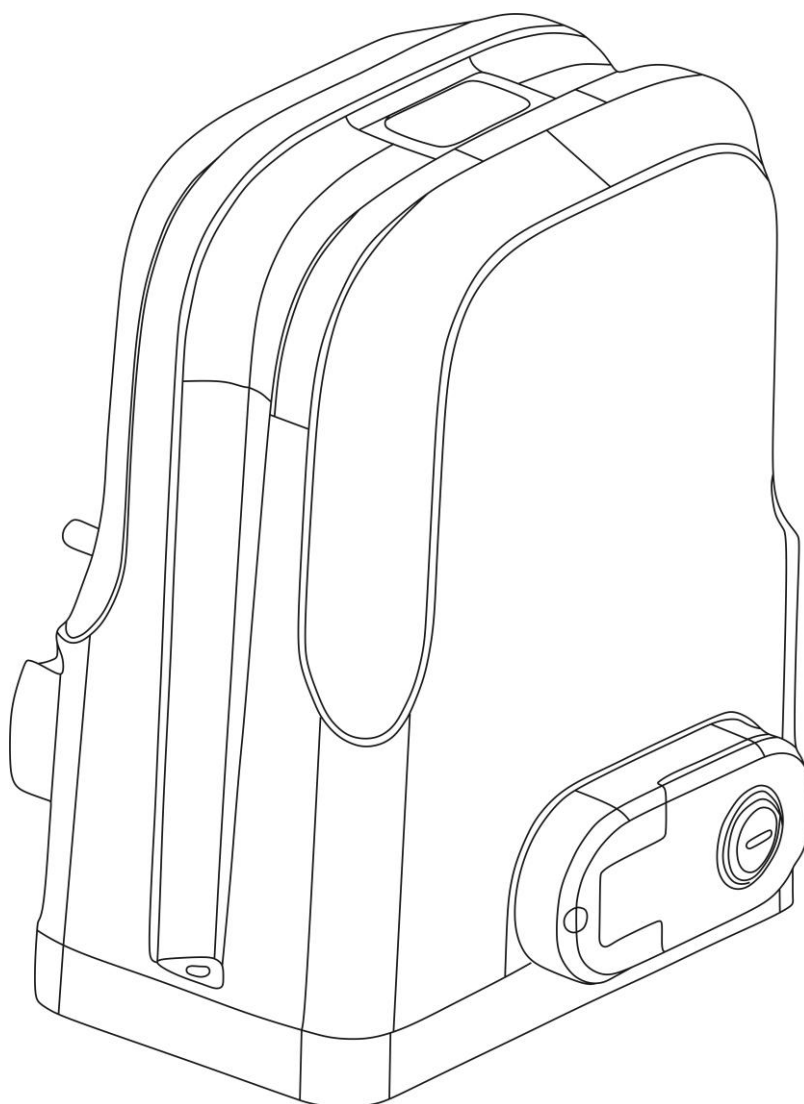




Sliding Gate Opener SLG5280X User Manual (With control board SL0720)



Dear users,

Thank you for choosing this product. Please read the manual carefully before assembling and using it. Please do not leave out the manual if you send this product to a third party.

1. Safety Instruction




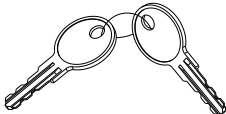
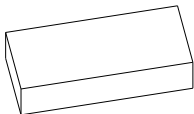
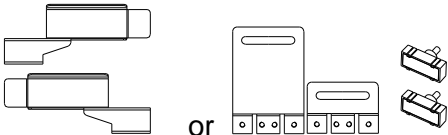
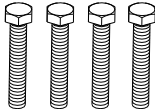
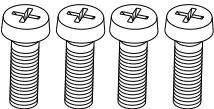
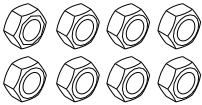
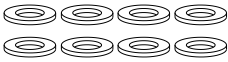

Please ensure that the using power voltage matches with the supply voltage of gate opener (AC110V or AC220V); kids are forbidden to touch the control devices or the remote-control unit.

The remote-control unit is controlled by a 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 the button on it is pressed. Main engine and gate can be unlocked by disengagement wrench and the gate can move with manual operation after disengagement.

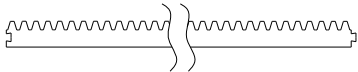
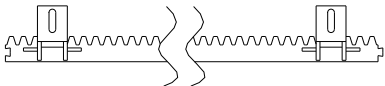
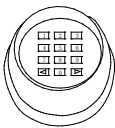
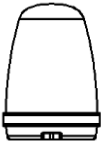
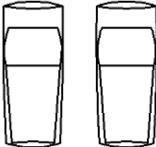
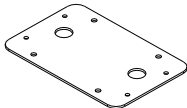
Please ensure that no one is around the main engine or gate when the switch is operated and it is usually demanded to examine the stability of installation. Please temporarily stop using if the main engine needs repairing or regulation.

The installation and maintenance of the products must be carried out by professionals.

2. Packing List (standard)

No.	Picture	Name	Quantity
1		Main engine	1
2		Manual release key	2
3	According to the model already choose	Remote control	2
4		Spring limit switch accessories box / Magnetic limit switch accessories box	1
4-1		Spring limit switch block / Magnetic limit switch block	1
4-2		Outer hexagonal bolt M8	4
4-3		Spring limit switch block mounting screw M6X10 / Magnetic limit switch block mounting screw M6X18	4
4-4		Nut M8	8
4-5		Flat washer Ø8	8
4-6		Spring washer Ø8	4

Packing list (Optional)

No.	Picture	Name	Quantity
1		Metal rack	1m/pc
2		Nylon rack	1m/pc
3		Keypad (different models are optional)	1pc
4		Flash lamp (different models are optional)	1pc
5		Photocell (different models are optional)	1pair
6		Mounting plate	1piece

3. Technical parameters

Model	SLG52801	SLG52802	SLG52803	SLG52804
Power supply	110VAC/50Hz	110VAC/50Hz	220VAC/50Hz	220VAC/50Hz
Motor power	280W	280W	280W	280W
Gate moving speed	13m/min	13m/min	13m/min	13m/min
Maximum weight of gate	600Kg	600Kg	600Kg	600Kg
Remote control distance	≥50m	≥50m	≥50m	≥50m

Remote control mode	Single button mode / Three button mode	Single button mode /Three button mode	Single button mode / Three button mode	Single button mode /Three button mode
Limit switch	Magnetic limit switch	Spring limit switch	Magnetic limit switch	Spring limit switch
Noise	≤56dB	≤56dB	≤56dB	≤56dB
Output torque	14N.m	14N.m	14N.m	14N.m
Output shaft height	46mm	46mm	46mm	46mm
Frequency	433.92 MHz	433.92 MHz	433.92 MHz	433.92 MHz
Working temperature	-20°C - +70°C	-20°C - +70°C	-20°C - +70°C	-20°C - +70°C
Package weight	10.10Kg	10.10Kg	10.10Kg	10.10Kg

4. Installation

SLG5280X sliding gate opener is applicable to gate weight less than 600kg, and length of the sliding gate should be less than 8m. The drive mode adopts the gear and rack transmission. This gate opener must be installed inside the enclosure or yard for protection.

4.1 Installation drawing

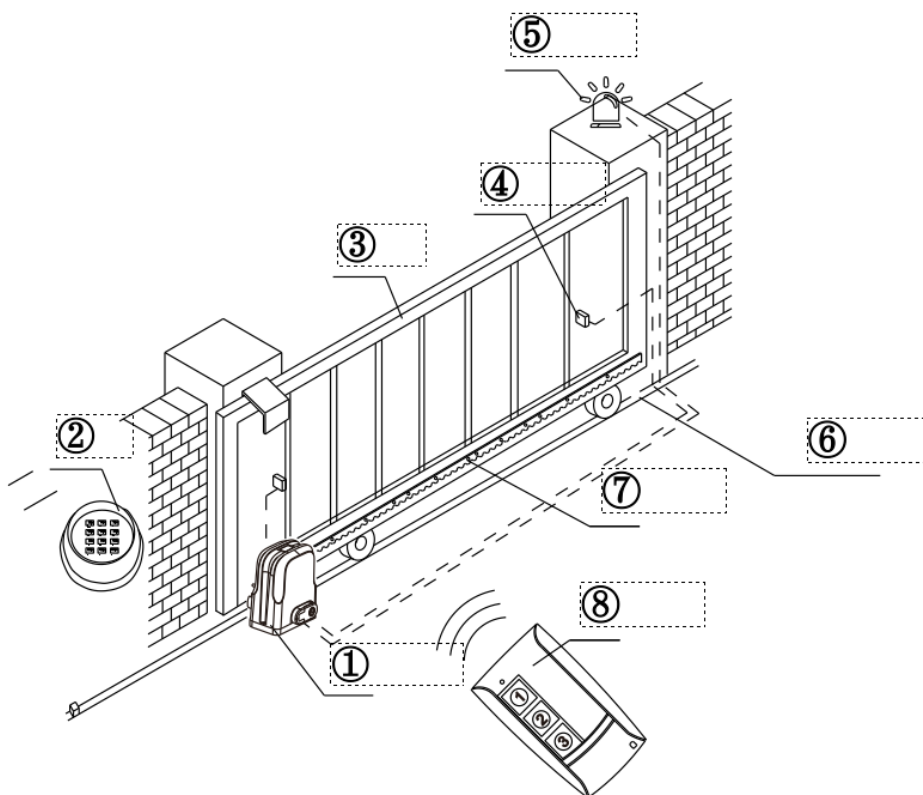


Figure 1

- ① Gate opener; ② Wireless keypad ; ③ Gate; ④ Infrared sensor;
 ⑤ Alarm lamp; 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

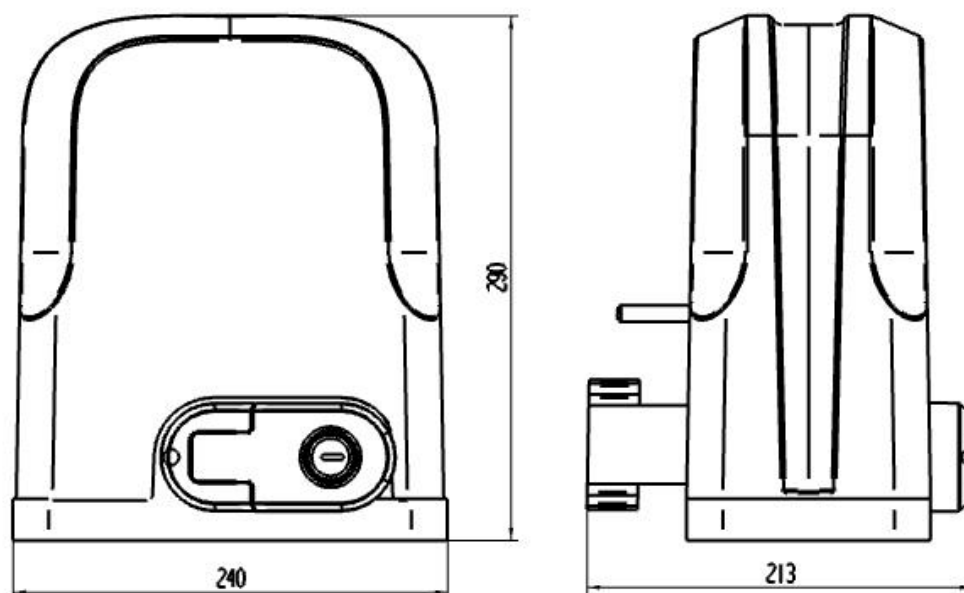


Figure 2

4.2.2 Size of mounting plate

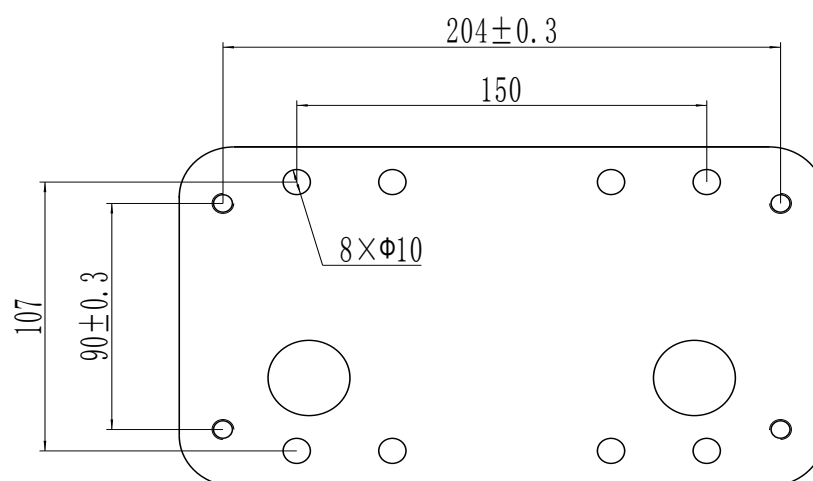


Figure 3

4.3 Installation procedures

4.3.1 Preparation work before installation

Please ensure that the sliding gate is correctly installed, the gate rail is horizontal, and the gate can

glide back and forth smoothly when moved by hands before installing the gate opener.

Cable installation

Please bury the motor & power cable and controlling cable with PVC tube, and use two PVC tubes to bury (motor & power cable) and (controlling cable) separately, so as to guarantee normal operation of the gate opener and protect the cables from damages.

Concrete pedestal

Please cast a concrete pedestal with the size of 400mm x 250mm and depth of 200mm in advance, so as to firmly install SLG5280X gate opener. **Please verify whether the distance between the gate and gate opener is suitable before casting the pedestal.**

Embedded screws

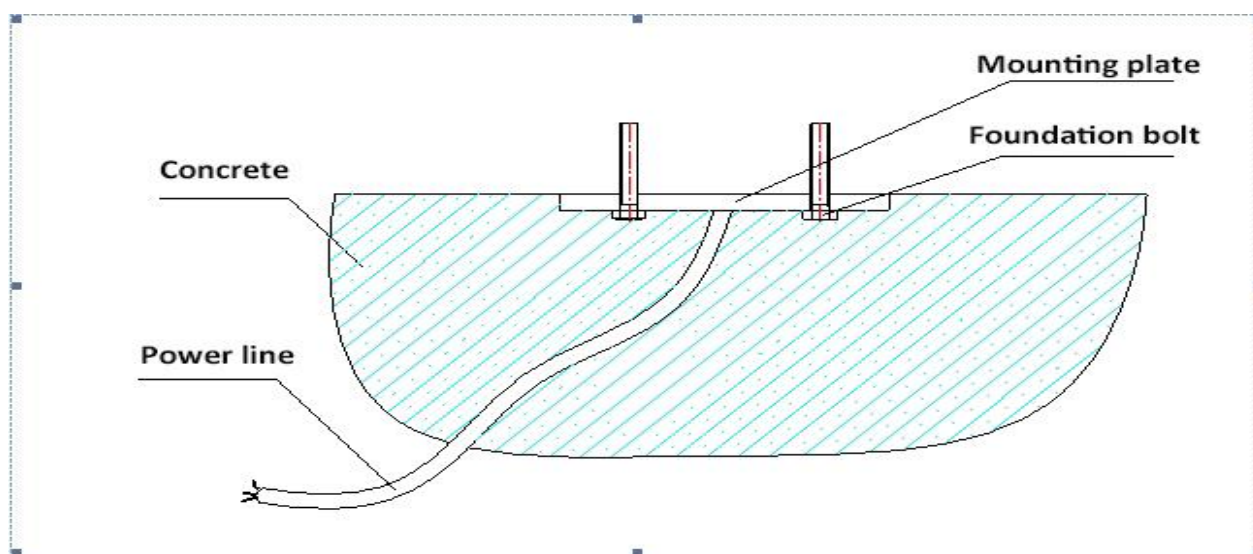


Figure 4

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 mounting plate and main engine (the number of power supply cable core shall not be less than 3 PCS, the sectional area of cable core shall not be lower than 1.5mm² and the length shall be determined by users according to the field situation) due to different installation environments;
- Please unlock the main engine before installation, the unlock method is: insert the key, and open the manual release bar till it rotates by 90° as shown in Figure 5. Then turn the output gear and the gear can be rotated easily;

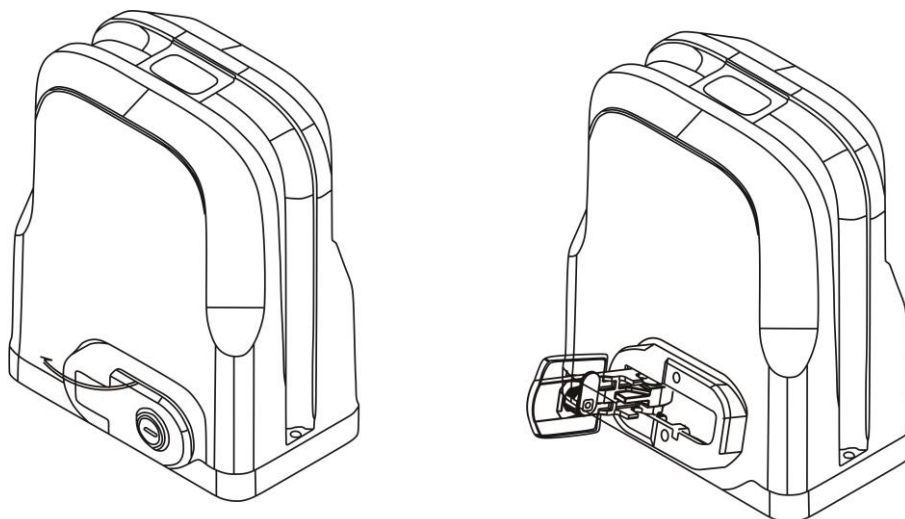


Figure 5: Turn on 90°

4.3.3 Gear rack installation

- Fix the mounting screws to the rack.
- Put the rack on the output gear, and weld the mounting screw to the gate (each screw with one solder joints firstly).
- Unlock the motor and can pull the gate smoothly.
- Please 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 no stuck.

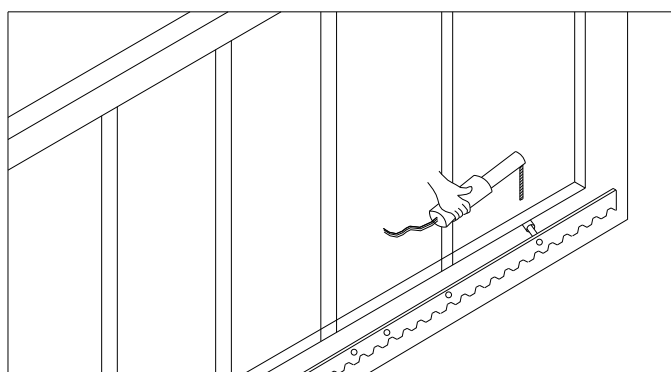


Figure 6

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

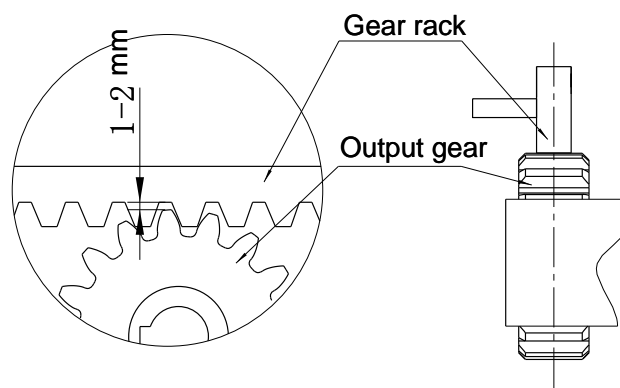


Figure 7



Warnings

- To ensure safety, install safety stop blocks on both ends of the rails to prevent the gate 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 moving out of the rail and out of the safety range.
- Please ensure that the main engine and its components have good mechanical properties, and the gate can operate flexibly when moved by hands before installing the main engine.
- In this product, one control can drive one main engine only, otherwise, the control system will be damaged.
- Earth leakage circuit breaker must be installed where the gate movement can be seen, and the minimum mounting height is 1.5m to protect it from being touched.
- After installation, please check whether the mechanical property is good or not, whether gate movement after manual unlocking is flexible or not, and whether the infrared sensor (optional) is installed correctly and effectively.

4.3.4 Limit switch adjustment

Spring limit switch - The installation site of spring limit switch is shown in Figure 8:

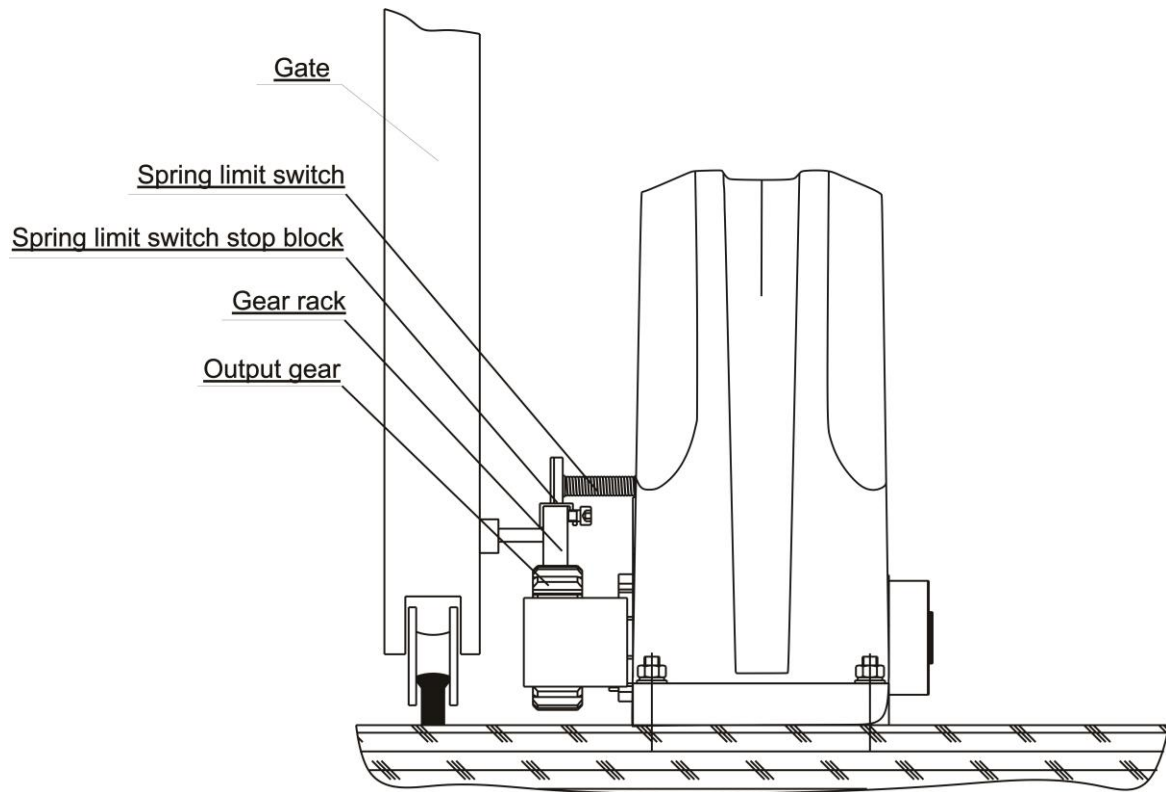


Figure 8

The installation of spring limit switch stop block is shown in Figure 9:

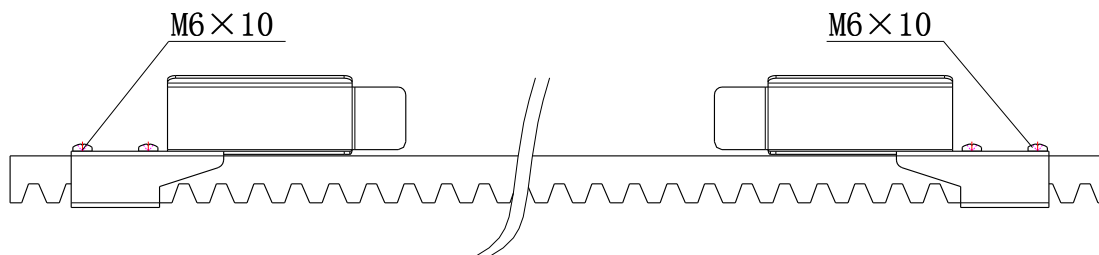


Figure 9

Magnetic limit switch - The installation site of magnetic limit switch is shown in Figure 10:

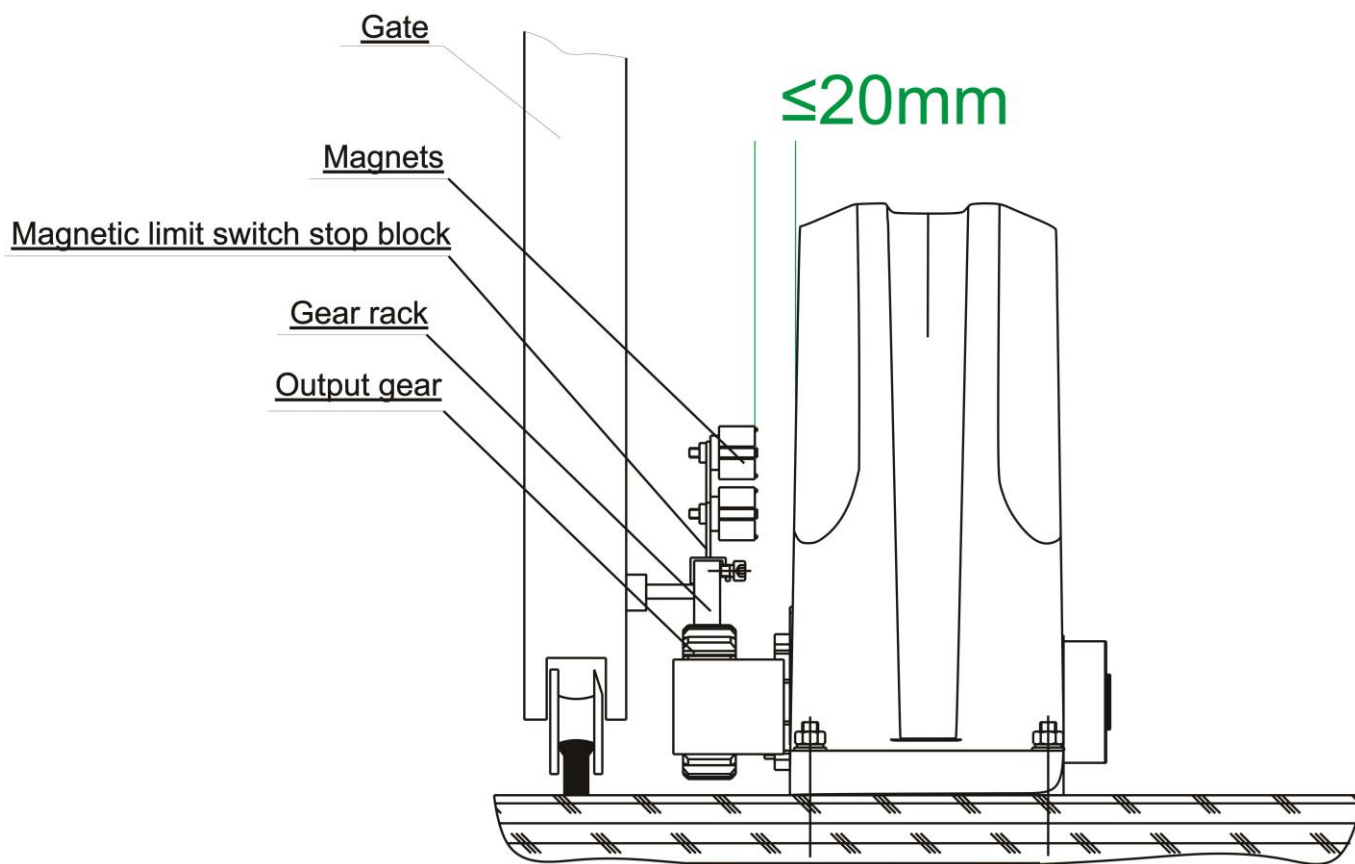


Figure 10

The installation of magnetic limit switch block is shown in Figure 11:

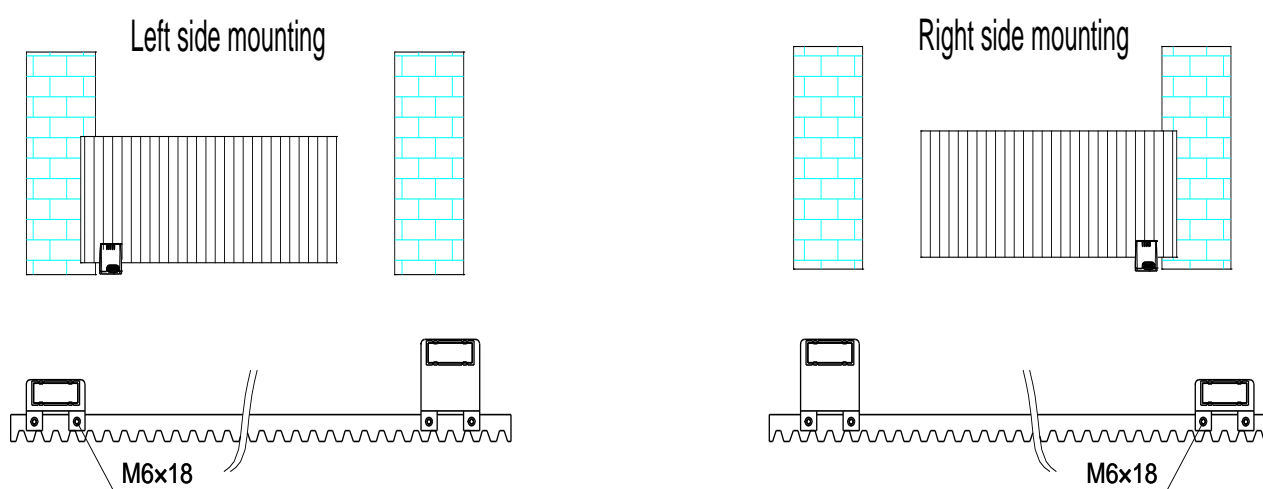


Figure 11

Note: The default setting is right side mounting. (According to actual situation, please refer to the “Note” of section 5.1 to adjust)

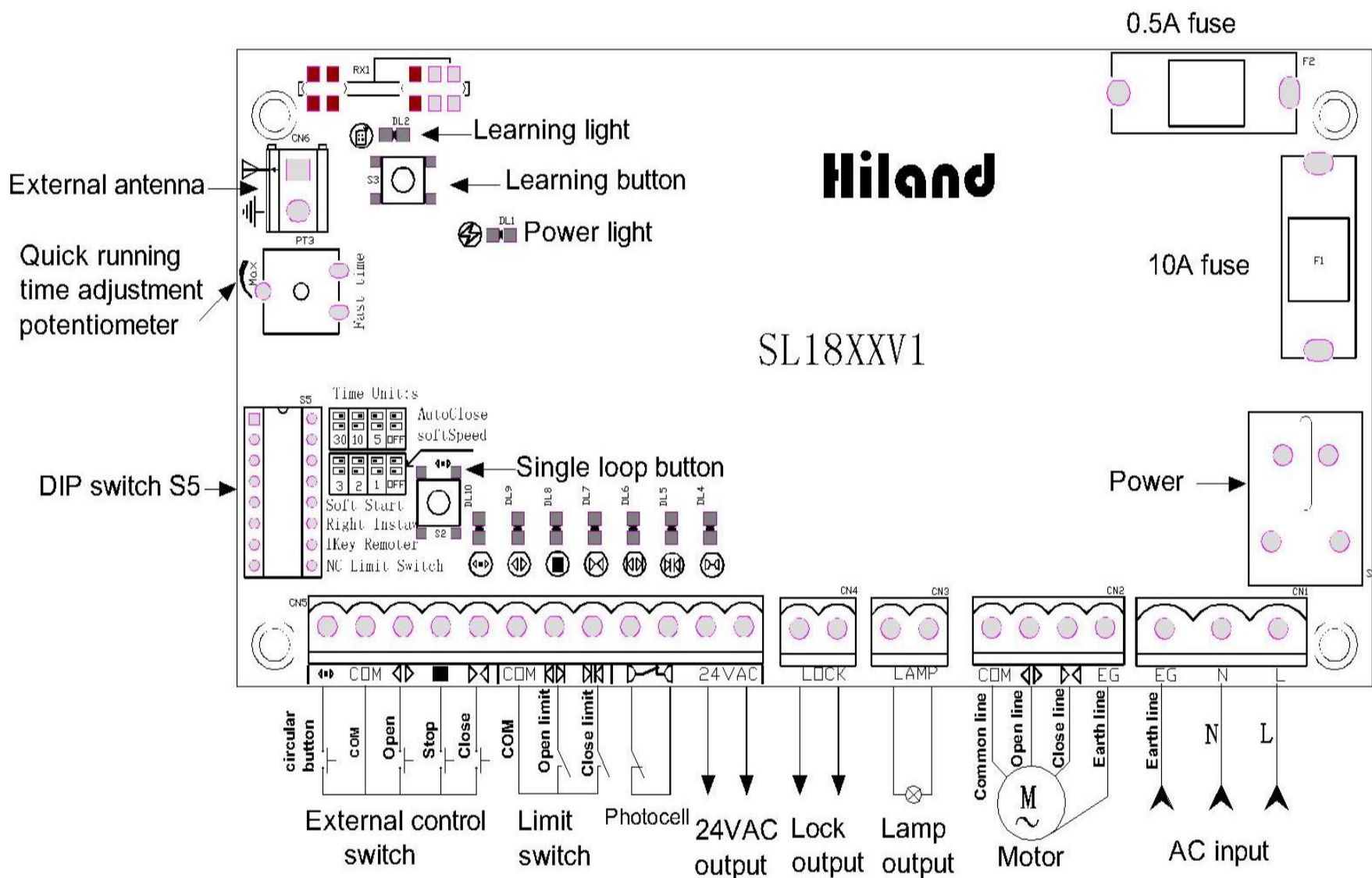
I Safety Instruction

- 1.1 For security, please read instructions carefully before initial operation; making sure that the power is off before connection.
- 1.2 Please clear the memory before initial operation. (Ref.: Erasing ALL learned/memorized Transmitter.
- 1.3 Do not learn the remote control when motor is operating in order to avoid mis-operation.
- 1.3 The received signal may be interfered by other communication devices. (e.g. the wireless control system with the same frequency range)
- 1.4 This product is only used for the equipment which will not cause life or property hazards when a breakdown happens or its security risks have been already eliminated
- 1.5 It should be applied in dry indoor place or in the electric appliance place.

II Technical Index

- 2.1 Working voltage: 220VAC/110VAC,50Hz/60Hz
- 2.2 Temperature range: -20°C to 60°C
- 2.3 Loading capacity : 1 HP 220VAC ; 0.5 HP 110VAC
- 2.4 Built-in fuse: electric circuit(0.5A); Motor(10A),Please exchange appropriate fuse according to loading capacity
- 2.5 Soft-start time:1S. Soft-stop time = 127s - quick running time
- 2.6 Quick running time: Adjustable from 3s to 120s ----PT3 is to set up
- 2.7 Frequency: 433.92MHz
- 2.8 Transmitter stored: 30PCS
- 2.9 Output voltage: AC24V
- 2.10 Output with electric lock: normally-closed contact
- 2.11 Output with flash lamp: AC220V/AC110V
- 2.12 External switch (open,stop,close in a loop)
- 2.13 External limit (DIP8 to select NO and NC)
- 2.14 External infrared (NC contact)
- 2.15 Auto close time is adjustable: (5S,10S,30S are optional by using DIP1,DIP2)
- 2.16 Soft start function is optional by DIP5
- 2.17 Installation at left or right side is optional by DIP6.
- 2.18 Single / three button control is optional by DIP7
- 2.19 Size: 155*77*38mm
- 2.20 Weight: 333g

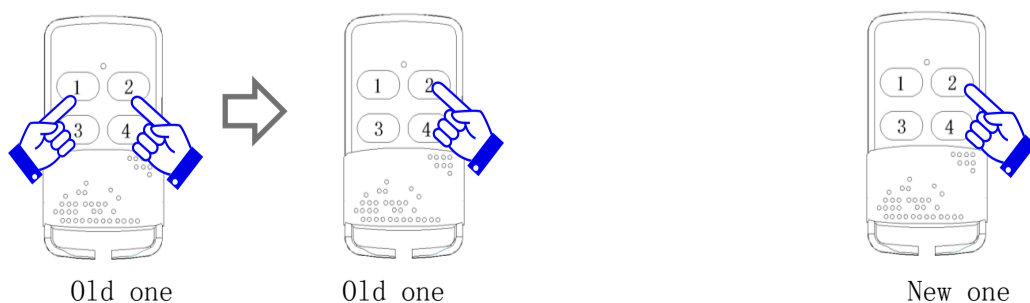
III Wire connection



IV Set up

4.1 Learning and erasing transmitters by receiver: Press the learning button S3 in the board, LED DL2 is on, enters into the learning process; Press the same button twice, LED blinks for several times, then off. The learning process is successful. Press the learning button, continue pressing for 8s until LED turns off; Release learning button, LED will be on (about 1s) and then off; the erasing process is successful. (Ignore this step if transmitter already matches the opener before delivery).The board can learn 30pcs transmitters max.

Self-learning function: Use the transmitter that already has been learned as old transmitter, press button 1 and button 2 at the same time and then press button 2 to let it enters into the learning process .Press the same button on the new transmitter twice. The learning process done. In this way , new transmitter can be learned without pressing the learning button on the control board.



4.2 Opening/closing limit adjustment: Remote control the door (or move the door manually) , adjust the position of limit device to make sure the door would touch the limit switch when open or close the door .LED LD6/DL5 in the controller will be off when limit device touches limit switch(Limit switch is NC).

4.3 External infrared switch: Photocell connector connects the NC contact of photocell switch, DL4 LED turn on after the connection, And DL4 LED turn off when blocking out the transmit or receive signal of photocell artificially. Infrared sensor doesn't react when door opening and the door will reverse to limit point if photocell signal disconnect when door closing. **If no need of using photocell protection, make the connector of photocell short circuit with terminated line(the connector is short circuit when leave factory).**

4.4 Quick running time set up: It is adjustable from 3s to 120s. Adjust potentiometer PT3 (FastTime) to adjust the quick running time of motor. It increases the time when adjust it Clockwise, reduces the time when anti-Clockwise

4.5 Motor max running time = Quick running time + Soft stop time = 127 seconds
Speed of quick running time is about 0.2 meter per second . Speed of soft stop running time is about 0.06 meter per second.

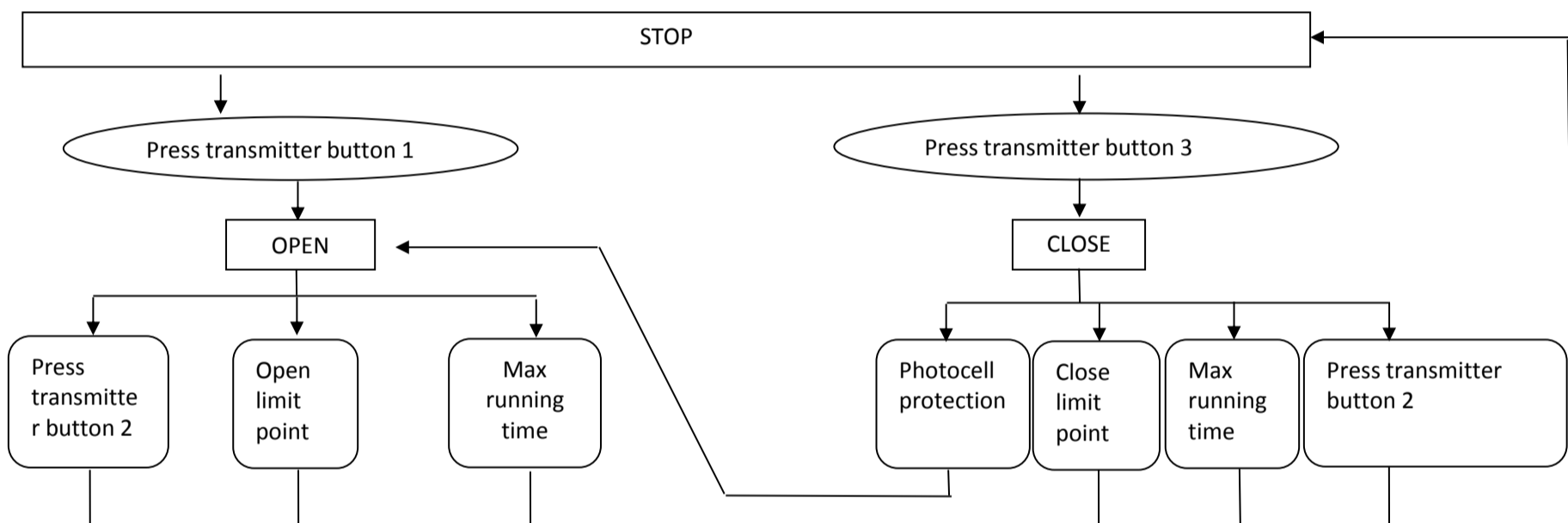
4.6 Flash lamp: It keeps lighting when open or close the door .After door is fully closed, it will keep lighting for 90 seconds.

4.7 DIP switch S5 logic function:

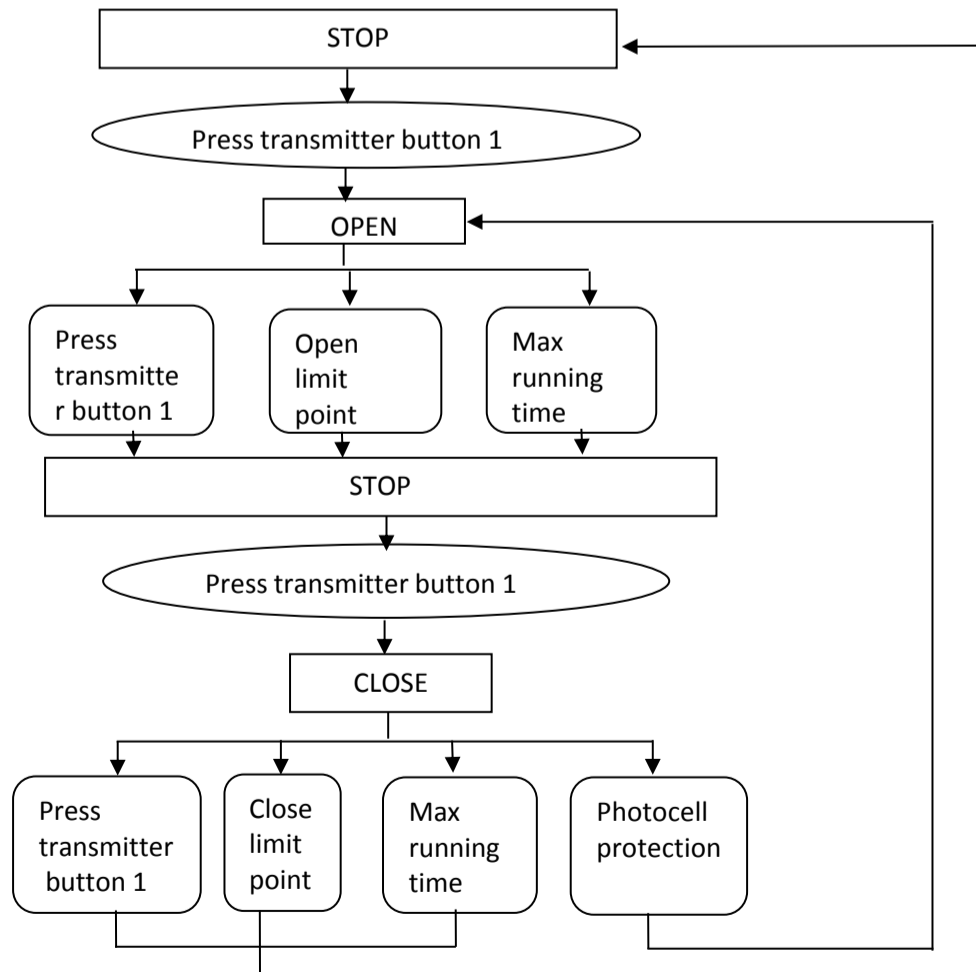
DIP1	DIP2	Auto close time	DIP3	DIP4	Function Cancel	DIP5	Soft start function
OFF	OFF	No auto close				ON	Turn on soft start function
OFF	ON	5S				OFF	Disable soft start function
ON	OFF	10S					
ON	ON	30S					
DIP6	Right/left side installation		DIP7			DIP8	
ON	ON or OFF can change the current operating direction of motor		ON	Single button control		ON	External limit NC switch
OFF			OFF	Three button control		OFF	External limit NO switch

V Operation Instruction

5.1 Three button control process (DIP 7 at OFF position)



5.2 Single button control process (DIP 7 at ON position)



Description:

Single button control, press-open-press-stop-press-stop; Only the learned button is effective in the transmitter, original button is not effective any more when a new button has been learned in the same transmitter (For example, button 1 was learned firstly, button 2 or 3 has been learned of the same transmitter afterwards, then button 1 was not effective any more)

VI Notes

6.1. Photocell protection switch shall be examined regularly.

VII Model difference

Model	Working voltage	Transmitter stored (pcs)	Model	Working voltage	Transmitter stored (pcs)
SL1800	220VAC	30	SL1898	220VAC	30
SL1801	220VAC	300	SL1894	220VAC	300
SL1820	110VAC	30	SL1896	110VAC	30
SL1821	110VAC	300	SL1892	110VAC	300

The interpretation and ownership of this manual belong to Hiland company. Any change of the product can be without prior notice.