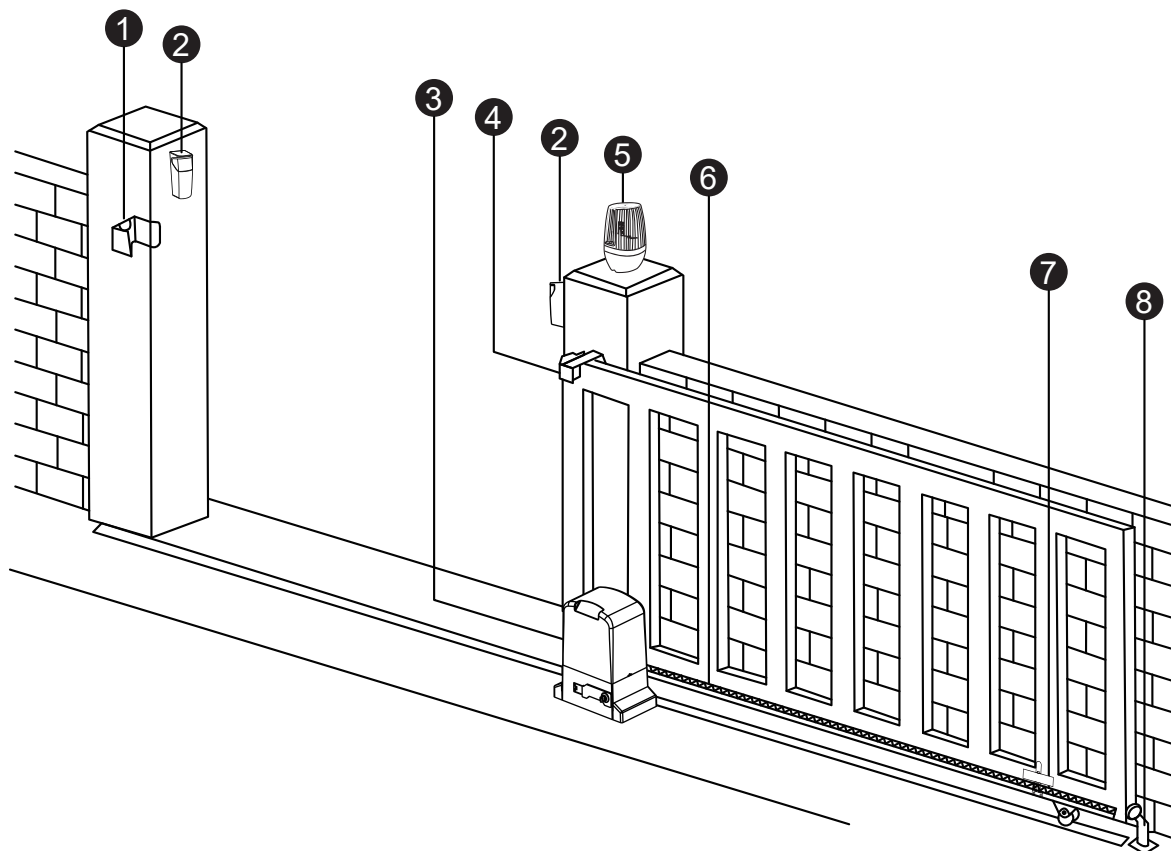
- here are 2 limit magnet supplied. Note there is a left hand and a right hand magnet. The magnet should be installed one at either end of the rack. See Diagram 7

- 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.



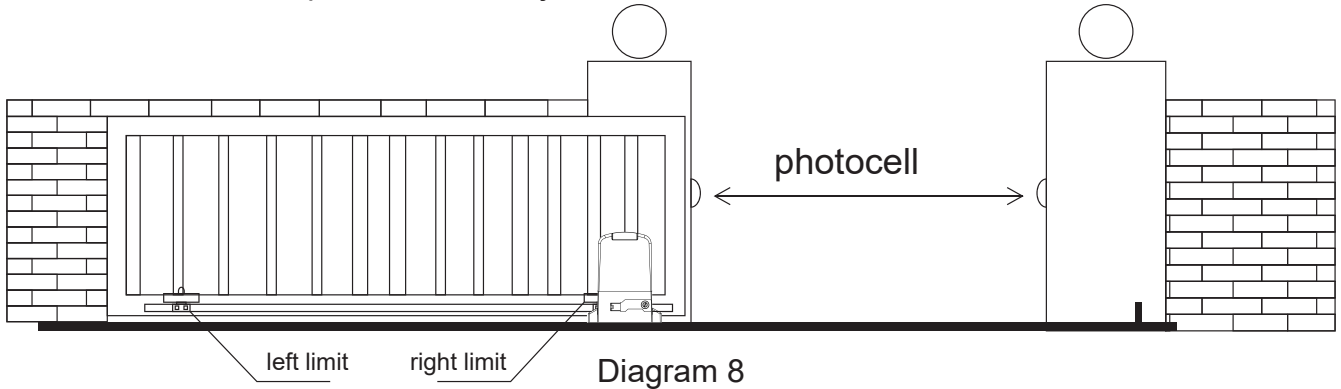
6.5 Typical installation layout:



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

6.6 Installation of infrared sensors(photocell)

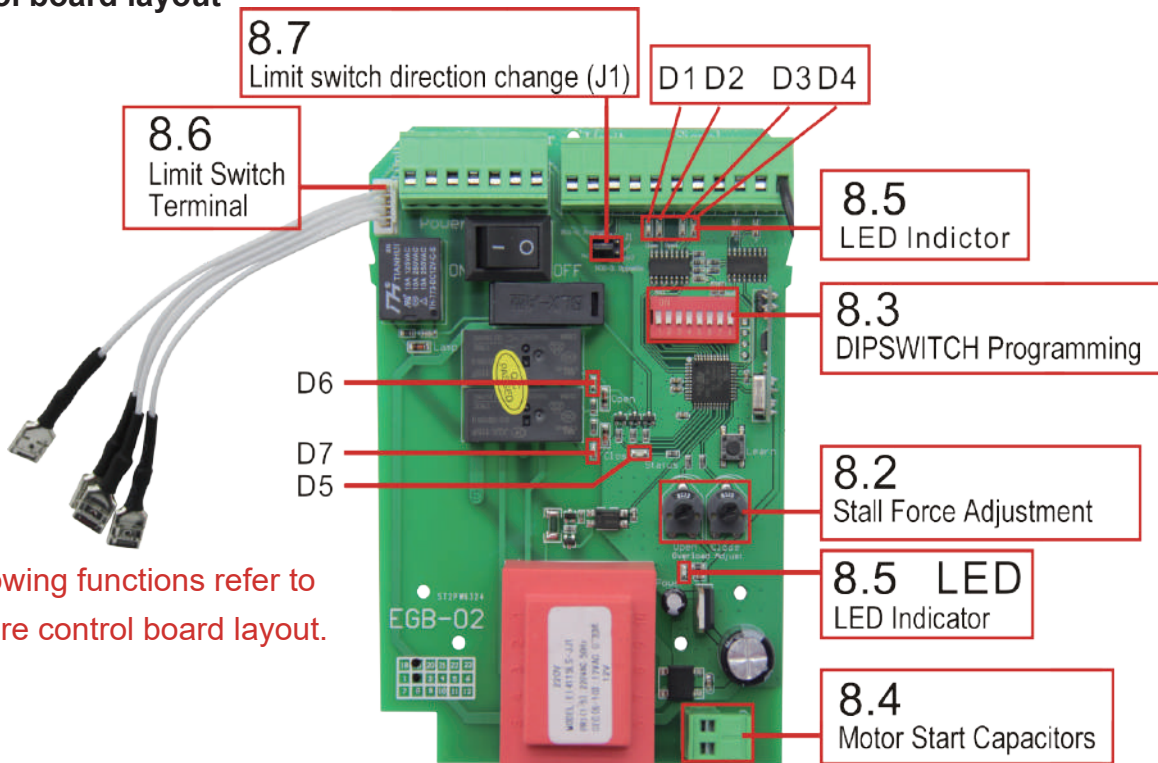
1. Unscrew the screws on the motor and the remove the motor cover.
2. Let the signal line and power line coming in from outside, and then connected it according to electrical wiring diagram.
3. With screws fixed base plate in a fixed position.
4. Close the motor cover and tighten screws.
5. According 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.



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 layout



The following functions refer to the picture control board layout.

8.1 Pairing and Clearing Remotes:

Pairing:

- Press and Release "AUTO LEARN" button on board.
- LED - D5 will turn on for 10 seconds.
- During this time, press and release any button of remote control slowly, then LED-D5 will flash 2 times to indicate the remote control is paired successfully.

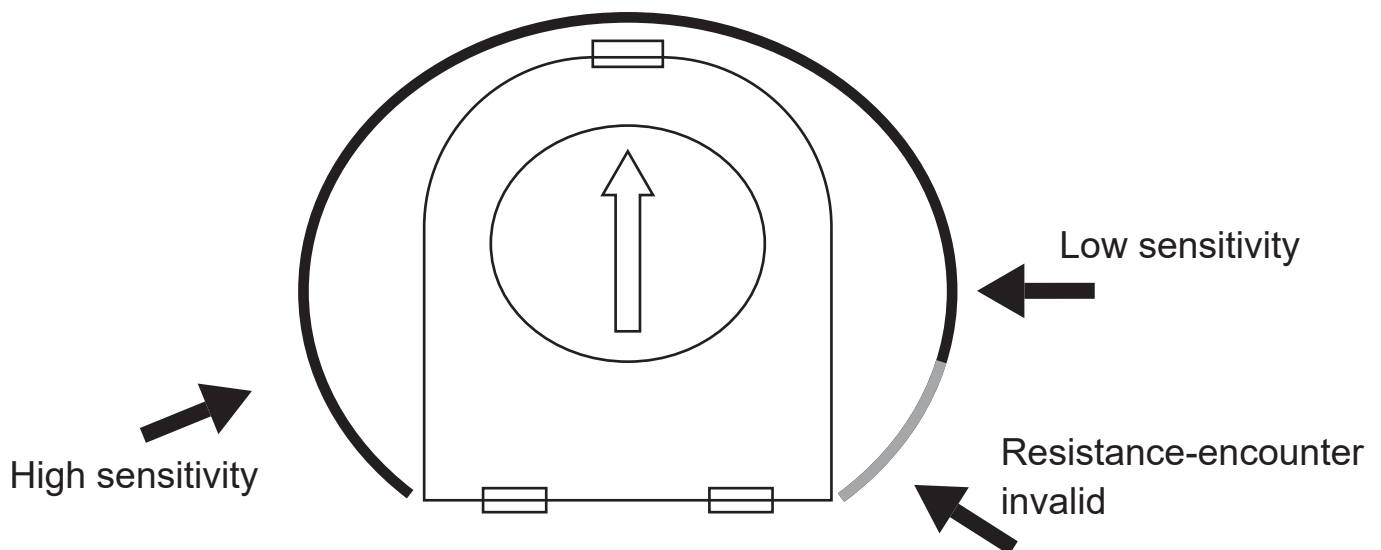
Clearing:

- Press and Release "AUTO LEARN" button on board.
- then LED-D5 will flash, and release the button now.
- all remote controls paired previously will be deleted.

NOTE:

- LED-D5 will turn on for 10 seconds then go off, if there is no any signal received during the period of pairing.
- The remote control is coded with unique and most secure crypted rolling code. The control board with the memory of Max. 50 pieces remote control. When you try to pair the 51th piece remote control, LED-D5 will flash 5 times to indicate that memory is full.
- With the single button cycle operation mode, the remote button 1 used for cycle operation of full open/stop/close/stop..... the button 2 used for cycle operation of pedestrian open/stop/close/stop.....
- The button 3 and button 4 can be programmed in the same way of button 1 and button 2 mentioned above for another sliding gate opener. In this case, one remote can control 2 sets of sliding gate opener separately

8.2 Stall Force Adjustment:



There are 2 trimmers for "OPEN/CLOSE overload adjust to set the open and close stall force separately. Rotate clockwise to increase the force, counter-clockwise to decrease the force

The default setting is at middle position.

When stall force is enabled (trimmer not in the right corner portion), the motor will detect obstacles and impacts to the gate. If this is during opening, the gate will stop, if this is during closing the gate will stop, and then re-open

NOTE:

If the stall force is too low, the gate will stop or reverse very easily while there is no obstruction, or if there is additional resistance such as strong wind, rain or snow. If the stall force is set too high, some impacts may not be detected, and injury or damage could occur.

Programming

8.3 DIPSWITCH Programming:

A. Limit Switch

Dial up 1 → OFF: limit switch is in NC mode (factory default)

Dial up 1 → ON: limit switch is in NO mode

B. Photocell

Dial up 2 → OFF: photocell in NO mode (factory default)

Dial up 2 → ON: photocell in NC mode

C. Automatic close function (Fully Open)

Dial up 3 → OFF also dial up 4 OFF: No automatic close function (factory default)

Dial up 3 → ON also dial up 4 OFF: when gate is fully open, automatic close delay time is 10s

Dial up 3 → OFF also dial up 4 ON: when gate is fully open, automatic close delay time is 30s

Dial up 3 → ON also dial up 4 ON: when gate is fully open, automatic close delay time is 60s

D. Automatic close function (Partially Open)

Dial up 5 → OFF also dial up 6 OFF: No automatic close function in Pedestrian mode (factory default)

Dial up 5 → ON also dial up 6 OFF: when gate is partially open, automatic close delay time is 5s

Dial up 5 → OFF also dial up 6 ON: when gate is partially open, automatic close delay time is 10s

Dial up 5 → ON also dial up 6 ON: when gate is partially open, automatic close delay time is 30s

NOTE:

1. The first button or third button of the remote can trigger fully open cycle operation(normal mode).
2. The second button or fourth button of the remote can trigger partially open cycle operation (pedestrian mode).

E. Condominium Mode

Dial up 7 OFF: Disable Condominium mode. **Dial up 7** ON: Enable the Condominium mode.

NOTE:

Condominium mode mainly used for high traffic driveway gate. It is working as when gate opener is opening, if trigger remote or any other external device from START terminal will not change the gate opener until the gate is fully open; when gate opener is closing, if trigger remote or any other external device from START terminal, then gate will stop and automatic reopen until gate is fully open.

When the Condominium mode enabled, the pedestrian mode will be disabled automatically.

Wiring

8.4 Motor Start Capacitors:

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

8.5 LED Indicator:

D1: Limit switch of close gate.

LED ON: The limit signal of close gate is not sensed.

LED OFF: The limit signal of close gate is sensed.

D2: Limit switch of open gate.

LED ON: The limit signal of open gate is not sensed.

LED OFF: The limit signal of open gate is sensed.

D3: "START" terminal working status.

LED ON: External devices connected in "START" terminal is triggering.

D4: Photocell indicator.

LED ON: No obstacle sensed by photocell sensor.

LED OFF: Obstacle sensed by photocell sensor.

D5: Remote code learn and move

Press and hold LEARN button for 6s until LED light on and fast flash two times: Code move successfully.
 Press LEARN button, if LED light on and fast flash two times: Code learn successfully.

When code learning, if LED no receive remote signal within 6s, LED light off to exit code learn mode.
 LED if flash 5 times means now remote memory quantity reach the maximum.

D6: LED (BLUE) ON: Gate is opening.

D7: LED (RED) ON: Gate is closing.

D8: LED (RED) ON: Control board with power on.

8.6 Limit Switch Terminal:

Wiring the limit switch cable to this terminal. The limit switch cable includes both open limit and close limit. The default setting from factory is right side open. If the limit switches are set correctly, the motor will stop when it reaches limit of either direction.

8.7 Limit switch direction change (J1):

The default setting from factory is right side open with jumper (J1) connected Pin 1 and Pin 2. If it is different opening direction in real installation site, the limit switch direction should be changed by moving jumper (J1) connected to Pin 2 and Pin 3 instead.

9. Control board wiring diagram (DIAGRAM 9)

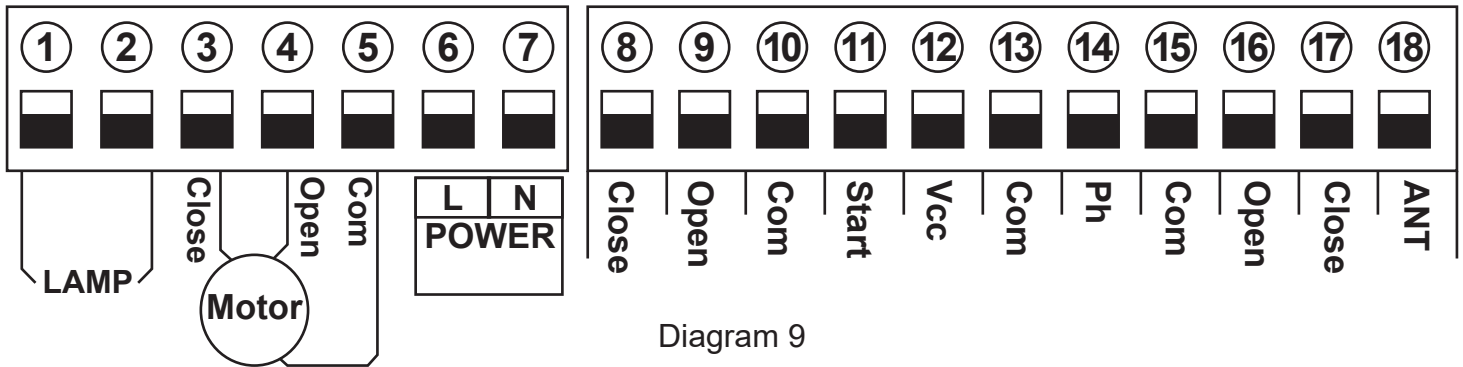


Diagram 9

9.1 Terminal ⑥ and ⑦ it for connecting to 220V power

9.2 Connect to sliding gate motor

9.2.1 Install the motor on the right of gate.(Please see DIAGRAM 10)

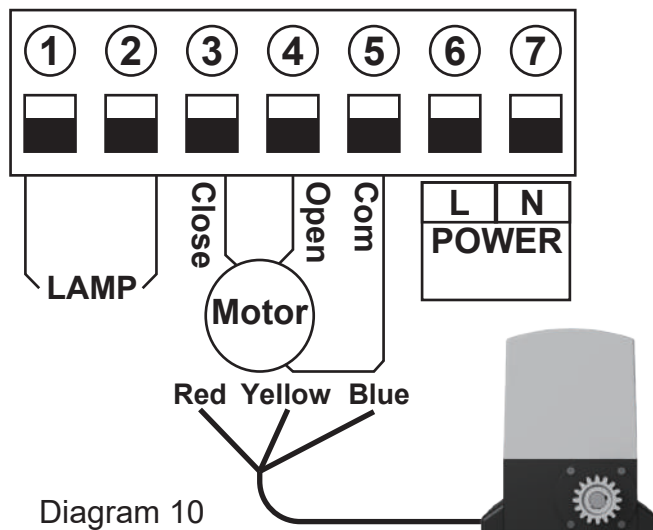


Diagram 10

When the motor being installed to the right of gate, then no need change wire.

Please note: Our factory setting is right-hand side opening.

9.2.2. Install the motor on the left of gate.

When the motor needs to be installed to the left of gate , motor wires diagram as follows:

Terminal ④ connect motor wire and Terminal ③ connect motor wire must be switched!

Please note : When you switch two motor wires, please check if the motor can close and stop normally. If not ,please move the “J1” to the other pins. For example, if now J1 on pin 1 and pin 2, then change the J1 to pin 2 and pin3.

9.3 Connect to flashing light. (Please see DIAGRAM 11)

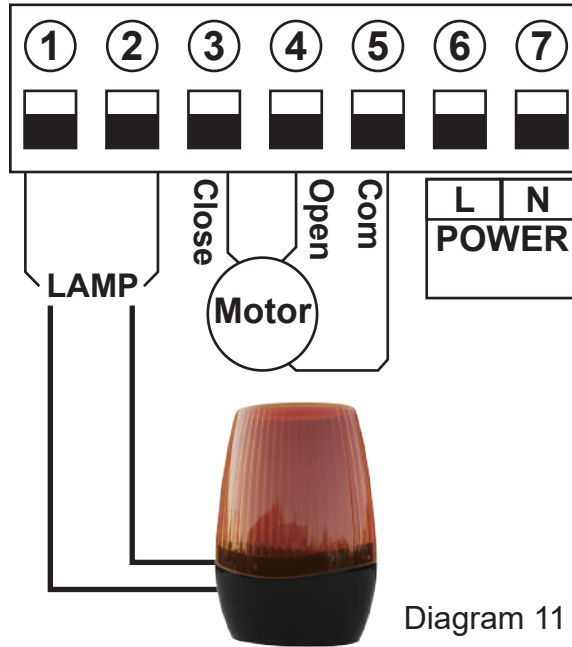


Diagram 11

Terminal ① and ② is for flashing light .

9.4 Connect to infrared sensor.(Please see DIAGRAM 12)

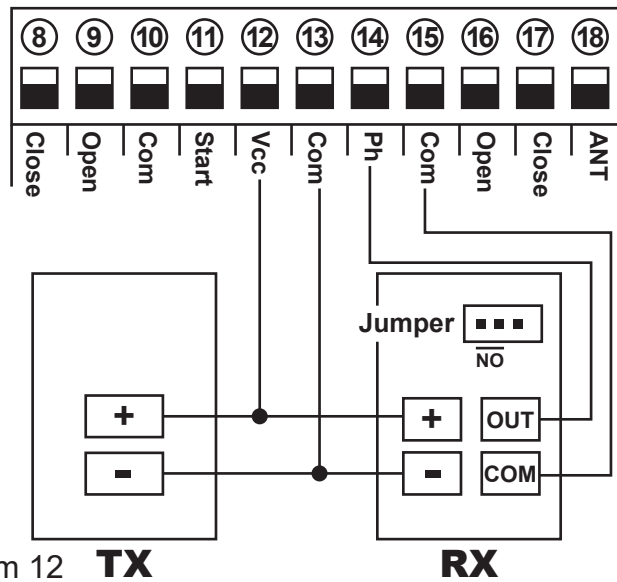


Diagram 12 **TX**

RX

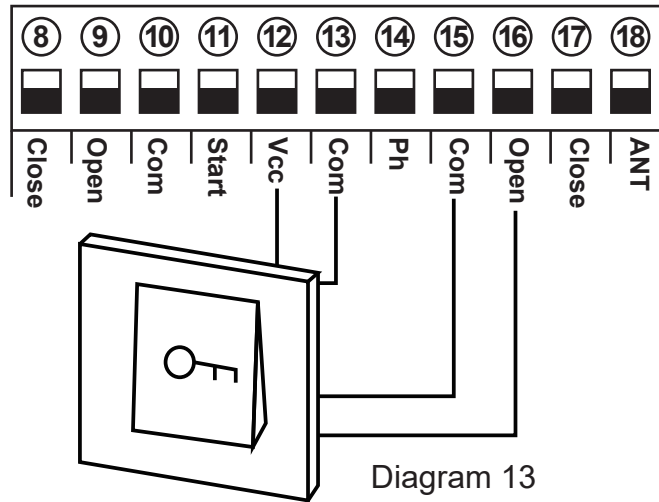
Firstly ,please find a little wire between terminal ⑭ and ⑮,and remove it.

Then, connect terminal ⑮ to the “COM “of photocell RX. connect terminal ⑭ to the “OUT “of photocell RX.

Terminal ⑫ and ⑬ is supplying power for external device. So, connect terminal ⑫ to the “+ “of photocell RX and TX. connect terminal ⑬ to the “-“of photocell RX and TX.

Please note: the sliding gate control board is factory set to connect NO mode of photocell, So please keep the jumper on the NO, as picture DIAGRAM 11 show! And if you want photocell to be NC mode, then try to through the dip switch to adjust the mode.

9.5 Connect to open device. (Please see DIAGRAM 13)



Example for push button

Terminal 12 and 13 connect to push button. Terminal 15 and 16 to supply power for push button

10.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 circuit 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.

11.Trouble Shooting

Problem	Possible causes	Repair method
Gate fails to operate	<ol style="list-style-type: none"> 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 	Recovery To restore power Change the fuse Detection or change Detection and Repair Detection and Repair
Working distance of remote control reduced	<ol style="list-style-type: none"> 1. Low battery power or damaged 2. Interference from equipment using the same frequency 3. The receiver of controller was damaged 	Replace battery Wait eliminate interference Replace the control board
Gate fails to stop at start or end position	<ol style="list-style-type: none"> 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. 	Replace toggle switch or remove obstruction Insert and fixed it Adjust of limit switch(J1)
Press open and close key of motor, but cant working and operate	<ol style="list-style-type: none"> 1. Blocked sensitivity is too high(set too big) 2. The gate has lifted off the track and disengaged the drive gear from the rack 	Make blocked sensitivity lowered,and check gear and racks can operate normally. Maintenance and replace.