DOORADO SGO-EC08-00-BNHD-1 Smart Slide Single Automatic Gate Opener Kit User Manual

Sliding Gate Opener
User Manual

1400LB / 600KG

Dear user:

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

Contents

SAFETY NOTICE

Please ensure that your power voltage matches with the supply voltage for the gate opener (110V AC) before installation.
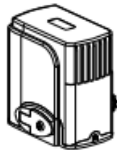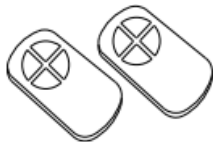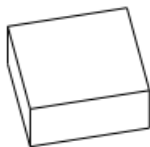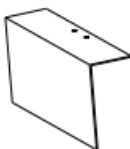The installation and maintenance of this product and its components must be carried out by trained profes- sionals to ensure safety and safe use.
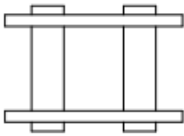Please ensure that children do not use or play with the built-in or remote control devices.
Please ensure that no one is around the main engine or gate when the switch is operated.
Cease use temporarily when the main engine needs repairing or regulating. If needed, the main engine and gate can be unlocked with a disengagement wrench. The gate can be moved manually after disengagement.
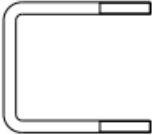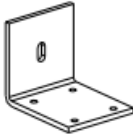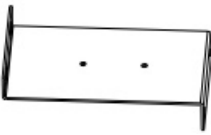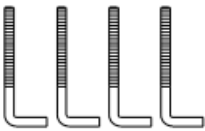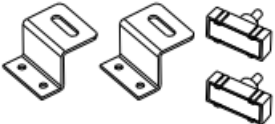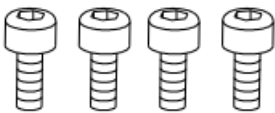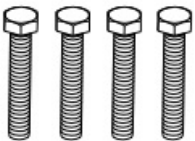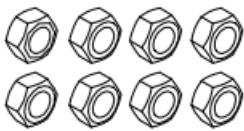
PACKING LIST (STANDARD)

No.	Picture	Name	Quantity
1		Main engine	1
2		Manual release key	2
3		Remote control	2
4		Mounting accessories box	1
4-1		Sprocket cover	1

4-2		Chain link	2
4-3		20 ft. (6 m) Chain	1
4-4		Tie rod	2
4-5		Square bolt	4
4-6		Door connecting plate	2
4-7		Horizontal mounting plate	1
4-8		Vertical mounting plate	2
4-9		M8 foundation bolt	4
4-10		Magnets & blocks	4
4-11		Inner M6 20 mm bolt	4
4-12		M6 65 mm bolt	4
		M8 25 mm bolt	4
4-13		M6 nut	16
		M8 nut	16
4-14		φ6 flat washer	16
		φ8 flat washer	16
4-15		φ6 spring washer	16
		φ8 spring washer	12

TECHNICAL PARAMETERS

Maximum weight of gate	1400 lb (600 kg)
Power supply	110V/60Hz
Motor power	180W
Gate moving speed	39.36 ft./min.
Remote control distance	≥98.4ft. (30 m)
Remote control mode	Single button mode
Limit switch	Magnetic limit switch
Noise	≤58 dB
Working duty	S2, 15min
Recording of up remote controls	25
Frequency	433.92 MHz
Working temperature	−20°C−+70°C
Package weight	34.4 lb

INSTALLATION

This sliding gate opener works with gates weighing less than1400 lb (600 kg) and measuring less than 30 ft. in length. The drive mode uses a sprocket and chain transmission. This gate opener must be installed inside the enclosure or yard to prevent tampering with the device.

Installation drawing
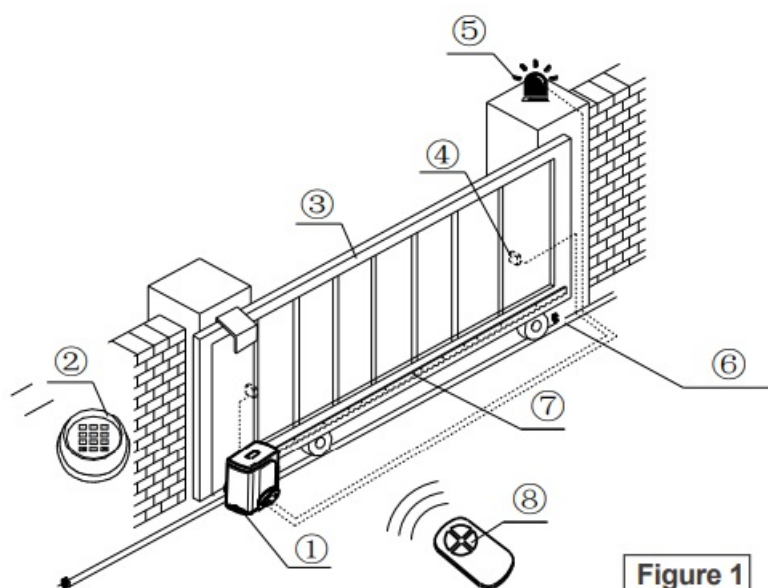
Figure 1

1. Gate opener;

2. Wireless keypad (optional);

3. Gate;

4. Infrared sensor (optional);

5. Alarm lamp (optional);

6. Safety stop block;

7. Chain;

8. Remote control

Size of main engine and accessories
Size of main engine
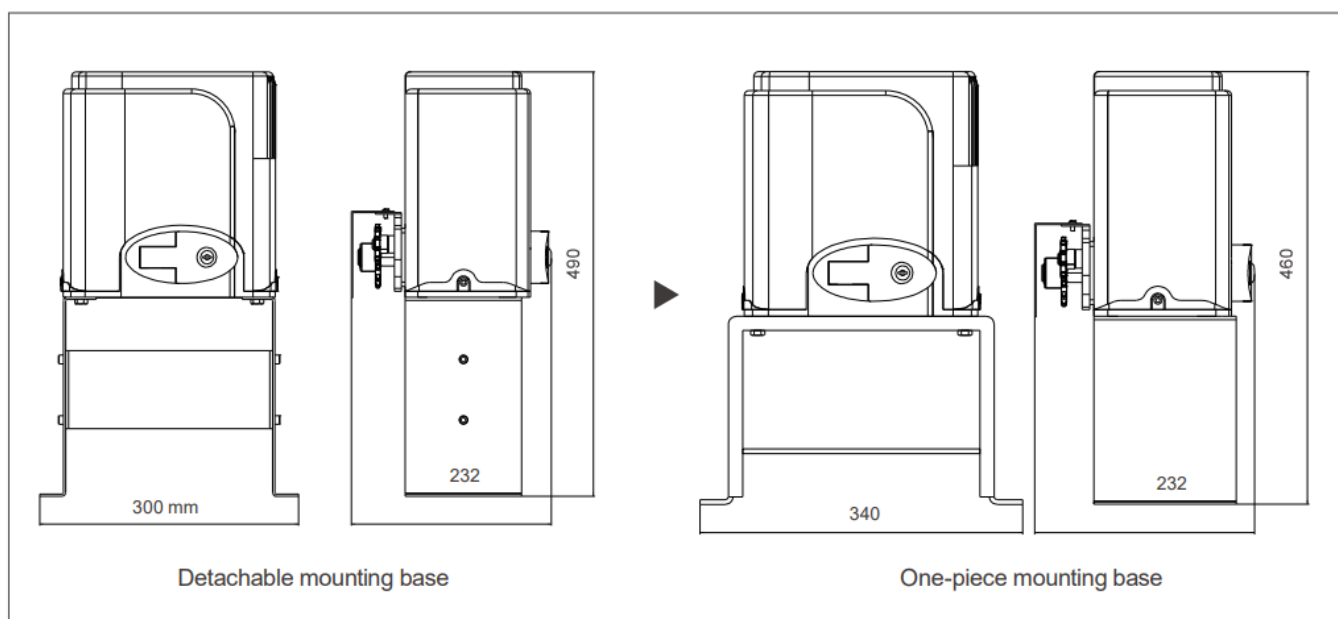
Figure 2

Size of mounting base
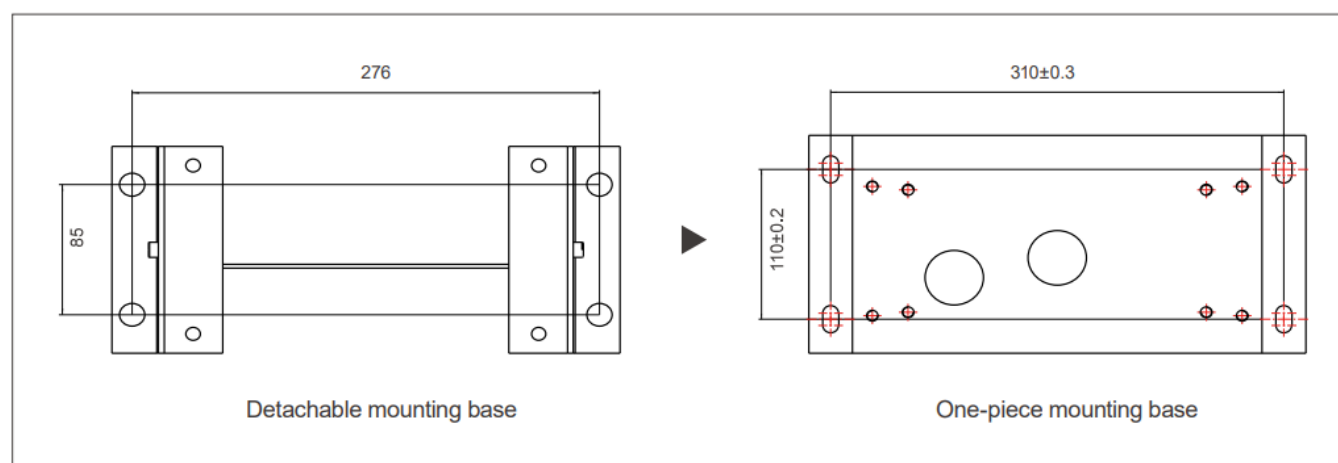
Figure 3

Installation Procedures

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 manually before installing the gate opener.
Cable installation
Please bury the motor & power cable and controlling cable in a PVC tube, and use two PVC tubes to bury the motor/power cable and controlling cable separately, so as to guarantee normal operation of the gate opener and protect the cables from damage.
Concrete pedestal
Please cast a concrete pedestal measuring 19.69 x 13.78 in. with a depth of 7.87 in. in advance, so as to firmly install the gate opener.
Verify whether the distance between the gate and gate opener is suitable before casting the pedestal.
Embedded screws
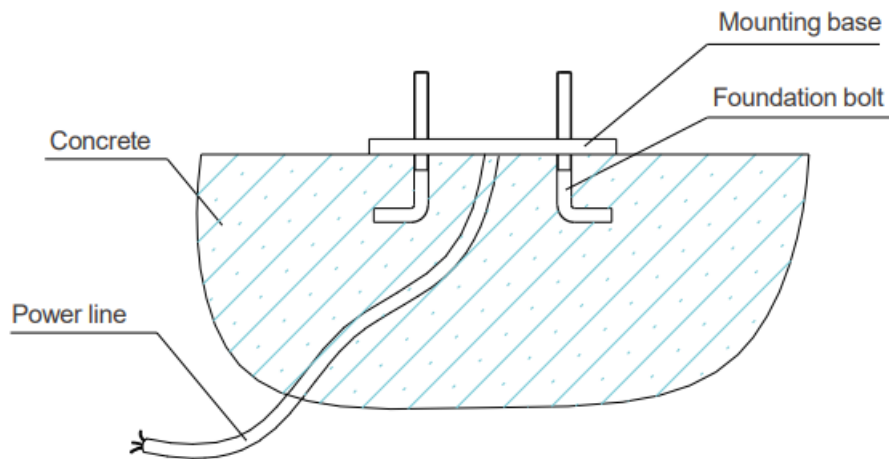
Figure 4

Main engine installation

- Dismantle the plastic housing on the main engine before installation. Keep its fasteners handy.
- The detachable mounting base should be assembled first as shown in Figure 5:

Flat washerφ6
Spring washerφ6
Nut M6
Horizontal mounting plate
Vertical mounting platen
Inner hexagon screw M6×20
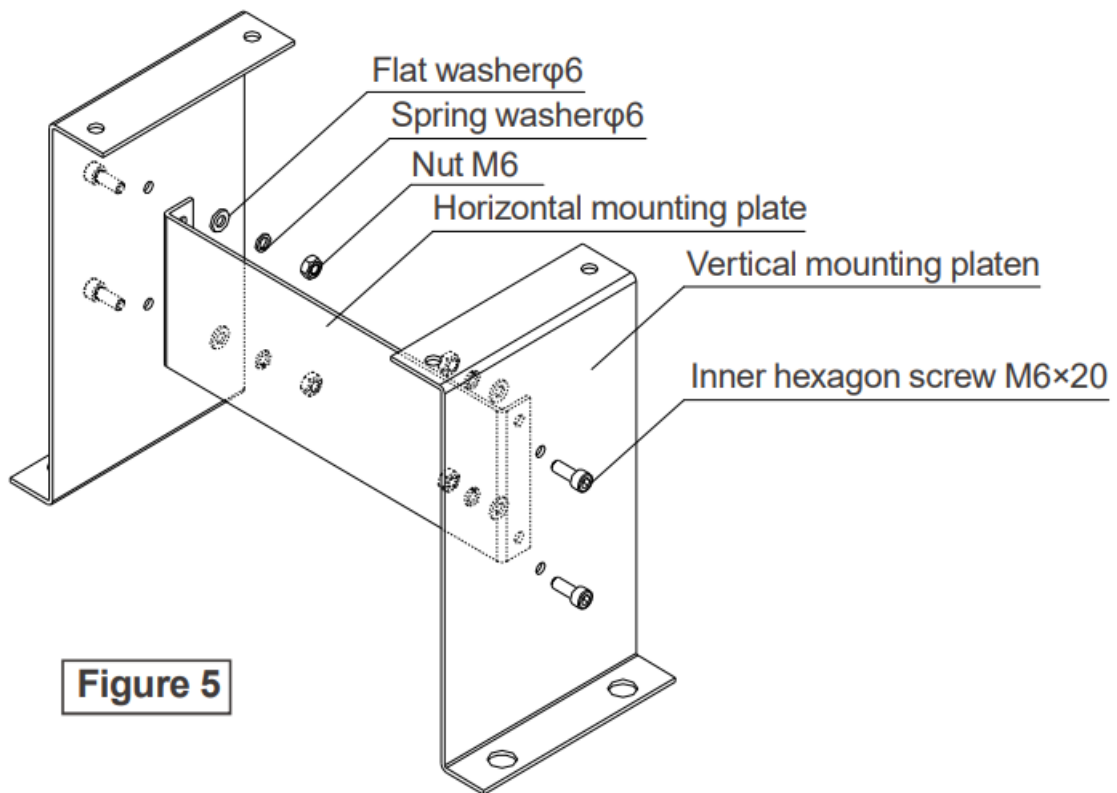
Figure 5

- Assemble the machine engine to the mounting base as shown in Figure 6:

Nut M8
Spring washerφ8
Flat washerφ8
Hexagon screw M8×25
Mounting base

Figure 6
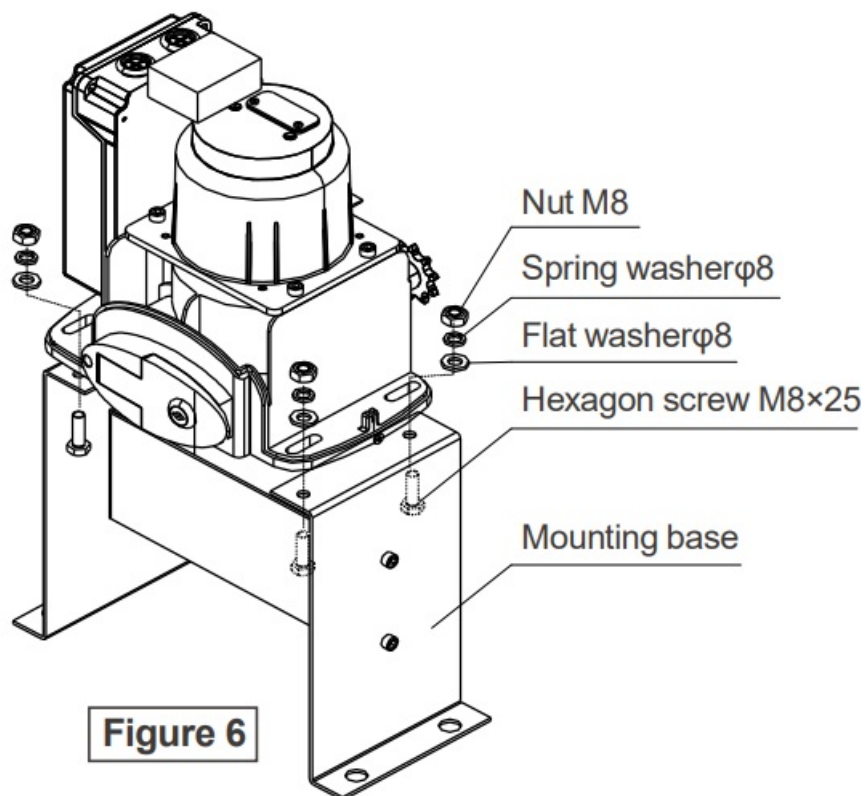
- Prepare the power line to connect the mounting plate and main engine. The number of power supply cable core should not be less than 3 pcs, the sectional area of the cable core should not be less than 1.5 mm², and the length should be determined by the installers according to the situation at the installation site.
- Unlock the main engine before installation: Take out the key cover; insert the key, and open the manual release bar till it rotates by 90° as shown in Figure 7. Then turn the output sprocket, which should rotate easily.

Turn on 90°
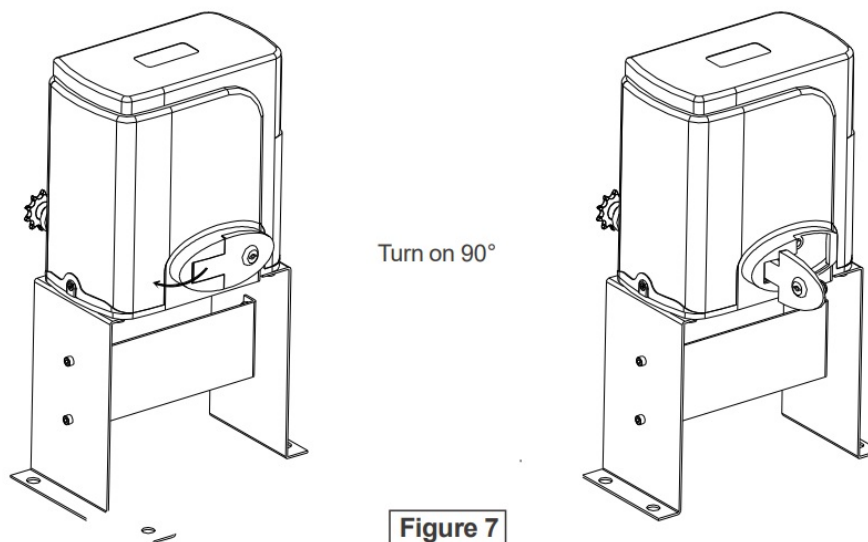
Figure 7

Chain installation

- Close the gate. Connect the tie rod with the chain using its chain link; fasten the tie rod to the door connecting plate with washers and nuts as shown in Figure 8. If necessary, the elasticity of chain can be adjusted through the tie rod at both ends and the chain can be shortened. If it needs to be lengthened, make sure to use the same type of chain so it moves easily but securely.

Figure 8

Tie rod

Chain

Chain link
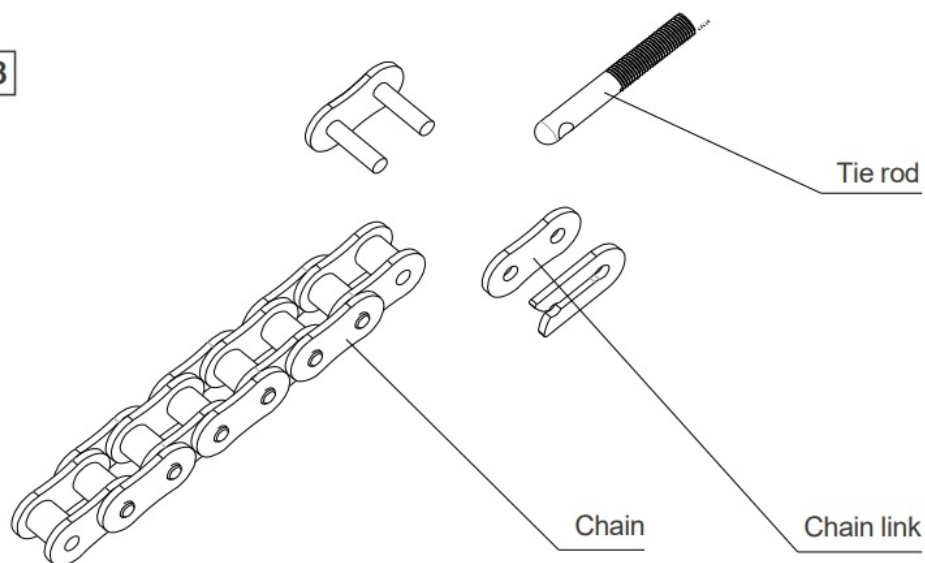
- If the door frame is square, please use the square screw as shown in Figure 9:

Flat washerφ8

Spring washerφ8

Nut M8

Tie rod

Nut M6

Spring washerφ6

Flat washerφ6

Gate

Square screw
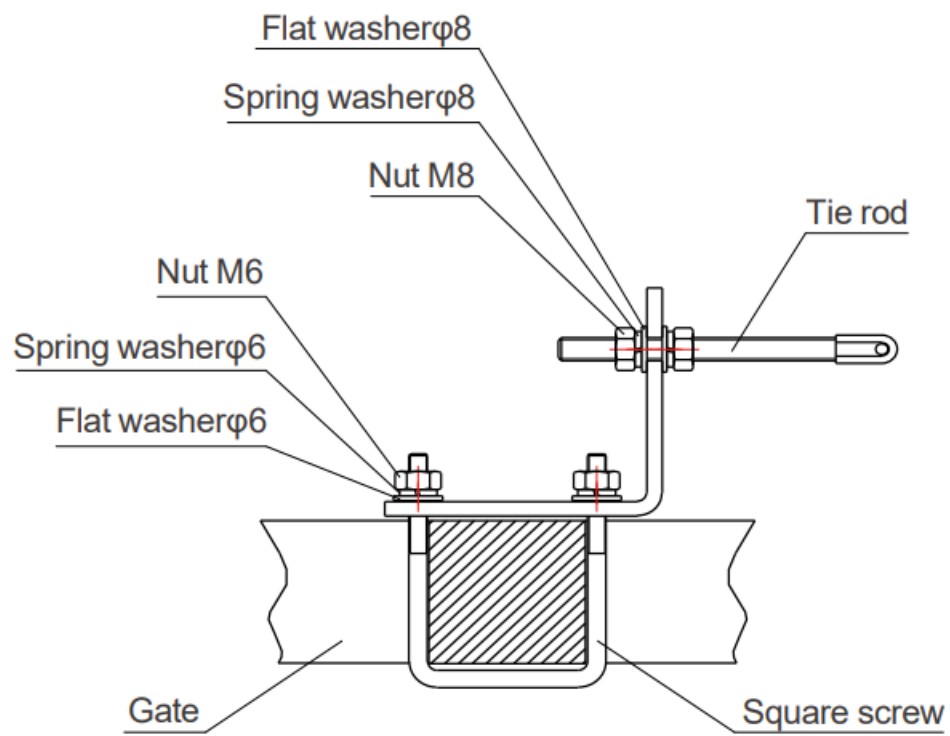
Figure 9

- Installation of chain, small and big sprocket is shown in Figure 10:
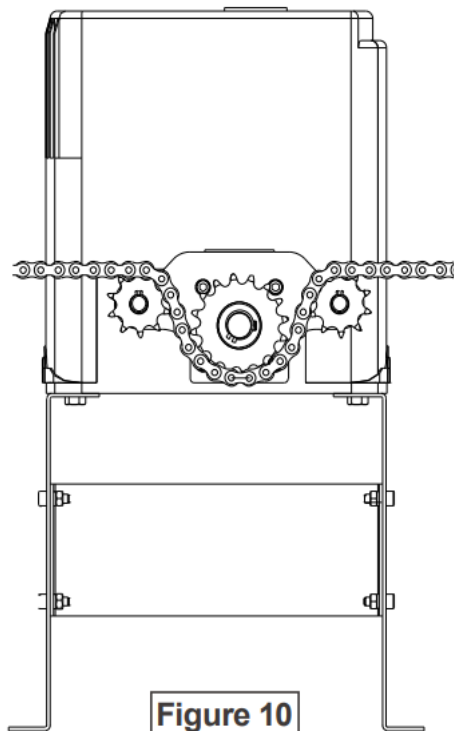
Figure 10

- Installation of sprocket cover is shown in Figure 11:

Cross screw M4×10

Sprocket cover
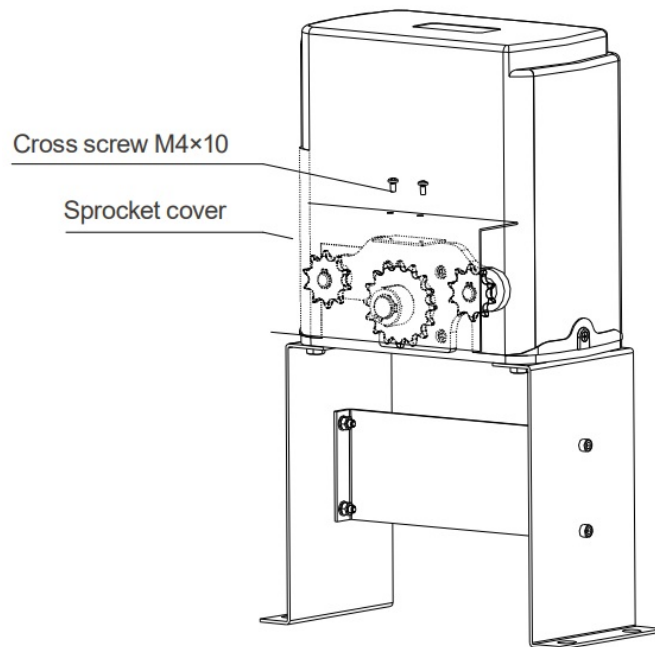
Figure 11

- The distance between main engine and chain ends should be at least 11.8 in. (30 cm), as shown in Figure 12:

≥30CM
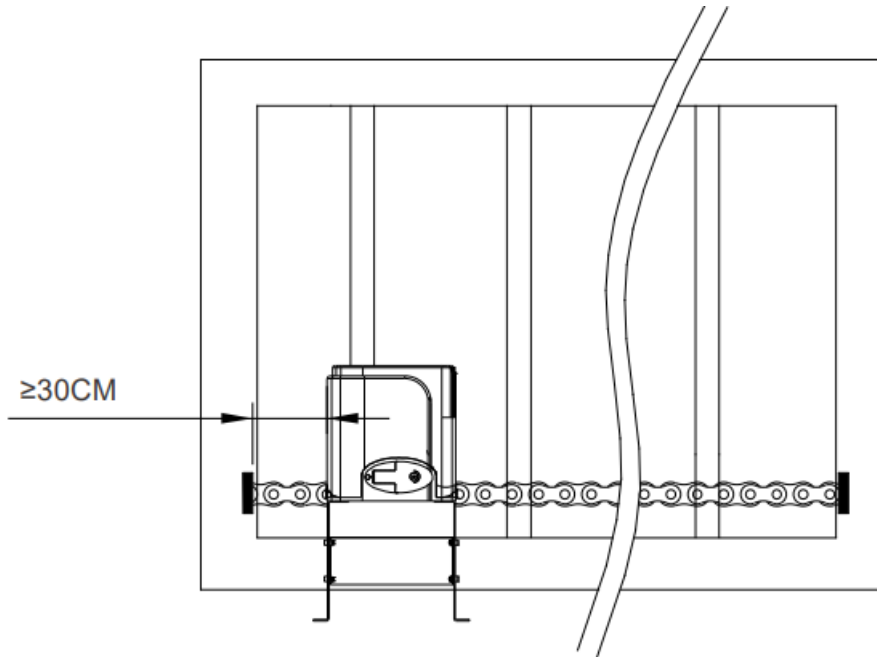
Figure 12

⚠ **Warning**

- To ensure safety, install safety stop blocks on both ends of the rails to prevent the gate from getting out of the rail. Before installing the main engine, make sure that the safety stop blocks are in place and capable of preventing the gate from moving out of the rail or 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.
- Only use one control to drive one control board at one time. Otherwise, the control system and device may be damaged.
- An earth leakage circuit breaker must be installed where the gate movement can be seen, and the minimum

mounting height should be 4.92 ft. to protect it from being touched.

- After installation, please verify that all mechanisms are operating correctly and whether the gate still moves flexibly under manual control after being unlocked.

Limit switch adjustment

- Use the manual release key to unlock the gate opener and manually move the gate to the predetermined position. Fix the magnetic limit switch block and close the clutch. Test its operation and adjust the position of the magnetic limit switch block incrementally until the gate reaches the desired open and close limit locations. Installation of magnetic limit switch block is shown in Figure 13 and 14 (97 mm = 3.82 in., 35 mm = 1.38 in., 20 mm = 0.79 in.):

Figure 13

Figure 14

Note:
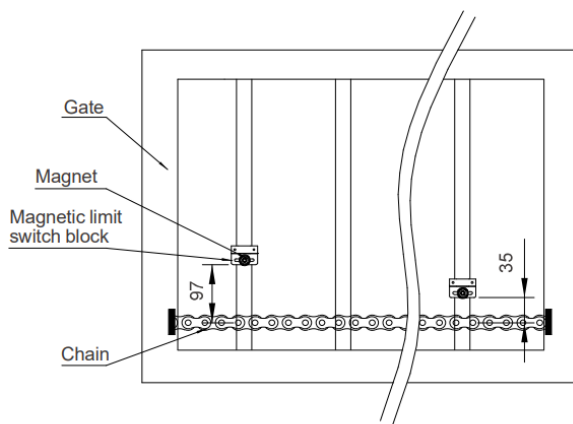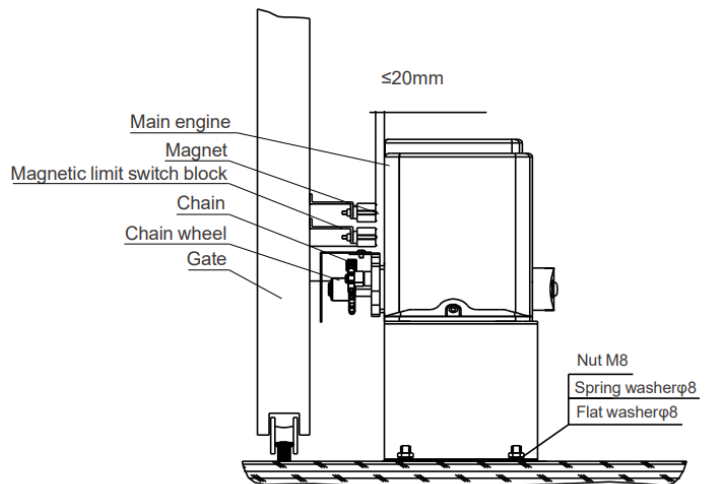The default setting is right side mounting.
(Please refer to "Adjustment and operation" in 4.3.5 for adjustment instructions.)

Control Board
Connections and Indicators Diagram
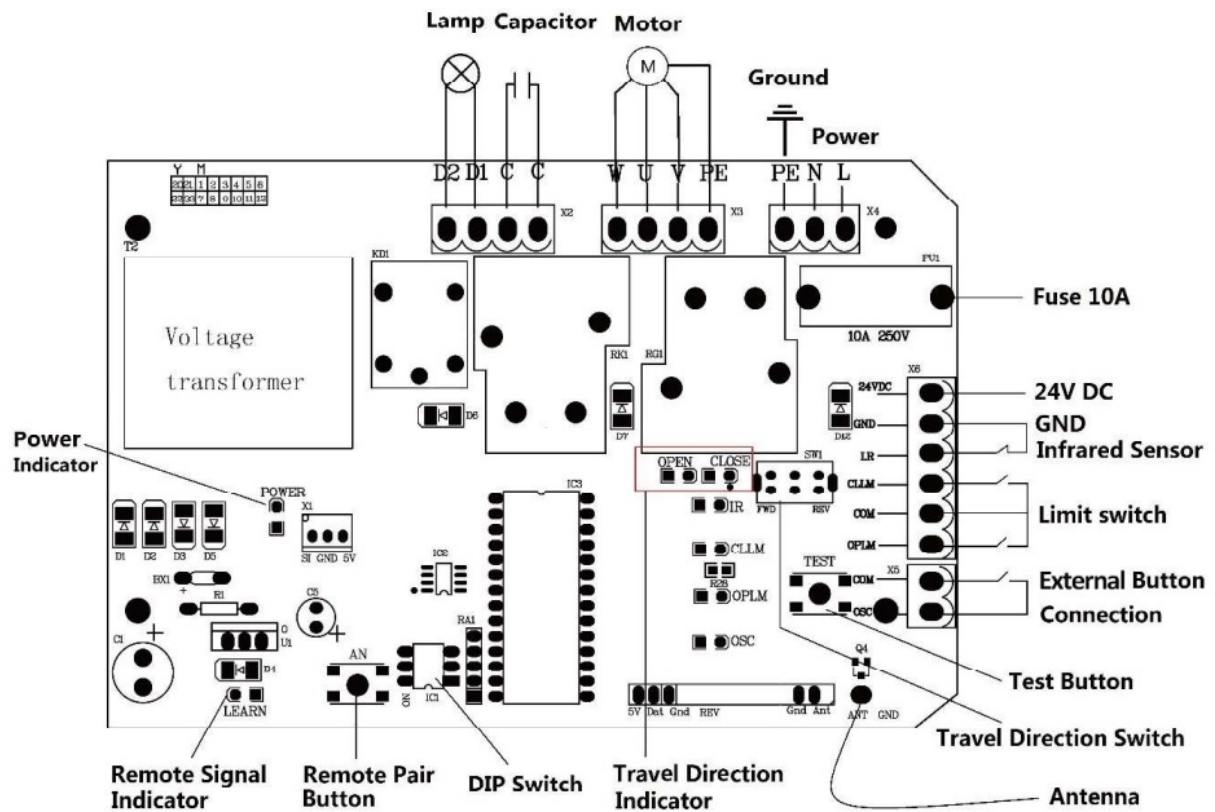
Figure 15

Open/Close: Light indicators for gate movement direction. When OPEN is on, the gate should be opening. When CLOSE is on, the gate should be closing. If CLOSE is on while the gate is opening, change the direction of the SW1 switch from REV to FWD.

IR: The IR indicator light will continually be on until the IR sensor's path is obstructed.

CLLM: The CLLM light will be on when the gate's closing limit is reached.

OPLM: The OPLM light will be on when the gate's opening limit is reached.

OSC: The OSC light is an indicator light for the circuit board's functioning. Press TEST to test the circuit board's operational state. If the OSC indicator light does not shine when pressing TEST, the circuit board is non-functional.

Connection	Interface Terminals
Power	X4:PE, N, L
Caution/Alarm Lamps	X2:D1, D2
External Button	X5: COM, OSC
Photocell Infrared Sensor	X6: 24VDC, GND, I.R

Features

- Pair with up to 20 different 433.92 MHz remote controls and with wireless keypads.
- Compatible with and easily connected to alarm lamps, external control buttons, and infrared photocell sensors.
- Auto-close functionality for improved security.

Gate Opener Installation
Step 1
Ensure your gate can glide back and forth smoothly by hand before installing the gate opener.
Step 2

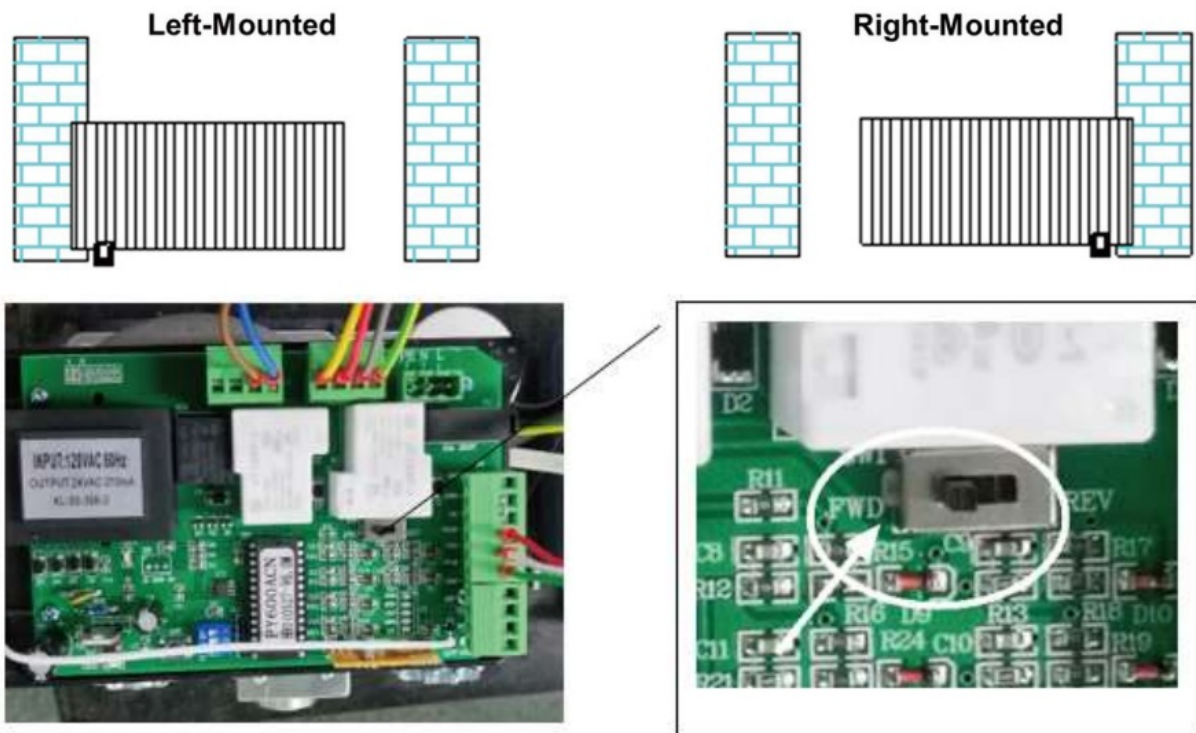Toggle the Travel Direction Switch on the control board according to the installation location of your automatic gate opener. Flip the switch to FWD for right-mounted gate openers. Flip the switch to REV for left-mounted gate openers.

Step 3
Wire the control board to your automatic gate opener and any compatible accessories according to the Connections and Indicators Diagram in the Product Overview section of this manual and the instruction manuals for the other devices.

Step 4
Press the test button, Travel direction indicator (open) will light when the gate is opening; Travel direction indicator (close) will light when the gate is closing.

Remote Control
The included remote control uses single-button mode. Each button on the remote control can pair with one control board. When pressed, the paired button will open the gate if the gate is closed, close the gate if thegate is open, and stop the gate if the gate is traveling.
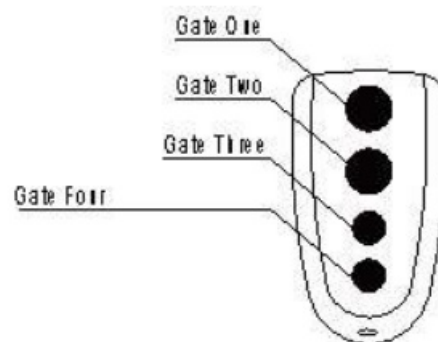
⚠️ **CAUTION:** To prevent accidents, DO NOT pair one button with two different control boards.
The transmitter has been matched to the door opener when it leaves the factory, No need to match again when the product is received.

Remote Control Pairing:

Step 1
Press the Remote Pair Button (AN1) on the control board. The Remote Signal Indicator (LED2) will come on.
Step 2
Press the button on the remote control to be paired. The Remote Signal Indicator will go off.
Step 3
Press the same button the remote control. The Remote Signal Indicator will flash quickly then go off. DONE!

Remove All Paired Remote Controls:
Hold Remote Pair Button (AN1) on the control board until the Remote Signal Indicator (LED2) goes out. DONE!

DIP Switches
The DIP switches on the control board control the external buttons control mode and the auto-close time settings.

Switch 1: External Buttons Settings
ON = external button only can open the gate
OFF = external button can open/stop/close the gate

Switch Orientations	Auto-Close Time
2 ON 3 OFF	15 seconds
2 OFF 3 ON	30 seconds
2 OFF 3 OFF	45 seconds
2 ON 3 ON	Auto-Close Disabled

Photocell Infrared Sensor Installation
Step 1
Remove the short wire connecting the I.R and GND interface terminals on the control board.
Step 2
Install the photocell infrared sensor on your gate posts according the instructions of your photocell infrared sensor.
Step 3
Connect the sensor to the control board according to the image below.

Infrared Receiver   **Infrared Emitter**

Note:
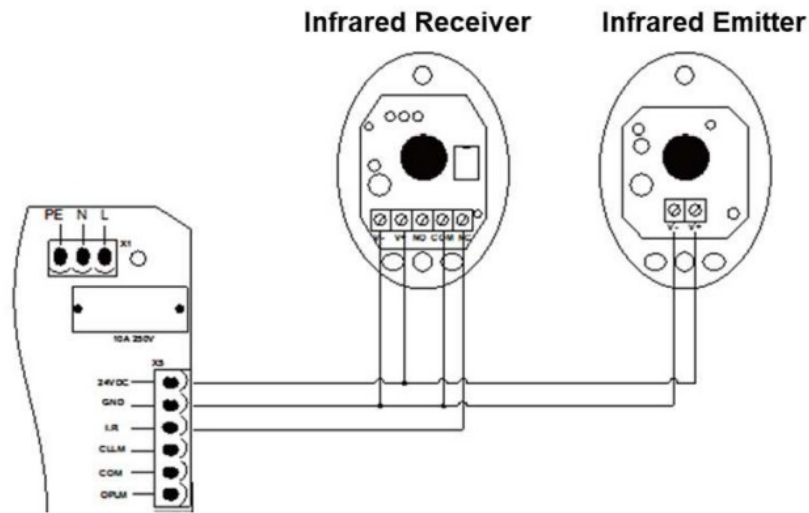After setting or resetting the remote control, press the button within 100 ft. (30 m) from the gate opener to test if the gate will open/close/stop on your command. If not, check if the control board of the gate opener operates well.

Note:
To disengage the gate opener, move the gate to the middle position, then close the clutch and press the open button of external button switch to open the gate. If the gate opening direction is wrong, adjust the toggle switch SW1 on the control board or exchange the two motor lines U and W. Please seriously observe whether the motor can stop automatically when the gate is fully opened. If the position cannot be adjusted correctly, please exchange limit switch lines CLLM and OPLM.

PACKING LIST (STANDARD)

Maintenance
For the sake of safety, each gate should be equipped with an infrared protector, and regular inspection is required. You should check
whether your device operates normally at least every month.

Troubleshooting

Problems	Possible Reasons	Solutions
The gate cannot open or close normally, and LED light does not flash.	1. The power is off. 2. The fuse is burned. 3. There is a problem with the control board power wiring.	1. Turn on/connect the power supply. 2. Check the fuse (code FU), replacing it if necessary. 3. Adjust the wiring as above.
The gate can open but cannot close.	1. There is a problem with the photocell wiring. 2. There is a problem with the photocell mounting. 3. The photocell is blocked. 4. The photocell's sensitivity to obstacles is too high. 5. The hall switch parts are damaged.	1. 1. If not connected, check if the infrared port & GND short circuited. 2. If the IR sensor is connected, ensure the wiring is correct & the photocell is N.C. 3. Ensure the photocell mounting position can be mutually aligned. 4. Remove the obstacle. Remove any obstacles or reduce the photocell's sensitivity. 5. Replace the parts.
Remote control doesn't work.	1.Low battery. 2. Remote control matching has not occurred.	1.Replace the battery. 2.Rematch the remote control.
During operation, the motor generates noise but the gate does not move.	1.The capacitor is broken. 2.The capacitor is poorly connected. 3. Movement is obstructed.	1.Replace the capacitor. 2.Check the capacitor wiring. 3. Adjust the motor or the gate to ensure no obstruction is occurring.
The gate does not stop at the limit position during operation.	1. The limit programming has a problem. 2.There is a problem with the mounting of the magnetic limit switch.	1. Check whether the limit switch wiring is consistent with the actual direction of operation. 2.First check the distance btwn the magnetic limit switch and motor. Then, check the height of the magnetic limit switch.
Leakage switch is tripped.	The power supply line or motor line has short circuited.	Check and repair the wiring.
The remote control does not work at full range.	The signal is blocked.	Adjust the external receiver antenna to 5 ft. (1.5 m) above the ground.

Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us at
contact@b2csupportpro.com
and we'll resolve your issue ASAP!
For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR
code to the right.

https://sp9c.com/XBdnH

Documents / Resources

	DOORADO SGO-EC08-00-BNHD-1 Smart Slide Single Automatic Gate Opener Kit [pdf] User Manual SGO-EC08-00-BNHD-1, SGO-EC14-00-BNHD-1, SGO-EC06-00-BNHD-1, SGO-EC08-00-BNHD-1 Smart Slide Single Automatic Gate Opener Kit, Smart Slide Single Automatic Gate Opener Kit, Single Automatic Gate Opener Kit, Automatic Gate Opener Kit, Gate Opener Kit, Opener Kit, Kit