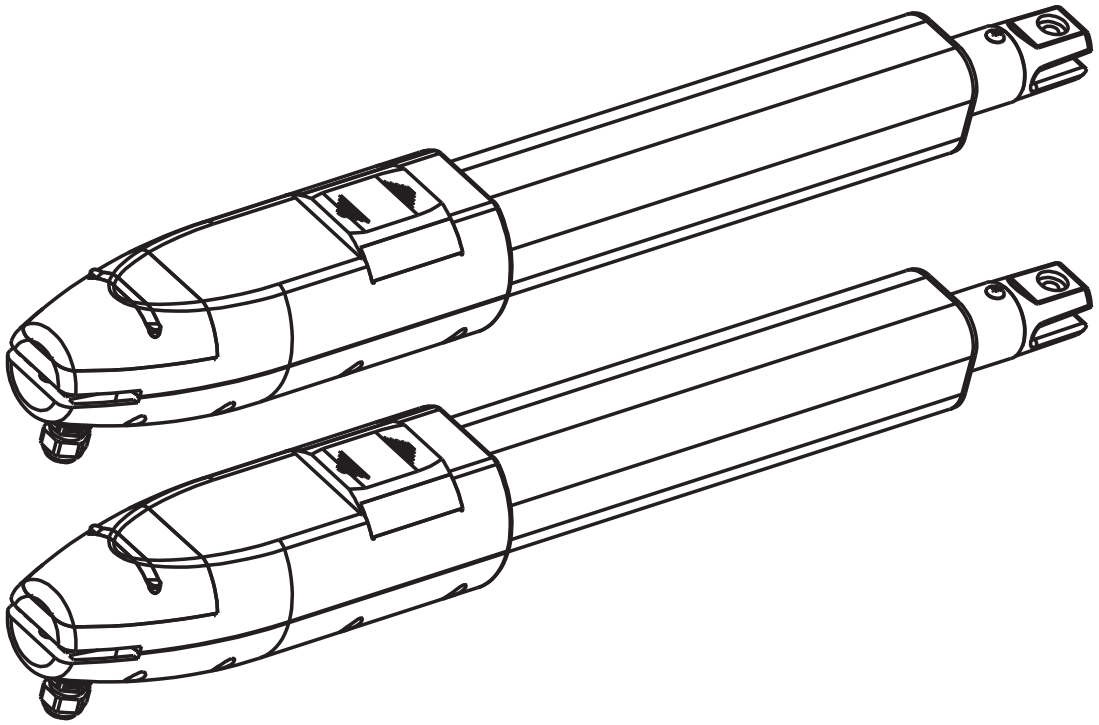
Installation Manual

PKM-C03-400

Solar or Electric Systems



V4.2.3

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WARNING

Important Safety Information

Gate equipment has hazards associated with its use and therefore by installing this product the installer and user accept full responsibility for following and noting the installation and safety instructions. Failure to follow installation and safety instructions can result in hazards developing due to improper assembly.

READ ALL INSTRUCTIONS CAREFULLY AND COMPLETELY before attempting to install and use this automatic gate operator. This gate operator produces a high level of force. Stay clear of the unit while it is operating and exercise caution at all times.

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All safety instructions should be read and completely understood by installer and the owner prior to the installation of the auto gate system. This product is designed and manufactured for the use indicated in the manual.

Remember that all automatic gates are intended for vehicular gates only. A separate gate or en- trance must be installed for pedestrian use. Any other use, not expressly indicated may damage the product or be a source of danger.

Swing Gate Motor - Model PKM-C03

PKM-C03 swing gate motor is suitable for light - medium-small heavy weight gates. Do not use it on large sized gates which exceed the maximum recommended gate weight and length. Wrong selection of motor will result in an unreliable operation.

Please Read This First!

Thank you for purchasing the PKM-C03 automatic gate opener! When correctly installed and properly used, your Gate Opener will give you many years of reliable service.

The Opener is designed for installation on a pull-to-open or push-to-open gate.
The Gate Opener can be used on aluminum, chain link, farm tube, and wrought iron gates.

Use on solid surface gates is NOT recommended. Solid surface gates have a high resistance to the wind. If the wind is strong enough, the operator will obstruct and stop.

The Gate Opener accommodates extra transmitters, digital keypads, solar panels, push but- tons, automatic gate locks, and other access control products.

The Gate Opener features an obstruction sensor. This feature makes the gate stop and reverse open when it comes in contact with an obstruction. This sensitivity is preset on the main control board and cannot be adjusted.

The Gate Opener has an adjustable auto-close feature. After the gate reaches the fully open position, it can be set to remain open up to 120 seconds before automatically closing. Pressing the transmitter button at any time after the gate opens fully will cause it to close immediately. OFF is the factory setting; meaning the gate will stay open until you press the transmitter (or keypad, etc.) again.

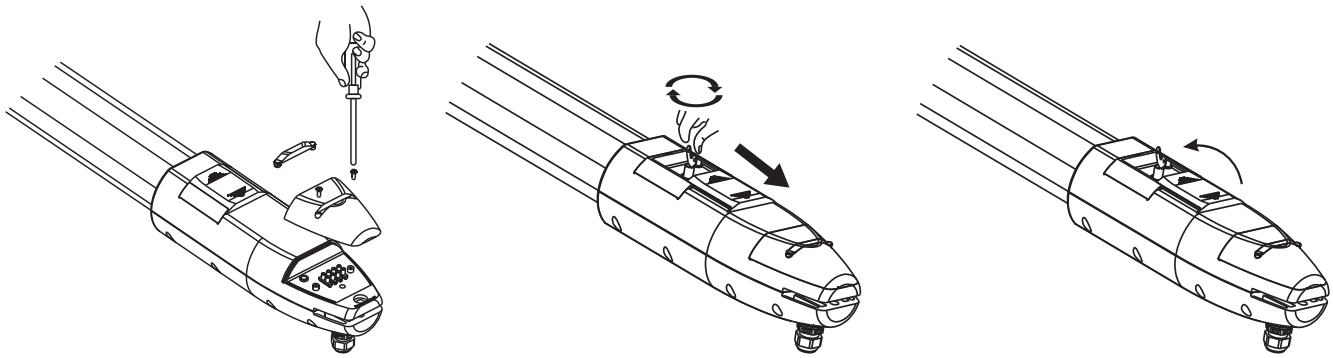
Manually Opening and Closing Gate

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:

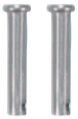
1. Make sure the gate weight and length does not exceed the maximum specifications.
2. The gate design must be suitable for the installation of the auto gate system.
3. Ensure that the gate is installed on flat, level ground and can move freely in both directions along the entire swing of the gate. A 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

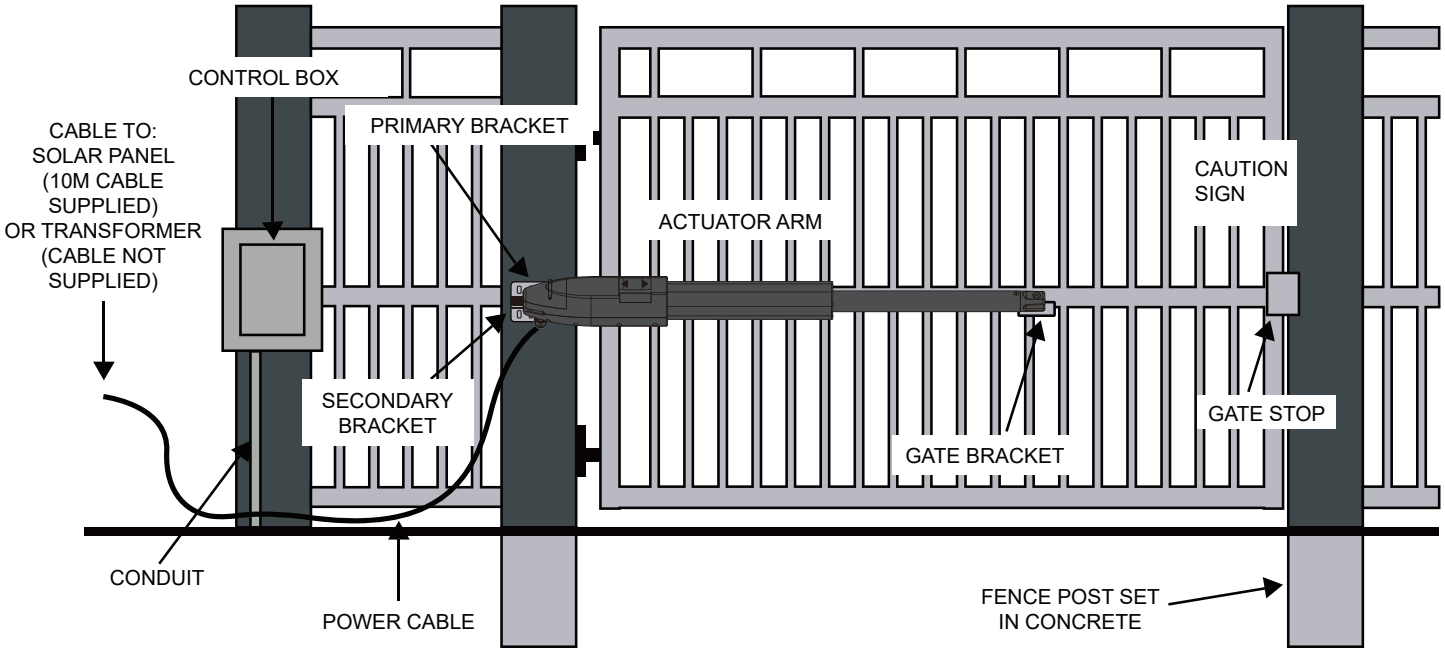
Supply voltage	24Vac Transformer or Solar	Max Piston Speed	2.5cm/sec
Backup Battery	12Vdc Lead acid	Gear Box	Three-stage spur gear reducer
Driving Method	Screw driven type	Max. Piston Stroke	400mm
Max. Output Power	80W per driver	Electronic Controller	maintenance free
Remote Controller	4 channels 433.92MHz	Max. Length of Gate	3.5m per leaf (350cm)
Max. Weight of Gate	350kgs dependent on gate	Operating Cycle	13-19 seconds Per 90° (on AC power only)
Safety Clutch	Electronic current sensing, high amp cut off	Operating Voltage	DC 16-18V for normal speed DC 6-10V for cushioning speed

Package List

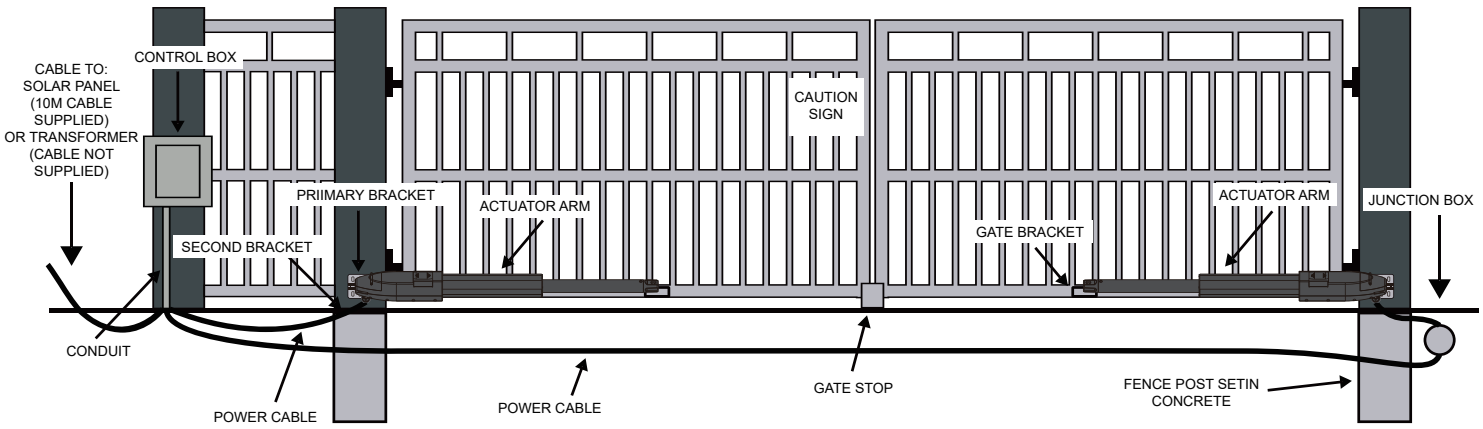
Item	Description	Picture	Explanation
1	Swing gate opener	Ⓐ  x2	1=Single leaf gate 2=Double leaves gate
2	Control box	Ⓑ  x1	
3	Control box screw unit	Ⓛ  x4 Ⓝ  x4	
4	Remote control	Ⓔ x2	Optional
5	Rubber gate stopper	Ⓒ  x1	
6	Rubber gate stopper screw	Ⓗ  x2	Fixed the rubber gate stopper

7	Rear post bracket	Ⓓ  x4	Install on the post
8	Rear post bracket bolt	Ⓘ  x12	Fixed the rear post bracket on the post
9	Post pivot bracket	Ⓙ  x2	Assemble with the post bracket
10	Post pivot bracket bolt	Ⓞ  x6	Fixed the rear post bracket and post pivot bracket
11	Clevis Pin	Ⓖ  x2	Fixed the post pivot bracket and the gate opener
12	Gate bracket	Ⓚ  x2	Fixed the gate bracket on the gate by welding
13	Clevis Pin	Ⓖ  x2	Fixed the gate bracket and gate opener
14	Hairpin clip	Ⓜ  x2	Fixed the gate bracket and gate opener
15	Manual release key	Ⓕ  x2	Applied in the power failure or gate opener broken

Single & Double Gate Installation Overview

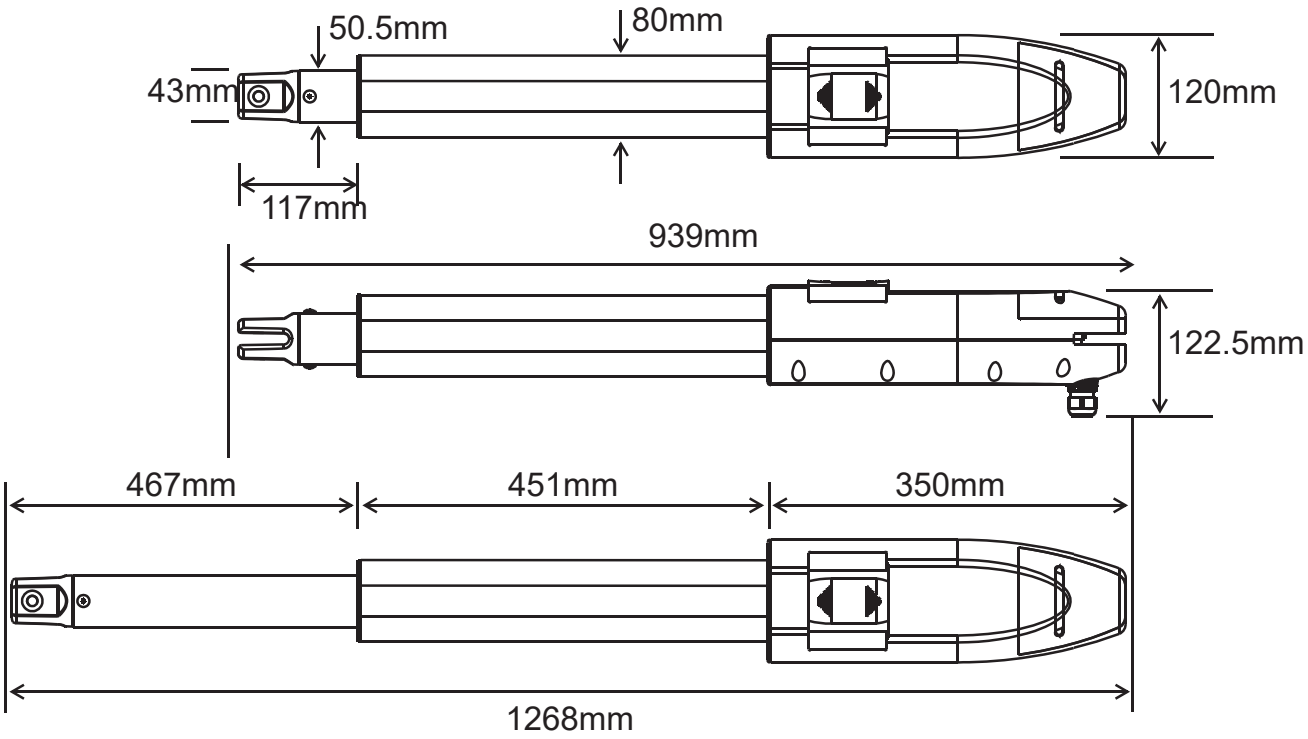


Single Swing Set Up Example

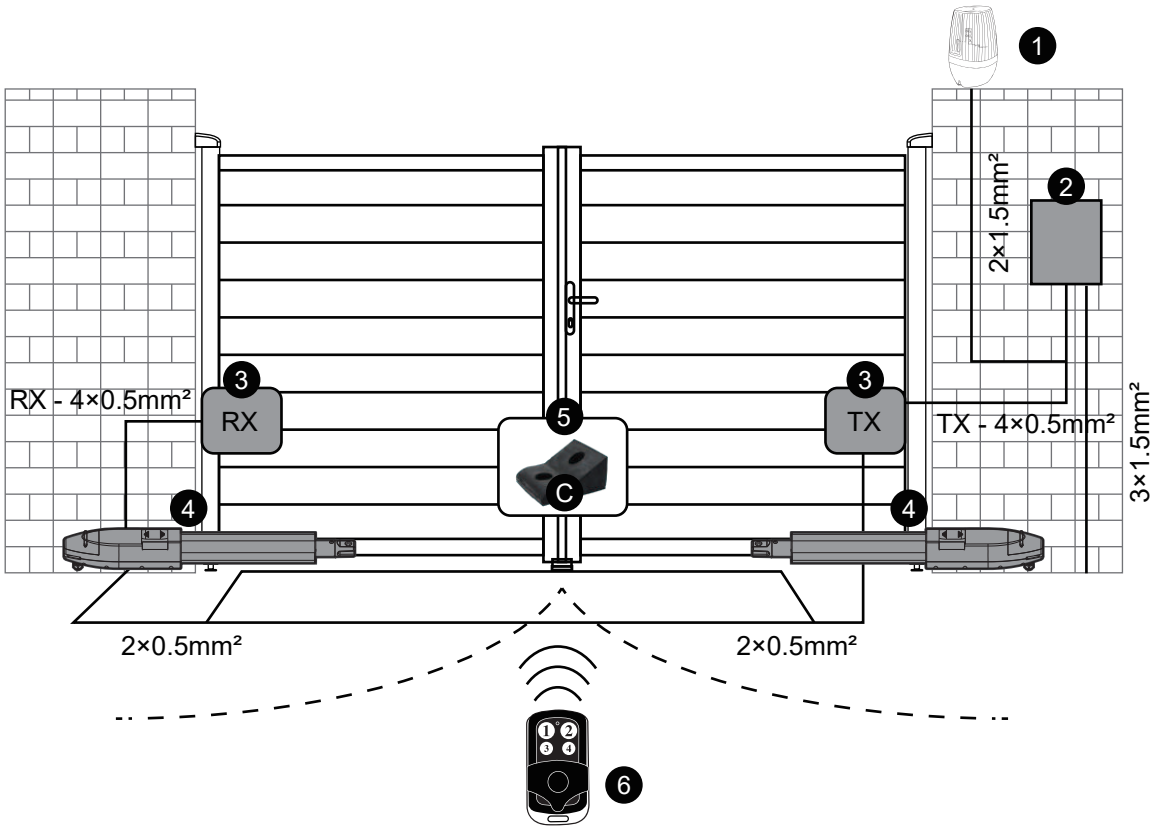


Double Swing Set Up Example

SPECIFIC (PRODUCT OVERVIEW) DIMENTIONS



Swing Gate Automation Features & Options



❶ FLASH LAMP ❸ Photocell ❺ Rubber stop

❷ Control box ❹ Swing gate motor ❻ Remote control

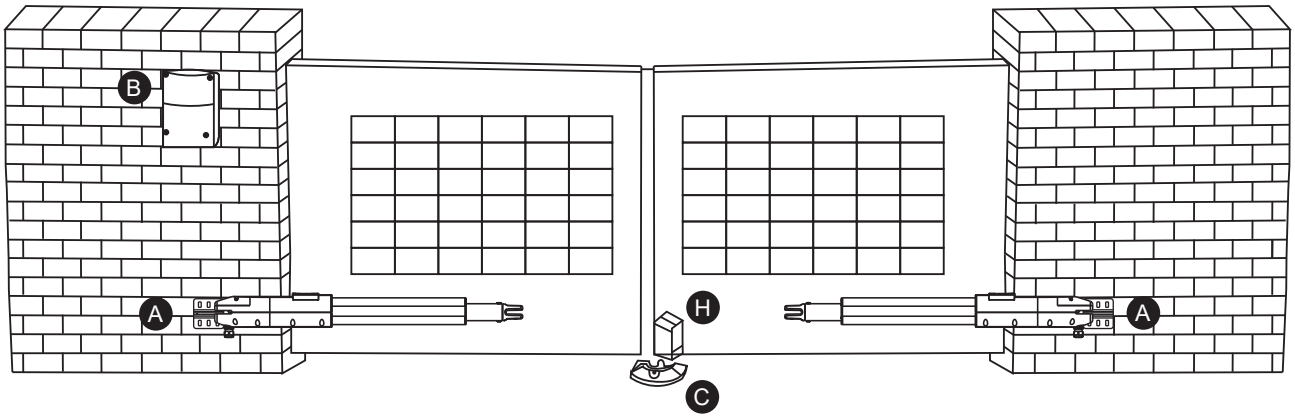
2.Product Description and Applications

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.

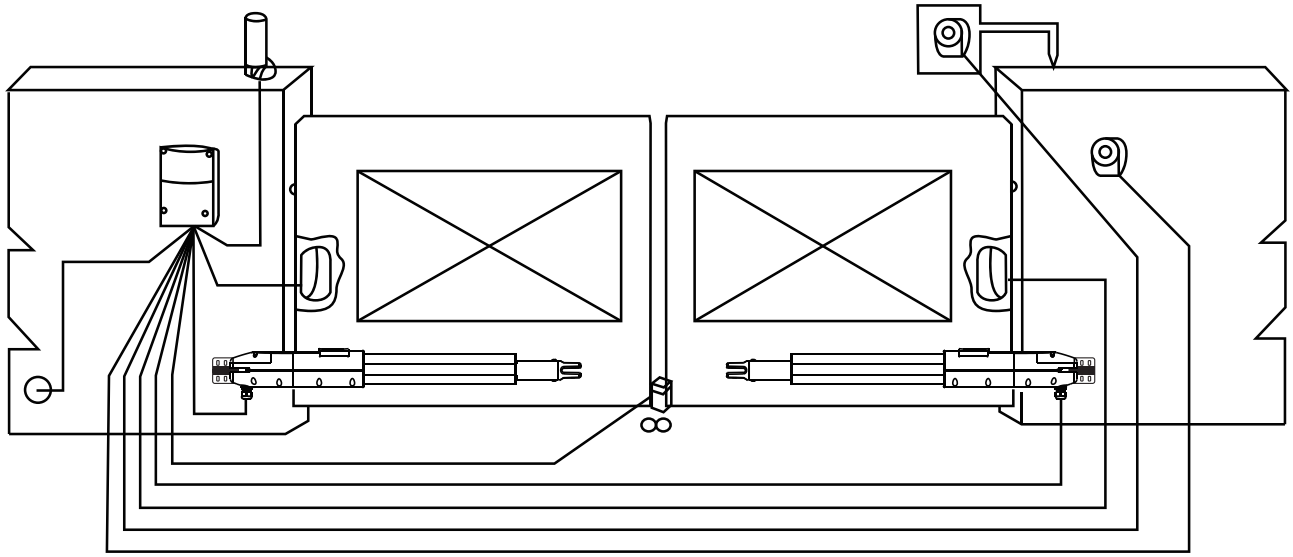
2.2.Description of the Automation

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



3.Motors, Components and Its Installation in Instruction

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 installation:

❶ Make sure the weight and dimension of the gate conform to the operation range of the gate motor. Don't use the gate motor if the gate specifications do not meet the requirements.

❷ Make sure the gate structure conform to the criteria of automatic operation and force regulations.

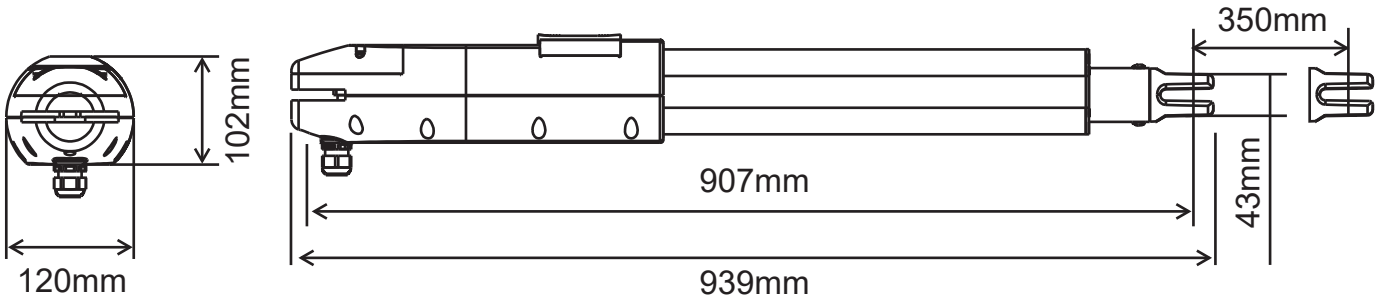
❸ Make sure there is no serious friction existing in the opening or closing travel of the gate leaves.

❹ Make sure the gate is at horizontal level that the gate will not move aside at any position.

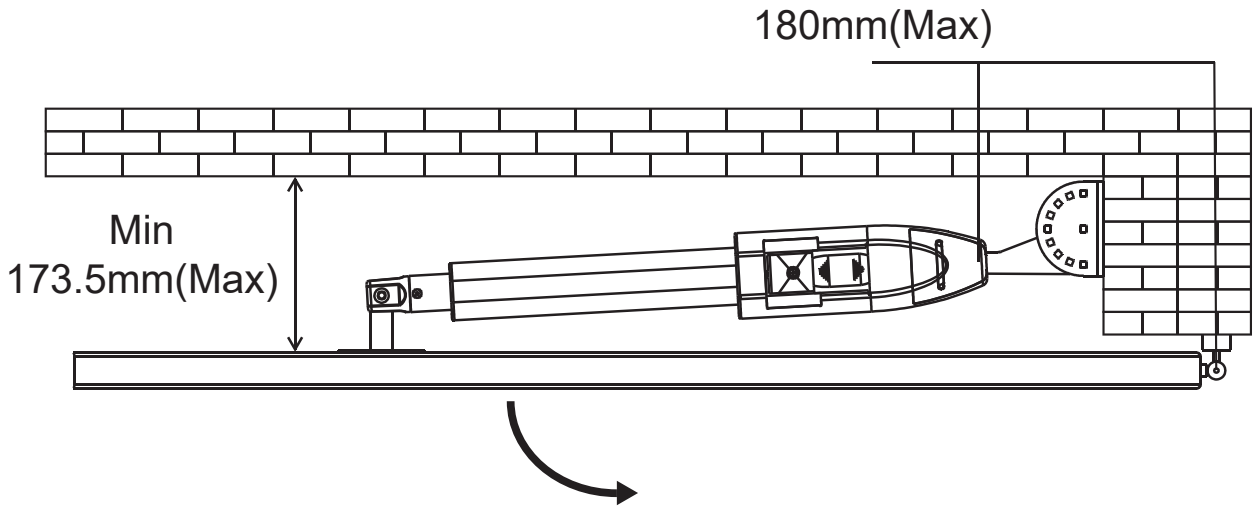
❺ Make sure the gate can bear the impact of the motor torque when it is installed on any hole of the bracket which the surface is sufficiently sturdy.

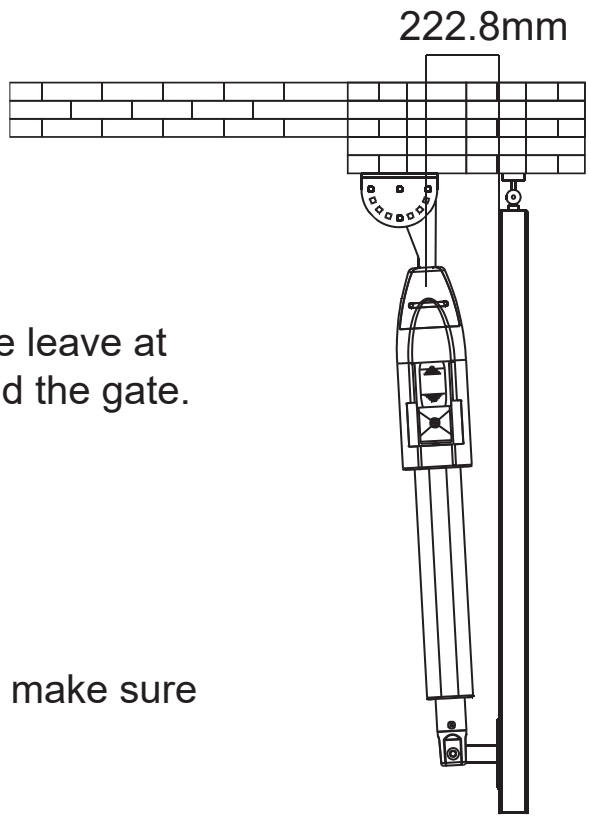
❻ Make sure the photo sensors are installed on flat surfaces to ensure the two ends of receiving and transmitting corresponded to each other.

❼ Check the dimensions of the motors as below:



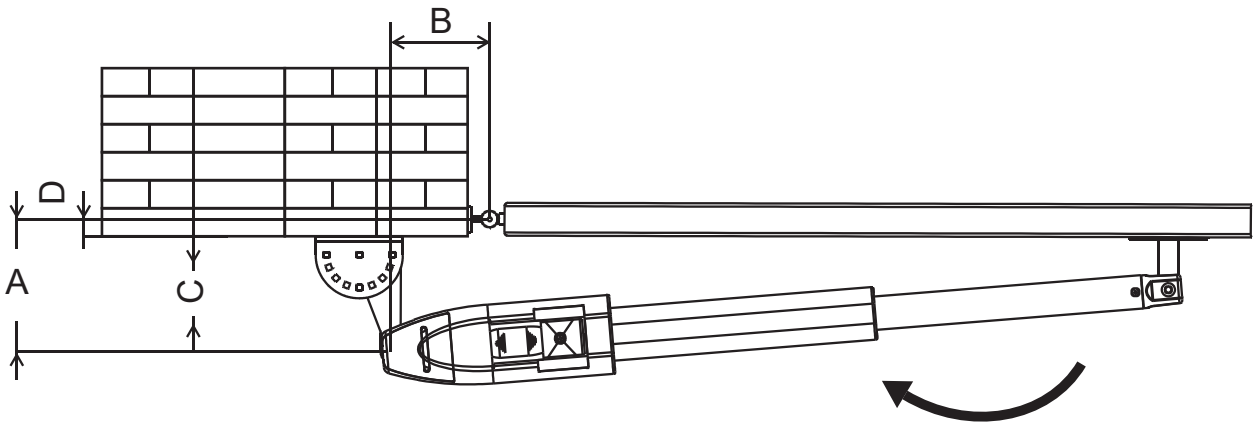
❽ Make sure to leave enough space when the gate is opening.





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.

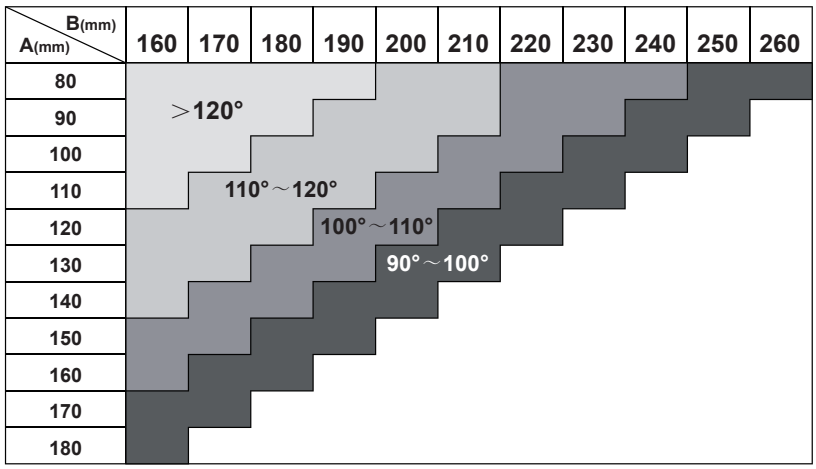


FIGURE 17

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

❶ Choose the correct dimensions of the motors and position to be installed.

❷ Check if the mounting surface the brackets to be installed is smooth, vertical and rigid.

❸ Arrange the cable conduit for power supply cable of the motors.

❹ 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.

❺ Loosen the two screws and remove the back cover of the motor as shown in photo.

❻ Place the leaves in the closed position.

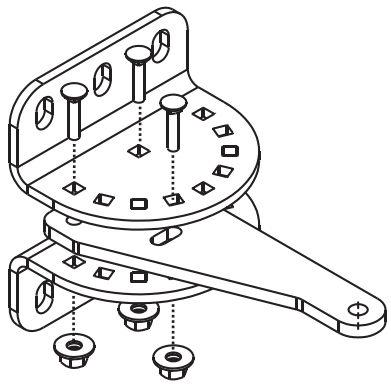


FIGURE 18

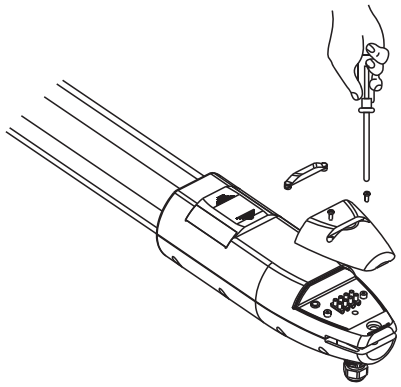


FIGURE 19

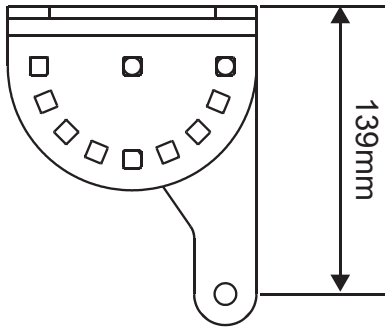


FIGURE 20

❼ 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.

❽ 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.

❾ Please make sure the front plate is completely installed horizontally.

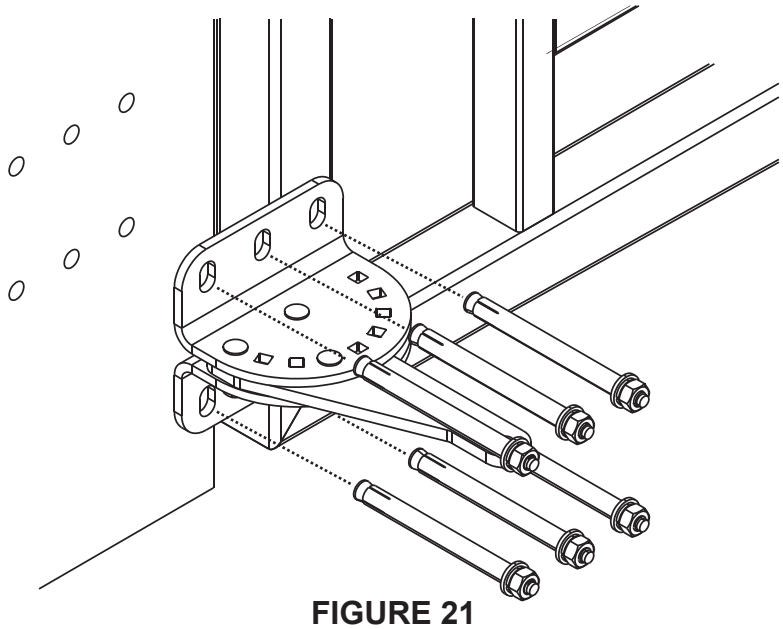


FIGURE 21

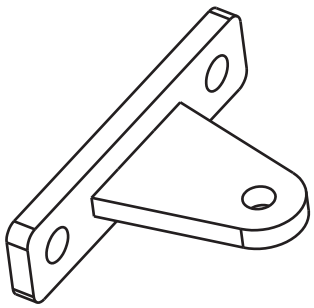


FIGURE 22

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

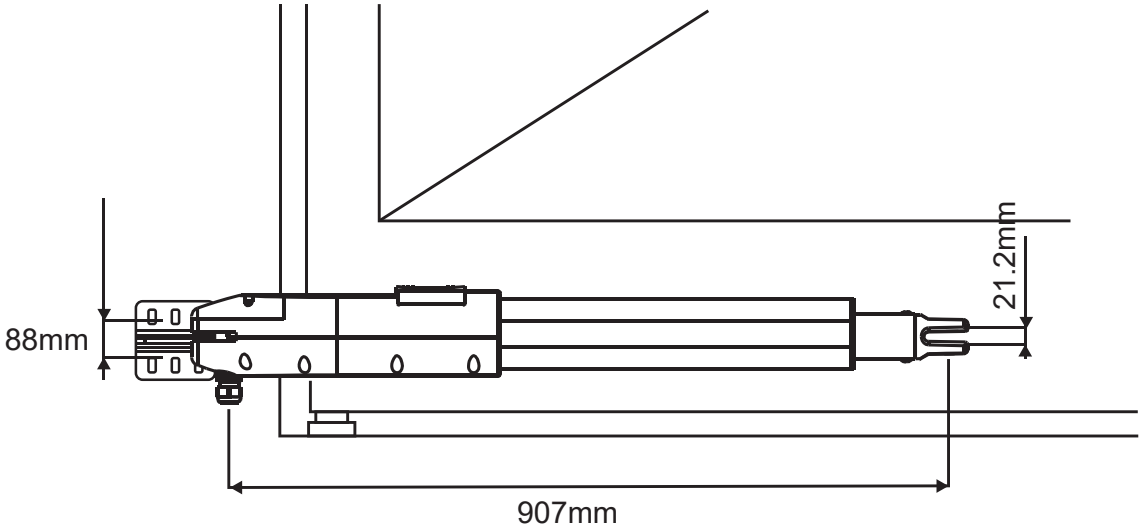


FIGURE 23

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

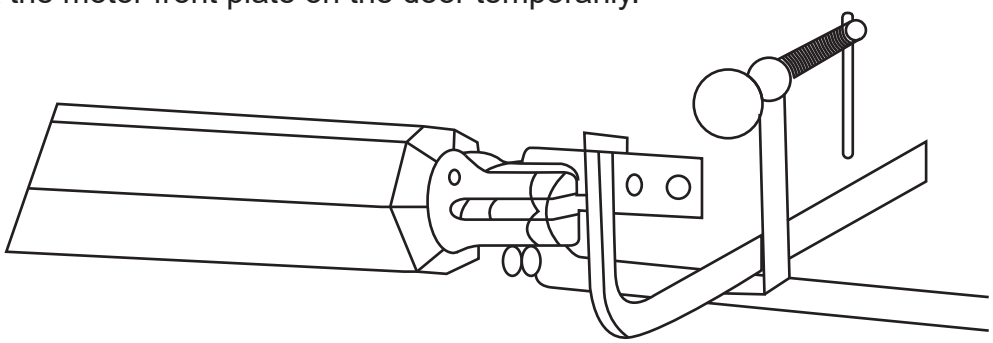


FIGURE 24

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.

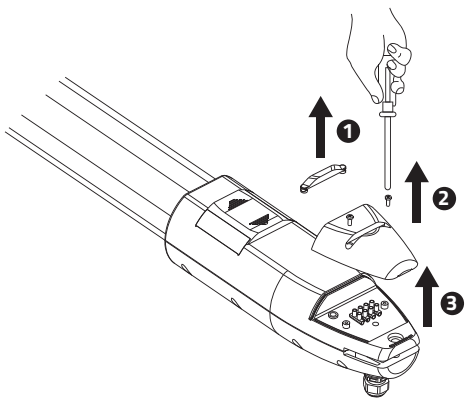


FIGURE 25

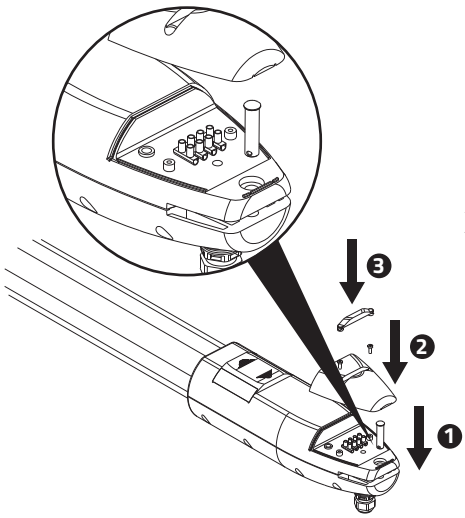


FIGURE 25.1

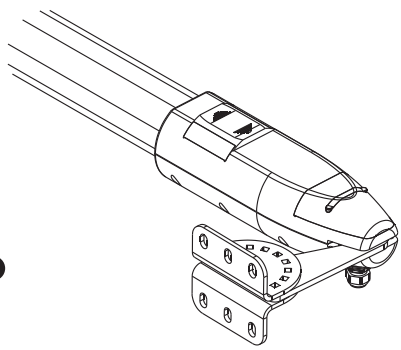


FIGURE 25.2

⓮ Fasten the nut tightly and loosen if for half round for motor supporting in rotating.

⓯ Fasten the motor front end to the front plate with the bolt (A) and nut (B) tightly. Fully tighten the screw.

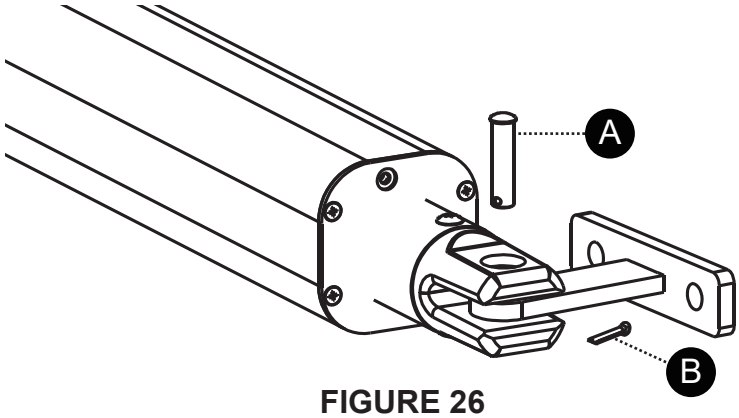


FIGURE 26

⓰ Connect the motor power cable as shown in Figure 27

⓱ Close the gear motor cover by tightening the two screws as shown in Figure 28

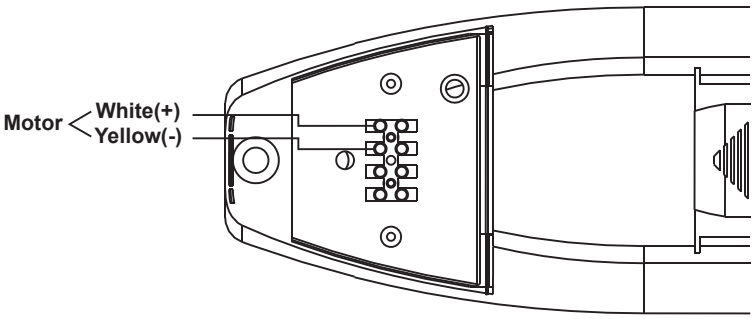


FIGURE 27

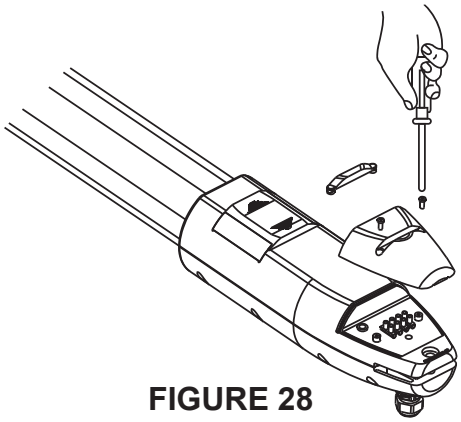


FIGURE 28

⓲ 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

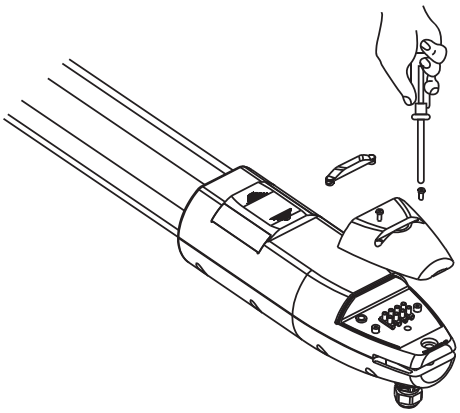


FIGURE 29

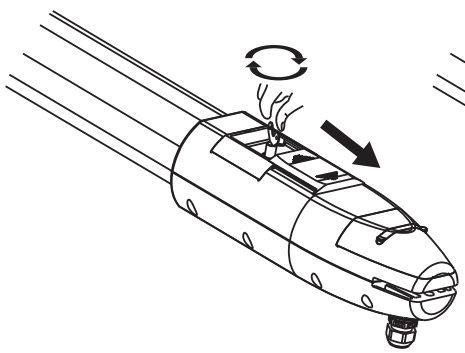


FIGURE 30

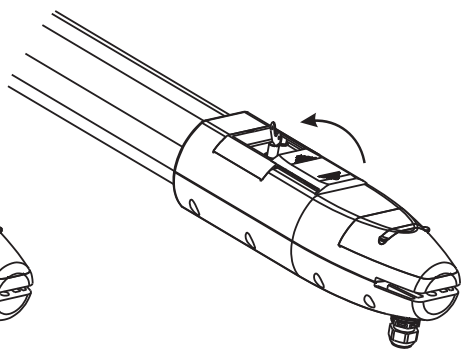
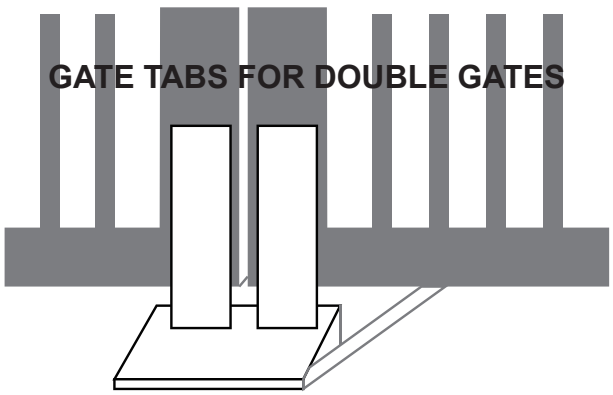


FIGURE 31

Gear motor release (fork series)

Installing The Gate Stopper



Double Gates

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 the rubber 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.

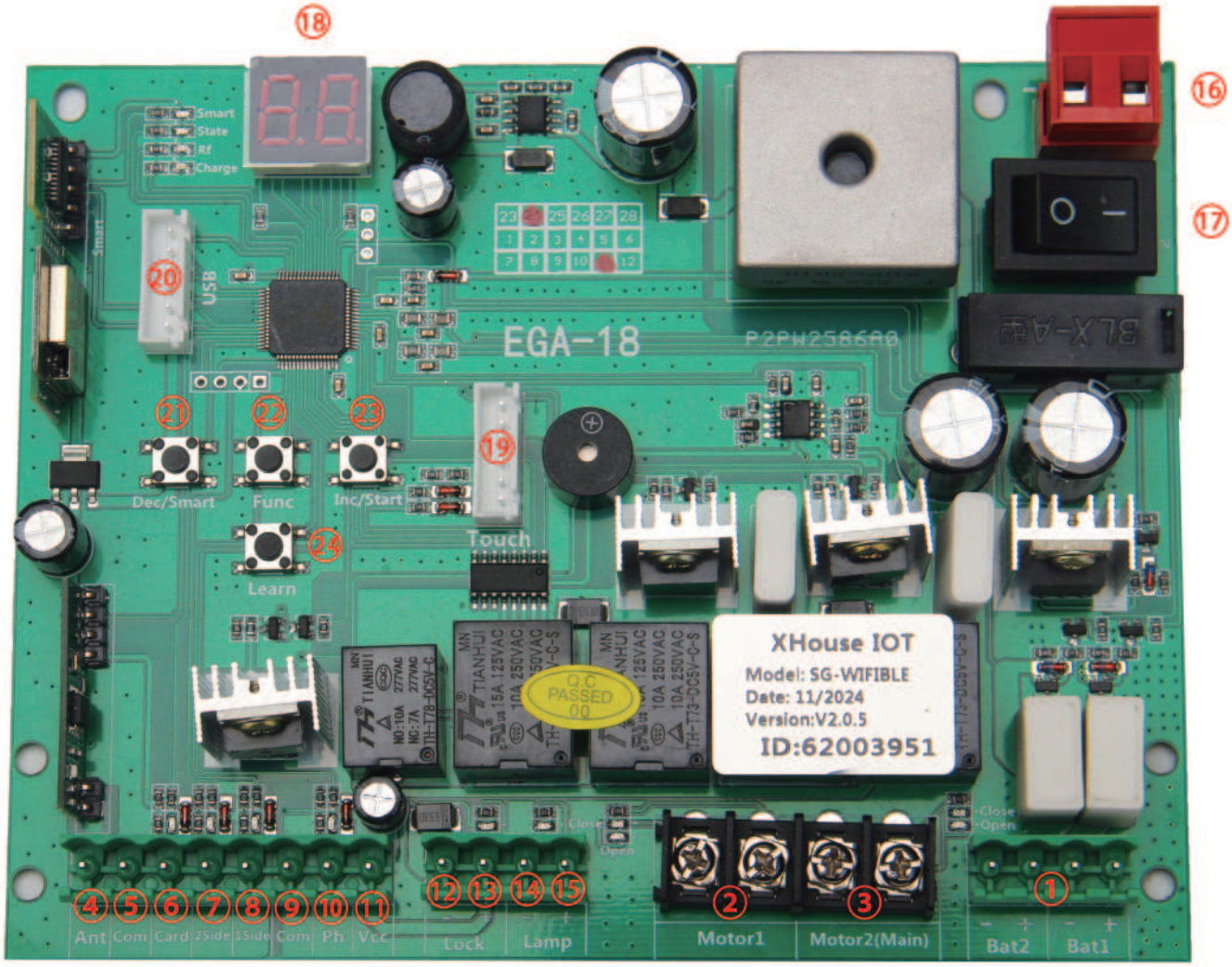
Full-Open Position

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).

Control Board Instruction

Technical Parameters:

1.Control Panel Power: AC 19.6-21.6V DC24-28V
2.Back up battery: 12V lead-acid battery x 2
3. Application: Used for double or single DC 24V swing gate opener.
4. Encoder For transmitter: Factory owns rolling code.
5. Allowed Transmitters Quantity: Up to 128PCS.



1.Battery 1 and 2: connect with 2pcs 12V lead-acid battery.
2.MOTOR 1: Master gate, close first & open last.This terminal connects 1st red wire (counted from your left-hand side to your right-hand side)
3.MOTOR 2 (DELAY) : Slave gate, open first & close last.This terminal connects 1st blue wire (counted from your left-hand side to your right-hand side).
NOTE! If you only have a single gate, the motor only can connect to the Motor 2 Delay terminal.
4.Ant: Connect with the antenna.
5.COM: It is for connecting with the COM or GND.
6.Card: It is for connecting to any external devices that will operate to open the gate.
7.2 SIDE: It is for connecting with any external devices that operates a double gate.
8.1 SIDE: It is for connecting with any external devices that operates the single gate.
9.COM: It is for connecting to the COM or GND.
10.Ph: Infrared terminal is for connecting with the photocell sensor.

11.VCC: The output is for connecting with the photocell sensor, etc devices, continuous output current <=0.5A.
12.Lock -: used for connecting with the “ground” of the lock.
13.Lock +: used for connecting with the electric lock
14.Lamp -: It is for connecting with the flash light -.
15.Lamp +: It is for connecting with the flash light +.
16.Power: It is for connecting with the AC transformer or DC 24V solar panel.
17.ON: power on/off button.
18.Menu: It is a digital display for showing you the setting data.
19.Touch: It is for connecting with the touch button, etc devices.
20.USB: It is for connecting with a USB device to upgrade the software.
21.DEC/Smart: used for figure decreasing of setting the data or operating the smart module.
22.FUN: Used for enter the menu setting and confirm the data.
23.INC/Start: used for figure increasing of setting the data or operating the single button control mode.
24.Learn: It is for programming/erasing the remote control.

Remote Control

Each remote has 4 buttons, can set them with different work mode independently through the digital display menu L1, L2, L3 and L4,

0: No function.
1: Double gates open-Stop-Close...
2: Single gate open-Stop-Close...
3: Turn auto close off via remote
4: Open only.

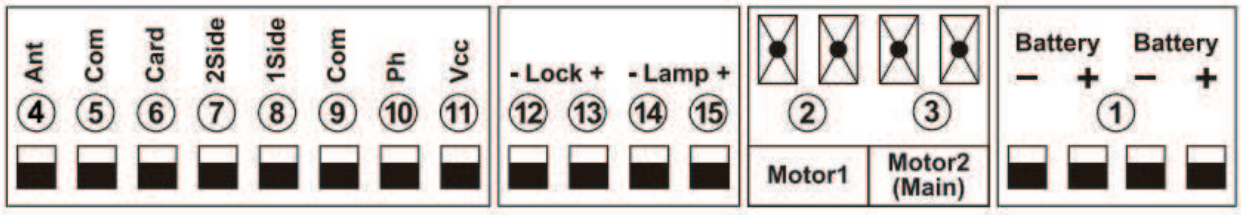
Program new remote control:

● Press the Learn button on the control board for about 1 second, and the buzzer will sound with a short beep. The digital display will show the remote's number, which means the programming is successful.
● After you press the Learn button, if the board does not receive the new remote signal within 8s, the indicator LED will turn on and exit programming.
● Note: Due to the digital display only can show two digital numbers, if the controller already learned more than 99pcs remote, from the 100th remote, the digital display will show A to replace the ten and hundred digits. Such as the 100th remote will show A0, and the 101st remote will show A1. If the controller already learned more than 109pcs remote, from the 110th remote, the digital display will show b to replace the ten and hundred digits.Such as the 110th remote will show b0. And the 120th remote will show C0.
● Max capacity: 128pcs remote. If the digital LED shows “-” with a buzzer short beep 5 times, then means can not learn more remotes.

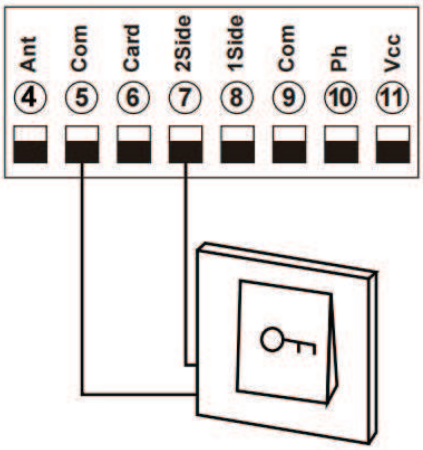
Erase remote control:

● Press and hold the Learn button for about 6 seconds. If the buzzer sound with a long beep, release the button and the digital display will show 00, which means remove all remotes successfully.

Wire Diagram of the Control Board

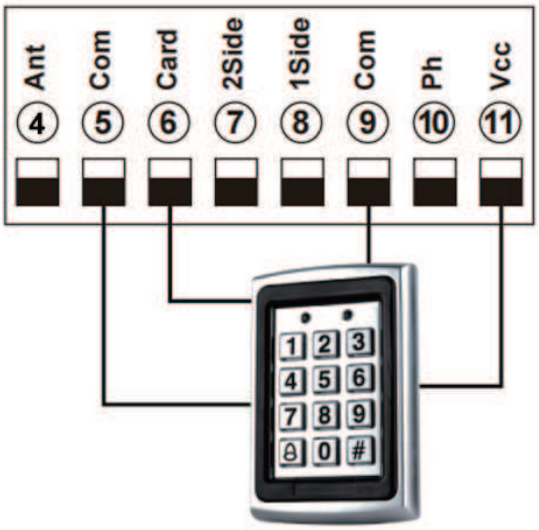


• Connect with control double gates device



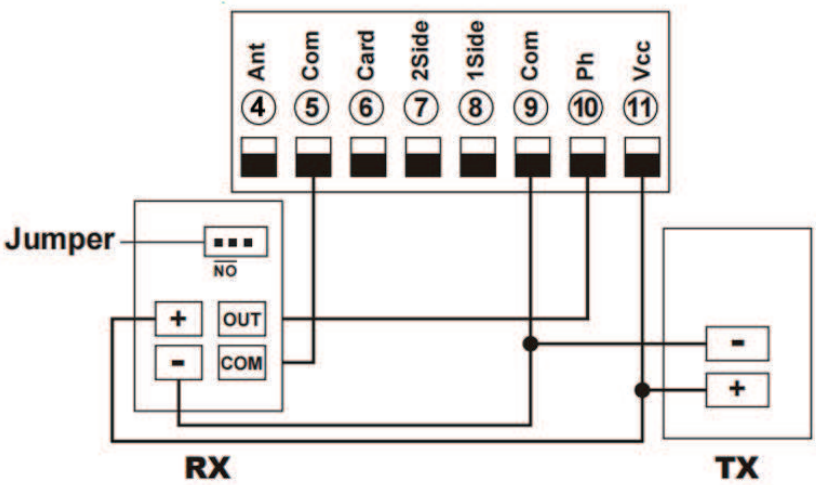
Terminal ⑦2SIDE and ⑤COM are use to connect with push button for controlling dual gates.
If you connect with other control device, please connect with terminal ⑪ and ⑨ to get power supply.

• Connect with swipe card



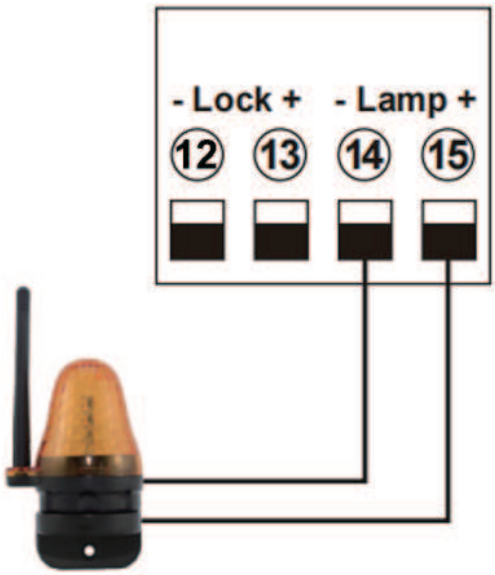
Terminal ⑪VCC and ⑨COM are used to supply power to swipe card device.
Terminal ⑥CARD and ⑤COM are use to connect with swipe card for controlling dual gates.

• Connect with safety beam



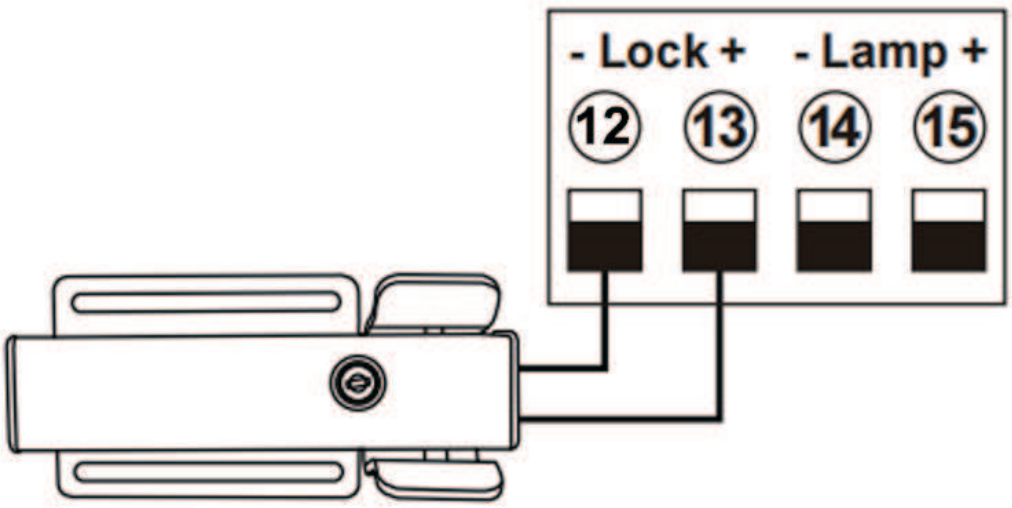
Terminal ⑪ VCC and ⑨ COM are used to supply power to safety beam sensor.
So, connect terminal ⑪ VCC with the “+” of the safety beam sensor RX and TX .
Connect terminal ⑨ COM with the “-” of the safety beam sensor RX and TX.
Connect terminal ⑩ Ph with safety beam sensor “OUT”
Connect terminal ⑤COM with safety beam sensor “COM”

• Connection of Flash Lamp Device



Terminal ⑭ ⑮ Lamp + / - are used to connect with flash lamp.

• Connect with electric lock



Terminal ⑫ LOCK- is used to connect with electric lock blue wire.
Terminal ⑬ LOCK+ is used to connect with electric lock red wire.

Function Description of the Control Board

Function	State
Power On	The digital display will show EGA-18 00-U xx with a buzzer sound. If the indicator LED light on, means the system is working well.
Auto travel learning	The newly installed motor needs to operate the auto travel learning once before the high and low speeds can be normally allocated. After the auto travel learning completed, the gate motor will automatically allocated the high and slow speed. The high and slow speeds for opening and closing can be set through the digital display menu. 1. Before starting the auto travel learning, the gate must be fully closed. 2. Enter the menu, select Pr, set 5, and confirm to start the auto travel learning Note: Auto travel learning will run at the slow speed set by the digital display menu; the port or remote control cannot be triggered during the learning process, otherwise the auto travel learning will be exited. If Pr set 10, you can also enter the auto travel learning, but this time it runs at the high speed set by the menu. It is recommended to select 5 to use the slow speed to learn the stroke. If after the slow speed auto travel learning, it is found that the high and low speed distribution of some gates is not ideal, you can try to use high-speed auto travel learning.
Setting slow speed running time	After completed the auto-travel learning, the gate opener will automatic set the slow speed running time for opening and closing from 0 - 5 levels. The bigger the value is, the more slow speed running time. 0 means No slow speed running time.
Setting running speed for opening and closing	The gate opener can set the high speed and slow speed for opening and closing from 0 - 5 levels. The bigger the value is, the higher speed running. If adjust the running speed, please operate the auto-travel learning again.
	The function can realize to anti crash the car and motor stop while the gate is opened or closed fully. While the gate is moving, it meets obstruction and will stop right now. The motor's overcurrent setting of high speed and low speed can be adjusted by the digital display menu. If the menu H3 set 1, while the gate is closing and detecting the obstruction, the gate will rebound to open fully.
Limit mode	The menu H3 can adjust the limit mode of the swing gate system. 0 is overcurrent, while the motor runs with low speed and meet the obstacle, then detect the overcurrent, it is judged as a limit. 1 is the limit switch. After the door machine runs in place, the limiter is disconnected. The system detects that the limiter is disconnected and determines that it is a limit.

Safety beam mode	The safety beam mode can be be selected by menu, the default mode is 0, it is normal open mode. 1.While the gate is closing, if the infrared signal meets an obstruction, the gate will r ebound to open. 2.If set the auto-closing timer after fully opening, the gate will be auto-closed. 2. If the safety beam signal exists, the gate closing action will not be executed and the countdown time will always be reset.
Auto-closing timer for fully opening	1.The auto-closing function is only triggered after the gate is fully opened. 2.Auto close timer for fully opening can be set through the digital display menu. 3.When auto-close timer start to countdown, the STATE LED will flash one time each second. 4.The remote button can set to cancel the auto-closing command once. 5.Note: Cancellation only cancels this time, and the gate can be auto-closing next time when it is fully opened.
Lamp mode	The lamp work mode can be selected by menu. Mode 0: While the gate is moving, the lamp will light on. While the gate is stop moving, the lamp will turn off. Mode 1: While the gate is moving, and the lamp will light on. After 30s, the lamp will turn off. In addition, regardless of mode 0 or mode 1, the lamp will also light on during the countdown to closing the gate.
Motor working time protection	1.If the motor works continuously more than 60s, the motor will stop running for protection. 2. If the motor works continuously with low speed more than 30s, the motor will stop running for protection.
Setting of 1Side terminal	The digital display menu can set the 1 SIDE terminal control mode. 0: Double gates "Open-Stop-Close”.....; 1: Motor 2 "Open-Stop-Close”.....(Factory defaults) 2: Open only. 3: Close only. 4: Stop only. Note: mode 1 only apply in the motor 2. Other mode can be apply in double gates or single gate.
Setting of 2Side terminal	The digital display menu can set the 2 SIDE terminal control mode. 0: Double gates "Open-Stop-Close”.....(Factory defaults) 1: Motor 2 "Open-Stop-Close”..... 2: Open only. 3: Close only. 4: Stop only. Note: mode 1 only apply in the motor 2. Other mode can be apply in double gates or single gate.

Setting of swipe card terminal triggering	The digital display menu can set the 2 SIDE terminal control mode. 0: Double gates "Open-Stop-Close”..... 1: Motor 2 "Open-Stop-Close”..... 2: Open only.(Factory defaults) 3: Close only. 4: Stop only. Note: mode 1 only apply in the motor 2. Other mode can be apply in double gates or single gate. If trigger the swipe card terminal with mode 2 to open the gate fully, it will enter the auto closing timer after swiping card.
Touch port	It can connect the touch switch with the control box, has 2 channels. 1.Control the motor 2 by Open-stop-close... 2.Control the motor 1 and motor 2 by Open-stop-close...
Lock mode	1.The lock mode can be switched by menu. 0:NC mode,power on when locked, used for electromagnetic lock.1:NO mode,power on when unlocked, used for electric lock. 2. The control output time of the electric lock can be set by menu. If set to 0, it means turning off the function.
Time delay with 2 g ates for opening and closing	Time delay with 2 gates for opening and closing can be adjusted separately by the menu. If user set 0, means No the delay function. If the delay function is active, when opening the door, motor 2 opens first then motor 1 opens later; while closing the door, motor 1 closes first then motor 2 closes. For the single gate system, this function does not work.
Gate mode	1.The gate mode can be switched by menu. 0 is dual gates, which is a double gates opener system. 1 is single gate, which is a single gate opener system. 2.If the system is single gate system, all control for the double gates only operate on the main gate(Motor 2) 3.If it is the single gate system, the motor must be connected with motor2 port.
Smart charger function for back-up battery	1. The system supports two 12V lead-acid batteries in series. 2. The system has a built-in battery balancing function, which will automatically monitor the voltage of the two batteries during charging to prevent the two batteries from being damaged or insufficient due to imbalance. Note: The power port power supply needs to be properly connected, and the input voltage must match the battery to charge the battery normally.

Upgrade control board system by USB device	1.Before you upgrade the system, please confirm the U disk document isFAT32 or not. If not, please format the U disk as FAT32. 2. Copy the upgrade file into the root directory of the U disk and name it EGA-18.bin. 3. Insert the U disk into the upgrade module, and then connect the upgrade module to the USB port. 4. Enter the menu, select the Pr and set 5, and confirm. At this time, the system will restart, the digital tube will display UP, and the upgrade will begin. After the upgrade is completed, it will restart automatically.
Smart module port	The XH-SG-WIFIBLE smart module can be connected externally to realize functions such as control, information reading, and settings. The smart module includes WiFi, Bluetooth and 2.4G functions. 1.Add the Bluetooth control function on the phone APP: Press and hold the DEC/SMART button for 5s, the buzzer will sound twice. Release the button and the module will enter Bluetooth matching network mode. 2.Add the WiFi control function on the phone APP: Press and hold the DEC/SMART button for 10s, the buzzer will sound with a long beep. Release the button and the module will enter the AP matching network mode. 3.Program the 2.4G USB card transmitter: Press the DEC/SMART button once, the buzzer will sound a beep, and enter the programming mode. Power on the 2.4G USB card, and transmit a signal automatically. If the smart LED flash three times, which means the programming operation is successfully. Otherwise, after 8s exit the programming mode. 4.If you want to remove the 2.4G USB card, please press and hold the Learn button for 6s, until the buzzer sound with a long beep, then release the button. After that, all the remotes and USB cards can not control the gate. 5.When the programmed 2.4G USB card enters the receiving range of the module, it will trigger to open the gate once. WiFi and Bluetooth functions support to connect with the phone app, which can realize functions such as controlling the gate with a mobile phone, adding and managing the remote controls, and menu settings the parameters. Please check the APP instruction manual for detailed functions.
Factory Reset	The factory reset needs to be performed at the factory to restore parameters to the default state; see the table below

Control Board Parameters Setting

●Press and hold the [FUN] button for 3 seconds, and the digital display will indicate “A0”, then release the button, now the menu can be set to [INC/START] and [DEC/SMART] for increasing and decreasing numbers or values.
●After adjusting the value, press the [FUN] button to store the data, and the buzzer will beep one time to show the store successfully.
●After the menu setting is finished, press the [LEARN] button to exit the menu setting and close the display.

Item	Function description	Range	Default	Explanation
A0	Motor 2 opening overcurrent setting in high speed	0~20 level	10	Motor 2 opening overcurrent setting in high speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A1	Motor 2 closing overcurrent setting in high speed	0~20 level	10	Motor 2 closing overcurrent setting in high speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A2	Motor 2 opening overcurrent setting in slow speed	0~20 level	10	Motor 2 opening overcurrent setting in slow speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A3	Motor 2 closing overcurrent setting in slow speed	0~20 level	10	Motor 2 closing overcurrent setting in slow speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A4	Motor 1 opening overcurrent setting in high speed	0~20 level	10	Motor 1 opening overcurrent setting in high speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A5	Motor 1 closing overcurrent setting in high speed	0~20 level	10	Motor 1 closing overcurrent setting in high speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A6	Motor 1 opening overcurrent setting in slow speed	0~20 level	10	Motor 1 opening overcurrent setting in slow speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20

A7	Motor 1 closing overcurrent setting in slow speed	0~20 level	10	Motor 1 closing overcurrent setting in slow speed, the bigger the value is, the harder the motor to stop. Setting value from 0-20
A8	Overcurrent sensitivity	0~3 level	0	The bigger the value is, the longer the overcurrent sensing time is. Setting value from 0-3
B0	Setting Motor 2 slow speed running time for opening	0~5 level	2	Setting from 0-5, 0 means NO slow speed running time for opening
B1	Setting Motor 2 slow speed running time for closing	0~5 level	2	Setting from 0-5, 0 means NO slow speed running time for closing
B2	Setting Motor 1 slow speed running time for opening	0~5 level	2	Setting from 0-5, 0 means NO slow speed running time for opening
B3	Setting Motor 1 slow speed running time for closing	0~5 level	2	Setting from 0-5, 0 means NO slow speed running time for opening
C0	Auto-closing timer for fully opening	0-99 seconds	0	Setting from 0-99 seconds, 0 means No auto-closing for fully opening.
C1	Auto-closing timer for swipe card terminal triggering	0-99 seconds	0	0 means No auto-closing for swipe card terminal triggering.
D0	Speed of Motor 2 high speed for opening	0~5 level	5	Setting speed of high speed for opening, setting from 0-5
D1	Speed of Motor 2 high speed for closing	0~5 level	5	Setting speed of high speed for closing, setting from 0-5

D2	Speed of Motor 2 slow speed for opening	0~5 level	2	Setting speed of slow speed for opening, setting from 0-5
D3	Speed of Motor 2 slow speed for closing	0~5 level	2	Setting speed of slow speed for closing, setting from 0-5
D4	Speed of Motor 1 high speed for opening	0~5 level	5	Setting speed of high speed for opening, setting from 0-5
D5	Speed of Motor 1 high speed for closing	0~5 level	5	Setting speed of high speed for closing, setting from 0-5
D6	Speed of Motor 1 slow speed for opening	0~5 level	2	Setting speed of slow speed for opening, setting from 0-5
D7	Speed of Motor 1 slow speed for closing	0~5 level	2	Setting speed of slow speed for closing, setting from 0-5
F2	Safety beam mode	0-1	1	0： NC mode. 1： NO mode.
F3	Flash Lamp Mode	0-1	0	0: Flashing light and motor will operate and stop at the same time. 1: Flashing light will turn off 30 seconds after the motor stop.
F6	Lock mode	0: NC 1: NO	1	NC mode:Normal close, power on when locked, used for electromagnetic lock. NO mode: Normal open, power on when unlocked, used for electric lock.
F7	Electric lock working time setting	0~5 seconds	2	Used for setting the working time of electric lock. Setting from 0-5 seconds. 0 means electric lock disabled.

G1	Setting of swipe card terminal	0~4	2	0: Fully Open-Stop-Close .....for double gates 1: Fully Open-Stop-Close .....for single gate 2: Open only. 3: Close only. 4: Stop only.
G3	Setting of 1 Side terminal	0~4	1	0: Fully Open-Stop-Close .....for double gates 1: Fully Open-Stop-Close .....for single gate 2: Open only. 3: Close only. 4: Stop only.
G4	Setting of 2 Side terminal	0~4	0	0: Fully Open-Stop-Close .....for double gates 1: Fully Open-Stop-Close .....for single gate 2: Open only. 3: Close only. 4: Stop only.
H0	Time delay with gate for opening	0-15 seconds	2	0 means No time delay for opening 2 gates
H1	Time delay with gate for closing	0-15 seconds	2	0 means No time delay for closing 2 gates
H2	Gate mode	0-1	0	0: double gates (Motor 1 and 2). 1: single gate(Motor 2).
H3	Limit mode	0-1	0	0: overcurrent. 1: Limit switch.
L1	Button A function (Remote control)	0-4	2	0: No function. 1: Double gates open-stop-close... 2: Single gate open-stop-close... 3:Turn auto close off via remote 4: Open only.

L2	Button B function (Remote control)	0~4	1	0: No function. 1: Double gates open-stop-close... 2: Single gate open-stop-close... 3:Turn auto close off via remote 4: Open only.
L3	Button C function (Remote control)	0~4	0	0: No function. 1: Double gates open-stop-close... 2: Single gate open-stop-close... 3:Turn auto close off via remote 4: Open only.
L4	Button D function (Remote control)	0~4	0	0: No function. 1: Double gates open-stop-close... 2: Single gate open-stop-close... 3:Turn auto close off via remote 4: Open only.
Pr	Trigger auto travelling learning	0-10	0	Setting from 0-10. Set 5 will trigger the auto travel learning with slow speed. Set 10 will trigger the auto travel learning with high speed.
PU	Upgrade the system by USB device	0-10	0	Setting from 0-10. Set 5 will trigger to upgrade the system. 0 means No upgrade the system.
Po	Factory reset	0-10	0	Setting from 0-10. Set 5 will trigger to reset operation. 0 means No reset.

Control board digital display information show:

1. When the gate is opening, the digital display will show motor 1 is “OP”, motor 2 is “OP.”, and open double gates will show“O.P.”
2. When the gate is closing, the digital display will show motor 1 is “CL”, motor 2 is “CL.”, and open double gates will show“C.L.”
3. After the gate stop moving, the digital display will show the motor 1 is “--”, motor 2 is “--.”, and double gates will show “-.-.”
4. When the motor is running at high speed and triggering the overload protection, the digital display will show motor 1 is “OH”, and motor 2 is “OH.”, and double gates will show “O.H.”
5. When the motor is running at slow speed and triggering the overload protection, the digital display will s how motor 1 is “OL”, and motor 2 is “OL.”, and double gates will show “O.L.”
6. When the motor reaches max working time, the digital display will show motor 1 is “EC”, and motor 2 is “EC.”, and double gates will show “E.C.”
7. When the safety beam is activated, the digital display will show “PH”
8. When the gate is opened fully, the motor 1 will show “LO”, and the motor 2 will show “L.O”
9. When the gate is opened fully, the motor 1 will show “LC”, and the motor 2 will show “L.C”
10. Cancel the auto-closing, the digital display will show "CC"

Motor direction identification:

When the motor is running, if the motor direction LED indicator is blue, now the motor should be in “opening” operation. When the motor direction LED indicator is RED, the motor should be in the “closing” operation.

Smart Module Instruction

Search “XHouse IOT” and download it from Google play or App Store

GET IT ON Google play

FOR Android & IOS

●Or scan this QR code for download APP “XHouse IOT” and install it.

Register the account for “XHouse IOT”and log in.

Add the device

Step 1. Power on the device, open the APP. Press the “ ⊕ ” on the top right corner to add the device, then select the“Swinging Gate”which has a orange cycle on the top right corner. (Fig 1 and 2)

★ If there has a gray cycle on the top right corner, that means the device already be added. The user need to press and hold the “Dec/Smart” button for about 5s on the control board, then repeat the step 1.

★ If there has a message “Please enter distribution network mode and add devices”, the user need to press and hold the “Dec/Smart” button for about 5s on the control board, then repeat the step 1.

Step 2. Select the Wi-Fi, click the “Connect” and enter the password.(Fig 3)

(If there hasn't Wi-Fi can be connected, the user also can select the "Bluetooth Add" and use the Bluetooth function to control the gate nearly. Please follow the step 4).

Step 3. Add the device successfully. The user can modify the name of the device and button from the " "on the top right corner. (Fig 5)

Step 4.Bluetooth Add: If the WiFi network is failure, you can choose the Bluetooth Add.When using Bluetooth mode control the device, the mobile app must be closed to the device within Bluetooth range for about

10m to connect and control it. (Fig 3 and Fig 4).

Fig 1

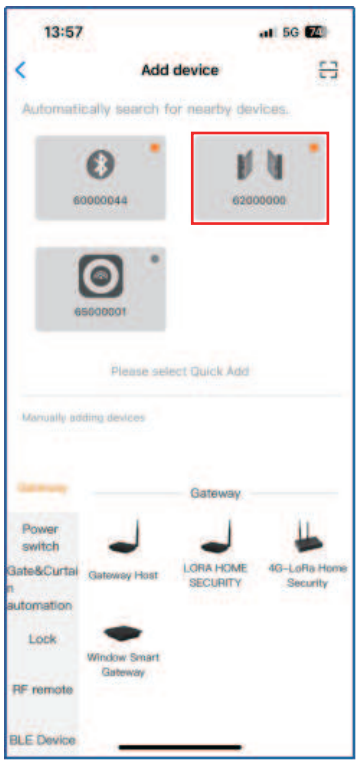


Fig 2

Fig 3

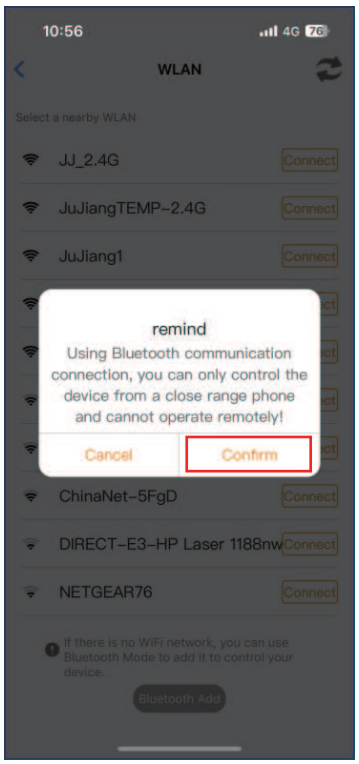


Fig 4

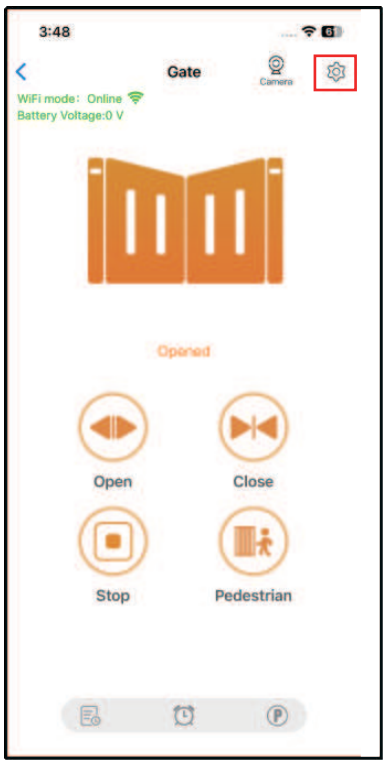


Fig 5

Device supports WiFi and Bluetooth working mode

★ When the device is connected to WiFi network successfully, it supports remote control and settings the device through the mobile phone APP.（Fig 5）
★ When the device is offline or the mobile phone has no network, if the user is nearly the device within 10 meters, and open the APP, it will automatically switch to the Bluetooth mode to control the device. (Fig 6)
★ The device will establish a Bluetooth connection with the mobile phone to achieve close-range Bluetooth control (only one user's mobile phone can establish a Bluetooth connection at the same time).

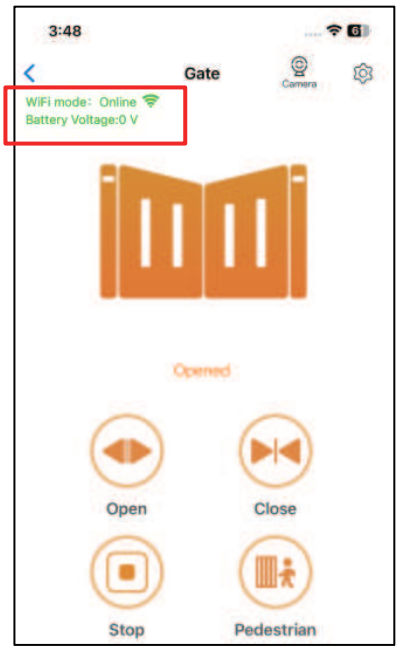


Fig 5

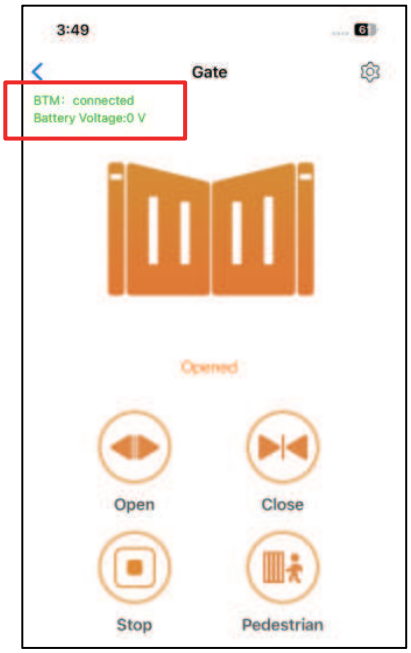


Fig 6

Switch a new WiFi network or switch the Bluetooth mode to WiFi mode

If the user need to switch to use a new WiFi network or want to switch control mode from the Bluetooth mode to WiFi mode, please follow the steps.
Step 1. Select the device, press the “ ”on the top right corner. Click the “ Set/Modify WiFi”. (Fig 7)
Step 2. Select the new WiFi and connect it. And click the “Refresh”. (Fig 8)

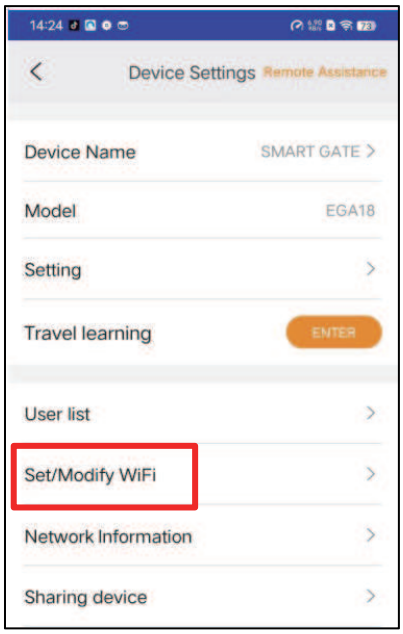


Fig 7

Fig 8

Share the device

Step 1. Open the APP, select the device. Press the “ ⊕ ” on the top right corner, then select to “Sharing device”, will create a QR code. (Fig 9)
Step 2. The new user download the APP and open it, Press the “Scan” on the top right corner to scan the QR code.(Fig 10)

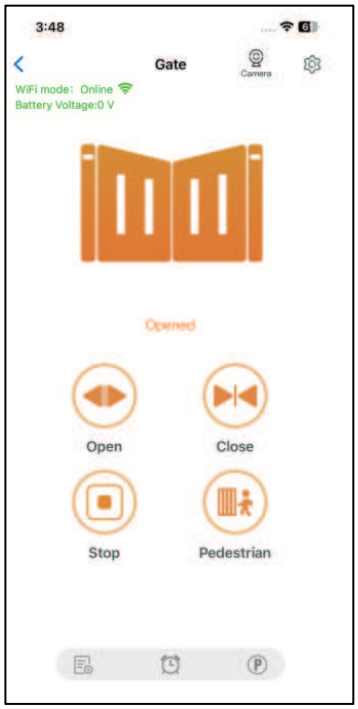
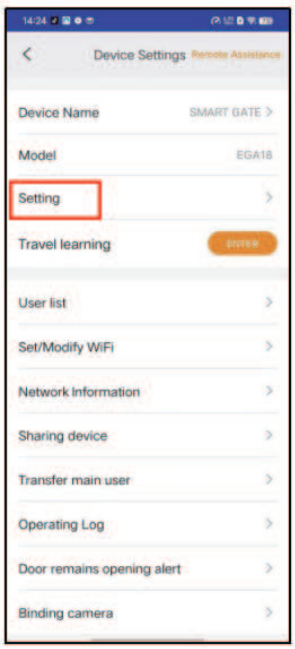


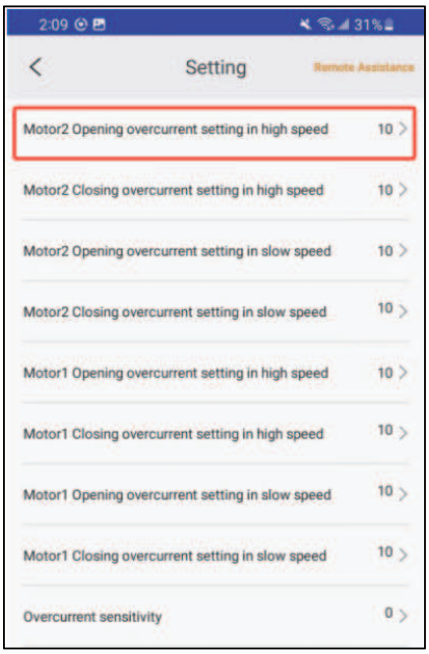
Fig 9

Fig 10

Device settings

The user can set the parameters from the APP for the control board.
Step 1. Select the device, press the “ ”on the top right corner. Click the “ Setting”. (Fig 11)
Step 2. Set the parameters on the APP.(Fig 12)
Note: While the user want to set the parameters, the device must connect with the Wi-Fi. If not, the user need to use the Bluetooth function and put the phone app as close as the device to set the parameters. After done, please click the “Sync” button.





Remote assistance

When your equipment fails, the parameter settings need to be readjusted. At this time, you can directly initiate the “Remote Assistance” button and share the QR code or verification code with your installation service provider for the remote service.

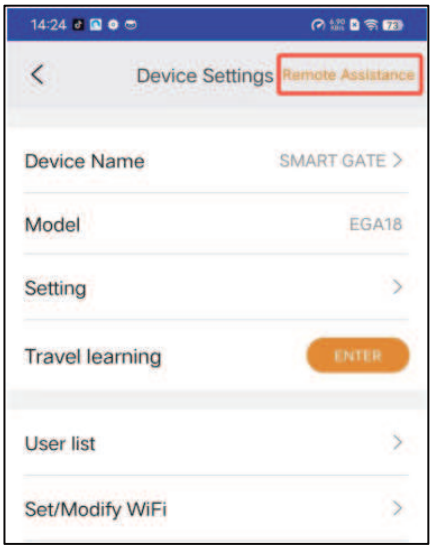


Fig 13

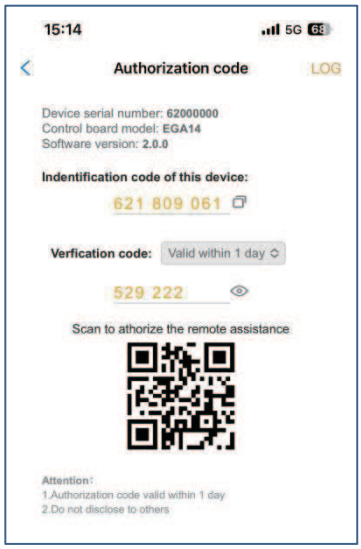


Fig 14

Add USB card / RF remote control from a distance

When the user need to add a RF remote control or a USB card to open the gate, you can use the “Add Card / Remote Control” function to do it, and scan the QR code from the remote control or enter the ID number for the USB card. Don’t need to open the control box to program them.

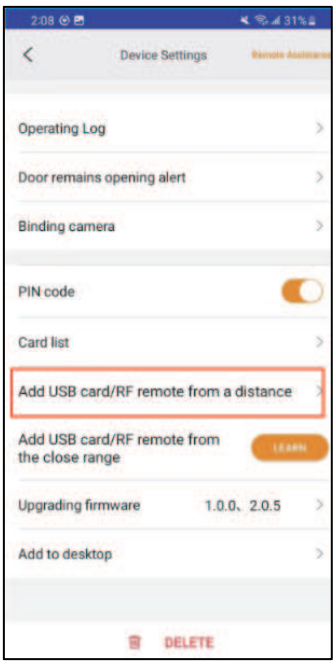


Fig 15

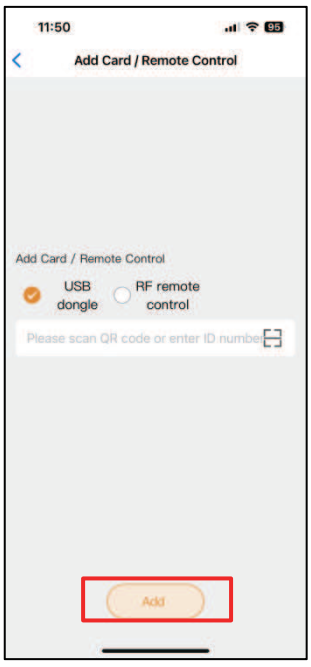


Fig 16

Add USB card/RF remote from the close range

When the user needs to add an RF remote control or USB proximity card to open the door, you can directly use the "Add proximity card/RF remote control" function, click the "Learn" button, and click "Start Learning". Don’t need to open the control box, and the control board will enter the code learning state, and then press the remote control button or power on the USB card to transmit a signal.

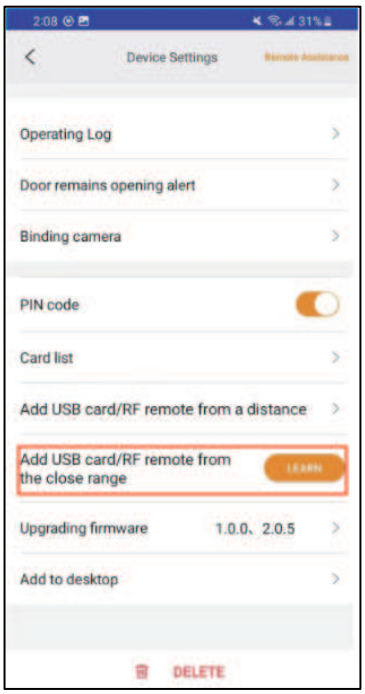


Fig 17

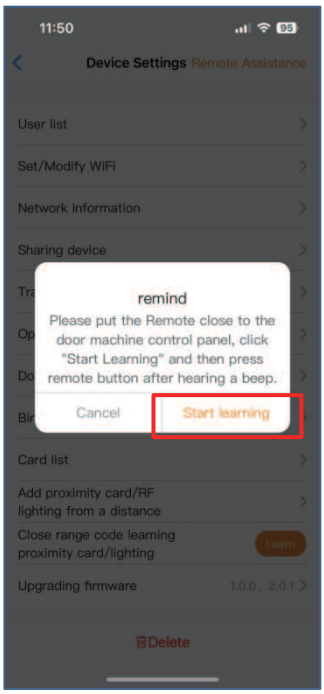


Fig 18

Switch a new WiFi network or switch the Bluetooth mode to WiFi mode

The card list can management your USB card and RF remote control. The user can sync all the cards and remotes to the card list for management, and delete it when they are no longer needed or lost. The card list can management your USB card and RF remote control. The user can sync all the cards and remotes to the card list for management, and delete it when they are no longer needed or lost.

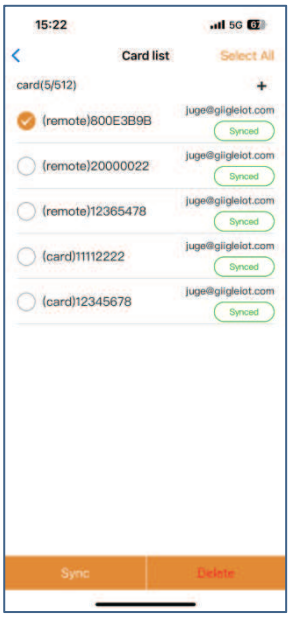


Fig 19

Binding with camera

Step 1. Open the APP, select the device. Press the“ ”on the top right corner, then select to “ Binding camera ”.
Step 2. Select the “ IP camera ”, and press the “ OK ” to confirm it.

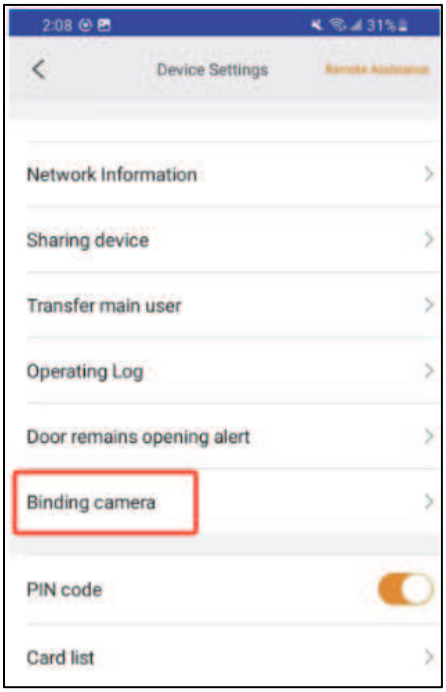


Fig 20

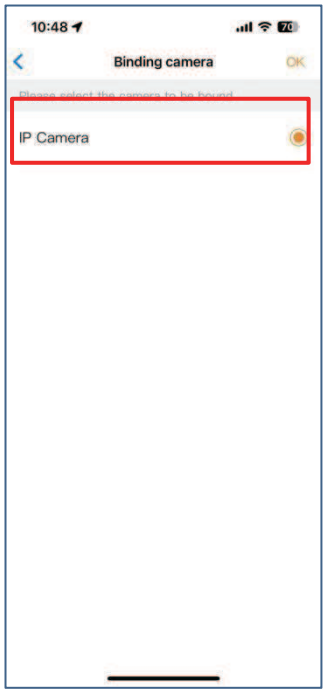


Fig 21