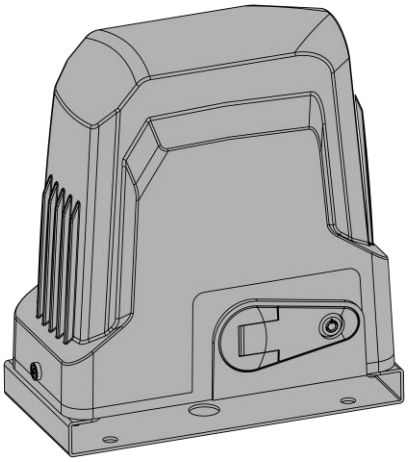
EN

TOPENS®

DWR500ST/DWR1100ST

User Manual

For smart sliding gate opener installation



Installation Video

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.

CE

CONTACT US

For Technical Support and Installation Assistance

Visit our website at www.topens.com and fill out the online form

Alternatively, you can send an email to our service team at 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

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.

Email Us: support@topens.com

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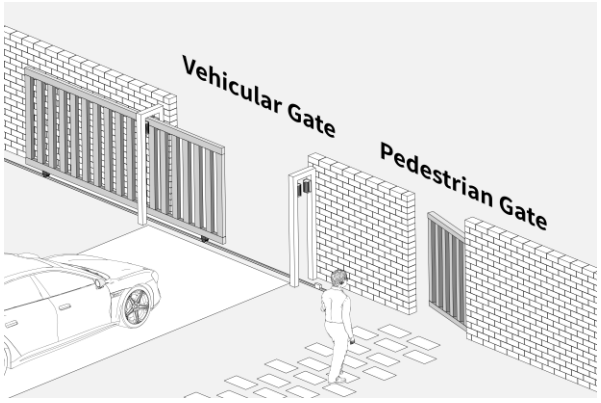
Important Safety Information

Thank you for choosing the TOPENS DWR500ST / DWR1100ST sliding gate opener. When installed correctly and used properly, your opener will offer years of reliable service.

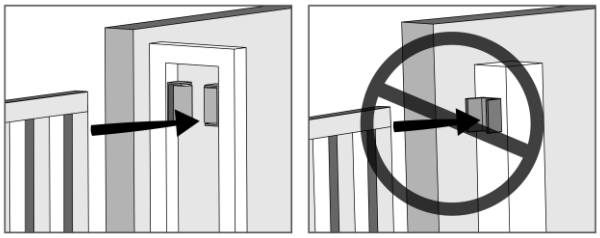
This manual is designed to guide you through the proper installation of your DWR500ST / DWR1100ST sliding gate opener. Please carefully review all instructions before commencing the installation and operation of this automatic gate opener.

Before Installation

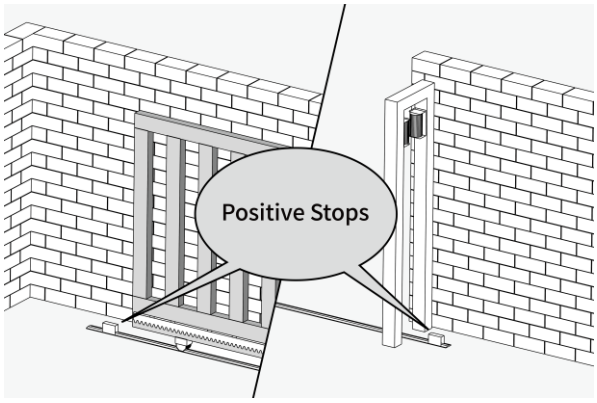
- **GAIN UNDERSTANDING OF THE INSTALLATION PROCESS:** Please read this user manual or view our online installation video before installing the gate opener.
- **LOCAL INSTALLATION COMPLIANCE:** Prior to installation, please verify that your planned installation complies with all relevant local building 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.



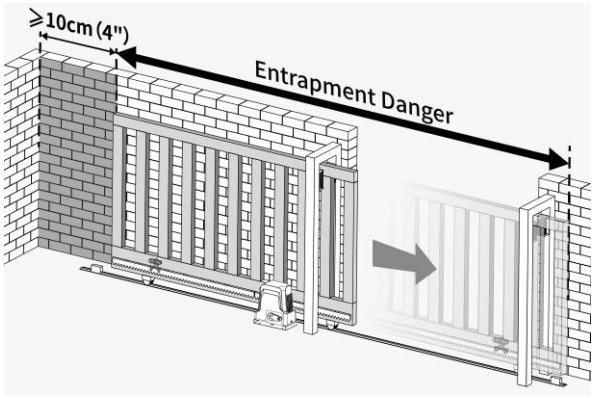
- **POSITIVE STOPS:** Positive stops must be installed at each end of the gate track to assure that the gate does not exceed its limit of travel and derail while opening or closing fully.



Important Safety Information

During Installation

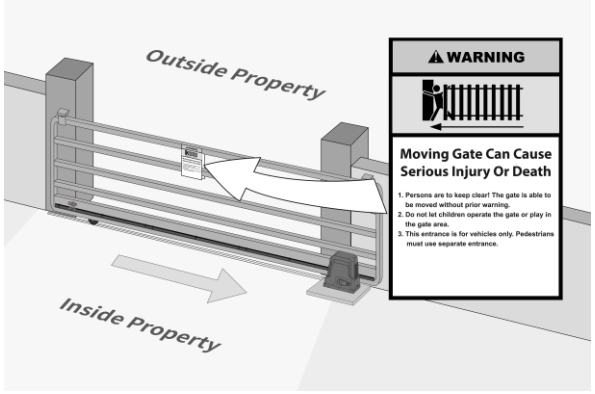
- **INSTALLER AND END USER RESPONSIBILITY:** An experienced installer should perform the installation. Improper installation may result in property damage, severe injury or death. The gate opener is only part of the entire gate operating system, and it is the responsibility of the installer and end user 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.



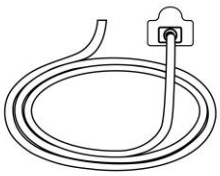
Important Safety Information

- **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).

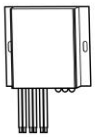
Note For Warranty

- **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.

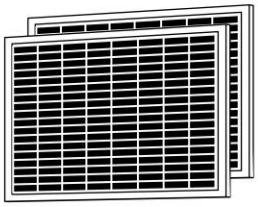
Packing List



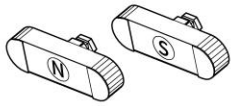
Power Cord



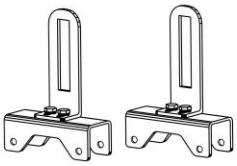
Solar Charge Controller



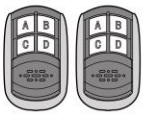
2 x 10W 24V Solar Panel



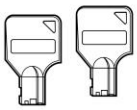
N & S Magnet Assembly



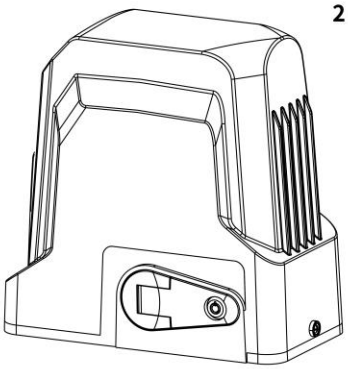
Magnet Bracket



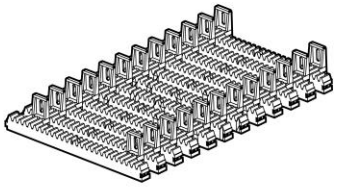
TC131A Remote Control



Release Key



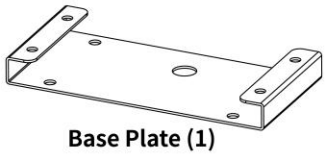
Gate Opener



Nylon Gear Rack
12 PCS, total 4m (13 feet)



Warning Sign



Base Plate (1)



Expansion Bolt (4)



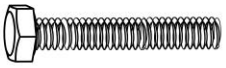
M5x12 Pan Head Screw (8)



Φ8 Big Plain Washer (4)

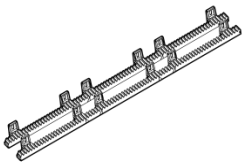
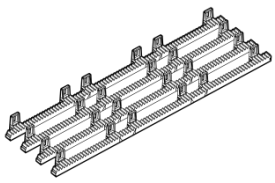
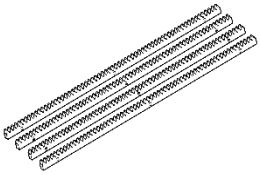


Φ8 Lock Washer (4)

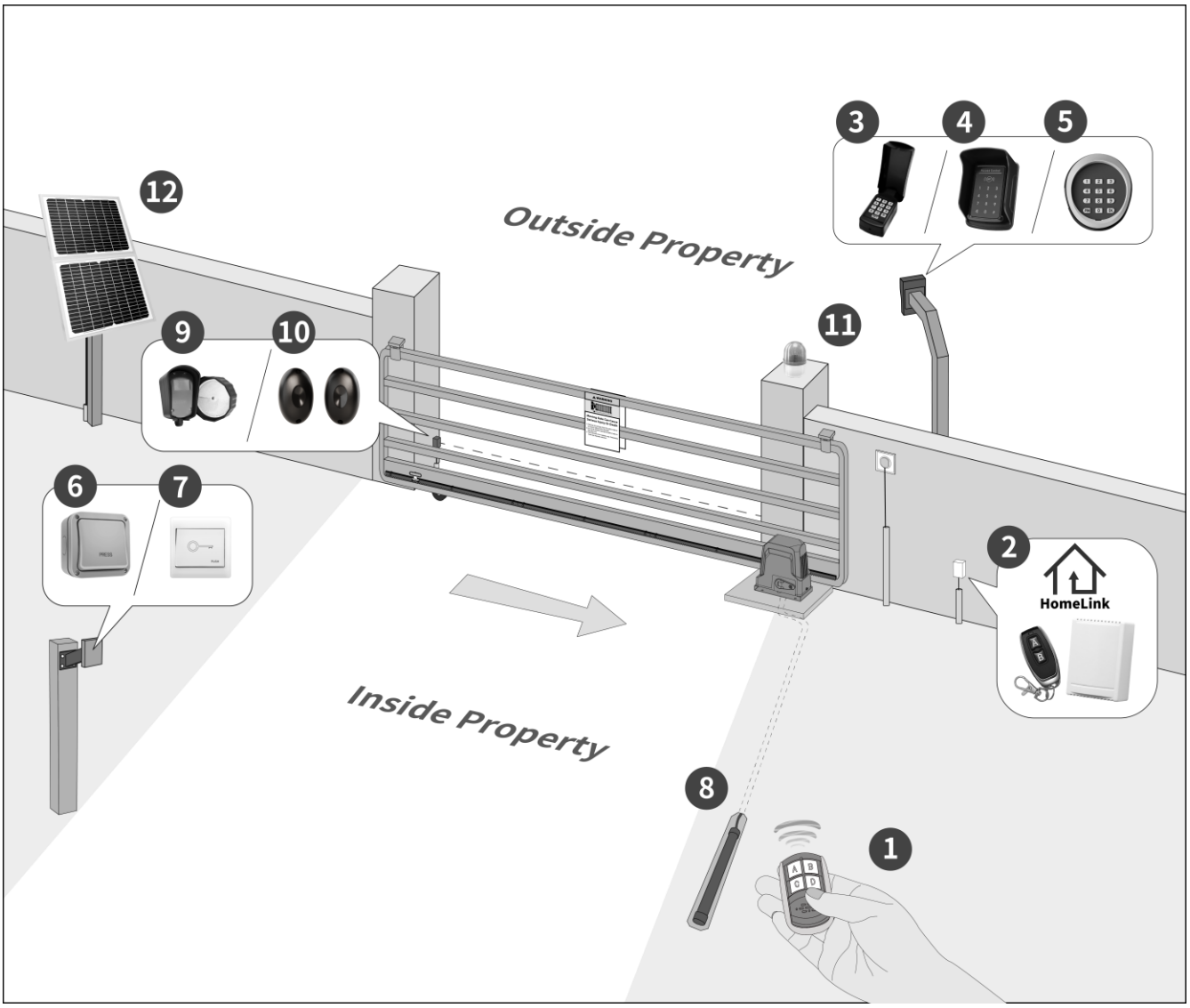


M8x30 Hex Bolt (4)

Note: *The DWR500ST and DWR1100ST sliding gate openers share a similar appearance. However, the DWR500ST features an aluminum alloy gear, whereas the DWR1100ST is equipped with a steel gear. Please refer to the actual product.*

Supplementary Racks (For DWR500ST / DWR1100ST) (If the rack is insufficient, additional racks can be purchased separately at www.topens.com.)	 RNH2 Heavy Duty Nylon Gear Rack  RNH4 Heavy Duty Nylon Gear Rack
Compatible Racks (Only for DWR1100ST) (Sold Separately)	 SR02 Heavy Duty Steel Gear Rack

Installation Overview



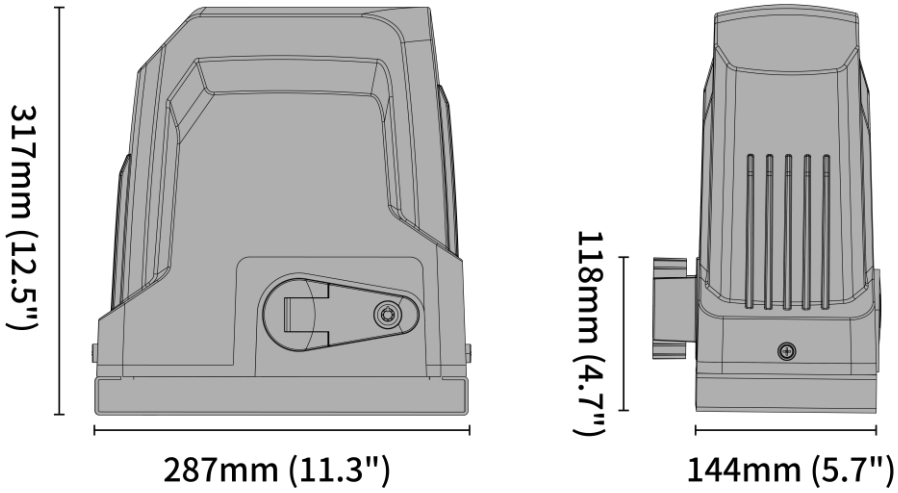
Various TOPENS Accessories for Your Gate Opener System	
❶ TC131A Remote Control	❼ TC147 Wall Push Button
❷ HLR01 Homelink Remote Control Kit	❽ TEW3 Vehicle Sensor Exit Wand
❸ TC188 Universal Keypad	❾ TRF3 Reflection Photocell Sensor
❹ TC175P Wired Keypad	❿ TC102 Infrared Photocell Sensor
❺ TKP3 Wireless Keypad	⓫ JD24VY Warning Light
❻ TC148 Waterproof Wall Push Button	⓬ TSQ20W 20W Solar Panel Kit

** Available on the TOPENS website (www.topens.com) and Amazon.*

Specifications

Product Model	DWR500ST	DWR1100ST
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
- Level
- Wire Strippers
- Phillips Screwdriver
- Slotted Screwdriver
- Open End Wrenches - 14# &17# or Adjustable Wrenches

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.

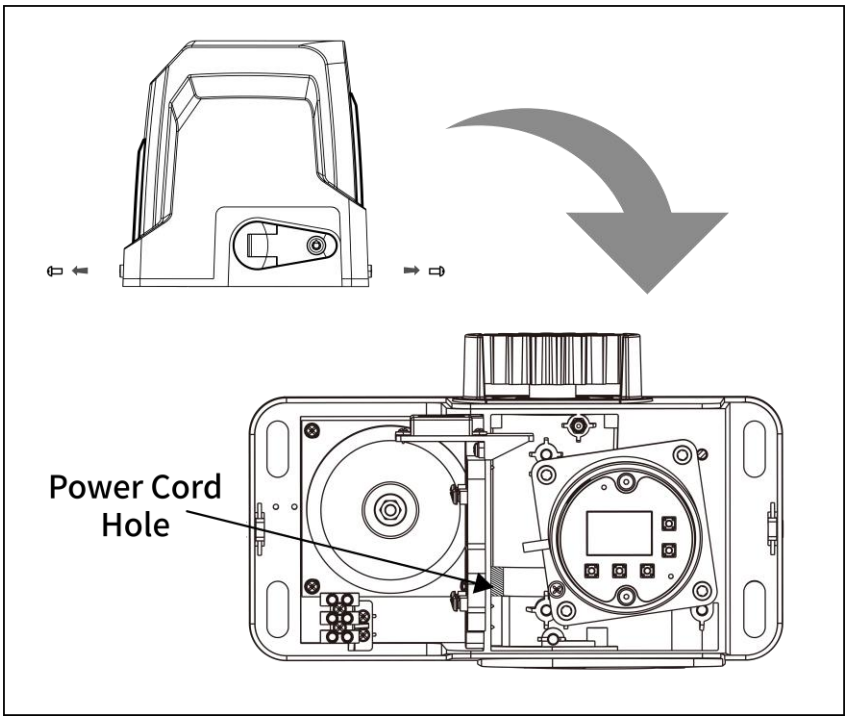
Installation

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

Identify the Location of the Power Cord Hole

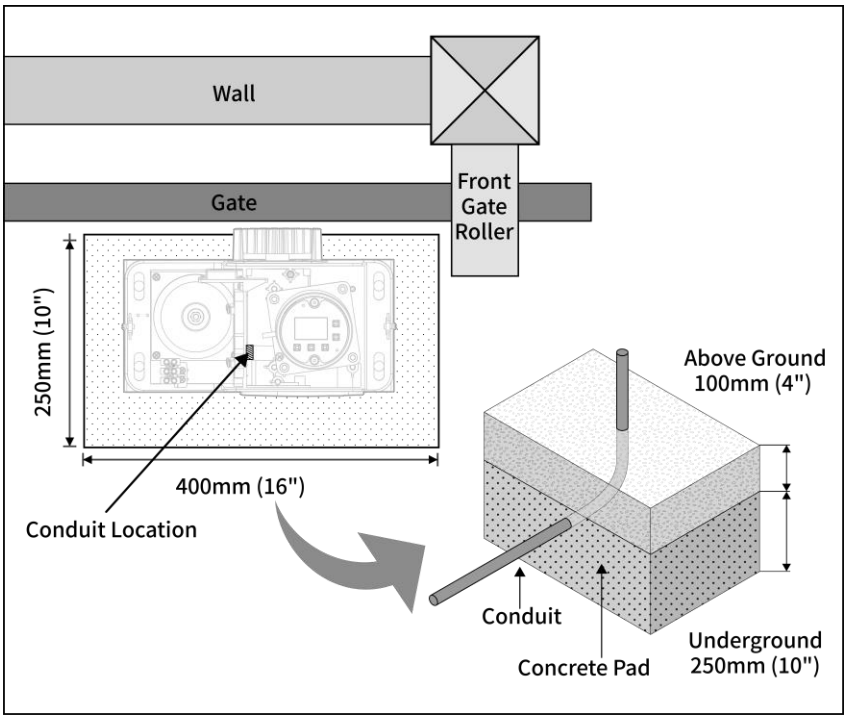
- Unscrew the two cover screws located on each side of the motor casing to remove the casing.
- Check the power cord hole.



STEP 2

Lay out the Concrete Pad

- Dig a hole for the concrete pad near the front roller of the gate to install the opener. The dimensions should be approximately 400 x 250 x 350mm (16" x 10" x 14").
- Install the electrical conduit (right under the power cord hole of the opener).
- 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.

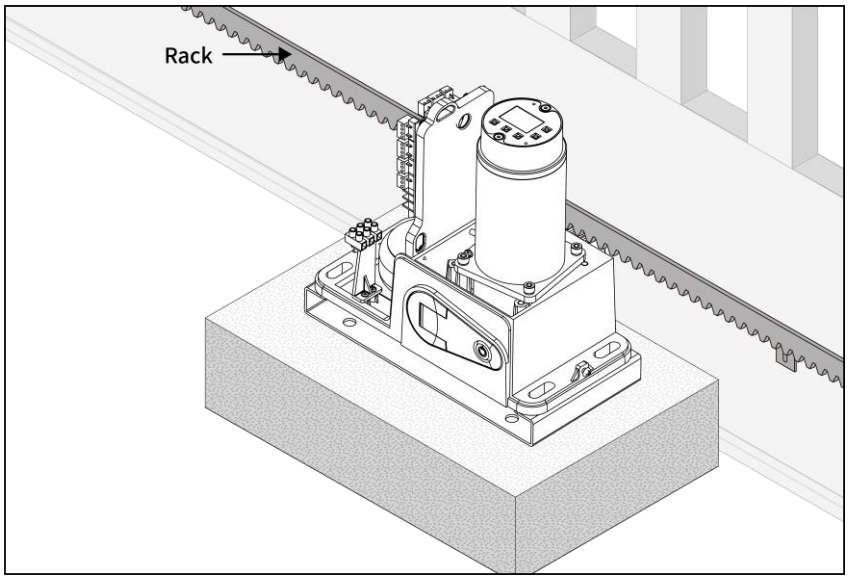


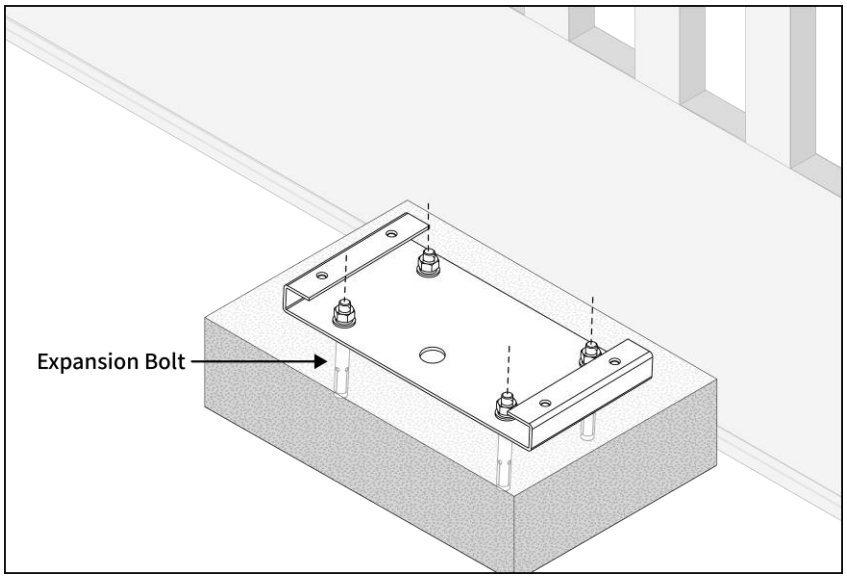
Installation

STEP 3

Determine the Position of the Opener

- Place the base plate on the concrete pad, then place the opener on the base plate.
- Position the rack against the gate. Adjust the opener's position to ensure that the rack teeth are fully engaged with the gear.
- Remove the opener from the base plate. Mark the locations for the four expansion bolts based on the mounting holes on the base plate, and drill the holes with a 14mm (0.55") masonry bit.
- Firmly secure the base plate to the concrete pad with the expansion bolts.



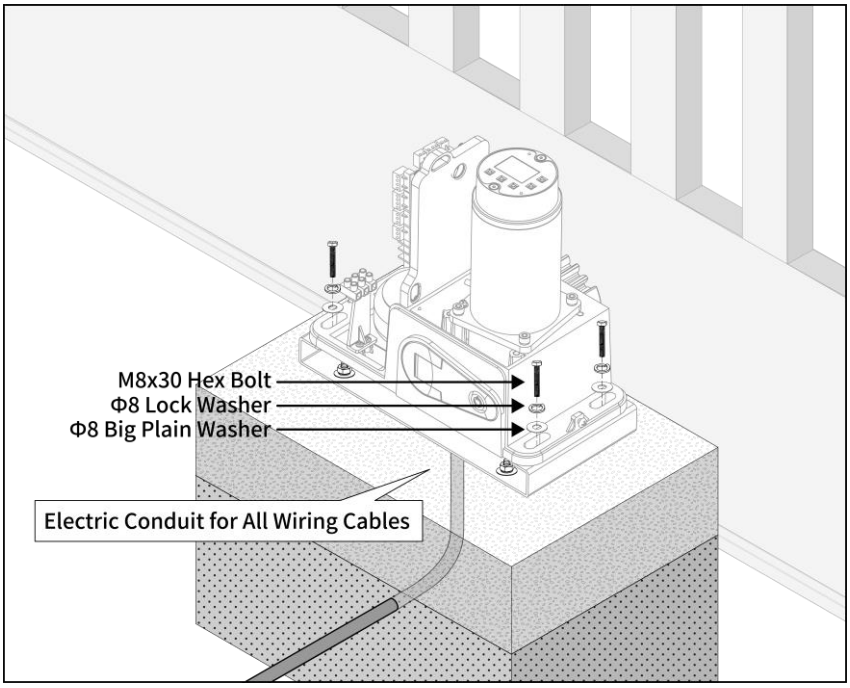


Installation

STEP 4

Install the Opener

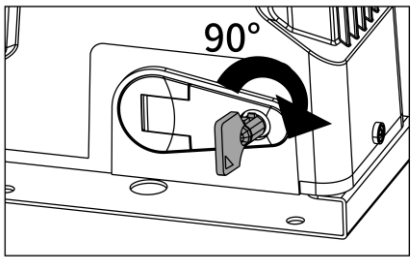
- Attach the opener to the base plate, ensuring that it is perfectly parallel to the gate. Secure it to base plate with M8x30 Hex Bolts, Φ8 Lock Washers, and Φ8 Big Plain Washers.
- DO NOT over tighten the bolts, as further adjustments may be needed later.

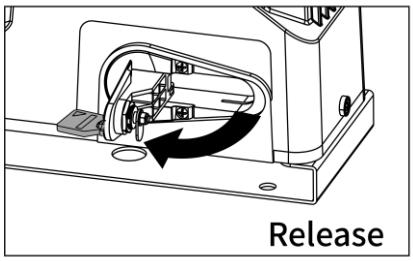


STEP 5

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.



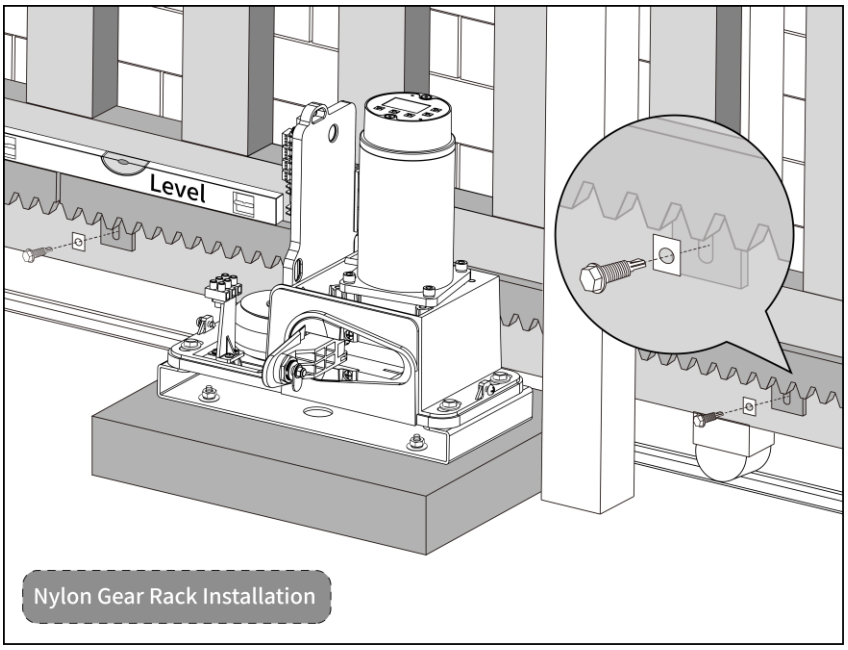


Installation

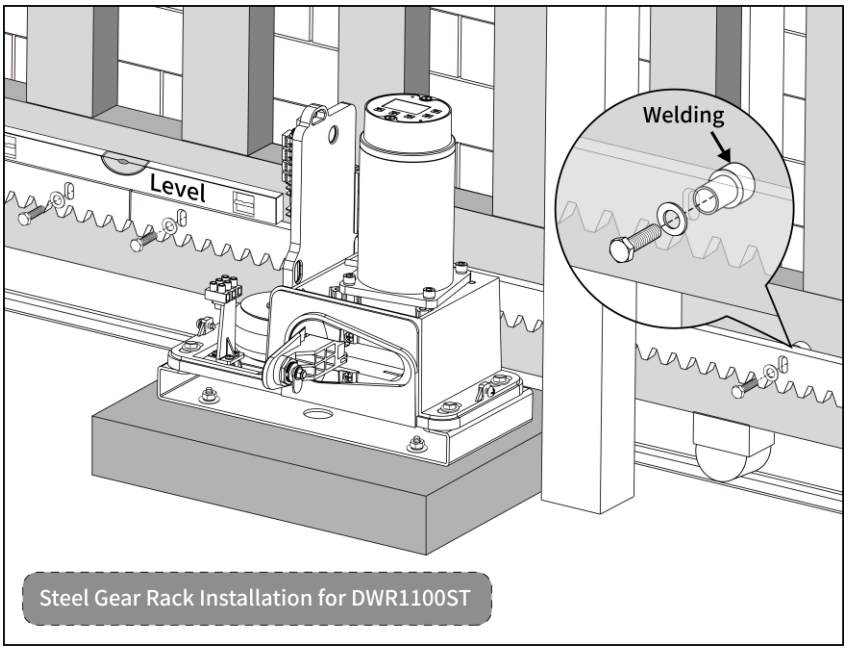
STEP 6

Fit the Rack

- Place the rack on the gear, ensuring that it is level and fully engaged with the gear teeth across their entire thickness.
- Maintain a 1mm (0.04") gap between the rack and the gear to prevent the weight of the gate from affecting the opener.
- Secure the nylon gear rack to the gate with the included self-threading screws and plates. For the DWR1100ST with the optional steel gear rack (sold separately), first weld the rack nuts to the gate, then fasten the steel gear rack using the hex bolts and plain washers.
- Repeat the same steps used for the first rack section to install the remaining sections until the desired length is reached.
- Manually open and close the gate to ensure that the gate moves smoothly with the gear rack installed.
- Cut away any excess length of the rack. (*Note: the rack must be longer than the actual travel distance of the gate.*)



Nylon Gear Rack Installation



Steel Gear Rack Installation for DWR1100ST

NOTES:

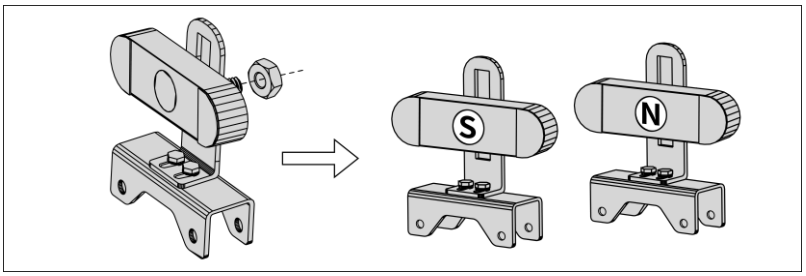
- *The steel gear rack is compatible only with the DWR1100ST sliding gate opener.*
- *Extra TOPENS original RNH2 & RNH4 Heavy Duty Nylon Gear Racks and SR02 Heavy Duty Steel Gear Rack are available on the TOPENS website (www.topens.com) and Amazon.*

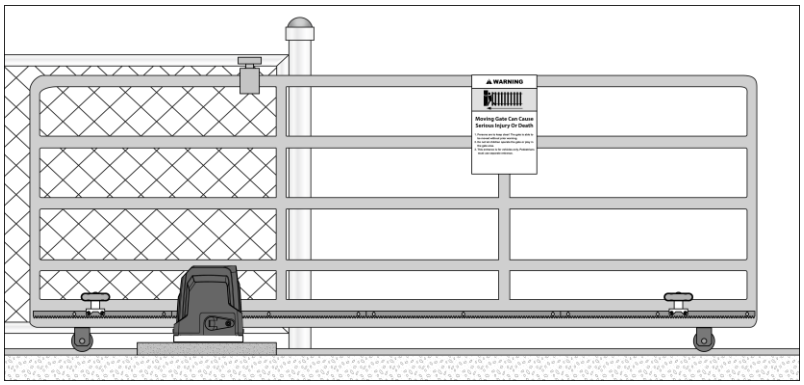
Installation

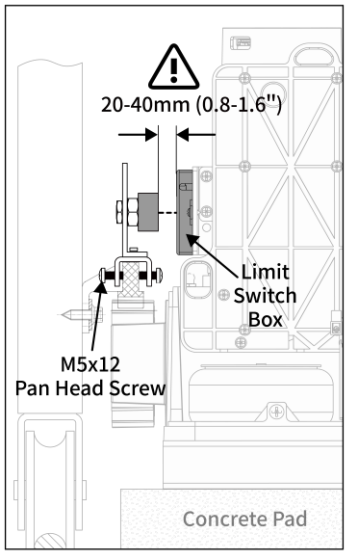
STEP 7

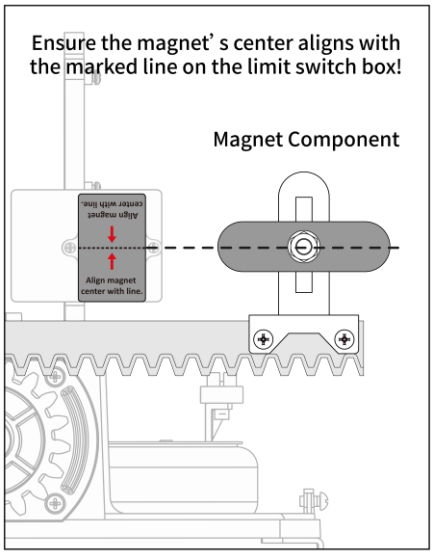
Install the Magnets

- 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.
- Secure the magnet brackets to the rack with M5x12 Pan Head Screws, ensuring that the N and S magnets are about 20-40mm (0.8-1.6") away from the limit switch box. Fine-tune the opener's position if necessary, and then securely tighten all the bolts.
- Adjust the magnets to ensure that their centers are aligned with the marked line on the limit switch box.









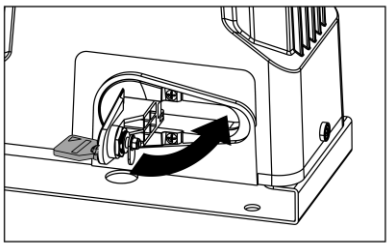
NOTES:

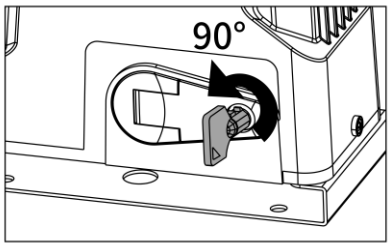
- *Precise installation of the magnets ensures accurate control of the gate's opening and closing positions. You can adjust the open / close limit positions according to your needs.*
- *Improper installation of the magnets may cause the gate to crash into the positive stops, posing a significant safety 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 8

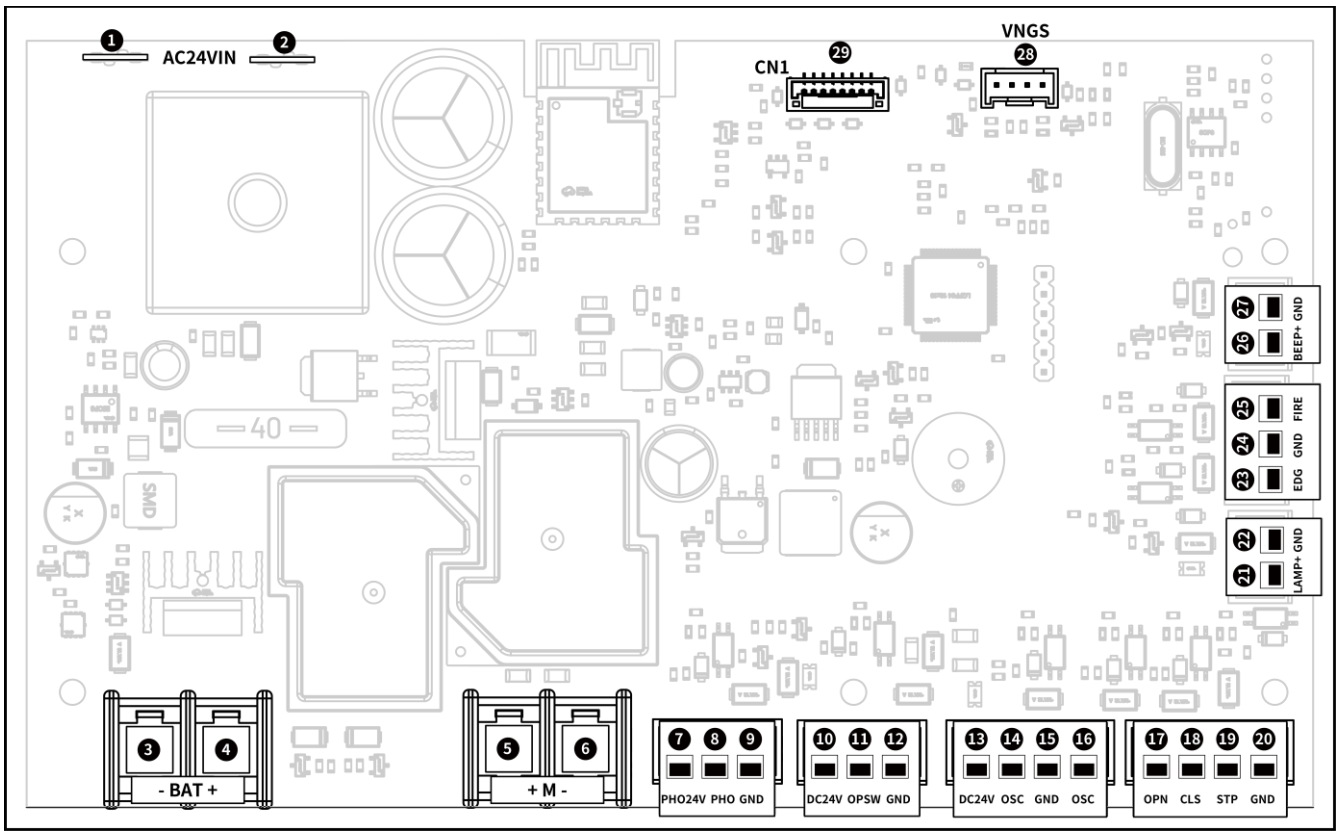
Engage the Clutch

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



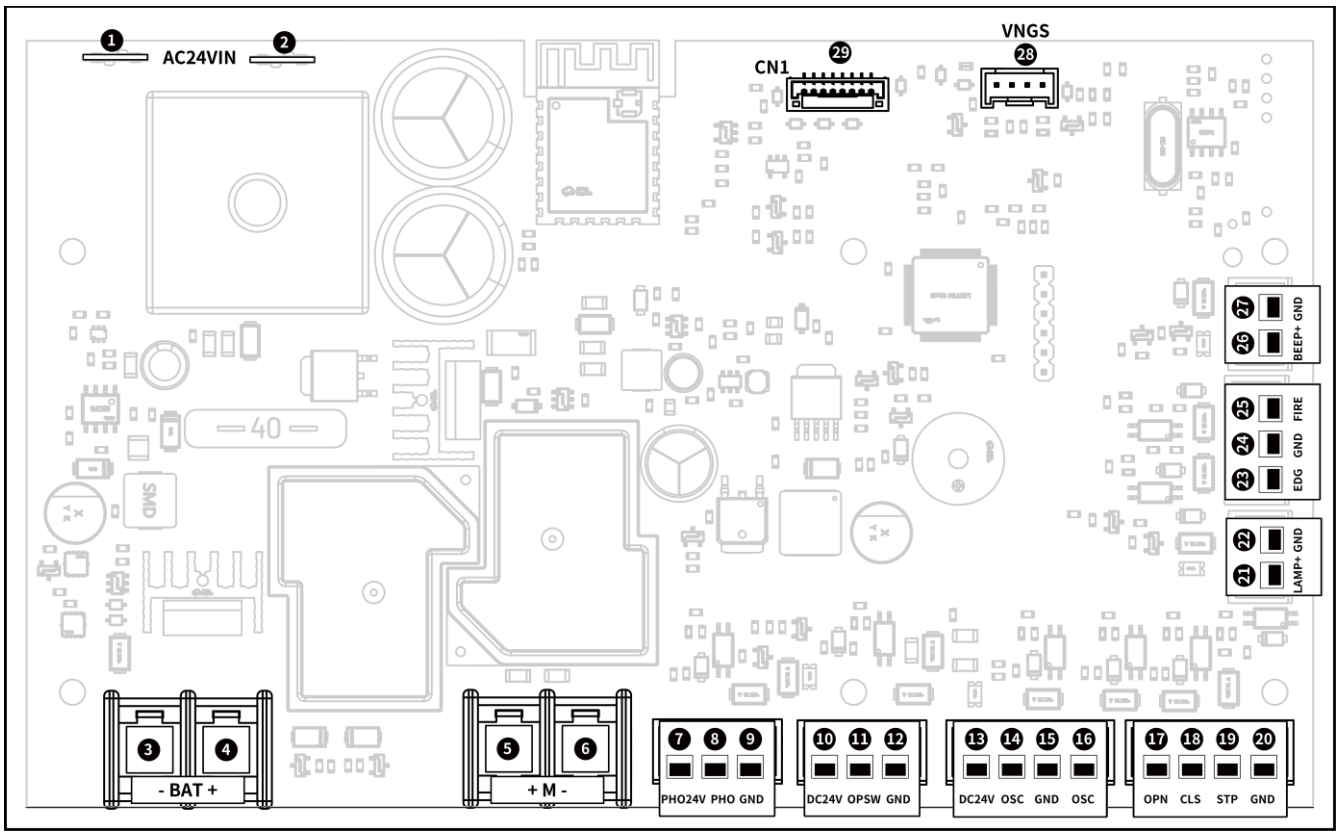


Control Board Terminal Functions



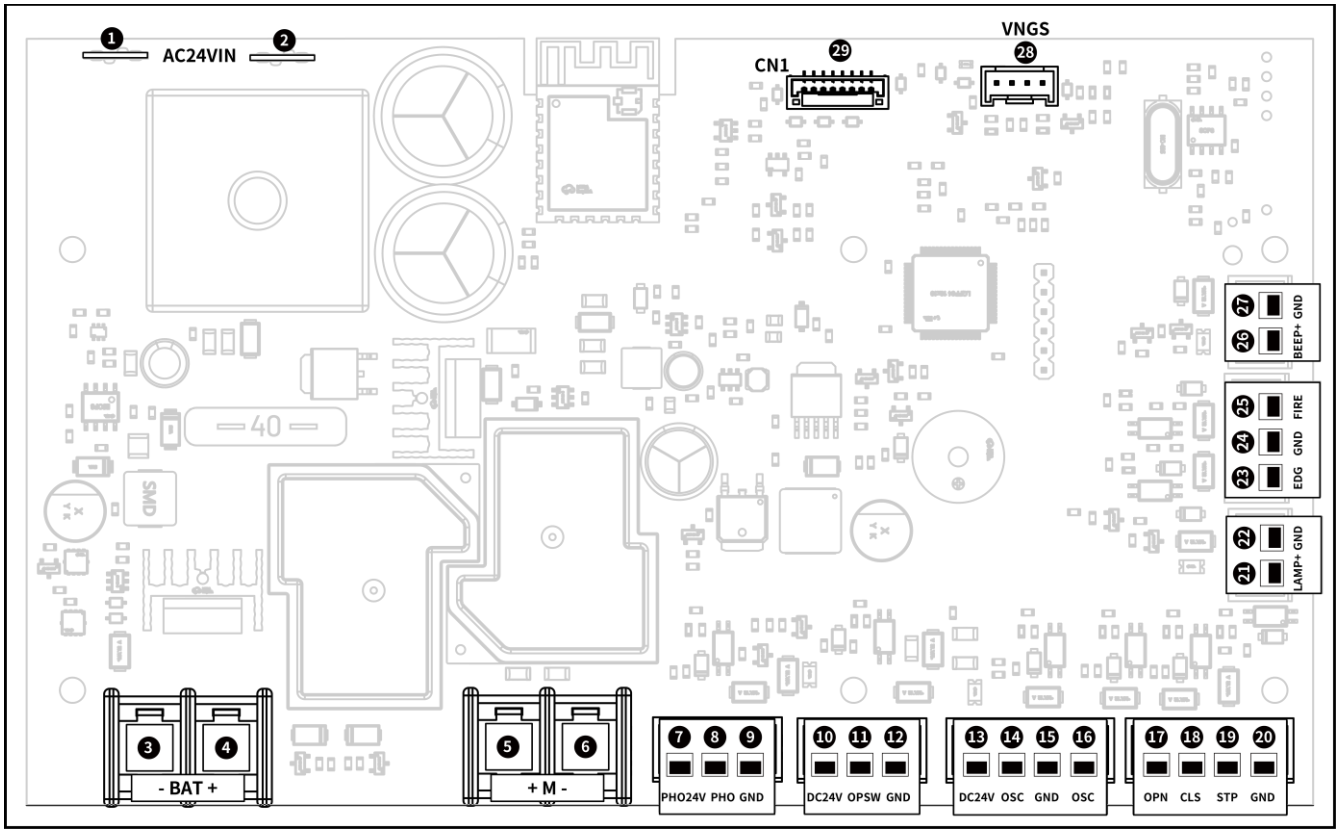
Terminal	Function
① ② "AC24VIN"	Input terminals for transformer, connected to the wires of the transformer.
③ ④ "-BAT+"	Input terminals for 24VDC power, typically connected to the negative and positive terminals of a 24VDC battery or 24VDC power supply, providing power to the entire system.
⑤ ⑥ "+M-"	Output terminals for motor control, connected to the red and yellow wires of the motor respectively.
⑦ "PHO24V" 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" 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" ⑫ "GND"	Provide 24VDC voltage output to exit wand. The total current (including terminals ⑬ and ⑮) should be less than 500mA.
⑪ "OPSW" ⑫ "GND"	Receive the signal input of the gate opening, usually connected to the normally open output of a vehicle sensor.
⑬ "DC24V" 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
⑭ / ⑯ "OSC" ⑮ "GND"	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).
⑰ "OPN" ⑳ "GND"	Control gate operation through a normally open dry contact signal input, typically connected to a push button to open the gate.
⑱ "CLS" ⑳ "GND"	Control gate operation through a normally open dry contact signal input, typically connected to a push button to close the gate.
⑲ "STP" ⑳ "GND"	Control gate operation through a normally open dry contact signal input, typically connected to a push button to stop the gate.
㉑ "LAMP+" ㉒ "GND"	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.
㉓ "EDG" ㉔ "GND"	Receive signal input from an edge sensor and operate on a normally opened (NO) input basis.
㉕ "FIRE" ㉔ "GND"	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
㉖ "BEEP+" ㉗ "GND"	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 a display (hereinafter referred to as "display board"). 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.*

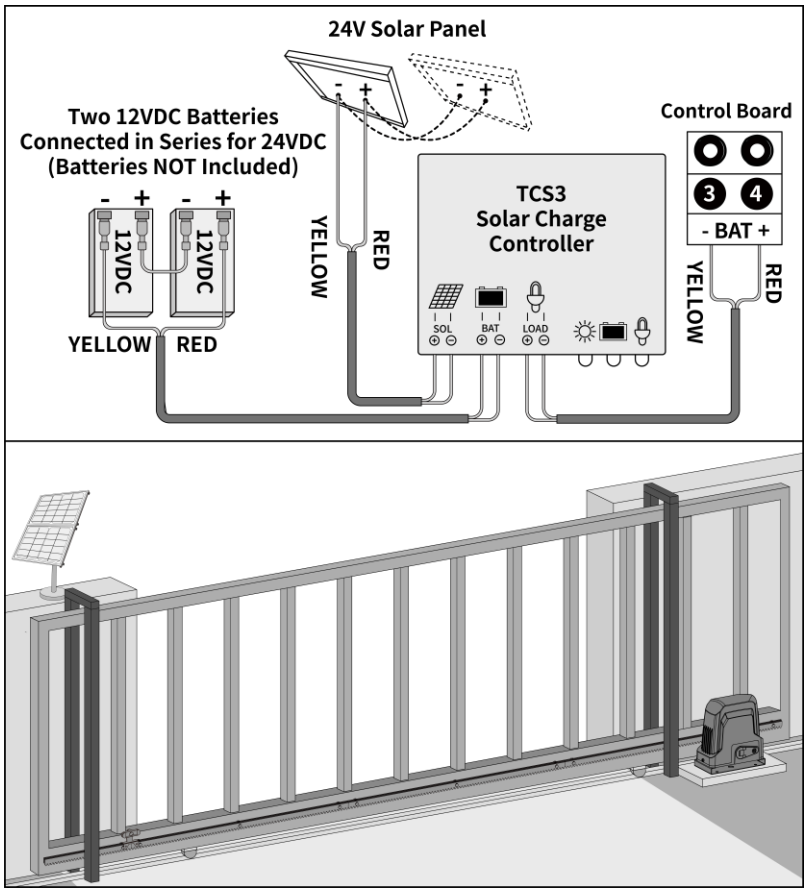
Connect the Power Supply

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.



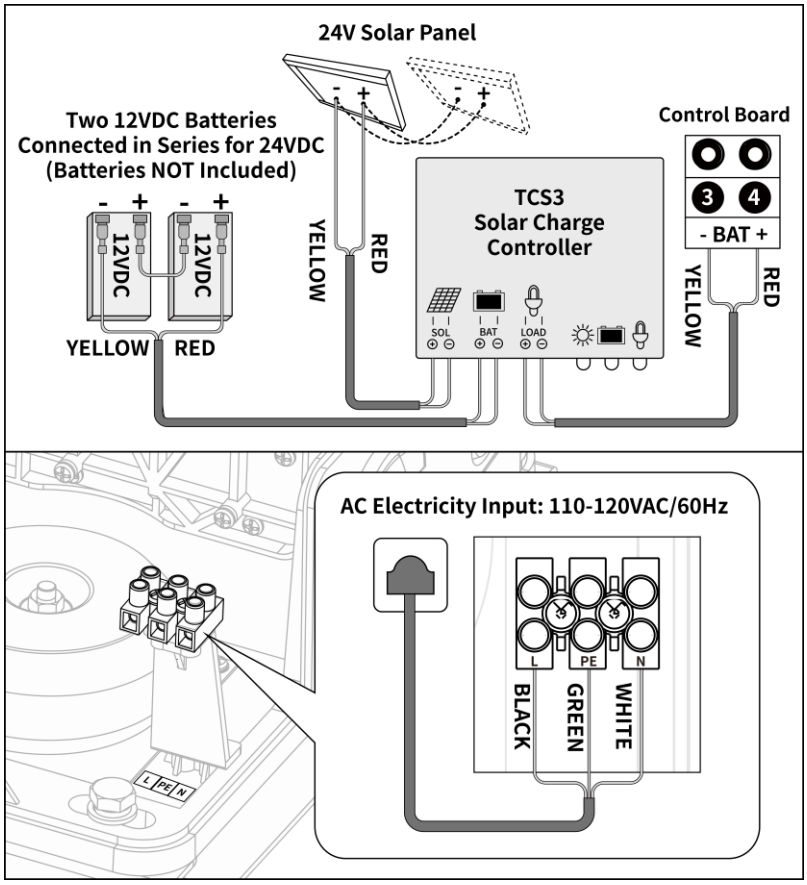
NOTES ABOUT THE BATTERY AND SOLAR PANEL
◆ *The batteries should be waterproof, or they should be placed in waterproof housing.* ◆ *The TCS3 Solar Charge Controller supports a maximum solar panel power of 80W, exceeding this limit may cause damage to it.* ◆ *If the gate opener is solely powered by battery 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.*

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

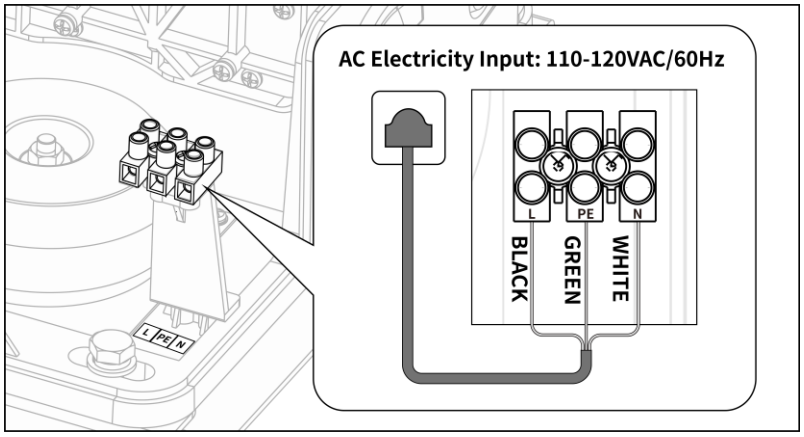
- *The batteries should be waterproof, or they should be placed in waterproof housing.*
- *The TCS3 Solar Charge Controller supports a maximum solar panel power of 80W, exceeding this limit may cause damage to it.*
- *If the gate opener is powered by backup batteries and utilizes both AC electricity 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

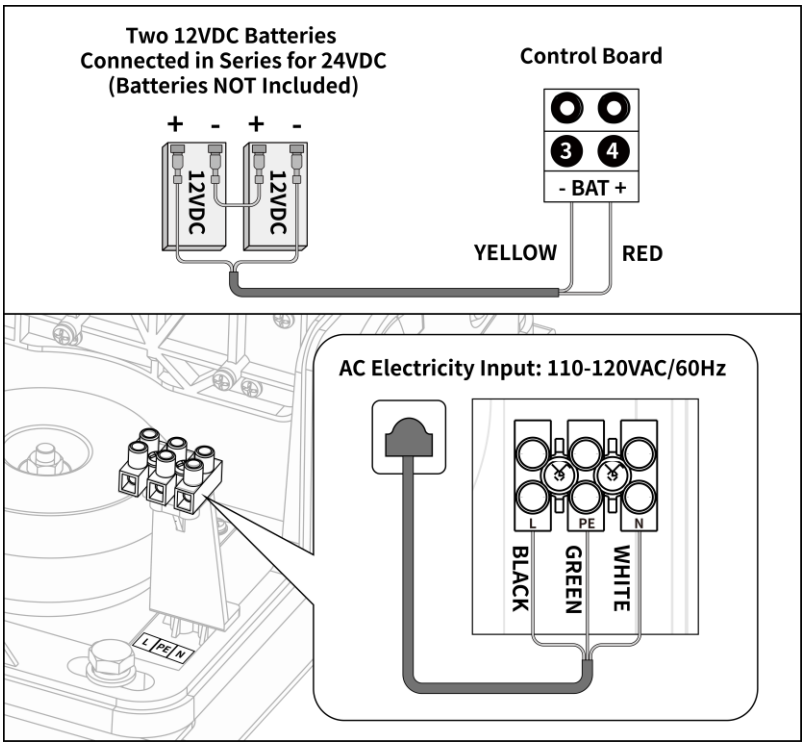
- The specification of the power cord is 3C×0.75mm^2 (18AWG).
- Connect the live wire (black), neutral wire (white) and earth wire (green) of the power cord to the "L", "N" and "PE" terminals, respectively.
- Plug the power cord into an electrical outlet.



Power Mode 4

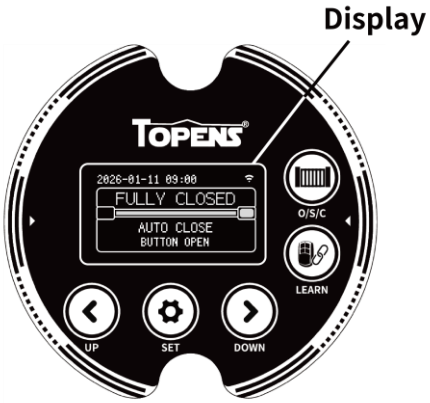
By AC Electricity and Back-up Batteries

- 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.



Display Board Introduction

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



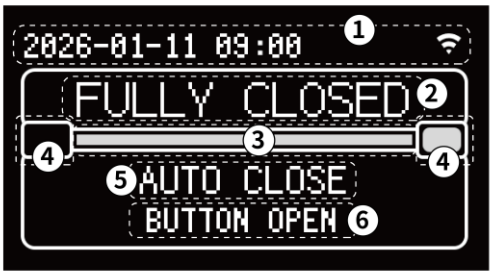
Function of Buttons on the Display Board

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.



Display Introduction

① Show "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 Show the current operating status of the gate opener.

③ Show 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 Show the trigger cause for the current state of the gate opener. If an error occurs, this line shows the error message.

⑥ Show 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

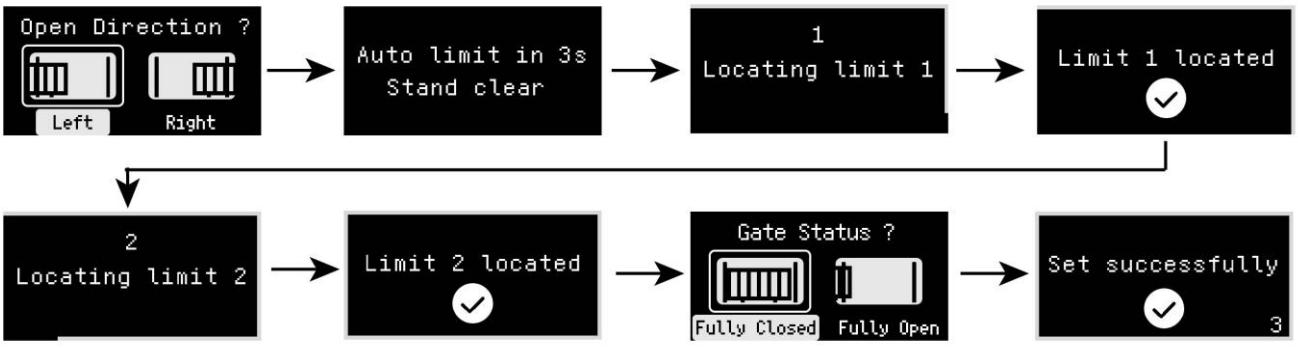
WARNING
◆ *The magnets have no polarity restrictions and can be fitted on either side. Leave some space at both ends of the gate for proper buffering.* ◆ *Perform the limit learning procedure before operating the device for the first time after power-on.*

Learn Limit Positions

- Disengage the clutch, manually move 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 display lights up. If not, adjust the magnet brackets until the limit indicator / limit icon lights up.
- Manually move 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 display 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 appear.*

- 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 display will show "Locating failed. Relocate later!". Please ensure that limit learning is complete before configuring other functions.*

Set the Open / Close Limit Positions

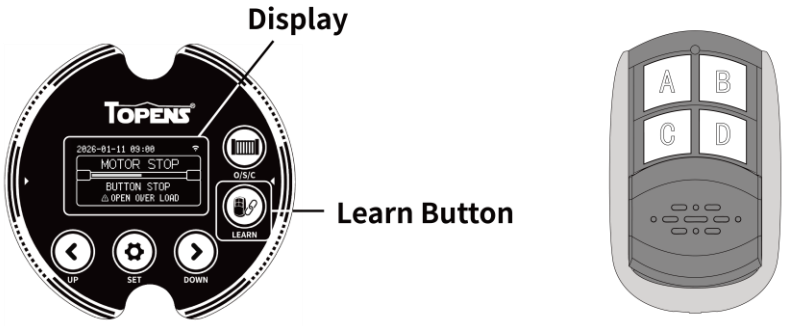
Adjust Limit Positions

- Press the "O/S/C" button on the display board to test the gate operation.
- If the gate does not open fully, disengage the clutch and slightly move the open magnet bracket 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 bracket 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 bracket, 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 display 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 display board or the TOPENS app. Please refer to the configuration steps in the "Configure the Control Board" 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. Each gate opener can be programmed with only one button, and only that button will operate it.

◆ 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 Mode" 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" 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 remote controls are not working, repeat the programming steps below for each remote control.

Enter Programming Mode

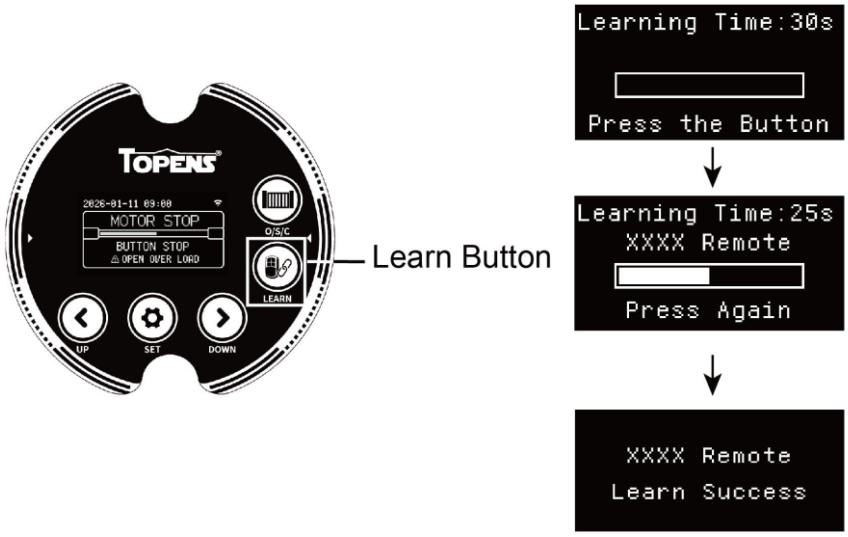
- Ensure the display is on, then press the "LEARN" button, a short beep will sound and the display will show a 30-second countdown (Learning Time: 30s, 29s...), indicating that the gate opener is now in programming mode. Please complete remote programming before the countdown ends.

NOTE: *If the display is off, pressing the "LEARN" button will only produce a short beep, and the display 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 display 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% and no beep will sound after the first press. In this case, press the same remote button repeatedly until the progress bar reaches 50% and a long beep sounds.*



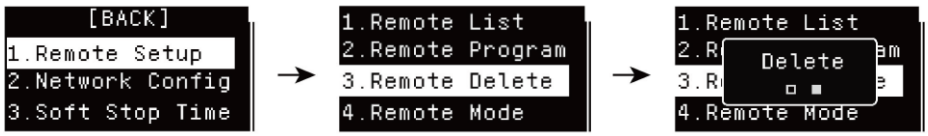
Program the Remote Control

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.

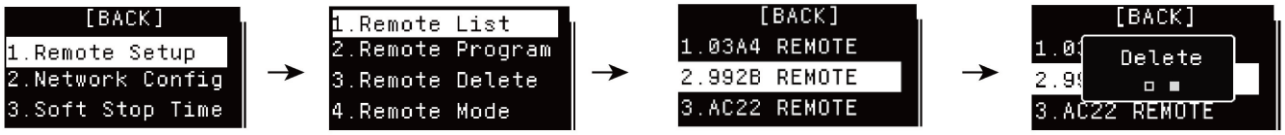
Erase All Programmed Remote Controls

- 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 display will show 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 control will be erased successfully.



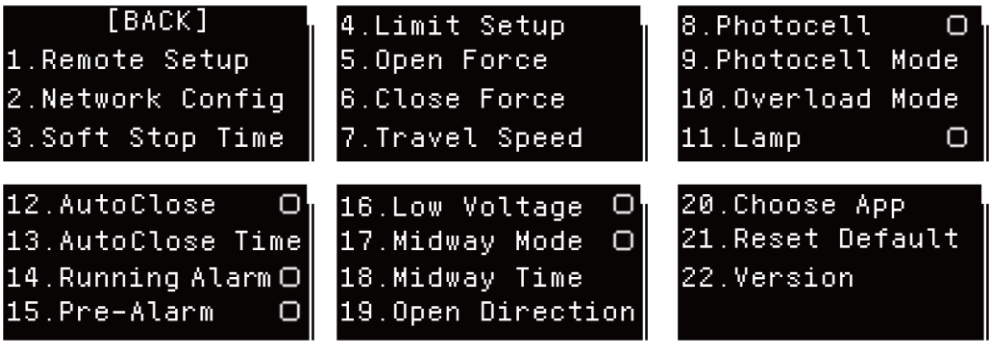
Configure the Control Board

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 display 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 display will enter the main settings menu.

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



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: Show 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.

Display	Meaning
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

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 display 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 display 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.

Display	Meaning
0s	No soft stop.
3s	Soft stop time is 3 seconds (Factory Default Setting).
5s	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

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 display 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.

Display	Meaning
1 Level	Minimum Force
5 Level	Level 5 Force (Factory Default Setting)
9 Level	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 display 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.

Display	Meaning
1 Level	Minimum Force
5 Level	Level 5 Force (Factory Default Setting)
9 Level	Maximum Force

Configure the Control Board

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 display 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.

Display	Meaning
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.

Display Icon	Meaning
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 display 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.

Display	Meaning
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

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 display 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.

Display	Meaning
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.

Display Icon	Meaning
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. You must operate the opener to clear the alarm; only then will the auto close function resume in subsequent operations.

Display Icon	Meaning
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 display 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.

Display	Meaning
5s	The auto close time is 5 seconds (Min. Auto Close Time).
15s	The auto close time is 15 seconds (Factory Default Setting).
120s	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.

Display Icon	Meaning
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.

- 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.

Display Icon	Meaning
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 continuously for 3 seconds if 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.

IMPORTANT NOTE: The gate opener will be locked out and inoperable until the input voltage recovers to above 23V, clearing the alarm and restoring operational control.

Display Icon	Meaning
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.
- Once the midway mode function is enabled, 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.

Display Icon	Meaning
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 display 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 midway time, you should enable the midway mode function.

Display	Meaning
3s	The midway time is 3 seconds (Min. Midway Time).
5s	The midway time is 5 seconds (Factory Default Setting).
10s	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 on the display progress bar and the gate animation shown on the app.
- After selecting the open direction, press the "SET" button to save the setting. The display 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.

Display	Meaning
Left	The gate operates to the left for opening (from the inside view of the property) (Factory Default Setting).
Right	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. Choose App", then press the "SET" button to enter the Choose App 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 display 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.

Display	Meaning
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

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. Choose App" and "19. Open Direction". The display 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

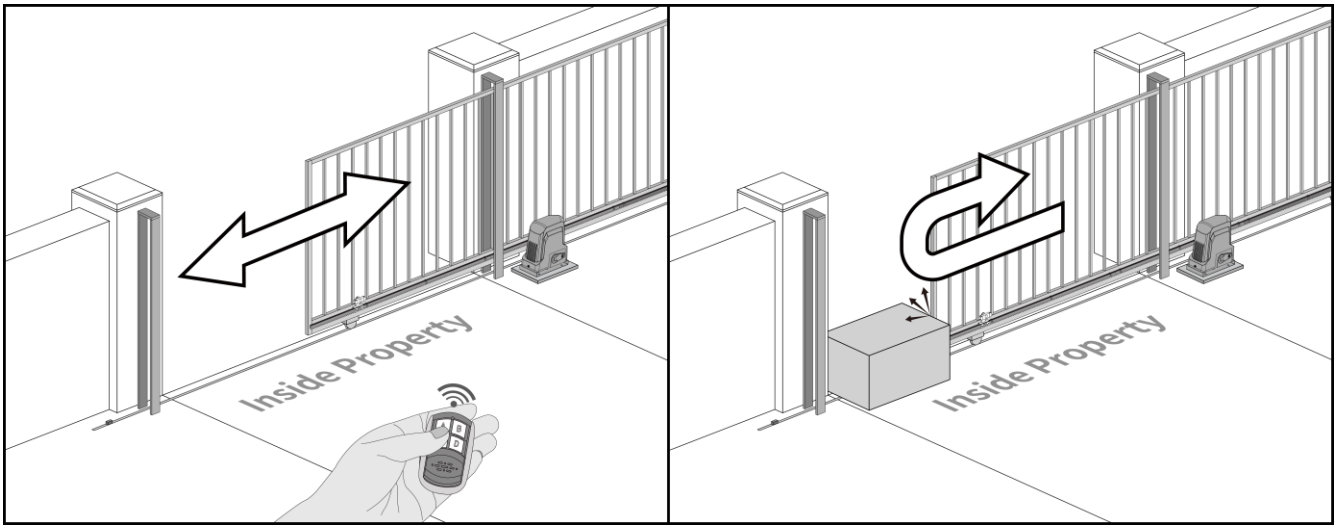
This force should be high enough to ensure the gate reaches both open and close limits without reversing unnecessarily or causing frequent interruptions, but low enough to prevent injury if an obstruction is encountered. The appropriate stall force settings depend on the gate's length and weight, so 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" 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.*

Display Error Message & Trigger Cause

If your gate opener does not function properly after installation, the display will usually show an error message. If an error appears, follow the corresponding solutions in the table below. If no error appears, or if 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.	**Step 1 Check Track and Rollers:** Clear debris from the track, and check rollers for sticking or wear. Lubricate or replace rollers if needed. **Step 2 Adjust Stall Force:** 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. **Step 3 Check Control Board:** 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; Photo beam is blocked or sensor is obstructed; Photocell sensor failure.	**Step 1 Verify Photocell Function Setting:** Check if the photocell function is enabled. If it is enabled but no photocell sensor is connected, disable the function to avoid false alarms. **Step 2 Check Photocell Sensor Connection:** Ensure the sensor is intact and securely connected to the control board. **Step 3 Check Photocell Sensor Blockage:** Ensure that the photocell beam is not blocked and the sensor is not obstructed. Clear any objects blocking the photocell sensor. **Step 4 Check Control Board:** Inspect the control board and replace it if needed.
LOW VOLTAGE	Input voltage is below 18V.	**Powered by Battery Only:** **Step 1 Check Battery Voltage:** If the battery voltage is below 18VDC, wait until the batteries are fully charged. If the error still persists after charging, replace the batteries. **Powered by AC Electricity:** **Step 1 Check Power Supply:** Ensure that the power plug is fully inserted and the power cord is not damaged. **Step 2 Evaluate Gate Load:** 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.

Display Error Message & Trigger Cause

Error Message	Meaning	Possible Solution(s)
OVER TIME	Motor is running over 90 seconds.	**Step 1 Check for Free Sliding:** Disengage the clutch and ensure the gate slides freely without any obstruction. **Step 2 Check Limit Switch Connection:** Ensure that the limit switch is securely connected to the control board. **Step 3 Check Magnets:** Ensure that the magnets are mounted to the correct positions. **Step 4 Adjust Magnets:** 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.
LIMIT ERROR	Limit sensor failure.	**Step 1 Check Limit Learning:** 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. **Step 2 Check Limit Switch Connection:** Ensure that the limit switch is intact and securely connected to the control board. **Step 3 Check Limit Switch Functionality:** 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 display) light up simultaneously, the control board is normal and you need to replace the limit switch. **Step 4 Check Control Board:** Inspect the control board and replace it if needed.
MIDWAY ERROR	Gate is not fully closed.	**Step 1 Verify Gate Closed Position:** 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.
MOTOR ERROR	Motor failure or Hall sensor failure.	**Observe Opener Running Status:** ◆ If the opener runs for 6 seconds and then stops, the Hall sensor (integrated on the display board) may be faulty. Replace the display board if needed. ◆ If the opener runs abnormally (e.g., no run, runs jerkily, or abnormal speed): **Step 1 Check Motor Connection:** Verify that the motor power cord is intact and securely connected to the control board. **Step 2 Check for Free Sliding:** Disengage the clutch and ensure that the gate slides freely without any obstruction. **Step 3 Check Control Board:** Inspect the control board and replace it if needed.

Display 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 mode 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

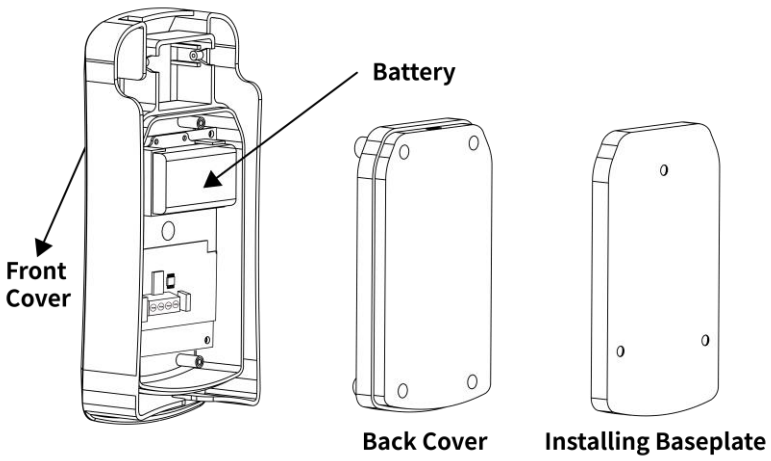
NOTES
◆ *This section only covers the programming and wiring of accessories with the control board. For detailed operations, please refer to the corresponding accessory user manual.* ◆ *This gate opener is not compatible with any TOPENS wireless accessories except for the TKP3 Wireless Keypad.* ◆ *It 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

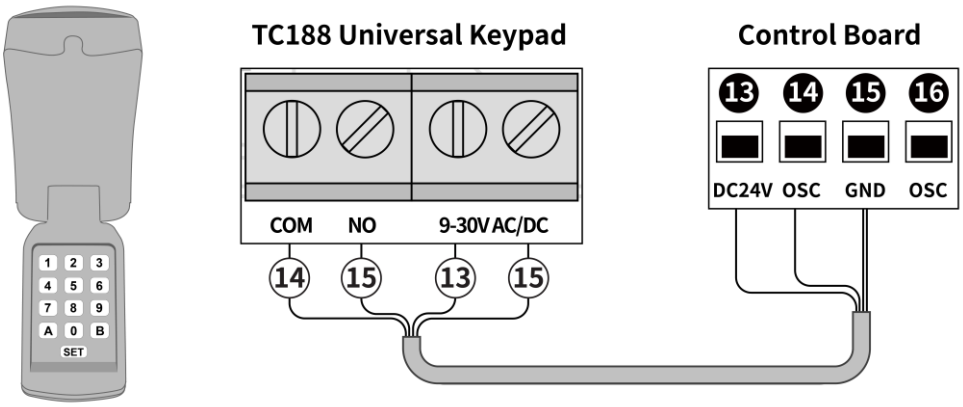


Step 2 Wire Connection

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 mm² (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

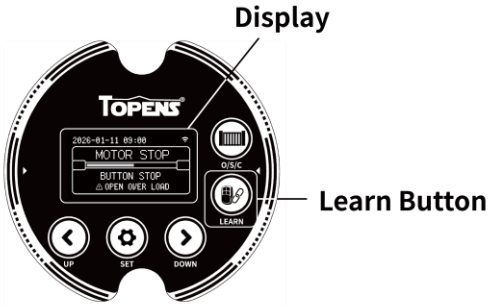
- Press the "LEARN" button, a short beep will sound and the display will show a 30-second countdown (Learning Time: 30s, 29s...), indicating the gate opener is now in programming mode. Please complete keypad programming before the countdown ends.
- Press the "OK" button on the keypad, you will hear a 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 display 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 the "PIN" button, input the old six digits password, and then press the "PIN" button again.
- Input the new six digits password and press the "PIN" button to confirm. The display will show "Password update successful".
- Press "PIN" "new six digits password" and then press the button "OK" to operate the gate opener.



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

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.*

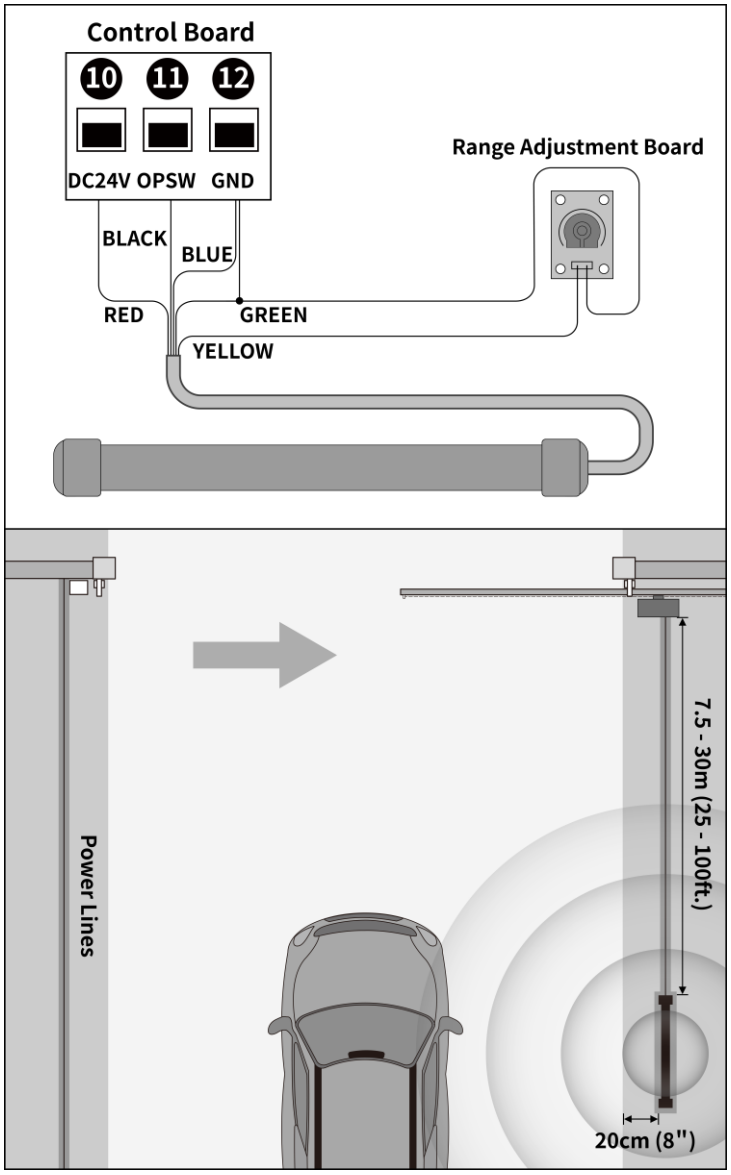
Connect the Accessories

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

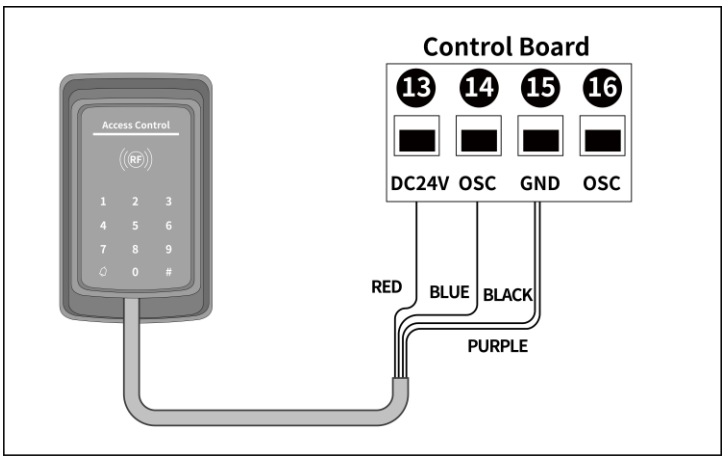
- Install the wand 7.5m to 30m (25ft. to 100ft.) away from the gate, and bury it 5cm (2") deep from ground and 20cm (8") from the driveway edge.
- Install the wand away from any power lines to avoid interrupting the detection signal.
- It is strongly recommended to enable the auto close function by referring to the "Configure the Control Board" 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

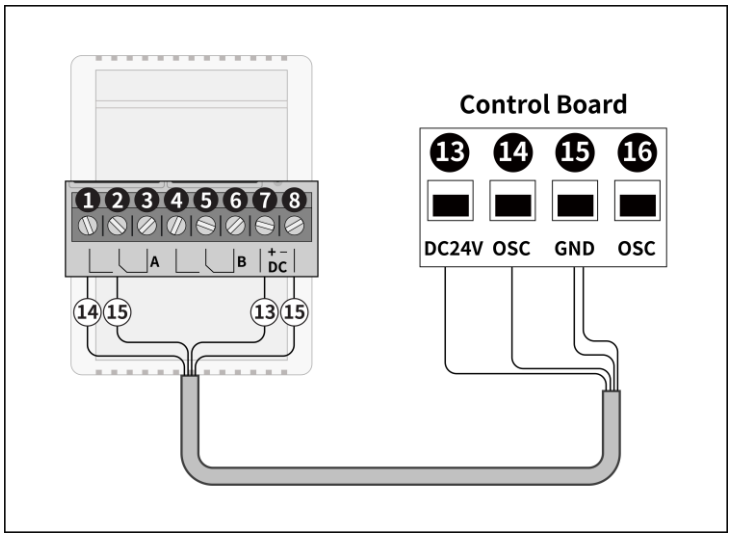
- Turn off the power to the gate opener before wire connection.
- Connect the wires from the JP2 terminals of the wired keypad to the control board.
- Connect the BLUE wire to control board terminal ⑭ "OSC".
- Connect the PURPLE and BLACK wires to control board terminal ⑮ "GND".
- Connect the RED wire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

NOTES:

- *A 4C x 0.3 mm² (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 ❶ and ❷ terminals to control board terminals ⑭ "OSC" and ⑮ "GND", respectively.
- Connect the ❼ and ❽ "+DC-" terminals to control board terminals ⑬ "DC24V" and ⑮ "GND", respectively.

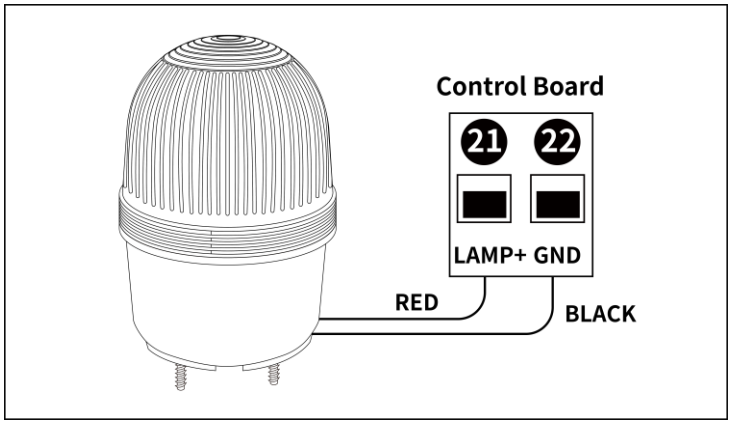
NOTES:

- *A 4C x 0.3 mm² (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



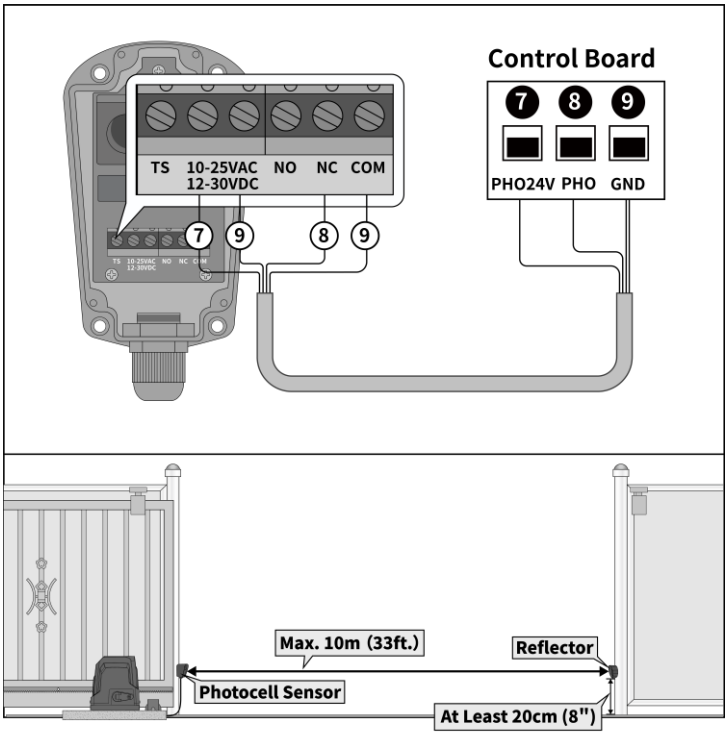
Wire Connection

- Enable the lamp function as instructed in the "Configure the Control Board" or "TOPENS Smart Sliding Gate Opener App User Manual" section.
- 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 mm² (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" 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.
- Position the reflector to align with the mounted photocell sensor, then power on the gate opener. If the working light on the photocell sensor turns green while the gate is closing (with no obstruction), it 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 mm² (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.*

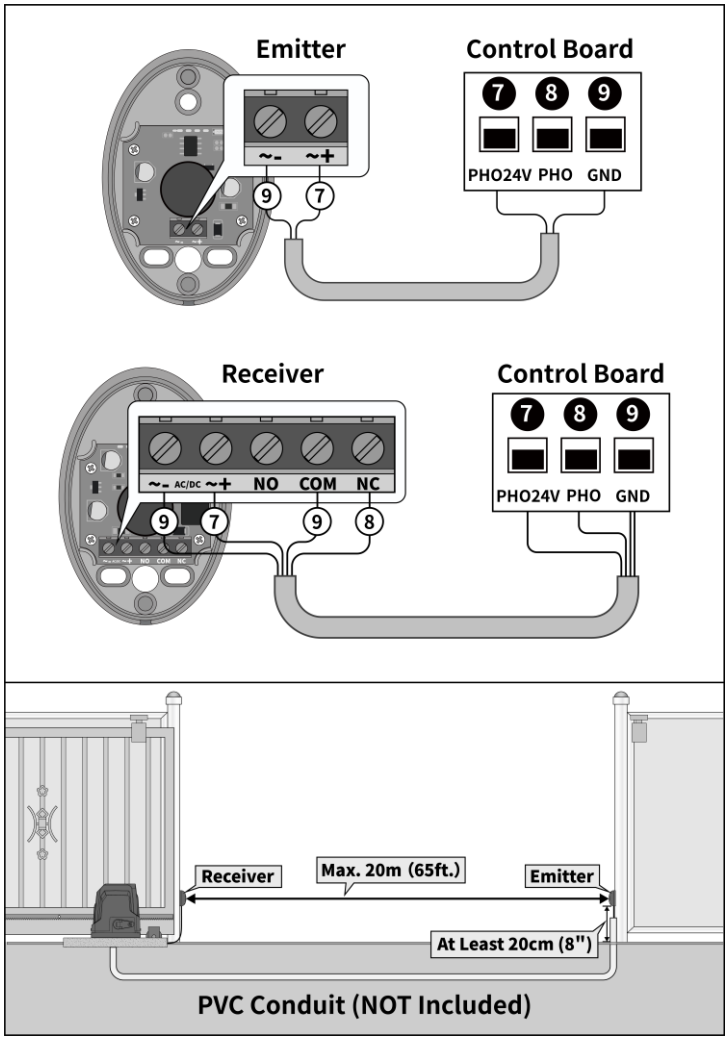
Connect the Accessories

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" 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 same side as 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 mm² (22AWG) cable. Connect the receiver to the gate opener with a 4C x 0.3 mm² (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.*

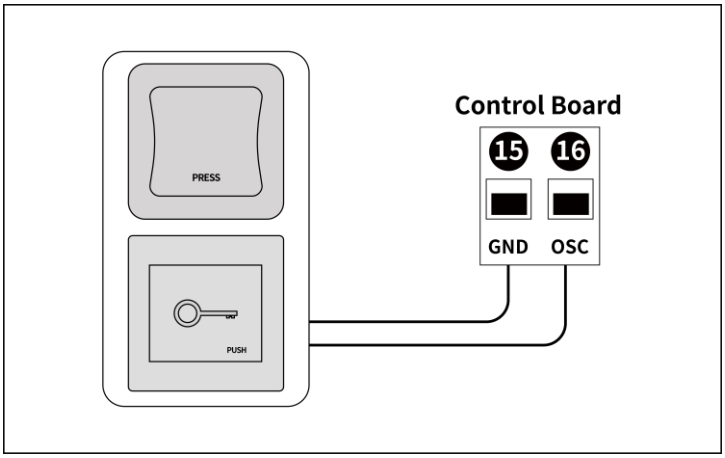
Connect the Accessories

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 mm² (22AWG) cable is required for the wire connection. It is included with TC148, but NOT with TC147.*

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 and gears, and lubricate them as needed.

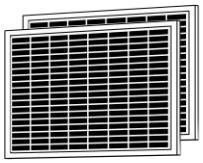
Battery Maintenance

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.

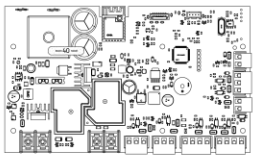
Monthly Obstruction Test

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



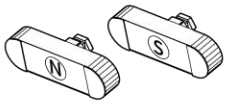
TSQ20W 20W
Solar Panel Kit



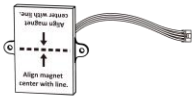
DCPYMJ WIFI001A
Control Board



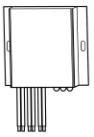
PYMJ Display Kit



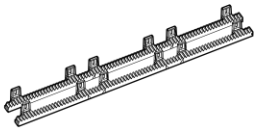
PYCGZT Limit Switch
Magnet



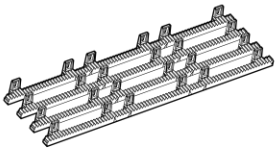
PYMJ Limit
Switch Kit



TCS3 Solar Charge
Controller



RNH2 Heavy Duty Nylon Gear Rack
(for DWR500ST/DWR1100ST)



RNH4 Heavy Duty Nylon Gear Rack
(for DWR500ST/DWR1100ST)

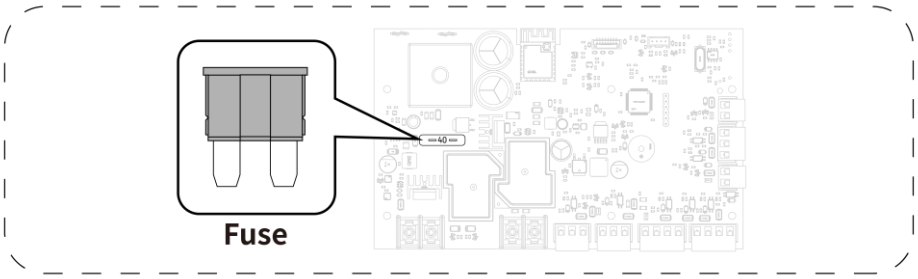


SR02 Heavy Duty Steel Gear Rack
(for DWR1100ST)

** Available on the TOPENS website (www.topens.com) and Amazon.*

Troubleshooting

If your gate opener does not function properly after installation and the solutions in the "Display 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.

Symptom	Possible Solution(s)
The opener does not run. The display is OFF.	**Step 1 Check Power Indicator:** 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 display board may be faulty and should be replaced if needed. **Step 2 Check Power Supply and Transformer Output (if connected with AC electricity):** ◆ Ensure that the power supply is connected properly and securely. ◆ 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. **Step 3 Examine Control Board Fuse:** 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.  **Step 4 Check Battery Voltage (if connected with battery):** ◆ 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. ◆ Directly connect the batteries to the control board terminals "-BAT+". Please turn off the power before making any wire connections. **Step 5 Check Control Board:** Inspect the control board and replace it if needed.

Troubleshooting

Symptom	Possible Solution(s)
The opener does not run. The display is ON.	**Step 1 Check Power Supply and Transformer Output (if connected with AC electricity):** ◆ Ensure that the power supply is connected properly and securely. ◆ 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. **Step 2 Examine Control Board Fuse:** 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. **Step 3 Check Battery Voltage (if connected with battery):** ◆ 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. ◆ Directly connect the batteries to the control board terminals "-BAT+". Please turn off the power before making any wire connections. **Step 4 Check Control Board:** Inspect the control board and replace it if needed.
The gate starts but immediately stops or reverses.	**Step 1 Check for Free Sliding:** Disengage the clutch and ensure that the gate slides freely without any obstruction. **Step 2 Adjust Stall Force:** Ensure that the open or close stall force is appropriate and not too low. **Step 3 Check Hall Sensor:** Verify that the display board (with integrated Hall sensor) is securely connected to the main control board. If the connection is secure but the issue persists, the control board may be faulty, otherwise, replace the display board. **Step 4 Check Control Board:** Inspect the control board and replace it if needed.
The gate opens but fails to close.	**Step 1 Check Limit Learning:** 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. **Step 2 Check Limit Switch Connection:** Ensure that the limit switch is intact and securely connected to the control board. **Step 3 Check Limit Switch Functionality:** 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 display) light up simultaneously, the control board is normal and you need to replace the limit switch. **Step 4 Check Control Board:** Inspect the control board and replace it if needed.

Troubleshooting

Symptom	Possible Solution(s)
The gate opens randomly.	**STEP 1 Check Trigger Cause shown on Display:** Confirm whether the problem is triggered by the remote control, the gate control device, or the app. **Triggered by Remote Control:** ◆ Check if the remote control buttons are stuck or damaged. ◆ 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. ◆ Replace the remote control battery and move away from possible sources of interference, then test the opener. ◆ If the problem persists, use a new remote control if needed. **Triggered by Gate Control Device:** ◆ Ensure that all control devices (e.g., push buttons, sensors) are securely connected to the control board. ◆ 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. **Triggered by App:** ◆ Check if the app was accidentally used on another device or if network issues are causing false signals. ◆ Review the app's operation logs, log out and log in again, and ensure the network is stable. ◆ If the problem still persists, uninstall and reinstall the app.

TOPENS Smart Sliding Gate Opener App User Manual



Download on the App Store

GET IT ON Google Play

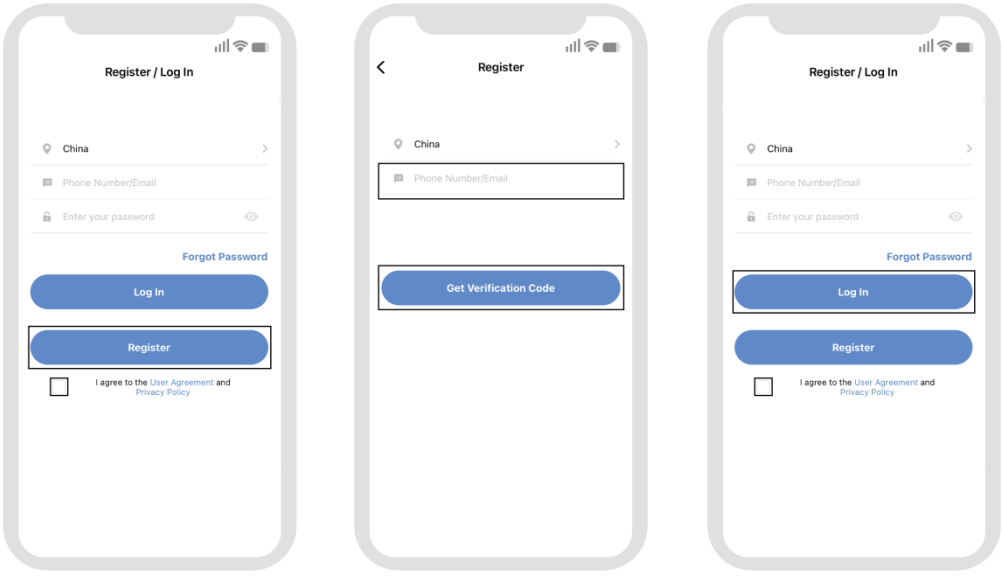
Download "TOPENS" via App Store or Google Play

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 display will show "NETWOTK UNCONFIG", "MOTOR STOP".



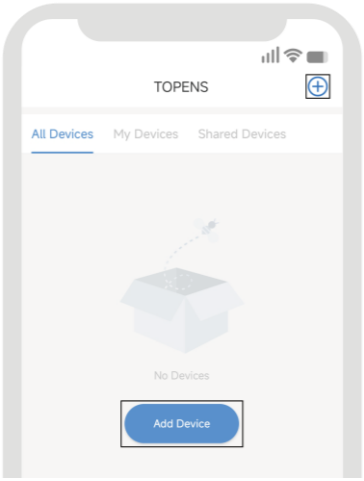
NOTES:

- *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.*
- *If no Wi-Fi network is available, use another phone or portable Wi-Fi device to provide hotspot to the opener and your phone for the initial network setup.*

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.



NOTES:

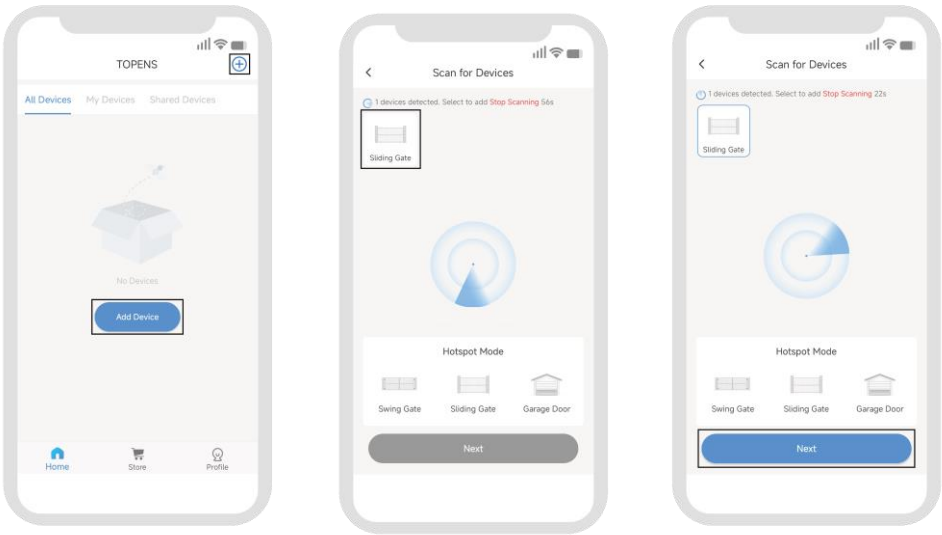
- *If the device has been paired with another mobile phone and you wish to re-pair it, reset the device using the "Network Config" function on the display board. This will enable the device to enter network configuration mode.*
- *After the opener is successfully added to the app following initial network configuration, you can control it via Bluetooth (approx. 20m / 66ft. range, subject to environmental conditions). No Wi-Fi or hotspot is required; simply ensure Bluetooth is enabled on your phone.*

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 display board for 3 seconds to enter the main settings menu. Select "2. Network Config", select "1. Bluetooth Mode", then press the "SET" button. The display 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.

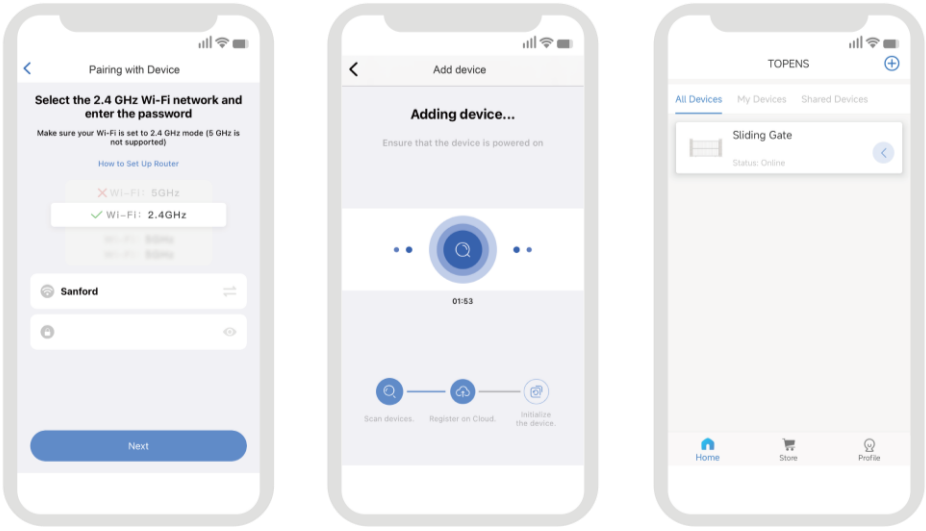
STEP 2: On the app's Home screen, tap "Add Device" or "+". Enable location and Bluetooth permissions, and ensure both Location Services and Bluetooth are turned on. The app will automatically scan for and detect the gate opener.

STEP 3: 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.



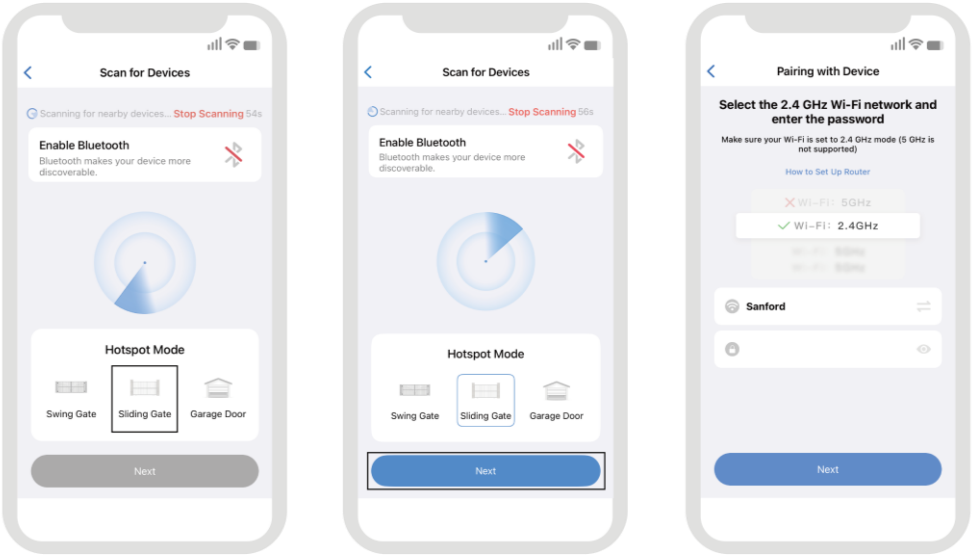
NOTE: *Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.*

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 display board for 3 seconds to enter the main settings menu. Select "2. Network Config", select "2. Hotspot Mode", then press the "SET" button. The display 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: On the app's Home screen, tap "Add Device" or "+". Enable location permissions and ensure Location Services are turned on. Select "Sliding Gate" under Hotspot Mode and tap "Next". (If a prompt appears asking to turn on Bluetooth, ignore it and proceed to the next step.)

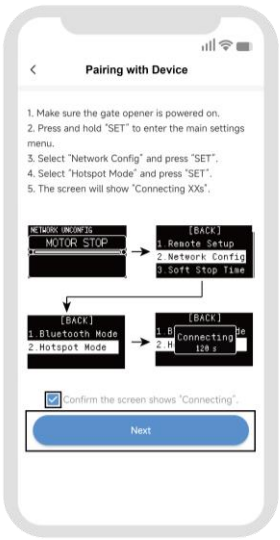
STEP 3: Input your Wi-Fi network name & password in the provided fields and tap "Next".

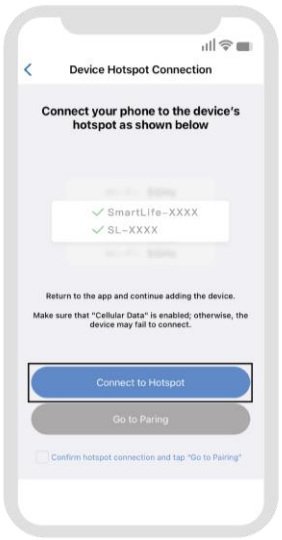


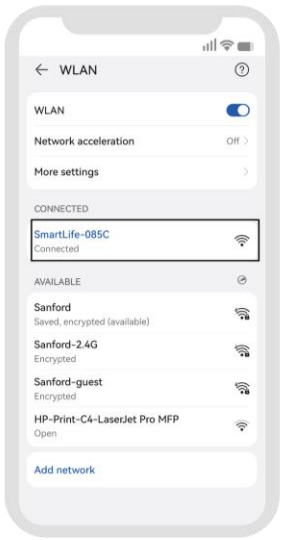
NOTE: *Please ensure that your Wi-Fi is set to 2.4GHz mode, as 5GHz is not supported.*

PART 1 Add the Sliding Gate Opener to the App

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

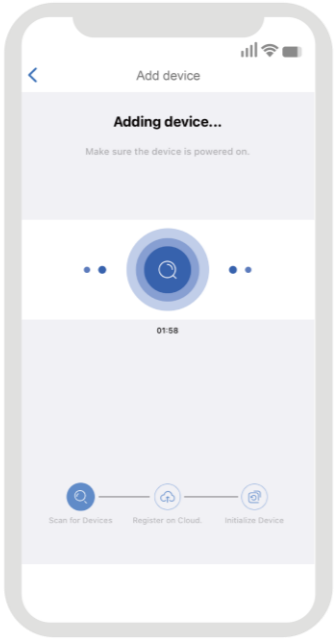








STEP 7: The app will start adding the sliding gate opener to your account. Please wait for the process to complete. Once the sliding gate opener is successfully added, it will appear on the app's home screen.



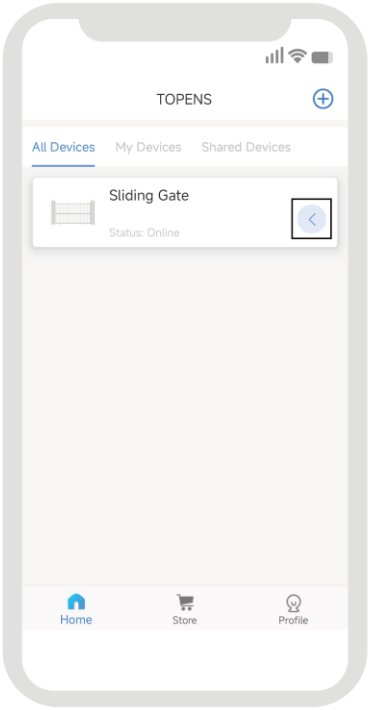


PART 2

Main Screen Introduction

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

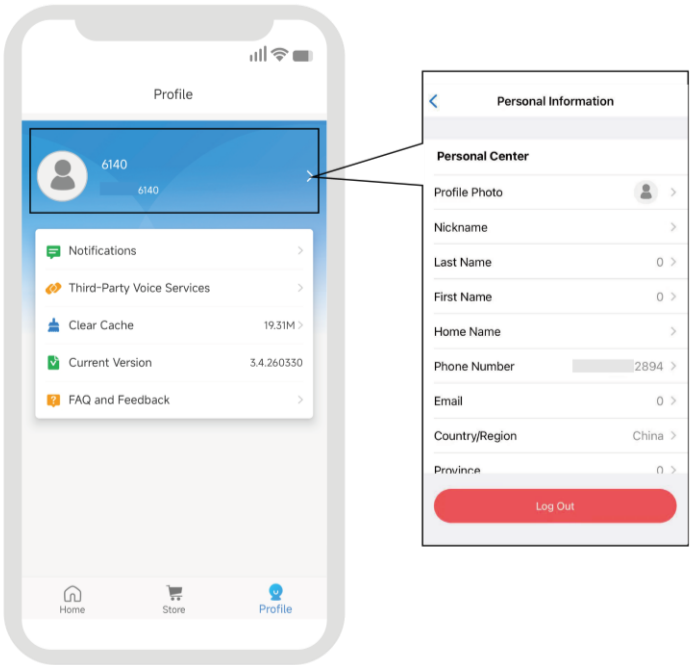
- Tap "Store" at the bottom, and you will be redirected to TOPENS's official website (www.topens.com).

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.

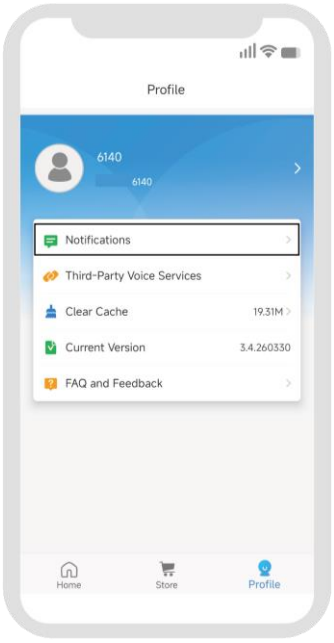


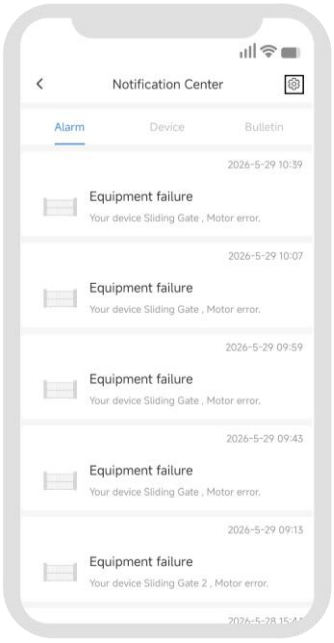
PART 2

Main Screen Introduction

Notification Center

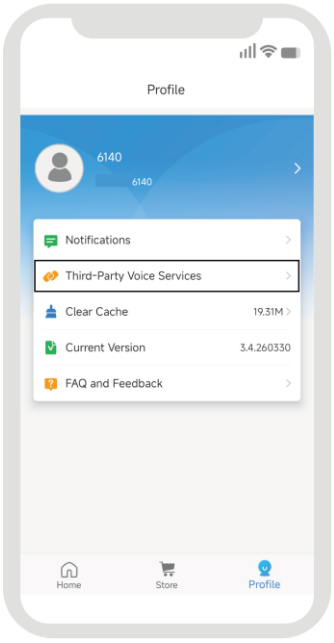
- Tap "Notifications" and the app will navigate to the notification center screen.
- The Notification Center logs the alarms, device updates, and bulletins you have received.
- Tap the settings icon in the upper-right corner to enable or disable notifications.

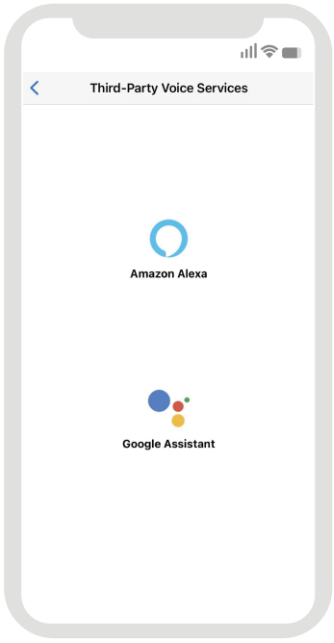


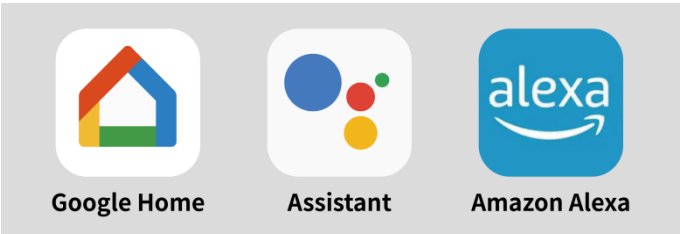


Third-Party Voice Services

- 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.





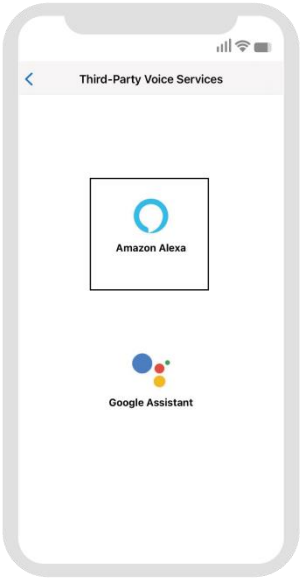


NOTE: *If you're using ALEXA for binding, make sure you've downloaded the "Amazon Alexa" app. If you're using Google Assistant for binding, ensure you've downloaded the "Google Home" and "Google Assistant" apps. Additionally, make sure you've registered and logged into your account on the relevant app.*

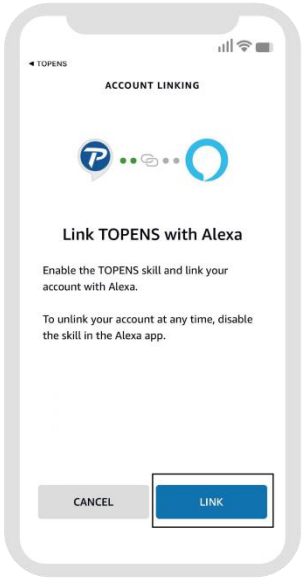
PART 2 Main Screen Introduction

BIND WITH AMAZON ALEXA

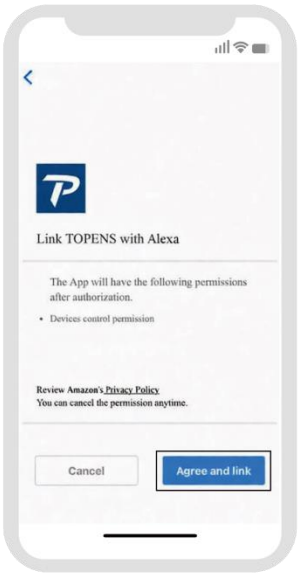
- Tap the "Amazon Alexa" icon and then tap the "Amazon Alexa" button. A confirmation window will appear and tap "LINK".

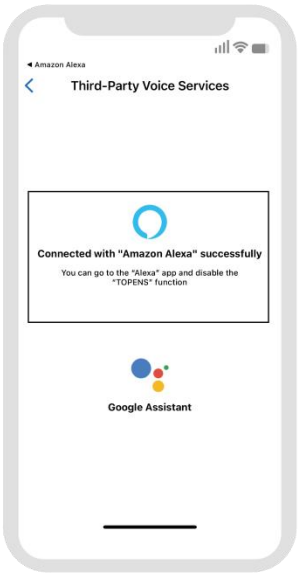


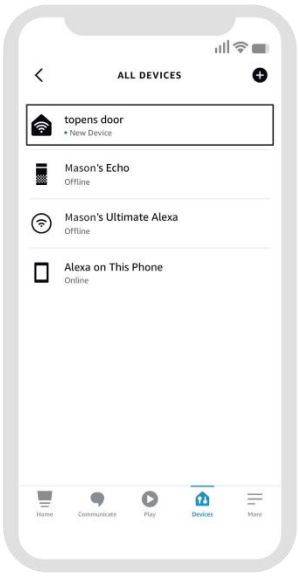




- Tap "Agree and link", the app will prompt that you have successfully connected with Amazon Alexa. Open the Amazon Alexa app, and you will find the sliding gate opener on the "Devices" screen.





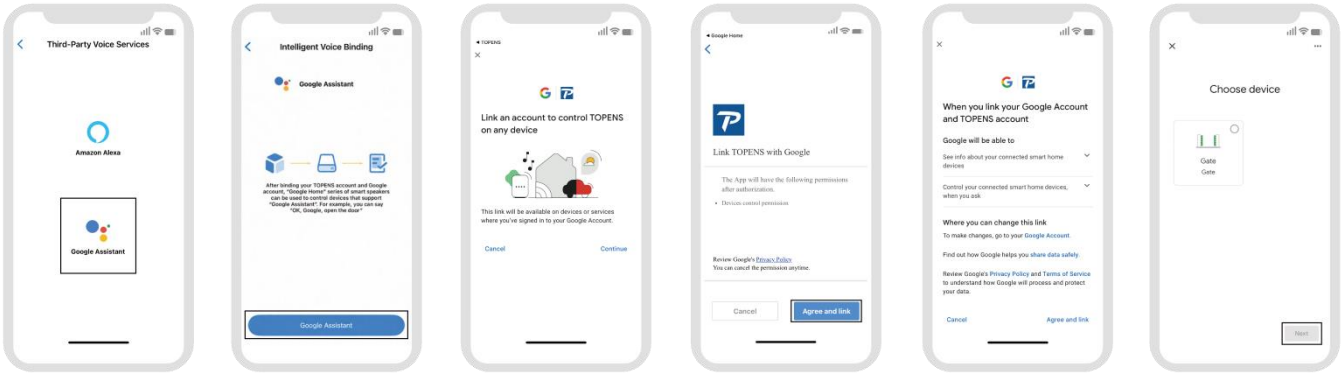


- Then, you can use the Amazon Alexa to control the sliding gate opener.
- The following are voice commands to control the sliding gate opener.
  Open the sliding gate opener: Open "the name of the device" / "The name of the device" open / Set "the name of the device" to open
  Close the sliding gate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

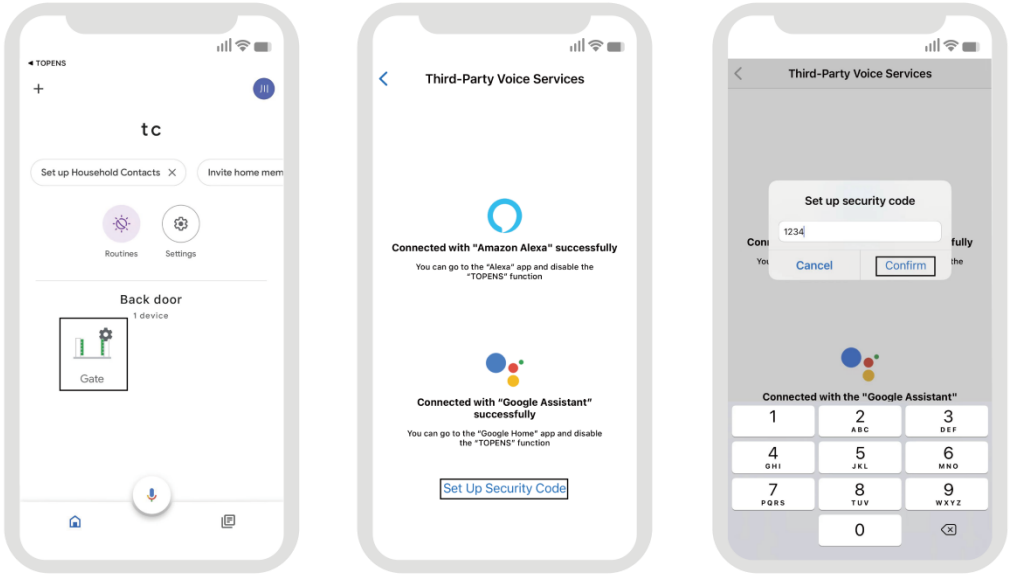
PART 2 Main Screen Introduction

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 show "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

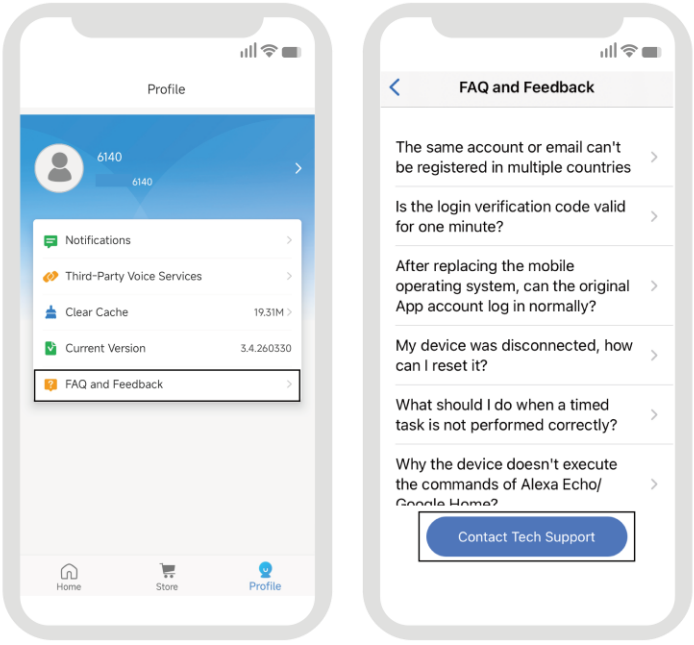
- Tap "Clear Cache" to remove stored cache data.

Current Version

- Show the current version information.

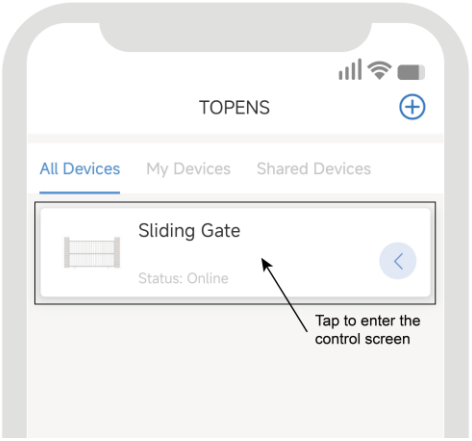
FAQ and Feedback

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

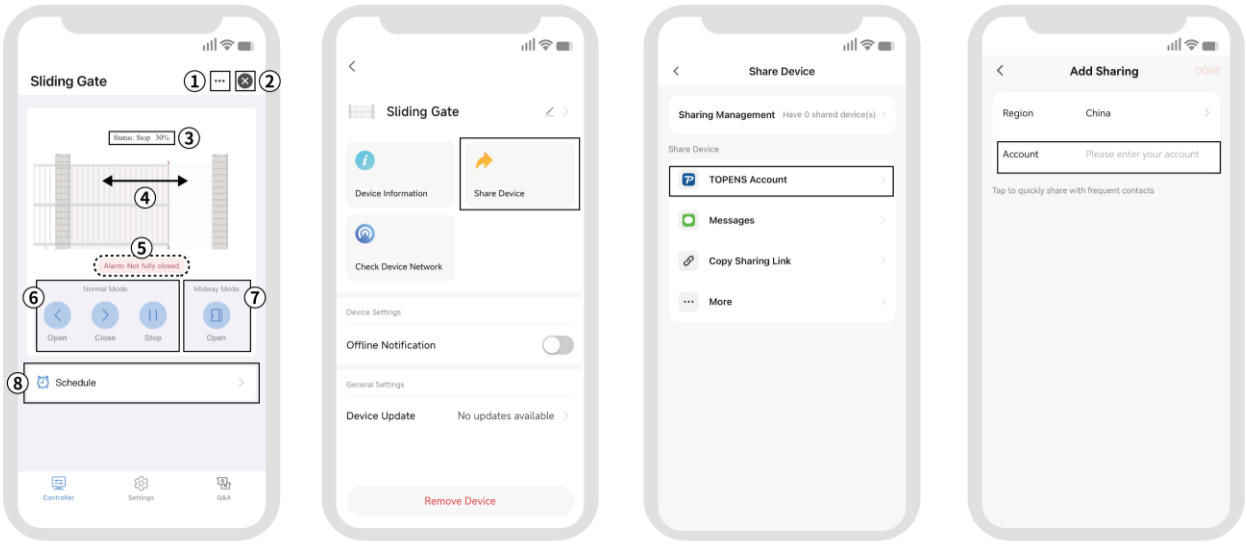


PART 3 Control and Set the Sliding Gate Opener

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



①Change 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.*

②Tap the icon to return to the Home screen.

③Show 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.*

④To 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.

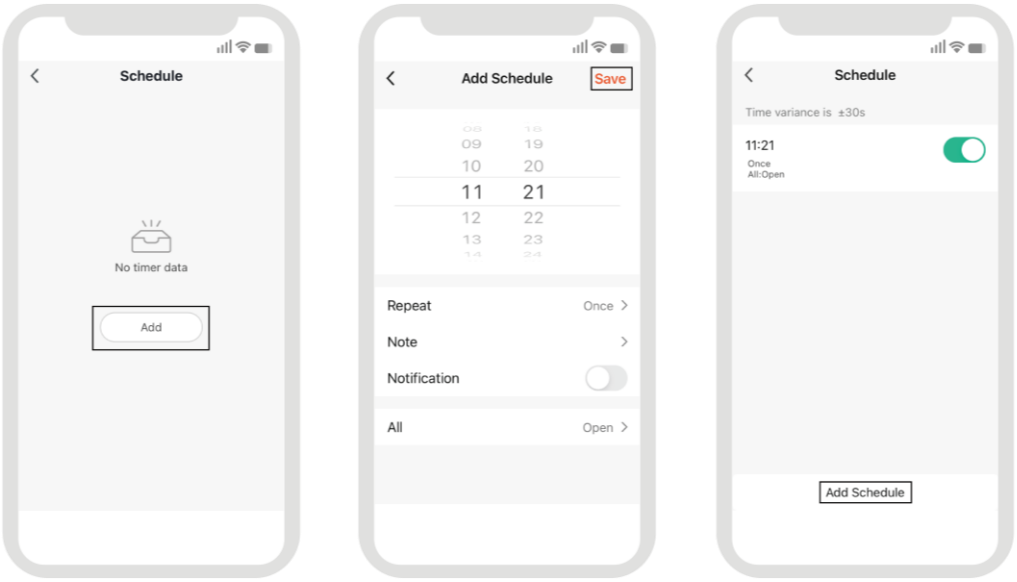
⑤Show the alarm status of the gate opener.

PART 3 Control and Set the Sliding Gate Opener

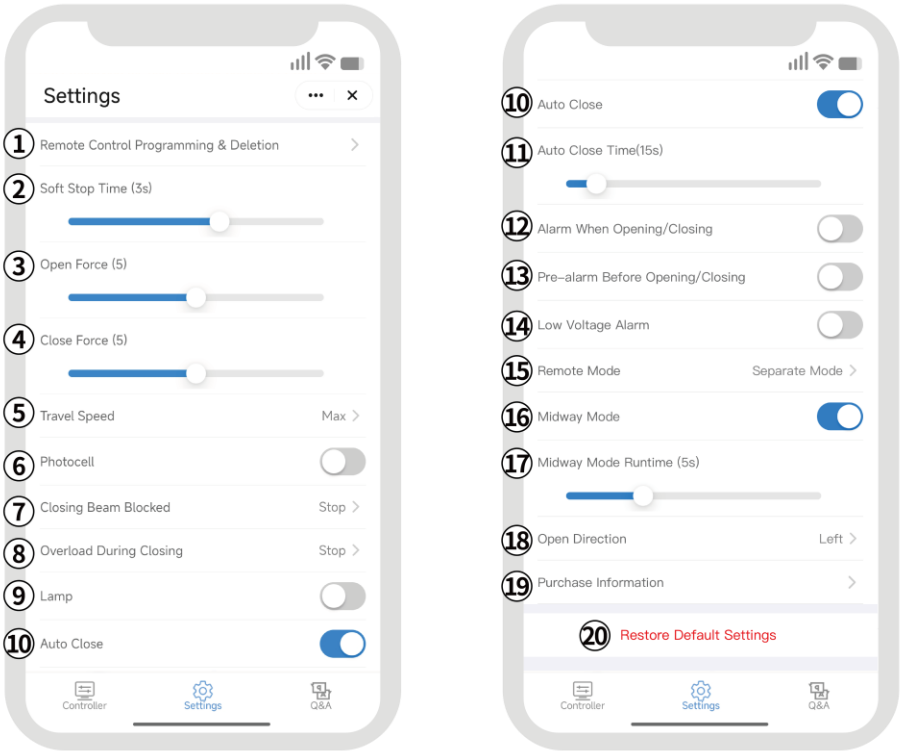
⑥Tap the "Open", "Stop", or "Close" button under Normal Mode to operate the gate accordingly, allowing it to open, stop, or close as needed.

⑦ The "Open" button under Midway Mode will not appear on the main control screen until the midway mode function is enabled. Once it appears, tap the button to partially open the gate according to the set midway time.

⑧Tap to access the schedule configuration screen. 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

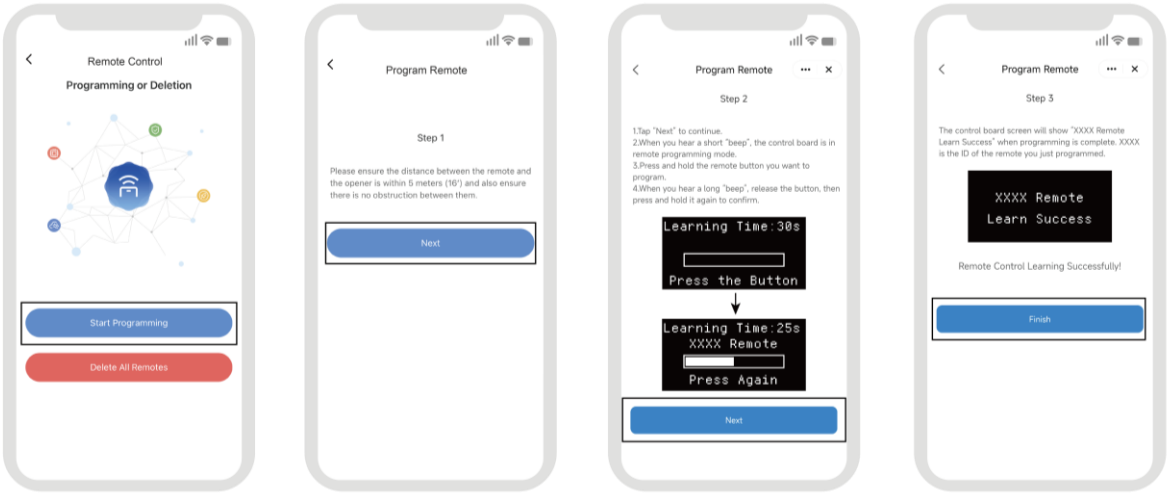


PART 3 Control and Set the Sliding Gate Opener

①Remote Control Programming & Deletion

Remote Programming

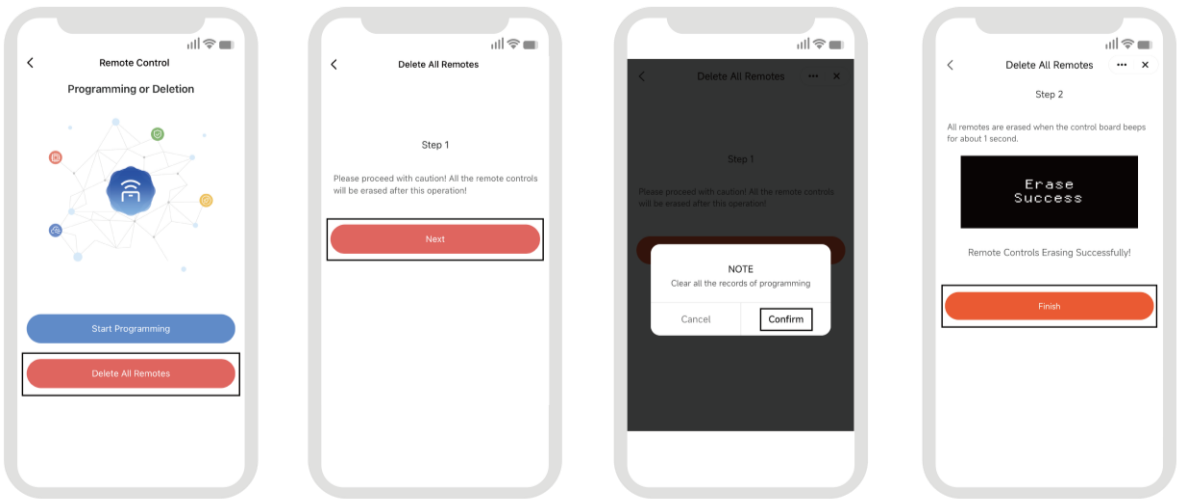
- **STEP 1:** Tap "Remote Control Programming & Deletion", then tap "Start Programming". Ensure that the distance between the remote control and the gate opener is within 5m (16.5ft.) and there are no obstructions between them.
- **STEP 2:** Tap "Next", a short beep will sound and the display will show 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 display 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 display shows "Erase Success" and then back to the standby mode. The app will show "Remote Control Erasing Successfully!" and you can tap "Finish" to complete the deletion process.



②Set 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.

③Set 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.

④Set 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.

⑤Set Travel Speed
Select Min, Medium, or Max to set the gate opener travel speed.

⑥Enable / 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.

⑦Set 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.

⑧Set Overload During Closing
Set the gate opener to either stop or reverse upon contact with an obstruction while closing.

⑨Enable / 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.

⑩Enable / Disable Auto Close Function
The auto close function allows the gate to automatically close after a set period. This function is disabled by default.

⑪Set 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.

⑫Enable / 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.

⑬Enable / Disable Pre-alarm Before Opening or Closing
The buzzer on the control board will sound intermittently 3 seconds before the gate begins opening or closing.

PART 3 Control and Set the Sliding Gate Opener

⑭Enable / Disable Low Voltage Alarm
The buzzer on the control board will sound intermittently when the input voltage drops below 18V.

⑮Set 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.

⑯Set 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 disable by default.

⑰Set 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.

⑱Set 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 display.

⑲Purchase Information
It is recommended to fill in the purchase information if you need technical support.

⑳Restore 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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Room 102, 1st-2nd floor of Building 3, Wuhan Jinneng Windpower Industrial Park, No.9 Zhulin Road, Fozuling 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 EN 55014-2:2015 EN IEC 61000-3-2:2019 EN 61000-3-3:2013+A1:2019	Test Report: AGC-WH00066220632EE01	Conform

CE

Attestation of Global Compliance (Wuhan) Co., Ltd.

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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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 Directive	EN 60335-2-103:2015, EN 60335-1:2012+ A11:2014 +A13:2017+ A1:2019+A2:2019+ A14:2019 EN 62233:2008	Test Report: AGC-WH00066220632ES01	Conform

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

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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 BS EN 55014-2:2015 BS EN IEC 61000-3-2:2019 BS EN 61000-3-3:2013+A1:2019	Test Report: AGC-WH00066220632BE01	Conform

UKCA

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Issue Date: August 16, 2025

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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

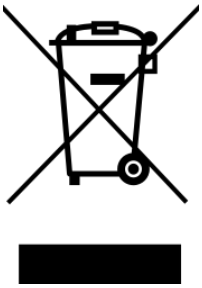
Requirement	Applied Standards	Document Evidence	Result
Electrical Equipment (Safety) Regulations 2016	BSEN 60335-2-103:2015, BSEN 60335-1:2012+ A11:2014+A13:2017+ A1:2019+A2:2019+ A14:2019 BSEN 62233:2008	Test Report: AGC-WH00066220632BS01	Conform

Attestation of Global Compliance (Wuhan) Co., Ltd.

Signed by General Manager(Bram Wu)

Issue Date: August 9, 2025

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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.
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Contact Us:
E-mail: 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)