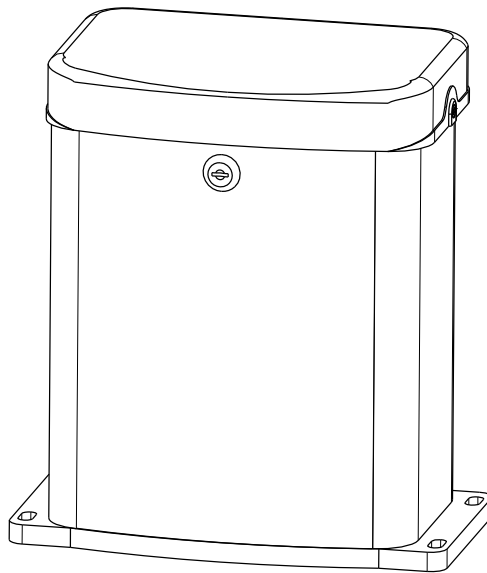


---

# **PY300DC**

## **Sliding Gate Opener**

### **User Manual**



---

Dear users,

Thank you for choosing this product. Please read this manual carefully before installation and use. Please do not forget to include this manual if you send the product to a third party.

## 1. Safety Instruction



Please make sure that the power voltage being used matches with the supply voltage of gate opener (AC110V or AC220V); kids are not allowed to touch the control devices or the remote-control unit.

The remote-control unit is single button mode or three button mode (please refer to the instructions of the remote control in accordance with the actual gate opener type). The indicator light on the remote-control unit will flicker when its button is pressed. Main engine and gate can be unlocked with a disengagement wrench and the gate can be manually operated after disengagement.

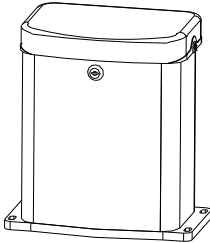
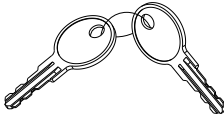
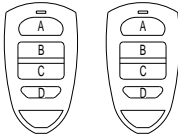

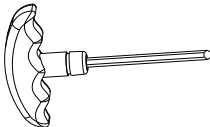
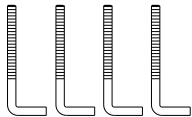
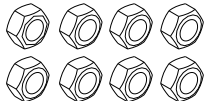
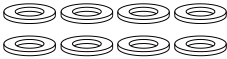

Please make sure that nobody is around the main engine or gate when the switch is operated.

Please temporarily stop using the product if the main engine needs to be repaired or regulated. The installation and maintenance of the product must be carried out by professionals.



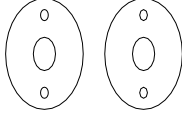
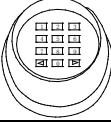
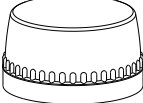
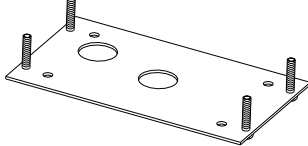


Please read this manual carefully before installing、 using、 maintaining or repairing it. Without following this manual, any injury or property losses caused by improper use or unauthorized modification is out of the responsibility of our company.

## 2. Packing List (standard)

No.	Picture	Name	Quantity
1		Main engine	1
2		Manual release key	1
3		Remote control	2
4		Accessories box	1
4-1		Manual release bar	1
4-2		Foundation bolt M8	4
4-3		Nut M8	8
4-4		Flat washer Ø8	4-6
4-5		Spring washer Ø8	4-7

## 2. Packing List (optional)

No.	Picture	Name	Quantity
1		Steel gear rack	1m/pc
2		Nylon gear rack	1m/pc
3		Infrared sensor	1
4		Wireless keypad	1
5		Alarm lamp	1
6		Mounting plate	1

## 3. Technical parameters

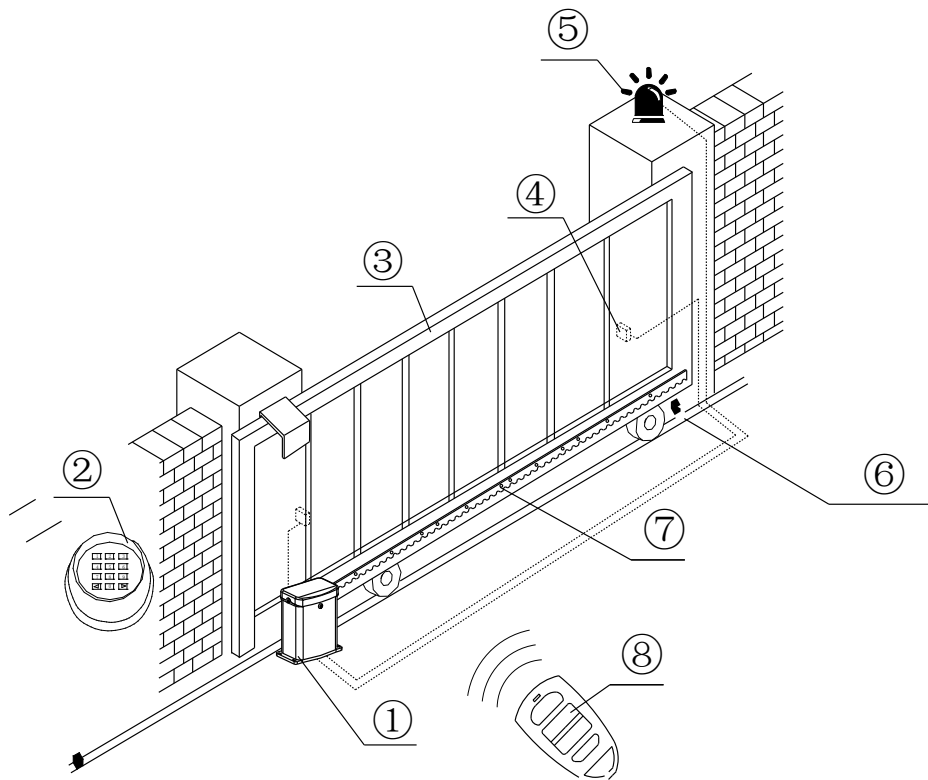
Model	PY300DC
Power supply	220V/50Hz;110V/60Hz
Motor power	100W
Gate Moving speed	13m/min
Maximum weight of gate	300Kg
Remote control distance	≥30m
Remote control mode	Single button mode
Limit switch	Electronic limit switch
Noise	≤60dB
Working duty	S2, 20min
Recording of up remote controls	20
Frequency	433.92 MHz
Working temperature	-20°C ~ +70°C

Storage battery	24V 4.5Ah
Package weight	11.32Kg

## 4. Installation

PY300DC sliding gate opener is applicable to gate weight less than 300kg, and length of the sliding gate less than 8m. The drive mode adopts the rack and gear transmission. This gate opener must be installed inside the enclosure or yard for protection.

### 4.1 Installation drawing

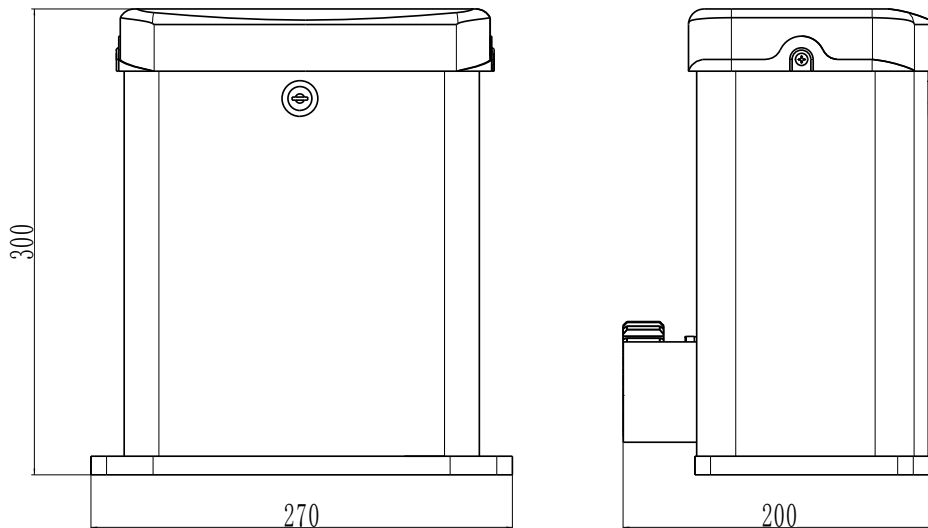


**Figure 1**

- ① Gate opener; ② Wireless keypad (optional); ③ Gate; ④ Infrared sensor (optional);  
 ⑤ Alarm lamp (optional); ⑥ Safety stop block; ⑦ Gear rack; ⑧ Remote control;

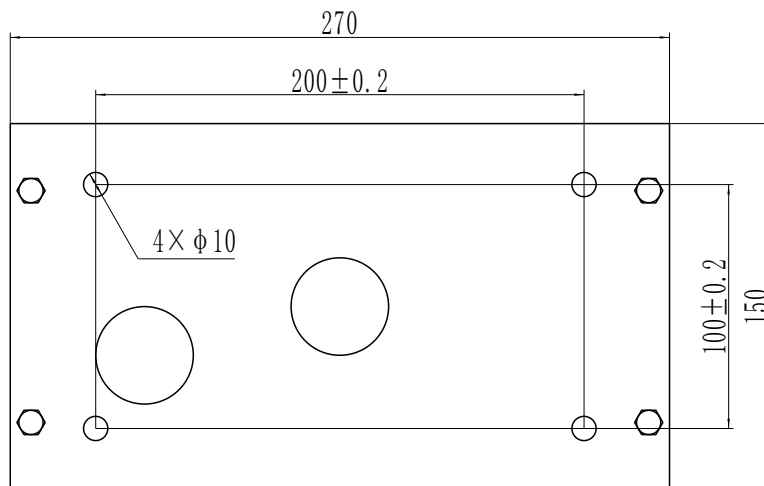
### 4.2 Size of main engine and accessories

#### 4.2.1 Size of main engine



**Figure 2**

#### 4.2.2 Size of mounting plate



**Figure 3**

### 4.3 Installation procedures

#### 4.3.1 Preparation work before installation

Please make sure that the sliding gate is correctly installed, the gate rail is horizontal, and the gate can be manually moved smoothly before installing the gate opener.

#### Cable installation

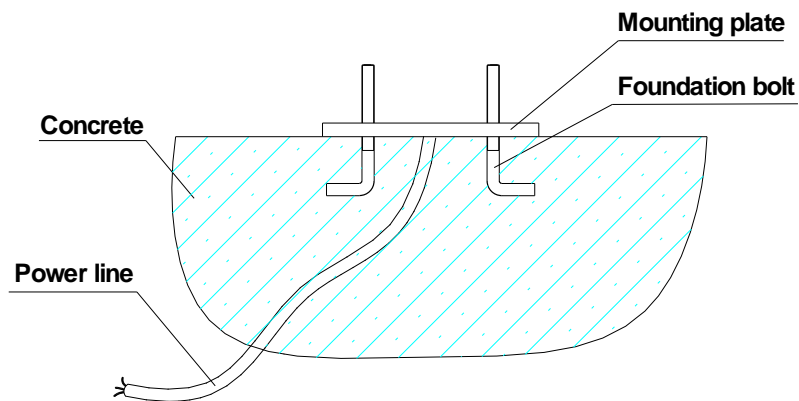
In order to guarantee the normal operation of the gate opener and protect the cables from damages, please bury the motor & power cable and controlling cable separately with two PVC tubes.

#### Concrete pedestal

Please precast a concrete pedestal with the size can be 400mm x 250mm, depth be 200mm in advance, so as to firmly install PY300DC gate opener. **Please make sure the distance between the gate and gate opener is appropriate before casting the pedestal.**

---

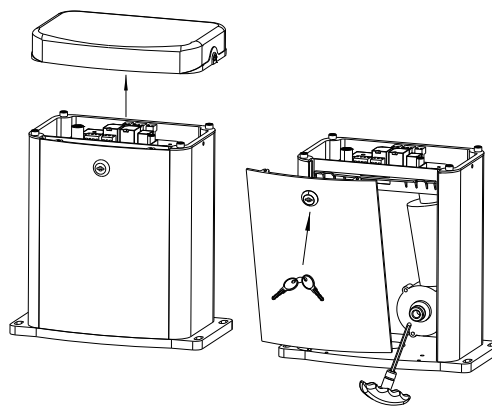
## Embedded screws



**Figure 4**

### 4.3.2 Main engine installation

- Dismantle the plastic housing on the main engine before installation and keep relevant fasteners properly;
- Please prepare the power line for connecting the mounting plate to the main engine (the number of power supply cable cores should not be less than 3 PCS, the sectional area of cable core should be over 1.5mm<sup>2</sup> and the length should be determined by users according to the situation on installation spot)
- Please unlock the main engine before installation, the unlock method is: first remove the upper cover, and then insert the key to open the shell cover. Insert the manual release bar into the release hole and clockwise rotation till the output gear can be rotated easily, which means the motor has been released.



**Figure 5**

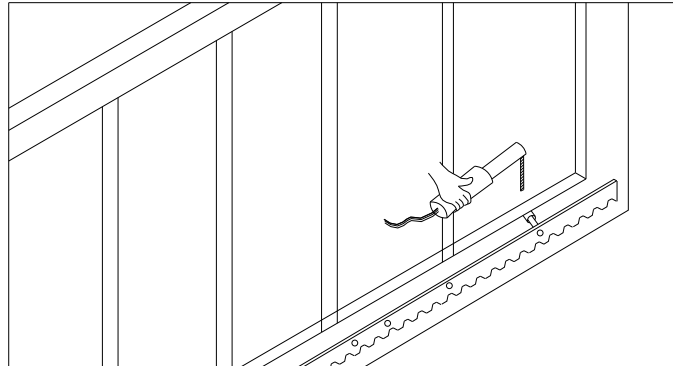
### 4.3.3 Gear rack installation

- Fix the mounting screws to the rack.
- Put the rack on the output gear, make the rack engage with the output gear then weld the mounting screw to the gate (each screw with one solder joints firstly).
- Manually move the gate (gate should be moved smoothly after motor unlocked) to check

---

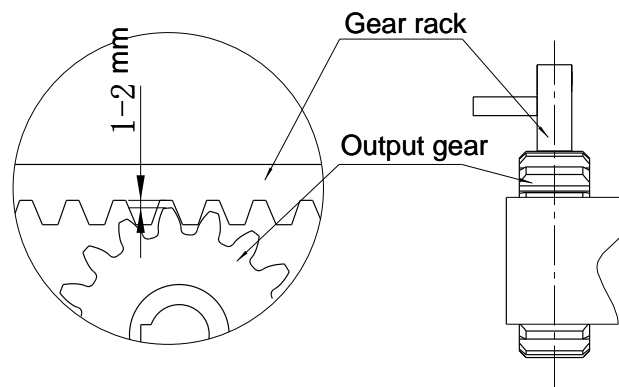
whether there is a fit clearance between rack and output gear, as shown in Figure 7.

- Weld all the mounting screws to the gate firmly.
- Make sure that all racks on the same straight line.
- Pull the gate after installed, make sure the entire trip is flexible without any stuck.



**Figure 6**

The fit clearance of output gear and rack is shown in Figure 7 below:



**Figure 7**



### **Warnings**

- To ensure safety, install safety stop blocks on both ends of the rails to prevent the gate from running out of the rail. Before installing the main engine, make sure that the safety stop blocks are in place and whether it has the function of preventing the gate from running out of the rail or safety range.
- Please make sure that the main engine and its components have good mechanical properties, and the gate can be operated flexibly when manually moved before installing the main engine.
- Please note that for this product, one control can only drive one main engine, otherwise, the control system will be damaged.
- Earth leakage circuit breaker must be installed in where the gate movement can be seen, and the minimum mounting height is 1.5m to avoid being touched by children.
- After installation, please check whether the mechanical property is good or not, whether gate movement after manual unlocking is flexible or not, whether the installation for infrared sensor (optional) is correct and effective.



### 4.3.4 Control board wiring

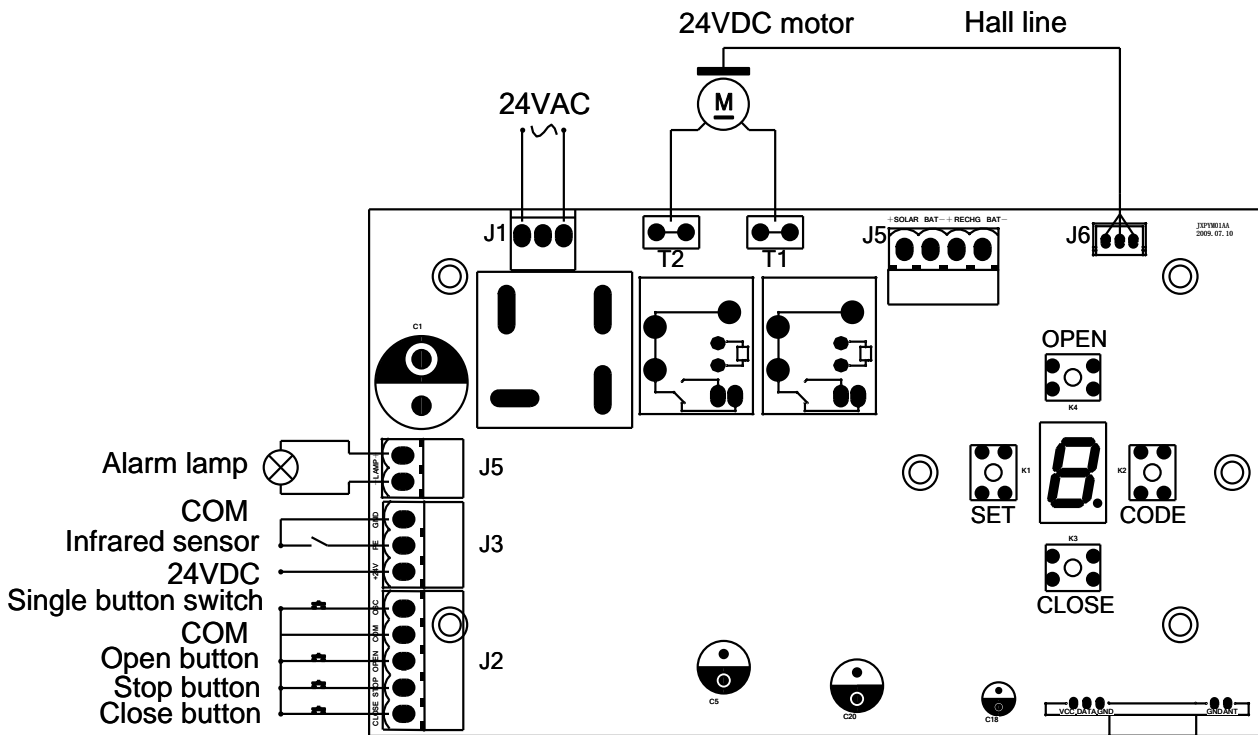


Figure 8

### Transformer wiring:

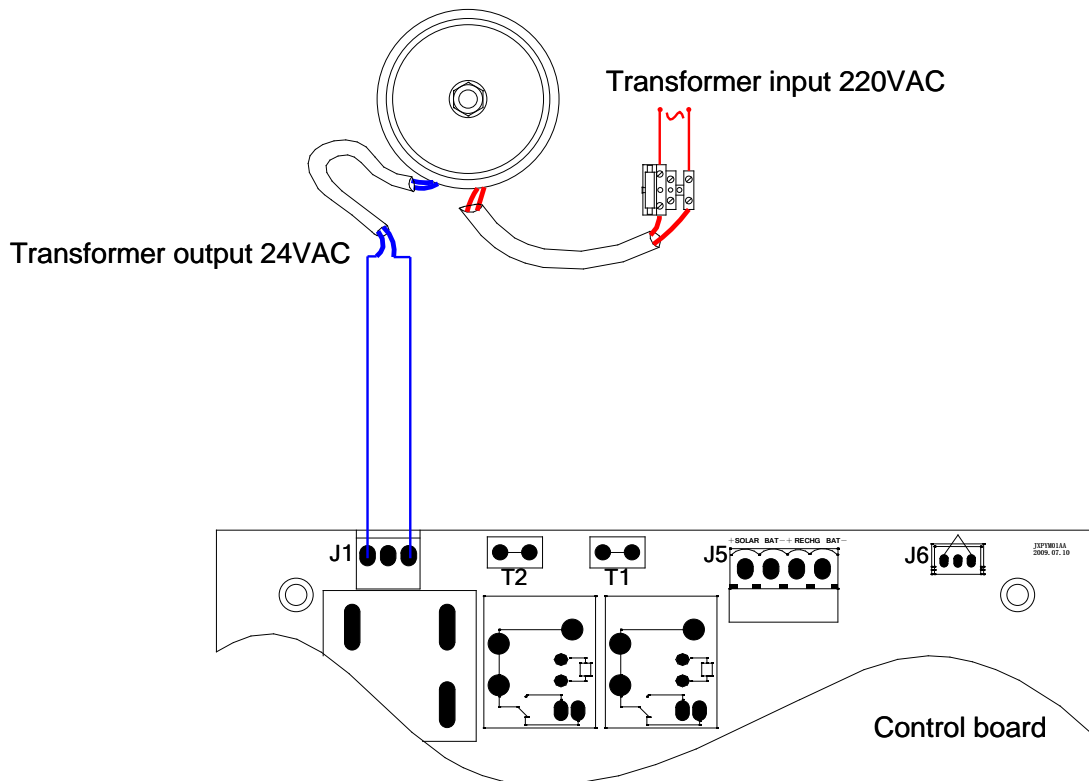


Figure 9

### Control board wiring instruction:

24VDC motor: black wire to “T1”, red wire to “T2”. If the gate opening direction is wrong, please exchange T1 and T2.

J1: Transformer secondary (AC24V / 3.3A);

J2: Single button (OSC and COM);

Three button (OPEN, CLOSE, STOP, COM);

J3: Infrared sensor (PE and COM);

Output DC power (24V and GND);

J4: Alarm lamp, voltage 24VDC;

J5: Solar panel and storage battery;

J6: Hall line.

### Set open and close positions:

1. Press and hold SET until number “1” is indicated on the LED display.
2. Press and hold OPEN to reach the desired open position (press OPEN button, the door must in open direction, otherwise exchange the two motor wires).
3. Press the SET to confirm the open position, LED display indicates “2”.
4. Press and hold CLOSE to reach the desired close position.
5. Press the SET to confirm the close position.
6. The door will do a complete open and close cycle.

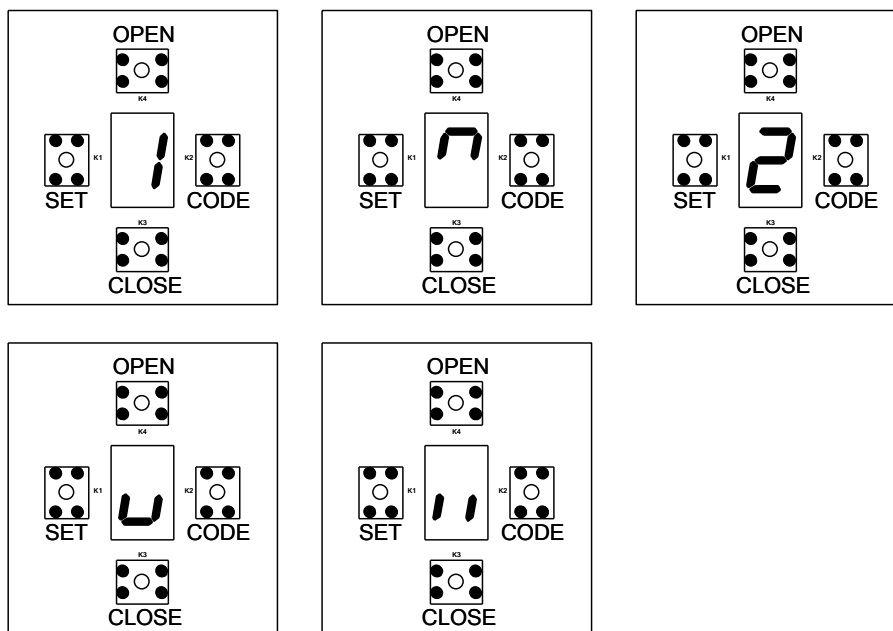


Figure 10

### Set automatic close time:

1. Press and hold OPEN until “—” is indicated on the LED display.
2. Press OPEN to increase the automatic close time, press CLOSE to decrease the time.
3. Set time to “0”, the automatic close function will disable.
4. Press SET to confirm the setting.
5. Add 10 seconds per number.

**NOTE: Automatic close function is available only when the door is in fully opened position.**

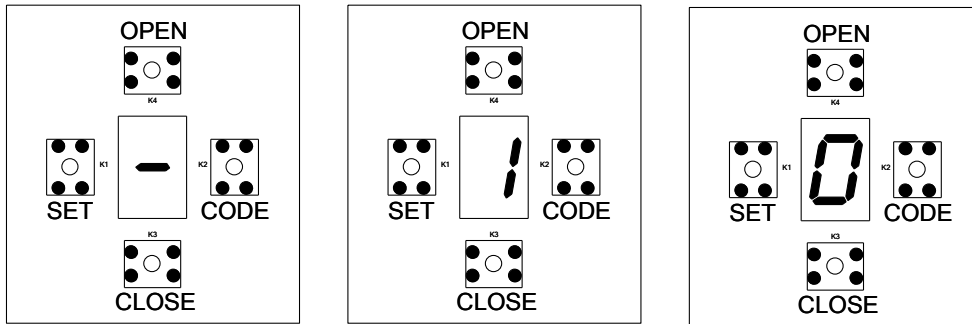


Figure 11

**Set obstruction force:**

If the door meets an obstruction during closing, it will stop and reverse about 15cm~20cm.

1. Press and hold SET. The LED will display number from “1” to “4”, when the number “3” appears on the LED display, release the SET.
2. Press OPEN to increase the obstruction force, the maximum force is level 9. Press CLOSE to decrease force, the minimum force is level 1.
3. Press SET to confirm.

**NOTE: Please adjust the obstruction force according to door weight, so that the obstruction force can be in a state of security protection, otherwise it may cause security risks.**

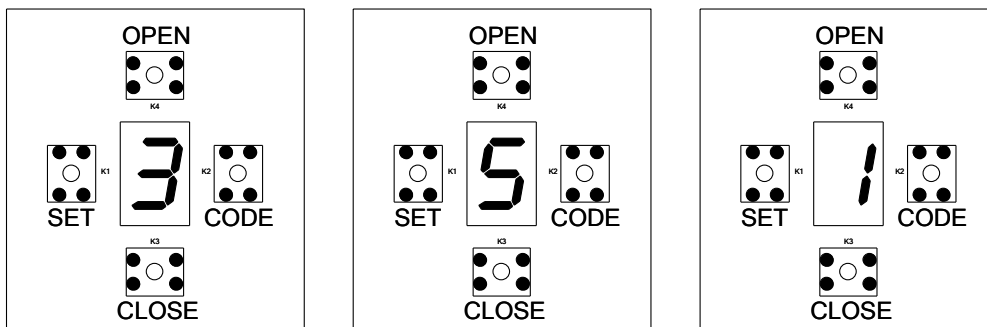


Figure 12

**Set infrared protection function:**

1. Press and hold CLOSE until “—” is indicated on the LED display
2. Press OPEN, LED display indicates “H”, the infrared protection function is enabled.
3. Press CLOSE, LED display indicates “||”, the infrared protection function is disabled.
4. Press SET to confirm. (When not use photocell, please set to “||” status).

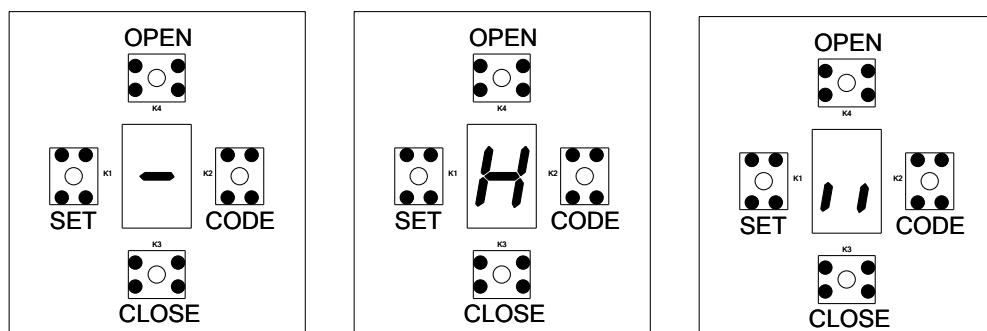


Figure 13

Infrared photocell function: In the closing process, when infrared ray of the photocell is covered by people or objects during its detection range, the gate will open immediately for security protection. The distance between photocell receiver and photocell emitter should be more than 2 meters, otherwise will affect the induction of the photocell.

Wiring as below, the photocell output signal must be N.C..

Infrared receiver connecting

Infrared emitter connecting

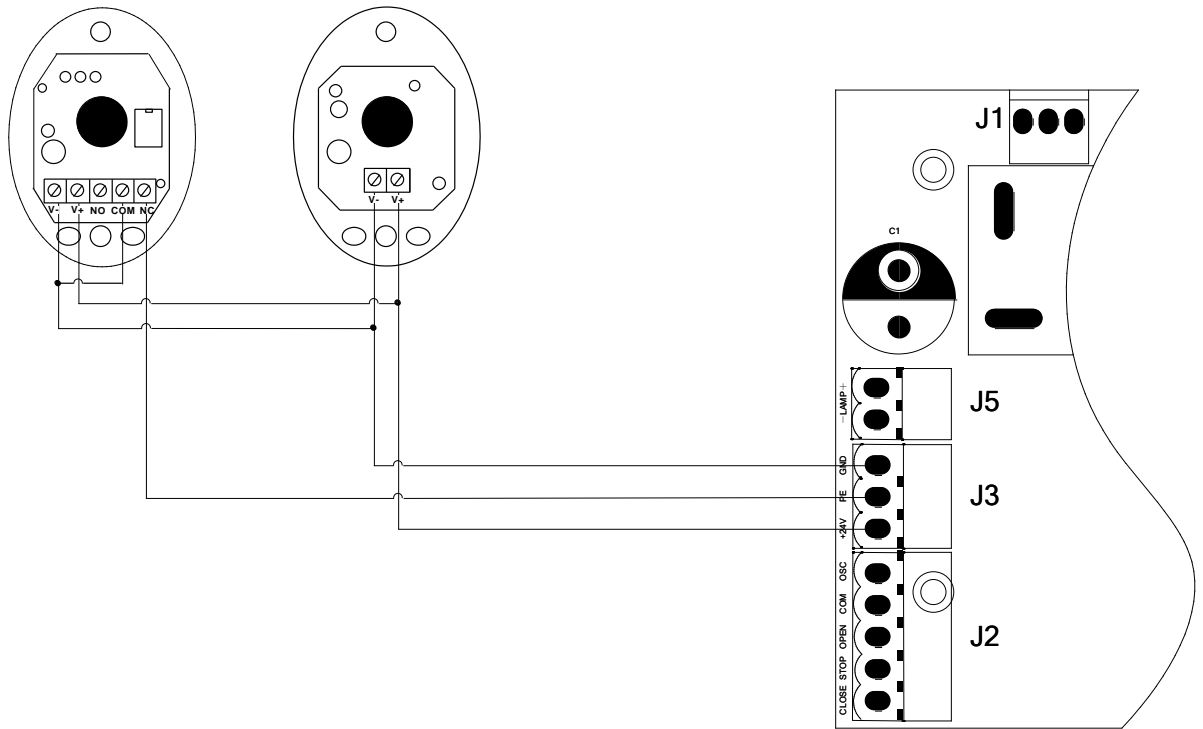


Figure 14

**Add extra remote control:**

1. Press CODE, the red dot on the LED display will be on.
2. Press one of the transmitter's buttons which you want to use, and then press the same button again after one second.
3. The dot on the LED display will flash then turn off.
4. "||" is indicated on the LED display, which means the learning process is finished. A maximum of 20 remote controls can be learned.

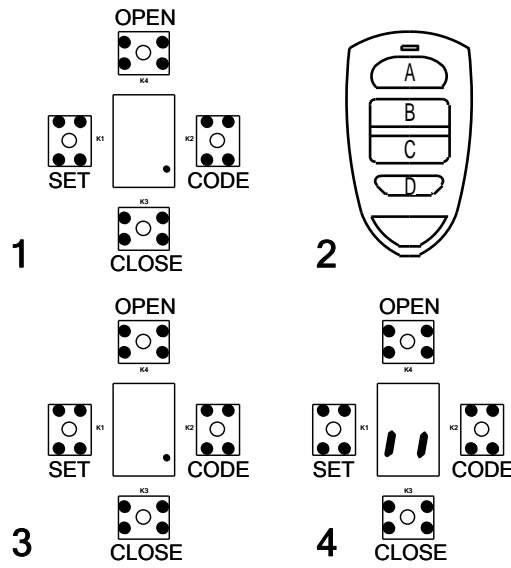


Figure 15

**Delete remote control:**

Press and hold CODE until “C” is indicated on the LED display. This indicates that all remote controls that learned previously have been deleted.

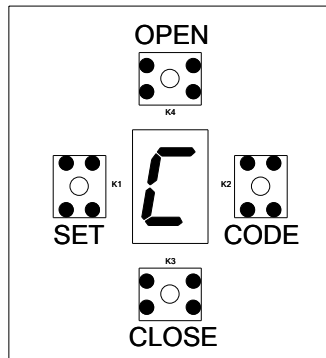
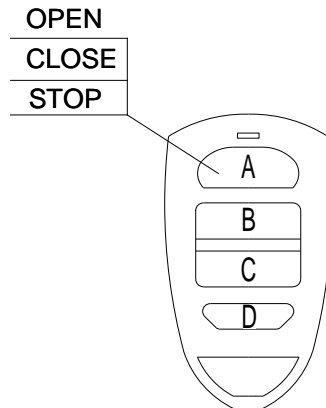


Figure 16

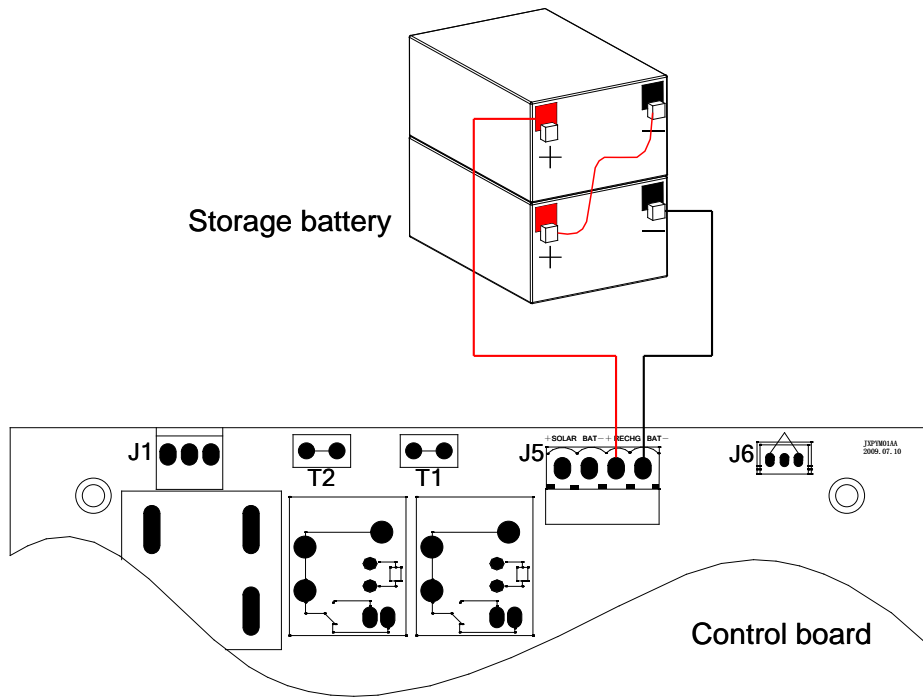
**Remote control:**



Remote control

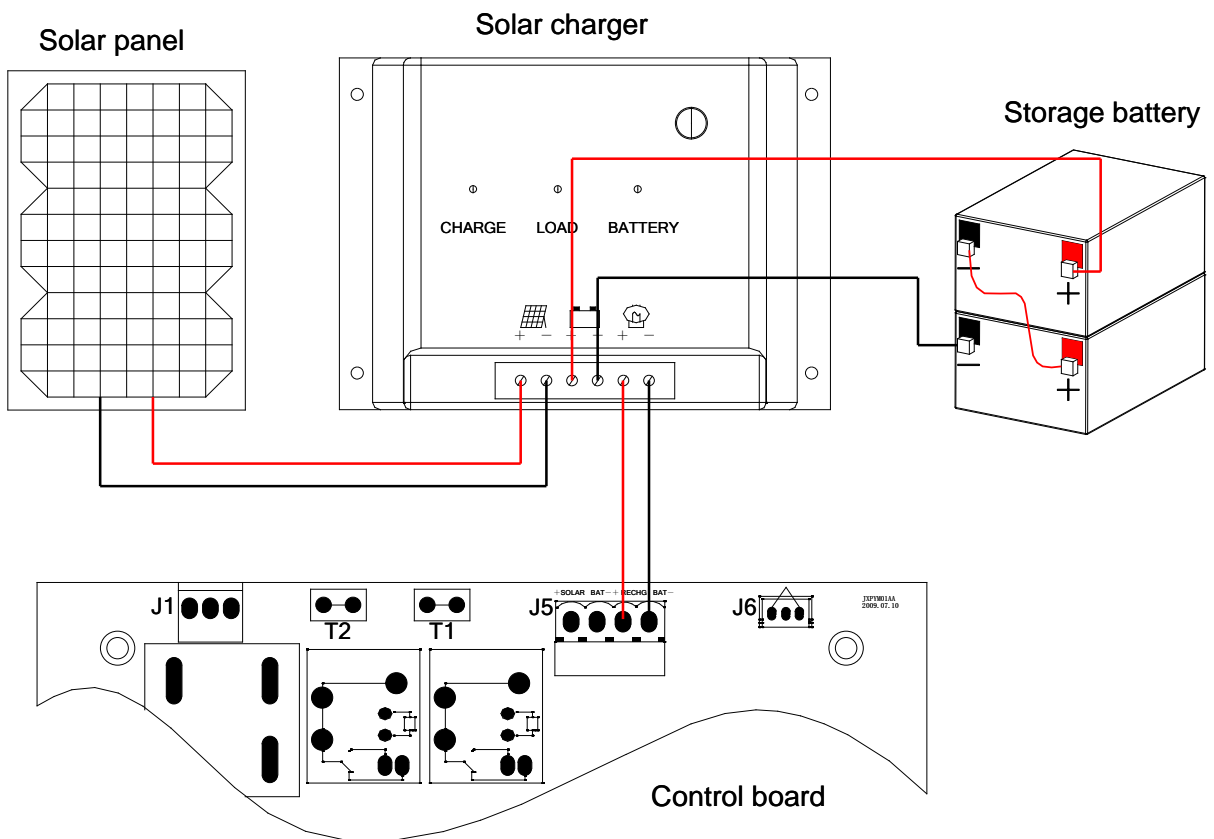
Figure 17

**Storage battery wiring:**



**Figure 18**

**Solar panel wiring:**



**Figure 19**

---

## 5. Others

### 5.1 Maintenance

Check whether the gate operates normally every month.

For the sake of safety, each gate is suggested to be equipped with infrared protector, and regular inspection is required.

Before installation and operation of the gate opener, please read all instructions carefully.

Our company reserves the right to change the instruction without prior notice.

### 5.2 Troubleshooting

<b>Problems</b>	<b>Possible Reasons</b>	<b>Solutions</b>
The gate cannot open or close normally, and LED does not light.	<ol style="list-style-type: none"><li>1.The power is off.</li><li>2.Fuse is burned.</li><li>3.Control board power wiring with problem.</li></ol>	<ol style="list-style-type: none"><li>1.Switch on the power supply.</li><li>2.Check the transformer input interface fuse, change the fuse if burnt.</li><li>3.Re wiring according to instructions.</li></ol>
The gate can open but cannot close.	<ol style="list-style-type: none"><li>1.Infrared protection function is disabled, but not connect photocell.</li><li>2.Photocell wiring with problem.</li><li>3.Photocell mounting with problem.</li><li>4.Photocell is blocked by objects.</li><li>5.Sensitivity of obstacle is too high.</li></ol>	<ol style="list-style-type: none"><li>1.Connect photocell or disable infrared protection function.</li><li>2.If not connect photocell, please make sure that the infrared port and GND short circuit; if connect infrared sensor, please make sure the wiring is correct and the photocell is N.C.</li><li>3.Make sure that the photocell mounting position can be mutually aligned.</li><li>4.Remove the obstacle.</li><li>5.Reduce the sensitivity of obstacle.</li></ol>
Remote control doesn't work.	<ol style="list-style-type: none"><li>1.Battery level of the remote control is low</li><li>2.Remote control learning is not completed</li></ol>	<ol style="list-style-type: none"><li>1.Change the remote control battery</li><li>2.Re-conduct remote control learning</li></ol>
Press OPEN, CLOSE button, the gate is not moving, motor has noise.	Gate moving is not smoothly.	According to the actual situation to adjust the motor or the gate.

Leakage switch tripped.	Power supply line short circuit.	Check wiring.
Remote control working distance is too short.	Signal is blocked.	Connect external receiver antenna, 1.5 meters above ground.
The gate moves to the middle position to stop or reverse.	1.Obstruction force is too small. 2.Gate meets obstacle.	1.According to the instruction to increase the obstruction force. 2..Remove the obstacle.
Gate opens automatically	Automatic close function has been turned on but with incorrect opening direction.	Please refer to the attentions under 4.3.4 to change the opening direction.

## Warranty

### Warranty Ordinance

1. To repair against this warranty card and invoice during the warranty period.
2. Warranty period: 1 year after the date of invoice.
3. Without unauthorized dismantling, any product broken or damage due to quality problem, we'll offer the repair service for free or replace for free.
4. The malfunction and damaged caused by incorrect use or man fault is not covered by this warranty.

### Maintenance Record

Check Date	Check Content	Maintained by