



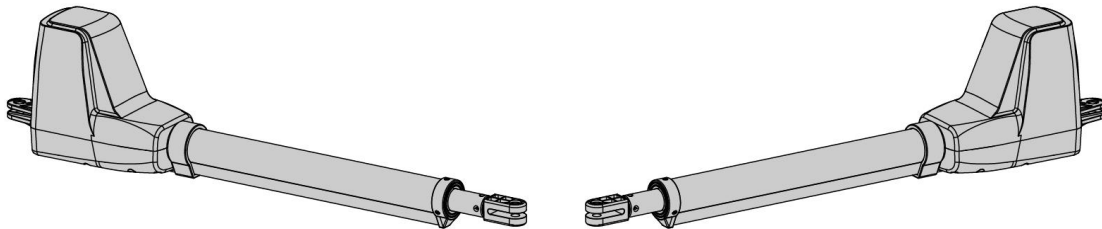
Dual Swing Gate Opener

User's Manual

Model:

AT6132 / AT12132

AT6132S / AT12132S



TOPENS Website

www.topens.com

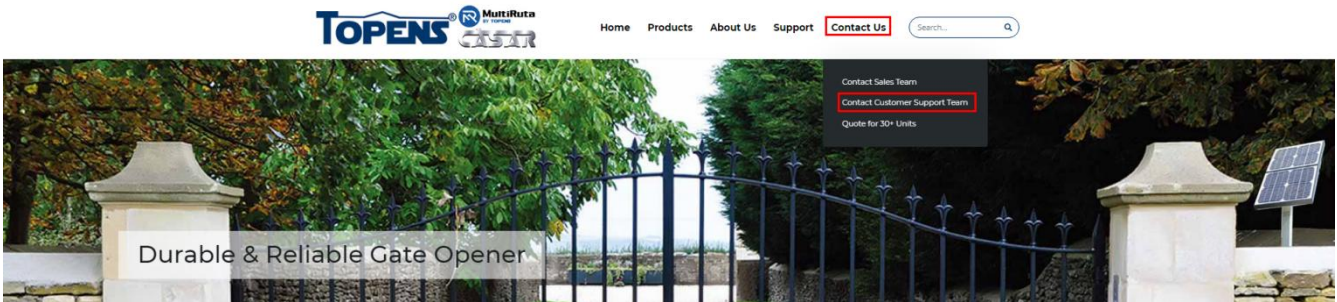
Email: support@topens.com

- ★ Please read and follow all warnings, precautions and instructions before installation and use.
- ★ Coming with UPS01 uninterrupted power supply, this series gate opener can be powered by AC 100-240V electricity directly. It is allowed to use additional battery (NOT incl.) and solar panel (optional) as BACK-UP or MAIN power source with this UPS01.
- ★ Never connect the solar panel to the control board directly to charge the battery.
- ★ Periodic checks of the opener are required to ensure safe operation.
- ★ Save this manual.



CONTACT US:

Visit: www.topens.com



Please record the product model, your email address etc.

in the spaces provided below. Refer to this list when contacting TOPENS for technical service or assistance with your automatic gate opener.

Where did you purchase? (Amazon.com; Amazon.ca: Amazon.co.uk, Amazon.de; Other, Please Specify)

Order#	Product Model	Purchase Date
Full Name	Phone#	Email Address (VERY IMPORTANT)
Street Address, Apartment /Unit, City, State /Province, Zip Code		Country/Region
Approximate Gate Weight Per Leaf (pounds; kg: Other. Please Specify)	Approximate Gate Length Per Leaf (feet meter; Other. Please Specify)	Did you purchase any accessories? (Please list below)

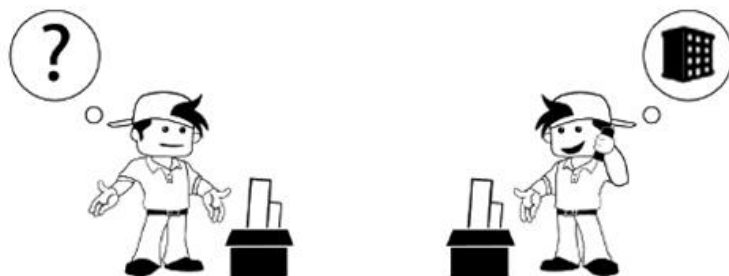
Issue Details

Email Us: support@topens.com

Call: +1 (888) 750 9899 (Toll Free USA & Canada)

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i Ask for TOPENS help by E-mail or phone anytime.

Safety Installation Information

1. READ and FOLLOW all instruction.
2. The gate opener is intended for use with Class I vehicular swing gates.

Class I denotes a vehicular gate opener (or system) dwellings, or a garage or parking area associated therewith.

Install the gate opener only when the opener is appropriate for the construction and the usage class of the gate.

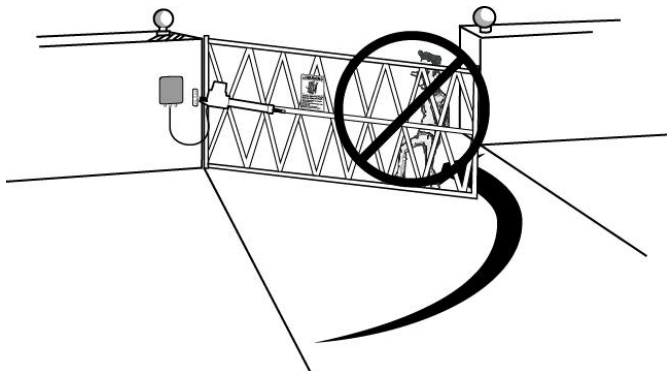
3. Gate opening system designers, installers and users must take into account the possible hazards associated with each individual application. Improperly designed, installed or maintained systems can create risks for the user as well as the bystander. Gate system design and installation must reduce public exposure to potential hazards. All exposed pinch points must be eliminated or guarded.

4. A gate opener can create high levels of force during normal operation. Therefore, safety features must be incorporated into every installation. Specific safety features include safety sensors.

5. The gate must be properly installed and work freely in both directions prior to the installation of the gate opener.

6. The gate must be installed in a location so that enough clearance is provided between the gate and adjacent structure when opening and closing to reduce the risk of entrapment. Swinging gates shall not open into public access areas.

7. The opener is intended for use only on gates used for vehicles. Pedestrians must be supplied with a separate access opening. The pedestrian access opening shall be designed to promote pedestrian usage. The pedestrian access shall be located such that persons will not come in contact with the moving vehicular gate.



8. Pedestrians should never cross the pathway of a moving gate. The gate opener is not acceptable for

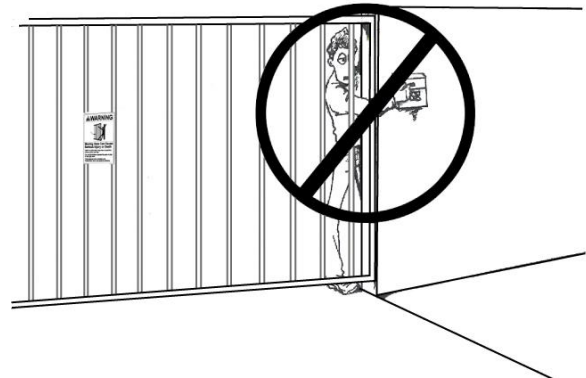
use on any pedestrian gate. Pedestrians must be supplied with a separate pedestrian access.

9. For an installation utilizing non-contact sensors (safety sensors), see product manual on the placement of non-contact sensors (safety sensors) for each type of application.

a. Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle trips the safety sensor while the gate is still moving.

b. One or more non-contact sensors (safety sensors) shall be located where the risk of entrapment of obstruction exists, such as the perimeter reachable by a moving gate or barrier.

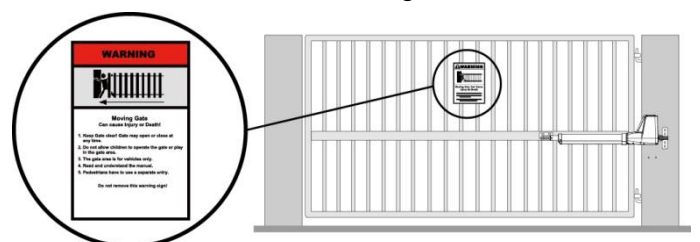
10. Never mount any device that operates the gate opener where the user can reach over, under, around or through the gate to operate the controls. Controls are to be placed at least 6' (1.8m) from any part of the moving gate.



11. Controls intended to be used to reset an operator after 2 sequential activations of the entrapment protection device or devices must be located in the line of sight of the gate, or easily accessible controls shall have a security feature to prevent unauthorized use. Never allow anyone to hang on or ride the gate during the entire travel of the gate.

12. Each gate opener is provided with two safety warning placards. The placards are to be installed on the front and back of the gate where they are plainly visible. The placards may be mounted using cable ties through the four holes provided on each placard.

All warning signs and placards must be installed where visible in the area of the gate.



13. To AVOID damaging gas, power, or other underground utility lines, contact underground utility locating companies BEFORE digging.

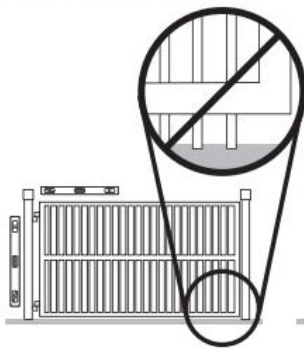
14. Do not permit children to play on or around the gate and keep all controls out of their reach.

NOTE:

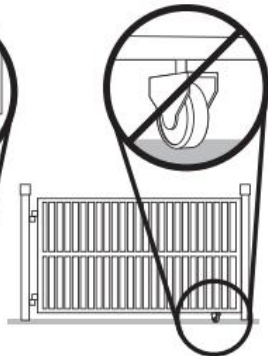
TOPENS Gate Operator can be used for driveway gates made by steel, wood, vinyl, and shaped as panel, tube, and chain-link. While use on solid surface gates is NOT recommended. Solid surface gates have a high resistance to the wind. *If the wind is strong enough, the operator will obstruct and stop.*

CHECK YOUR GATE

Gate MUST be level. Gate and gate post MUST be plumb. Gate MUST have a smooth bottom edge, no protrusions should exist.



Remove ANY/ALL wheels from the bottom of gate.



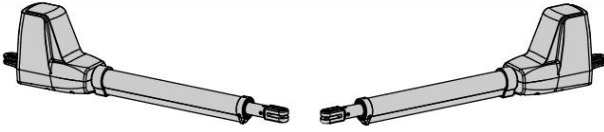





















Gate MUST NOT hit or drag across ground.



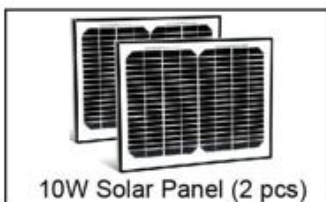
Gate MUST swing freely and be supported entirely by its hinges.






Parts List

 <p>Gate Opener Actuator (2 pcs)</p>		 <p>Release Key (2 pcs)</p>	
 <p>AC-DC Power Supply (1 pc)</p>	 <p>Remote Control (2 pcs)</p>		 <p>Warning Signs (4 pcs)</p>
	 <p>PSO Part (2 pc)</p>		
 <p>Control Box (1 pc)</p>	 <p>Post Bracket (4 pcs)</p>	 <p>Post Pivot Bracket (2 pcs)</p>	 <p>Gate Bracket (2 pcs)</p>
Hardware			
 <p>Φ10 Washer (14 pcs)</p>	 <p>M10×200 Bolt (8 pcs)</p>		
 <p>Φ10 Lock Washer (14 pcs)</p>	 <p>M10×75 Bolt (4 pcs)</p>		
 <p>Φ8 Washer (2 pcs)</p>	 <p>M10×35 Bolt (2 pcs)</p>		
 <p>M10 Nut (14 pcs)</p>	 <p>M8×30 Bolt (2 pcs)</p>		
 <p>M8 Nut (2 pcs)</p>	 <p>12×40 Clevis Pin (2 pcs)</p>		
 <p>Hairpin Clip (4 pcs)</p>	 <p>12×30 Clevis Pin (2 pcs)</p>		

Extra Parts for AT6132S / AT12132S



Accessories Parts (Included in some models, refers to the actual package)

 <p>JD24VY 24V Warning Light</p>	 <p>TC102 Photo Eye Beam Sensor</p>	 <p>25FT Extension 5 Conductor Cable</p>
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Optional Accessories Parts List (Available at TOPENS Store)

 <p>M12 Remote Control</p>	 <p>ERM12 External Receiver</p>	 <p>TC186-R WiFi Smartphone Remote Control with Camera</p>	 <p>TC188 Universal Wireless and Wired Keypad</p>
 <p>TKP3 Wireless Keypad</p>	 <p>TC175P Wired Keypad</p>	 <p>TEW3 Vehicle Sensor Exit Wand</p>	 <p>HLR01 HomeLink Remote Control Kit</p>
 <p>TC173 Wireless Push Button</p>	 <p>TC147 Wall Push Button</p>	 <p>TC148 Waterproof Wall Push Button</p>	 <p>TRF3 Reflection Photocell Sensor</p>
 <p>TC102 Photo Eye Beam Sensor</p>	 <p>JD24VY 24V Warning Light</p>	 <p>TSP30W 30W Solar Panel Charging Kit</p>	 <p>TSQ20W 20W Solar Panel Kit</p>
 <p>25FT Extension 5 Conductor Cable</p>	 <p>ET24 Electric Gate Lock</p>		

Replacement Parts

 <p>EKP MJ4B Control Board for AT6132 / AT12132 / AT6132S / AT12132S Gate Opener</p>	 <p>ALS01 Limit Switch</p>	 <p>AT6 Arm Actuator</p>	 <p>AT12 Arm Actuator</p>
 <p>UPS01 Uninterrupted Power Supply</p>	 <p>MK01 Hardware Kit</p>		

WARNING: Changes or modifications not expressly specified by this user manual, TOPENS could void the warranty of this equipment.

Tools Needed:

- Power Drill
- Tape Measure
- Open End Wrenches - 14# & 17# or Adjustable Wrenches
- Wire Strippers
- C-Clamps - small, medium, and large
- Level
- Hacksaw or Heavy Duty Bolt Cutters
- Phillips Screwdriver

Technical Specifications & Features

Specifications		
	AT6132(S)	AT12132(S)
Input:	110-240V~ 50/60Hz	
Motor Voltage:	24VDC	
Power:	2 × 50W	2 × 80W
Current:	2A	3A
Actuator Speed:	16mm/s (0.6 in/s)	
Max. Actuator Travel:	385mm (15.2 in)	
Ambient Temperature:	-20°C~ +50°C (0°F to 120°F)	
Protection Class:	IP44	

Gate Capacity of AT6132(S) for Each Actuator

Gate Weight	300kg (660lbs)	✓	NR	NR	NR	NR	NR	NR
	250kg (550lbs)	✓	✓	NR	NR	NR	NR	NR
	200kg (450lbs)	✓	✓	✓	NR	NR	NR	NR
	150kg (330lbs)	✓	✓	✓	✓	NR	NR	NR
	100kg (220lbs)	✓	✓	✓	✓	✓	NR	NR
	70kg (150lbs)	✓	✓	✓	✓	✓	✓	NR
	50kg (100lbs)	✓	✓	✓	✓	✓	✓	✓
		1.2-1.8m(4-6')	2.4m (8')	3m (10')	3.6m (12')	4.3m (14')	5m (16')	5.5m (18')
Gate Length								

Gate Capacity of AT12132(S) for Each Actuator

Gate Weight	400kg (880lbs)	✓	NR	NR	NR	NR	NR	NR
	350kg (770lbs)	✓	✓	NR	NR	NR	NR	NR
	300kg (650lbs)	✓	✓	✓	NR	NR	NR	NR
	250kg (550lbs)	✓	✓	✓	✓	NR	NR	NR
	200kg (450lbs)	✓	✓	✓	✓	✓	NR	NR
	160kg (350lbs)	✓	✓	✓	✓	✓	✓	NR
	110kg (250lbs)	✓	✓	✓	✓	✓	✓	✓
		1.2-1.8m(4'-6")	2.4m (8')	3m (10')	3.6m (12')	4.3m (14')	5m (16')	5.5m (18')
Gate Length								

These specifications are subject to change without notice.

NOTE: "NR" indicates this size and weight combination is NOT recommended for one arm actuator.
NOTE: Ball bearing hinges should be used on all gates weighing over 140kg (300 lbs).

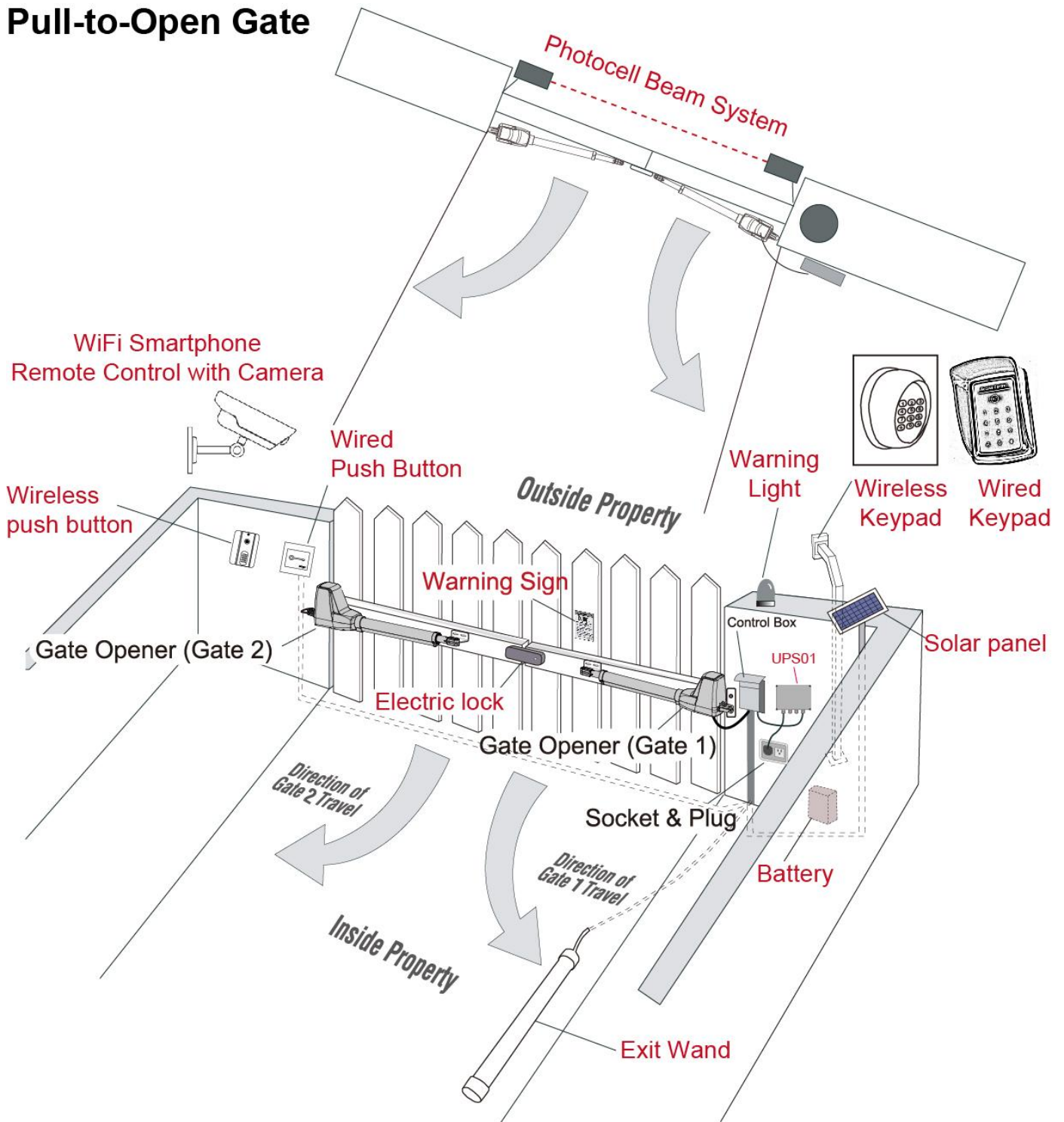
Features:

- Soft start and soft stop
- Emergency release key in case of power failure
- Fast selecting push/pull to open
- Reverse the gate upon first obstruction and stop upon a second sequential obstruction.
- Built in adjustable auto-close (3-120 seconds)
- Built in max. Motor running time (MRT) for multiple safety protection (40 seconds)

- Reliable electromagnetism limit for easy adjustment
- Can be equipped with a wide range of accessories
- Adjustable opening/closing interval between master and slave gate
- Easy to install, and minimum maintenance requirement

Installation Overview

Pull-to-Open Gate



Important:

The second gate opener cable should be put into the PVC conduit (not provided) which is buried underground. This protects the cable from lawn mowers and string trimmers.

Preparation for Installation

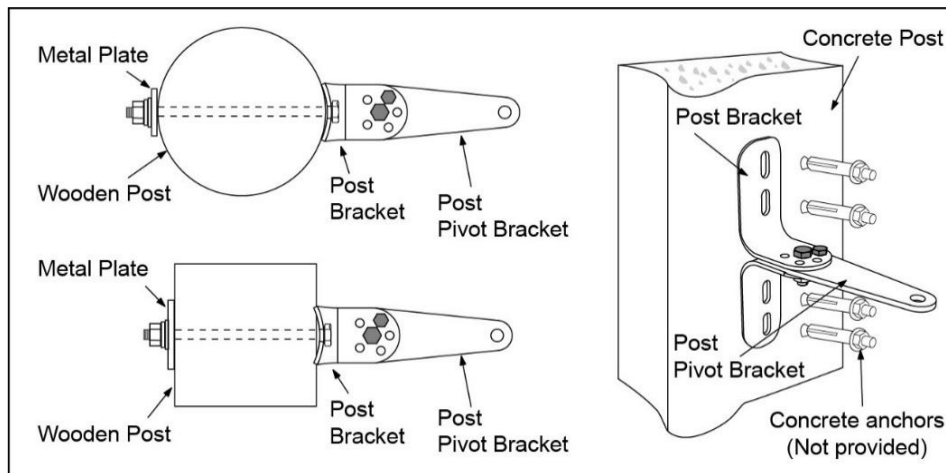
There are two installation types for the gate opener, **Pull-to-Open** and **Push-to-Open**.

In the **Push-to-Open** installation, gate opens out from the property. A Push-To-Open Bracket (**PSO part**) is required to be used for each gate.

NOTE: Ensure the gate does not open into public areas. One more person will help when installing.

The gate opener is mounted to the gate and to the gate post. Both round and square posts can be used because the Post Brackets are curved. When mounting the Post Brackets, use bolts long enough to pass through the entire post. M10 x 200 bolts are included. Concrete anchors are not provided.

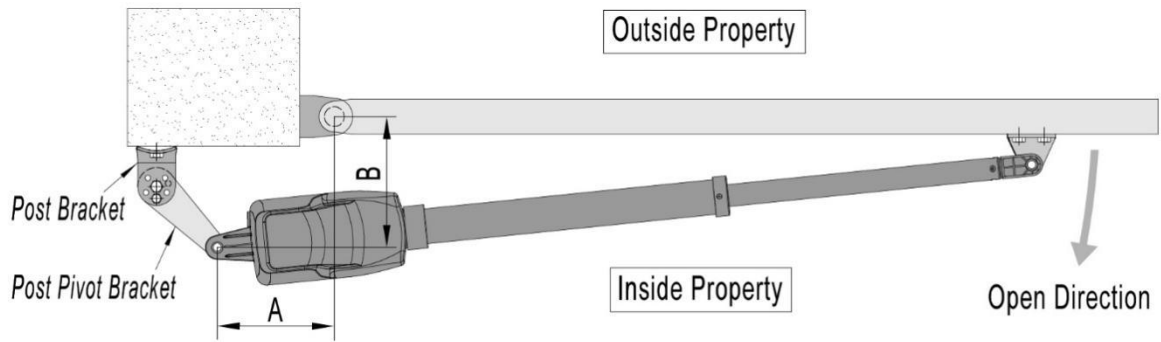
When mounting the Post Brackets to wooden posts, a larger-size washer or metal plate should be used between the bolts and the wooden post to ensure the stability of the fastening hardware. If the post is smaller than 6" diameter or square, it should be made of metal and set in cement to ensure its stability.



Install the Opener on the Gate – for *Pull to Open*

The position of Post Bracket is very important. The following illustrations and tables are required to determine the proper mounting position for the Post Bracket. The tables show the maximum opening angle of the gate for a given A and B. For example, if A is 19cm and B is 15cm, the maximum opening angle of the gate is 106°

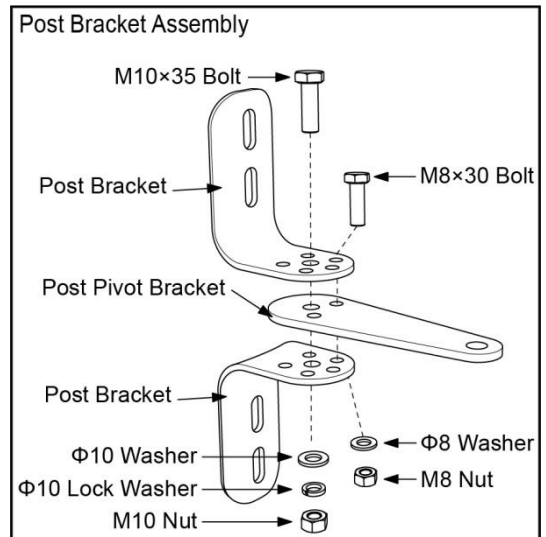
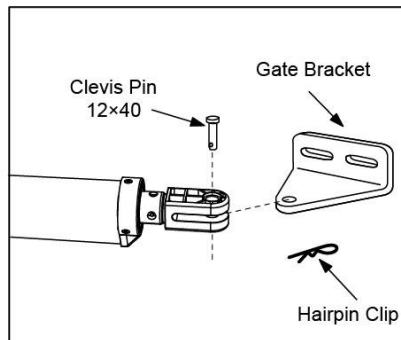
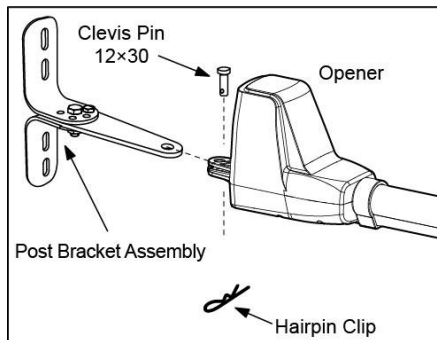
Pull-to-Open Installation — Gate in Closed position (Moving-Rod is extended)



	A=13cm	A=15cm	A=17cm	A=19cm	A=21cm	A=23cm	A=25cm	A=27cm
B=13cm	91°	99°	106°	112°	105°	99°	95°	92°
B=15cm	91°	98°	105°	106°	99°	94°	91°	92°
B=17cm	91°	97°	103°	98°	93°	89°	86°	84°
B=19cm	91°	97°	98°	92°	92°	85°	82°	80°
B=21cm	91°	96°	91°	86°	83°	81°	79°	77°
B=23cm	91°	89°	85°	81°	79°	77°	75°	74°
B=25cm	88°	83°	79°	77°	75°	73°	72°	71°
B=27cm	80°	77°	75°	73°	71°	70°	69°	68°

1. Insert the bolts through the holes of post bracket and post pivot bracket as shown. Place washers and nuts on the bottom of the bolts and hand tighten.

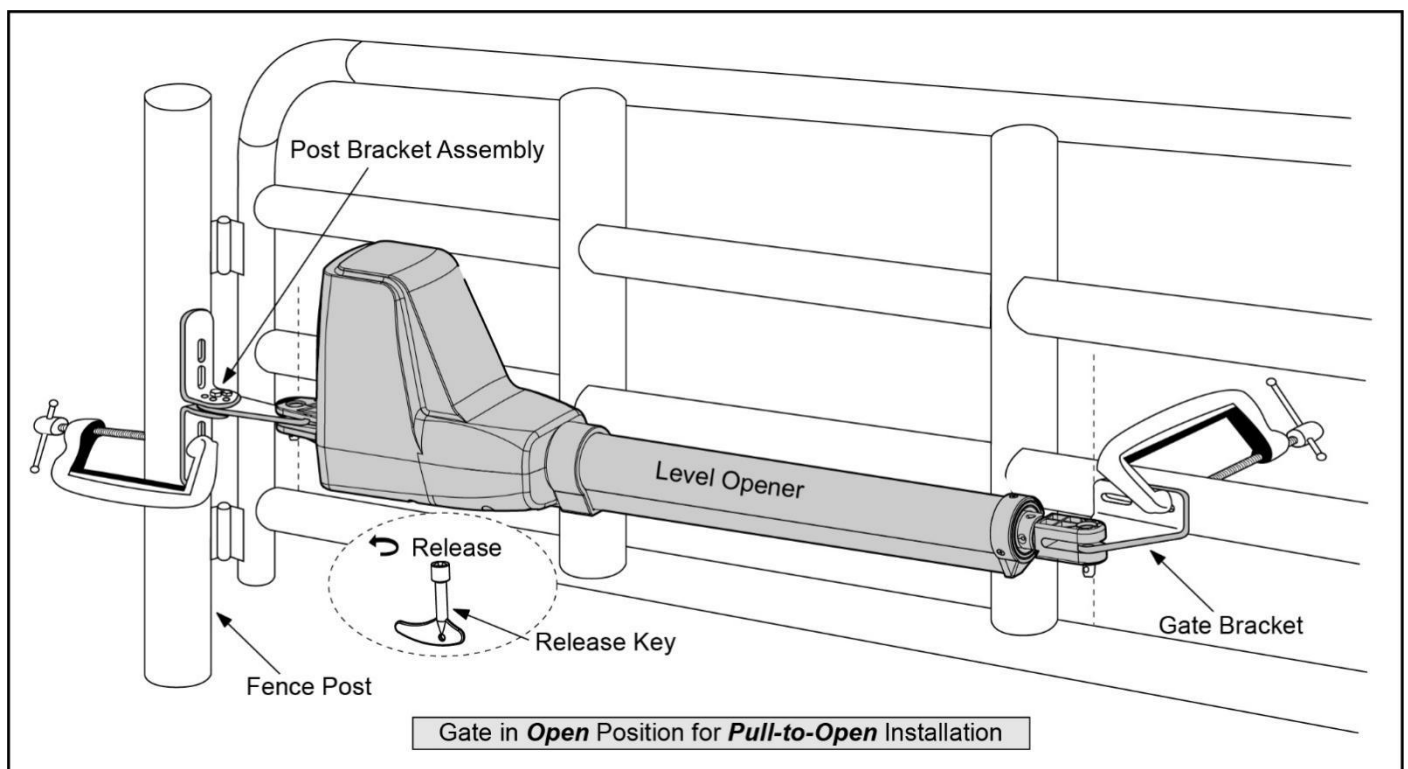
2. Attach the gate bracket and post bracket assy. to the opener by inserting a clevis pin. Secure the clevis pins using the hairpin clips.

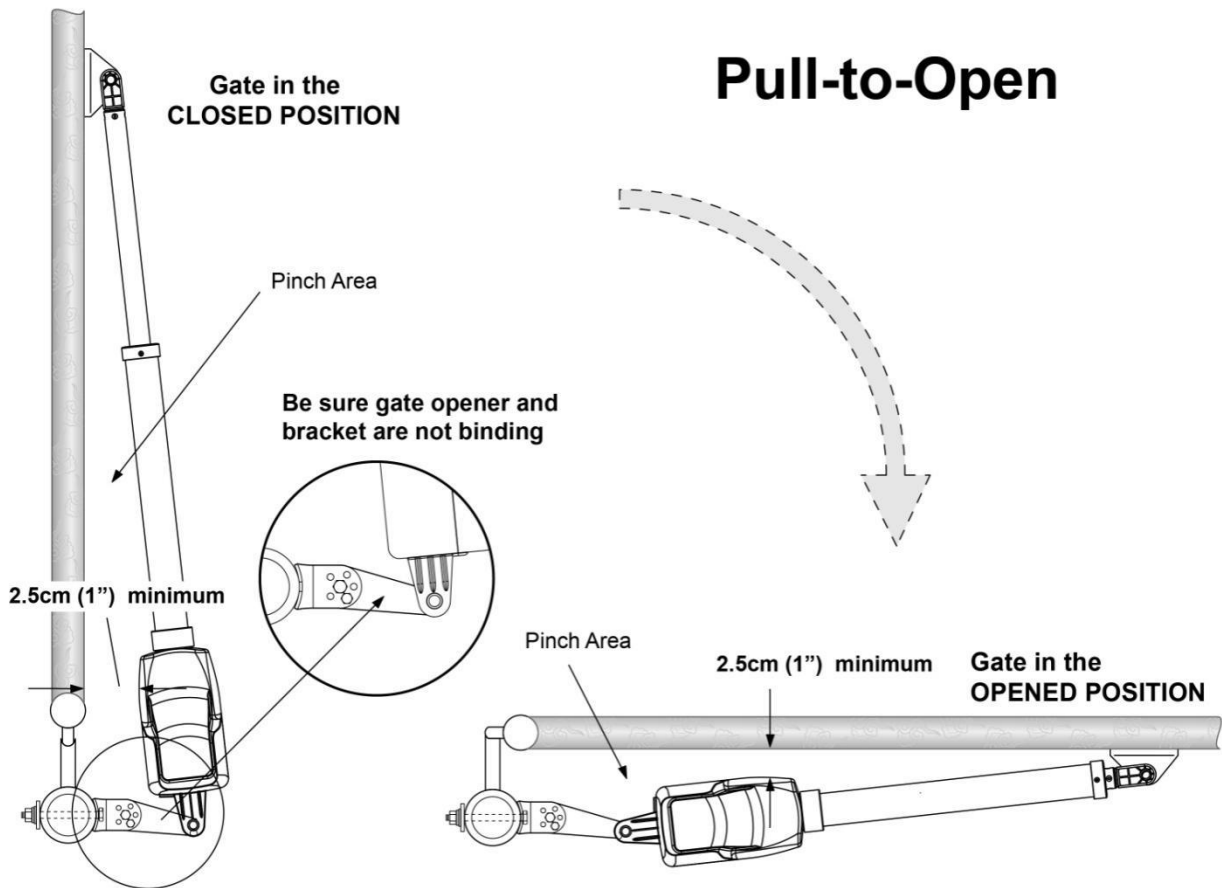


3. Insert the release key, and turn the key 90° clockwise. This releases the motor and allows the push-pull rod to be manually extended and retracted. To restore normal operation, turn the key 90° counterclockwise.

4. With the opener fully retracted and with the gate in the fully open position (for Pull-to-Open installation), place the opener with the Post Bracket Assy. and Gate Bracket on the gate post and the gate. While holding the gate opener in the level position, temporarily secure it with two C-clamps.

5. Make sure that there is a minimum clearance of 2.5cm between the gate and the opener and that the opener and the Post Pivot Bracket are not binding in both the gate-open and gate-closed positions. If there is not at least 2.5cm of clearance or if the opener and the Post Pivot Bracket are binding, rotate the Post Pivot Bracket and/or move the Post Bracket Assy. to obtain the minimum clearance and eliminate the binding.



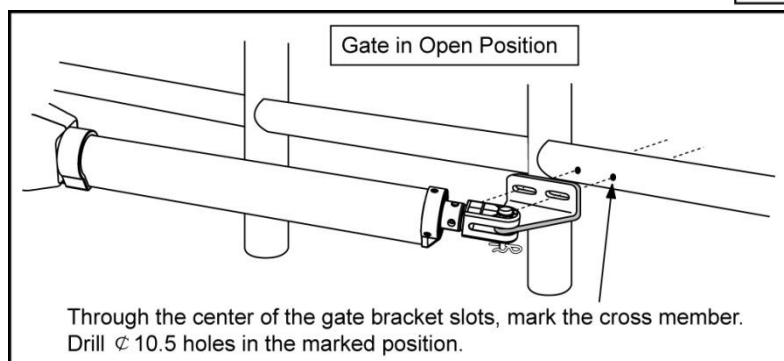
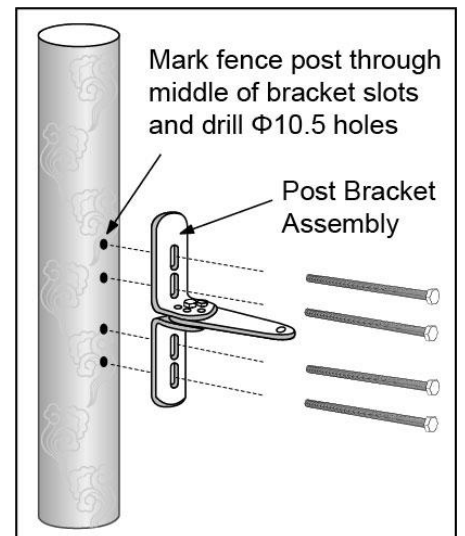


6. Sign the bolt-hole point on the gate post and gate. Do this by placing a punch or a sign in the middle of each bolt slot on the post bracket and the gate bracket. It allows slight adjustments to the post bracket. Then remove the opener and brackets assy. by taking off the C-clamps.

7. Drill 10.5 mm diameter holes through the post and the gate at the marked locations.

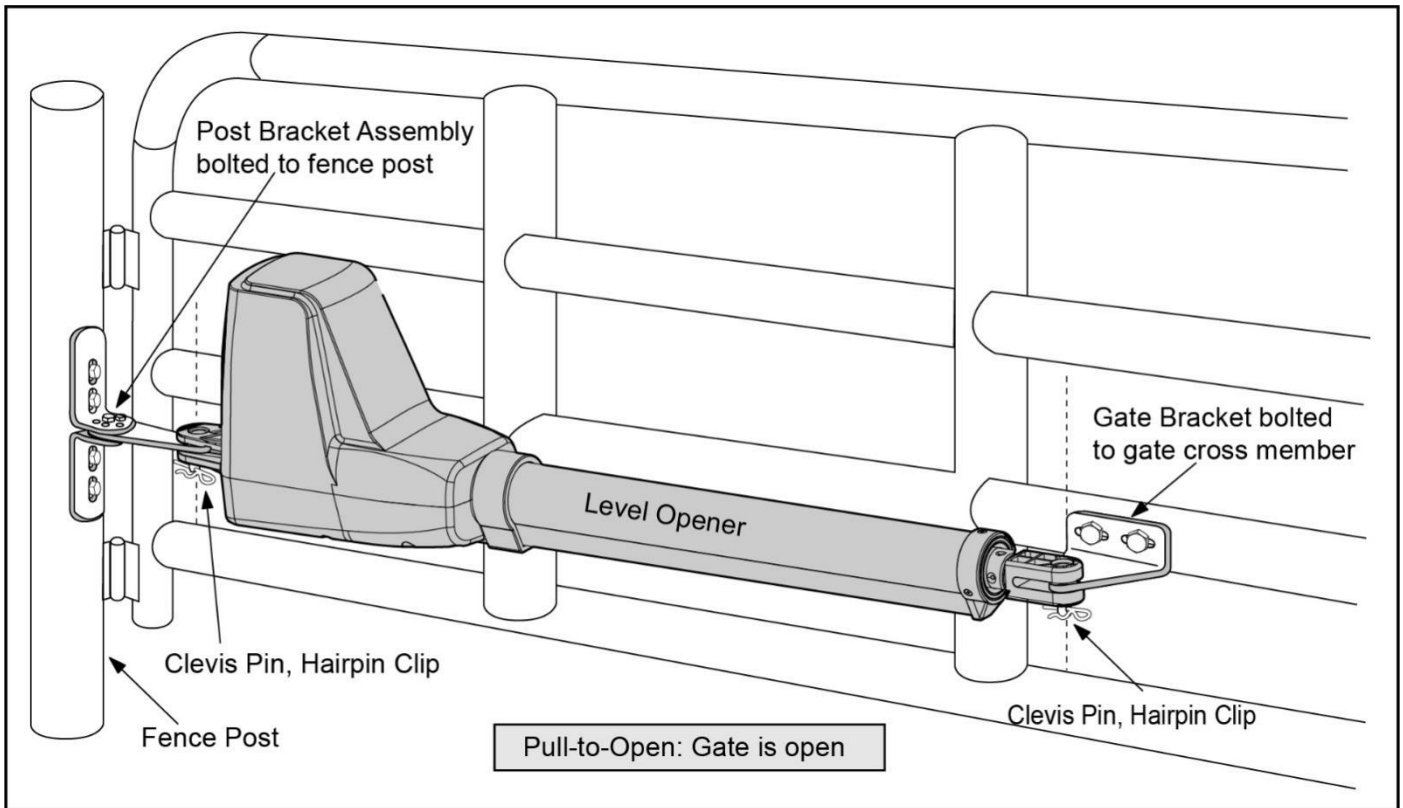
8. Attach the post bracket assemblies to the gate post by inserting M10 x 200 bolts through each post bracket assy. and the drilled holes in the gate post. Fasten each bolt with one \varnothing 10 washer, one \varnothing 10 lock washer, and one \varnothing 10 nut.

9. Attach the gate brackets to each gate by inserting two M10 x 75 bolts through the gate brackets and the drilled holes in the gates. Fasten each bolt with one \varnothing 10 lock washer, and one \varnothing 10 nut.



10. Cut off any part of the bolts that extend beyond the tightened nuts.

11. With the opener fully retracted and with the gate in the fully open position (for Pull-to-Open installation), insert a clevis pin through the gate opener and the Post Pivot Bracket and insert another clevis pin through the gate opener and the Gate Bracket. Secure each clevis pin with a hairpin clip.



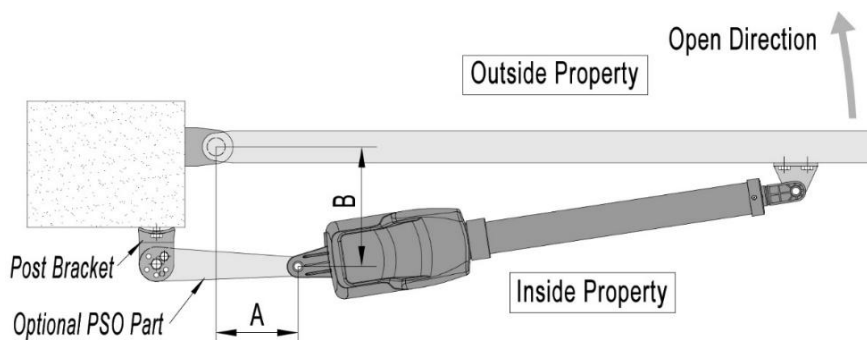
12. Insert the release key, and turn the key 90° counterclockwise. This restores normal operation.

NOTE: The setting of the PULL/PUSH TO OPEN of the control board should be in accordance with the installation.

Install the Opener on the Gate – for *Push to Open*

The position of Post Bracket is very important. The following illustrations and tables are required to determine the proper mounting position for the Post Bracket. The tables show the maximum opening angle of the gate for a given A and B. For example, if A is 17cm and B is 15cm, the maximum opening angle of the gate is 105°

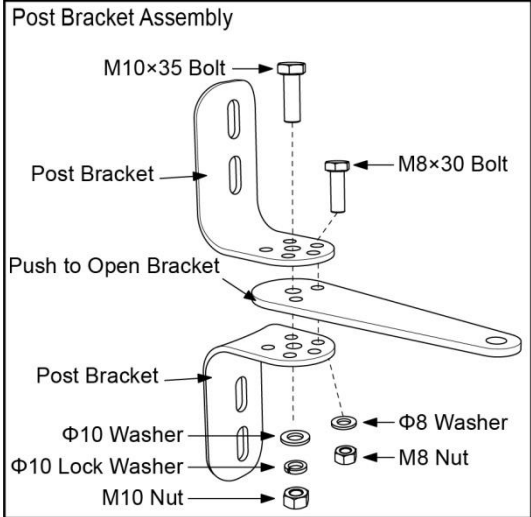
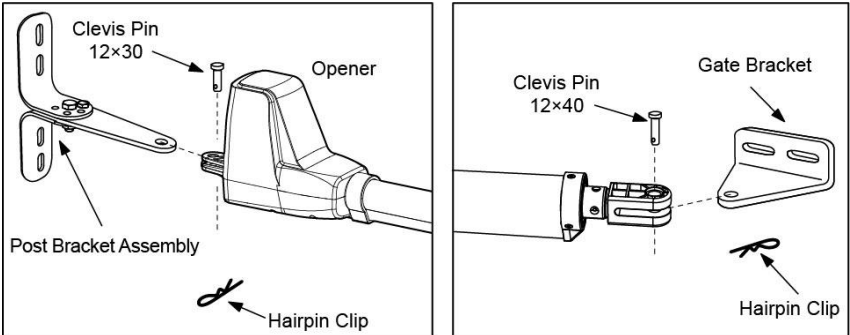
Push-to-Open Installation — Gate in Closed position (Moving-Rod is retracted)



	A=17cm	A=15cm	A=13cm
B=13cm	107°	101°	94°
B=15cm	105°	100°	93°
B=17cm	104°	99°	93°
B=19cm	103°	98°	92°
B=21cm	95°	97°	92°
B=23cm	89°	97°	92°
B=25cm	83°	89°	93°
B=27cm	79°	85°	93°

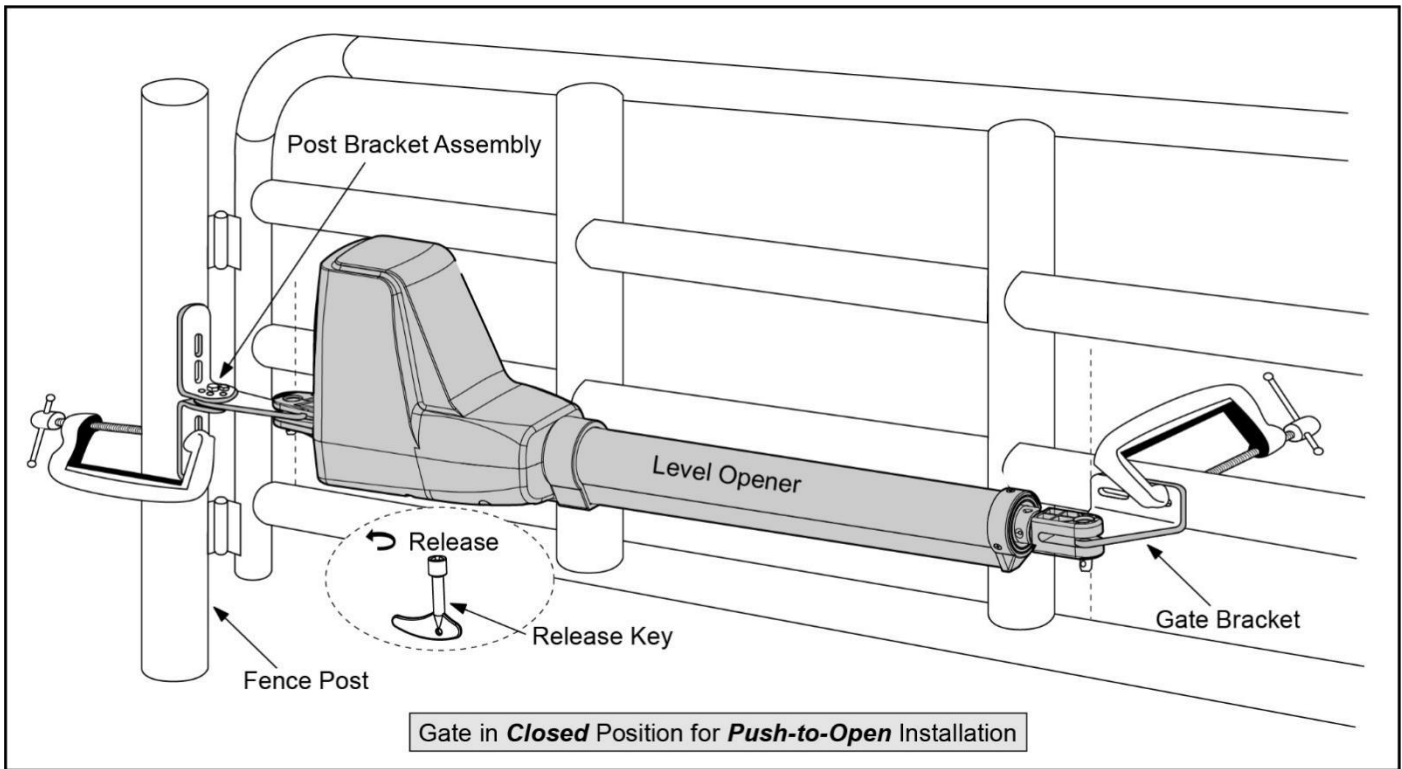
1. Insert the bolts through the holes of post bracket and **PSO part (push to open bracket)** as shown. Place washers and nuts on the bottom of the bolts and hand tighten.

2. Attach the gate bracket and post bracket assy. to the opener by inserting a clevis pin. Secure the clevis pins using the hairpin clips.



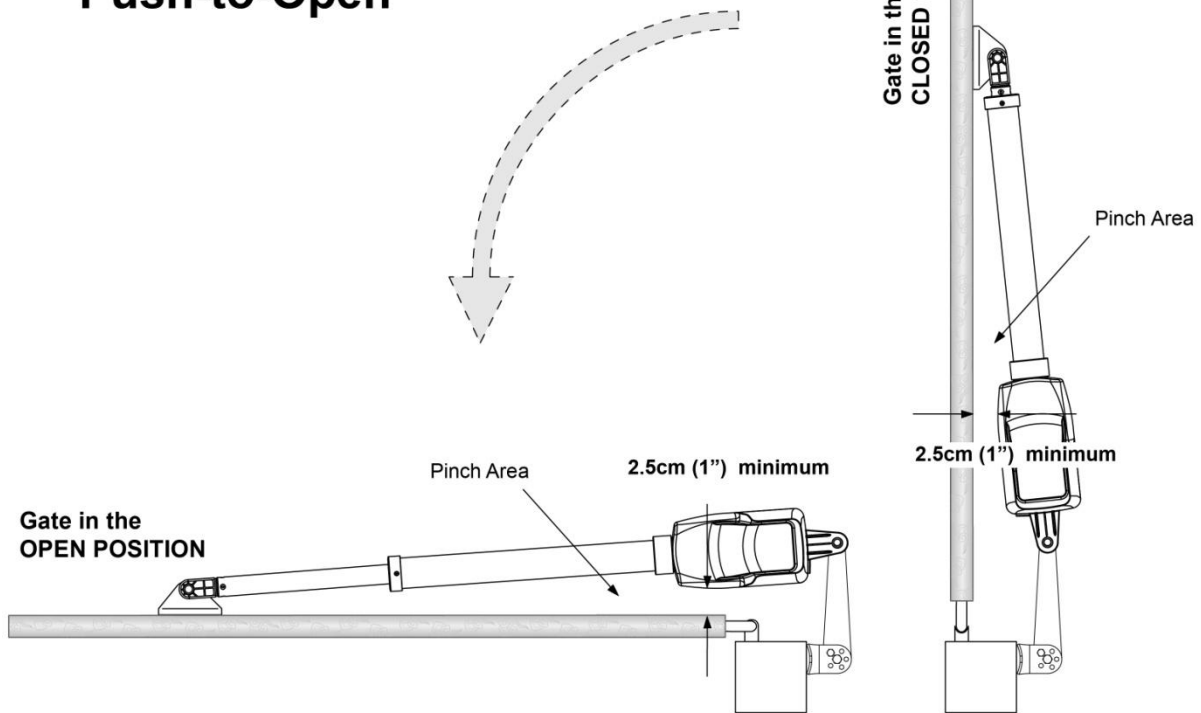
3. Insert the release key, and turn the key 90° clockwise. This releases the motor and allows the push-pull rod to be manually extended and retracted. To restore normal operation, turn the key 90° counterclockwise.

4. **With the opener fully retracted and with the gate in the fully closed position (for Push-to-Open installation),** place the opener with the Post Bracket Assy. and Gate Bracket on the gate post and the gate. While holding the gate opener in the level position, temporarily secure it with two C-clamps.



5. Make sure that there is a minimum clearance of 2.5cm between the gate and the opener and that the opener and the PSO part are not binding in both the gate-open and gate-closed positions. If there is not at least 2.5cm of clearance or if the opener and the PSO part are binding, rotate the PSO part and/or move the Post Bracket Assy. to obtain the minimum clearance and eliminate the binding.

Push-to-Open

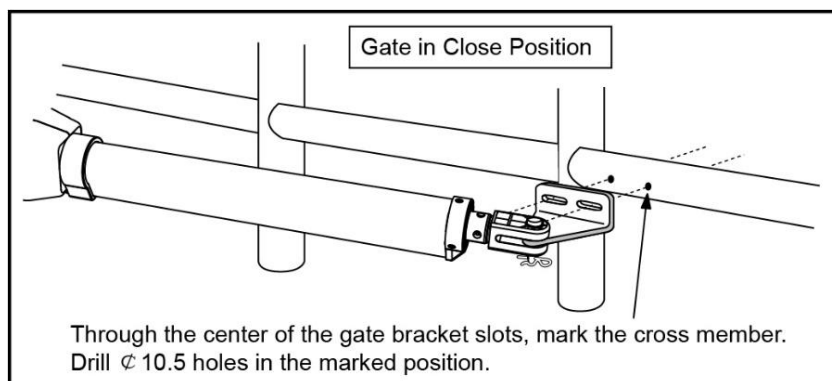
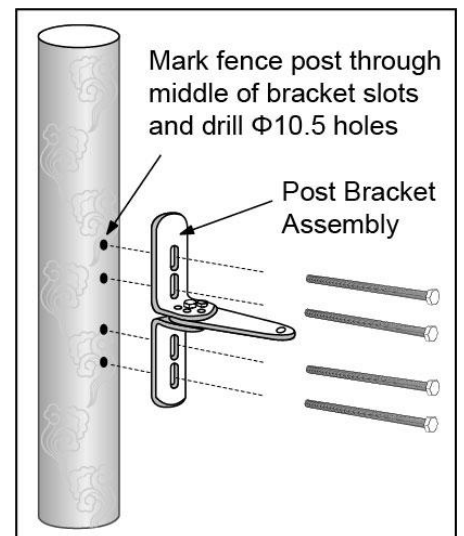


6. Sign the bolt-hole point on the gate post and gate. Do this by placing a punch or a sign in the middle of each bolt slot on the post bracket and the gate bracket. It allows slight adjustments to the post bracket. Then remove the opener and brackets assy. by taking off the C-clamps.

7. Drill 10.5 mm diameter holes through the post and the gate at the marked locations.

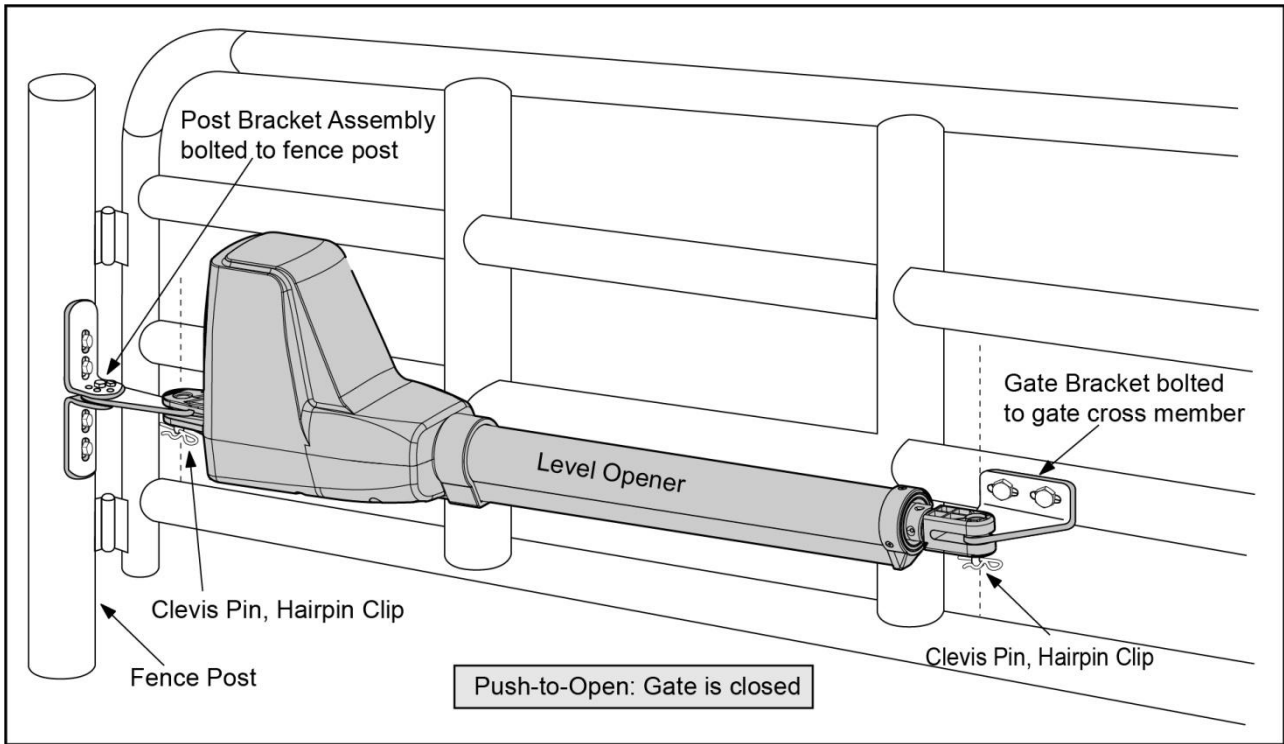
8. Attach the post bracket assemblies to the gate post by inserting M10 x 200 bolts through each post bracket assy. and the drilled holes in the gate post. Fasten each bolt with one \varnothing 10 washer, one \varnothing 10 lock washer, and one \varnothing 10 nut.

9. Attach the gate brackets to each gate by inserting two M10 x 75 bolts through the gate brackets and the drilled holes in the gates. Fasten each bolt with one \varnothing 10 lock washer, and one \varnothing 10 nut.



10. Cut off any part of the bolts that extend beyond the tightened nuts.

11. With the opener fully retracted and with the gate in the fully closed position (for Push-to-Open installation), insert a clevis pin through the gate opener and the PSO part and insert another clevis pin through the gate opener and the Gate Bracket. Secure each clevis pin with a hairpin clip.

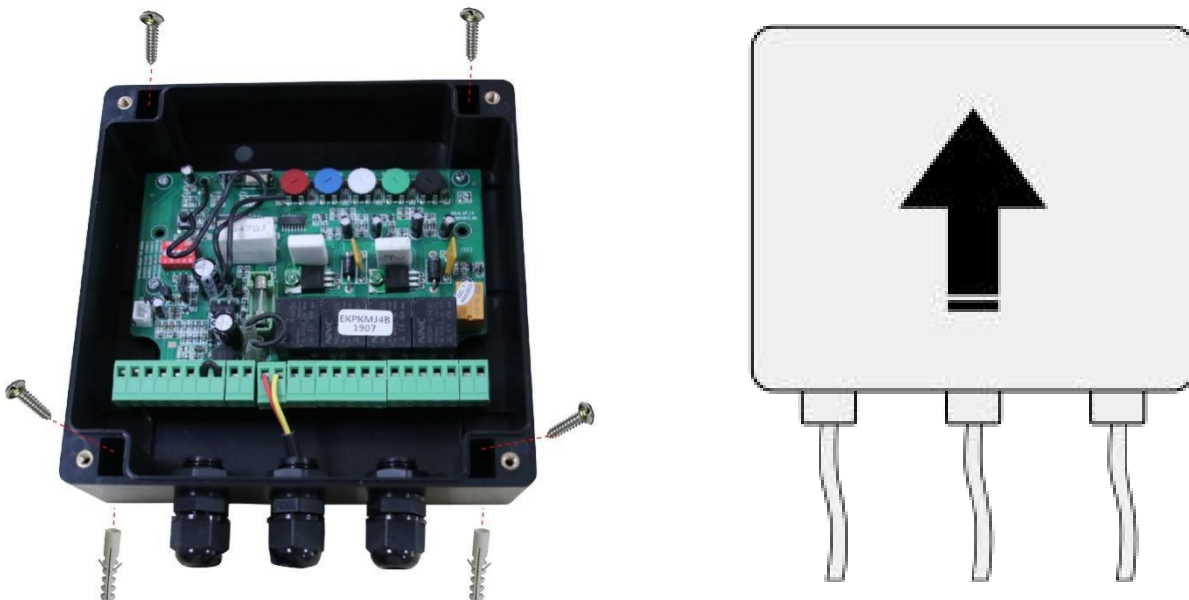


12. Insert the release key, and turn the key 90° counterclockwise. This restores normal operation.

NOTE: The setting of the PULL/PUSH TO OPEN of the control board should be in accordance with the installation.

Mounting of the Control Box

Use 4 deck screws (not provided) to install the control box. Even though the control box is waterproof designed, for safety reason and a longer service life, it is recommended to install the control box inside a secure surface and at least 100 cm (40 inches) above the ground to avoid being flooded or buried under snow.



CAUTION: Make sure the cable outlet hole in the Control Box is always down during installation so as to drain off the water.

Connection of the Power Supply

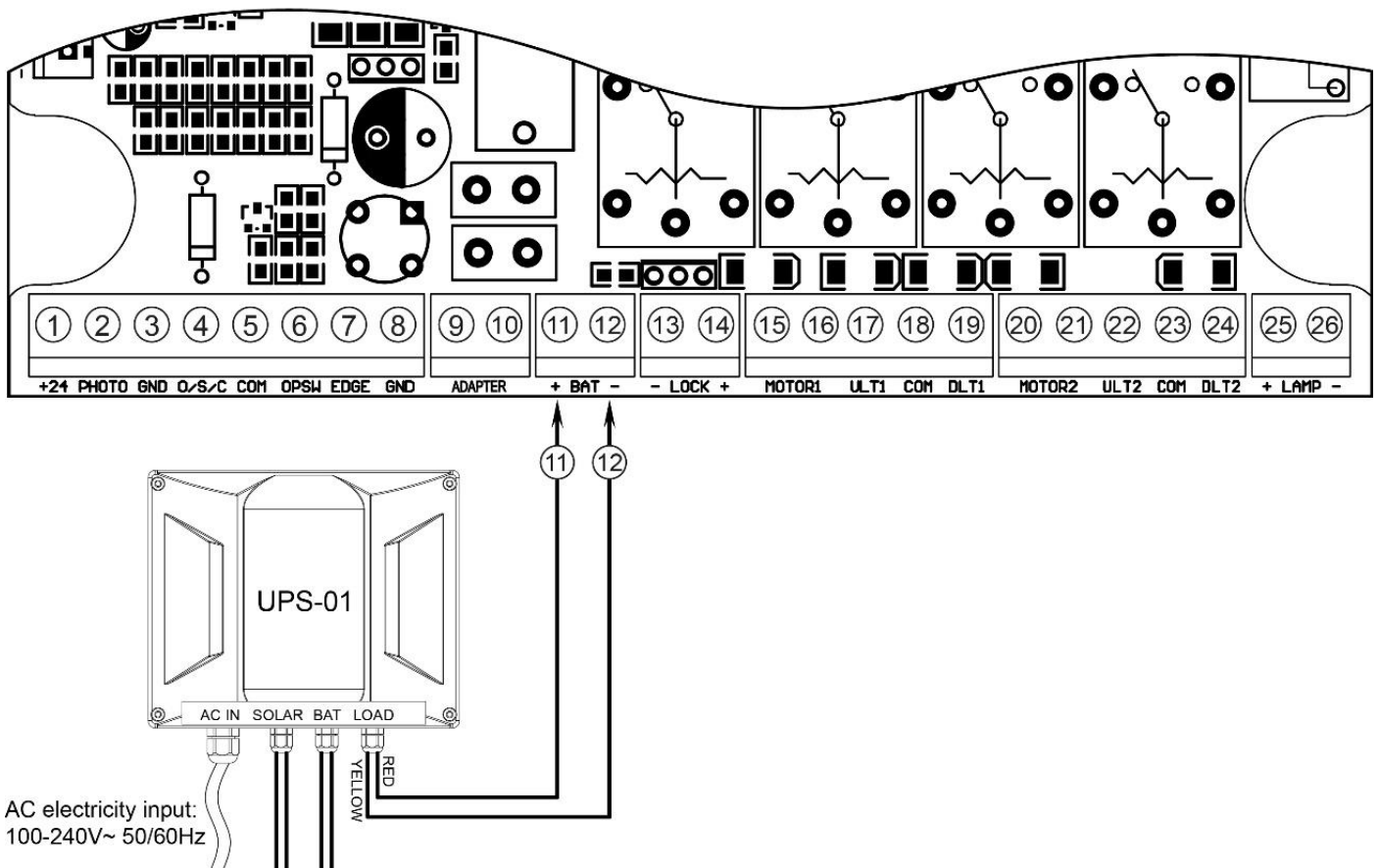
⚠️ A 24VDC AC-DC power supply is included in the kit. You can plug it to the AC socket to use it power up the gate opener directly if the AC electricity is accessible. You can also connect a 24VDC back-up battery (2*12VDC, connected in series to become 24VDC) to the power supply if the AC electricity is not stable. In this situation, 5AH battery is enough.

⚠️ You can also use the batteries as the main power source without the AC electricity. In this situation, you must purchase spare solar panel (at least 20W) to charge the batteries. The solar panel and the batteries can be connected to the UPS-01 power supply easily. And then you can connect the output of the power supply to the gate opener to power up the gate opener system. Marine or Automotive Type Battery with capacity greater than 12 AH is required (NOT INCLUDED). 2 PCS 12VDC batteries can be connected in series to become 24VDC to power up the gate opener. The following diagram will show you how to connect 2 PCS batteries in series. Please note the wire connection of them is very important. Incorrect wire connection will damage the control board. The batteries should be waterproof type or you should place them in water proof housing.

⚠️ WARNING: NEVER connect the gate opener to the power outlet before all the installations have been done.

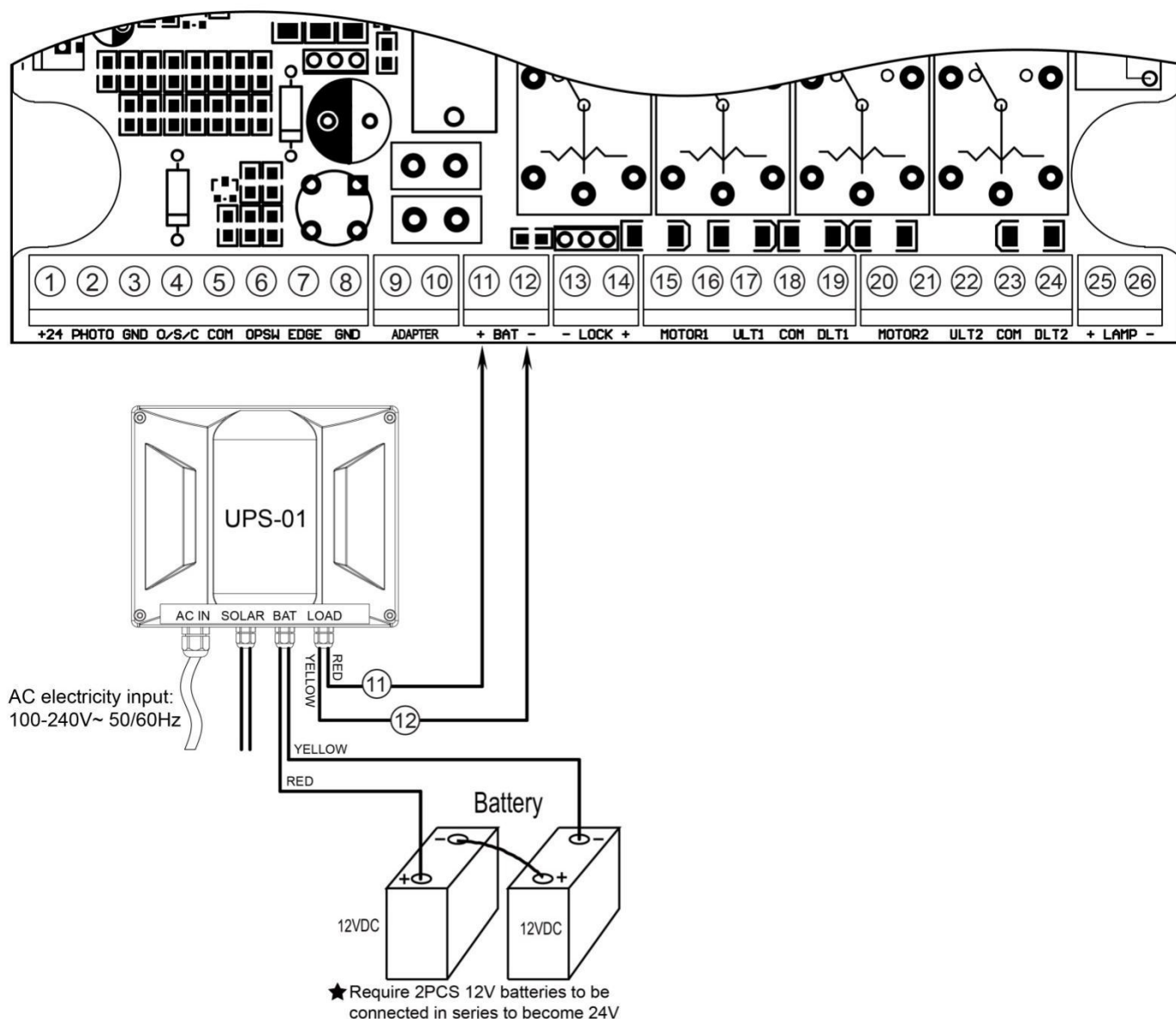
Power Mode 1. Only use the AC electricity as the power source

There are 2 male terminals with the **LOAD** output wires of the UPS-01 power supply and 2 female terminals with the power input wires of the control box which have been connected to the **+BAT** terminals of the control board. Just plug them together to complete the wire connection. Finally you can plug the power cord to the socket to power on the system. You can leave the **SOLAR** and **BAT** wires of the UPS-01 **Not Connected** in this situation.



Power Mode 2. By AC electricity and back-up batteries, only use the AC electricity to charge the batteries

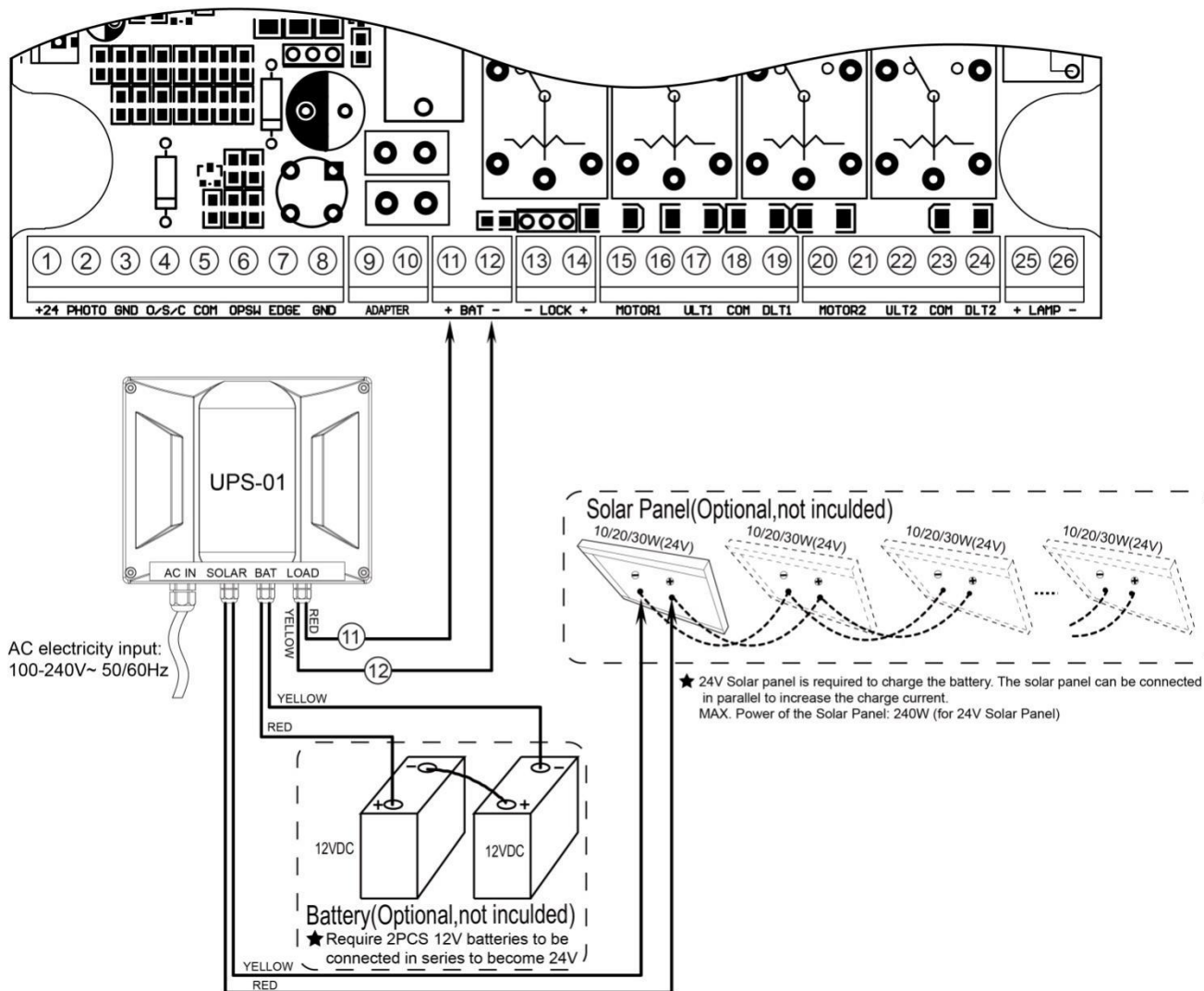
If the AC electricity failure happens rarely (less than 8 hours per day), then you can use minimum 5AH 2*12VDC batteries as back-up power source in case of AC power failure. In this situation, you can connect the UPS-01 to the control box refer to step 1 in this chapter. And then you can connect 2 PCS 12VDC batteries in series and then connect it to the UPS-01 power supply.



Power Mode 3. Use the batteries as the power source, only use the solar panel to charge the batteries

If the AC electricity is not available, then you can choose the batteries as the power source and use the solar panel to charge the batteries. The capacity of the batteries should be at least 12AH and the power of the solar panel should be at least 20W in this situation. The gate opener can run for 10 cycles per day without connecting any other accessories except push button & alarm lamp if the local average sunshine time is more than 6 hours per day. The power of the solar panel and the capacity of the batteries should be enlarged if the local average sunshine time is less than 6 hours per day or using one of the accessories (photocell, external receiver, exit

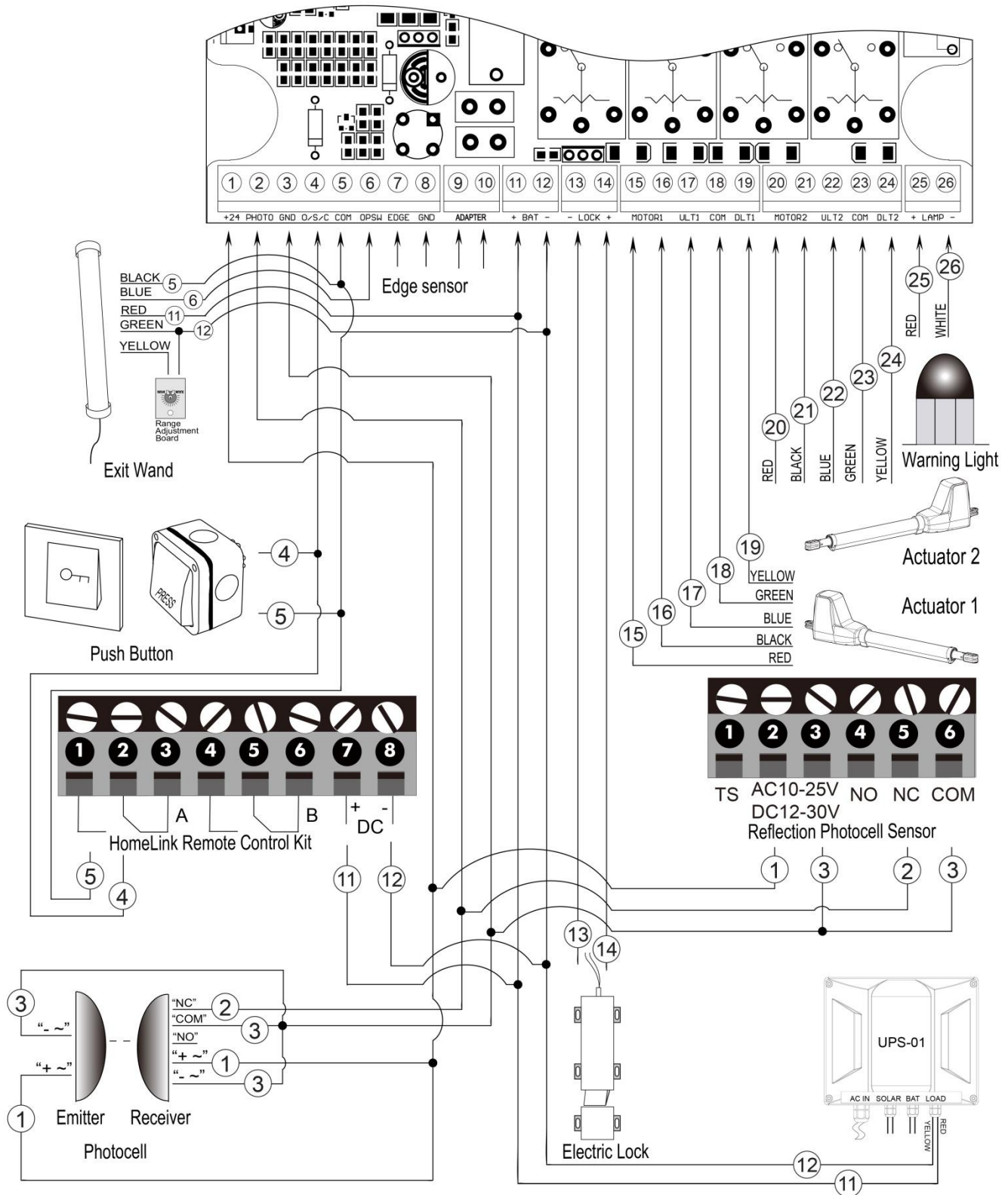
wand and keypad). Please provide us with more details of the local sunshine condition and accessories needs which we can calculate the configuration of the solar panel and the batteries. Please connect the UPS-01 power supply & batteries & the solar panels refer to the following wiring diagram. You can leave the power cord Not Plugged in this situation.



Power Mode 4. By AC electricity and back-up batteries, use the AC electricity and the solar panel to charge the batteries at the same time

If you want to use the solar panel and the AC electricity to charge the batteries at the same time, firstly you can connect the UPS-01 power supply & batteries & the solar panels refer to the above wiring diagram in "Power Mode 3". Only need one more step, plug the power cord to the AC socket to complete the wire connection. The system will give priority to the use of AC electricity. The power supply will switch to batteries when the AC electricity is outage.

Connection of the Control Board



⚠ Important Note:

This gate opener can be powered by 24V 12Ah battery (NOT INCLUDED) OR DPS180-U AC-DC Power Supply (NOT INCLUDED). The adapter included in the package is ONLY used to charge the battery. The AC-DC Power Supply is highly recommended as the power source to save the cost where AC electricity is accessible and stable.

1. Actuator 1 (Master gate, open first & close last)

Insert the stripped cable wires into the appropriate terminals on the opener terminals block. The **red** wire should be inserted into the “+MOTOR1” terminal(#15), the **black** wire into “MOTOR1-” terminal (#16), the **blue** wire into “ULMT1” terminal(#17), the **green** wire into “COM” terminal(#18), and the **yellow** wire into “DLMT1” terminal (#19).

2. Actuator 2 (Slave gate, close first & open last)

The **red** wire should be inserted into the “+MOTOR2” terminal(#20), the **black** wire into “MOTOR2-” terminal (#21), the **blue** wire into “ULMT2” terminal(#22), the **green** wire into “COM” terminal(#23), and the **yellow** wire into “DLMT2” terminal (#24).

3. UPS-01 Power Supply

Before connecting this item, please refer to the chapter of “Connection of the Power Supply”.

4. Battery (not included) & solar panel (optional, ONLY included in AT6132S/AT12132S)

Please connect them following the chapter of “Connection of the Power Supply”.

5. Warning Light (Included in some models, refers to the actual package)

The red wire of the warning light should be inserted into **LAMP (#25)** terminal, the white wire into the **LAMP- (#26)**.

6. Photocell Beam System (PBS) (Included in some models, refers to the actual package)

Use a 2-core cable to connect the “+ ~” terminal of the photocell’s emitter to the “+24” (#1) terminal, the “- ~” terminal to the “GND” (#3) terminal. Also the “+ ~” and “- ~” terminals of the photocell’s receiver should be connected to the “+24” and “GND” terminals in parallel.

Use another 2-core cable to connect the “NC” terminal of the receiver to the “PHOTO” (#2) terminal, the “COM” terminal to the “GND” (#3) terminal.

7. Reflection Photocell Sensor (optional)

The “AC10-25V/DC12-30V” terminals of the reflection photocell sensor should be connected to the “+24” (#1) and “GND” (#3) terminals, no matter the polarity.

The “NC” terminal should be connected to the “PHOTO” (#2) terminal.

The “COM” terminal should be connected to the “GND” (#3) terminal.

8. Push Button (optional)

The push button should be wired to the “O/S/C” (#4) and “COM” (#5) terminals. No matter the polarity. The gate operator works alternately by pressing the button (open-stop-close-stop-open).

9. Electric Lock (optional)

The electric lock should be wired to the “-LOCK+” terminal (“#13 and “#14” terminals), no matter the polarity of the wires.

NOTE: If you use the AC electricity as the power source and intend to use the electric lock, the open delay time of the 2 actuators should be more than 4S.

10. Exit Wand (optional)

The **BLACK** wire of the exit wand should be connected into the “COM” (#5) terminal.

The **BLUE** wire of the exit wand should be connected into the “OPSW” (#6) terminal.

The **RED** wire of the exit wand should be connected into the “BAT+” (#11) terminal.

The **GREEN** wire of the exit wand should be connected into the “BAT-” (#12) terminal.

The sensitivity adjustment board should be wired to the **GREEN** wire and the **YELLOW** wire of the wand. No matter the polarity.

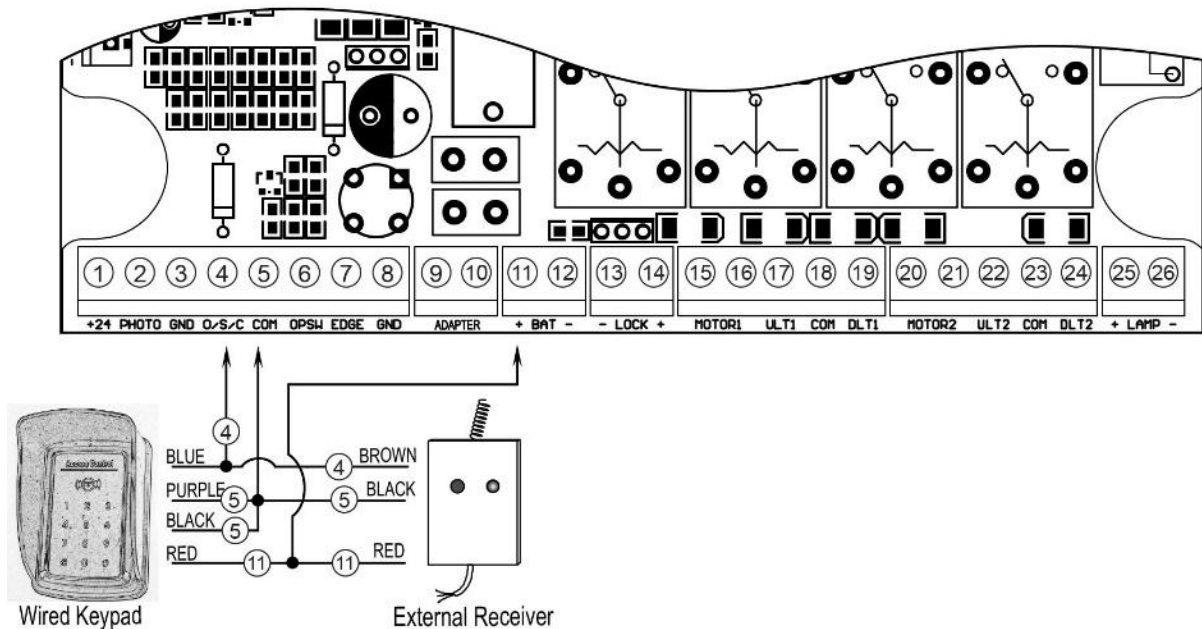
11. HomeLink Remote Control Kit (optional)

The “1” terminal should be connected to the “COM” (#5) terminal.

The “2” terminal should be connected to the “O/S/C” (#4) terminal.

The “DC+” terminal should be connected to the “BAT+” (#11) terminal.

The “DC-” terminal should be connected to the “BAT-” (#12) terminal.



12. Wired Keypad (24VDC) (optional)

The **RED** wire of the wired keypad should be connected into the “**BAT+**” (#11) terminal.
 The **BLACK** wire of the wired keypad should be connected into the “**COM**” (#5) terminal.
 The **PURPLE** wire of the wired keypad should be connected into the “**COM**” (#5) terminal.
 The **BLUE** wire of the wired keypad should be connected into the “**O/S/C**” (#4) terminal.

13. External receiver (optional)

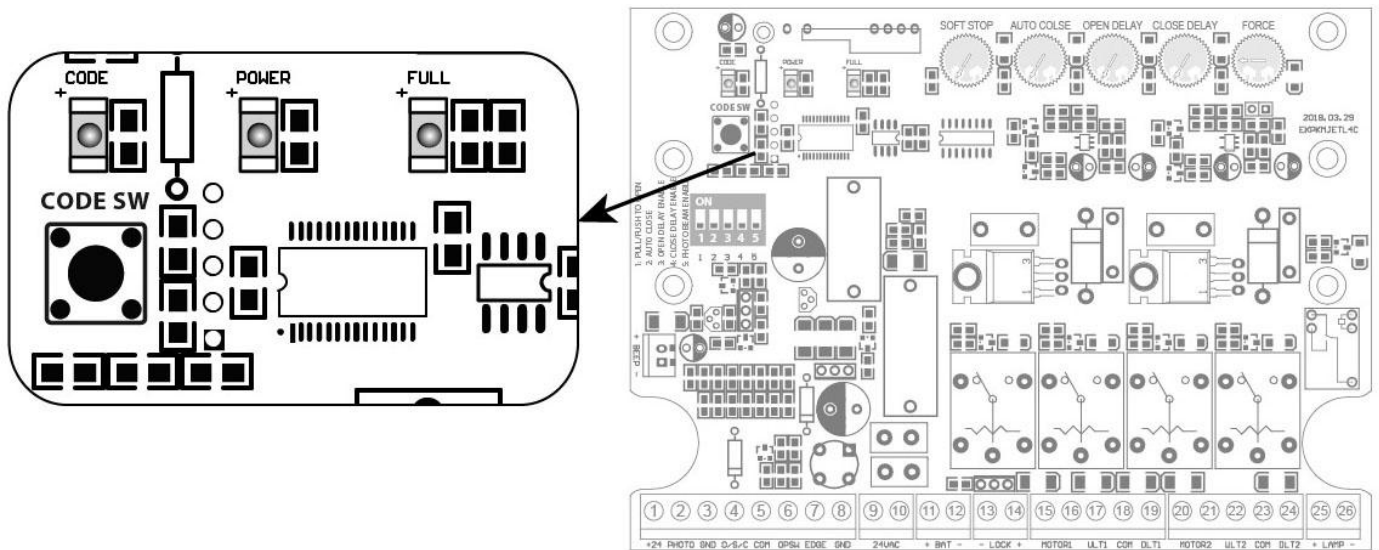
The **RED** wire of the external receiver should be connected into the “**BAT+**” (#11) terminal.
 The **BLACK** wire of the external receiver should be connected into the “**COM**” (#5) terminal.
 The **BROWN** wire of the external receiver should be connected into the “**O/S/C**” (#4) terminal.

Note: Using of the exit wand, keypad and external receiver would cause the battery exhausted quickly. Big capacity of battery and big power of solar panel (if the solar panel is used as main charger) is required if you want to use either of them.

How to Program the Remote to the Opener

- ✧ *The remote **MUST** be programmed to the opener **BEFORE OPERATING**. Please follow the steps to program the remote.*
- ✧ *Activate the opener only when gate is in full view, free of obstruction and properly adjusted. No one should enter or leave gate area while gate is in motion. **DO NOT ALLOW CHILDREN to operate push button or remote. DO NOT ALLOW CHILDREN TO PLAY NEAR THE GATE.***
- ✧ *If you purchase additional remote controls, the gate opener must be programmed to accept the new remote code.*
- ✧ *If you lose one of any remote control, please erase and reprogram all other remote controls to have a new code for safety.*

Press and release the **CODE SW** button, the **CODE LED** will be ON, then press the key on the remote **two times** in 2 seconds, **between the two times HOLD ON FOR A MOMENT**, the **CODE LED** will flash for 3 seconds and then to OFF. Now the remote has been programmed successfully.



- ✧ **NOTE: Max. 8 remotes can be programmed for the opener. An External Receiver (optional) allows up to 250pcs remotes to be programmed for the opener. TOPENS ERM12 Universal External Receiver is available at TOPENS Store.**
- ✧ **TOPENS ERM12 Universal External Receiver is also compatible with other brand swing gate opener, sliding gate opener and garage door opener.**

How to Erase All the Remote Codes

Press and hold the **CODE SW** button until the **CODE** LED from ON to OFF. Now all remote codes have been erased.

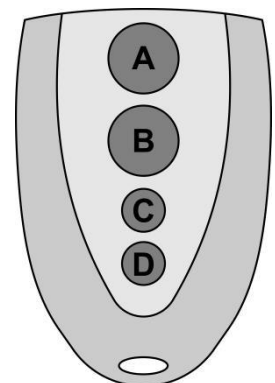
How to Use the Remote to Operate Your Gate Opener

Each remote has four buttons, from top to bottom are separately A, B, C and D. You may use this remote to operate as many as 4 sets TOPENS swing gate openers or 1 set TOPENS sliding gate opener and 2 sets TOPENS swing gate openers.

1. Use this remote to only operate TOPENS swing gate opener A, B, C and D four buttons share same function once they are programmed with TOPENS swing gate opener. You may choose any button to program it with our swing gate opener. Every press of the button is able to active the gate opener to work alternately (open-stop-close-stop-open).

2. Use one remote to operate TOPENS swing gate opener & sliding gate opener at the same time

All of TOPENS sliding gate opener have midway mode. Button B is designed to realize midway function (refer to more details in our TOPENS sliding gate opener manual). So it is must program button A with sliding gate opener, while you may program either C button or D button with TOPENS swing gate opener.

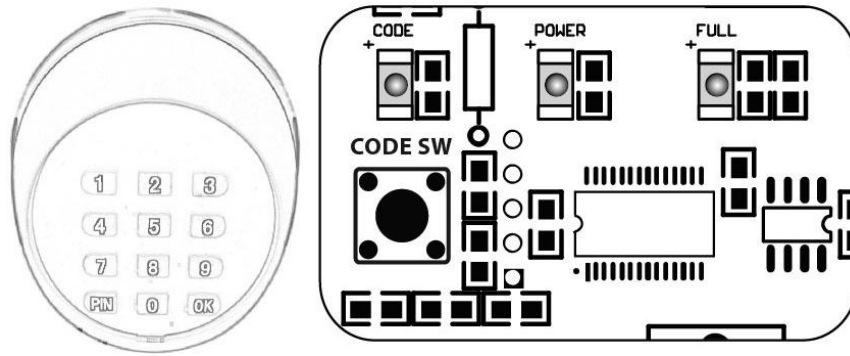


Wireless Keypad Programming

You can follow the below steps to program wireless keypad to the opener. Press the **CODE SW** button until the **CODE** LED is ON, and then release the button. Then press "OK" button on keypad and **CODE** LED will flash for 3 seconds and then be OFF which indicates the keypad has been programmed successfully. You can use the

default password “888888” to operate the opener after programming. You can press “PIN” “8 8 8 8 8 8” and then press “OK” to confirm to operate the opener.

Also you can change the password of the keypad follow the below steps. Press “PIN” and then input the six digits old password and then press ”PIN” again, the **CODE LED** will be ON. Input the six digits new password and then press the “PIN” to confirm the new setting, **CODE LED** will flash for 3 seconds and then be OFF which indicates the password has been changed successfully. You can press “PIN” “6 digits new password” and then press “OK” to confirm to operate the opener.

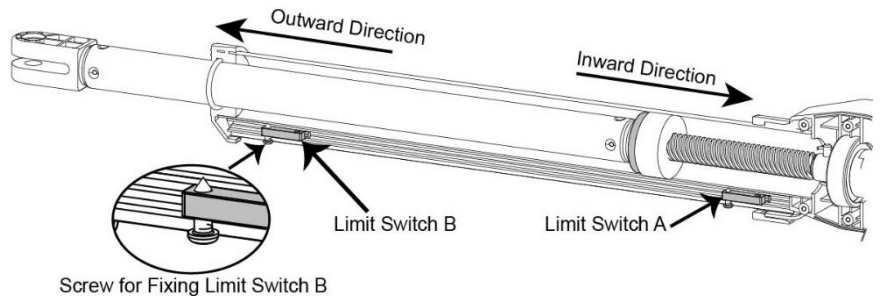


Wireless Keypad

NOTE: Every step for pressing button during program must be finished within 1 second to ensure successful programming.

Adjusting the Limit Switch

Note: Before adjusting the limit switch, refer to the chapter of “Install the Opener on the Gate”, and make sure that the rod is fully retracted when the gate is in the fully open position (for Pull-to-Open installation), or in the fully closed position (for Push-to-Open installation). Make sure that currently the rod is fully retracted.



Note: The position of Limit Switch A was fixed in factory, do not adjust it again.

1 For Pull-to-Open Installation, adjust the limit switch B to determine the closed position:

Turn on power to operate the gate opener, then the arm extends to close the gate.

If the arm closes over the desired closed position, press the remote control to stop the opener. Use a screwdriver to loosen the screw of the limit B, slightly slide the limit switch B **inwards**.

If the arm closes halfway and fails to get to the desired closed position, slightly slide the limit switch B **outwards**.

Please **repeat** the above steps, until the arm could arrive and automatically stop at the desired close position. Then tighten the screw firmly.

Limit setting for master gate is finished now. The slave gate is totally the same.

2 For Push-to-Open Installation, adjust the limit switch B to determine the open position:

Turn on power to operate the gate opener, then the arm extends to open the gate.

If the arm opens over the desired open position, press the remote control to stop the opener. Use a screwdriver to

loosen the screw of the limit B, slightly slide the limit switch B **inwards**.

If the arm opens halfway and fails to get to the desired open position, slightly slide the limit switch B **outwards**.

Please **repeat** the above steps, until the arm could arrive and automatically stop at the desired open position. Then tighten the screw firmly.

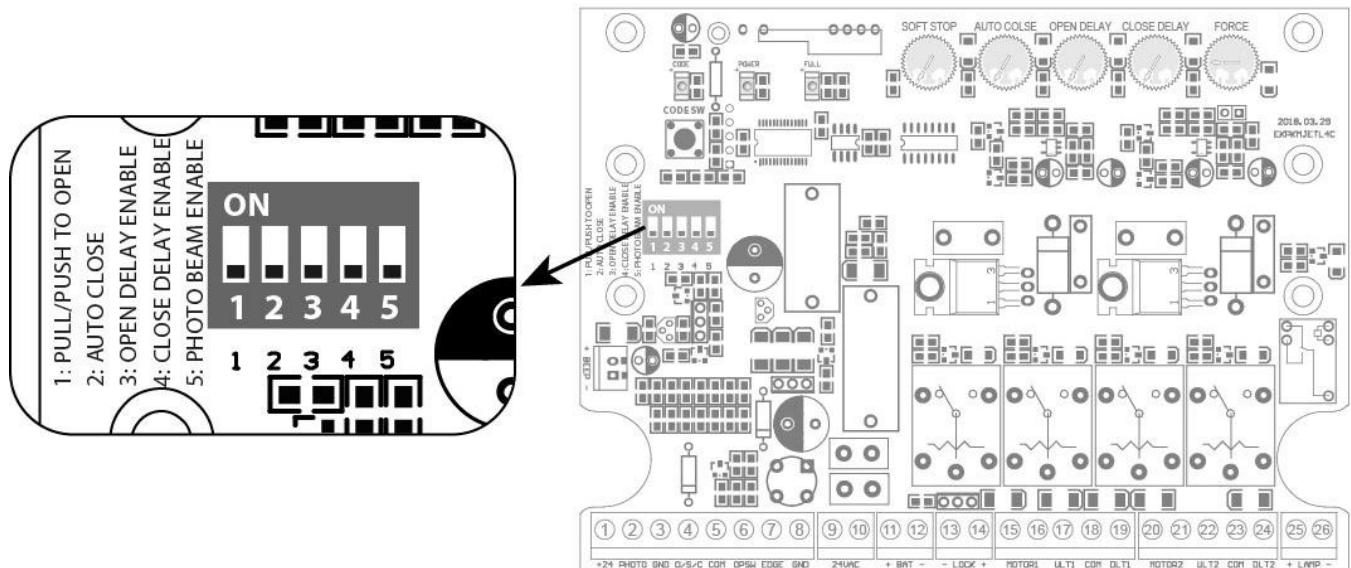
Limit setting for master gate is finished now. The slave gate is totally the same.

Setting of the Control Board

⚠ WARNING: Ensure the gate opener is Power Off when you make any adjustment of the gate opener. Keep away from the gate during you set the gate opener system in case of the unexpected gate moving. Carefully adjust the DIP switches to avoid the risk of machine damage and injury or death. Always ask the help of professional technician /electrician if you have any question.

1. DIP Switches

The DIP switches are used to select pull/push to open, enable/disable auto close function, enable/disable open interval between the master and slave gate opener, enable/disable close interval between the master and slave gate opener and enable/disable photo beam function.



DIP Switch #1: Select push/pull to open

If the gate opens into the property (**pull to open**), the DIP Switch is set to **OFF** (factory default setting). If your gate opens out from the property (**push to open**) the DIP Switch must be set to the **ON** position.

Factory default setting is **OFF**.

DIP Switch #2: Auto close function enabled/disabled

ON – Auto close function **enabled**

OFF – Auto close function **disabled**

Set the switch #2 to ON to enable the auto close function. Factory default setting is **OFF**.

⚠ Important Note: When the auto close function is enabled, the photocell sensor is highly recommended to be installed with the gate opener for safety.

DIP Switch #3: Enable/disable open interval between the master and slave gate opener

ON – Open interval is **enabled**

OFF –Open interval is **disabled**

Factory default setting is ON.

NOTE: Open interval time can be adjusted by the OPEN DELAY potentiometer.

DIP Switch #4: Enable/disable close interval between the master and slave gate opener

ON – Close interval is enabled

OFF –Close interval is disabled

Factory default setting is ON.

NOTE: Close interval time can be adjusted by the CLOSE DELAY potentiometer.

DIP Switch #5: Photocell function enabled/disabled

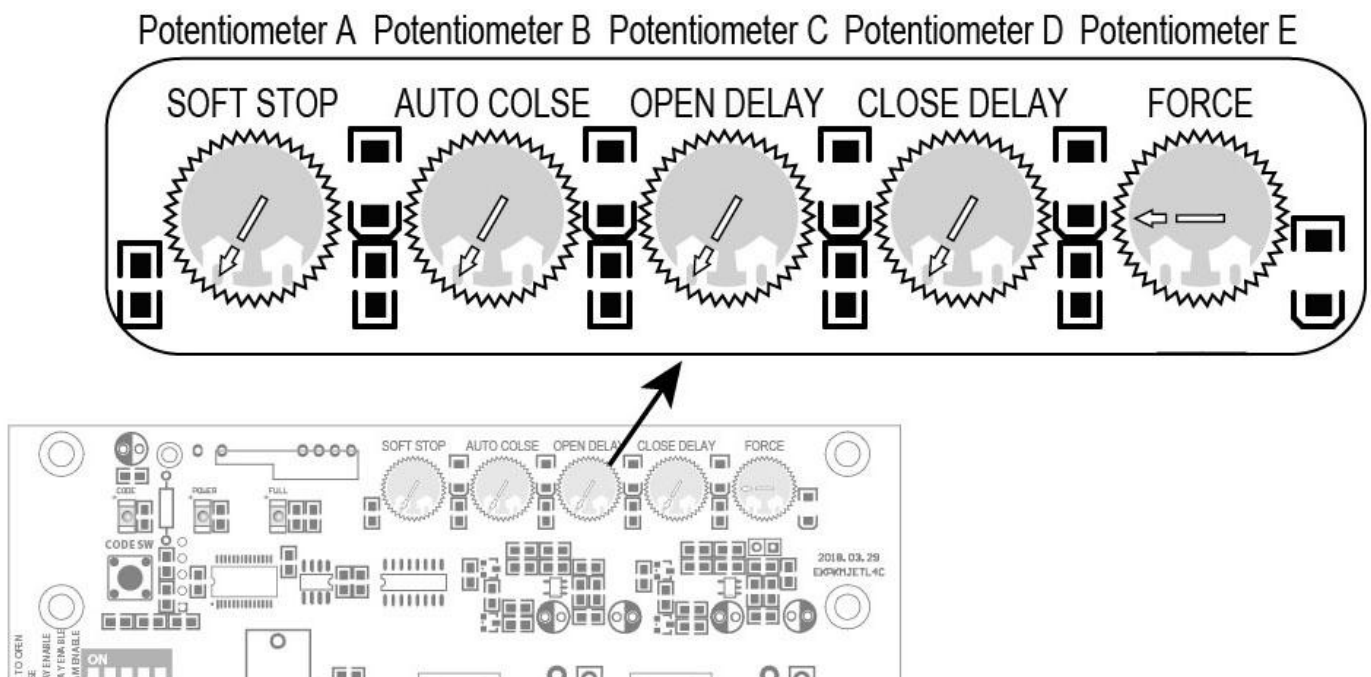
ON – Photocell function enabled

OFF – Photocell function disabled

You must set the switch #5 to ON to enable the photocell function if you want to use the photocell with the gate opener. Factory default setting is **OFF**.

2. Potentiometers

There are 5 potentiometers located in the control board. They are used to adjust soft stop period, auto-close time, open interval and close interval time between master gate opener and slave gate opener, and the stall force.



Potentiometer A is used to adjust the soft stop period of the gate opener. Turn the potentiometer clockwise to increase the soft stop period, and turn it counter-clockwise to decrease the soft stop period. The soft stop period can be adjusted gradually from 1 to 5 seconds.

Potentiometer B is used to adjust the auto close time of the gate opener. Turn the potentiometer clockwise to increase the auto close time, and turn it counter-clockwise to decrease the auto close time. The auto close time can be adjusted gradually from 3 to 120 seconds.

Potentiometer C and potentiometer D are used to adjust the open interval and close interval time between the master gate opener and the slave gate opener respectively. Turn the potentiometer clockwise to increase the interval time, and turn it counter-clockwise to decrease the interval time. The interval time can be adjusted gradually from 1 to 9 seconds.

Potentiometer E is used to adjust the stall force the gate opener. Turn the potentiometer clockwise to increase

the stall force, and turn it counter-clockwise to decrease the stall force.

Maintenance

 **Warning:** *Disconnect power before servicing.*

1. Using a clean, dry cloth to wipe the gate opener shaft, and then apply a silicone spray to reduce its friction. In cold climates where temperatures reach 1°C (30°F) or less, spray silicone on the actuator every 4~6 weeks to prevent freeze up.
2. Regularly check gate hinges to make sure gate is swinging smoothly and freely. Grease hinges if needed.
3. Check your installation periodically, as hardware and posts will shift. Brackets may need to be adjusted or hardware may need to be tightened.
4. Maintain the area around your gate. Keep the areas free of objects that can prevent the gate swinging freely.

NOTES:

1. *Inspection and service should always be performed anytime a malfunction is observed or suspected.*
2. *It is suggested that while at the site voltage readings be taken at the operator. Using a Digital Voltmeter, verify that the incoming voltage to the opener it is within ten percent of the opener's rating.*
3. *Refer to the instructions on how to check gate force and sensitivity adjustments.*

Status of LED(s) & Trouble Shooting



Status of gate opener	Status of LED(s)			Possible Solution(s)
	CODE LED	POWER LED	FULL LED	
Standby (UPS01 has been connected to the gate opener control box)	OFF	OFF	OFF	<ol style="list-style-type: none"> 1. Make sure the connection between the UPS01 and control box is correct and fastening. 2. Make sure the UPS01 power supply has been plugged into the AC main socket or the batteries (2*12V batteries connected in series) have been connected to the UPS01 well. 3. Battery is over-discharge if you only use batteries with the UPS01 to power up the gate opener. The voltage of the battery should above 22V to make the gate opener work normally. Please wait the battery to be charged above 22VDC. 4. Check the output of UPS01. If the output of UPS01 is measured below 21VDC and the voltage of the batteries is above 22VDC or the power cord has been plugged into the socket well, then the UPS01 is defective. 5. Check the fuse in the control board. Replace the fuse if it was burnt out. 6. Check the control board. Replace the control board if

				necessary.
Standby	OFF	Flash(1 Blink every second)	OFF	Normal (Output Voltage of the UPS01 is normal)
Running	Flash(1 Blink every second)	Flash(1 Blink every second)	Flash(1 Blink every second)	Normal
Both of the gates do not move when operating	OFF	Flash(1 Blink every second)	OFF	<ol style="list-style-type: none"> 1. Make sure the remote has been programmed to the control board before using. 2. The battery of the remote may be exhausted. Replace the battery and try it again. 3. The control board could be faulty. Replace the control board as necessary.
The gate reverse when on the way of opening or closing	Flash(1 Blink every second)	Flash quickly until the gate stop running	Flash(1 Blink every second)	<ol style="list-style-type: none"> 1. Ensure that the gates swing freely without any binding. 2. The stall force is adjusted too small. Turn the Potentiometer E to increase the force. 3. Ensure the photo beam is not blocked when a photocell is used.
Both of the gates do not move when operating	Flash quickly for 3 seconds and then back to OFF	Flash quickly for 3 seconds and then back to flash slowly(1 Blink every second)	OFF	<ol style="list-style-type: none"> 1. Ensure the photo beam is not blocked when a photocell is used. 2. Check if the photocell is defective or not.
Both of the gates do not move when operating	OFF	Flash quickly for 3 seconds and then back to flash slowly(1 Blink every second)	Flash quickly for 3 seconds and then back to OFF	Check if the jumper wire between the EDGE and GND terminal is loosening or not.
The gate stop when on the way of opening or closing	Flash quickly for 10 seconds and then back to OFF	Flash quickly for 10 seconds and then back to flash slowly(1 Blink every	OFF	Two sequential photo beam blocked has been detected. Please ensure the photo beam is not blocked.

		second)		
The gate stop when on the way of opening or closing	OFF	Flash quickly for 10 seconds and then back to flash slowly(1 Blink every second)	Flash quickly for 10 seconds and then back to OFF	<ol style="list-style-type: none"> Two sequential contact entrapments have been detected. Please ensure there is no obstacle on the path of opening or closing. Adjust the stall force bigger.
Both of the gates do not move when operating	Flash quickly	Flash quickly	Flash quickly	<ol style="list-style-type: none"> Re-power on the gate opener. Replace the control board as necessary.
One gate runs normally but the other one does not move	Flash(1 Blink every second)	Flash(1 Blink every second)	Flash(1 Blink every second)	<ol style="list-style-type: none"> Exchange the wire connection of the 2 arms and check what will happen to the 2 arms. If the faulty arm is still faulty, then the arm itself is faulty. If the failure changes to the other arm which worked normally before, then the control board is faulty. If the arm is confirmed faulty by step 1, you can connect the RED & BLACK wire of the arm to the output of UPS01 directly to check if the arm could run normally (Exchange the RED & BLACK wire to the polarity of the output of power supply will change the running direction of the arm). If so, then the limit switch of the arm is faulty. If the arm still can't run, then the motor part which is inside the arm is faulty.
Gate automatically opens, but does not automatically close	Flash(1 Blink every second)	Flash(1 Blink every second)	Flash(1 Blink every second)	Setting of DIP switch #1 could be wrong. Please set the dip switch correctly according to the push/pull to opener installation of the gate opener.



According to Waste of Electrical and Electronic Equipment (WEEE) directive, WEEE should be separately collected and treated. If at any time in future you need to dispose of this product please do NOT dispose of this product with household waste. Please send this product to WEEE collecting points where available.

Feedback & Review

Your comments and suggestions are important to us
as they help us provide the best possible service.

Should you have any need to contact us, the info below will help you get in touch:



TOPENS Website

www.topens.com

Contact Us:

E-mail: support@topens.com

*Kindly include your Product Model, Purchasing Date & Site, Order #,
and your contact information. All your concerns will be replied within 24 hours.*

Tel: +1 (888) 750 9899 (Toll Free USA & Canada)