



YOUR KEY TO AUTOMATION ↔



SW-03A

AUTOMATIC SWING GATE OPENER
USER MANUAL

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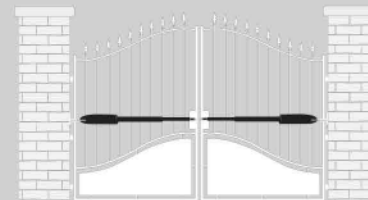


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5b. When digital display indicate P8, the gate opener is on close interval time setting. There is 0-10s for optional. 0s mean double gates close simultaneously. "1" means the Motor 2 start to close 1 second before Motor 1 start to close. Max close interval time 10s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the close interval time chosen, then the close interval time setting finished. (factory set 0s).

6. To set auto close time:

When digital display indicate P9, the gate opener is on auto close time setting. There is 0-99s for optional. 0s mean the gate opener would not auto close. Max auto close time is 99s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the auto close time chosen, then the auto close time setting finished. (factory set 0).

7. To set lamp/alarm output control:

When digital display indicate PA, the gate opener is on lamp/alarm output control setting. There is 0-3 for optional. "0" means the alarm on monostability model and the lamp without voltage output after the gate total close 30s, other time with voltage output. "1" means the alarm on monostability model and the lamp would only flash when gate running. "2" means the alarm on bistability model and the lamp without voltage output after the gate total close 30s, other time with voltage output. "3" means the alarm on bistability model and the lamp would only flash when gate running. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the auto close time chosen, then the lamp/alarm output control setting finished. (factory set 0).

8. To set lock time:

When digital display indicate Pb, the gate opener is on lock time control setting. The lock control time means the time we could control the lock. There is 0-2 for optional. "0" means the lock control time is 15s, "1" means the lock control time is 1.5s, "2" means the lock control time is 2s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the lock control time chosen, then the lock time setting finished. (factory set 0).

Note: The gate motor will open delay 0.5s to help unlock the electric lock

9. To choose single/double gate open:

When digital display indicate PC, the gate opener is on single/double gate open setting. There is 0-3 for optional. "0" means the gate could not open by remote, "1" means just can open one single gate, "2" means can just open two leaf gate, "3" means can open one single gate as well as two leaf gate. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the single/double gate open chosen, then the remote button setting finished. (factory set 3).

10. To choose photocell work in NC or NO:

When digital display indicate Pd, you could choose the photocell work in NO or NC. Value 00 means work in NO, value 01 means work in NC.

11. To choose Single /Dual motor control gate:

When digital display indicate PE, you could choose control board work for single motor or dual motor. When set value 0, The control board work for dual motor. (Factory setting). When set value 1, The control board only work for single motor.

12. To reset:

When digital display indicate Po, the gate opener is on rest setting. After enter Po setting, press the [FUN] to store and then now the reset successfully.

Manually Opening and Closing Gate

CAUTION !

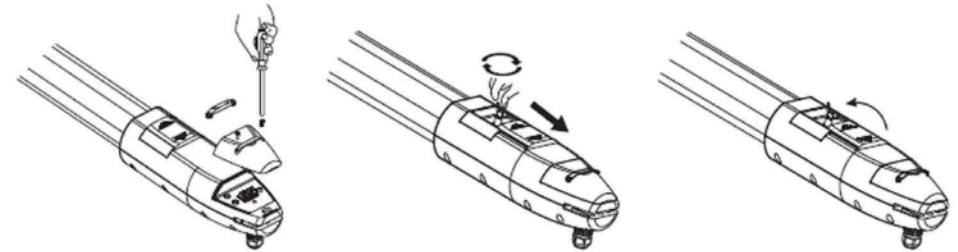
The gate will move freely and uncontrolled when the gate operator is removed from the gate. ONLY disconnect the operator when the power source has been disabled (ie. battery or transform-er) is off and the gate is NOT moving.

Disconnecting the Opener:

1. Place release key into the release bolt and unscrew fully.
2. Pull actuator arm off gate bracket.
3. Now the gate will swing freely.

The gate can be opened and closed manually when the actuator is disconnected.

If leaving the actuator arm off the gate please disconnect power to avoid damaging the motor or cable. DO NOT have the release bolt done up tight as this will make for a difficult release of the actuator arm. May also cause jamming and or binding.



Owner should observe the following:

1. Do not cross the gate while it is operating.
2. Keep children away from the gate and the remote controls.
3. Test the system frequently and monitor the high and low speed of the system.
3. Practice the use of the emergency release key. This is crucial in the event that the system does not work.

Place the WARNING signs prominently on the gate to warn pedestrian of the automatic gate operation on your premises. It is your responsibility to post the warning signs on both sides of the gate.

Installer should observe the following:

1. Make sure the gate weight and length does not exceed the maximum specifications.
2. The gate design must be suitable for the installation of the auto gate system.
3. TEnsure that the gate is installed on flat, level ground and can move freely in both directions along the entire swing of the gate. A properly balanced swinging type gate should NOT swing open or swing close when no pushing or pulling force is exerted onto it.
4. Control panel box must be installed in the area where it is not easily damaged.
5. Do not change with parts or components not supplied by manufacturer.
6. Make sure all wiring is correct and in accordance with electrical bylaws and in good condition before supplying the mains power to the control panel.
7. Remove all power when doing any maintenance including solar.
8. Ensure the control panel box is free from water leakage and insects to avoid short circuiting of the control panel. Silicon off any holes.
9. Never supply mains power directly to the DC motor.
10. Transformer MUST be connected to mains power via RCD (residual current device).
11. Do not install the operating system if in doubt.

Technical Specifications

Supply voltage: 24Vac Transformer or Solar
 Backup Battery: 12Vdc Lead acid
 Driving Method: Screw driven type
 Max. Output Power: 80W per driver
 Remote Controller: 4 channel 433.92MHz
 Max. Weight of Gate: 350kgs dependant on gate
 Safety Clutch: Electronic current sensing,
 high amp cutoff

Max Piston Speed: 2.5cm/sec
 Gear Box: Three-stage spur gear reducer
 Operating Cycle: 13-19 seconds Per 90° (on AC power only) Max. Piston Stroke: 250mm/350mm
 Electronic Controller: maintenance free
 length Max. Length of Gate: 3.5m per leaf (350mm)
 Operating Voltage: DC 16-18V for normal speed
 DC 6-10V for cushioning speed

Kit Includes

Standard Packaging of the swing gate opener kit includes: Single = 1 leaf Double = 2
leaf Actuator Arm: 1 x for single or 2 x for double
Primary Post Bracket: 1 x for single or 2 x for double
Secondary Post Bracket: 1 x for single or 2 x for double
Primary Bracket Bolts: Single x 6 or Double x 12
Secondary Bracket Bolts: 3x for single or 6 x for double
Remotes/fobs: 2 only Control
Gate Bracket Bolts: 1x for single or 2 x for double
Control Box: 1 only Main Control Board (Model EG-22A): 1 only
Gate Bracket: 1 x for single or 2 x for double
Rubber Gate Stop: 1 only
Rubber Gate Stop bolts: 2 only
Release Keys: 2 only
Receiver: 1 only
Double Release Bolts: 1 x for single or 2 x for
Rear Mounting Bolts: 1 x for single or 2 x for

STANDARD KIT INCLUDES



- 2c. When digital display indicate P3, the gate opener is on Motor 2 low speed running stall force adjustment. There is 0-20 levels for optional. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the stall force level chosen, then the stall force of Motor 2 low speed running stall force adjustment finished. (factory set 6 level).
- 2d. When digital display indicate P4, the gate opener is on Motor 2 high speed running stall force adjustment. There is 0-20 levels for optional. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the stall force level chosen, then the stall force of Motor 2 high speed running stall force adjustment finished. (factory set 10 level).

⚠ CAUTION

Adjusting the Force settings P1, P2, P3, and P4 to levels higher than the default setting may lead to adverse consequences. Setting the force too high can cause the motor to continue operating even at full opening or closing, posing a risk of damage to the gate opener.

1. Always check the light indicator on the Control Board after adjusting the Force settings.
2. If the motor's light indicator remains illuminated after adjustment, lower the Force settings to a more appropriate level to prevent potential damage to the motor.
3. Verify that the light indicator on the Control Board corresponds to the motor's status.

Failure to adjust the Force settings within the recommended range may result in motor malfunction or burnout, leading to costly repairs or replacements. Always exercise caution and follow the specified guidelines to ensure the safe and proper operation of the swing gate opener.

3. To set the high speed running time:

When digital display indicate P5, the gate opener is on high speed running time setting. There is 0-33s for optional. 0s means without high speed running, gate opener would keep running in slow speed. Max high speed running time 33s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the high speed running time chosen, then the high speed running time setting finished. (factory set 5s).
4. To set the auto close time after swipe card:

When digital display indicate P6, the gate opener is on auto close time setting (NOTE! this auto close time just means the auto close function which realize through external device-). There is 0-99s for optional. 0 means the gate opener would not auto close after swipe card. Max auto close time after swipe card 99s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the auto close time after swipe card chosen, then the auto close time after swipe card finished. (factory set 10s).
5. To set the interval time:
 - 5a. When digital display indicate P7, the gate opener is on open interval time setting. There is 0-10s for optional. 0s means double gates open simultaneously. "1" means the Motor 1 start to open 1 second before Motor 2 start to open. Max open interval time 10s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the open interval time chosen, then the open interval time setting finished. (factory set 0s).

Remote control

Button "1" depressed to operate single gate; button "2" depressed to operate double gate; button "3" depressed for alarm output.

Program new remote control:

First step:

Press the LEARN button on the control board for about 1 second, the indicator LED would turn off, then now means have already enter learning.

Second step:

Press any button of the new remote control for about 2 second, then digital display would show the remote number while indicator LED on board starts flash four times with one buzzer sound then now means the learning successfully.

Note! After you press LEARN button, if not receive the new remote signal within 5s, indicator LED would turn on and exit learning.

Remove remote control:

Press and hold the LEARN button for about 5 second, if with one buzzer sound and indicator LED light on, then now means remove remote successfully.

Setting of the control board:

After power on, digital display will self-check from 00-99 with buzzer sound. If indicator LED light on, buzzer stop sound, it means the system is normal.

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.

1. To set the soft start time:

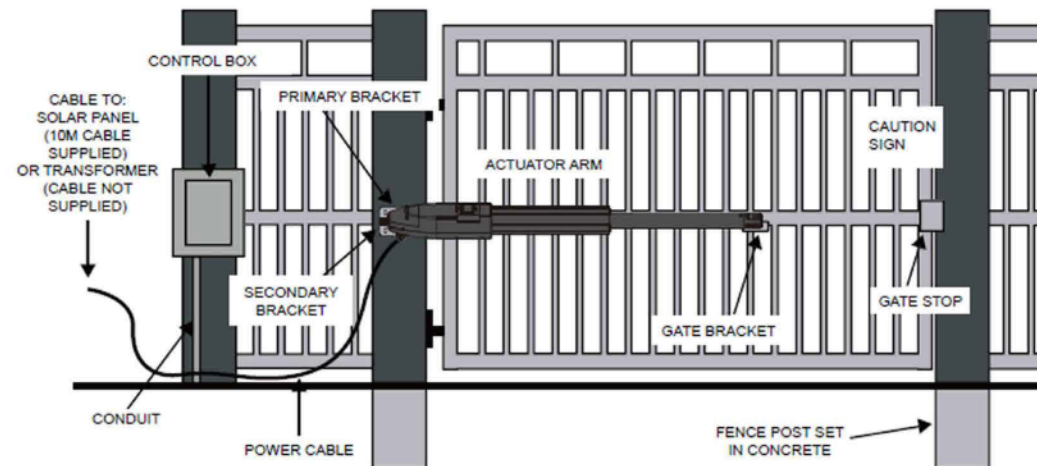
When digital display indicate P0, the gate opener is on the soft start time setting. The soft start time adjustable from 0-6s, 0s means close the soft start time, max soft start time 6s. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the soft start time chosen, then the soft start time setting finished (Factory set 2s).

2. To set the level of stall force:

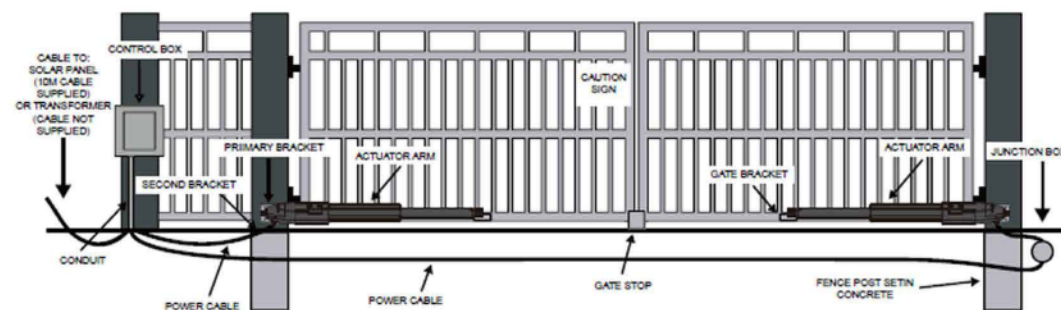
2a. When digital display indicate P1, the gate opener is on Motor 1 low speed running stall force adjustment. There is 0-20 levels for optional, each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the stall force level chosen, then the stall force of Motor 1 low speed running stall force adjustment finished. (factory set 6 level).

2b. When digital display indicate P2, the gate opener is on Motor 1 high speed running stall force adjustment. There is 0-20 levels for optional. Each time you press and release the [INC+] button, the figure increase by 1; each time you press and release the [DEC-] button, the figure decrease by 1. Press the [FUN] button to store the data when the stall force level chosen, then the stall force of Motor 1 high speed running stall force adjustment finished. (factory set 10 level).

Single & Double Gate Installation Overview

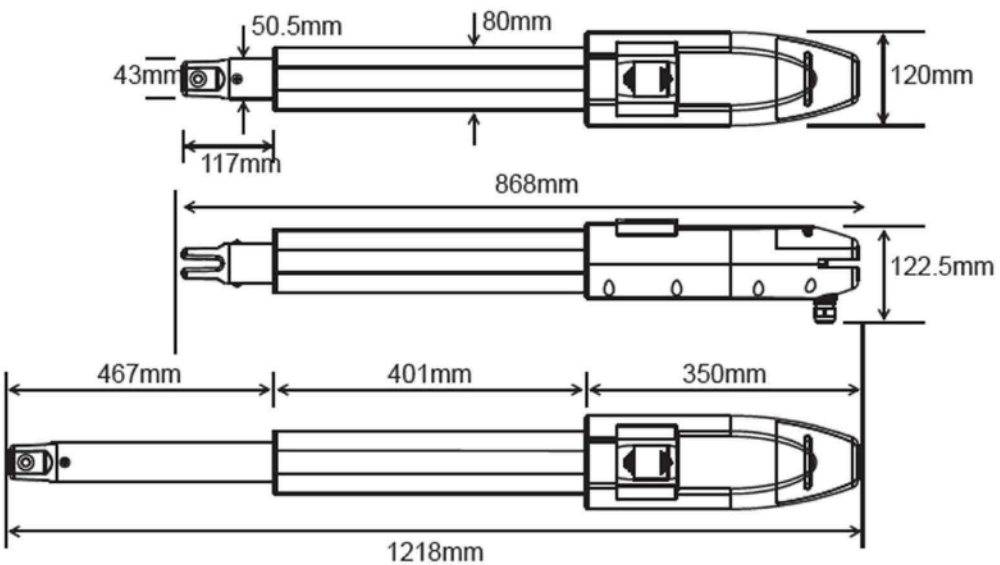


Single Swing Set Up Example

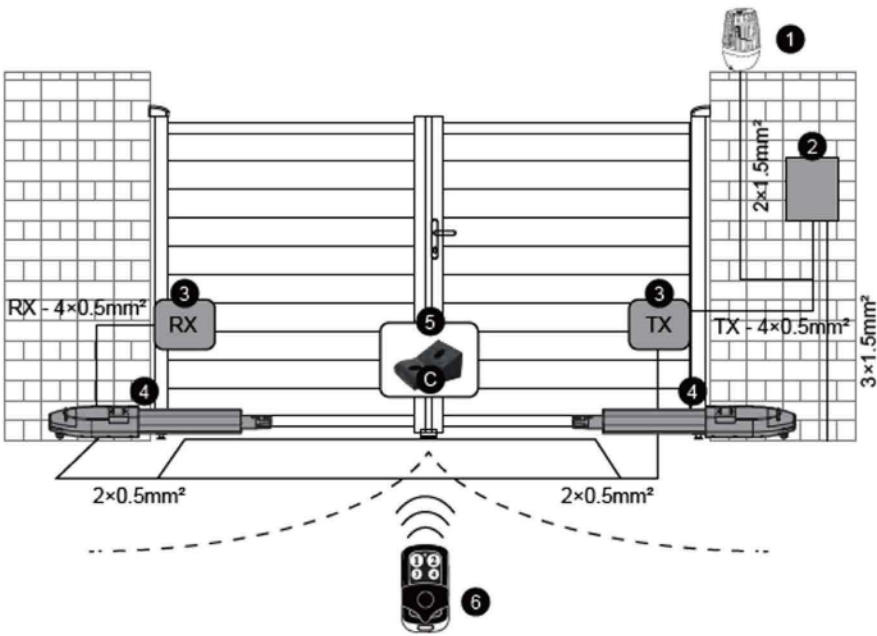


Double Swing Set Up Example

SPECIFIC (PRODUCT OVERVIEW) DIMENTIONS

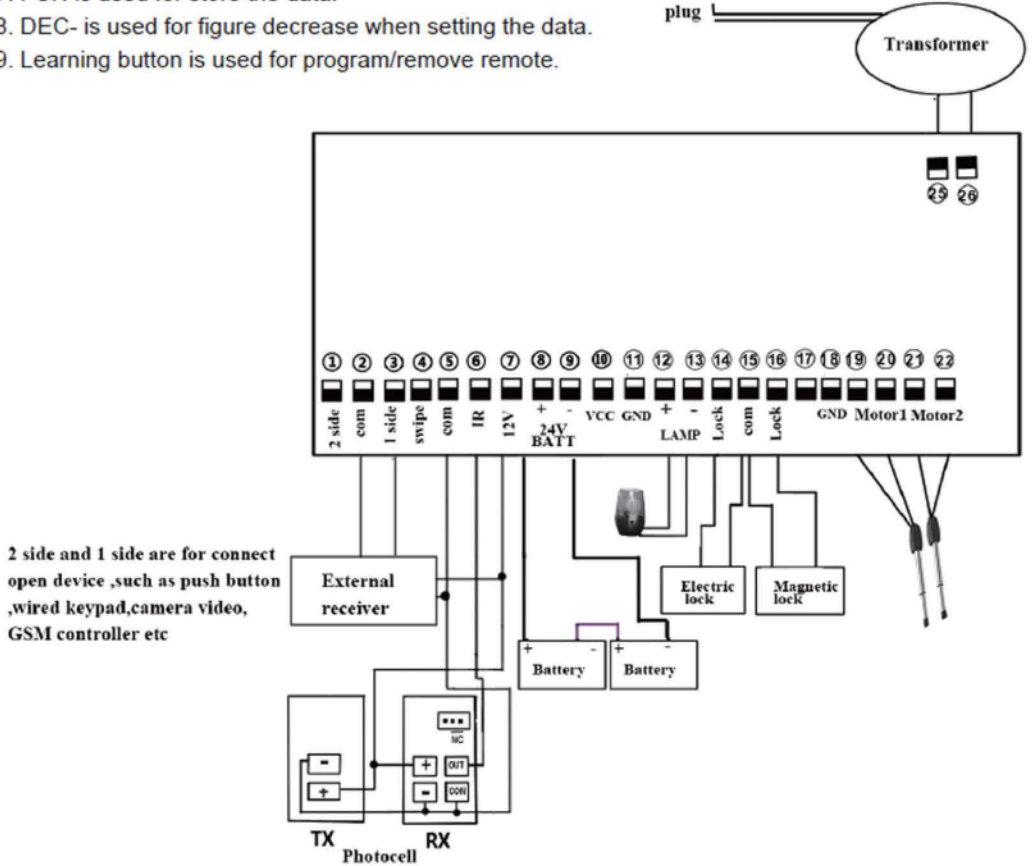


Swing Gate automation Features & Options



- 1 FLASH LAMP
- 2 Control box
- 3 Photocell
- 4 Swing gate motor
- 5 Rubber stop
- 6 Remote control

- 16. 24V DC lock output—the NA terminal which used for connecting the magnetic lock.
- 17. 24V DC alarm output.
- 18. 24V DC alarm output.
- 19. Motor1 terminal is used for connecting the motor 1 installed on the gate that opens later and close first. This terminal connect 1st red wire (counted from your left hand side to right hand side).
- 20. Motor1 terminal is used for connecting the motor 1 installed on the gate that opens later and close first. This terminal connect 2nd blue wire (counted from your left hand side to right hand side).
- 21. Motor2 Delay terminal is used for connecting the motor 2 installed on the gate that opens first and close later. This terminal connect 1st blue wire (counted from your left hand side to right hand side). **NOTE! If for single gate, the gate motor just can connect the Motor2 Delay terminal.**
- 22. Motor2 Delay terminal is used for connecting the motor 2 installed on the gate that opens first and close later. This terminal connect 2nd red wire (counted from your left hand side to right hand side).
- 23. AC24V input is used for connecting the transformer.
- 24. AC24V input is used for connecting the transformer.
- 25. digital display is used for showing you the setting data.
- 26. INC+ is used for figure increase when setting the data.
- 27. FUN is used for store the data.
- 28. DEC- is used for figure decrease when setting the data.
- 29. Learning button is used for program/remove remote.

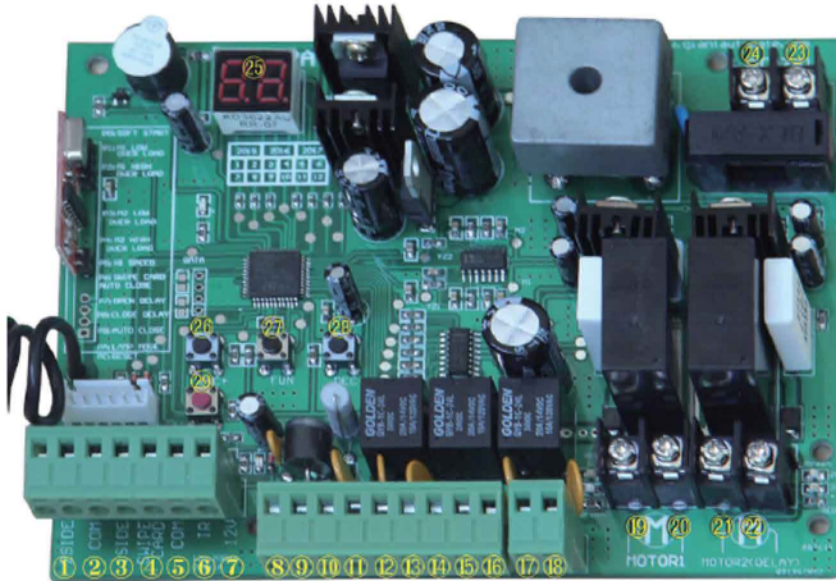


2 side and 1 side are for connect open device ,such as push button ,wired keypad,camera video, GSM controller etc

Control board wiring diagram

Technical Parameters

1. Control Panel Voltage: AC24V, available for 24 V back up battery.
2. Applicable Range: Suitable for double arms swing gate opener.
3. Encoder For transmitter: Our own customized rolling code.
4. Support remote control: Can memorize 120PCS transmitters at most.
5. Motor character: 24V DC motor x2.



1. 2 SIDE terminal is used for connecting any external device that operates single gate.
2. COM terminal is COMMON used for connecting the "ground" of external devices.
3. 1 SIDE terminal is used for connecting any external device that operates double gate.
4. Swipe Card terminal is used for connecting any external devices that will operate to open the gate.
5. COM terminal is COMMON used for connecting the "ground" of external devices.
6. Infrared terminal is used for connecting photo electric sensor.
7. 12V DC output is used for connecting photo electric sensor (Continuous output current $\leq 200\text{mA}$).
8. 24V battery output is used for connecting the back up battery +.
9. 24V battery output is used for connecting the back up battery -.
10. 24V DC output is used for connecting external device. (such as photo electric sensor, max current output 1A)
11. GND is used for connecting the "ground" of external devices.
12. 24V DC lamp output is used for connecting flash light +.
13. 24V DC lamp output is used for connecting flash light -.
14. 24V DC lock output—the NF terminal which used for connecting the electromechanical lock.
15. COM is COMMON used for connecting the "ground" of lock.

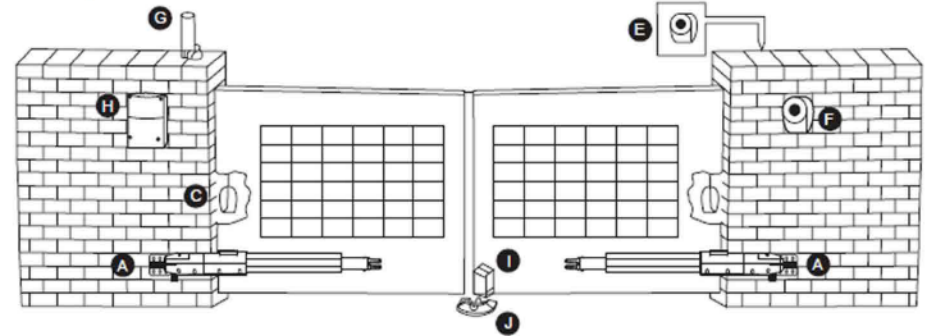
2.Product Description and Applications

2.1.Applications

This model is applied for residential automation of single or dual leaf gate. It has to be operated with electricity and it's forbidden to be operated by back-up batteries for normal use. Back up batteries are only allowed for emergent operation when there is a power failure, and the gear motors can be released by special keys to move the gate manually.

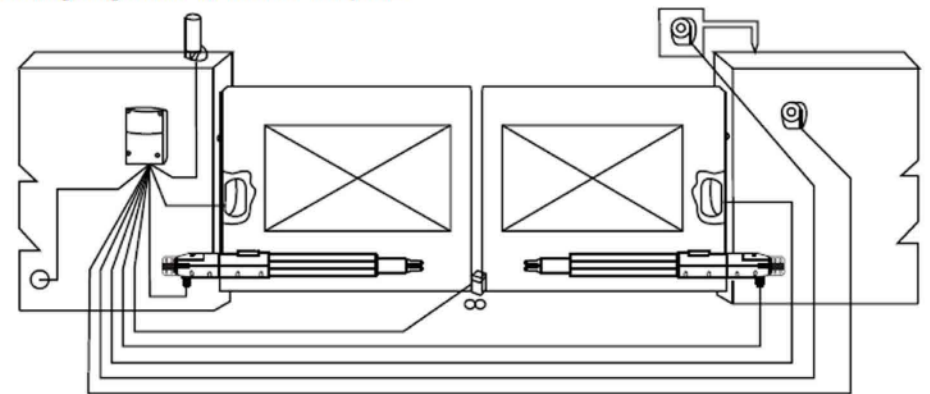
2.2.Description of the Automation

The following diagram of typical installation describes some terms and accessories of a gate automation system.



3.Motors, Components and Its Installation in Illustration

The installation procedure maybe changed due to various accessories and quantities installed. The basic wiring diagram is shown in below photo.



3.1.Power connection

The swing is required to connect two cores wires, which requires very low voltage that no professionally trained personnel is required in installation; however, the users are advised to read the installation manual carefully before going for it. After getting to know all accessories and their positions, suggest starting from cable conduit arrangement to prevent the cables from being broken or damaged.

3.2. Notes for Power Connection

- A. The installation of power supply cable to the motor should be carried out by a qualified professional electrician.
- B. The power supply cable of the motor should be equipped with short circuit protection and leakage protection. Please make sure to shut off the power before going installation or maintenance.

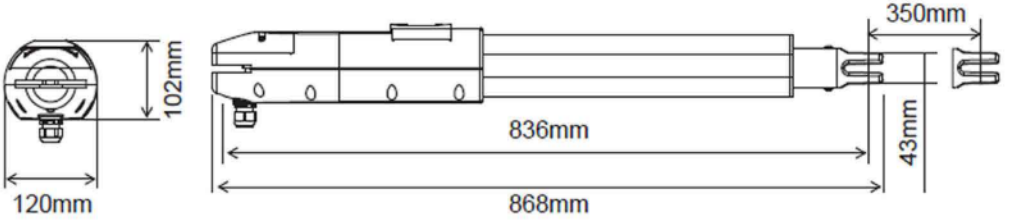
4. Installation

4.1. Preparation for Motor Installation

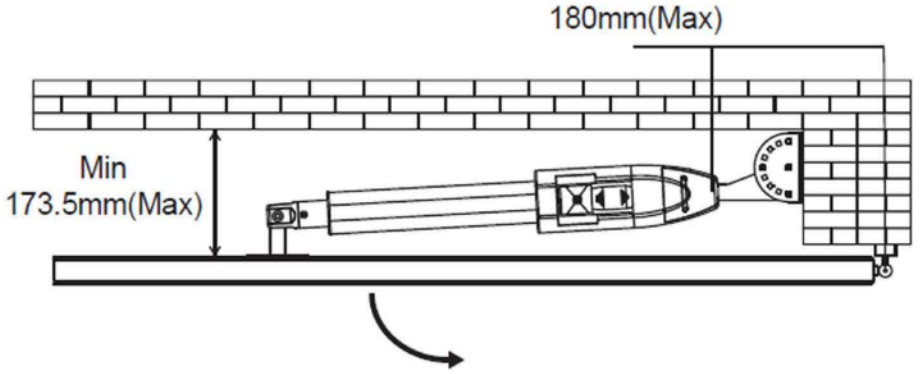
The gate motor is not applicable to a gate which is inefficient or unsafe, neither to solve the defects due to incorrect installation nor poor maintenance.

Check the following items before going for installtion:

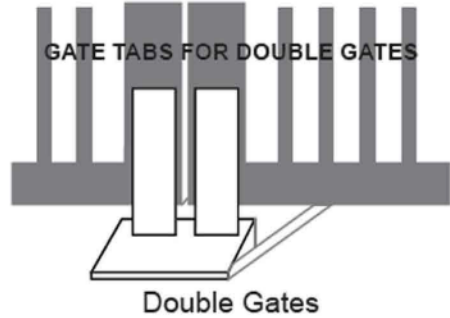
- 1 Make sure the weight and dimension of the gate conform to the operation range of the gate motor. Don't use the gate mootr if the gate specifications do not meet the requirements.
- 2 Make sure the gate structure conform to the criteria of automatic operation and force regulations.
- 3 Make sure there is no serious friction existing in the opening or closing travel of the gate leaves.
- 4 Make sure the gate is at horizontal level that the gate will not move aside at any position.
- 5 Make sure the gate can bear the impact of the motor torque when it is installed on any hole of the bracket which the surface is sufficiently sturdy.
- 6 Make sure the photo sensors are installed on flat surfaces to ensure the two ends of receiving and transmitting corresponded to each other.
- 7 Check the dimensions of the motors as below:



- 8 Make sure to leave enough space when the gate is opening.



Installing the gate stopper



Double Gates

Installing the rubber gate stop is required to ensure proper alignment of the two gates and for them to have a solid push onto the stopper in the full-closed position.

Single Gates

The gate should either stop onto a post in the closed position, or you can use the rubber gate stop and place it onto the post allowing the gate to have a solid push in the closed position. If using therubber stop, make sure you place it on the same level as the actuator arm to avoid bending and twisting of the gate.



Rubber gate Stop on post

Actuator arm on same level

Full-Close Position

Each gate must stop on a firm and well secured Gate Stop in the closed position. Failure to do so may result in misalignment and accelerated wear to the system and the gate hinges.

Full-Open Position

In the full-open position, the gates can either be hard stopped by a peg / stop- per, or be stopped by the internal built-in mechanism at the end of the retract- ed arm (Pull-to-Open gate) or fully extended arm (Push-to-Open gate).

- 14 Fasten the nut tightly and loosen if for half round for motor supporting in rotating.
- 15 Fasten the motor front end to the front plate with the bolt (A) and nut (B) tightly. Fully tighten the screw.

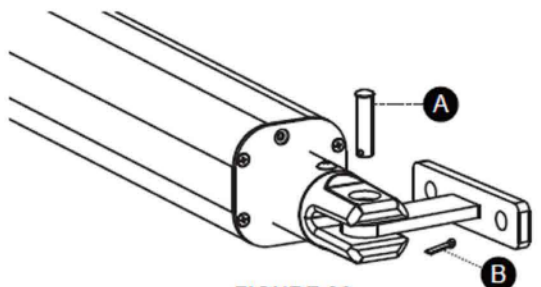


FIGURE 26

- 16 Connect the motor power cable as shown in Figure 27
- 17 Close the gear motor cover by tightening the two screws as shown in Figure 28

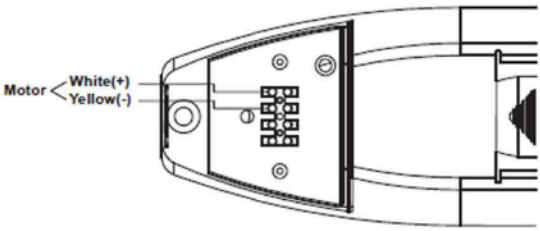


FIGURE 27

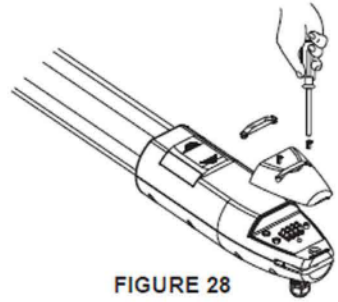


FIGURE 28

- 18 Gear Motor Release
 - A. Turn the round plate on the release part to "OPEN" position, See Figure 29
 - B. Push out the release part to the end. See Figure 30
 - C. Use the release key to turn the pin anti-clockwise to the end. See Figure 31

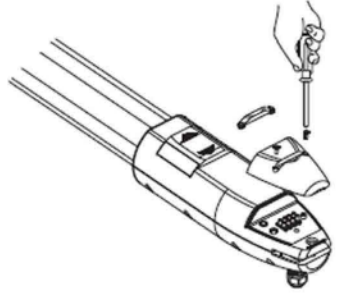


FIGURE 29

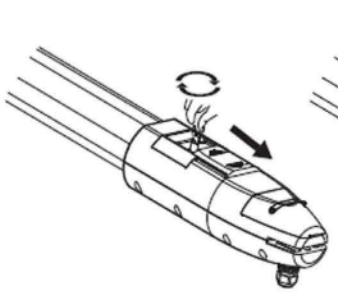


FIGURE 30

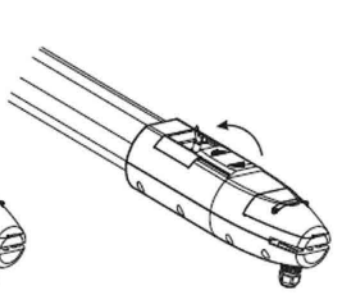
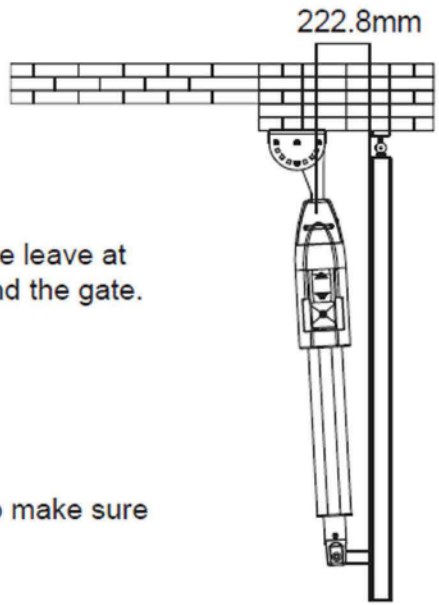


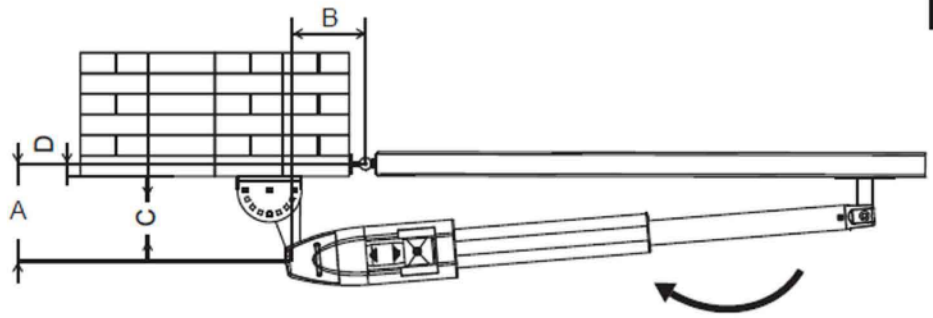
FIGURE 31

Gear motor release (fork series)



4.1. If the gate is OPENED OUTWARD, please leave at least 70mm between the post brackets and the gate.

4.3. Using the leaf-opening angle as criteria to make sure all criteria in Figure 17 can be met.



- ① "C" value is 139mm
- ② "D" can be measured from the gate easily
- ③ "A" = "C" + "D"
- ④ The value of "B" can be calculated from the value of "A" and the leaves opening angle. Ex. If "A" = 160mm with the leaves opening angle of 100 degrees, then the value of "B" is approximate 190mm.

A(mm) \ B(mm)	160	170	180	190	200	210	220	230	240	250	260
80											
90		> 120°									
100											
110			110°~120°								
120				100°~110°							
130					90°~100°						
140											
150											
160											
170											
180											

FIGURE 17

NOTE: Please make sure "B" and "A" are similar or the same in value that the leaves can be operated smoothly. Also to reduce the burden of the motor.

4.4. Installation of the Gear Motors

- 1 Choose the correct dimensions of the motors and position to be installed.
- 2 Check if the mounting surface the brackets to be installed is smooth, vertical and rigid.
- 3 Arrange the cable conduit for power supply cable of the motors.
- 4 In order to obtain the optimal supporting from the rear plate, please assemble two post brackets and one rear metal plate according to below photo.
- 5 Loosen the two screws and remove the back cover of the motor as shown in photo.
- 6 Place the leaves in the closed position.

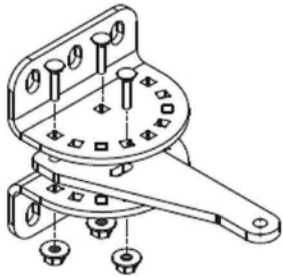


FIGURE 18

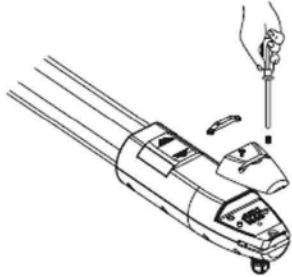


FIGURE 19

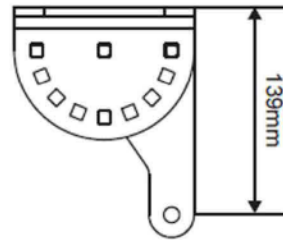


FIGURE 20

- 7 Refer to the distance of "B" in figure 17, place the rear plate in the correct position on the mounting surface. Inspect if the distance is proper as shown in Figure 23 i.e. the position the front plate of the motor to be installed.
- 8 Place two post brackets on the surface to be installed and mark the drilling points, then drill minimum diameter of 8mm holes by four on the mounting surface to be installed and fasten up the brackets with screws and washers.
- 9 Please make sure the front plate is completely installed horizontally.

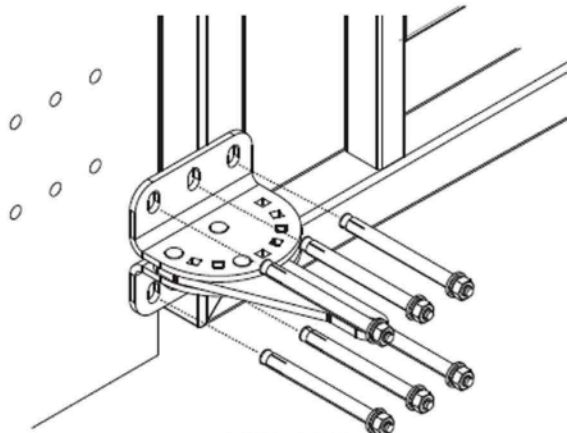


FIGURE 21

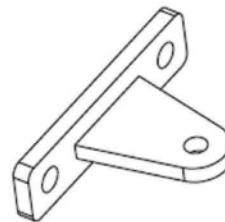


FIGURE 22

- 10 Refer to Figure 23, the distance between front plate of the motor and rear plate is 836mm, the difference in height is 21.2mm.

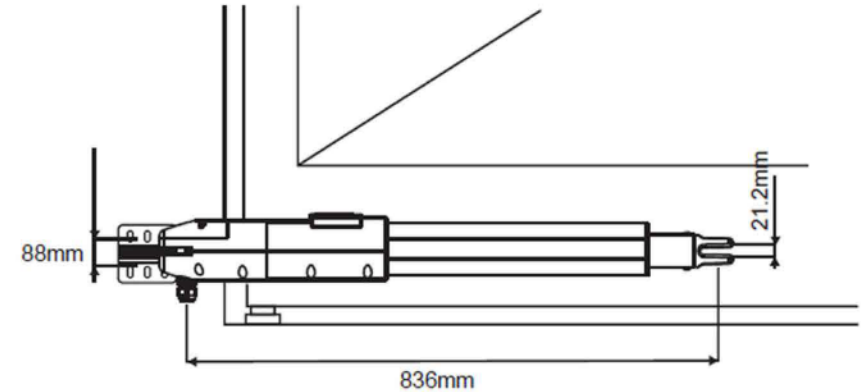


FIGURE 23

- 11 Clamp and fix the motor front plate on the door temporarily.

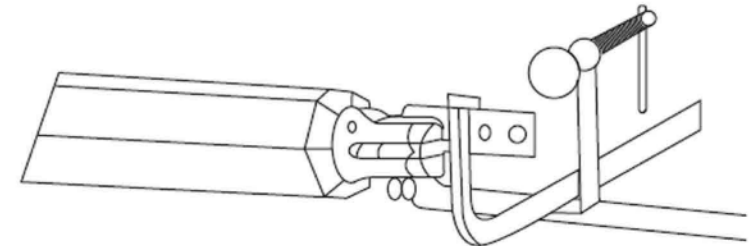


FIGURE 24

- 12 Lift up the motor and insert the screws into the front plate.
- 13 Open the gear motor cover and release the screws, then take out the bolt as below Figure 25. Lift the motor overhead and push the gate to the end until the screw holes of the motor end matches the holes on the rear plate as shown in Figure 25.1 and fasten the motor to the rear plate with bolt and screw as shown in Figure 25.2.

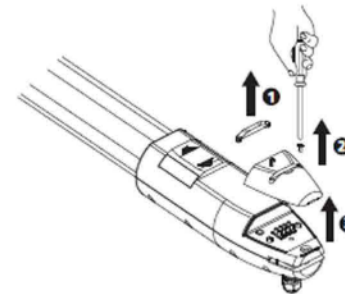


FIGURE 25

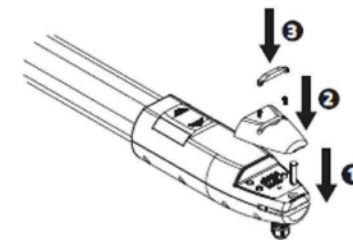


FIGURE 25.1

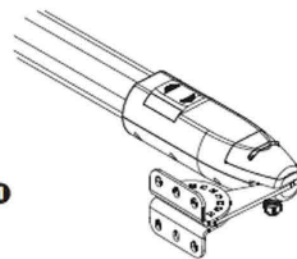


FIGURE 25.2