

Automatic Sliding Gate Opener

User's Manual

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1. Summary

This equipment is one of the auto gate openers launched by our company

adopting a new design and integrated control system. Our new sliding gate opener has many features such as: low noise, light weight, powerful starting torque, stability, reliability and is compact and stylish. The motor will still work for a short period of time using lower voltage. The control board has overload protection. When there is a power failure, the motor drive can be separated by the use of the clutch, by using the specified key the user has the ability to disconnect the clutch enabling the gate to be opened or closed manually. Using the optional infrared photocells the gate will automatically stop and re-open if an obstacle is sensed.

2. Appearance and dimensions

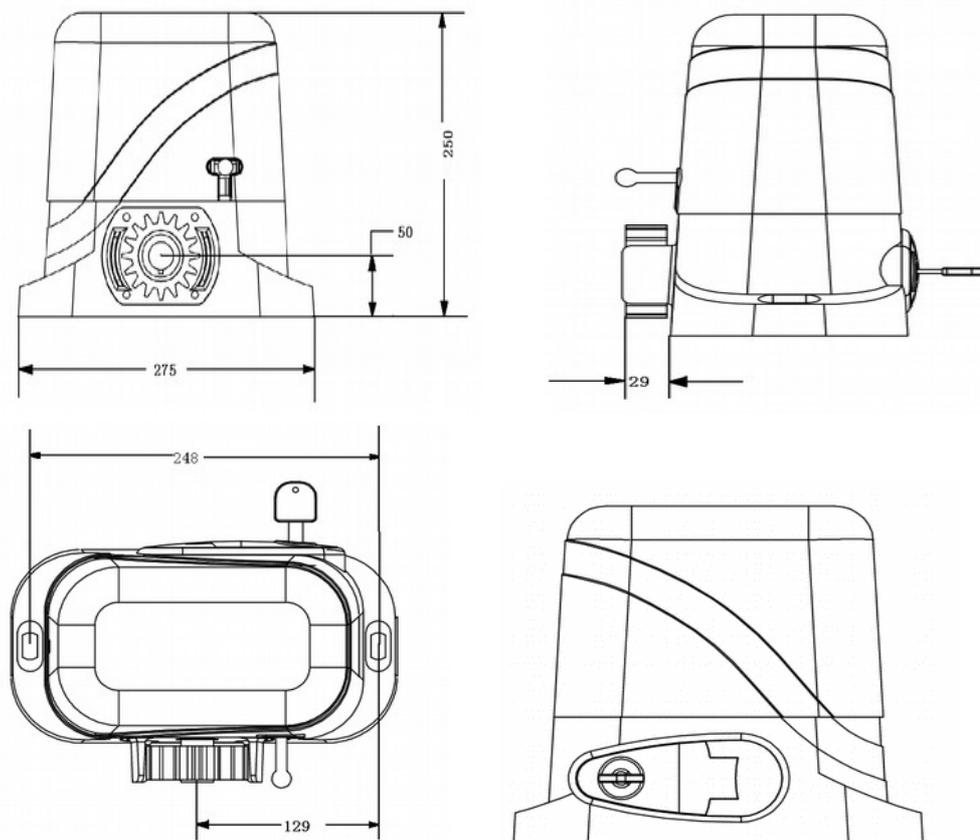


Fig 1

3. Parameters

1. Working temperature of motor: $-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$
2. Working humidity: $\leq 85\%$
3. Power supply: $220\text{VAC} \pm 10\% / 110\text{VAC} \pm 10\%$ 50Hz/60Hz
4. Rated power: 380W
5. Output gear module: $M=4$
6. Output gear number: $Z=16$
7. Output torque: 30.0 N.m
8. Open(close) speed: $v=12\text{m/min}$
9. Rated speed : 1400RPM
10. Maximum pull: 1100N
11. Maximum load: 1300KG
12. Net weight: 11KG
13. Remote control distance : $\leq 50\text{meter}$
14. Packing : In a standard carton
15. Protection Class : B

4. Features of control board

1. Totally integrated electrical mechanical system (excludes racks)
2. Control board interface for optional impact-proof infrared photocells
3. Alarm lamp interface
4. Automatic delayed closing

5. Adjustable resistance sensitivity
6. Gate will auto stop and re-open when an obstacle is encountered
7. Wireless remote control or wired remote control are optional

5. Installation of mechanical parts

5.1 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. See diagram 2

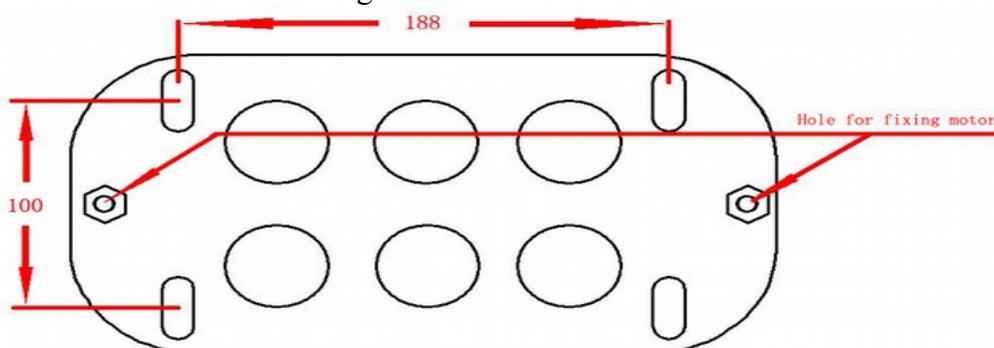


Fig 2

2. If the rack has been installed on the door, the motor can be fixed on the base plate. use a Allen key rotation to the clutch "off" position, the motor and the gear rack so as to better determine the position of the motor base plate, then remove the motor and fixed base plate.

5.2 Installation of gate opener

1. Let the sliding gate opener put on the base plate. use a random matching hexagon screw make the motor fixed on the base plate.
2. Unscrew the screws fixed the motors cover, and then remove the motor cover. according to the electrical wiring diagram, connected the power cord, after adjust in good position, Then install cover and use screws to fixed it

5.3 Installation of racks

1. After the motor is installed, the racks teeth the down, then put the gear on the motors. and final connected with screws and gate. push the door with hand. so can let door sliding it and can move it without any problem. after confirmed, fixed the racks.

2. Rack is usually unit assembly, in order to avoid gate run jitter or jammed, rack and joint clearance must be corrected. Suggest use this way, see diagram 3. with a small correction of the rack, after connecting right with racks 1 and racks 2, then fixed racks 1 and 2.

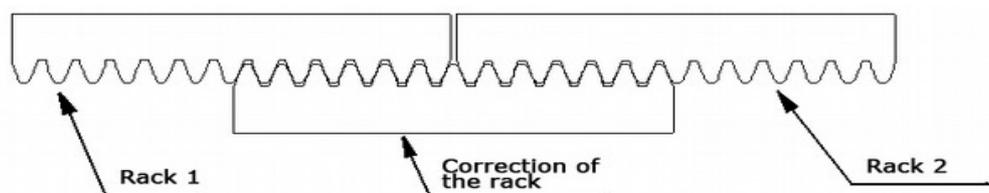


Fig 3

5.4 Installation of limit levers.

There are 2 limit levers supplied. Note there is a left hand and a right hand lever. The levers should be installed one at either end of the rack. See Fig5.

To install the levers 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 lever 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 lever to contact the toggle switch and switch the motor off.

When you are satisfied the levers are in the correct positions, tighten the screws in the levers 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 levers if necessary.

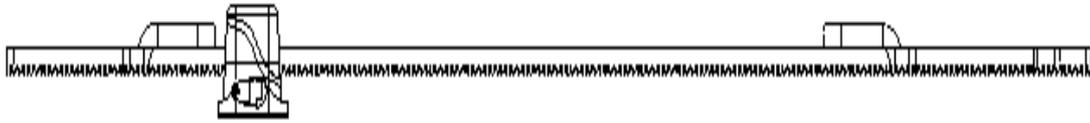


Fig 4

5.5 Function of clutch

When the clutch is opened to the open position, you can manually push the door; when closing the clutch, electric door can run on, off, when touching limiting the bezel will stop automatically.

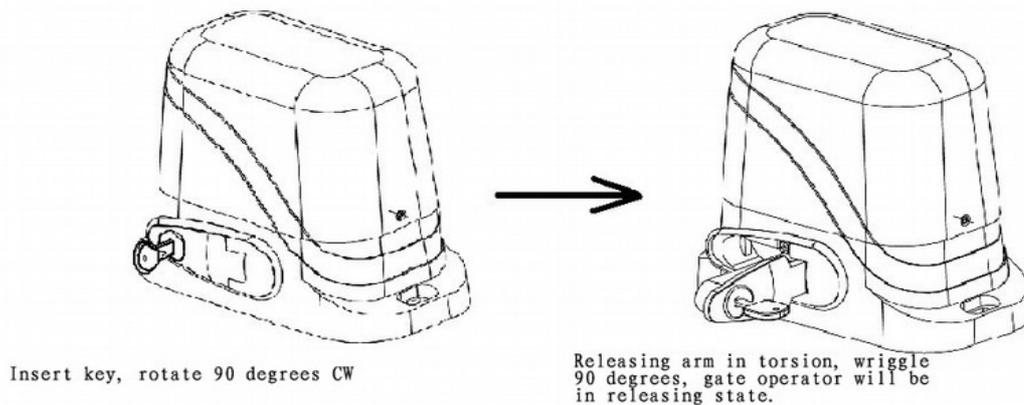


Fig 5

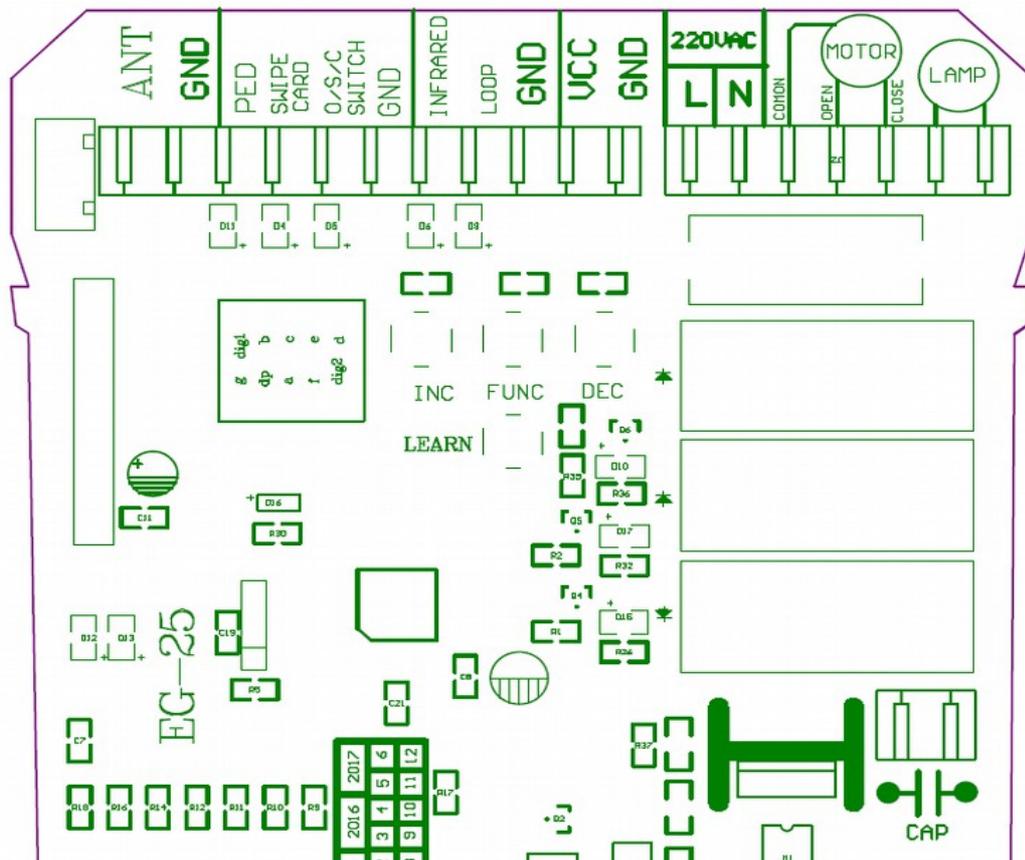
6.EG-25 AC sliding gate opener control board

6.1 Function:

1. Power Supply: AC220V
2. Usage: Used for AC sliding gate motor
3. Remote control: custom rolling code, maximum memory 120pcs.

6.2 Description:

SWIPE CARD	Used to connect swipe card terminal. When in gate closing period, if swipe card again and want to open, then need after gate open completely, then recount the auto close time.
ANT	antenna connection
PED	Pedestrian mode: gate will just opened a little, which only used for person. The open time could be adjusted
INFRARED1	Used to connect photocell. When gate close and meet obstacle, gate will stop and reopen
LOOP	connect loop. After loop single disappear 2s, gate opener will auto close
START	Single button control gate: open-stop-close-stop-open.. cycle control
GND	connect ground
VCC	Voltage output: 12V, used for infrared power supply
MOTO	Connect motor
LAMP	Used for connect lamp, when motor working, lamplight on. AC220V power



6.3 Test method

Test info	Test method
Motor open/close instruction	when instruction LED light up green, then means now on gate opening period. If red LED light on, then means now on gate closing period
Remote	Our own company rolling code. Could be used as three button control (three remote button separately control open, close, stop, and single button control button (single button control open-stop-close-stop-open cycle
code clearing	Press and hold learning button 10s (in this period, the instruction LED should be off), until the instruction LED light on then means code clearing successfully
code learning	Press learning button, then instruction LED light off, then press the remote button, if instruction LED flash four times then means code learning successfully. and the digital display will show the exist remote number. If without receiver remote signal within 5s, then the instruction LED light on and then exit code learning statue
	the remote that through duplicate not need code learning and could used at once (the precondition is the remote that be duplicated have already learning code with control board and have already could control gate)
START (single button control mode)	Single button control mode: control open, stop,, close separately After open the single control mode, only the first button of remote could be used on open-stop-close cycle control Single button control mode open or close need through digital menu to adjust, 0 means close single button control mode, 1 value means open the mode
PED mode	Pedestrian mode only used on gate open, through the remote fourth button or the panel PED button to operate the PED mode gate open.
MOTO intelligent speed change system	motor has high speed, slow speed, slow stop. And high speed running time could be adjusted through digital display.

	high speed running time 5-99s adjustable, factory set is 15s; Slow stop running time 0-5s adjustable, factory set 2s, 0 value means slow stop function invalid. Motor's high speed obstacle sense with 0-20 levels adjustable.
limit and obstacle detect function	Limit: realist the gate will auto close after close completely. Motor will stop running when gate close completely. Obstacle detect sensitivity adjust through digital display menu. When gate opening meet obstacle, then motor stop working. When gate closing, then the motor reopen.
Auto close	only after open/close gate limit, then open the auto close function. Auto close time adjusted by digital display with 0-99s adjustable. There are three type of auto close: 1, normal remote or single button trigger the auto close; 2. auto close after swipe card; 3. the auto close under PED mode. When in auto close time count down, the instruction LED will flash every 1s to remind.
Infrared mode	When gate close, the infrared signal trigger, then the motor will stop at once and reopen. And after complete open 2s, the gate will auto close, and will not effected by auto close time set control
Loop mode	If gate on complete open statue or is opening, once the loop detector sense some one or car is passing, and after the single disappear 2s, the motor will auto close. If gate on closing and trigger the loop signal, then motor will reopen, and also wait the signal disappear 2s, then do the auto close.
Lamp output	Through digital display menu to control lamp working mode (factory set is 0) 0 mode: the lamp only goes off in 30s after the gate running to the limit position. Others the lamp keeps lighting on. 1 mode: lamp lights on when gate running, and lamp lights off when gate stop.
Maximum motor working time protection	If motor works continuously more than 120s, motor will stop running for protection.

6.4 DIGITAL DISPLAY MENU SETTING

NOTE: only when gate in close statue and not with auto close time count down, then could enter menu to set and do the code learning operation

Basic operation method:

Press and hold the [FUN] button until the digital display shows P0. Now you enter the menu setting. You could through adjust the [INC+] [DEC-] to increase or decrease the serial number or numerical value. After data adjust well then press [FUN] to store the data. With one sound of buzzer, the store successfully. After store the data, the digital display would still on the menu number you just set, if you need to enter next menu setting, please press [INC+] or [DEC-] to choose and confirm with [FUN] to enter the menu number you want to set. Such as after you store the P0 value and press [FUN] to store it, then now the digital display would still show the number P0, and if you want go further to adjust P1, please press one [INC+], then digital display show P1, later press [FUN] to enter the P1 setting. And if you not need to enter next menu setting, you could press [LEARN] button to exit the menu setting.

<u>Menu</u>			<u>Factory set</u>	<u>Mark on board</u>
P0	<u>Switch limit direction</u>	<u>0~1</u>	<u>0</u>	<u>Switch the direction of motor limit.</u>
P1	<u>high speed obstacle detection sensitivity</u>	<u>0~20</u>	<u>10</u>	<u>MHI OVER LOAD</u>
P2	<u>slow speed running time</u>	<u>0~5s</u>	<u>2s</u>	<u>0 means the slow speed invalid. The motor works on high speed only</u>
P3	<u>Auto close time after</u>	<u>0~99s</u>	<u>10s</u>	<u>CARD-CLOSE</u>

	<u>swipe card</u>			<u>AUTO CLOSE</u>
P4	<u>Auto close time in PED mode</u>	<u>0~99s</u>	<u>10s</u>	
P5	<u>Auto close time</u>	<u>0~99s</u>	<u>0 (Invalid)</u>	<u>AUTO CLOSE</u>
P6	<u>PED mode gate open time</u>	<u>0~20s</u>	<u>5s</u>	<u>PED</u>
P7	<u>remote single button control mode (key4)</u>	<u>0~1</u>	<u>0 (Invalid)</u>	<u>ONE KEY</u>
P8	<u>lamp output control</u>	<u>0~1</u>	<u>0 (Invalid)</u>	<u>ALARM</u>
P9	<u>loop mode</u>	<u>0~1</u>	<u>0 (Auto Close Invalid)</u>	<u>LOOP</u>
PA	<u>Closing obstacle sensed</u>	<u>0~1 (0-stop, 1-rebound)</u>	<u>1 (rebound when obstacle sensed)</u>	
PB	<u>high speed setting</u>	<u>10~19</u>	<u>19</u>	<u>The higher value is, the faster speed is.</u>
PC	<u>slow speed setting</u>	<u>0~9</u>	<u>5</u>	<u>The higher value is, the faster speed is.</u>
PD	<u>High speed limit stop reverse setting</u>	<u>0~1</u>	<u>0</u>	<u>1- Close, 2- open</u>
PE	<u>Reset</u>	<u>choose value 5 and then confirm then start rest, choose other value invalid</u>	<u>0</u>	<u>RESET</u>

6.5 Auto travel learning

Note: Before the auto travel learning, The gate should always in close limit position(close limit indicator is off). Any interruption happen during the auto travel learning process will cause the failure.

Steps: Move the gate to close limit position, press and release the button“FUNC” 5 times, you can hear a long beep from the buzzer on board, the motor will start working a complete cycle of open/close. During the auto travel learning process, the digital display will show the working time of the complete working cycle, and after the gate moving to the close position, another long beep can be heard, display goes off. The board will automatically set the high speed and slow speed working time based on how much time you set for slow speed in P2.