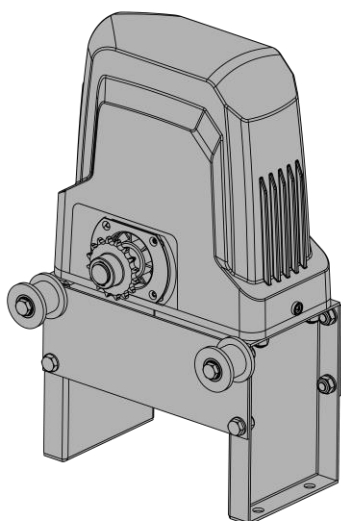


# TOPENS<sup>®</sup>

**DWC500S/DWC1100S**

## User Manual

For smart sliding gate opener installation



Installation Video



Download on the  
App Store



GET IT ON  
Google Play

Download "TOPENS" via App Store or Google Play



Equipped with 20W solar panels, this gate opener can operate independently without AC electricity. An additional 24V 12Ah lead acid battery is required but not included. Alternatively, the opener can be powered directly by 110-120VAC electricity.

# CONTACT US

## For Technical Support and Installation Assistance

Visit our website at [www.topens.com](http://www.topens.com) and fill out the online form

Alternatively, you can send an email to our service team at [support@topens.com](mailto:support@topens.com)

To ensure prompt and effective assistance, kindly include the following information in your email:

- **Where Did You Purchase?** \_\_\_\_\_
- **Order Information** \_\_\_\_\_
- **Your Contact Information** \_\_\_\_\_
- **Gate Information (Weight and Length)** \_\_\_\_\_
- **Did You Purchase Any Accessories? (If Yes, Please List Them)** \_\_\_\_\_
- **Issue Description (Include Any Relevant Photo or Video)** \_\_\_\_\_

## For Warranty Registration

To register your warranty, please visit [www.topens.com](http://www.topens.com)

If you have any questions regarding what is covered by the TOPENS warranty, refer to the detailed policy at [www.topens.com/pages/topens-limited-warranty](http://www.topens.com/pages/topens-limited-warranty).

Email Us: [support@topens.com](mailto:support@topens.com)

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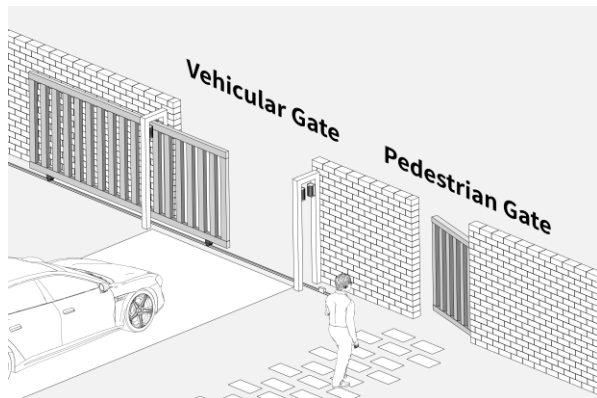
# Important Safety Information

Thank you for choosing the TOPENS DWC500S / DWC1100S sliding gate opener. When installed correctly and used properly, your opener will offer years of reliable service.

This manual is designed to guide you through the proper installation of your DWC500S / DWC1100S sliding gate opener. Please carefully review all instructions before commencing the installation and operation of this automatic gate opener.

## Before Installation

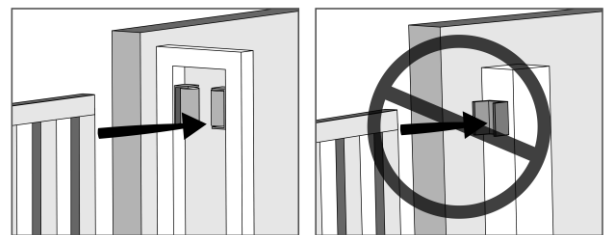
- ◆ **GAIN UNDERSTANDING OF THE INSTALLATION PROCESS:** Please read this user manual or view our online installation video before installing the gate opener.
- ◆ **LOCAL INSTALLATION COMPLIANCE:** Prior to installation, please verify that your planned installation complies with all relevant local building codes and ordinances. Dispose of packaging materials in accordance with local regulations.
- ◆ **SEPARATE PEDESTRIAN ACCESS:** The gate opener is intended for installation only on gates used for vehicles. Pedestrians should use a separate entrance to avoid contact with the moving vehicular gate.



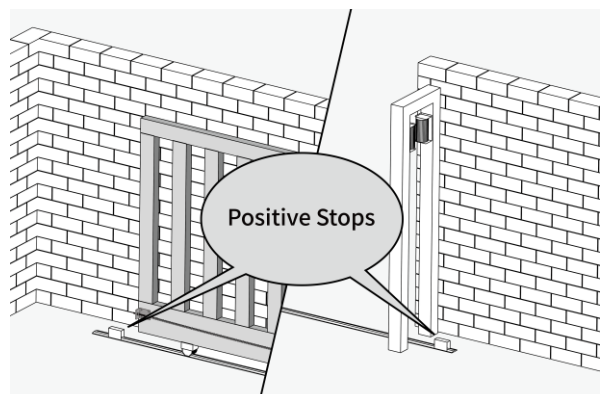
- ◆ **SLIDING GATE PREPARATION:** Ensure that the gate is plumb, level, and slides smoothly in both directions without binding or dragging on the ground. Wheels and guide rollers should rotate easily and be free of dirt or grime. Confirm that the gate track is straight, horizontal, and firmly affixed. Secure the fence posts in the

ground with concrete. Repair or replace all worn or damaged gate hardware prior to installation.

- ◆ **POST OR WALL PROTECTION:** Avoid using the post or wall as a stopping mechanism, either directly or indirectly. This precaution helps protect the post or wall from potential damage due to the impact of the sliding gate.



- ◆ **POSITIVE STOPS:** Positive stops must be installed at each end of the gate track to assure that the gate does not exceed its limit of travel and derail while opening or closing fully.



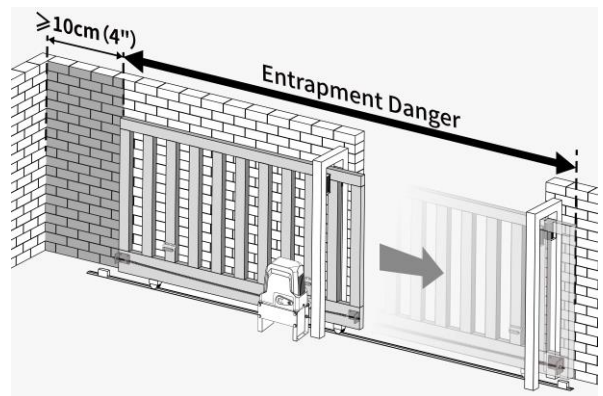
# Important Safety Information

## During Installation

- ◆ **INSTALLER AND END USER RESPONSIBILITY:** An experienced installer should perform the installation. Improper installation may result in property damage, severe injury or death. The gate opener is only part of the entire gate operating system, and it is the responsibility of the installer and end user to ensure that the total system is safe for its intended use.
- ◆ **DISCONNECT THE POWER SUPPLY:** Ensure that the gate opener is powered off before electrical wire connections or making any adjustments.
- ◆ **INSTALLATION POSITION:** Only install the gate opener on firm, level ground and on the inside of the property or fence line. Ensure there is sufficient clearance between the gate and adjacent structures when opening and closing to minimize the risk of entrapment. Avoid installing it on the outside of the gate where the public has access to it. Avoid installing it in areas prone to flooding or in locations exposed to flammable or explosive fumes.
- ◆ **INSTALL SAFETY SENSOR:** The gate opener is designed to stop or reverse the gate when the gate comes in contact with an obstruction. It is highly recommended to install a photocell sensor in the following situations for safety: if you have children or pets at your property, the gate opener auto close function is set to ON, the gate opener stall force is set to the maximum, a vehicle exit sensor is installed, or other gate

control devices are used.

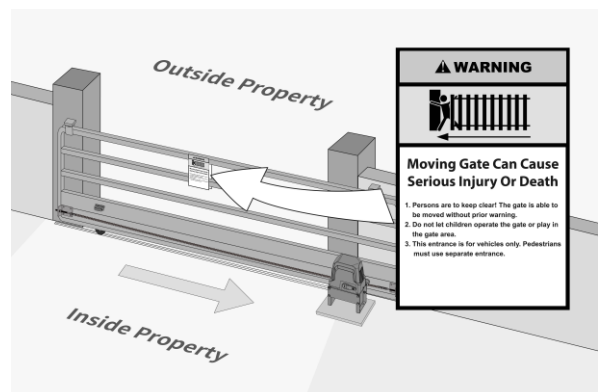
- ◆ **ENTRAPMENT ATTENTION:** Ensure when the gate is fully open, the end of the sliding gate keeps at least 10cm (4") away from any walls or objects. Exercise caution around moving parts and avoid approaching areas where fingers or hands could get caught. Always keep children, pets and livestock clear of the gate and its path of travel. Never cross the path of a moving gate.



- ◆ **GATE CONTROL ACCESSORIES PLACEMENT:** Gate control accessories intended for user activation must be located at least 1.5 meters (5') away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.

## After Installation

- ◆ **WARNING SIGNS:** Attach the provided warning signs to both sides of the gate in highly visible locations to alert the public about the automatic gate opener system. If your signs are damaged or missing, contact TOPENS Customer Support to request a PDF file.



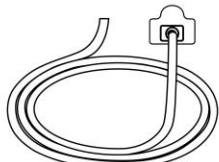
# Important Safety Information

- ◆ **AWAY FROM MOVING GATES:** Keep children, pets and livestock away from the gate opener system as moving gates can be dangerous.
- ◆ **SECURE GATE CONTROL ACCESSORIES:** Prevent children from operating or playing with gate controls by keeping remote transmitters, keypads, and push buttons out of their reach. Store in a secure area when not in use.
- ◆ **MAINTENANCE OF GATE OPENER SYSTEM:** Keep the gate properly maintained and its track free of grime and debris. Periodically check that it slides smoothly under manual operation and tighten any loose hardware as needed. Turn off the power to the gate opener before performing any maintenance.
- ◆ **OBSTRUCTION PROTECTION TESTING:** Test the gate opener monthly. The gate must stop or reverse on contact with a rigid object or when an object activates the non-contact sensors. After adjusting the stall force or limit travel, retest the gate opener. Failure to adjust and retest the gate opener properly can increase the risk of injury or death.
- ◆ **POWER DISCONNECTION AND MANUAL OPENING:** Understand how to disconnect the power and manually open the gate. Disconnect the gate opener from the gate only when the gate is not in motion and the gate opener system is turned off.
- ◆ **RECOGNIZE POTENTIAL RISKS IN AUTOMATED GATE SYSTEMS:** Save the user manual. Make sure everyone who is using or will be around the gate and gate opener is aware of the dangers of automated gate systems. If a replacement manual is needed, you can download a copy from the TOPENS website ([www.topens.com](http://www.topens.com)).

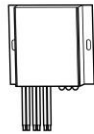
## Note For Warranty

- ◆ **WARRANTY LIMITED TO TARGET MARKET:** The warranty is limited to the target market (Contiguous United States, Canada, UK, and Germany). Customers using the product outside these regions will be responsible for any additional expenses during the warranty replacement process.
- ◆ **GATE OPENER ABUSE:** TOPENS does not cover damage resulting from abuse, such as attempting to operate the gate opener beyond its specified capacity or using it for unintended purposes.
- ◆ **GATE OPENER MISUSE:** TOPENS does not cover damage resulting from misuse, including but not limited to operating the gate opener with incompatible power sources or using it in environments not recommended by TOPENS.
- ◆ **ALTERATIONS OR MODIFICATIONS:** Alterations or modifications made to the gate opener without prior consultation with TOPENS will also invalidate warranty coverage.
- ◆ **NON-COMPLIANCE WITH INSTRUCTIONS:** Failure to follow the installation instructions, including but not limited to improper installation, maintenance will void the warranty.
- ◆ **THIRD PARTY ACCESSORIES:** TOPENS does not cover damage caused by third party accessories, except those specifically recommended by TOPENS Customer Support. It is important to use only compatible accessories to ensure compatibility and prevent damage to the gate opener.
- ◆ **CONTACT TOPENS SUPPORT:** Please ensure that the gate opener is installed, operated, and maintained in accordance with the guidelines outlined in the user manual to avoid voiding the warranty. If you have any questions regarding proper usage or need assistance with compatible accessories, please contact TOPENS Customer Support for guidance.
- ◆ **DETAILED WARRANTY POLICY:** If you have any questions regarding what is covered by the TOPENS warranty, refer to the policy at [www.topens.com/pages/topens-limited-warranty](http://www.topens.com/pages/topens-limited-warranty).

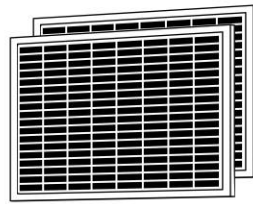
# Packing List



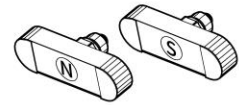
Power Cord



Solar Charge Controller



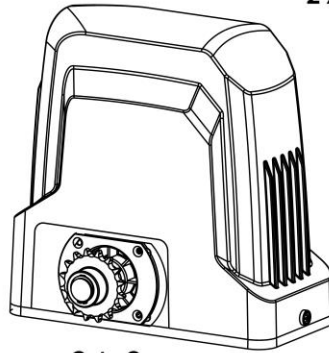
2 x 10W 24V Solar Panel



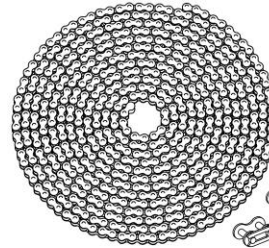
N & S Magnet Assembly



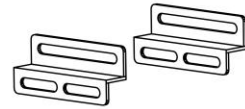
TC131A Remote Control



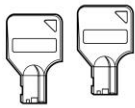
Gate Opener



Roller Chain 6m (20 feet)  
& Master Link



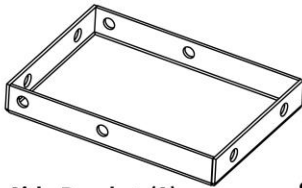
Magnet Bracket



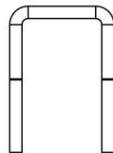
Release Key



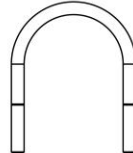
Warning Sign



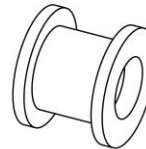
Side Bracket (2)



Square "U" Bolt (4)



Round "U" Bolt (4)



Idle Wheel (2)



Expansion Bolt (4)

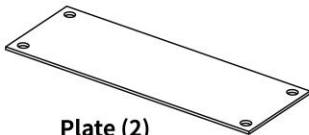


Plate (2)



M10x20 Hex Bolt (6)



Φ8 Plain Washer (20)



Φ10 Plain Washer (26)



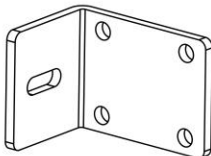
M10x30 Hex Bolt (4)



Φ8 Lock Washer (20)



Φ10 Lock Washer (4)



"L" Bracket (2)



M10x65 Hex Bolt (2)



M8 Hex Nut (20)



M10 Hex Nut (4)



Chain Bolt (2)



M8x70 Hex Bolt (4)



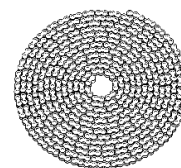
M10 Self-Locking Nut (12)



M10 Thin Nut (2)

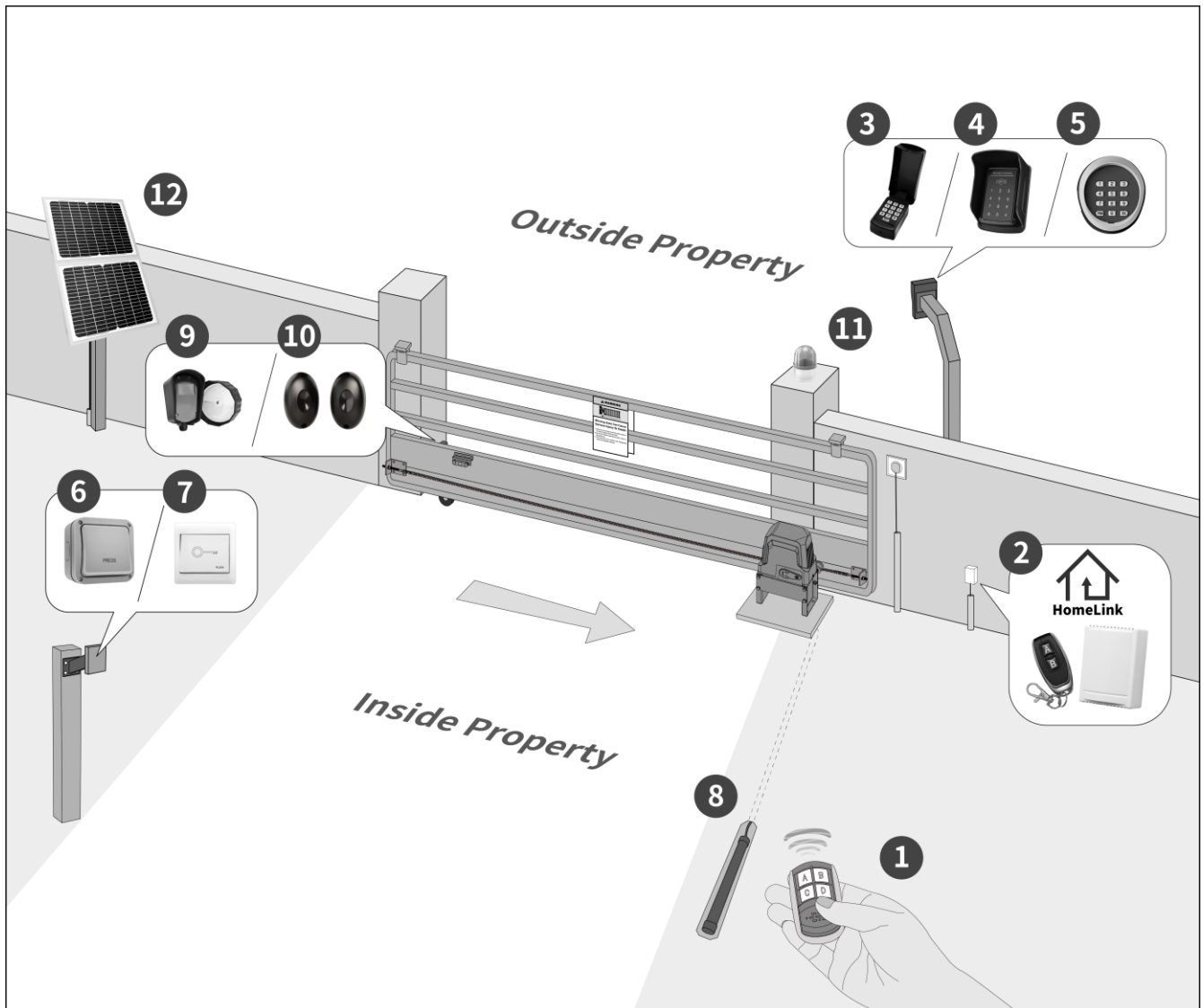
## Supplementary Chain

(If the chain is insufficient, additional chain can be purchased separately at [www.topens.com](http://www.topens.com).)



LT08B 20 Feet  
Roller Chain

# Installation Overview



## Various TOPENS Accessories for Your Gate Opener System

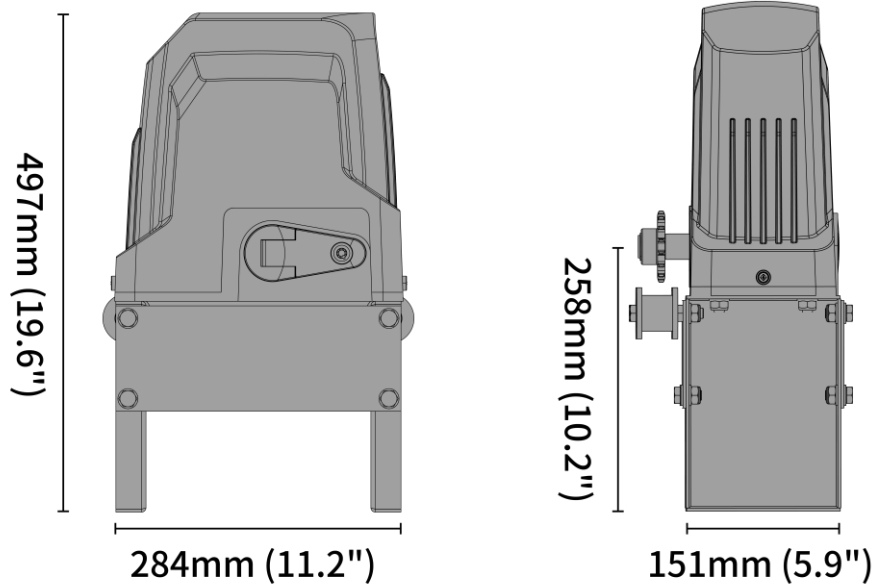
|                                     |                                    |
|-------------------------------------|------------------------------------|
| ❶ TC131A Remote Control             | ❷ TC147 Wall Push Button           |
| ❸ HLR01 Homelink Remote Control Kit | ❸ TEW3 Vehicle Sensor Exit Wand    |
| ❹ TC188 Universal Keypad            | ❹ TRF3 Reflection Photocell Sensor |
| ❺ TC175P Wired Keypad               | ❺ TC102 Infrared Photocell Sensor  |
| ❻ TKP3 Wireless Keypad              | ❻ JD24VY Warning Light             |
| ❼ TC148 Waterproof Wall Push Button | ❼ TSQ20W 20W Solar Panel Kit       |

\* Available on the TOPENS website ([www.topens.com](http://www.topens.com)) and Amazon.

# Specifications

| Product Model         | DWC500S                       | DWC1100S         |
|-----------------------|-------------------------------|------------------|
| Power Input           | 110-120VAC/60Hz               |                  |
| Motor Voltage         | 24VDC                         |                  |
| Motor Power           | 180W (1/4 HP)                 | 450W (3/5 HP)    |
| Max Gate Moving Speed | 20 cm/s (8 in/s)              |                  |
| Max Gate Weight       | 600kg (1300lbs)               | 1200kg (2600lbs) |
| Max Gate Length       | 12m (40ft.)                   |                  |
| Working Temperature   | -20°C ~ +50°C (-4°F to 122°F) |                  |
| Protection Class      | IP44 Waterproof               |                  |
| Sound Level           | < 50 dB                       |                  |

## Overall Dimensions



# Before You Begin

## Check the Gate

- ◆ Ensure that the gate is plumb, level, and slides smoothly in both directions without binding or dragging on the ground.
- ◆ Confirm that the gate track is straight, horizontal, and firmly affixed, with positive stops installed at each end.
- ◆ Make sure the gate wheels and guide rollers rotate freely and are clean of dirt or grime.
- ◆ Ensure that the fence posts are securely set in concrete.
- ◆ Repair or replace all worn or damaged gate hardware before installation.

## Test the Wi-Fi Signal Strength

- ◆ Make sure your smartphone is connected to your Wi-Fi network. Hold your smartphone at the location where your gate opener will be installed and check the Wi-Fi signal strength.
- ◆ Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.
- ◆ If there is no Wi-Fi signal or the signal is weak near the gate opener, move your router closer to the gate opener to reduce interference from walls and other objects, or consider using a Wi-Fi range extender.

## Tools Needed

- ◆ Power Drill
- ◆ Tape Measure
- ◆ Heavy-Duty Chain Breaker
- ◆ Open End Wrenches - 14# & 17# or Adjustable Wrenches
- ◆ Wire Strippers
- ◆ Phillips Screwdriver
- ◆ Slotted Screwdriver

## Battery Required

- ◆ When using batteries and solar panels as the main power source, 24V 12Ah batteries are required (NOT included). Lead Acid / GEL / AGM / Flooded (Deep Cycle) batteries are supported, EXCEPT for lithium-ion battery. The batteries should be waterproof, or they should be placed in waterproof housing.

## Items Not Included but May Be Needed

- ◆ **PVC Conduit:** Required to protect the cable connecting TC102 infrared photocell sensor to the control board.
- ◆ **Connection Cable:** Connection cable may be required for installing wired accessories. Refer to the "Connect the Accessories" section in this manual to purchase the correct cable.
- ◆ **Weatherproof Cover:** Use a weatherproof cover to protect the electrical outlet if it is located outdoors.
- ◆ **Circuit Breaker:** A circuit breaker with a rated current of 10A is recommended to use with the power cord.

## Install Photocell Sensor

- ◆ It is highly recommended to install a photocell sensor in the following situations for safety: if you have children or pets at your property, the gate opener auto close function is set to ON, the gate opener stall force is set to the maximum, a vehicle exit sensor is installed, or other gate control devices are used.

# Installation

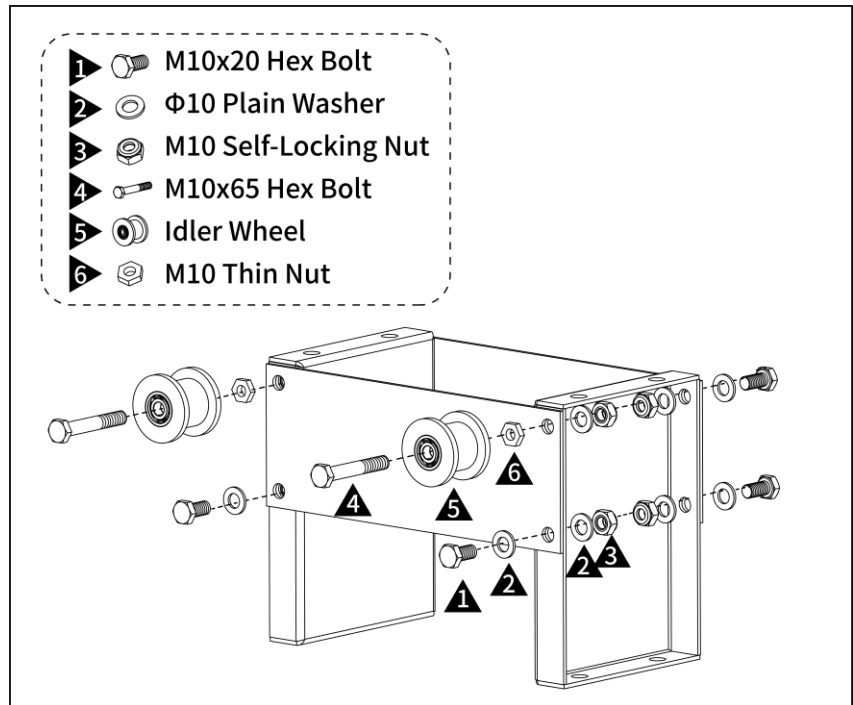
## CAUTION

- ◆ Ensure that the opener is installed in a level and parallel position and is securely fastened.
- ◆ Improper installation may result in property damage, severe injury, and / or death.

## STEP 1

### Assemble the Base Plate

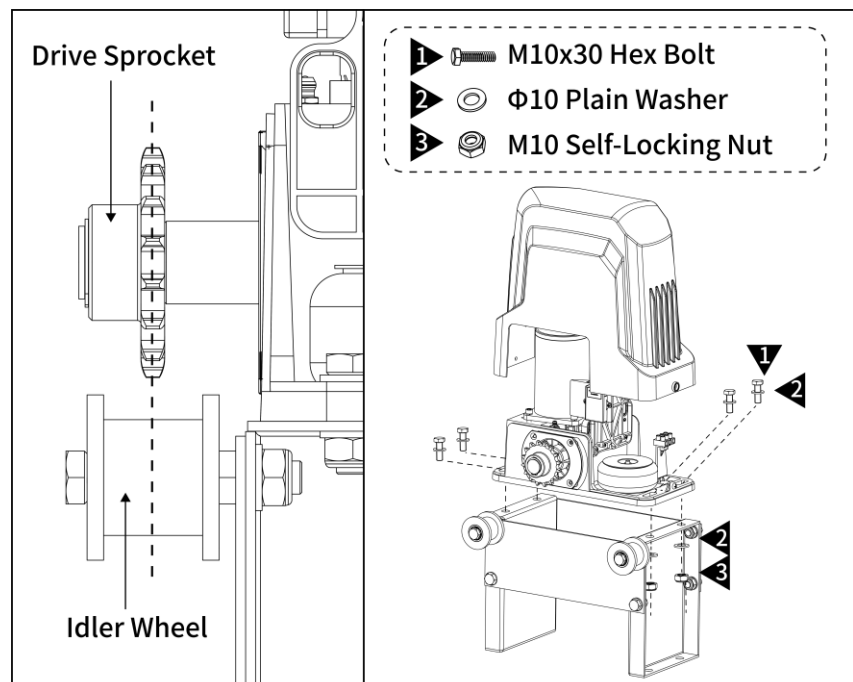
- ◆ Assemble the plates and side brackets as shown, securing them with M10x20 Hex Bolts,  $\Phi 10$  Plain Washers, and M10 Self-Locking Nuts.
- ◆ Install the idler wheels onto the base plate and fasten them with M10x65 Hex Bolts, M10 Thin Nuts,  $\Phi 10$  Plain Washers, and M10 Self-Locking Nuts.



## STEP 2

### Install the Motor on the Base Plate

- ◆ Unscrew the two cover screws located on each side of the motor casing to remove the casing.
- ◆ Place the motor on the base plate and adjust its position to align the drive sprocket with the two idler wheels.
- ◆ Fasten the motor to the base plate with M10x30 Hex Bolts,  $\Phi 10$  Plain Washers, and M10 Self-Locking Nuts.
- ◆ Securely tighten all nuts on the base plate.

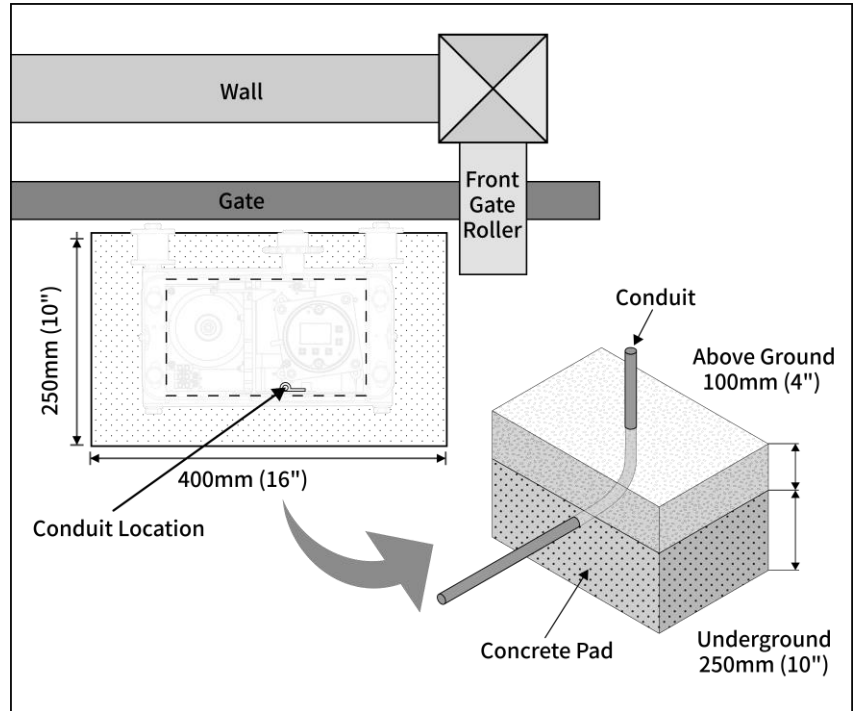


# Installation

## STEP 3

### Lay out the Concrete Pad

- ◆ Dig a hole for a concrete pad near the front roller of the gate. The dimensions should be approximately 400 x 250 x 350mm (16" x 10" x 14").
- ◆ Install the electrical conduit.
- ◆ Pour the concrete pad.
- ◆ Ensure that the pad surface is perfectly level and parallel to the driveway.
- ◆ Increase the pad height if necessary to protect the system from flooding, heavy snow, etc.

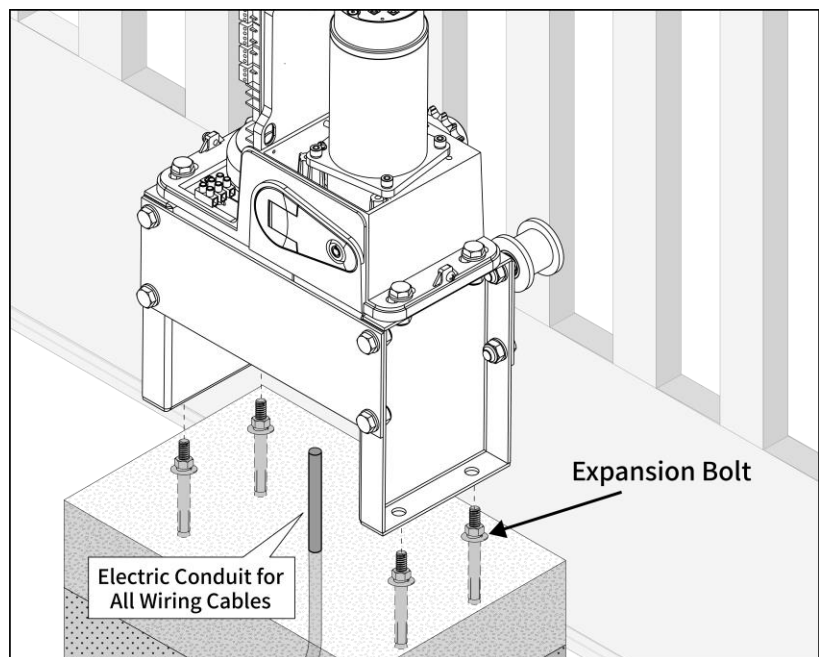
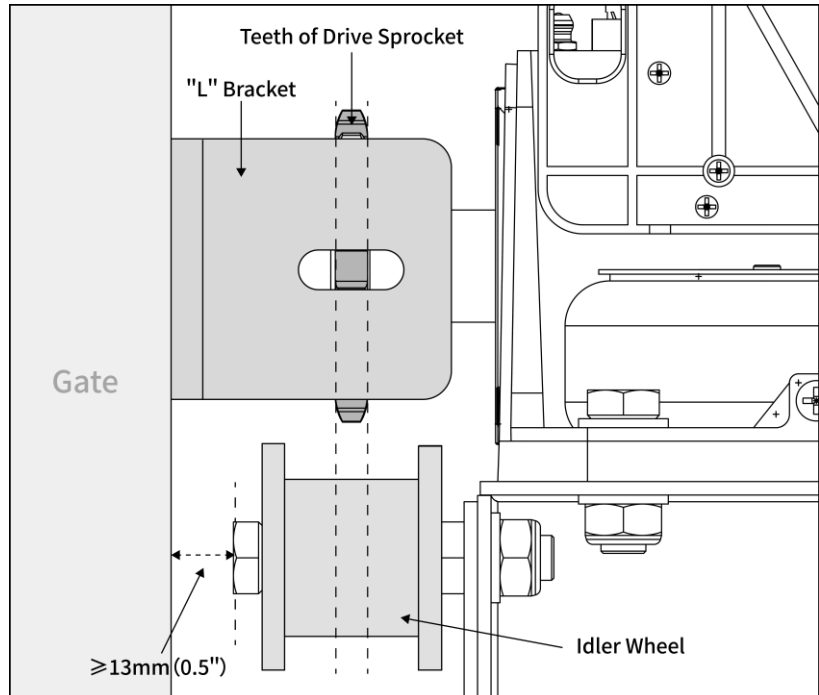


# Installation

## STEP 4

### Determine the Position of the Opener

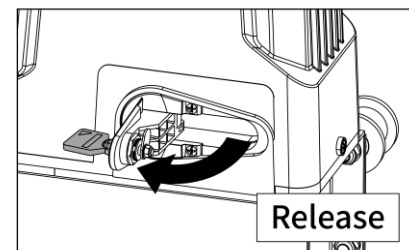
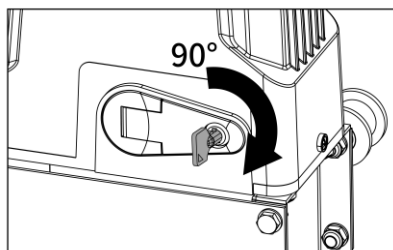
- ◆ Position the opener on the concrete pad.
- ◆ Attach the "L" bracket to the left side of the gate. Adjust the opener's position until the teeth of the drive sprocket are vertically aligned with the hole in the "L" bracket.
- ◆ Push the gate to the right and attach the "L" bracket to the right side of the gate. Adjust the opener's position to align the teeth of the drive sprocket with the hole in the "L" bracket.
- ◆ Ensure that there is at least 13mm (0.5") of clearance between the idler wheels of the opener and the gate.
- ◆ Mark the locations for the four expansion bolts based on the mounting holes on the base plate. Drill the holes with a 14mm (0.55") masonry bit.
- ◆ Firmly secure the base plate to the concrete pad with the expansion bolts.



## STEP 5

### Disengage the Clutch

- ◆ Insert the manual release key and turn it 90° clockwise.
- ◆ Pull the release handle 90° clockwise to disengage the clutch between the gear shaft and the motor.
- ◆ The gate opener is now in manual mode, allowing you to open the gate by hand freely.

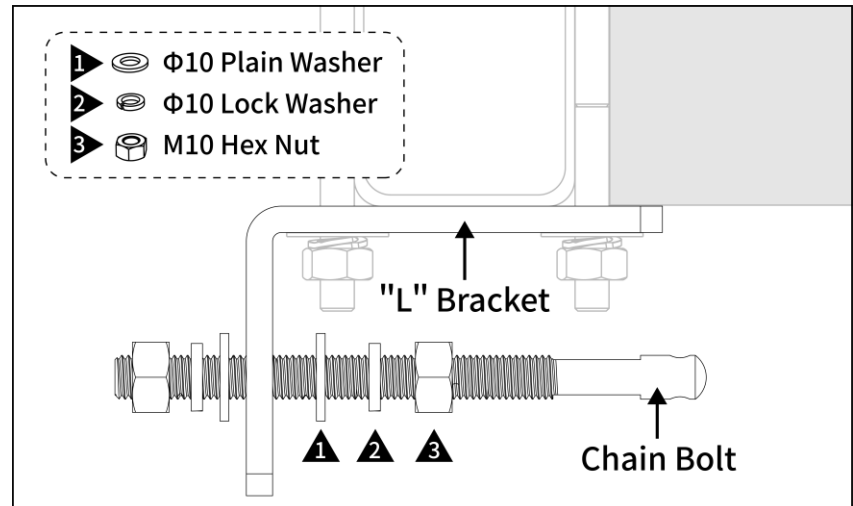
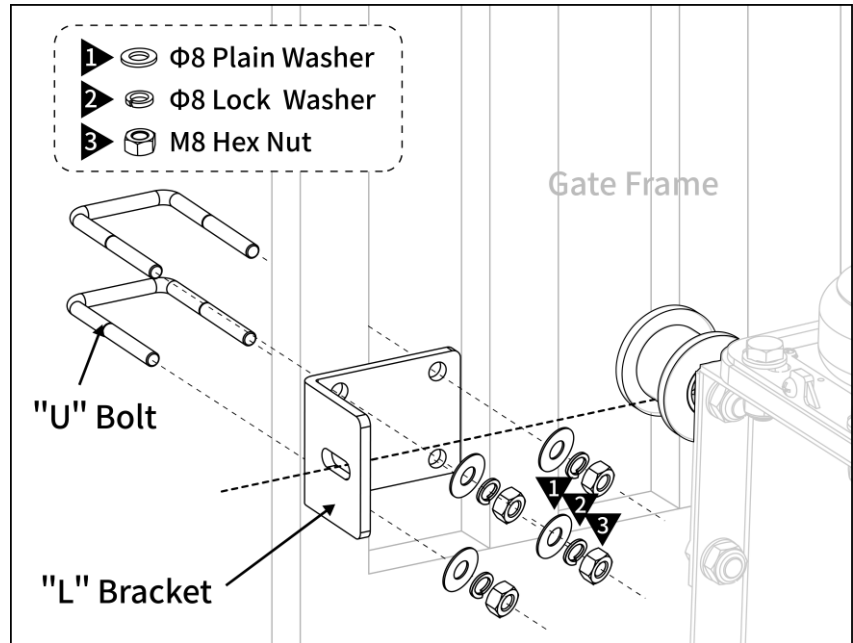


# Installation

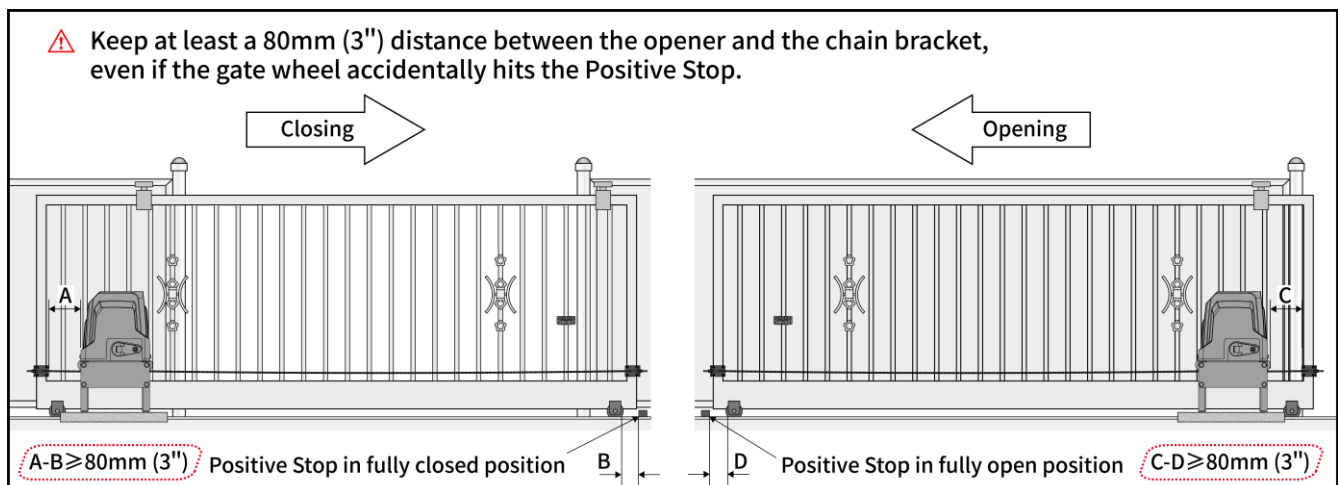
## STEP 6

### Install the Chain Brackets

- ◆ Install the "L" bracket with the "U" bolt (square or round),  $\Phi 8$  Plain Washers,  $\Phi 8$  Lock Washers, and M8 Hex Nuts at or near each end of the inside gate (opener side).
- ◆ Ensure that the bottom of the idler wheel is aligned with the hole in each side of the "L" brackets.
- ◆ If neither the square nor the round "U" bolts fit the gate frame, use appropriate bolts to attach the "L" brackets to the gate frame.
- ◆ Attach the chain bolt to each side of the "L" bracket with  $\Phi 10$  Plain Washers,  $\Phi 10$  Lock Washers, and M10 Hex Nuts.



**CAUTION:** Once the positions of the opener and chain brackets are determined, double-check the safety distance between them to ensure that they do not collide, even if the gate wheel accidentally hits the positive stop. Reinstall the positive stop if necessary.



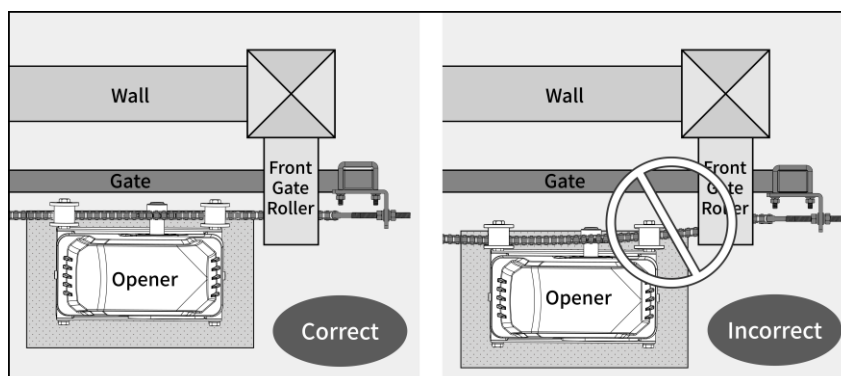
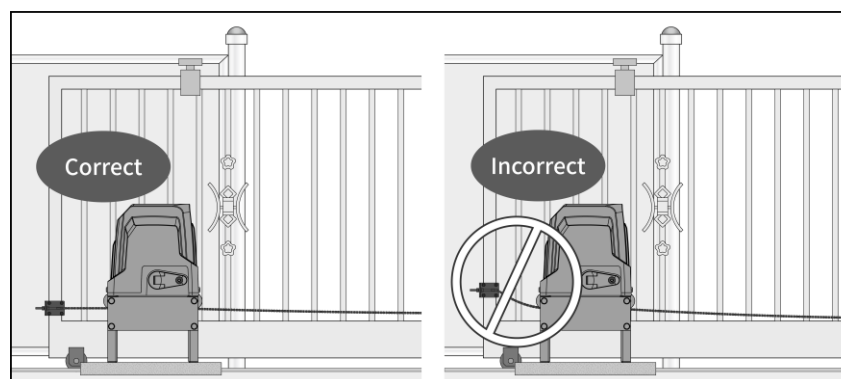
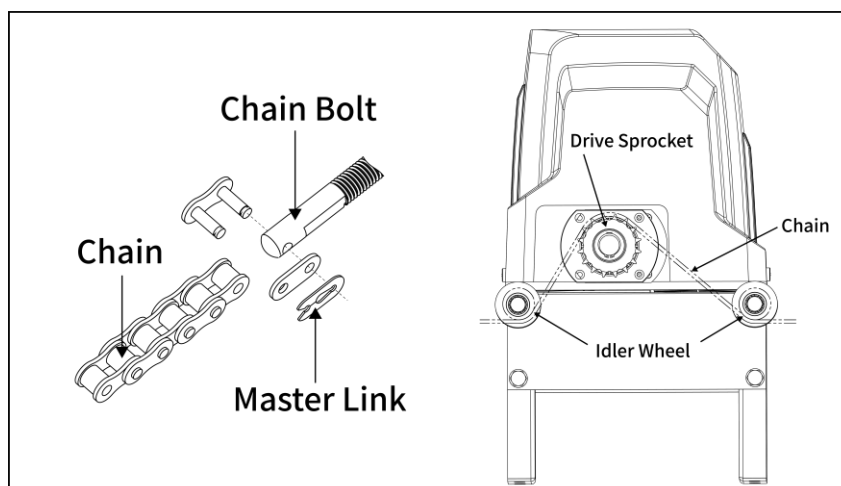
# Installation

## STEP 7

### Fit the Chain

- ◆ Connect one end of the chain to one side of chain bolt with the master link.
- ◆ Route the chain through the opener.
- ◆ Cut any excess chain and connect the end to the other side of the chain bolt with the master link.
- ◆ Set the appropriate chain tension by adjusting the chain bolts at both ends. The chain should be neither too tight nor too slack.
- ◆ Manually open and close the gate to ensure that it moves smoothly with the chain installed.

**NOTE:** Applying anti-rust oil to the chain will help prevent rust.

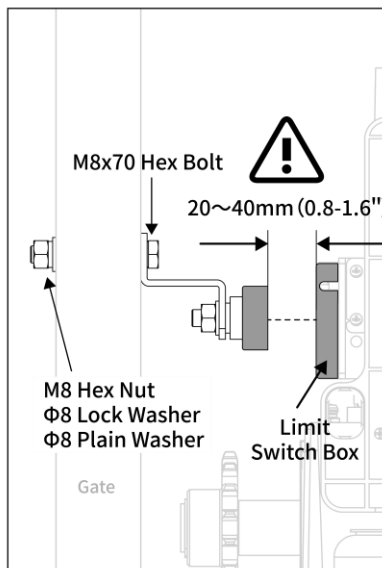
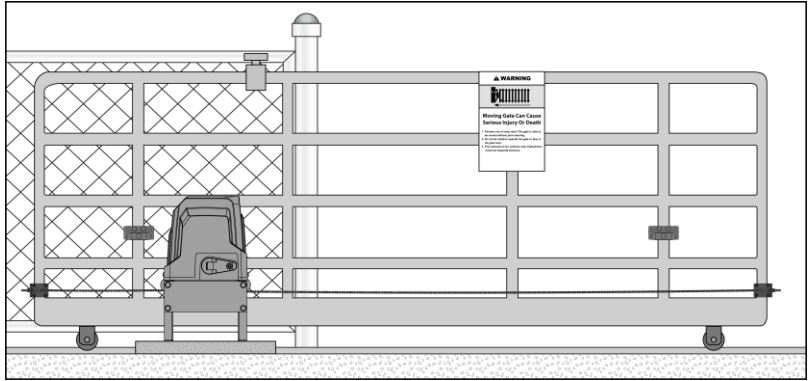
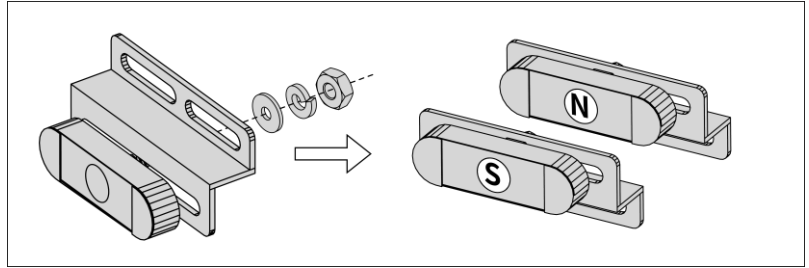


# Installation

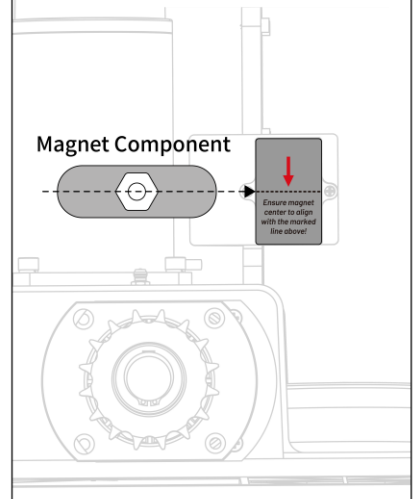
## STEP 8

### Install the Magnets

- ◆ Attach the N and S magnets to the magnet brackets.
- ◆ Manually close the gate completely and install the magnet bracket so that the opener stops at the desired closed position when the magnet senses the limit switch. Similarly, fully open the gate and install the other magnet bracket so that the opener stops at the desired open position when the magnet senses the limit switch. The magnets have no polarity restrictions and can be mounted on either side. Leave some space at both ends of the gate for buffering.
- ◆ Adjust the magnets to ensure that their centers are aligned with the marked line on the limit switch box.
- ◆ Secure the magnet brackets to the gate with M8x70 Hex Bolts,  $\Phi 8$  Plain Washers,  $\Phi 8$  Lock Washers, and M8 Hex Nuts, ensuring that the N and S magnets are about 20-40mm (0.8-1.6") away from the limit switch box.



Ensure the magnet's center aligns with the marked line on the limit switch box!



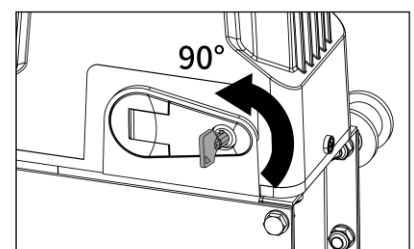
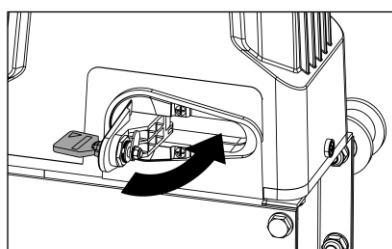
### NOTES:

- ◆ Precise installation of the magnets ensures accurate control of the gate's opening and closing positions. You can adjust the open / close limit positions according to your needs.
- ◆ Improper installation of the magnets may cause the gate to crash into the positive stops, posing a significant safety risk! It is highly recommended to watch our step-by-step installation video on YouTube for guidance.
- ◆ After the magnets are installed and the gate opener is powered on, set the open and close limit positions by referring to the "Set the Open / Close Limit Positions" section for safety.

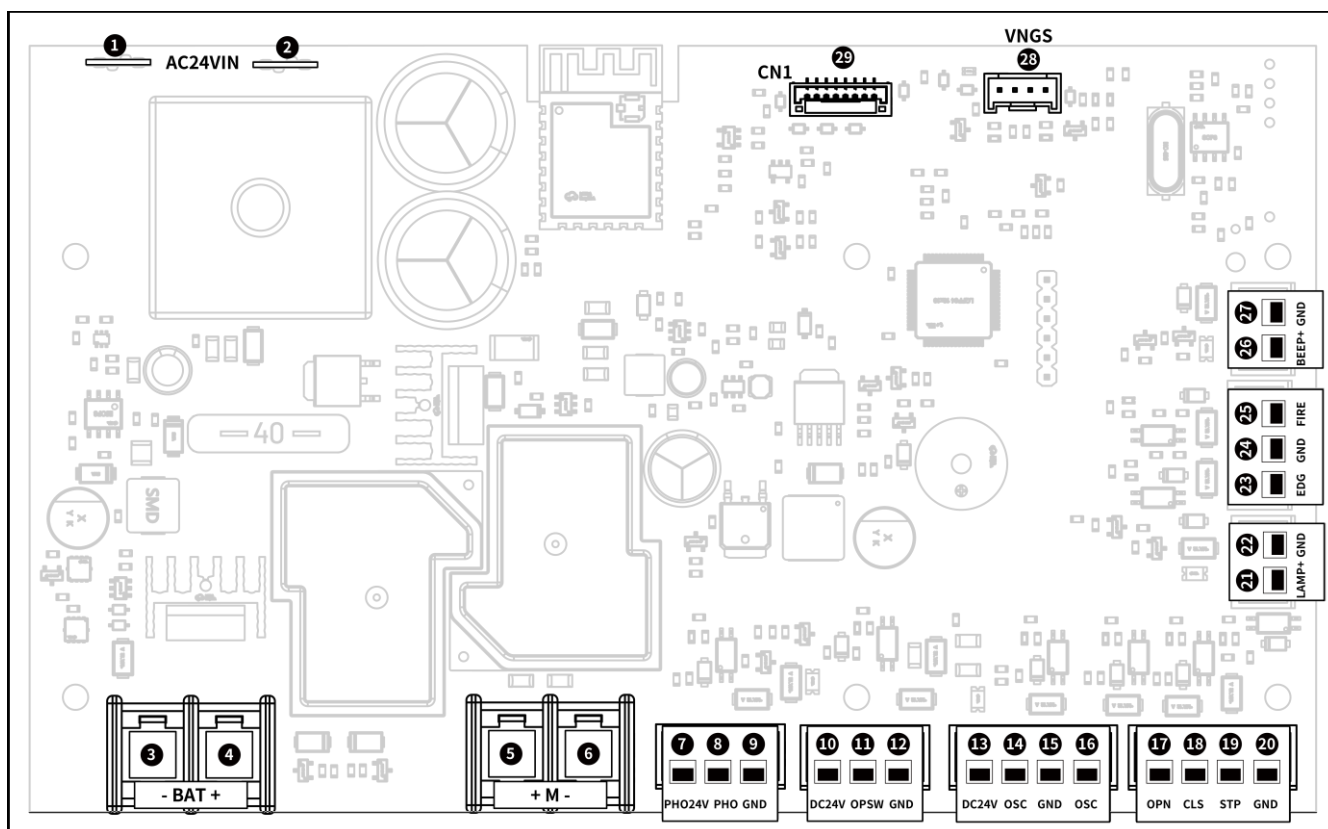
## STEP 9

### Engage the Clutch

- ◆ Pull the release handle 90° counterclockwise.
- ◆ Turn the manual release key 90° counterclockwise and then remove it.



# Control Board Terminal Functions

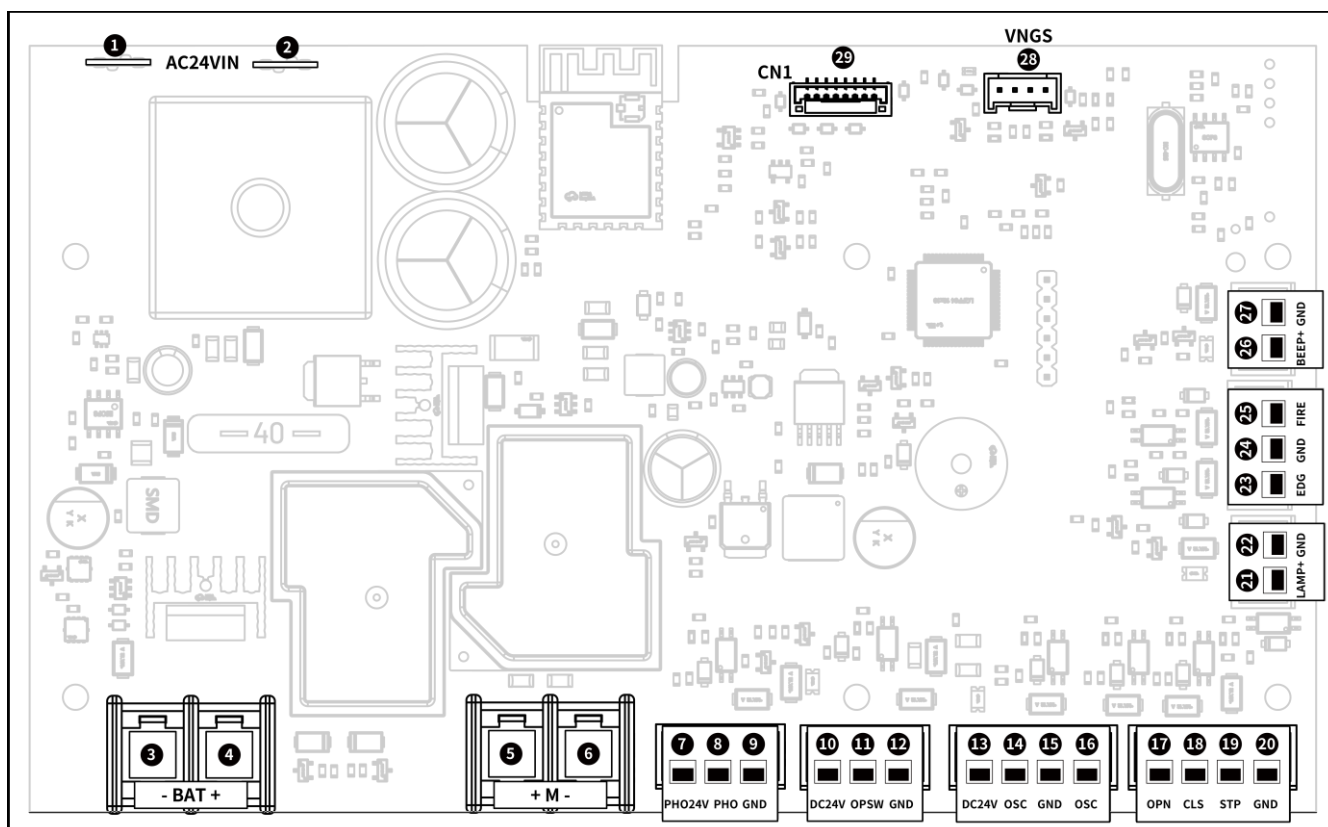


## Terminal

## Function

|                       |                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ① ② "AC24VIN"         | Input terminals for transformer, connected to the wires of the transformer.                                                                                                 |
| ③ ④ "-BAT+"           | Input terminals for 24VDC power, typically connected to the negative and positive terminals of a 24VDC battery or 24VDC power supply, providing power to the entire system. |
| ⑤ ⑥ "+M-"             | Output terminals for motor control, connected to the red and yellow wires of the motor respectively.                                                                        |
| ⑦ "PHO24V"<br>⑨ "GND" | Provide 24VDC voltage output to power photocell sensors while the gate opener is closing. The rated current should be less than 500mA.                                      |
| ⑧ "PHO"<br>⑨ "GND"    | Receive signal input from a photocell sensor, operating on a normally closed (NC) input basis, connected to "NC" and "COM" terminals of the sensor respectively.            |
| ⑩ "DC24V"<br>⑫ "GND"  | Provide 24VDC voltage output to exit wand. The total current (including terminals ⑬ and ⑮) should be less than 500mA.                                                       |
| ⑪ "OPSW"<br>⑫ "GND"   | Accept the signal input of the gate opening, usually connected to the normally open output of a vehicle sensor.                                                             |
| ⑬ "DC24V"<br>⑮ "GND"  | Provide 24VDC voltage output to power a wired keypad and Homelink remote control kit. The total current (including terminals ⑩ and ⑫) should be less than 500mA.            |

# Control Board Terminal Functions

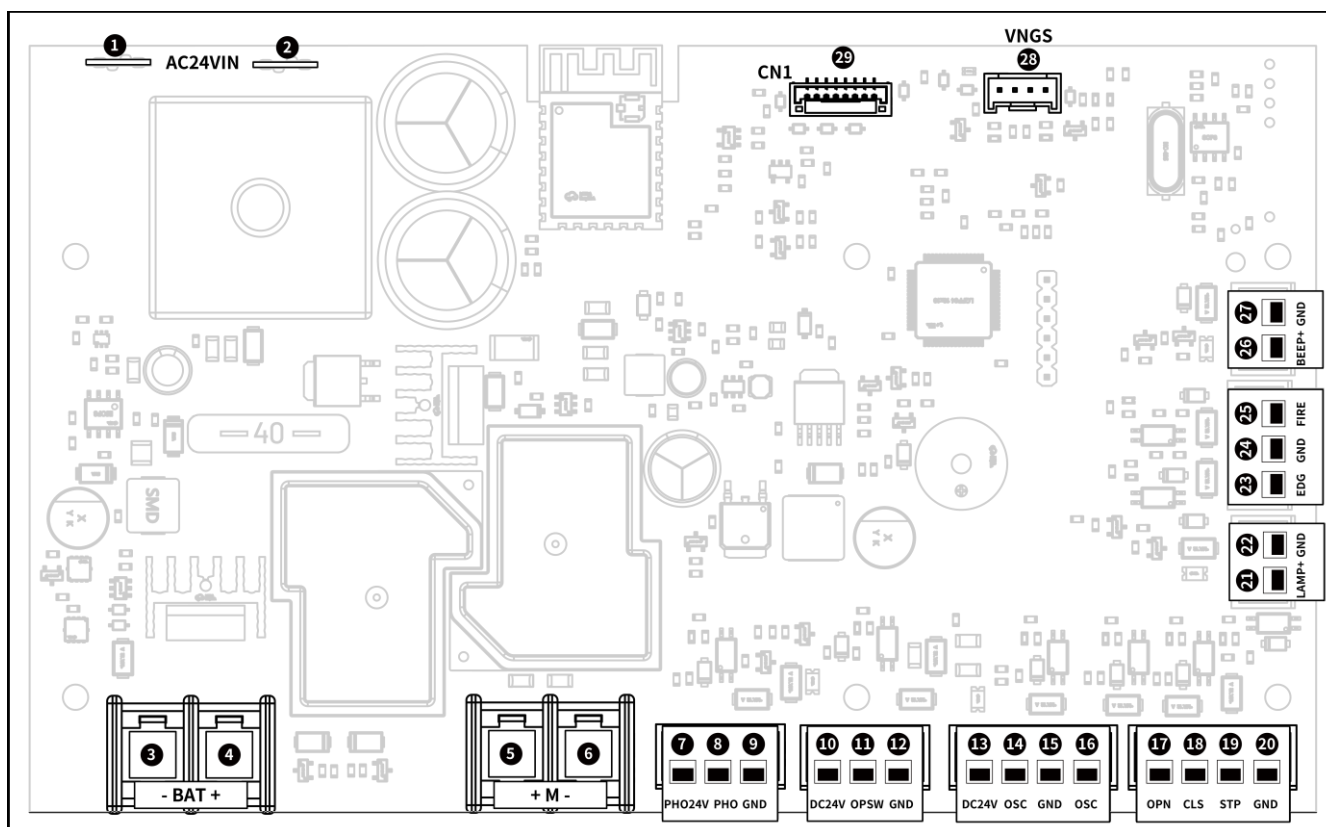


## Terminal

## Function

|                                   |                                                                                                                                                                                                               |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>⑭ / ⑮ "OSC"</p> <p>⑮ "GND"</p> | Control gate operation through a normally open dry contact signal input, commonly connected to push button and wired keypad for cyclic gate operation (open/stop/close/stop).                                 |
| <p>⑰ "OPN"</p> <p>⑳ "GND"</p>     | Control gate operation through a normally open dry contact signal input, typically connected to a push button to open the gate.                                                                               |
| <p>⑱ "CLS"</p> <p>⑳ "GND"</p>     | Control gate operation through a normally open dry contact signal input, typically connected to a push button to close the gate.                                                                              |
| <p>⑲ "STP"</p> <p>⑳ "GND"</p>     | Control gate operation through a normally open dry contact signal input, typically connected to a push button to stop the gate.                                                                               |
| <p>㉑ "LAMP+"</p> <p>㉒ "GND"</p>   | Output terminals for a warning light, connected to the red and black wires of the warning light respectively. Ensure that the warning light has a rated voltage of 24VDC and a rated current less than 500mA. |
| <p>㉓ "EDG"</p> <p>㉔ "GND"</p>     | Receive signal input from an edge sensor and operate on a normally opened (NO) input basis.                                                                                                                   |
| <p>㉕ "FIRE"</p> <p>㉔ "GND"</p>    | Connect to a normally open fire access switch, when the fire access switch is turned on, the gate opener will automatically open and stay in the open position for emergency access.                          |

# Control Board Terminal Functions



## Terminal

## Function

|                                   |                                                                                                                                                                                                                                                              |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>②⑥ "BEEP+"</p> <p>②⑦ "GND"</p> | Output terminals for audio alarm buzzer. Connect the positive terminal of the buzzer to terminal "BEEP+" and the negative terminal of the buzzer to terminal "GND". Ensure that the buzzer has a rated voltage of 24VDC and a rated current less than 500mA. |
| ②⑧ "VNGS"                         | Input terminals for a normally closed limit switch. Already connected by default at factory.                                                                                                                                                                 |
| ②⑨ "CN1"                          | Input terminals for an external control board with an LCD screen. Already connected by default at factory.                                                                                                                                                   |

### NOTES:

- ◆ Ensure that the total rated current of all connected accessories (powered by control board) does not exceed 2A.
- ◆ For terminal wiring, remove the terminal from the control board and unscrew the terminal screws using a screwdriver. Insert the wire into the terminal, tighten the screws to secure the wire, and then reattach the terminal to the control board.

# Connect the Power Supply

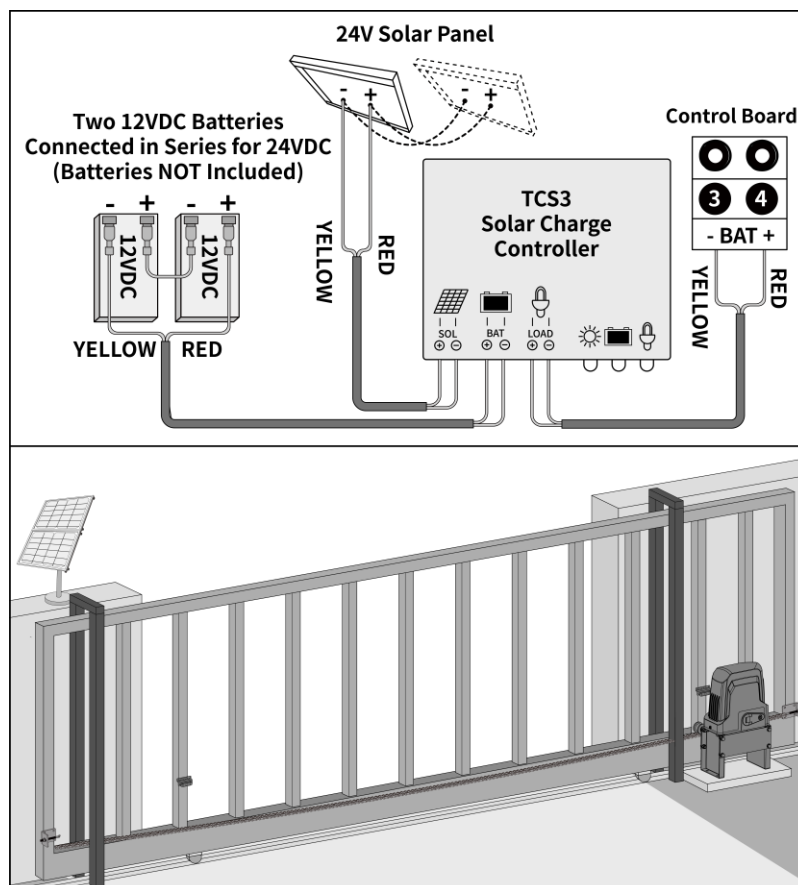
## WARNING

- ◆ *A professional electrician is required for wire connection to avoid the risk of injury, electric shock, or death. NEVER connect the gate opener to an electrical outlet before all the installations have been done.*
- ◆ *It is recommended to use a circuit breaker with a rated current of 10A with the power cord. Protect the electrical outlet with a weatherproof cover if it is located outdoors.*

## Power Mode 1

### By Solar Panels and Batteries

- ◆ Connect the LOAD wires of the TCS3 Solar Charge Controller to the "-BAT+" terminals of the control board.
- ◆ Connect two 12VDC batteries in series to achieve 24VDC (batteries not included).
- ◆ Connect the BAT wires of the TCS3 solar controller to the batteries.
- ◆ Assemble the solar panels, connect them in parallel, and mount them in an area clear of obstructions and shading from buildings and trees. The solar panel should face south if it is located north of the equator. If it is located south of the equator, it should face north.
- ◆ Connect the SOLAR wires of the TCS3 solar controller to the solar panels.



## NOTES ABOUT THE BATTERY AND SOLAR PANEL

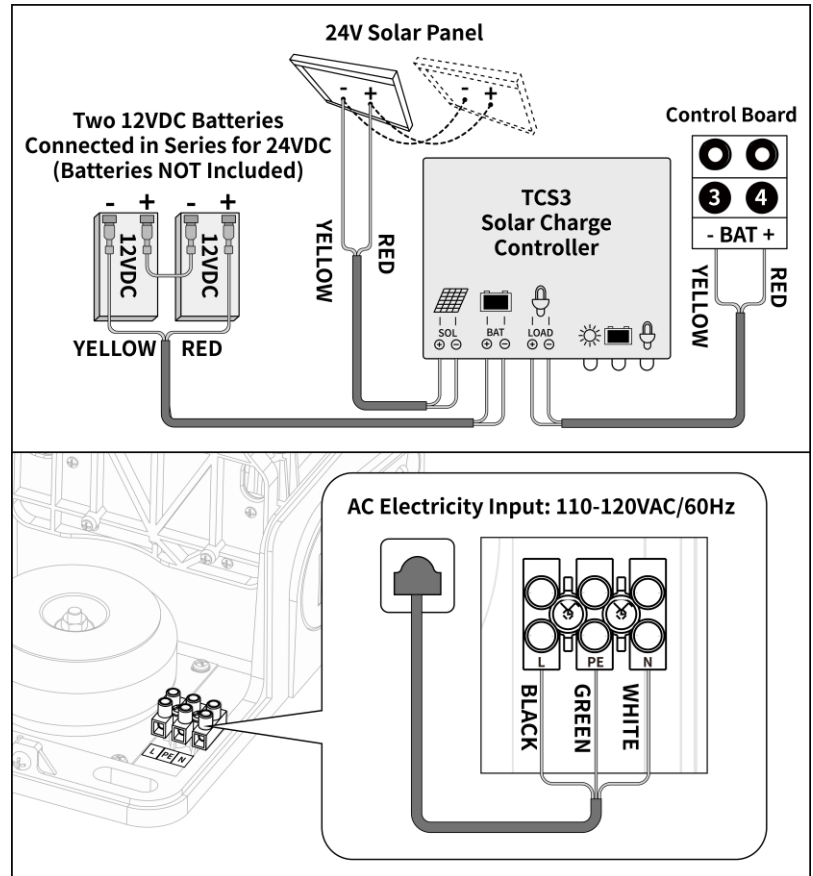
- ◆ *The batteries should be waterproof, or they should be placed in waterproof housing.*
- ◆ *The TCS3 Solar Charge Controller supports a maximum solar panel power of 80W, exceeding this limit can cause damage to it.*
- ◆ *If the gate opener is solely powered by battery and utilizes the solar panel for charging, a minimum of a 24VDC 12Ah lead acid battery and a 24V 20W solar panel are required.*
- ◆ *If there are more than 6 hours of sunlight per day and no accessories are connected (except for the push button and warning light), the gate opener can operate 10 cycles per day.*
- ◆ *Add more solar panels and increase battery capacity if there is less than 6 hours of sunlight per day or if using any accessories (such as a photocell sensor, Homelink remote control kit, exit wand, or wired keypad).*
- ◆ *For precise recommendations on solar panel power and battery capacity, please contact our customer support at [www.topens.com](http://www.topens.com).*

# Connect the Power Supply

## Power Mode 2

### By AC Electricity, Solar Panels, and Back-up Batteries

- ◆ Connect the LOAD wires of the TCS3 Solar Charge Controller to the "-BAT+" terminals of the control board.
- ◆ Connect two 12VDC batteries in series to achieve 24VDC (batteries not included).
- ◆ Connect the BAT wires of the TCS3 solar controller to the batteries.
- ◆ Assemble the solar panels, connect them in parallel, and mount them in an area clear of obstructions and shading from buildings and trees. The solar panel should face south if it is located north of the equator. If it is located south of the equator, it should face north.
- ◆ Connect the SOLAR wires of the TCS3 solar controller to the solar panels.
- ◆ Connect the live wire (black), neutral wire (white) and earth wire (green) of the power cord to the "L", "N" and "PE" terminals, respectively.
- ◆ Plug the power cord into an electrical outlet.



## NOTES ABOUT THE BATTERY AND SOLAR PANEL

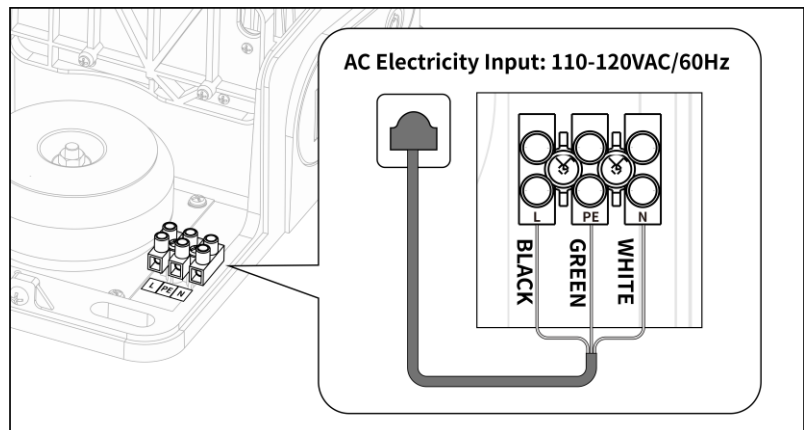
- ◆ The batteries should be waterproof, or they should be placed in waterproof housing.
- ◆ The TCS3 Solar Charge Controller supports a maximum solar panel power of 80W, exceeding this limit can cause damage to it.
- ◆ If the gate opener is powered by backup batteries and utilizes both AC electricity and solar panel for charging, a minimum of a 24VDC 7Ah lead acid battery and a 24V 20W solar panel are required.

# Connect the Power Supply

## Power Mode 3

### Use AC Electricity Only

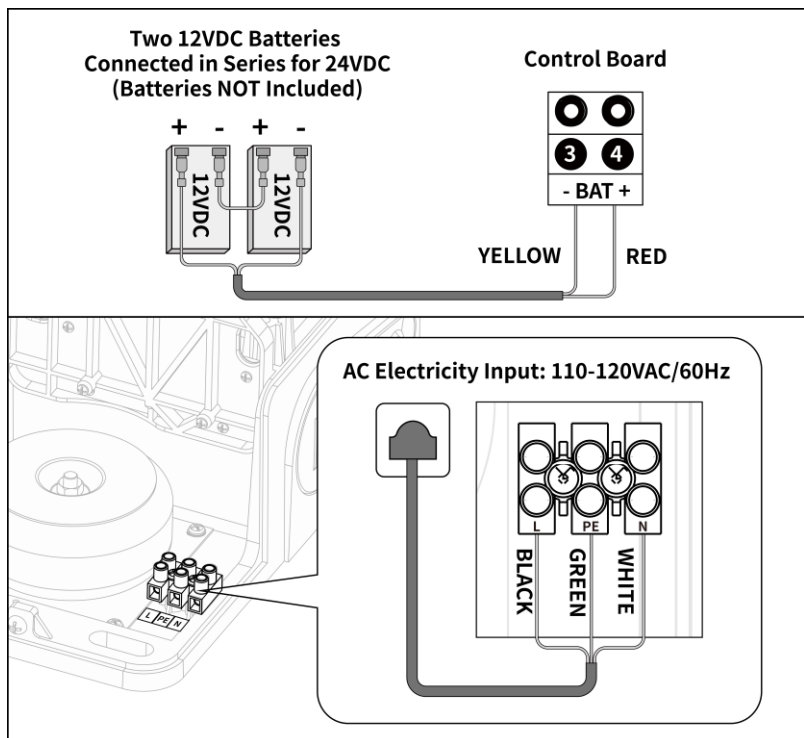
- ◆ The specification of the power cord is 3C×0.75mm<sup>2</sup> (18AWG).
- ◆ Connect the live wire (black), neutral wire (white) and earth wire (green) of the power cord to the "L", "N" and "PE" terminals, respectively.
- ◆ Plug the power cord into an electrical outlet.



## Power Mode 4

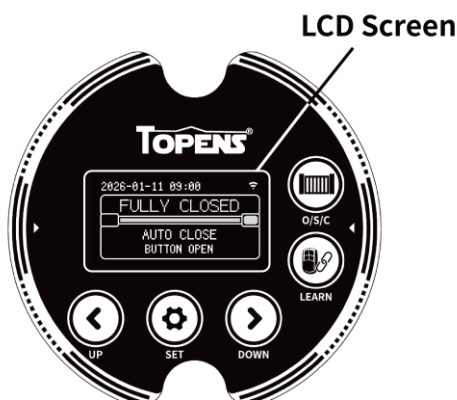
### By AC Electricity and Back-up Batteries

- ◆ If the AC power failures occur for less than 8 hours per day, you can use a minimum of 24VDC 5Ah lead acid battery as a backup power source while using AC electricity to charge the battery.
- ◆ Connect two 12VDC batteries in series to achieve 24VDC (batteries not included).
- ◆ Connect the batteries to the "-BAT+" terminals of the control board.
- ◆ Connect the live wire (black), neutral wire (white) and earth wire (green) of the power cord to the "L", "N" and "PE" terminals, respectively.
- ◆ Plug the power cord into an electrical outlet.



# LCD Control Board Introduction

When the LCD screen is off, press any button on the LCD control board to wake it up. The screen will automatically turn off after 60 seconds of no operation.



## Function of Buttons on the LCD Control Board

**O/S/C:** Each press of the button will cycle the gate through open, stop, close, stop, and open.

**LEARN:** You can use the "LEARN" button to pair control devices (e.g., remote controls, wireless keypads) with the gate opener.

**UP/ DOWN / SET:** You can configure the control board functions using these three buttons.

- ◆ **UP:** Select the previous / left option or decrease the numerical value.
- ◆ **DOWN:** Select the next / right option or increase the numerical value.
- ◆ **SET:** Press the "SET" button to confirm the selection or save the settings; press and hold the "SET" button to enter the main settings menu or return to the standby mode.



## LCD Screen Introduction

① Display "NETWORK UNCONFIG" by default. Once the control board and the app are successfully configured, it will show the current date and time.

**NOTE:** The Wi-Fi icon on the right does not indicate the strength of the network signal.

- ② Display the current operating status of the gate opener.
- ③ Display the gate opener's running progress. The progress bar moves in the same direction as the gate opener only after the limit learning is complete.
- ④ Limit icon. When the open / close magnet is detected, the corresponding icon will light up.
- ⑤ Display the trigger cause for the current state of the gate opener. If an error occurs, this line shows the error message.
- ⑥ Display the trigger cause for the last state of the gate opener. If an error occurs, this line shows the error message.

# Set the Open / Close Limit Positions

## WARNING

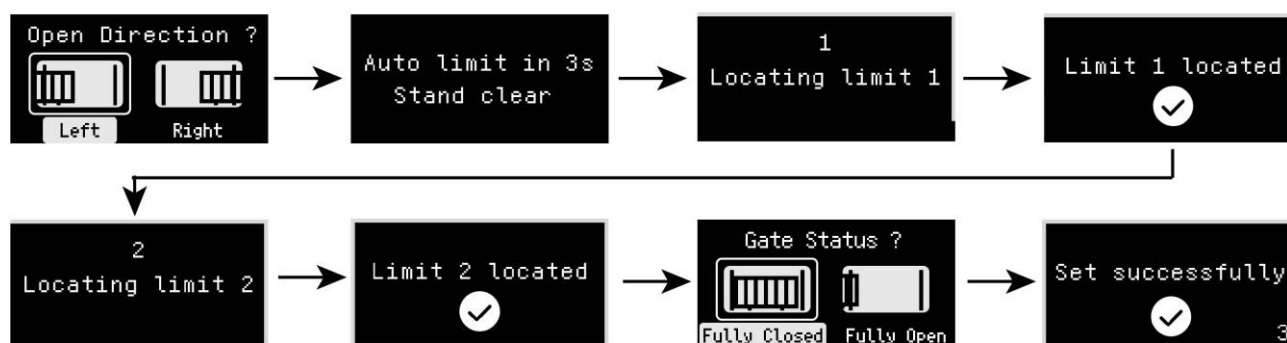
- ◆ The magnets have no polarity restrictions and can be fitted on either side. Leave some space at both ends of the gate for proper buffering.
- ◆ Perform the limit learning procedure before operating the device for the first time after power-on.

## Learn Limit Positions

- ◆ Disengage the clutch, manually push the gate to the open limit and close limit positions respectively. Verify that the corresponding limit indicator on the control board or limit icon on the LCD screen lights up. If not, adjust the magnet brackets until the limit indicator / limit icon lights up.
- ◆ Manually push the gate to position the gate opener between the two magnets, then engage the clutch, then proceed to learn limit positions.
- ◆ Press and hold the "SET" button on the LCD control board to enter the setting menu. Press the "UP" or "DOWN" button to select "4. Limit Setup", then press the "SET" button to enter the Limit Setup screen.

**NOTE:** The limit setup function is only available when the opener is positioned between the two magnets. If the opener is at either limit position, the function will be unavailable and a prompt will be displayed.

- ◆ Select the gate opening direction (left open or right open, from the inside view of the property) based on the actual installation. Then the gate opener will automatically run to locate the open magnet and the close magnet. After the learning process is completed, confirm the current gate status based on the actual situation.



**NOTE:** After powering on the gate opener, complete the limit learning process continuously. Interrupting this process will cause the system back to standby mode, and the LCD will show "Locating failed. Relocate later!". Please ensure that limit learning is complete before configuring other functions.

# Set the Open / Close Limit Positions

## Adjust Limit Positions

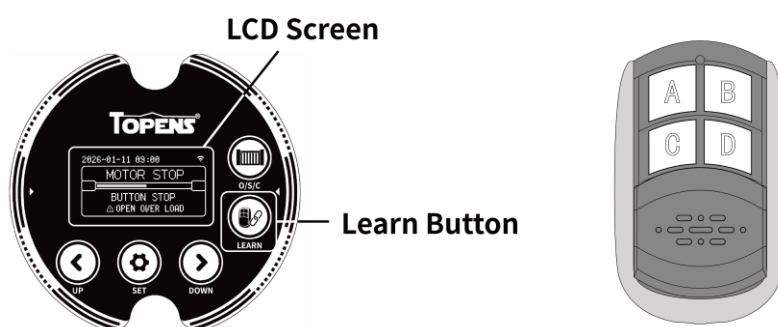
- ◆ Press the "O/S/C" button on the LCD control board to test the gate operation.
- ◆ If the gate does not open fully, disengage the clutch and slightly move the open magnet toward the closing direction. Tighten the screws securely, re-engage the clutch, and test the gate again.
- ◆ If the gate does not close fully, disengage the clutch and slightly move the close magnet toward the opening direction. Tighten the screws securely, re-engage the clutch, and test the gate again.
- ◆ Repeat the above steps until the gate automatically stops at the desired fully open and fully closed position.

**NOTE:** After each adjustment of a magnet, manually move the gate to verify that the magnet is detected correctly. If a magnet is not detected, fine-tune its position until the corresponding limit icon on the LCD screen lights up.

# Program the Remote Control

## NOTES

- ◆ *Keep the gate movement area free of obstructions, and ensure children, pets and livestock stay away from the gate opener system while the gate is in motion.*
- ◆ *If any remote control is lost, it is recommended to erase all previously programmed remote controls and then reprogram the remaining remote controls to ensure safety.*



## Functions of the Remote Control Buttons

- ◆ Each remote control has four buttons: A, B, C, and D. There are two working modes for these buttons, which can be configured through either the LCD control board or the TOPENS app. Please refer to the configuration steps in the "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section.

### IMPORTANT NOTES:

- ◆ *This gate opener is compatible with the remote control only when the remote is in blue light mode. Before programming, ensure that the remote control is in the correct light mode. If the LED light is green, press and hold buttons C and D simultaneously until it turns blue.*
- ◆ *This gate opener can be paired with up to 50 TC131A remote controls.*

### ONE BUTTON MODE

- ◆ Buttons A, B and C share the same function. You can use any of these three buttons to program with TOPENS smart sliding gate opener. Only the programmed button can operate the gate opener.
- ◆ Each press of the programmed button will cycle the gate through open, stop, close, stop, and open.

### SEPARATE MODE (Factory Default Setting)

- ◆ You can use any of these buttons except button D to program with TOPENS smart sliding gate opener.
- ◆ After successful programming, press button A to open the gate, press button B to close the gate, press button C to stop the gate.

## Unique Functions for Smart Sliding Gate Opener

- ◆ If the "Midway" function is enabled, the gate will open partially according to the set midway time when you press the "D" button on the programmed remote control. Please enable the midway mode function by referring to the configuration steps in the "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section.
- ◆ Press the buttons A and D simultaneously to quickly enable or disable the auto close function.

# Program the Remote Control

## How to Program the Remote Control

The remote control MUST be programmed to the gate opener before use. The remote controls that come with the gate opener are pre-programmed.

If you purchase additional remote controls, or if the programmed remotes are not working, repeat the programming steps below for each remote control.

### Enter Programming Mode

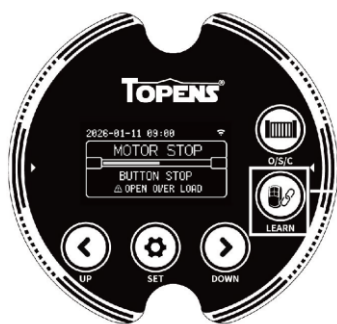
- ◆ Ensure the LCD screen is on, then press the "LEARN" button, a short beep will sound and the screen will show a 30-second countdown (Learning Time: 30s, 29s...), indicating that the gate opener is now in programming mode. Please complete remote programming before the countdown ends.

**NOTE:** If the LCD screen is off, pressing the "LEARN" button will only produce a short beep, and the screen will remain in standby mode, not in programming mode.

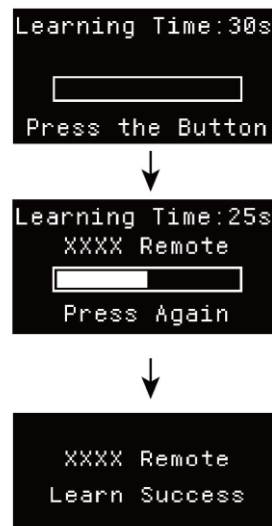
### Program the Remote Control

- ◆ Press the remote control button you want to program, the progress bar will reach the 50% position and a long beep will sound.
- ◆ Press the same button again, the progress bar will be full, and the LCD screen will show "XXXX Remote Learn Success". "XXXX" means the unique ID assigned to the programmed remote control.

**NOTE:** If the signal is weak, the progress bar may not reach 50% after the first press and no beep sounds. In this case, press the same remote button repeatedly until the progress bar reaches 50% and a long beep sound.



Learn Button



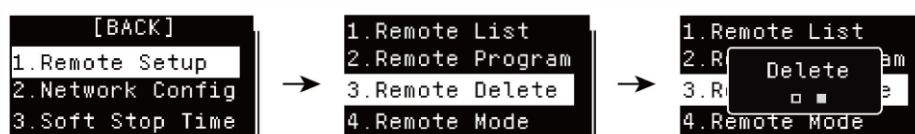
# Program the Remote Control

## How to Erase Programmed Remote Controls

You can erase either all programmed remote controls or a single programmed remote control through the Remote Setup function.

### Erase All Programmed Remote Controls

- ◆ Press and hold the "SET" button to enter the setting menu, select "1. Remote Setup", select "3. Remote Delete", then select "Delete" to confirm. When you hear a long beep, all programmed remote controls (including the programmed TKP3 Wireless Keypads) have been erased successfully.



### Erase a Single Programmed Remote Control

- ◆ Press and hold the "SET" button to enter the setting menu, select "1. Remote Setup", then select "1. Remote List". The screen will display all programmed remote control IDs, including the programmed TKP3 wireless keypads.
- ◆ Select the remote ID you want to erase, press the "SET" button, then select "Delete" to confirm. The selected remote will be erased successfully.



# Configure the Control Board Settings

## WARNING

- ◆ Keep away from the gate while setting up the gate opener system to avoid unexpected gate movement.
- ◆ Carefully set the control board to prevent the risk of damaging the gate opener and causing injury or death.
- ◆ Always seek assistance from a professional technician or electrician if you have any questions.

### Before Setting the Control Board

Ensure that the gate opener is correctly installed on the gate, then power it on. The LCD screen will show "NETWORK UNCONFIG", "MOTOR STOP", indicating that the gate opener is in standby mode. Press and hold the "SET" button for more than 4 seconds, then the screen will enter the main settings menu.

The control board supports 22 functions, which can be configured through the LCD control board. Please follow the instructions below to configure the control board functions.

|                                           |                                         |                                      |
|-------------------------------------------|-----------------------------------------|--------------------------------------|
| [BACK]                                    | 4.Limit Setup                           | 8.Photocell <input type="checkbox"/> |
| 1.Remote Setup                            | 5.Open Force                            | 9.Photocell Mode                     |
| 2.Network Config                          | 6.Close Force                           | 10.Overload Mode                     |
| 3.Soft Stop Time                          | 7.Travel Speed                          | 11.Lamp <input type="checkbox"/>     |
| 12.Autoclose <input type="checkbox"/>     | 16.Low Voltage <input type="checkbox"/> | 20.APP Choose                        |
| 13.Autoclose Time                         | 17.Midway Mode <input type="checkbox"/> | 21.Reset Default                     |
| 14.Running Alarm <input type="checkbox"/> | 18.Midway Time                          | 22.Version                           |
| 15.Pre-alarm <input type="checkbox"/>     | 19.Open Direction                       |                                      |

### 1. Set Remote Control

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "1. Remote Setup", then press the "SET" button to enter the Remote Control setting screen.
  - 1. Remote List:** Display all programmed remote controls. You can delete them individually.
  - 2. Remote Program:** Enter the remote programming screen.
  - 3. Remote Delete:** Erase all programmed remote controls.
  - 4. Remote Mode:** Choose the remote control working mode. Press the "UP" or "DOWN" button to choose the remote control working mode, and press the "SET" button to save the setting. Then, you can press the "LEARN" button to enter the remote programming mode and complete the remote programming by referring to the "Program the Remote Control" section. Once successfully programmed, the system will return to the Remote Control setting screen. You can select "BACK" to return to the main settings menu.

| LCD Display | Meaning of the LCD Display                                                                                                                      |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| ONE BUTTON  | Buttons A, B, and C share the same function, each press of the programmed button will cycle the gate through open, stop, close, stop, and open. |
| SEPARATE    | Press button A to open the gate, press button B to close the gate, press button C to stop the gate (Factory Default Setting).                   |

- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

# Configure the Control Board Settings

## 2. Configure Network

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "2. Network Config", then press the "SET" button to enter the Network Configuration screen.
- ◆ You can connect the control board to the app via this setting. Please refer to the "TOPENS Smart Sliding Gate Opener App User Manual" section for details. After configuration, the LCD will return to standby mode, with the current date and time shown on the top line.
- ◆ For additional settings, press and hold the "SET" button for more than 4 seconds to enter the main settings menu again.

## 3. Set Soft Stop Time

- ◆ The soft stop is designed to slow down the gate during the final phase before it fully stops, protecting the motor.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "3. Soft Stop Time", then press the "SET" button to enter the Soft Stop Time setting screen.
- ◆ The soft stop time can be adjusted from 0 to 5 seconds. Each press of the "DOWN" button will increase the numerical value by 1, and each press of the "UP" button will decrease the numerical value by 1. You can also press and hold the "UP" or "DOWN" button to quickly decrease or increase the numerical value.
- ◆ After setting the soft stop time, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ After adjusting, use the remote control to run a complete open and close cycle to calibrate the full open and close times. This will ensure the adjustment is effective in subsequent cycles.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** After each power-off restart of the gate opener, use an access control device (such as a remote control or push button) to run a complete open and close cycle to calibrate the full open and close times. This will ensure the soft stop is effective in subsequent cycles.

| LCD Display | Meaning of the LCD Display                             |
|-------------|--------------------------------------------------------|
| 0           | No soft stop.                                          |
| 3           | Soft stop time is 3 seconds (Factory Default Setting). |
| 5           | Max. soft stop time is 5 seconds.                      |

## 4. Set Open / Close Limit Positions

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "4. Limit Setup", then press the "SET" button to enter the Limit Setup screen.
- ◆ After entering the limit setting screen, select left-open or right-open based on the actual installation. Then the gate opener will automatically run to find the open magnet and the close magnet. After completing the learning process, choose the location of the current gate based on the actual situation. Refer to the "Set the Open / Close Limit Positions" section for details.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

# Configure the Control Board Settings

## 5. Set Open Stall Force

- ◆ Stall force regulates the gate's sensitivity to obstacles during operation. A higher stall force decreases sensitivity, making the gate less likely to detect objects. A lower stall force increases sensitivity, causing the gate to stop or reverse when encountering even minor obstructions.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "5. Open Force", then press the "SET" button to enter the Open Force setting screen.
- ◆ The open stall force can be adjusted from 1 to 9 levels. Each press of the "DOWN" button will increase the numerical value by 1, and each press of the "UP" button will decrease the numerical value by 1. You can also press and hold the "UP" or "DOWN" button to quickly decrease or increase the numerical value.
- ◆ After setting the open stall force, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** *The appropriate stall force setting will depend on the gate's length and weight, so fine-tuning may be required. Please see the "Stall Force Adjustment and Obstruction Test" section for details.*

| LCD Display | Meaning of the LCD Display              |
|-------------|-----------------------------------------|
| 1           | Minimum Force                           |
| 5           | Level 5 Force (Factory Default Setting) |
| 9           | Maximum Force                           |

## 6. Set Close Stall Force

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "6. Close Force", then press the "SET" button to enter the Close Force setting screen.
- ◆ The close stall force can be adjusted from 1 to 9 levels. Each press of the "DOWN" button will increase the numerical value by 1, and each press of the "UP" button will decrease the numerical value by 1. You can also press and hold the "UP" or "DOWN" button to quickly decrease or increase the numerical value.
- ◆ After setting the close stall force, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| LCD Display | Meaning of the LCD Display              |
|-------------|-----------------------------------------|
| 1           | Minimum Force                           |
| 5           | Level 5 Force (Factory Default Setting) |
| 9           | Maximum Force                           |

# Configure the Control Board Settings

## 7. Set Travel Speed

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "7. Travel Speed", then press the "SET" button to enter the Travel Speed setting screen.
- ◆ There are three speed options, MIN, MEDIUM, and MAX.
- ◆ After setting the desired speed, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| LCD Display | Meaning of the LCD Display                                                                     |
|-------------|------------------------------------------------------------------------------------------------|
| MIN         | The gate opener will operate at the minimum speed of 15 cm/s (6 in/s).                         |
| MEDIUM      | The gate opener will operate at the medium speed of 18 cm/s (7 in/s).                          |
| MAX         | The gate opener will operate at the maximum speed of 20 cm/s (8 in/s) (Factory Default Speed). |

## 8. Enable / Disable Safety Photocell Beam System (PBS)

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "8. Photocell", then press the "SET" button to enable / disable the PBS function.
- ◆ When the function icon next to the setting option is lit, the PBS function is enabled; when not lit, the PBS function is disabled.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** When the PBS function is enabled, the gate opener will not close unless the PBS sensor is installed.

| Instruction Icon | Meaning of the LCD Display                                      |
|------------------|-----------------------------------------------------------------|
| OFF              | Safety Photocell Beam System Disabled (Factory Default Setting) |
| ON               | Safety Photocell Beam System Enabled                            |

## 9. Set Safety Photocell Beam System (PBS) Mode

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "9. Photocell Mode", then press the "SET" button to enter the Photocell Mode setting screen.
- ◆ This setting determines whether the gate opener stops or reverses when an obstruction blocks the sensor's beam while the gate is closing.
- ◆ After selecting the photocell mode, press the "SET" button to save the setting. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** If an obstruction blocks the sensor's beam while the gate is opening, the gate opener will continue to open to its final position.

| LCD Display | Meaning of the LCD Display                                                                                                |
|-------------|---------------------------------------------------------------------------------------------------------------------------|
| STOP        | The gate opener will stop if an obstruction blocks the sensor's beam while the gate is closing (Factory Default Setting). |
| REVERSE     | The gate opener will reverse if an obstruction blocks the sensor's beam while the gate is closing.                        |

# Configure the Control Board Settings

## 10. Set Overload Mode

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "10. Overload Mode", then press the "SET" button to enter the Overload Mode setting screen.
- ◆ This setting determines whether the gate opener stops or reverses when it contacts an obstruction during closing.
- ◆ After selecting the overload mode, press the "SET" button to save the setting. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** When the gate comes in contact with an obstruction during opening, the gate opener will stop.

| LCD Display | Meaning of the LCD Display                                                                                             |
|-------------|------------------------------------------------------------------------------------------------------------------------|
| STOP        | The gate opener will stop when the gate comes in contact with an obstruction during closing (Factory Default Setting). |
| REVERSE     | The gate opener will reverse when the gate comes in contact with an obstruction during closing.                        |

## 11. Enable / Disable Lamp Function

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "11. Lamp", then press the "SET" button to enable / disable the Lamp function.
- ◆ When the function icon next to the setting option is lit, the lamp function is enabled; when not lit, the lamp function is disabled.
- ◆ When a lamp is connected to the control board and the lamp function is enabled, the lamp will turn on during the operation of the gate opener.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| Instruction Icon | Meaning of the LCD Display                       |
|------------------|--------------------------------------------------|
| OFF              | Lamp Function Disabled (Factory Default Setting) |
| ON               | Lamp Function Enabled                            |

## 12. Enable / Disable Auto Close Function

- ◆ The auto close function allows the gate to automatically close after a set period.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "12. AutoClose", then press the "SET" button to enable / disable the Auto Close function.
- ◆ When the function icon next to the setting option is lit, the auto close function is enabled; when not lit, the auto close function is disabled.
- ◆ The auto close function can also be enabled or disabled by simultaneously pressing buttons A and D of TC131A remote control while it is operating in blue light mode.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** The auto close function should be enabled if a vehicle sensor exit wand is installed. When the auto close function is enabled, the photocell sensor is highly recommended to be installed with the gate opener for safety. If there is an alarm message, the opener will not close automatically.

# Configure the Control Board Settings

| Instruction Icon | Meaning of the LCD Display                             |
|------------------|--------------------------------------------------------|
| OFF              | Auto Close Function Disabled (Factory Default Setting) |
| ON               | Auto Close Function Enabled                            |

## 13. Set Auto Close Time

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "13. AutoClose Time", then press the "SET" button to enter the Auto Close Time setting screen.
- ◆ The auto close time can be adjusted from 5 to 120 seconds. Each press of the "DOWN" button will increase the numerical value by 1, and each press of the "UP" button will decrease the numerical value by 1. You can also press and hold the "UP" or "DOWN" button to quickly decrease or increase the numerical value.
- ◆ After setting the desired auto close time, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** Before setting the auto close time, you should enable the auto close function.

| LCD Display | Meaning of the LCD Display                                   |
|-------------|--------------------------------------------------------------|
| 5           | The auto close time is 5 seconds (Min. Auto Close Time).     |
| 15          | The auto close time is 15 seconds (Factory Default Setting). |
| 120         | The auto close time is 120 seconds (Max. Auto Close Time).   |

## 14. Enable / Disable Running Alarm When Gate Opening or Closing

- ◆ The buzzer on the control board will sound intermittently during gate opening or closing to provide an alert of gate movement.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "14. Running Alarm", then press the "SET" button to enable / disable the Running Alarm function.
- ◆ When the function icon next to the setting option is lit, the running alarm function is enabled; when not lit, the running alarm function is disabled.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| Instruction Icon | Meaning of the LCD Display                                |
|------------------|-----------------------------------------------------------|
| OFF              | Running Alarm Function Disabled (Factory Default Setting) |
| ON               | Running Alarm Function Enabled                            |

## 15. Enable / Disable Pre-alarm Before Opening or Closing

- ◆ The buzzer on the control board will sound five times for 3 seconds before the gate begins opening or closing.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "15. Pre-alarm", then press the "SET" button to enable / disable the Pre-alarm function.
- ◆ When the function icon next to the setting option is lit, the pre-alarm function is enabled; when not lit, the pre-alarm function is disabled.

# Configure the Control Board Settings

- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| Instruction Icon | Meaning of the LCD Display                            |
|------------------|-------------------------------------------------------|
| OFF              | Pre-alarm Function Disabled (Factory Default Setting) |
| ON               | Pre-alarm Function Enabled                            |

## 16. Enable / Disable Low Voltage Alarm

- ◆ The buzzer on the control board will sound intermittently when the input voltage drops below 18V.
- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "16. Low Voltage Alarm", then press the "SET" button to enable / disable the Low Voltage Alarm function.
- ◆ When the function icon next to the setting option is lit, the low voltage alarm function is enabled; when not lit, the low voltage alarm function is disabled.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| Instruction Icon | Meaning of the LCD Display                                    |
|------------------|---------------------------------------------------------------|
| OFF              | Low Voltage Alarm Function Disabled (Factory Default Setting) |
| ON               | Low Voltage Alarm Function Enabled                            |

## 17. Enable / Disable Midway Mode Function

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "17. Midway Mode", then press the "SET" button to enable / disable the Midway Mode function.
- ◆ When the function icon next to the setting option is lit, the midway mode function is enabled; when not lit, the midway mode function is disabled.
- ◆ Press button D on the remote control to activate the midway mode when the gate is in the fully closed position.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| Instruction Icon | Meaning of the LCD Display                              |
|------------------|---------------------------------------------------------|
| OFF              | Midway Mode Function Disabled (Factory Default Setting) |
| ON               | Midway Mode Function Enabled                            |

## 18. Set the Running Time of the Motor in Midway Mode

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "18. Midway Time", then press the "SET" button to enter the Midway Time setting screen.
- ◆ The midway time can be adjusted from 3 to 10 seconds. Each press of the "DOWN" button will increase the numerical value by 1, and each press of the "UP" button will decrease the numerical value by 1. You can also press and hold the "UP" or "DOWN" button to quickly decrease or increase the numerical value.
- ◆ After setting the desired midway time, press the "SET" button to save. The LCD will return to the main settings menu, indicating the setup is complete.

# Configure the Control Board Settings

- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

**IMPORTANT NOTE:** Before setting the midway time, you should enable the midway mode function.

| LCD Display | Meaning of the LCD Display                              |
|-------------|---------------------------------------------------------|
| 3           | The midway time is 3 seconds (Min. Midway Time).        |
| 5           | The midway time is 5 seconds (Factory Default Setting). |
| 10          | The midway time is 10 seconds (Max. Midway Time).       |

## 19. Set the Open Direction of the Progress Bar on the Screen

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "19. Open Direction", then press "SET" button to enter the Open Direction setting screen.
- ◆ The opening direction set in initial limit learning is synced automatically. You can press the "UP" or "DOWN" button to modify the open direction here if you made a wrong choice. This setting affects the opening / closing direction of the LCD screen's progress bar and the gate animation displayed on the app.
- ◆ After selecting the open direction, press the "SET" button to save the setting. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| LCD Display | Meaning of the LCD Display                                                                                  |
|-------------|-------------------------------------------------------------------------------------------------------------|
| Left Open   | The gate operates to the left for opening (from the inside view of the property) (Factory Default Setting). |
| Right Open  | The gate operates to the right for opening.                                                                 |

## 20. Select the App to Configure the Network

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "20. APP Choose", then press the "SET" button to enter the App Choose screen.
- ◆ Press the "UP" or "DOWN" button to choose the app you want to configure the network, and then press the "SET" button to save the setting. The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

| LCD Display | Meaning of the LCD Display                                                                                                                                                                                     |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TOPENS      | Add the smart sliding gate opener to the TOPENS app to control and configure it via smartphone. Refer to the "TOPENS Smart Sliding Gate Opener App User Manual" section for details (Factory Default Setting). |
| TUYA        | Add the smart sliding gate opener to the TUYA app to control and configure it via smartphone.                                                                                                                  |

# Configure the Control Board Settings

## 21. Return to Factory Default Settings

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "21. Reset Default", press the "SET" button, and select "RESET", then all the data will return to default settings except the settings "20. APP Choose" and "19. Open Direction". The LCD will return to the main settings menu, indicating the setup is complete.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

## 22. View Control Board Version Number

- ◆ On the main settings menu, press the "UP" or "DOWN" button to select "22. Version", then press the "SET" button to view the control board's version number.
- ◆ If no additional settings are needed, press and hold the "SET" button for 4 seconds to return to standby mode. If there is no operation for over 3 minutes, the system will also return to standby mode automatically.

# Stall Force Adjustment & Obstruction Test

## Fine Tune the Stall Force

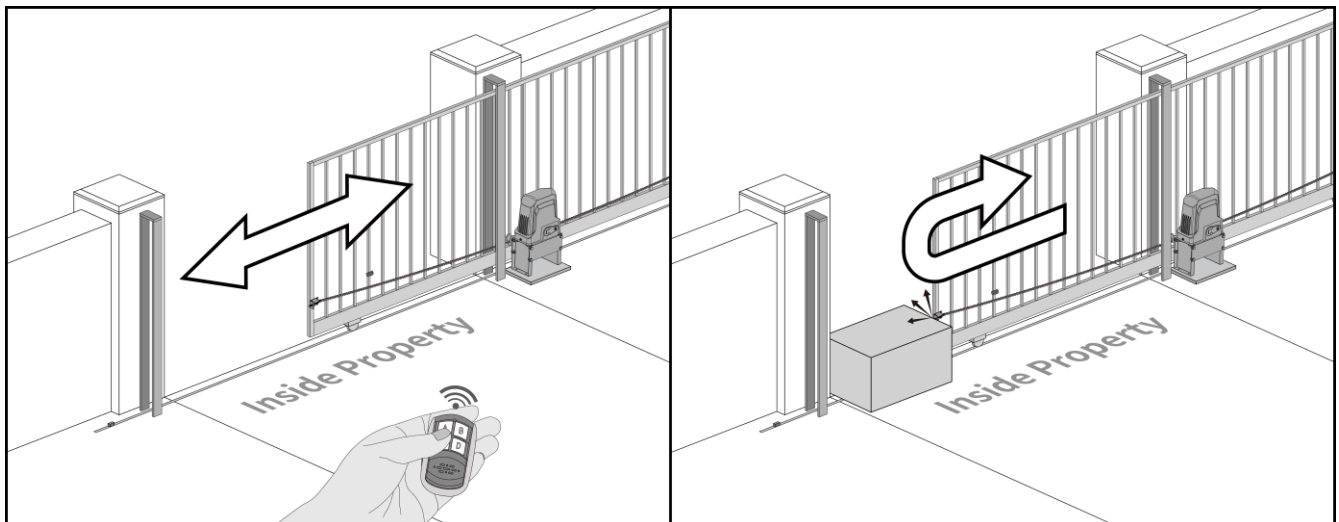
This force should be high enough to ensure the gate reaches both open and close limits without reversing unnecessarily or causing frequent interruptions, but low enough to prevent injury if an obstruction is encountered. The appropriate stall force settings depend on the gate's length and weight, so fine-tuning may be required. Follow these steps to adjust the stall force:

- ◆ **Initial Assessment:** Use the remote control to open and close the gate, observing its movement.
- ◆ **Adjust the Stall Force:** If the gate reverses or stops before reaching the fully closed or fully open position, increase the stall force as instructed in "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section.
- ◆ **Perform the Obstruction Test:** Run the test after each force setting adjustment (see below).

## Obstruction Test

This test ensures that the gate opener's automatic obstruction-sensing feature functions correctly. The gate should have enough force to reach both open and close limits, but **MUST** stop or reverse after contacting with a solid object.

- ◆ **Operate the Gate:** Open and close the gate with the remote control, ensuring that it stops at the proper open and close limit positions.
- ◆ **Setup for the Test:** Place a solid, immovable object in the gate's path to simulate an obstruction.
- ◆ **Test Gate's Closing:** Run the gate in the closing direction towards the obstruction. The gate should reverse or stop upon contact with the solid object. If it does not, slightly decrease the close stall force.
- ◆ **Test Gate's Opening:** Perform the same test with the gate moving in the opening direction. The gate should stop upon contact with the solid object. If it does not, increase the open stall force.



### NOTES:

- ◆ If the stall force is set too low (i.e., the sensitivity is too high), the gate may stop or reverse too easily, even with minimal obstruction or resistance, such as strong wind or heavy snow.
- ◆ The gate opener is designed to reverse or stop the gate when the gate comes in contact with an obstruction during closing and to stop the gate during opening. It is highly recommended to install a photocell sensor for additional safety.
- ◆ Always perform an obstruction test for the gate each time you set up the Open / Close Force.

# LCD Error Message & Trigger Cause

If your gate opener does not function properly after installation, the LCD screen will usually display an error message. If an error appears, follow the corresponding solutions in the table below. If no error is displayed or the solutions below do not resolve your issue, please refer to the "Troubleshooting" section.

| Error Message  | Meaning                                                                                                                            | Possible Solution(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OPEN OVERLOAD  | Motor is overloaded during opening.                                                                                                | <b>Step 1 Check Track and Rollers:</b> Clear debris from the track, and check rollers for sticking or wear. Lubricate or replace rollers if needed.<br><b>Step 2 Adjust Stall Force:</b> Ensure that the open or close stall force is appropriate and not too low. The lower the level, the gate may stop or reverse too easily, even with minimal obstruction or resistance. Increase the stall force if false triggers occur frequently; decrease it if sensitivity is insufficient. The stall force may need additional adjustment in cold weather, as the gate might encounter increased resistance.<br><b>Step 3 Check Control Board:</b> Inspect the control board and replace it if needed. |
| CLOSE OVERLOAD | Motor is overloaded during closing.                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CONST OVERLOAD | Two sequential overloads have been detected.                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| PHOTO ACTION   | Photocell function enabled but no sensor connected;<br>Photo beam is blocked or sensor is obstructed;<br>Photocell sensor failure. | <b>Step 1 Verify Photocell Function Setting:</b> Check if the photocell function is enabled. If it is enabled but no photocell sensor is connected, disable the function to avoid false alarms.<br><b>Step 2 Check Photocell Sensor Connection:</b> Ensure the sensor is intact and securely connected to the control board.<br><b>Step 3 Check Photocell Sensor Blockage:</b> Ensure that the photocell beam is not blocked and the sensor is not obstructed. Clear any objects blocking the photocell sensor.<br><b>Step 4 Check Control Board:</b> Inspect the control board and replace it if needed.                                                                                          |
| LOW VOLTAGE    | Input voltage is below 18V.                                                                                                        | <b>Powered by Battery Only:</b><br><b>Step 1 Check Battery Voltage:</b> If the battery voltage is below 18VDC, wait until the batteries are fully charged. If the error still persists after charging, replace the batteries.<br><b>Powered by AC Electricity:</b><br><b>Step 1 Check Power Supply:</b> Ensure that the power plug is fully inserted and the power cord is not damaged.<br><b>Step 2 Evaluate Gate Load:</b> If overloaded, clear debris from the track and ensure the gate slides freely without any obstruction; If load is normal but the error still occurs, the control board may be faulty. Replace the control board if needed.                                             |

# LCD Error Message & Trigger Cause

| Error Message | Meaning                               | Possible Solution(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OVER TIME     | Motor is running over 90 seconds.     | <p><b>Step 1 Check for Free Sliding:</b> Disengage the clutch and ensure the gate slides freely without any obstruction.</p> <p><b>Step 2 Check Limit Switch Connection:</b> Ensure that the limit switch is securely connected to the control board.</p> <p><b>Step 3 Check Magnets:</b> Ensure that the magnets are mounted to the correct positions.</p> <p><b>Step 4 Adjust Magnets:</b> Shorten the distance between the magnets and re-learn the open / close limit positions to ensure the gate runs for no more than 90 seconds between the open and close limits.</p>                                                                                                                                                                                                                                                                                                                                    |
| LIMIT ERROR   | Limit sensor failure.                 | <p><b>Step 1 Check Limit Learning:</b> Verify that limit learning has been completed after gate installation. If not, complete the open / close limit setting by referring to the "Set the Open / Close Limit Positions" section, then test the gate opener.</p> <p><b>Step 2 Check Limit Switch Connection:</b> Ensure that the limit switch is intact and securely connected to the control board.</p> <p><b>Step 3 Check Limit Switch Functionality:</b> Disengage the clutch and manually move the gate to position the gate opener between two magnets, then unplug the limit switch from the control board. If both limit indicators on the control board terminal (or both limit icons on the LCD screen) light up simultaneously, the control board is normal and you need to replace the limit switch.</p> <p><b>Step 4 Check Control Board:</b> Inspect the control board and replace it if needed.</p> |
| MIDWAY ERROR  | Gate is not fully closed.             | <p><b>Step 1 Verify Gate Closed Position:</b> Ensure the gate is fully closed, then press the Midway button on the programmed remote control or tap the "Open" button under Midway Mode on the TOPENS app's Controller Screen.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MOTOR ERROR   | Motor failure or Hall sensor failure. | <p><b>Observe Opener Running Status:</b></p> <ul style="list-style-type: none"> <li>◆ If the opener runs for 6 seconds and then stops, the Hall sensor (integrated on the LCD control board) may be faulty. Replace the LCD control board if needed.</li> <li>◆ If the opener runs abnormally (e.g., no run, runs jerkily, or abnormal speed):</li> </ul> <p><b>Step 1 Check Motor Connection:</b> Verify that the motor power cord is intact and securely connected to the control board.</p> <p><b>Step 2 Check for Free Sliding:</b> Disengage the clutch and ensure that the gate slides freely without any obstruction.</p> <p><b>Step 3 Check Control Board:</b> Inspect the control board and replace it if needed.</p>                                                                                                                                                                                    |

## LCD Error Message & Trigger Cause

| Trigger Cause      | Meaning                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------|
| BUTTON OPEN        | The open port is activated.                                                                                       |
| BUTTON STOP        | The stop port is activated.                                                                                       |
| BUTTON CLOSE       | The close port is activated.                                                                                      |
| BUTTON OSC         | The OSC port is activated.                                                                                        |
| EDGE ACTIVE        | The edge sensor has been activated.                                                                               |
| FIRE OPEN          | The fire port is activated.                                                                                       |
| APP OPEN           | The open button on the app is activated.                                                                          |
| APP STOP           | The stop button on the app is activated.                                                                          |
| APP CLOSE          | The close button on the app is activated.                                                                         |
| APP PERCENT XX%    | The percentage drag operation on the app is activated.                                                            |
| APP MIDWAY         | The midway button on the app is activated.                                                                        |
| AUTO CLOSE         | The gate opener closes automatically.                                                                             |
| CAR OPEN           | The OPSW port is activated.                                                                                       |
| XXXX REMOTE OPEN   | The XXXX remote control is pressed to operate the gate to open.                                                   |
| XXXX REMOTE STOP   | The XXXX remote control is pressed to operate the gate to stop.                                                   |
| XXXX REMOTE CLOSE  | The XXXX remote control is pressed to operate the gate to close.                                                  |
| XXXX REMOTE MIDWAY | The button D of the XXXX remote control is pressed to operate the gate to open partially for the set midway time. |

# Connect the Accessories

## NOTES

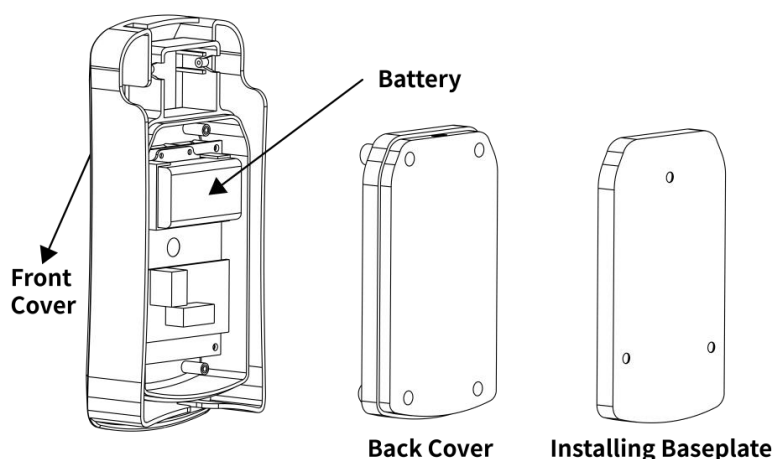
- ◆ This section only covers the programming and wiring of accessories with the control board. For detailed operations, please refer to the corresponding accessory user manual.
- ◆ This gate opener is not compatible with any TOPENS wireless accessories except for the TKP3 Wireless Keypad.
- ◆ It is highly recommended to install a photocell sensor in the following situations for safety: if you have children or pets at your property, the gate opener auto close function is set to ON, the gate opener stall force is set to the maximum, a vehicle exit sensor is installed, or other gate control devices are used.

## TC188 Universal Keypad

Operate the gate using a user-defined password.

**IMPORTANT NOTE:** This gate opener supports the TC188 keypad in wired mode only.

### Step 1 Remove the Battery

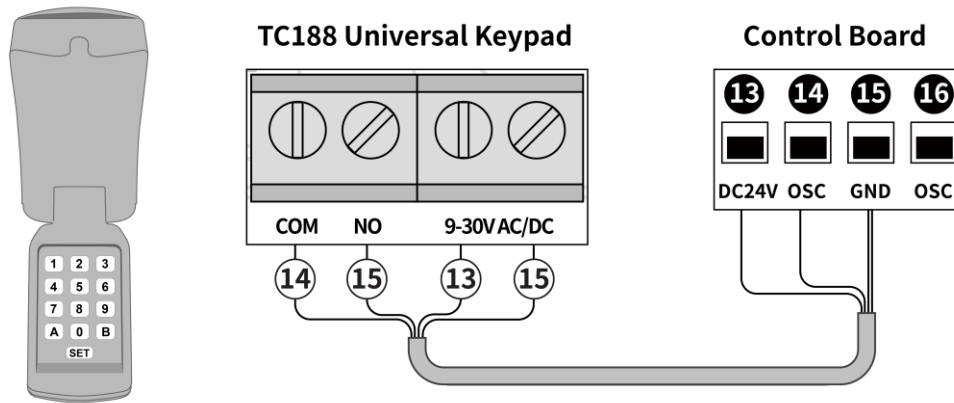


### Step 2 Wire Connection

Turn off the power to the gate opener before wire connection. Connect the "COM" and "NO" terminals to control board terminals ⑭ "OSC" and ⑮ "GND". Then connect the "9-30V AC/DC" terminals to control board terminals ⑬ "DC24V" and ⑮ "GND". Polarity does not matter for these connections.

**NOTE:** A 4C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.

# Connect the Accessories



## Step 3 Program New Master Code

Factory default master code is 9999, all codes should be 4 digits in length.

SET 4 Digits Old Master Code SET 01 SET 4 Digits New Master Code SET 4 Digits New Master Code SET

## Step 4 Add New Permanent Entry Code

SET Master Code SET 02 SET Entry Code SET Entry Code SET

## Step 5 Operate the Gate Opener

Input the entry code and then press button A (or B) to operate the gate. Within 3 seconds of pressing button A (or B), you can press the button again without re-entering the code to operate the gate.

**NOTE:** If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the wired keypad.

# Connect the Accessories

## TKP3 Wireless Keypad

Operate the gate with a user defined password

### Programming and Operation

- ◆ Press the "LEARN" button, a short beep will sound and the screen will show a 30-second countdown (Learning Time: 30s, 29s...), indicating the gate opener is now in programming mode. Please complete keypad programming before the countdown ends.
- ◆ Press the "OK" button on the keypad, you will hear a long beep, and the progress bar will reach the 50% position.
- ◆ Press the "OK" button again, then the progress bar will be full and the LCD screen will show "XXXX Remote Learn Success", where "XXXX" is the unique ID assigned to the programmed keypad.
- ◆ Use the default password "888888" to operate the gate opener. Press "PIN" "888888" and then press the button "OK" to operate the opener. Just one press of the button "OK", the moving gate will stop for quick passing through.

### Change the Password

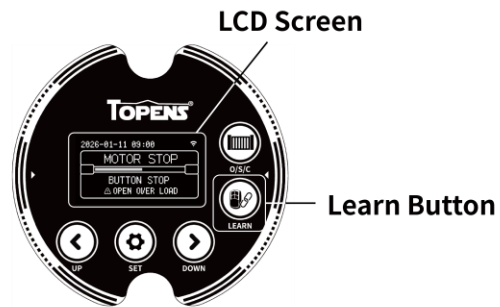
- ◆ Press "PIN", input the old six digits password, and then press the "PIN" again, the LRN LED on the control board will be ON.
- ◆ Input the new six digits password and then press the "PIN" to confirm the new setting, the LRN LED will flash for 3 seconds and then turn off which indicates the password has been changed successfully.
- ◆ Press "PIN" "new six digits password" and then press the button "OK" to operate the gate opener.

#### NOTES:

- ◆ Each button press during programming must be completed within 1 second to ensure successful programming.
- ◆ If you forget the password, you can reset the keypad to restore the default code "888888" by reprogramming it.



### Program the Keypad



### Use the Default Password

PIN 888888 OK

### Change the Password

PIN Old Six Digits Password PIN

New Six Digits Password PIN

### Use the New Password

PIN New Six Digits Password OK

# Connect the Accessories

## TEW3 Vehicle Sensor Exit Wand

Opens the gate automatically when it senses an approaching car

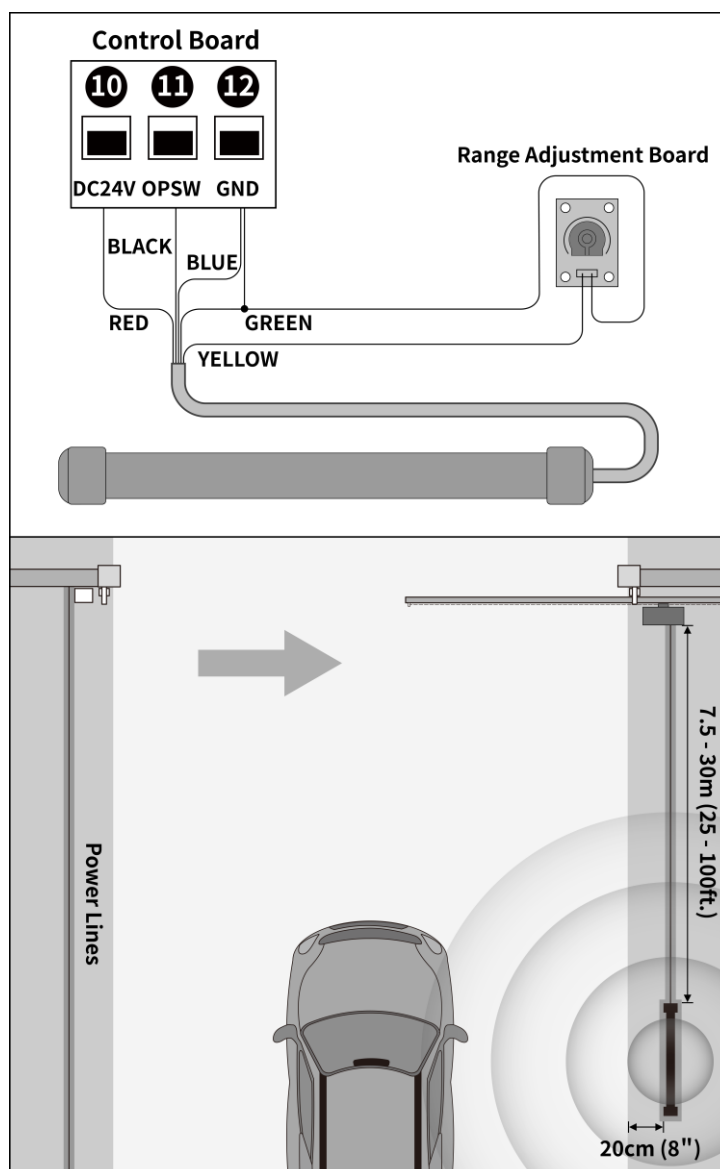
### Wire Connection

- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the BLACK and BLUE wires to control board terminals ⑪ "OPSW" and ⑫ "GND" respectively.
- ◆ Connect the RED and GREEN wires to control board terminals ⑩ "DC24V" and ⑫ "GND", respectively.
- ◆ The sensitivity range adjustment board should be wired to the GREEN and YELLOW wires of the wand, regardless of the polarity.

### Key Installation Notes

- ◆ Install the wand 7.5m to 30m (25ft. to 100ft.) away from the gate, and bury it 5cm (2") deep from ground and 20cm (8") from the driveway edge.
- ◆ Install the wand away from any power lines to avoid interrupting the detection signal.
- ◆ It is strongly recommended to enable the auto close function by referring to the "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section to ensure home security.

**NOTE:** If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the exit wand.



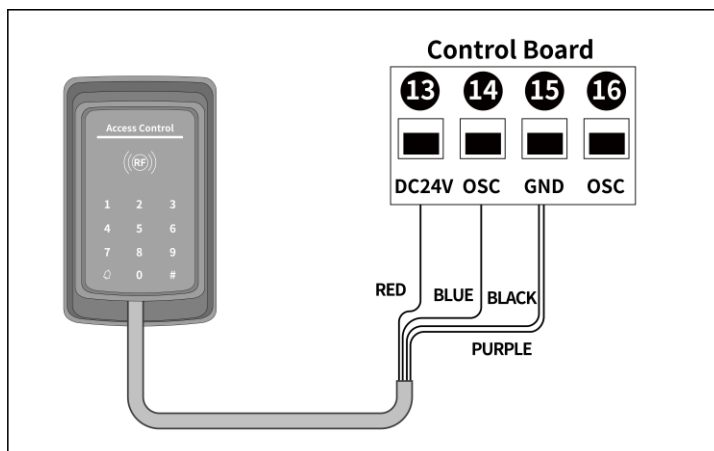
# Connect the Accessories

## TC175P Wired Keypad

Operate the gate with a user defined password / RFID card

### Wire Connection

- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the wires from the JP2 terminals of the wired keypad to the control board.
- ◆ Connect the BLUE wire to control board terminal ⑭ "OSC".
- ◆ Connect the PURPLE and BLACK wires to control board terminal ⑮ "GND".
- ◆ Connect the RED wire to control board terminal ⑬ "DC24V".



### NOTES:

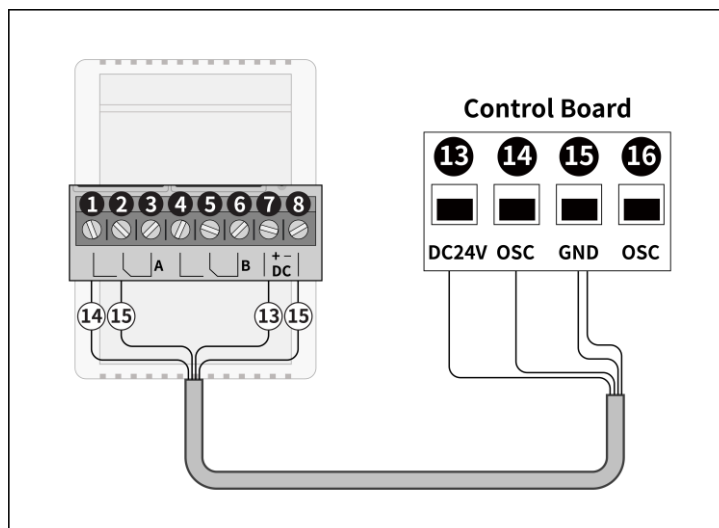
- ◆ A 4C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.
- ◆ Please see detailed password setting steps in TC175P user manual.
- ◆ If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the wired keypad.

## HLR01 Homelink Remote Control Kit

Links the gate opener with your car's Homelink system, allows for easy control of the gate opener through the Homelink system

### Wire Connection

- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the ① and ② terminals to control board terminals ⑭ "OSC" and ⑮ "GND", respectively.
- ◆ Connect the ⑦ and ⑧ "+DC-" terminals to control board terminals ⑬ "DC24V" and ⑮ "GND", respectively.



### NOTES:

- ◆ A 4C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.
- ◆ Please see detailed programming steps with Homelink system in HLR01 user manual.
- ◆ If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the Homelink receiver.

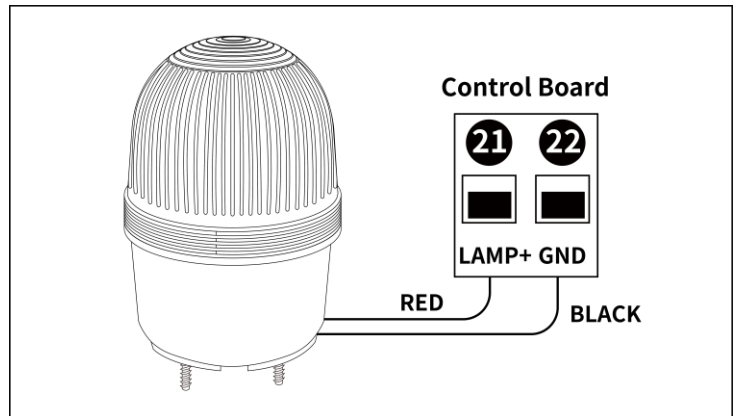
# Connect the Accessories

## JD24VY Warning Light

Flashing when the gate is moving, improving your gate safety

### Wire Connection

- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the RED and BLACK wires to control board terminals ②① "LAMP+" and ②② "GND", respectively.



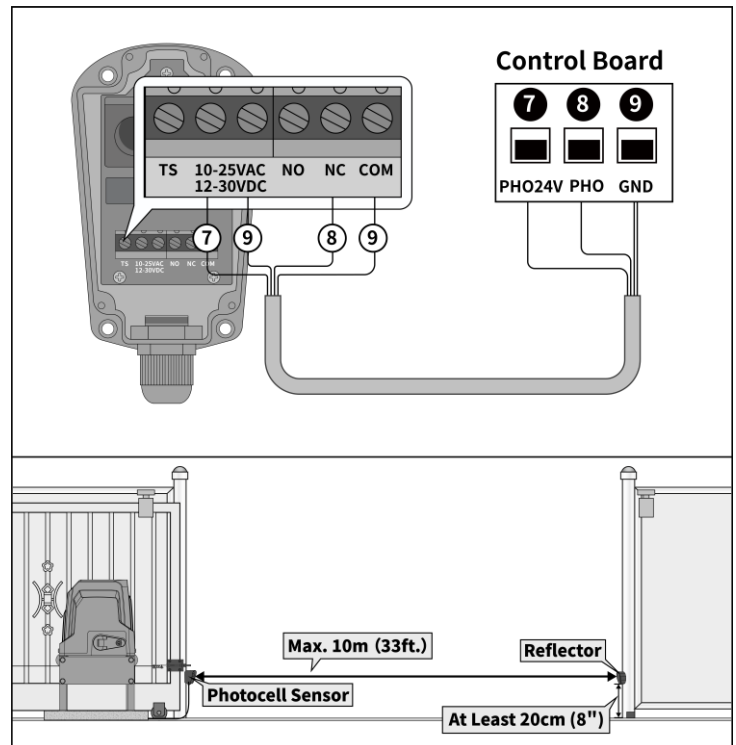
**NOTE:** A 2C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.

## TRF3 Reflection Photocell Sensor

Prevents the gate from closing when obstructed, adds security with simple wire connection

### Wire Connection

- ◆ Enable the PBS function as instructed in the "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section.
- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the "10-25VAC / 12-30VDC" terminals to control board terminals ⑦ "PHO24V" and ⑨ "GND", regardless of the polarity.
- ◆ Connect the "NC" and "COM" terminals to control board terminals ⑧ "PHO" and ⑨ "GND", respectively.



### Key Installation Notes

- ◆ Mount the photocell sensor at least 20cm (8") above the ground.
- ◆ Power on the gate opener. Position the reflector directly opposite the mounted photocell sensor. The working light on the photocell sensor turning green indicates that the reflector is in the correct position.
- ◆ The maximum sensing range of the photocell sensor is 10m (33ft.).

### NOTES:

- ◆ A 4C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.
- ◆ If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the photocell sensor.

# Connect the Accessories

## TC102 Infrared Photocell Sensor

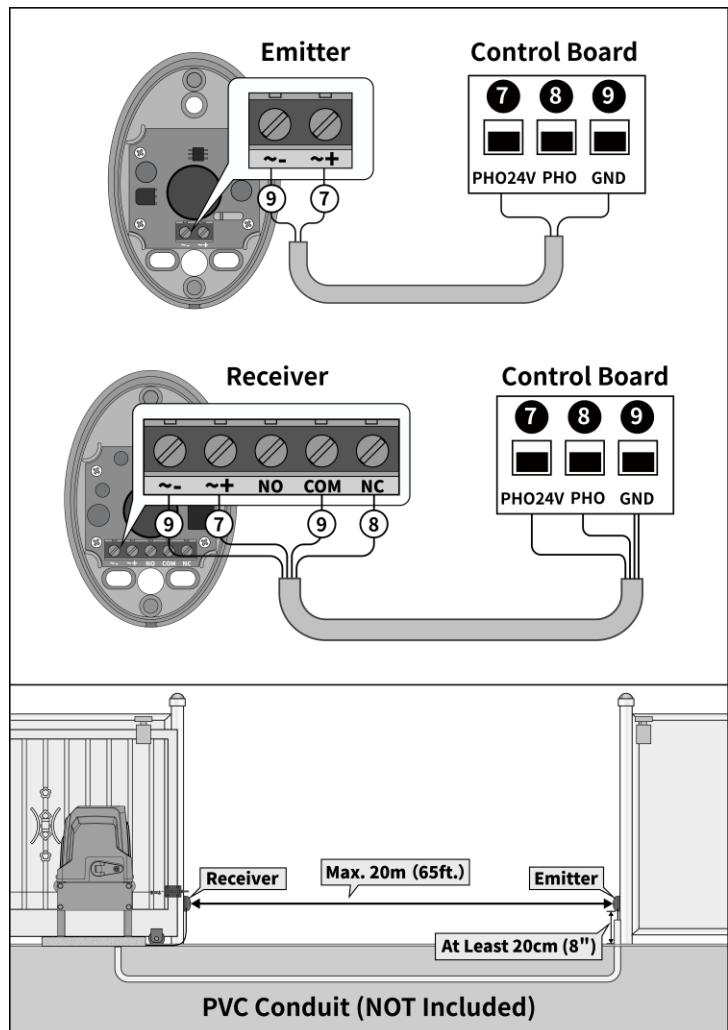
Prevents the gate from closing when obstructed, adds security

### Wire Connection

- ◆ Enable the PBS function as instructed in the "Configure the Control Board Settings" or "TOPENS Smart Sliding Gate Opener App User Manual" section.
- ◆ Turn off the power to the gate opener before wire connection.
- ◆ For the emitter, connect the "~ +" and "~ -" terminals to control board terminals ⑦ "PHO24V" and ⑨ "GND", respectively.
- ◆ For the receiver, connect the "~ +" and "~ -" terminals to control board terminals ⑦ "PHO24V" and ⑨ "GND", respectively. Connect the "NC" and "COM" terminals to control board terminals ⑧ "PHO" and ⑨ "GND", respectively.

### Key Installation Notes

- ◆ Mount the photocell sensor at least 20cm (8") above the ground.
- ◆ Place the receiver on the control board side of the gate opener, directly facing the emitter.
- ◆ Ensure that both the emitter and receiver are aligned with each other. If manual precise alignment is difficult, use a visible laser beam for assistance.
- ◆ The maximum sensing range is 20m (65ft.), and the recommended distance between the emitter and receiver is 3m to 14m (10ft. to 46ft.).
- ◆ Put the cables into PVC conduit and bury the conduit underground to prevent damage.



### NOTES:

- ◆ Connect the emitter to the gate opener with a 2C x 0.3 mm<sup>2</sup> (22AWG) cable. Connect the receiver to the gate opener with a 4C x 0.3 mm<sup>2</sup> (22AWG) cable. Cables are required but NOT included.
- ◆ If the gate opener is ONLY solar powered, please add more solar panels and upgrade the battery capacity to support the additional power consumption by the photocell sensor.

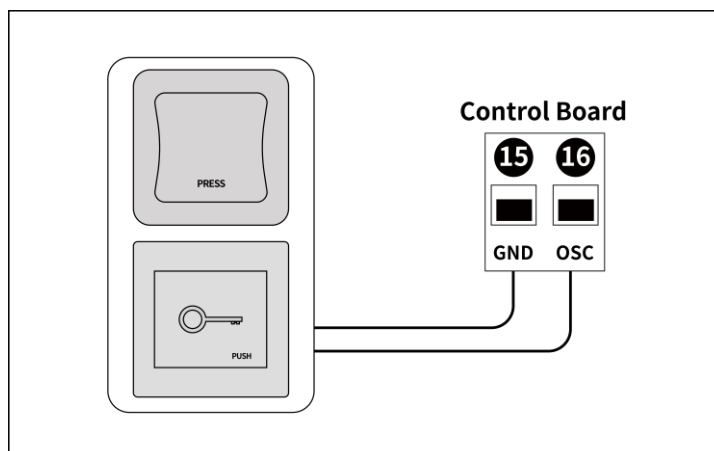
## Connect the Accessories

### TC148 Waterproof Wall Push Button & TC147 Wall Push Button

Open / close the gate by pressing the wired button

#### Wire Connection

- ◆ Turn off the power to the gate opener before wire connection.
- ◆ Connect the push button to control board terminals ⑮ "GND" and ⑯ "OSC", regardless of the polarity.
- ◆ Each press of the button will cycle the gate through open, stop, close, stop, and open.



**NOTE:** A 2C x 0.3 mm<sup>2</sup> (22AWG) cable is required for the wire connection, but it is NOT included.

# Maintenance and Replacement Parts

## Maintenance

### WARNING

*Disconnect all power (AC and battery) to the gate opener before routine inspections and lubrication.*

### Routine Inspections

- ◆ **Inspect the Gate:** Look for any signs of wear or damage on the gate and guide tracks.
- ◆ **Check the Gate Opener:** Ensure that the opener is securely attached to the concrete pad. Tighten any loose bolts and screws.
- ◆ **Examine Cables and Wires:** Check that all cables and wires are intact and free from corrosion. Ensure that the opener is properly earthed and the wire is securely connected.

### Cleaning and Lubrication

Keep the gate opener and the surrounding area clean to prevent the accumulation of dirt, dust, leaves, and debris. Use a clean, dry cloth to wipe the gate opener shafts, gears, and chain, and lubricate them as needed.

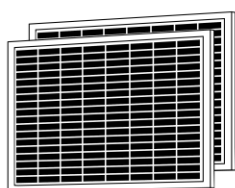
### Battery Maintenance

Regularly check for battery leakage and ensure that its casing is intact. Monitor the battery voltage through the solar controller or control board. Replace the battery every 2-3 years and recycle old batteries properly.

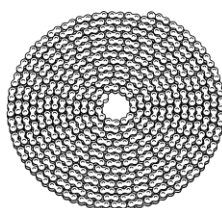
### Monthly Obstruction Test

The gate must stop or reverse upon contact with a solid object. If the stall force is adjusted, retest the gate opener by referring to the "Stall Force Adjustment & Obstruction Test" section. Failure to properly adjust and retest the gate opener can increase the risk of injury or death.

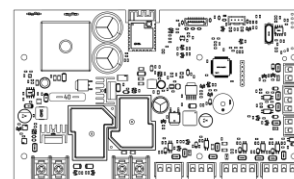
## Replacement Parts



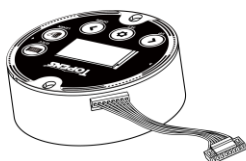
**TSQ20W 20W  
Solar Panel Kit**



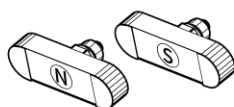
**LT08B 20 Feet  
Roller Chain**



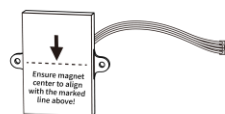
**PYMJ WIFI001A  
Control Board**



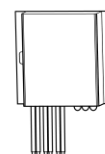
**PYMJ LCD Display Kit**



**PYCGZT Limit Switch  
Magnet**



**PYMJ Limit  
Switch Kit**

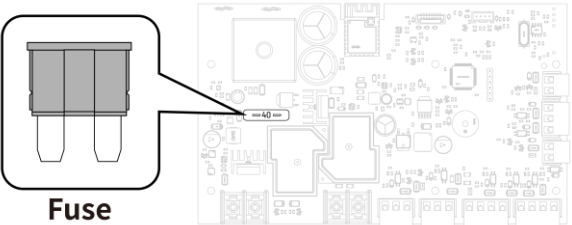


**TCS3 Solar Charge  
Controller**

\* Available on the TOPENS website ([www.topens.com](http://www.topens.com)) and Amazon.

# Troubleshooting

If your gate opener does not function properly after installation and the solutions in the "LCD Error Message & Trigger Cause" section do not resolve the issue, please refer to the common troubleshooting steps below for efficient resolution. For further assistance, please feel free to contact us through our website at [www.topens.com](http://www.topens.com).

| Symptom                                         | Possible Solution(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The opener does not run. The LCD screen is OFF. | <p><b>Step 1 Check Power Indicator:</b> Check if the power indicator on the control board is on. If the indicator is not on, proceed to the next step. If it is on, the LCD control board may be faulty and should be replaced if needed.</p> <p><b>Step 2 Check Power Supply and Transformer Output (if connected with AC electricity):</b></p> <ul style="list-style-type: none"> <li>◆ Ensure that the power supply is connected properly and securely.</li> <li>◆ Verify that the output voltage of the transformer is 24VAC. If the voltage is 0, the transformer may be overheated or damaged. Turn off the power, allow the transformer to cool for several minutes, then reset. Replace the transformer if the issue persists.</li> </ul> <p><b>Step 3 Examine Control Board Fuse:</b> Inspect the control board fuse and replace it with the backup fuse that comes with the gate opener if it is burnt out. The fuse type is 40A standard automotive blade fuse.</p> <div data-bbox="518 1153 1428 1422">  <p>Fuse</p> </div> <p><b>Step 4 Check Battery Voltage (if connected with battery):</b></p> <ul style="list-style-type: none"> <li>◆ Verify that the battery voltage is above 24VDC. If it is not, wait until the batteries are fully charged. If the error still occurs, change the batteries.</li> <li>◆ Directly connect the batteries to the control board terminals "-BAT+". Please turn off the power before making any wire connections.</li> </ul> <p><b>Step 5 Check Control Board:</b> Inspect the control board and replace it if needed.</p> |

# Troubleshooting

| Symptom                                            | Possible Solution(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The opener does not run. The LCD screen is ON.     | <p><b>Step 1 Check Power Supply and Transformer Output (if connected with AC electricity):</b></p> <ul style="list-style-type: none"> <li>◆ Ensure that the power supply is connected properly and securely.</li> <li>◆ Verify that the output voltage of the transformer is 24VAC. If the voltage is 0, the transformer may be overheated or damaged. Turn off the power, allow the transformer to cool for several minutes, then reset. Replace the transformer if the issue persists.</li> </ul> <p><b>Step 2 Examine Control Board Fuse:</b> Inspect the control board fuse and replace it with the backup fuse that comes with the gate opener if it is burnt out. The fuse type is 40A standard automotive blade fuse.</p> <p><b>Step 3 Check Battery Voltage (if connected with battery):</b></p> <ul style="list-style-type: none"> <li>◆ Verify that the battery voltage is above 24VDC. If it is not, wait until the batteries are fully charged. If the error still occurs, change the batteries.</li> <li>◆ Directly connect the batteries to the control board terminals "-BAT+". Please turn off the power before making any wire connections.</li> </ul> <p><b>Step 4 Check Control Board:</b> Inspect the control board and replace it if needed.</p> |
| The gate starts but immediately stops or reverses. | <p><b>Step 1 Check for Free Sliding:</b> Disengage the clutch and ensure that the gate slides freely without any obstruction.</p> <p><b>Step 2 Adjust Stall Force:</b> Ensure that the open or close stall force is appropriate and not too low.</p> <p><b>Step 3 Check Hall Sensor:</b> Verify that the LCD control board (with integrated Hall sensor) is securely connected to the main control board. If the connection is secure but the issue persists, the main control board may be faulty, otherwise, replace the LCD control board.</p> <p><b>Step 4 Check Control Board:</b> Inspect the control board and replace it if needed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| The gate opens but fails to close.                 | <p><b>Step 1 Check Limit Learning:</b> Verify that limit learning has been completed after gate installation. If not, complete the open / close limit setting by referring to the "Set the Open / Close Limit Positions" section, then test the opener.</p> <p><b>Step 2 Check Limit Switch Connection:</b> Ensure that the limit switch is intact and securely connected to the control board.</p> <p><b>Step 3 Check Limit Switch Functionality:</b> Disengage the clutch and manually move the gate to position the gate between two magnets, then unplug the limit switch from the control board. If both limit indicators on the control board terminal (or both limit icons on the LCD screen) light up simultaneously, the control board is normal and you need to replace the limit switch.</p> <p><b>Step 4 Check Control Board:</b> Inspect the control board and replace it if needed.</p>                                                                                                                                                                                                                                                                                                                                                                 |

# Troubleshooting

| Symptom                  | Possible Solution(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The gate opens randomly. | <p><b>STEP 1 Check LCD Screen's Trigger Cause:</b> Confirm whether the problem is triggered by the remote control, the gate control device, or the app.</p> <p><b>Triggered by Remoter Control:</b></p> <ul style="list-style-type: none"> <li>◆ Check if the remote control buttons are stuck or damaged.</li> <li>◆ Check if the remote control has insufficient battery power causing false signal transmission, or if there is interference from other remote controls operating on the same frequency.</li> <li>◆ Replace the remote control battery and move away from possible sources of interference, then test the opener.</li> <li>◆ If the problem persists, use a new remote control if needed.</li> </ul> <p><b>Triggered by Gate Control Device:</b></p> <ul style="list-style-type: none"> <li>◆ Ensure that all control devices (e.g., push buttons, sensors) are securely connected to the control board.</li> <li>◆ Isolate the Issue with wired control devices: Disconnect all wired control devices from the control board. If the problem disappears, the issue might be with one of the devices. Connect each control device one by one to identify which one causes the problem.</li> </ul> <p><b>Triggered by App:</b></p> <ul style="list-style-type: none"> <li>◆ Check if the app was accidentally used on another device or if network issues are causing false signals.</li> <li>◆ Review the app's operation logs, log out and log in again, and ensure the network is stable.</li> <li>◆ If the problem still persists, uninstall and reinstall the app.</li> </ul> |

# TOPENS Smart Sliding Gate Opener App User Manual



**Download "TOPENS" via App Store or Google Play**

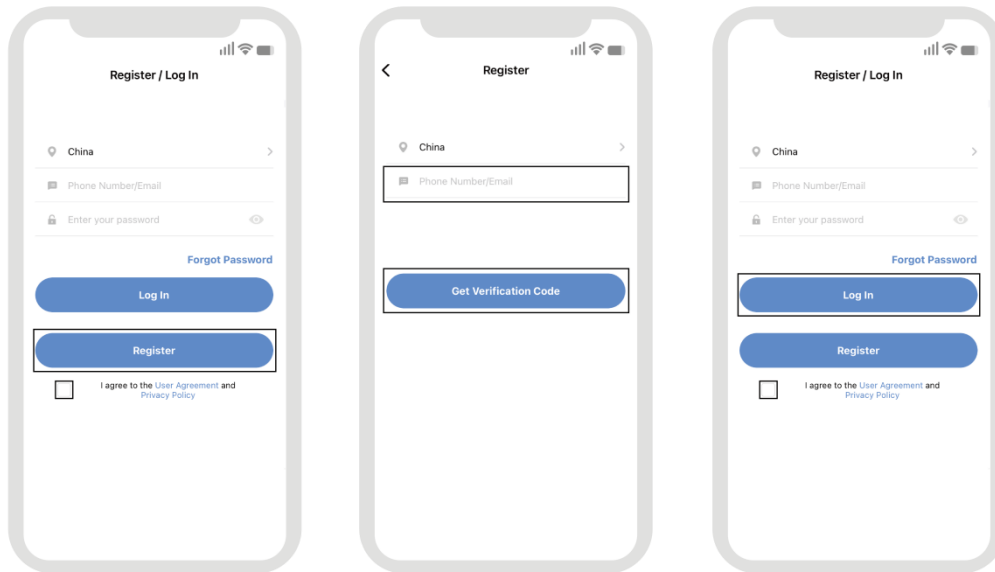
*NOTE: THE TOPENS APP ONLY SUPPORTS SMARTPHONES.*

# PART 1

## Add the Sliding Gate Opener to the App

### Register a User Account

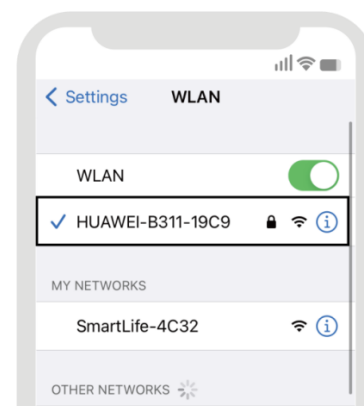
- ◆ Open the app, tick "I agree to the User Agreement and Privacy Policy", and then tap "Register" to create a user account.
- ◆ Enter your mobile phone number or email address, then tap "Get Verification Code". Check your phone or email for the code, enter it in the app, and set your account password. Registration is now complete.
- ◆ Finally, enter your mobile phone number or email address along with the password you set, then tap "Log In" to access the app successfully.



**NOTE:** Ensure that location access permission is enabled on your device. The app will automatically detect the country code from your phone's SIM card, so you do not need to enter the country code during registration.

### Preparation Before Adding to the App

- ◆ Ensure that a Wi-Fi network is available for both your phone and the sliding gate opener. Make sure your phone is already connected to the Wi-Fi network before starting the configuration.
- ◆ Power on the sliding gate opener and the LCD on the control board will display "NETWOTK UNCONFIG", "MOTOR STOP".



#### NOTES:

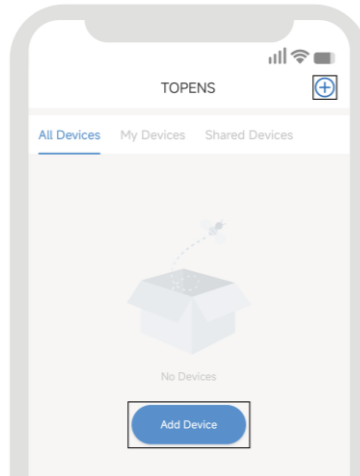
- ◆ Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.
- ◆ If there is no Wi-Fi signal or the signal is weak near the gate opener, move your router closer to the gate opener to reduce interference from walls and other objects, or consider using a Wi-Fi range extender.

# PART 1

## Add the Sliding Gate Opener to the App

### Add the Sliding Gate Opener Via Bluetooth and Hotspot

Open the app and tap "Add Device" or "+" to add a new sliding gate opener. You can configure the sliding gate opener to your Wi-Fi network using either Bluetooth or Hotspot connection.



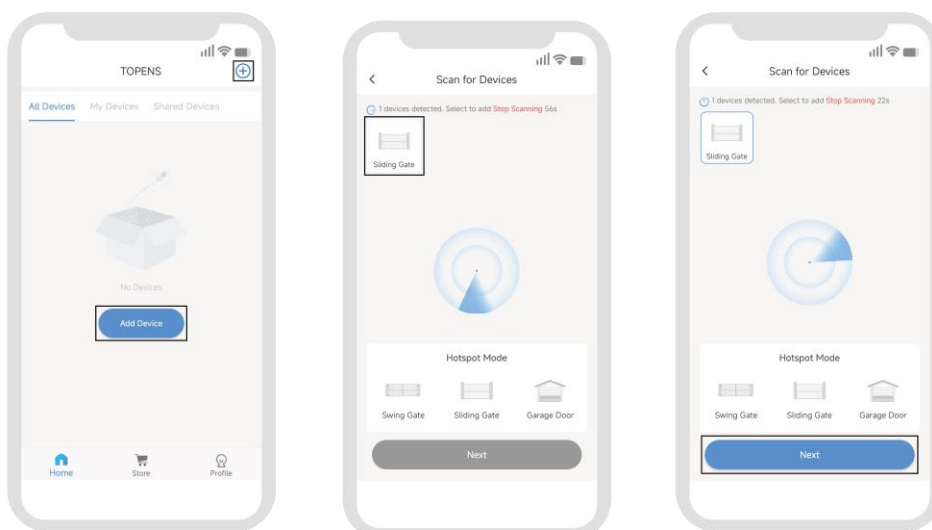
**NOTE:** If the device has been paired with another mobile phone and you wish to re-pair it, reset the device using the "NETWORK CONFIG" function on the LCD control board. This will enable the device to enter network configuration mode.

### ADD THE SLIDING GATE OPENER TO THE APP VIA BLUETOOTH

**STEP 1:** Ensure that the sliding gate opener is powered on, press and hold the "SET" button on the LCD control board for 3 seconds to enter the main settings menu. Select "2. Network Config", select "1. Bluetooth Mode", then press the "SET" button. The screen will show a 120-second countdown (Connecting 120s, 119s...), indicating that the Bluetooth Mode is being activated. Please complete the network configuration before the countdown ends.

**STEP 2:** Enable Bluetooth permission and ensure that Bluetooth is turned on.

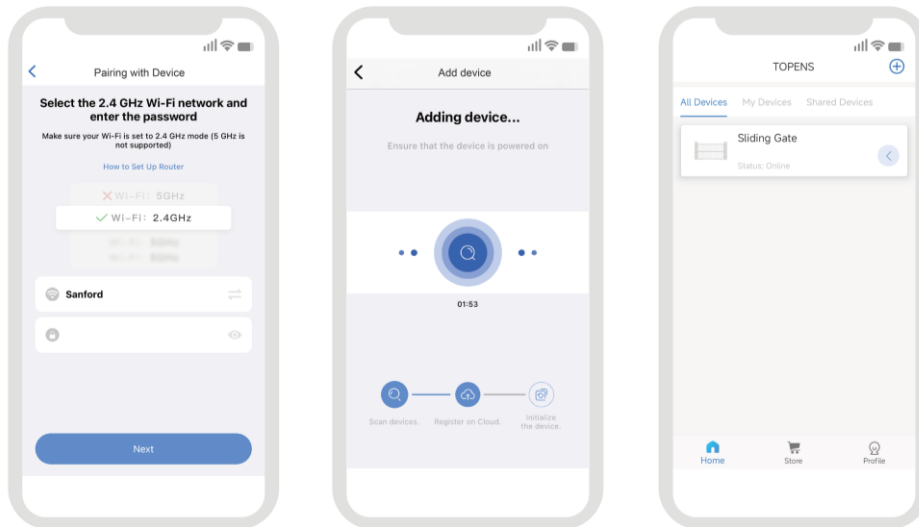
**STEP 3:** On the app's Home screen, tap "Add Device" or "+", the app will automatically detect the gate opener. Select the sliding gate opener you need to add and tap "Next".



## PART 1

### Add the Sliding Gate Opener to the App

**STEP 4:** Enter the Wi-Fi name and password, then tap "Next". The app will begin adding the device, please wait for a moment. Once the sliding gate opener is successfully added, it will appear on the home screen.



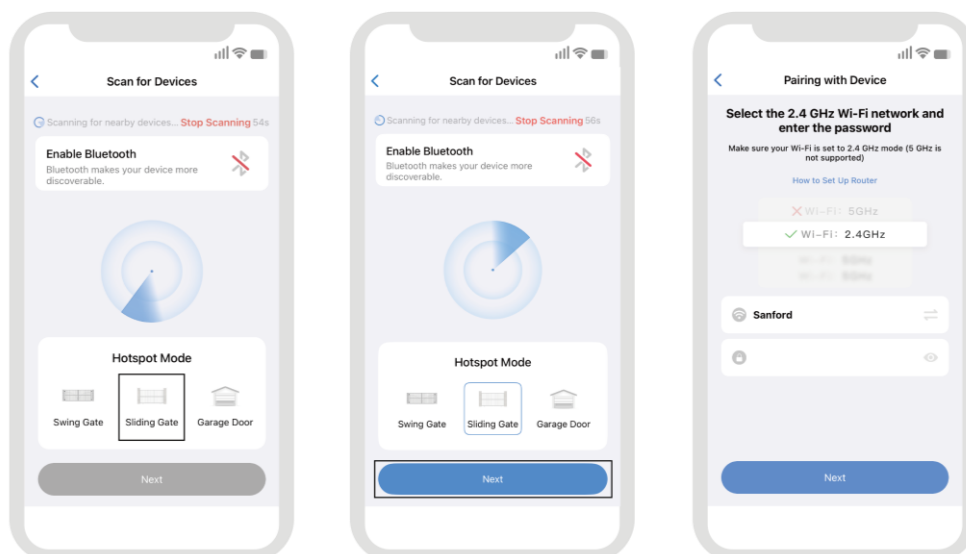
**NOTE:** Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.

#### ADD THE SLIDING GATE OPENER TO THE APP VIA HOTSPOT

**STEP 1:** Ensure that the sliding gate opener is powered on, press and hold the "SET" button on the LCD control board for 3 seconds to enter the main settings menu. Select "2. Network Config", select "2. Hotspot Mode", then press the "SET" button. The screen will show a 120-second countdown (Connecting 120s, 119s...), indicating that the Hotspot Mode is being activated. Please complete the network configuration before the countdown ends.

**STEP 2:** Select "Sliding Gate" under Hotspot Mode and tap "Next". Ignore the notification that reminds you to turn on Bluetooth and proceed with the following steps.

**STEP 3:** Input your Wi-Fi network name & password in the provided fields and tap "Next".



**NOTE:** Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.

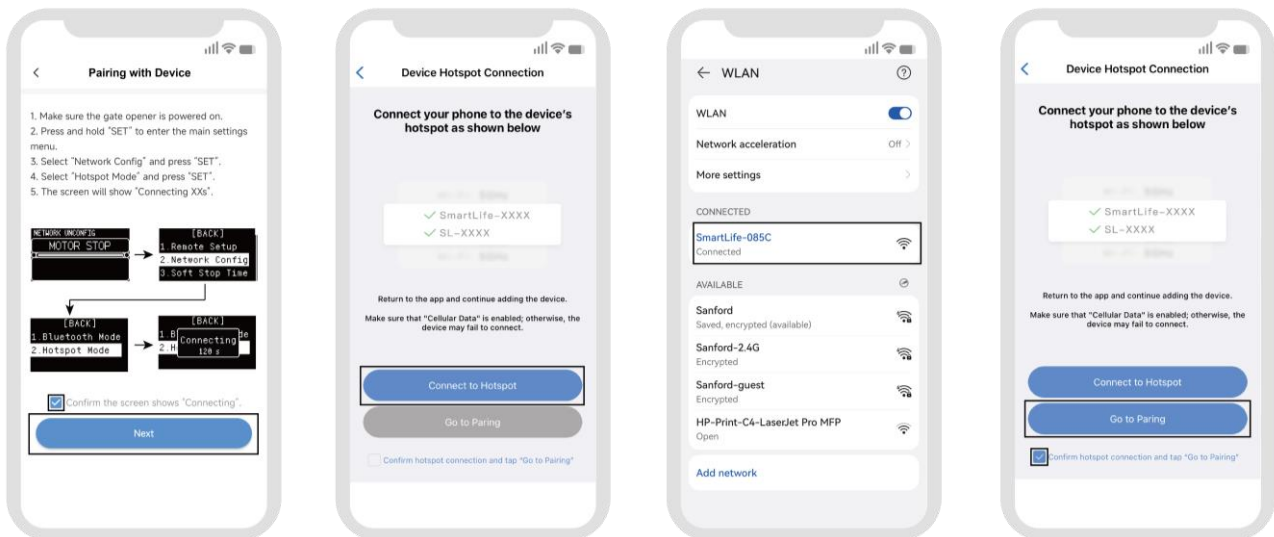
**STEP 4:** Tick the checkbox labeled "Confirm the screen shows 'Connecting'" on the app screen, and then tap "Next".

# PART 1

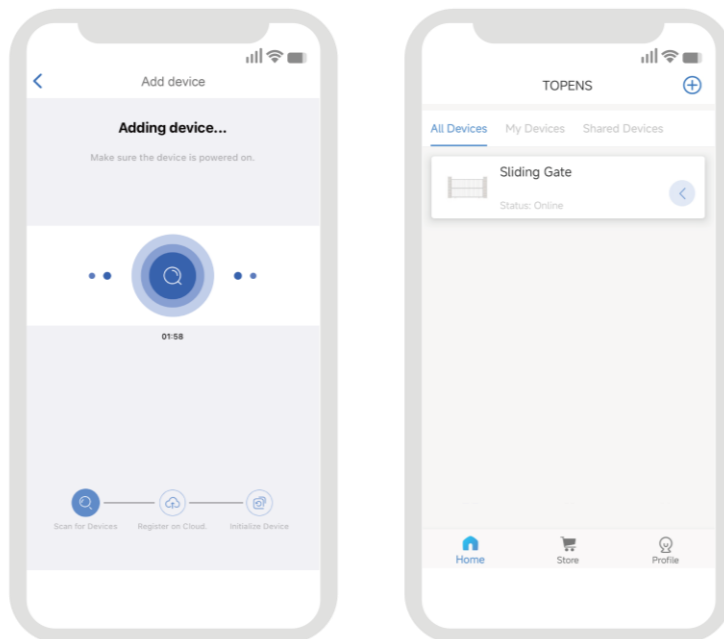
## Add the Sliding Gate Opener to the App

**STEP 5:** Tap "Connect to Hotspot", then you will be redirected to the WLAN network connection screen. Locate the WLAN network named "SmartLife-XXXX" or "SL-XXXX", select the network, and connect to it.

**STEP 6:** After connecting to the "SmartLife-XXXX" or "SL-XXXX" WLAN network, return to the app. Tick the checkbox labeled "Confirm hotspot connection and tap 'Go to Pairing' ", and then tap "Go to Pairing".



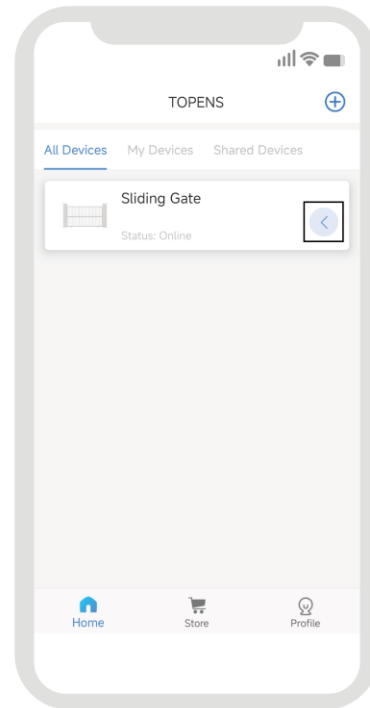
**STEP 7:** The app will start adding the sliding gate opener to your account. Please wait for the process to complete. Once the sliding gate opener is successfully added, it will appear on the app's home screen.



**NOTE:** After adding the gate opener to the app in Hotspot Mode, you can still control it through the app via Bluetooth within a range of approximately 15m (50ft.), even if the Wi-Fi connection is lost, provided the Bluetooth is enabled on your phone.

### Home Screen

- ◆ Open the app, and you can view all the added devices including shared devices on the Home screen.
- ◆ On the right side of the device icon, there is a hotkey that allows you to control the sliding gate opener. Each tap of the hotkey will cycle the gate through open, stop, close, stop, and open.
- ◆ Tap "+" to add other gate openers. On this screen, "My Devices" refers to the devices added by the users, and "Shared Devices" refers to the devices shared by other users.
- ◆ Tap on the sliding gate opener you have added, you will be directed to the main control screen.



### Store Screen

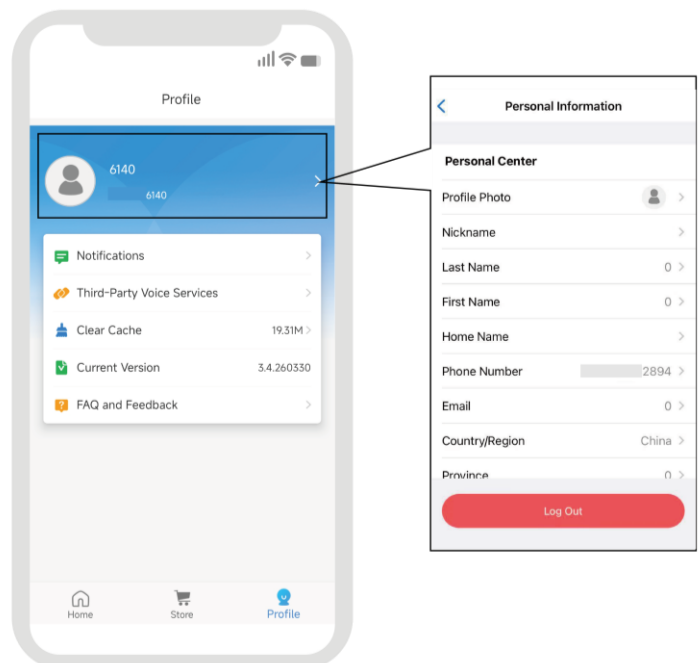
- ◆ Tap "Store" at the bottom, and you will be redirected to TOPENS's official website ([www.topens.com](http://www.topens.com)).

### Profile Screen

- ◆ Tap "Profile" at the bottom, and you will be directed to the profile main screen.

#### Personal Information Screen

- ◆ Tap the arrow at the top to enter the personal information screen.
- ◆ On this screen, you can modify your personal information, such as profile photo, nickname, contact information, address and more.
- ◆ You can also modify the password and log out of the current account.

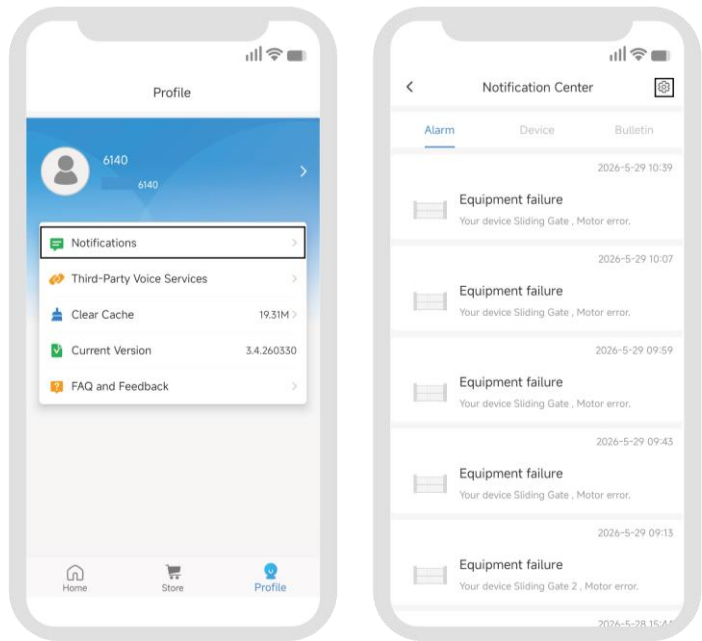


## PART 2

## Main Screen Introduction

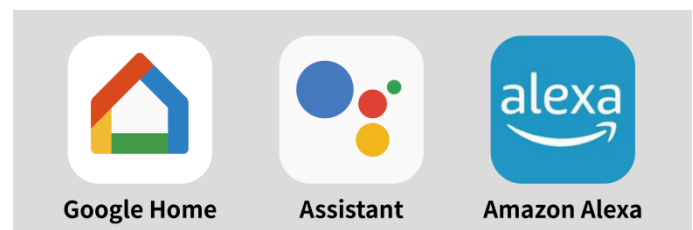
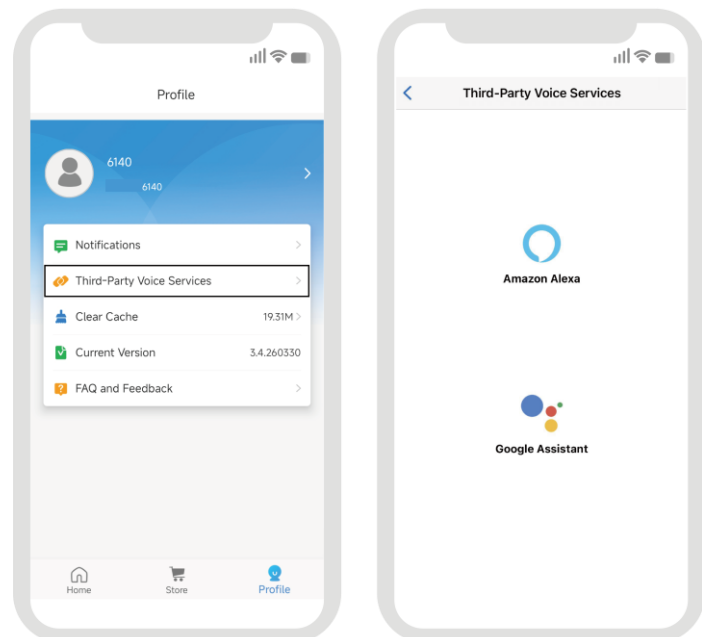
### Notification Center

- ◆ Tap "Notifications" and the app will navigate to the notification center screen.
- ◆ The Notification Center logs the alarms, device updates, and bulletins you have received.
- ◆ Tap the icon in the upper-right corner to enable or disable notifications.



### Third-Party Voice Services

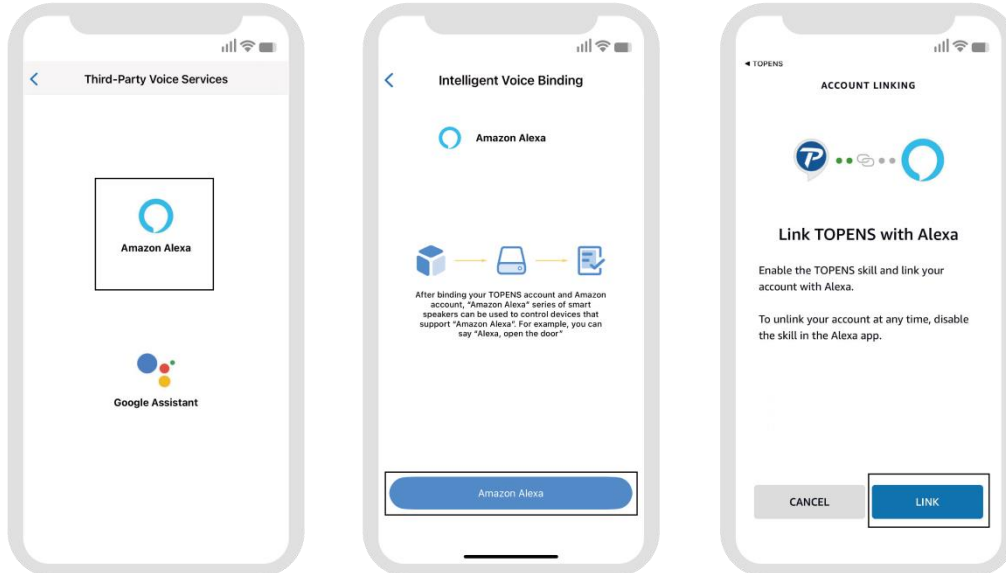
- ◆ Tap "Third-Party Voice Services" and select either "Amazon Alexa" or "Google Assistant" to bind the service to your account.
- ◆ After binding, you can control the sliding gate opener using voice commands.



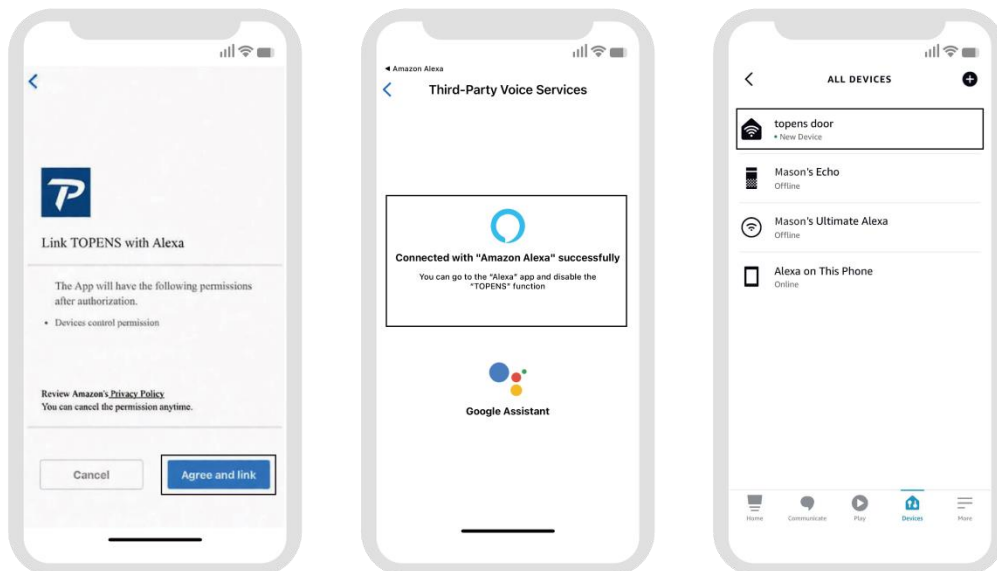
**NOTE:** If you're using ALEXA for binding, make sure you've downloaded the "Amazon Alexa" app. If you're using Google Assistant for binding, ensure you've downloaded the "Google Home" and "Google Assistant" apps. Additionally, make sure you've registered and logged into your account on the relevant app.

### BIND WITH AMAZON ALEXA

- ◆ Tap the "Amazon Alexa" icon and then tap the "Amazon Alexa" button. A confirmation window will appear and tap "LINK".



- ◆ Tap "Agree and link", the app will prompt that you have successfully connected with Amazon Alexa. Open the Amazon Alexa app, and you will find the sliding gate opener on the "Devices" screen.



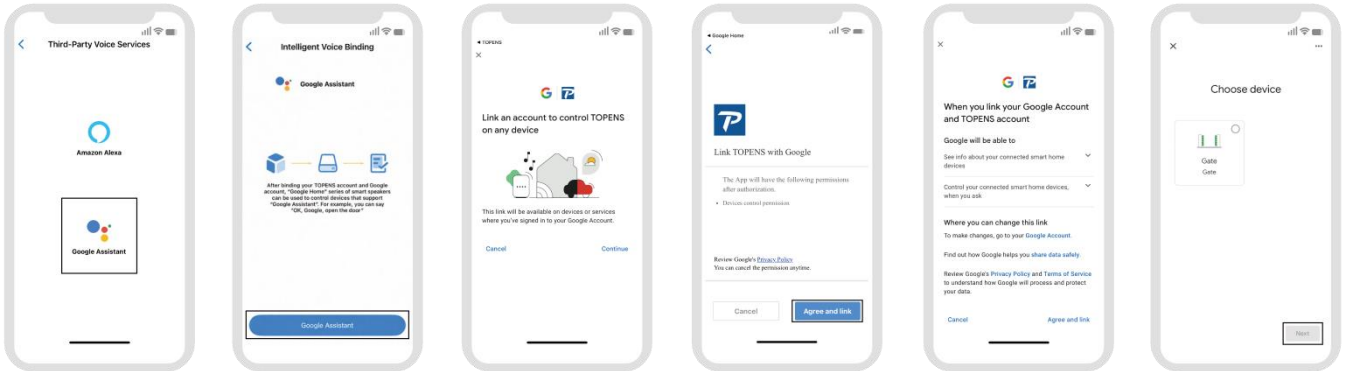
- ◆ Then, you can use the Amazon Alexa to control the sliding gate opener.
- ◆ The following are voice commands to control the sliding gate opener.  
Open the sliding gate opener: Open "the name of the device" / "The name of the device" open / Set "the name of the device" to open  
Close the sliding gate opener: Close "the name of the device" / "The name of the device" close / Set "the name of the device" to close  
Stop the sliding gate opener: Set "the name of the device" to pause

## PART 2

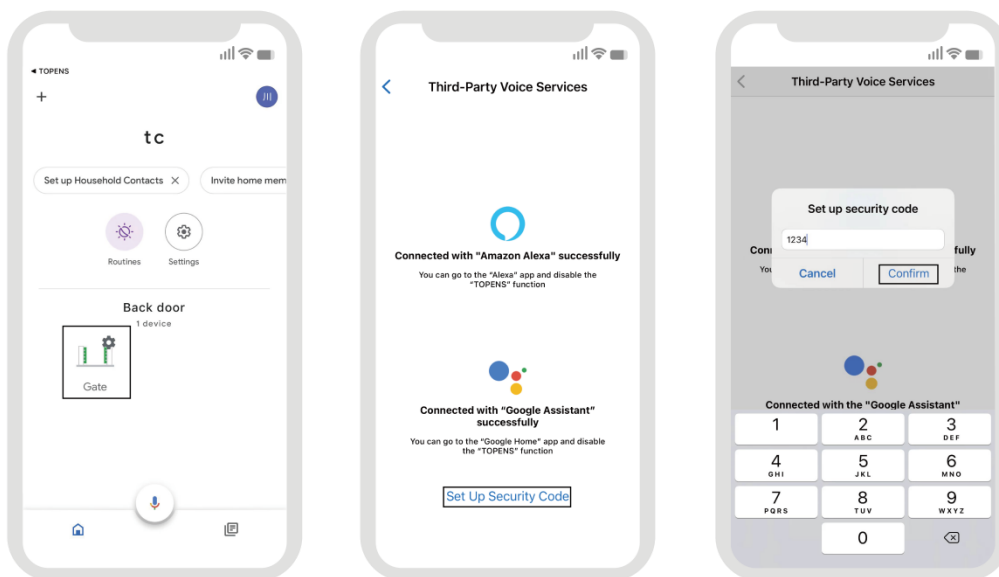
## Main Screen Introduction

### BIND WITH GOOGLE ASSISTANT

- ◆ Tap the "Google Assistant" icon and then tap the "Google Assistant" button. The app will redirect you to the Google Home app.
- ◆ A popup window will appear to confirm the connection, please tap "Agree and link". Then, choose the device you want to connect and tap "Next".



- ◆ After the connection is successful, the connected device will appear on the home screen. Return to TOPENS app, where it will display "Connected with 'Google Assistant' successfully". Tap "Set Up Security Code" to create a security code and then tap "Confirm". When using Google Assistant to control the sliding gate opener to open, you must say the correct security code to successfully open the gate.



- ◆ The following are voice commands to control the sliding gate opener.  
 Open the sliding gate opener: Open "the name of the device"  
 Close the sliding gate opener: Close "the name of the device"  
 Stop the sliding gate opener: Set "the name of the device" to pause

**NOTE:** The Google Home app may be updated periodically, so the binding steps may change over time. Please following the instructions in Google Home app.

### Clear Cache

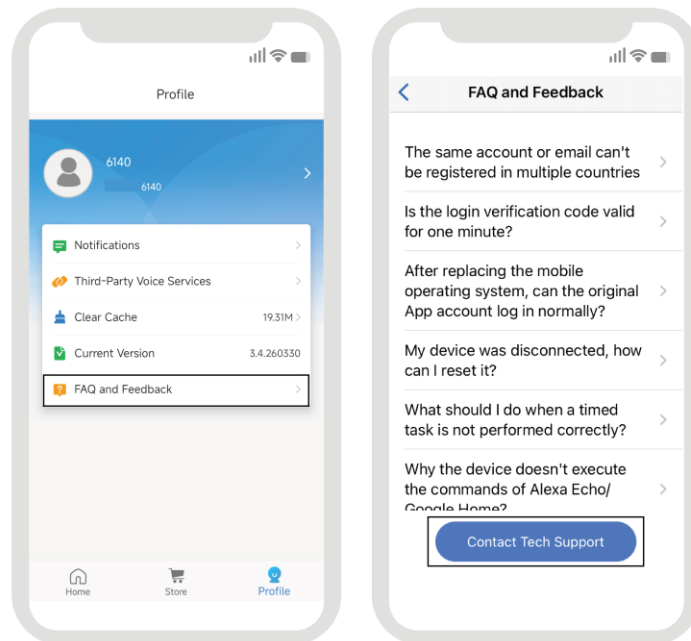
- ◆ Tap "Clear Cache" to remove stored cache data.

### Current Version

- ◆ Display current version information.

### FAQ and Feedback

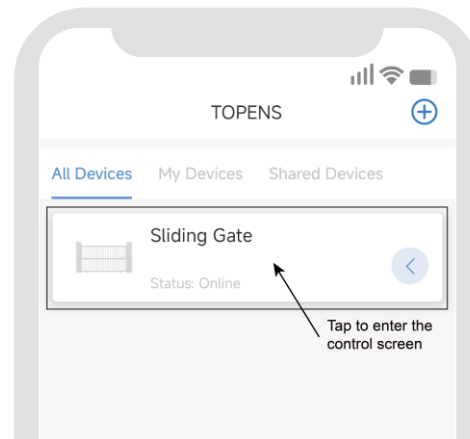
- ◆ Tap "FAQ and Feedback" to access a list of common questions and answers. For additional assistance, tap "Contact Tech Support" to reach technical support.



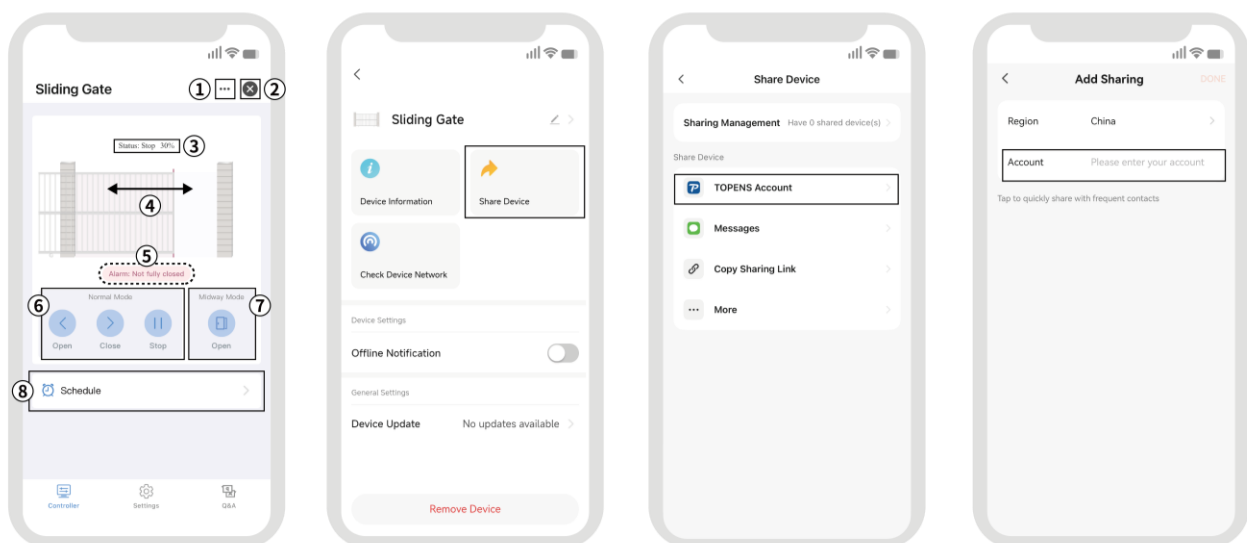
## PART 3

## Control and Set the Sliding Gate Opener

Open the app and tap the sliding gate opener you have added. It will direct to the main control screen of the sliding gate opener. At the bottom of the screen, you will see three icons labeled Controller, Settings, and Q&A.



### Basic Functions of the Controller Screen



① Change the Device Name and Icon, Check Device Information, Share Device, Check Device Network, Set Offline Notification, Device Update, and Remove Device.

**NOTE:** To share device with another user, the shared user must download the TOPENS app and register a user account before being shared. Each device supports sharing with up to 20 users.

② Tap the icon to return to the Home screen.

③ Display the current status of the sliding gate opener and the current location of the sliding gate opener as percentage. 100% means the gate is fully open and 0% means the gate is fully closed.

#### NOTES:

- ◆ When powering up the sliding gate opener for the first time, it is important to allow the gate to complete a full cycle (fully closed, fully opened, and fully closed again). This process is necessary to record the travel data, which helps the system calibrate the gate's movement. Due to network delays, the gate status display synchronization may be affected.
- ◆ After modifying the gate opener parameters, please perform at least one full cycle (fully closed, fully opened, and fully closed again) for more precise animation positioning.

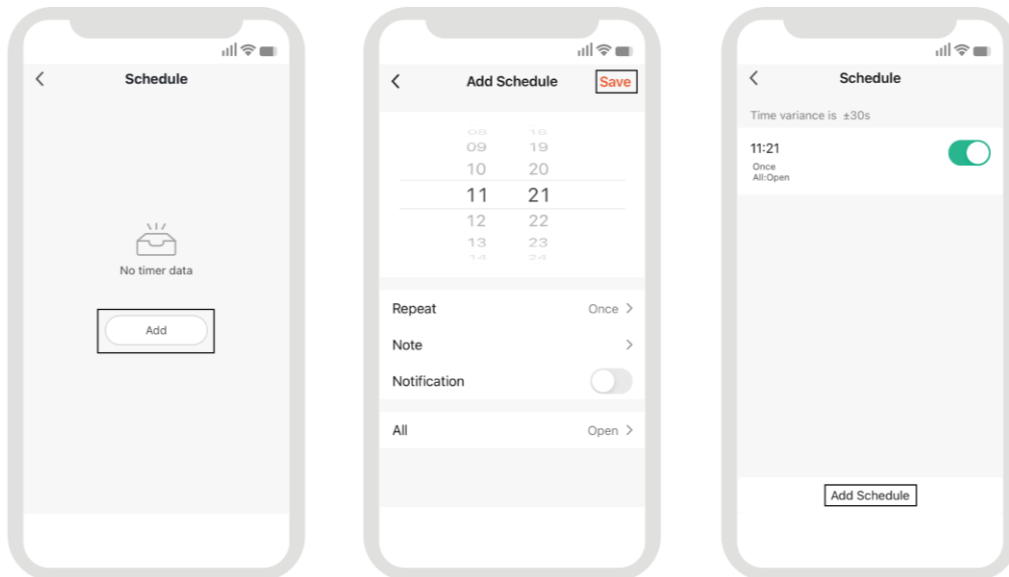
④ To operate the gate opener to a specific position, simply drag the red straight line located below the gate opener animation to the desired open / close position.

⑤ Display the alarm status of the gate opener.

## PART 3

### Control and Set the Sliding Gate Opener

- ⑥ Tap the "Open", "Stop", or "Close" button under Normal Mode to operate the gate accordingly, allowing it to open, stop, or close as needed.
- ⑦ Tap the "Open" button under Midway Mode to partially open the gate according to the set midway time.
- ⑧ Tap to access the schedule configuration page. Tap "Add" to create a new schedule, set the parameters, and tap "Save". The schedule will appear in the list, where you can quickly enable or disable it as needed. To add another schedule, tap "Add Schedule" at the bottom of the screen.



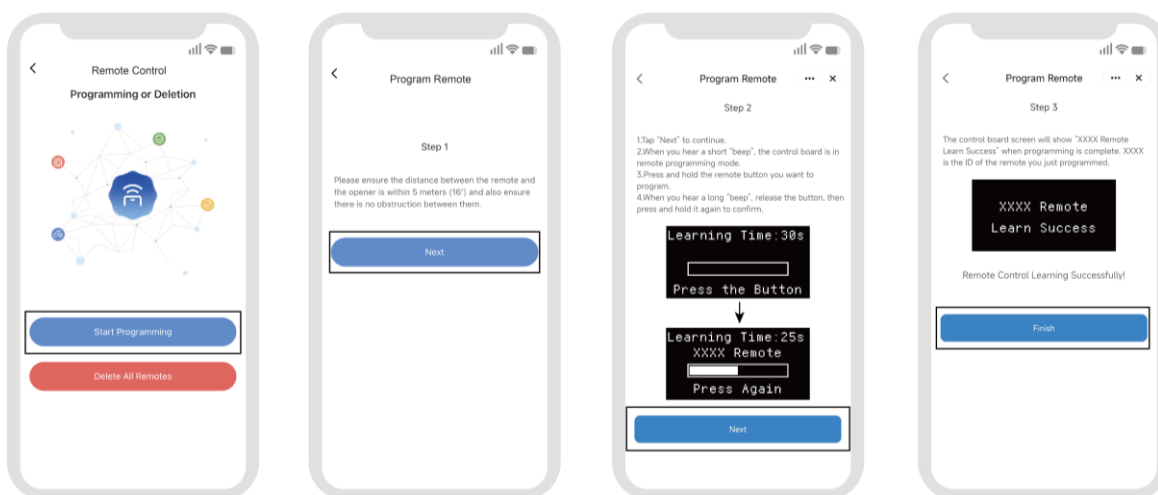
### Settings of the Sliding Gate Opener



### ① Remote Control Programming & Deletion

#### Remote Programming

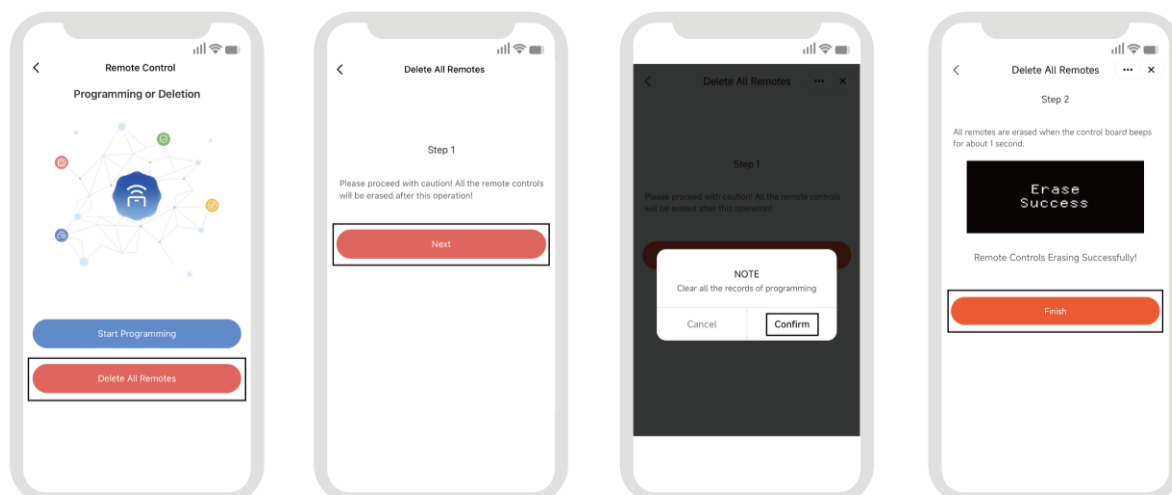
- ◆ **STEP 1:** Tap "Remote Control Programming & Deletion", then tap "Start Programming". Ensure that the distance between the remote control and the gate opener is within 5m (16.5ft.) and there are no obstructions between them.
- ◆ **STEP 2:** Tap "Next", a short beep will sound and the screen will show a 30-second countdown (Learning Time: 30s, 29s...), indicating the gate opener is now in programming mode. Please complete remote programming before the countdown ends.
- ◆ **STEP 3:** Press the remote control button you want to program, the progress bar will reach the 50% position and a long beep will sound. Press the same button again, the progress bar will be full, and the LCD screen will show "XXXX Remote Learn Success", where "XXXX" is the unique ID assigned to the programmed remote control.
- ◆ **STEP 4:** Tap "Finish" to complete the programming.



**NOTE:** Please ensure that the remote button is pressed after you have tapped "Next" in STEP 2.

#### Delete All the Remotes

- ◆ **STEP 1:** Tap "Delete All Remotes".
- ◆ **STEP 2:** Tap "Next", and tap "Confirm" to confirm the deletion.
- ◆ **STEP 3:** All the remote controls have been erased successfully if the LCD shows "Erase Success" and then back to the standby mode. The app will display "Remote Control Erasing Successfully!" and you can tap "Finish" to complete the deletion process.



**② Set Soft Stop Time**

Drag the slider to set the soft stop time, adjustable from 0 to 5 seconds. The default is 3 seconds. Selecting "0" means that the gate opener will not perform a soft stop.

**③ Set Open Stall Force**

Drag the slider to set the open stall force. "1" represents the minimum force, while "9" represents the maximum force. The default is 5.

**④ Set Close Stall Force**

Drag the slider to set the close stall force. "1" represents the minimum force, while "9" represents the maximum force. The default is 5.

**⑤ Set Travel Speed**

Select MIN, Medium, or MAX to set the gate opener travel speed.

**⑥ Enable / Disable Photocell**

When the PBS function is enabled, the gate opener will not close unless the PBS sensor is installed. This function is disabled by default.

**⑦ Set Closing Beam Blocked**

Set the gate opener to either stop or reverse when an obstruction blocks the sensor's beam while the gate is closing.

**⑧ Set Overload During Closing**

Set the gate opener to either stop or reverse upon contact with an obstruction while closing.

**⑨ Enable / Disable Lamp**

When a lamp is connected to the control board and the lamp function is enabled, the lamp will turn on during the operation of the gate opener. This function is disabled by default.

**⑩ Enable / Disable Auto Close Function**

The auto close function allows the gate to automatically close after a set period. This function is disabled by default.

**⑪ Set Auto Close Time**

When the Auto Close function is enabled, you can drag the slider to set the auto close time, adjustable from 5 to 120 seconds. The default is 15 seconds.

**⑫ Enable / Disable Running Alarm When Gate Opening or Closing**

The buzzer on the control board will sound intermittently during gate opening or closing to provide an alert of gate movement.

**⑬ Enable / Disable Pre-alarm Before Opening or Closing**

The buzzer on the control board will sound intermittently 4 seconds before the gate begins opening or closing.

### 14 Enable / Disable Low Voltage Alarm

The buzzer on the control board will sound intermittently when the input voltage drops below 18V.

### 15 Set Remote Control Working Mode

- ◆ One Button Mode: Buttons A, B, and C share the same function. Each press of the programmed button will cycle the gate through open, stop, close, stop, and open.
- ◆ Separate Mode: After successful programming, press button A to open the gate, press button B to close the gate, press button C to stop the gate.

### 16 Set Midway Mode

Press button D on the remote control to activate the midway mode to partially open the gate for quick passage. This function is disabled by default.

### 17 Set Midway Mode Time

When the midway mode function is enabled, drag the slider to set the midway time. The gate will open for the set time.

### 18 Set Open Direction

The opening direction set in initial limit learning is synced automatically. You can modify the open direction here if you made a wrong choice. This setting affects the direction of the progress bar for gate opening and closing on the LCD screen.

### 19 Purchase Information

It is recommended to fill in the purchase information if you need technical support.

### 20 Restore Default Settings

All settings are restored to their factory defaults.

## Q&A Screen

- ◆ Tap "Get Tech Support" to receive technical support. First-time users will be prompted to enter their purchase information.

**NOTE:** Technical support does not offer real-time responses. Customer service staff typically reply within 24 hours.



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Street, Wuhan East Lake High-tech Development Zone,  
China

## Attestation of Conformity

Registration No AGC-WH00066220632E2

Applicant Hangzhou Sanford Technology Co., Ltd  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang Province,  
China

Product Designation Sliding gate opener

Brand Name /

Model / Series Models DWC1100, DWC500, DWR1100, DWR500

Manufacturer Hangzhou Sanford Technology Co., Ltd  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang Province,  
China

| Requirement   | Applied Standards                                                                                 | Document Evidence                     | Result  |
|---------------|---------------------------------------------------------------------------------------------------|---------------------------------------|---------|
| EMC Directive | EN 55014-1:2017+A11:2020<br>EN 55014-2:2015<br>EN IEC 61000-3-2:2019<br>EN 61000-3-3:2013+A1:2019 | Test Report:<br>AGC-WH00066220632EE01 | Conform |



*Bram Wu*  
Signed by General Manager(Bram Wu)  
Issue Date: August 16, 2025

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Note: This attestation is part of the full test report(s) and should be used in conjunction with it.

Version: 1.0



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China

## Attestation of Conformity

Registration No. AGC-WH00066220632S4

Applicant Hangzhou Sanford Technology Co., Ltd.  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang  
Province, China

Product Designation Sliding gate opener

Brand Name /

Model / Series Models DWC1100, DWC500, DWR1100, DWR500

Manufacturer Hangzhou Sanford Technology Co., Ltd.  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang  
Province, China

| Requirement      | Applied Standards                                                                                                | Document Evidence                     | Result  |
|------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------|
| LVD<br>Directive | EN 60335-2-103:2015,<br>EN 60335-1:2012+<br>A11:2014 +A13:2017+<br>A1:2019+A2:2019+<br>A14:2019<br>EN 62233:2008 | Test Report:<br>AGC-WH00066220632ES01 | Conform |



Signed by General Manager(Bram Wu)  
Issue Date: August 9, 2025



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Version: 1.0



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China

## Attestation of Conformity

Registration No AGC-WH00066220632E2

Applicant Hangzhou Sanford Technology Co., Ltd  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang Province,  
China

Product Designation Sliding gate opener

Brand Name /

Model / Series Models DWC1100, DWC500, DWR1100, DWR500

Manufacturer Hangzhou Sanford Technology Co., Ltd  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang Province,  
China

| Requirement                                    | Applied Standards                                                                                             | Document Evidence                     | Result  |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------|---------|
| Electromagnetic Compatibility Regulations 2016 | BS EN 55014-1:2017+A11:2020<br>BS EN 55014-2:2015<br>BS EN IEC 61000-3-2:2019<br>BS EN 61000-3-3:2013+A1:2019 | Test Report:<br>AGC-WH00066220632BE01 | Conform |



*Bram Wu*  
Signed by General Manager(Bram Wu)  
Issue Date: August 16, 2025

Recognized by Attestation of Global Compliance (Wuhan) Co., Ltd. in accordance with the Electromagnetic Compatibility Regulations 2016. The attestation doesn't imply assessment of the production. The applicant of the attestation is authorized to use this attestation in connection with UK declaration of conformity to the regulation. The attestation is only applicable to the equipment described above. This attestation shall not be re-produced without the written approval of Attestation of Global Compliance (Wuhan) Co., Ltd.

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Version: 1.0



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## Attestation of Conformity

Registration No. AGC-WH00066220632B4

Applicant Hangzhou Sanford Technology Co., Ltd.  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang  
Province, China

Product Designation Sliding gate opener

Brand Name /

Model / Series Models DWC1100, DWC500, DWR1100, DWR500

Manufacturer Hangzhou Sanford Technology Co., Ltd.  
Room 106, Building 4, 8 Shengdi Road, Yuhang Town, Hangzhou City, Zhejiang  
Province, China

| Requirement                                          | Applied Standards                                                                                                     | Document Evidence                     | Result  |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------|
| Electrical Equipment<br>(Safety) Regulations<br>2016 | BSEN 60335-2-103:2015,<br>BSEN 60335-1:2012+<br>A11:2014+A13:2017+<br>A1:2019+A2:2019+<br>A14:2019<br>BSEN 62233:2008 | Test Report:<br>AGC-WH00066220632BS01 | Conform |

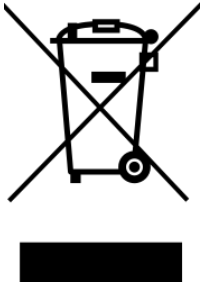


Signed by General Manager(Bram Wu)  
Issue Date: August 9, 2025

Recognized by Attestation of Global Compliance (Wuhan) Co., Ltd. in accordance with the Electrical Equipment (Safety) Regulations 2016. The attestation doesn't imply assessment of the production. The applicant of the attestation is authorized to use this attestation in connection with UK declaration of conformity to the regulation. The attestation is only applicable to the equipment described above. This attestation shall not be re-produced without the written approval of Attestation of Global Compliance (Wuhan) Co., Ltd.  
Note: This attestation is part of the full test report(s) and should be used in conjunction with it. Version: 1.0







**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](http://www.topens.com)**

**Contact Us:**

**E-mail: [support@topens.com](mailto:support@topens.com)**

***Kindly include your purchase channel, order #, gate information, issue description  
and your contact information. All your concerns will be replied within 24 hours.***

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