PROFESIONAL SLIDE GATE OPERATOR

INSTALLATION MANUAL & OWNER'S GUIDE

GP300

PLEASE READ & UNDERSTAND THE OPERATOR'S MANUAL AND SAFETY INSTRUCTION

TABLE OF CONTENTS

- Safety Guidelines.....3-4
- Carton Inventory.....5
- Product Specifications.....6
- Default Setting.....7
- Installation.....8
  - Getting Started.....8
  - Gate Preparation.....8
  - Manual Disconnect Verification.....8
  - Removing / Installing Motor Cover.....9
  - Base Preparation, Mounting Plate & Motor Installation.....9-10
  - Motor Position Adjustment.....10
  - Gear Rack & Motor Alignment.....11
  - Spring Limit Switch Set Up.....11-12
  - Powering on.....13
  - Testing Travel and Limit Stops.....13
- Control Board.....14
  - Programming and Wiring.....14-15-16
  - Running Travel Settings.....16
  - Dip Switch Settings.....17
  - Force – Slow Stop – Speed Settings.....18
  - Remote Control Management.....19
  - Photo-Eye Sensor Settings 20
  - Solar Power Settings (Optional） 21-22
  - Wi-Fi Controller (Optional).....23-24-25
- Maintenance.....26
- Troubleshooting.....27
- Warranty.....28-29

IMPORTANT SAFETY GUIDELINES

Please Read This Manual Before Installation: This document contains essential guidelines regarding the installation, use, maintenance, and safety of the **GATEPRO GP300**. Failure to follow these instructions may result in equipment damage, personal injury, or property damage. **THIS PRODUCT MUST BE INSTALLED AND SERVICED IN ACCORDANCE WITH THIS MANUAL & BY A TRAINED GATE SYSTEMS TECHNICIAN**.

Prohibited Operations: Any operation not explicitly outlined in this manual is strictly prohibited. Unauthorized actions may compromise the safety and functionality of the gate opener.

Safety and Compliance:

- **Adhere to Standards:** All installations must comply with local codes and electrical regulations to ensure safety and functionality.
- **Pre-installation Checks:** Confirm whether additional equipment or materials are required to meet site-specific needs before starting the installation.
- **Proper Disposal:** Dispose of packaging materials according to local environmental regulations.
- **Authorized Parts Only:** Use only original parts for repairs and maintenance. Third-party components may compromise safety and void the warranty.
- **Electrical Safety:** Ensure all electrical installations are performed by a licensed professional and/or trained technician. **The motor and electrical connections must remain unplugged during installation**.
- **Avoid Liquid Exposure:** Prevent water or other liquids from entering the operators. If liquid exposure occurs, disconnect the power supply immediately and seek professional assistance.
- **Installation Location:** Do not install the operator in areas with explosive atmospheres, high humidity, or flood risks.
- **Proper Motor Handling:** Ensure the power cord is disconnected, and the motor cover is removed before installation. Position the motor securely on the mounting plate.
- **No Unauthorized Modifications:** Modifications to the control or mechanical components are not permitted unless explicitly authorized by GATEPRO. Unauthorized alterations void the warranty and could lead to system malfunctions.

Important Safety Instructions: Please read & follow Safety Instructions and always display warning signs on the street-facing side of the property to alert pedestrians and vehicles of the automated gate system.

Important Safety Instructions

⚠ WARNING

To prevent possible SERIOUS INJURY or DEATH:

- READ AND FOLLOW ALL INSTRUCTIONS.
- NEVER let children operate or play with gate/door controls. Keep the remote control away from children.
- ALWAYS keep people and objects away from the gate/door. NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.
- **Test the gate operator monthly. The gate MUST reverse on contact with an object or reverse when an object activates the noncontact sensors. After adjusting the force or the limit of travel, retest the gate operator. Failure to adjust and retest the operator properly can increase the risk of INJURY or DEATH.**
- Use the manual disconnect release ONLY when the gate is not moving.
- KEEP GATES PROPERLY MAINTAINED. Read the owner's manual.
- Have a qualified service person make repairs to gate hardware
- The entrance is for vehicles ONLY. Pedestrians MUST use separate entrance.
- **SAVE THESE INSTRUCTIONS.**

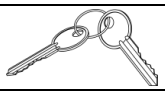
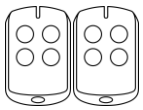
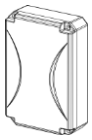
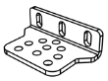
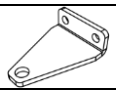
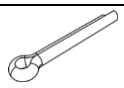
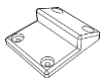
⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:

- ANY maintenance to the operator or in the area near the operator MUST NOT be performed until disconnecting the electrical power (AC and battery) and locking-out the power via the operator power switch. Upon completion of maintenance the area MUST be cleared and secured, at that time the unit may be returned to service.
- Disconnect power at the fuse box BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with national and local electrical codes.
- ALL electrical connections MUST be made by a qualified individual.
- DO NOT install ANY wiring or attempt to run the operator without consulting the wiring diagram.
- ALL power wiring should be on a dedicated circuit and well protected. The location of the power disconnect should be visible and clearly labeled.
- ALL power and control wiring MUST be run in separate conduit.

***NOTE:** The operator should be on a separate fused line of adequate capacity.*

CARTON INVENTORY

No.	Picture	Name	Quantity
1		Main machine	2
2		Manual release key	2
3		Remote control	2
4		Control box	1
5		**Reflective Photocell**	1 set
6		Wall bracket	4
7		Front mounting bracket	2
8		Connecting bracket	2
9		Cotter pins	2
10		T-shaped cylindrical pin with hole	2
11		Screw M8X25	4
12		Mounting screw (short)	2
13		Self-locking Nut M8	6
14		Limit stopper	1

Due to the difference of installation environment, our company does not provide the installation accessories to fix and connect gate openers and wall. Please prepare the these installation accessories according to actual site situation.

PRODUCT SPECIFICATION

Model	SW300DC
Power supply	220V/50Hz;110V/60Hz
Motor power	50W
Gate moving speed	18~22s/ 90°
Max.single-leaf weight	300kg
Max.single-leaf length	3M
Max.force	2600N
Max.piston stroke	32cm
Remote control distance	≥30m
Remote control mode	Single/Four button mode
Storage battery (optional)	DC24V(4.5Ah or 9Ah)
Noise	≤58dB
Recording of up remote controls	32pcs
Remote frequency	433.92 MHz
Working temperature	-20°C- +70°C
Package weight	15kg

Getting Started:

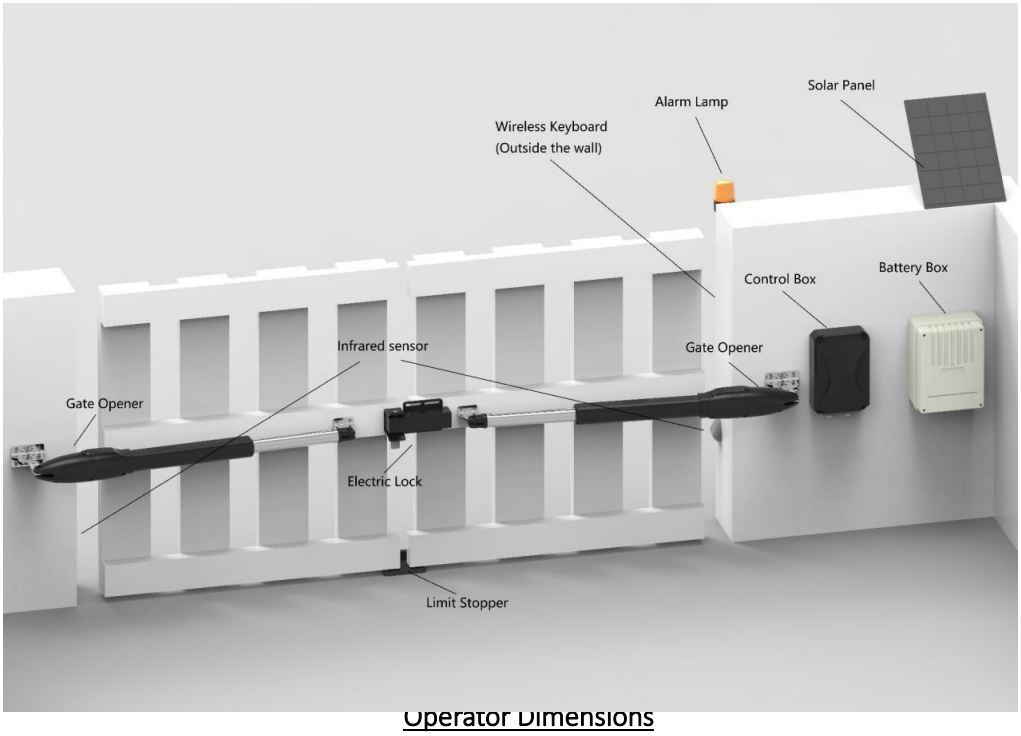
- The GP300 Operator is designed to automatize vehicular swing gates weighing up to a max of 300kg / 660lbs with a maximum gate length of 3M / 9 feet.
- The operator moves the gate using a planetary gear transmission paired with a precision screw-rod drive system. For proper protection and optimal performance, the operator must be installed inside the property line or within a secured enclosure.
- For safety, the gate opener operates via a remote control.
- The opener must be installed within private property boundaries and should not be installed externally or at the edge of the property.

Critical Safety Note:

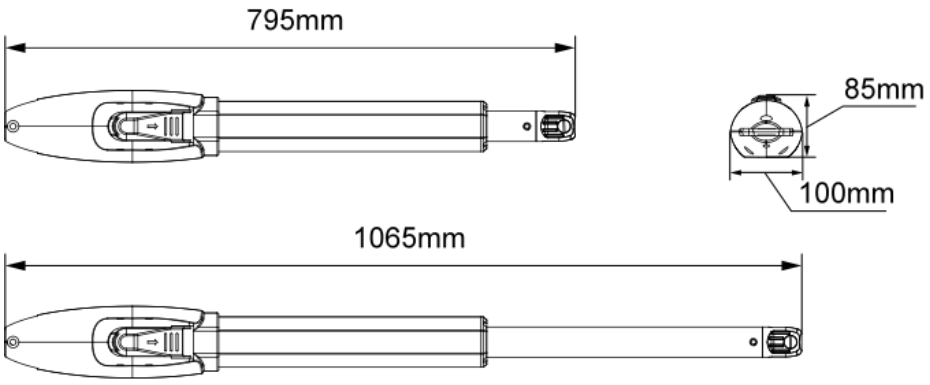
- ALWAYS DISCONNECT THE POWER SUPPLY AND ENSURE THE OPENER IS UNPLUGGED BEFORE PERFORMING ANY WORK.
- Modifications, alterations, or work on AC power components must only be conducted by a licensed electrician or slide gate technician.

Gate Preparation

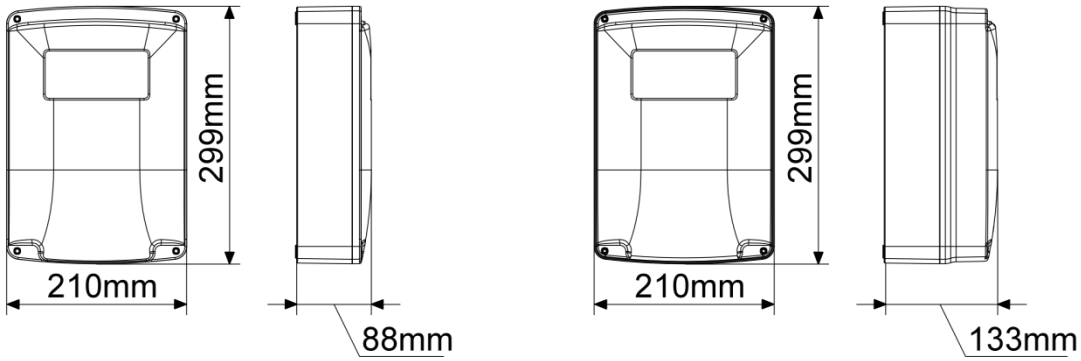
- Confirm that the swing gate is properly installed before proceeding with the installation of the gate opener.
    - Ensure the gate is horizontal, level, and glides smoothly when moved manually.
    - Verify that the gate moves freely and is clean, free from dirt or grime.
    - Address any misalignment, as it can negatively impact the performance of the operator.



Operator Dimensions



Control Box Dimensions



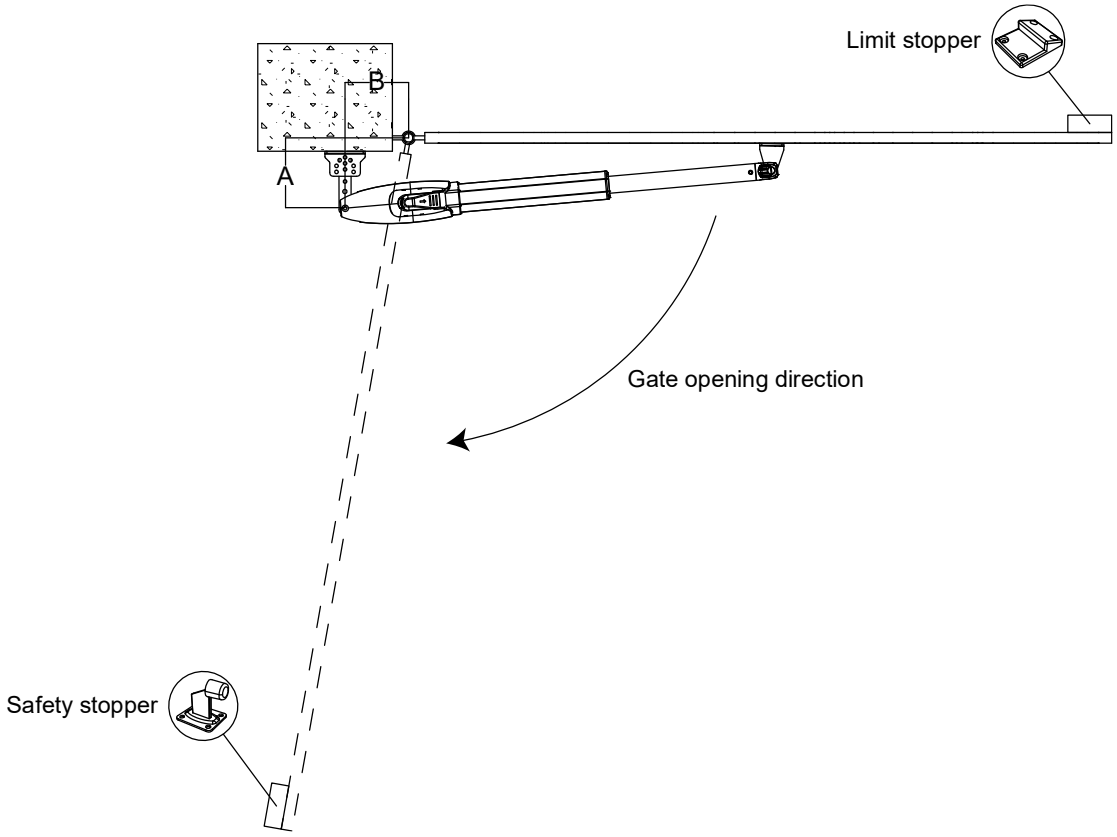
Cable List

	Cable Application	Cable Material	Max. Length
	Cable of 220V control box's power s upply	3×2.5mm² (＞30m) 3×1.5mm² (＜30m)	Unlimited
	Cable of gate opener's power supply	2×1.5mm²	15m
	Cable of infrared sensor	2×0.5mm²	10m
	Cable of alarm lamp	2×0.5mm²	10m
	Cable of electric lock	2×0.5mm²	10m
	Extension cable of storage battery	2×1.5mm²	10m
	Cable of solar power	2×1.5mm²	10m

Important Note: Due to variations in installation environments, the installer must supply outdoor-rated power cables for both the control box and the gate operators, ensuring that all cable outlets face downward to prevent rainwater from entering the system.

GATE DIRECTION

Gate Opens Inwards



A / B	100mm	120 mm	140 mm	160 mm	180 mm	200 mm
100mm	102°	101°	99°	98°	97°	97°
120mm	111°	108°	106°	104°	103°	99°
140mm	118°	115°	112°	102°	93°	96°
160mm	117°	107°	98°	91°		
180mm	103°	96°	90°			
200mm	94°					

Gate Opens Outwards

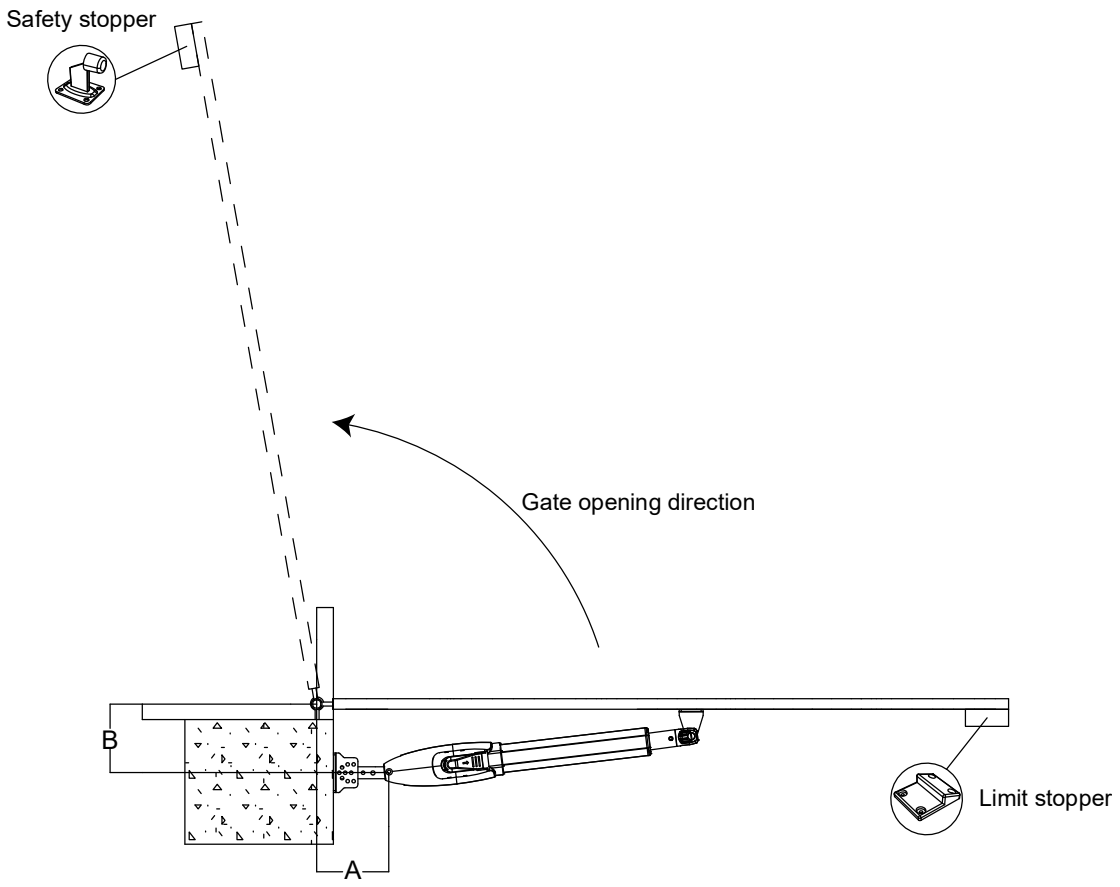


Figure 4

A / B	100mm	120 mm	140 mm	160 mm	180 mm	200 mm
100mm	103°	101°	99°	98°	97°	97°
120mm	111°	108°	106°	104°	103°	96°
140mm	118°	115°	112°	102°	92°	
160mm	117°	108°	98°	91°		
180mm	103°	96°	90°			
200mm	94°					

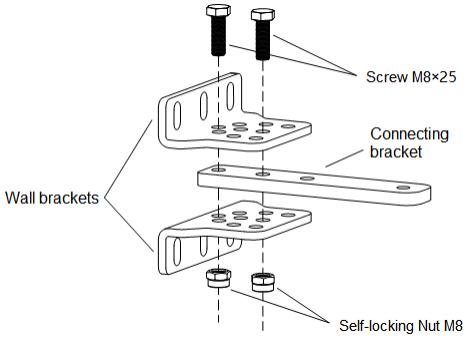
INSTALLATION

Preparation Before Installing the Main Operator

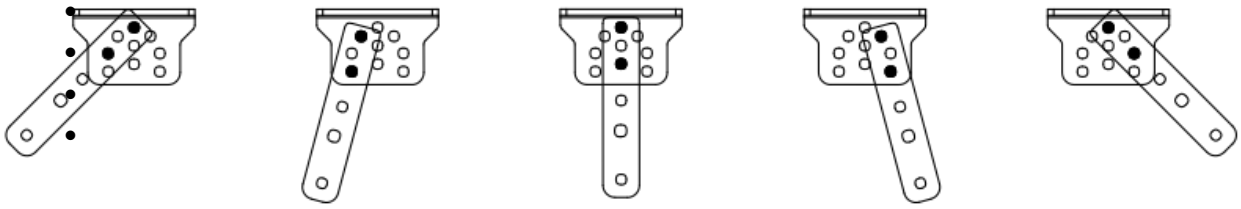
- Ensure the gate is properly installed and can be opened and closed manually with minimal effort.
- Confirm the gate's limit stoppers are functioning correctly to prevent over-travel.
- If installing an electric lock, maintain a **40–50 mm clearance** between the bottom of the gate and the ground.
- If no electric lock is used, ensure the gate has a minimum clearance of **20 mm**.
- Mounting height for the GP300 should be **300–800 mm above ground level**, ensuring solid and reliable mounting points for all brackets.
- Use **PVC conduit** to protect all wiring:
    - One pipe for the motor and power cable
    - A separate pipe for the control cable
- Use appropriate **expansion screws** to secure all GP300 mounting brackets firmly.

Mounting the Brackets

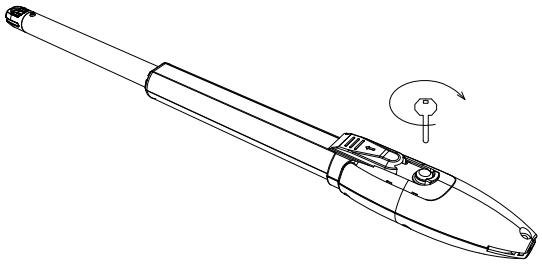
- Install the wall bracket on the wall first.
- Attach the connecting bracket and then install the front mounting bracket onto the gate.
- **Important:** Use a level to verify alignment and ensure both the connecting bracket and the front mounting bracket are perfectly level before tightening the screws.



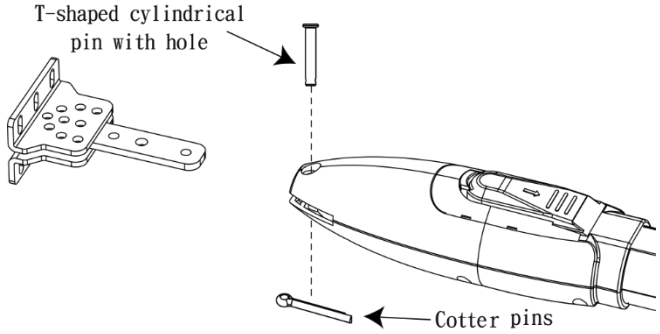
- The connecting bracket and the wall bracket can be connected according to different conditions, as described below.



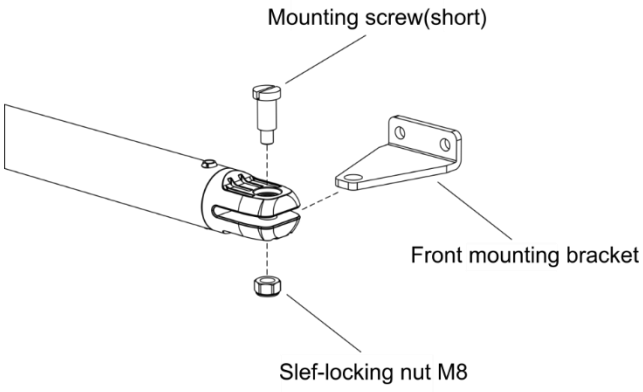
- Before the installation, please unlock the two main machines. Unlock method: Open the manual release cover, insert the manual release key, rotate the key until it's released, as shown below, then turn the telescopic arm, you'll find it's stretched by hand easily.

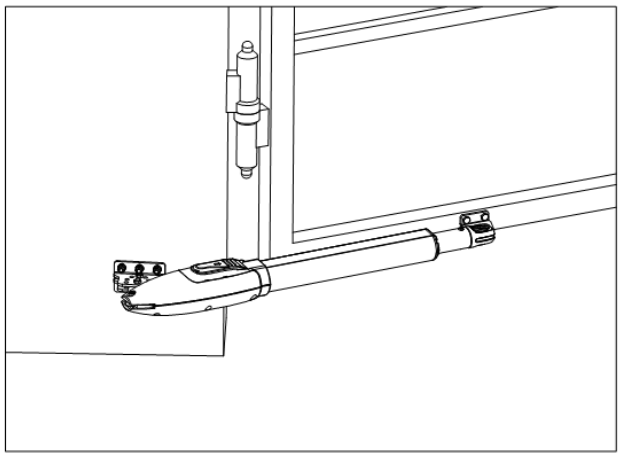


- Connect the main machine with connecting brackets by screw and nut as shown in Figure 8.



- As shown in the drawing, connect the wall bracket with wall according to marked position. Then, connect main machine with wall bracket by screw and nut. (Please use spirit level to make sure the installation levelness.)





⚠ WARNING ⚠

Gate Stopper Requirements:

- For **outward-opening gates**, an **OPEN limit stopper** ***must*** be installed at the OPEN limit position to prevent the gate from exceeding the operator's travel range and causing mechanical damage.
- A **CLOSE limit stopper** is also required at the CLOSE limit position to ensure precise and synchronized stopping for both gate leaves.
- For **inward-opening gates**, a **CLOSE limit stopper** must be installed at the CLOSE limit position.

Pre-Installation Requirements

- Before installation, ensure that the GP300 operator and all components are in proper mechanical condition.
- Verify that the gate can be operated manually, smoothly, and without resistance.

Control Box Requirements

- One control box may operate **one or two** GP300 gate operators.
- An **Earth Leakage Circuit Breaker (ELCB)** must be installed in a location where the gate movement is clearly visible during operation.
- The control box must be mounted at a height of **at least 1.5 meters (5 ft)** to ensure it remains out of reach of children.

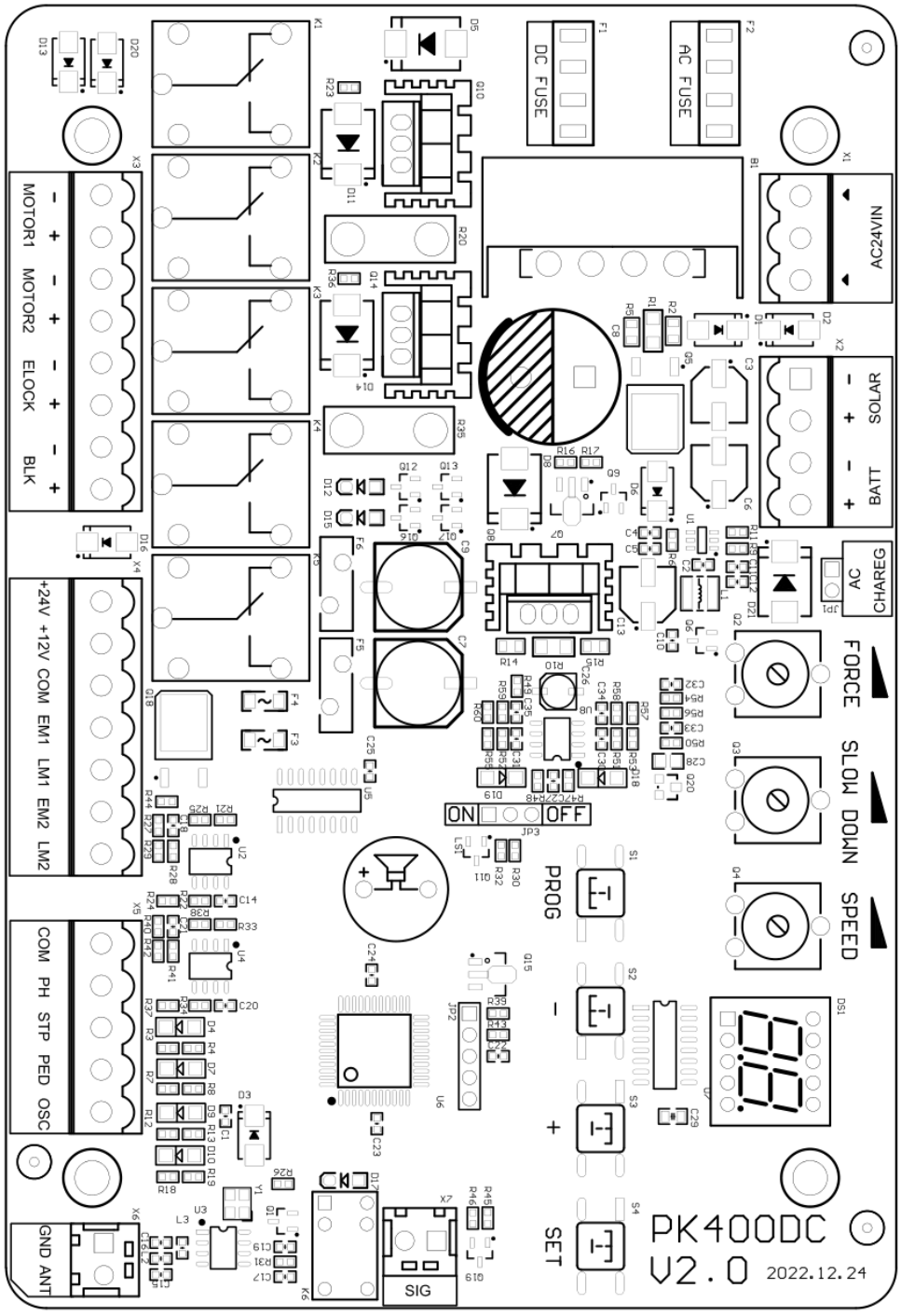
Post-Installation Verification

- Confirm that the mechanical system operates smoothly and that the gate opens and closes correctly after manual release.
- Ensure that the **infrared safety sensor** (if installed) is properly aligned, securely mounted, and fully functional.

CONTROL BOARD

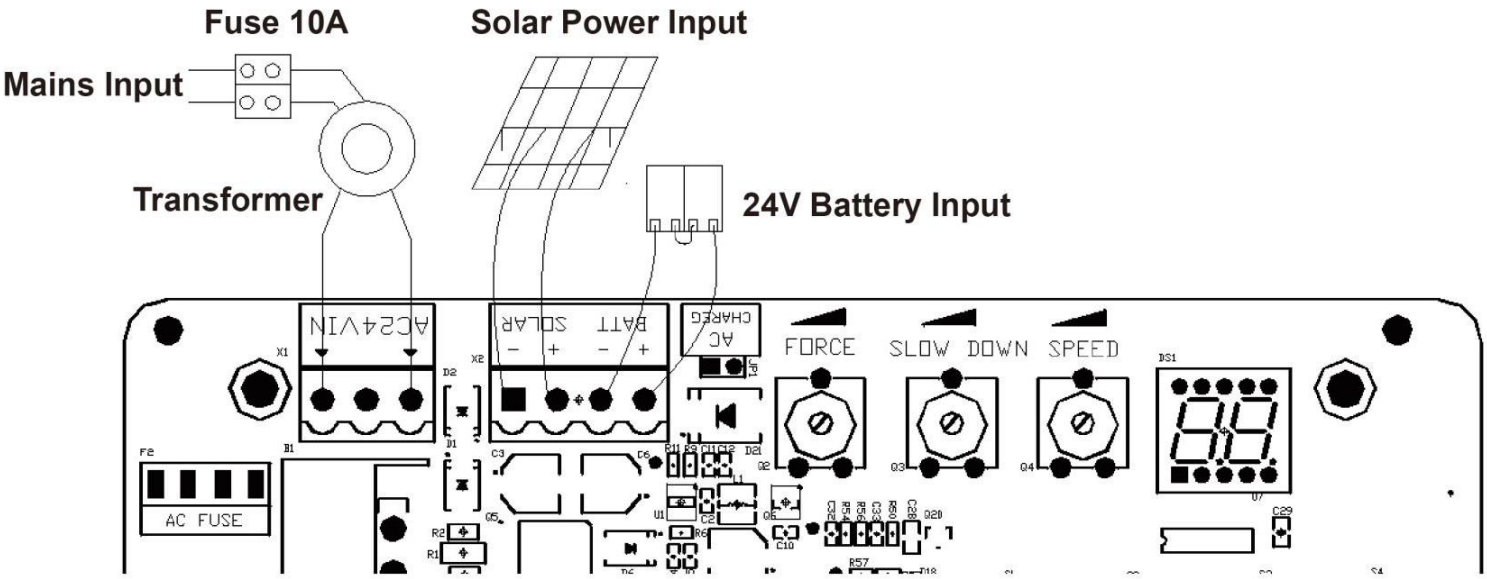
Programming and Wiring

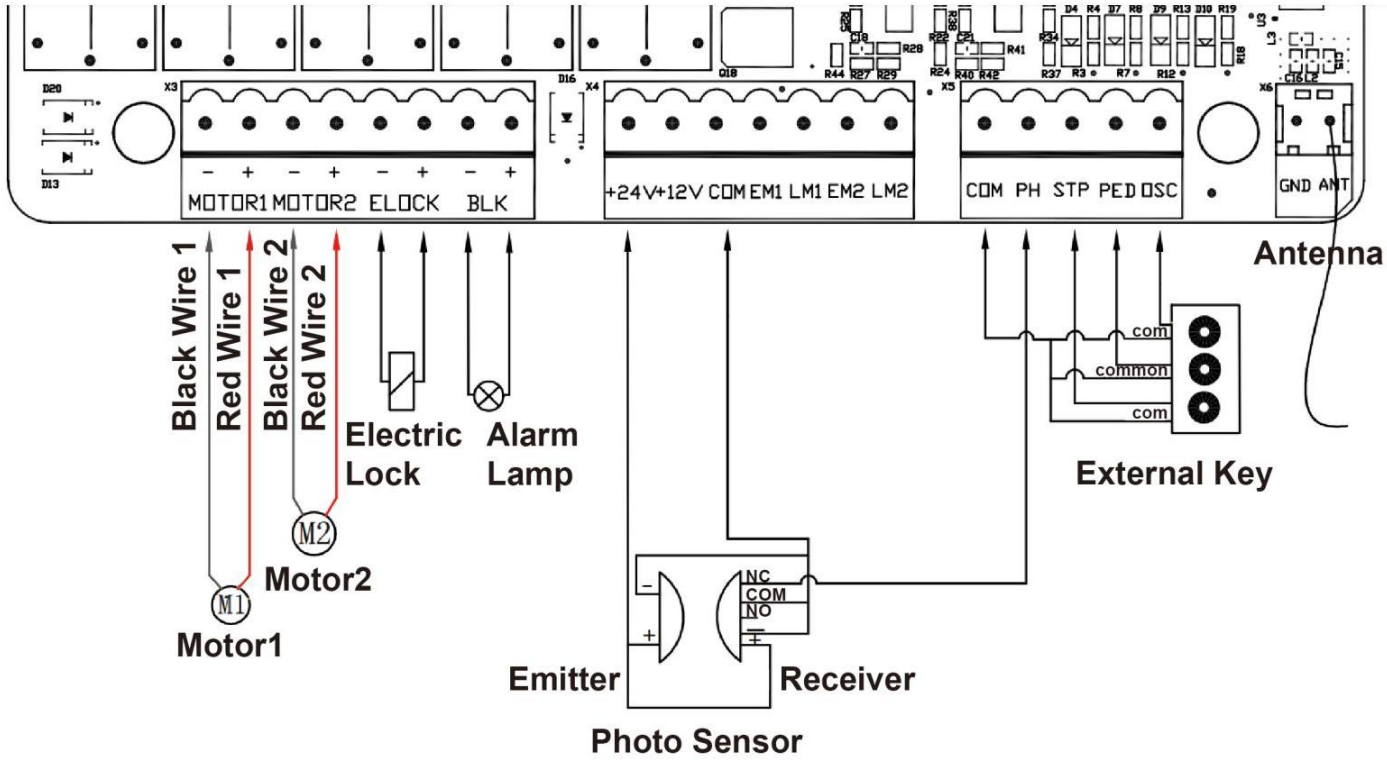
- All work involving 110V/220V AC connections must be conducted exclusively by a trained and qualified technician.
- "WARNING: Ensure the power supply is fully disconnected before making any modifications. Failure to do so may result in serious injury or damage."



Terminal	Description
1. AC24VIN	24VAC Power Supply Input
2. +SOLAR-	Solar Power Input
3. +BATT-	24V Battery Input
4. FORCE	Obstacle Sensitivity
5. SLOW DOWN	Slow Stop Distance
6. SPEED	Gate Moving Speed
7. MOTOR1	Motor1 Output
8. MOTOR2	Motor2 Output
9. -ELOCK+	Electric Lock Output
10. -BLK+	Alarm Lamp Output (Note: pay attention to polarity)
11. +24V	24V Output Positive
12. +12V	12V Output Positive (No output in standby mode)
13. EM1	Motor1 Hall Sensor Power Output
14. LM1	Motor1 Hall Sensor Limit Signal Input
15. EM2	Motor2 Hall Sensor Power Output
16. LM2	Motor2 Hall Sensor Limit Signal Input
17. PH	Photo Sensor Input Active
18. PED	Single Gate/Pedestrian Mode Input Active
19. OSC	Single Channel Input Active
20. ANT	Antenna
21. COM	Common
22. SIG	The signal is normally closed only when the gate is fully closed

GENERAL WIRING INSTRUCTIONS





RETRO-REFLECTIVE PHOTO EYE SENSOR

Installation Requirements:

These steps must be completed by a licensed electrician or a certified slide gate technician.

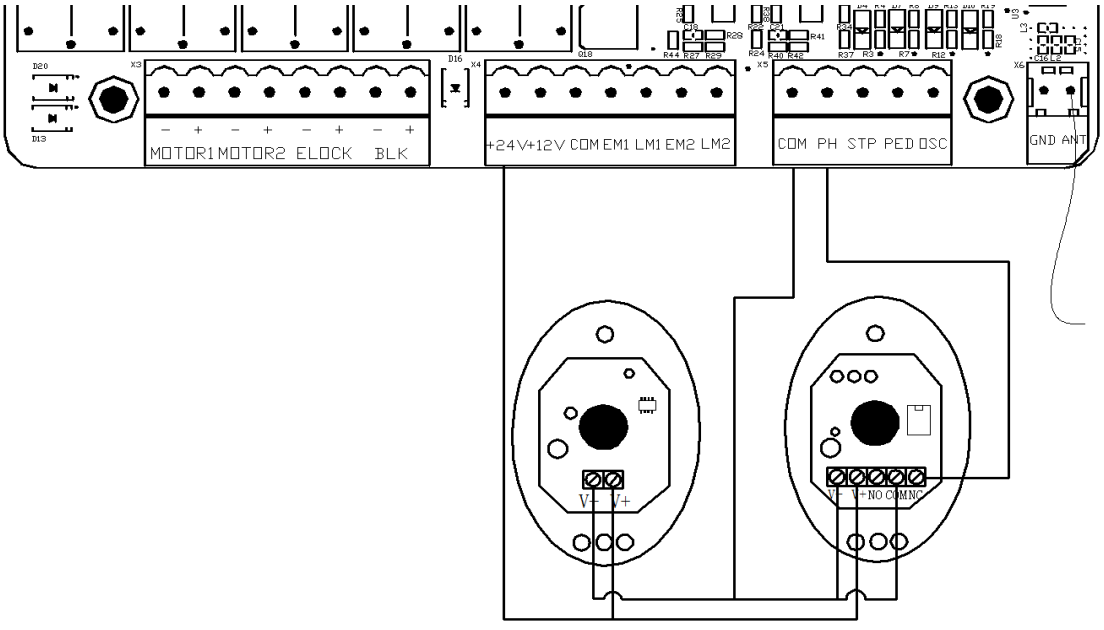
For the GATEPRO SL1000, the installation of the **included Retro-Reflective Photo Eye Sensor is highly recommended** as a crucial safety feature. This safety sensor is designed to immediately halt and reverse the gate's movement if its infrared beam is interrupted during closing, thereby enhancing protection for both users and property.

Installation Instructions:

- Refer to the wiring diagram below for instructions.
- Remove the wire jumper between the IR and GND terminals on connector X6.
- Ensure that the photocell receiver and the reflector are positioned at least 6’ feet apart to maintain optimal detection and functionality.

Key Safety Benefits:

- **Immediate Response:** When the sensor detects an obstruction, it instantly stops the gate, minimizing the risk of accidents.
- **User Protection:** It prevents accidental collisions with people, vehicles, or objects, ensuring the safety of those in the vicinity.
- **Equipment Longevity:** By halting the gate before it encounters an obstruction, the sensor helps protect and prolong the lifespan of the gate system’s mechanical parts.

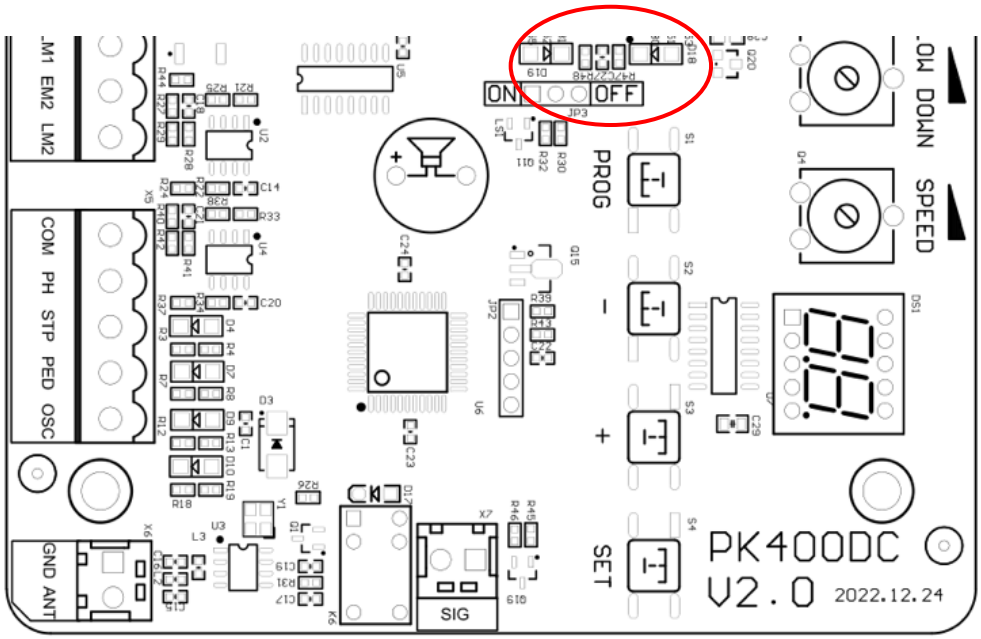


ENABLE AND DISABLE BUZZER

Jumper to **ON**: Enable the buzzer

Jumper to **OFF**: Disable the buzzer

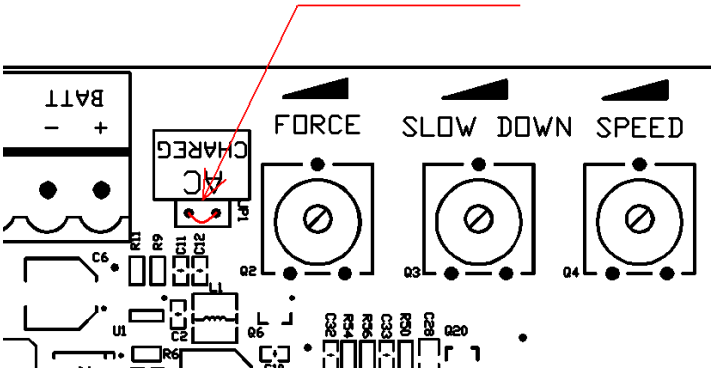
Zoom in the buzzer jumper



BATTERY CHARGING FUNCTION

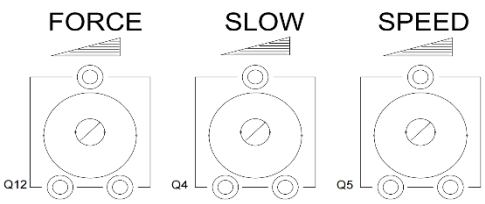
Insert the jumper to enable battery charging function

Remove the jumper to disable battery charging function



Note: When using solar power only, it is recommended to remove the jumper to reduce power consumption.

FORCE – SLOW STOP - SPEED FUNCTION OVERVIEW



FORCE: Obstruction Force Adjustment

- **Maximum Setting**: Requires the highest force to detect an obstruction, making it less likely for the gate to stop during operation.
- **Minimum Setting**: Requires the lowest force to detect an obstruction, making it easier for the gate to stop when an obstacle is encountered.

When the obstruction reversal function is enabled, the motor will detect and respond to obstacles. If an obstruction is detected during operation, the gate will reverse for a short distance and then stop.

- **Adjustment**: Turn the FORCE knob clockwise to increase the force, or counterclockwise to decrease it.
- **Default Setting**: Maximum.
- **Obstruction Reversal Function**: activated once FORCE setting is programed.

Tip: If the gate frequently reverses before reaching its intended position, set the FORCE knob to maximum. In this setting, the gate will only reverse when it encounters an obstruction and remains stationary for about three seconds.

SLOW: Slow Stop Speed and Distance Adjustment

To ensure smooth operation and reduce impact when the gate reaches its limit, use the SLOW knob to adjust the speed and distance for the slow stop function.

- **Maximum Setting**: The slow stop speed and distance are at their longest, providing a gradual stop.
- **Minimum Setting**: The slow stop speed and distance are at their shortest, resulting in a quicker stop.
- **Adjustment**: Turn the SLOW knob clockwise to increase the slow stop speed and distance, or counterclockwise to decrease them.
- **Default Setting**: Minimum.

SPEED: Fast Operation Speed Adjustment

The SPEED knob controls the fast travel speed of the gate during normal operation.

- **Maximum Setting**: The gate operates at its fastest speed.
- **Minimum Setting**: The gate operates at its slowest speed.
- **Adjustment**: Turn the SPEED knob clockwise to increase the operation speed, or counterclockwise to decrease it.
- **Default Setting**: Minimum.

REMOTE CONTROL OPERATION

Remote Control Learning

1. Remove the host casing and open the control board cover.
2. Press and hold the Press and hold "-" button, the alarm lamp will keep flashing, and the digital screen will show the remote-control mode:
   - "PO" — dual swing gate single-channel mode
   - "PD" — single gate four-channel mode
3. Press the button on the remote control to be learned, the digital screen will show the number of current learned remote control, then the remote-control learning is completed. (The default of new paired remote control is dual swing gate single-channel mode).

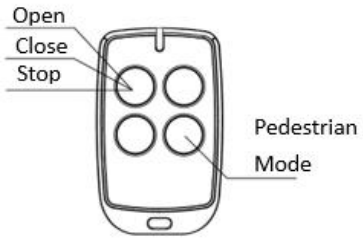
Remote Control Code Clearing (Delete Memory):

1. Enter into “AE” on the digital screen and select “rE” to delete all paired remote controls.

Special Remote Control Key Combination

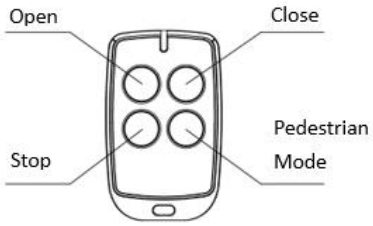
1. Press and hold the following combination keys for 5 seconds.
   - **C (stop) + D (single gate)** – Enters remote control learning mode.

Single-Channel Mode: In single-channel mode, a single button on the remote-control cycles through the following sequence: Open → Stop → Close → Stop



Four-Channel Mode: In four-channel mode, the remote-control buttons perform the following functions:

- **Button 1**: Opens the gate
- **Button 2**: Closes the gate
- **Button 3**: Stops the gate
- **Button 4 (Pedestrian Mode)**: Opens the gate approximately 1 meter, allowing pedestrian access when the gate is in the closed position.



Note: The system can learn and store up to 40 remote controls.

TRAVEL LIMIT SETTING PROCEDURE

Setting the Open and Close Travel Limits:

During the initial installation of the GP300 swing gate operators, the open and close travel limits must be configured.

1. Open both gate leaves fully and **lock the clutch**.
2. Press and hold the **"+"** button on the control board until the digital display shows **"SU"**.
3. The system will begin an automatic sequence:
    - The gate will first move in the **closing direction** until it reaches the closed position and stops.
    - The gate will then automatically **open fully**.
    - After reaching the fully open position, the gate will **close again automatically**.
4. Once the gates complete this full open–close cycle, the **travel limit setting is complete**.
5. If the **slow-down distance** is not suitable, adjust the **"SLOW DOWN"** knob to fine-tune the deceleration distance.

Notes and Installation Guidelines

Wiring:

- Connect **Gate Opener 1**:
    - Black wire → Left terminal of **MOTOR1**
    - Brown wire → Right terminal of **MOTOR1**
- Connect **Gate Opener 2**:
    - Black wire → Left terminal of **MOTOR2**
    - Brown wire → Right terminal of **MOTOR2**
- For **single-gate operation**, connect the gate opener only to **MOTOR1**.

Sudden Stops:

- If the gate stops unexpectedly during the travel-setting process, **increase** the resistance setting using the **Obstacle Sensitivity Trimmer**.

Obstacle Handling:

- If the gate does **not stop** when encountering an obstacle during travel setting, **decrease** the resistance using the **Obstacle Sensitivity Trimmer**.

Speed Adjustments:

- After adjusting the **"SPEED"** trimmer, the **travel-limit setting must be performed again**.

Canceling the Setting Process:

- To cancel the travel-setting process at any time, press and hold the **"SET"** button.

DIGITAL SCREEN SETTING

When the control board is working, users can check the working status of gate opener by the digital screen on the control board.

 no input

 under opening state

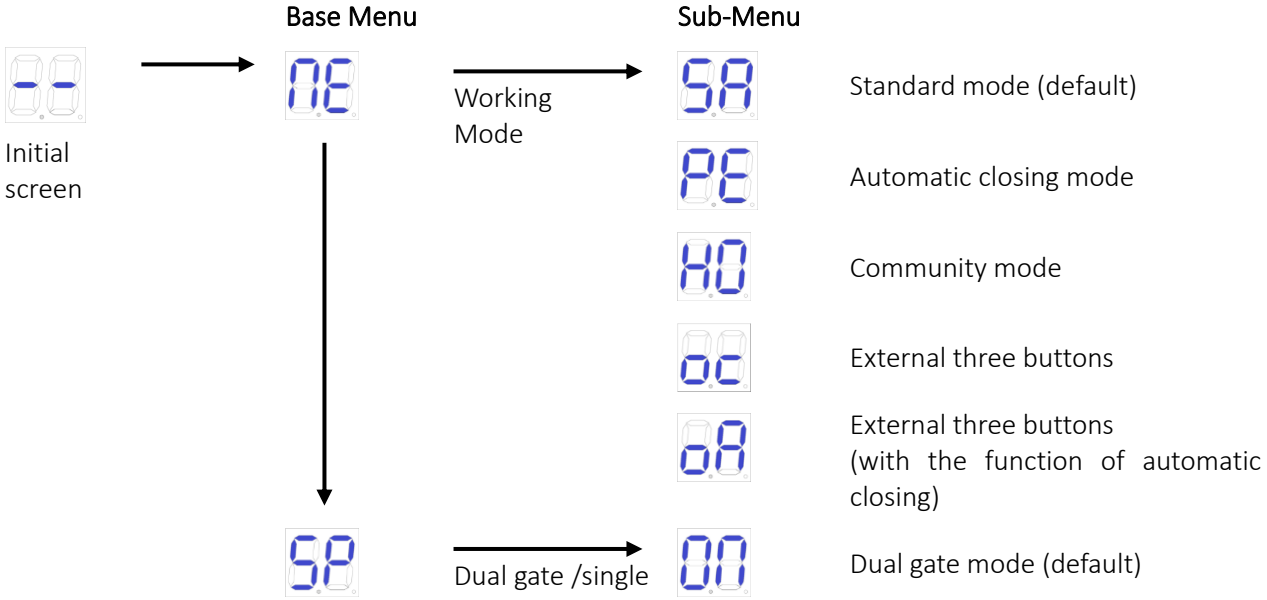
 under closing state

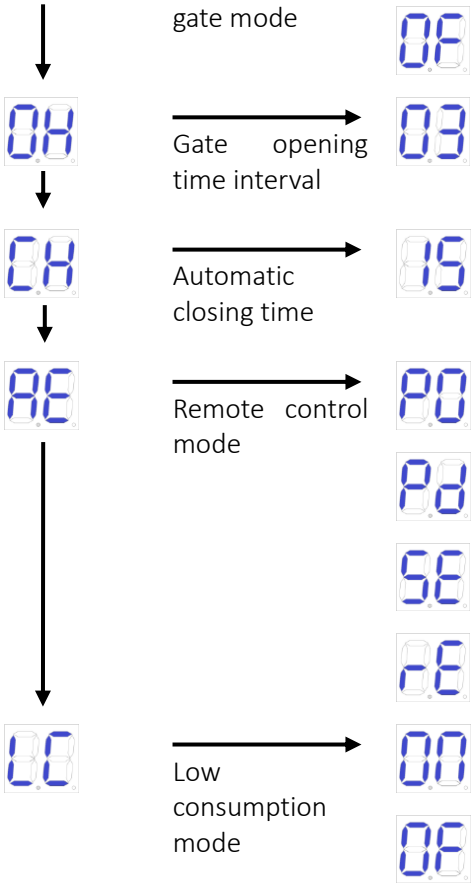
 manual mode

 travel setting

BASE MENU OPERATION

- Press the **"PROG"** button to enter the **Base Menu**.
- The digital display will show **"NE"**. Use the **"+"** and **"–"** buttons to scroll through the available functions.
- Press **"SET"** to confirm a selection or to enter a sub-menu.
- Press **"PROG"** at any time to exit the menu.
- If no buttons are pressed for **one minute**, the system will automatically exit the menu.




gate mode
Single gate mode
Gate opening time interval
3 seconds (default)
Automatic closing time
15 seconds (default)
Remote control mode
Single-channel mode (default)
Four-channel mode
Pedestrian mode
Delete remote control
Low consumption mode
Low consumption mode ON (default)
Low consumption mode OFF

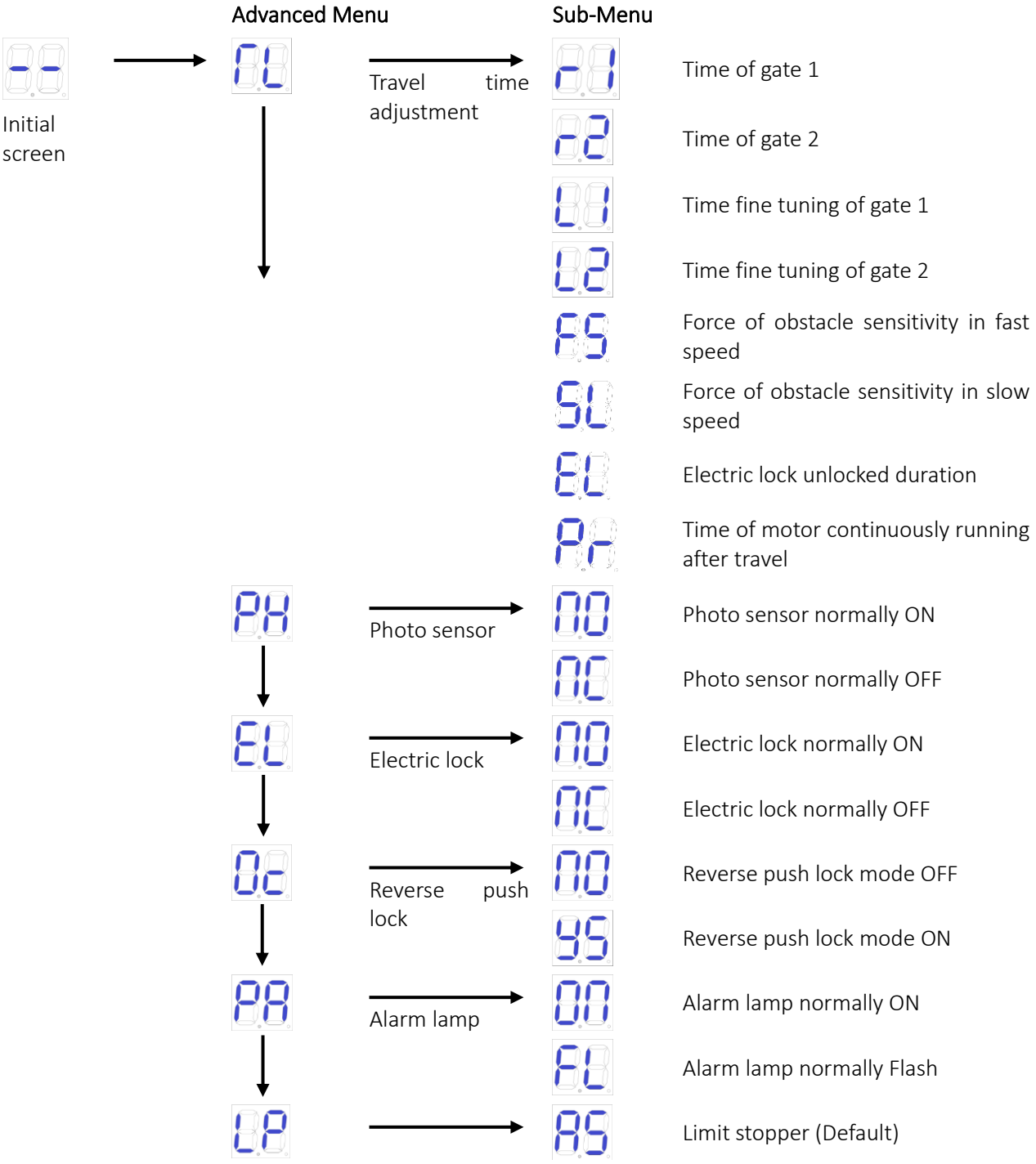
BASE MENU INSTRUCTION

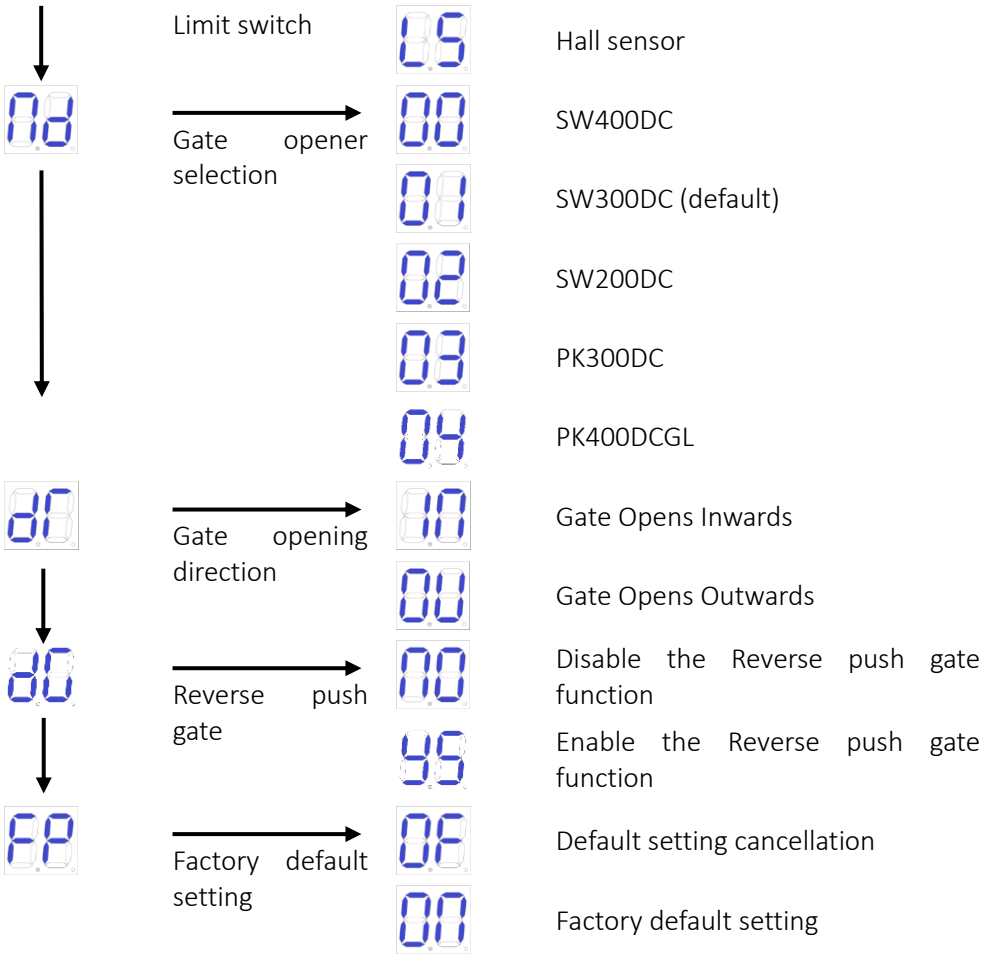
Menu Press "PROG" to enter the base menu	Option Press “+” (up) or “-” (down) to select; Press “SET” to confirm	Default /Attention
 Working Mode	 Standard mode; OSC/PED/STP represents dual gate single channel mode/pedestrian mode/stop OSC-- dual gate single channel mode PED-- pedestrian mode STP-- stop PS.: Pedestrian mode means that under dual gate mode, when both gates all closed, only M1 will open.  OSC/PED/STP standard mode with automatic closing function. When the gate opens, it will automatically close after the automatic closing time. If a “close the gate” command is sent during the automatic closing waiting period, the automatic closing function will be canceled.  Community mode (with automatic closing function). When the gate opens, no gate commands will be responded to until it closes automatically. If a gate command is sent during the closing process, the gate will reopen. If a gate command is sent during the automatic closing waiting period, the waiting time will be recalculated. If the gate does not close completely for more than ten consecutive attempts, the automatic closing function will be canceled, and the gate will close after resending the gate closing command. Note that in community mode, the gate still retains the automatic closing function in case of encountering obstacles.  External three buttons (OSC/PED/STP represents open/pedestrian/stop)  External three buttons: OSC/PED/STP is external three-button mode (with the function of automatic closing)	 Standard mode; OSC/PED/STP represents dual gate single channel mode/pedestrian mode/stop
 Dual Gate/Single Gate Mode	 Dual gate mode (default).  Single gate mode.	 Dual gate mode.

 Gate Opening Time Interval	 The gate opening time interval is 0-10 seconds (default is 3 seconds). If the interval is less than 2 seconds, the electric lock cannot be used.	 3 seconds.
 Automatic Closing Time	 Automatic closing time can be set as 15 (default), 30, 60, 90 seconds.	 15 seconds.
 Remote Control Mode	 Single channel mode.  Four channel mode (open/close/stop/pedestrian mode)  Pedestrian mode.  Delete all paired remote controls.	 Single channel mode.
 Low Consumption Mode	 Low consumption mode ON (When there is no operation on the initial screen, the control board will automatically enter the low consumption mode after 1 minute.)  Low consumption mode OFF	 Low consumption mode ON

ADVANCED MENU

Press and hold "PROG" for 2 seconds to enter the advanced menu.
The digital Screen will display “TL”. select other functions within this menu by “+” and “-” buttons.
Short press “SET” to confirm or to enter a sub-menu.
Short press “PROG” to exit the menu.
If there is no input for one minute, the menu will automatically exit.




Limit switch
Hall sensor
Gate opener selection
SW400DC
SW300DC (default)
SW200DC
PK300DC
PK400DCGL
Gate opening direction
Gate Opens Inwards
Gate Opens Outwards
Reverse push gate
Disable the Reverse push gate function
Enable the Reverse push gate function
Factory default setting
Default setting cancellation
Factory default setting

ADVANCED MENU INSTRUCTION

Menu Long press "PROG" 2 seconds to enter into base menu.	Option Press "+" (up) or "—" (down) to select; Press "SET" to confirm.	Default/Attention
 Travel Time Adjustment	 Time of of gate1  Time of of gate2  Time fine tuning of of gate 1  Time fine tuning of of gate 2  Obstacle sensitivity force in fast speed (When the gate is moving at full speed, the obstacle sensitivity force is at its lowest. If the obstacle sensitivity trimmer turns to maximum and an error appears on the screen, increase the value; If the trimmer turns to minimum and the obstacle sensitivity force is still too high, decrease the value)  Obstacle sensitivity force in slow speed (When the gate is moving at slow speed/soft start and stop, the obstacle sensitivity force is at its lowest. If the obstacle sensitivity trimmer turns to minimum and the gate reaches the limit stopper but the motor still runs, decrease the value. If the obstacle sensitivity force is maximum but the gate stops before reaching the limit stopper, increase the value.)  Electric lock opening time (The duration of electric lock stays opening, default is 3 seconds)  Time of motor continuously running after travel (5S-60S)	After automatic learning, if the travel is not ideal, it can be adjusted manually. Under the limit stopper mode, the shorter the time, the greater the slow speed distance of the gate. Under the Hall sensor mode, the shorter the time, the shorter the gate travel. Any adjustments to the obstacle sensitivity force for fast and slow speeds must be performed only by a licensed electrician.
 Photo Sensor	 N/O; photo sensor normally ON. (Default)  N/C; photo sensor normally OFF.	 N/O; photo sensor normally ON.
 Electric Lock	 Electric lock normally ON. (Default)  Electric lock normally OFF.	 Electric lock normally ON.

 Reverse Push Lock	 Reverse push lock mode OFF  Reverse push lock mode ON (When the electric lock is activated, the gate opener M1 will move slightly in the closing direction to prevent the electric lock from jamming and becoming unable to open.)	 Reverse push lock mode OFF
 Alarm Lamp	 Alarm lamp is normally on. 24V power supply. (Default)  Alarm lamp normally flashes. 24V power supply.	 Alarm lamp is normally ON. 24V power supply.
 Limit Mode	 Limit stopper (Default)  Hall sensor	 Limit stopper (Default)
 Gate Opener Selection	 SW400DC  SW300DC  SW200DC  PK300DC  PK400DCGL	 SW300DC
 Gate Opening Direction	 Gate Opens Inwards (Default)  Gate Opens Outwards	 Gate Opens Inwards
 Reverse Push Gate	 Disable the Reverse Push Gate function  Enable the Reverse Push Gate function (When enabled, the gate will move slightly backward after reaching the position to prevent it from getting stuck.)	 Disable the Reverse Push Gate function
 Factory Default Setting	 Cancel factory default setting.  Factory default setting completed.	

ERRORS

The following error conditions may appear during normal gate operation. These indicators help identify issues that require adjustment, inspection, or corrective action.

Error Indication	Error Cause	Solution
	Gate 1 obstructed in opening	1. Check if there is any obstruction when gate 1 opens 2. Adjust obstacle sensitivity appropriately 3. Increase slow speed distance appropriately
	Gate 2 obstructed in opening	1. Check if there is any obstruction when gate 2 opens. 2. Adjust obstacle sensitivity appropriately 3. Increase slow speed distance appropriately
	Gate 1 obstructed in closing	1. Check if there is any obstruction when gate 1 closes 2. Adjust obstacle sensitivity appropriately 3. Increase slow speed distance appropriately
	Gate 2 obstructed in closing	1. Check if there is any obstruction when gate 2 closes 2. Adjust obstacle sensitivity appropriately 3. Increase slow speed distance appropriately
	Photo sensors disconnect	1. Check the photo sensor setting status 2. Check if there is any obstruction in the infrared area
	Gate 1 closes before gate 2	1. Relearn travel setting 2. Adjust the opening time interval
	Motor runs too long	1. Check if the travel setting is completed 2. Check if Hall sensor is damaged 3. If the gate doesn't stop when in slow speed state, counterclockwise the trimmer to decrease the obstacle sensitivity or reduce the SL value in travel time adjustment in advanced menu
	Travel setting not completed	Re-learn the travel setting

TROUBLESHOOTING GUIDE

All troubleshooting work related to the motor must be performed exclusively by a trained and qualified technician who has the necessary expertise and certifications to manage such tasks safely and effectively. **It is critical to ensure that the power supply to the motor is completely turned off, and the motor is fully unplugged from its power source, before beginning any diagnostic, maintenance, or repair activities**. This precaution is essential to prevent electrical hazards, equipment damage, and potential safety risks to personnel and property.

Problem	Possible Causes	Solutions
Gate does not open or close and the display/LED is off	• Power supply is disconnected. • Fuse is burned or blown. • Incorrect wiring on the control board power input.	• Verify that the power source is properly connected; check and reset breakers if needed. • Inspect the fuse on the control board; replace it with the same rating if blown. • Recheck and correct wiring according to the installation manual.
Gate opens but does not close	• Incorrect photocell wiring. • Misaligned or poorly installed photocell. • Photocell beam is blocked by an obstacle. • Obstacle sensitivity is set too high.	• If no photocell is installed, ensure the IR and GND terminals are shorted (e.g., 5–6 and 5–7). If a photocell is installed, verify proper wiring and N.C. configuration. • Align the photocell transmitter and receiver. • Remove any objects blocking the beam. • Reduce obstacle sensitivity on the control board.
Remote control does not function	• Remote-control battery is depleted. • Remote control has not been learned/paired.	• Replace the battery with a new one of the same type. • Relearn/pair the remote control to the operator per programming instructions.
Gate does not move, but the motor makes noise	• Gate movement is not smooth. • Mechanical resistance or misalignment.	• Inspect the gate for friction, binding, or hinge issues. • Adjust or service the gate and motor installation as needed.
Gate stops or reverses in the middle of travel	• Motor output force is insufficient. • Obstacle sensitivity is set too high. • The gate encountered an obstacle.	• Check transformer output; replace if power is insufficient. • Adjust the FORCE/resistance setting on the control board. • Remove any physical obstacle from the gate path.
Gate does not stop at the open/close limit positions	• Faulty or damaged limit switch. • Reversed polarity of magnetic limit switches (black/blue magnets). • Faulty Hall sensor.	• Inspect limit switches for debris or damage; replace if defective. • Correct the magnet polarity/positioning. • Replace the Hall sensor if malfunctioning.
Circuit breaker or leakage switch trips	• Short circuit in the power wiring. • Short circuit in the motor wiring.	• Inspect all wiring for loose connections, exposed conductors, or damaged insulation. • Repair or replace faulty wiring and ensure proper insulation. • If the issue persists, consult a qualified electrician.
Remote control range is too short	• Signal interference or obstruction.	• Install an external antenna at least **1.5 m** above ground level to improve reception.

SOLAR POWER ACCESSORIES

The GATEPRO GP300 is designed with solar power compatibility, allowing users to operate the slide gate opener efficiently using renewable energy. This feature is ideal for locations without easy access to AC power or for users seeking an eco-friendly, energy-saving solution.

Solar System Requirements:

To ensure optimal performance of the GP300 in solar mode, the following components are required:

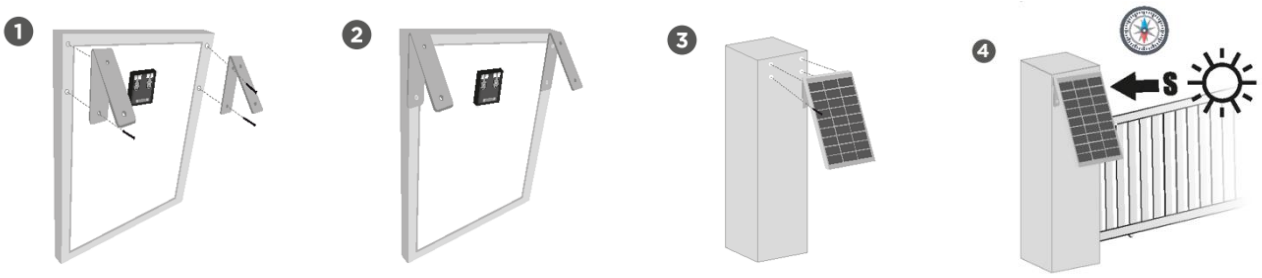
- Solar Panel: Minimum 24V, 20W (recommended 30W for enhanced efficiency)
- Charge Controller: 24V DC, PWM or MPPT type
- Battery: 24V DC, 12Ah minimum (recommended 24V, 20Ah for extended operation)
- Wiring & Connectors: Proper gauge wiring for efficient power transmission

Solar Power Operation & Performance

- Average Daily Cycles: 20-30 cycles per day (with a 24V, 20Ah battery and 30W panel)
- Battery Backup: Operates for 1-2 days without sunlight under normal usage.
- Low Power Mode: The system automatically enters a low-energy consumption state when not in use to conserve battery life.

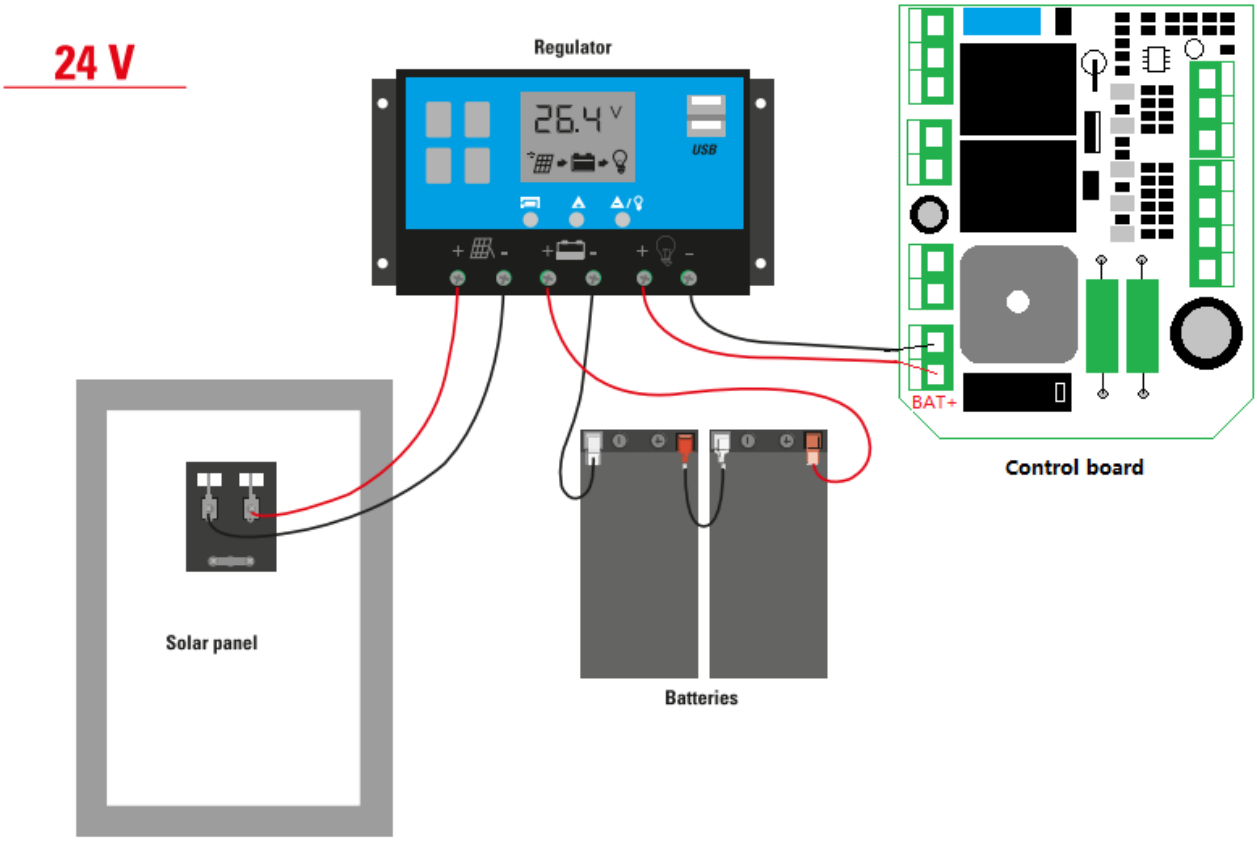
Solar Panel Placement

- Install the solar panel in a location with maximum direct sunlight exposure, free from obstructions such as trees or buildings.
- Angle the panel to match the latitude of your location for optimal sun exposure.



Connecting the Solar Panel

1. Connect the solar panel to the charge controller using appropriate wiring.
2. Ensure the positive (+) and negative (-) terminals are correctly connected.
3. Connect the battery terminals to the charge controller:
    a. Positive (+) to Battery + terminal on the controller
    b. Negative (-) to Battery - terminal on the controller
4. Connect the output of the charge controller to the power input terminals (24V DC) of the GATEPRO GP300.
5. Remove any AC power connections when using the solar setup exclusively.



Solar Panel Maintenance

- Clean the panel **monthly** to remove dust and debris.
- Inspect for any **physical damage** or loose connections.
- Check battery voltage regularly (**24V-26V** when fully charged).
- Replace the battery if performance declines after **2-3 years**.

Troubleshooting Guide

Issue	Possible Cause	Solution
Gate not operating on solar	Battery discharged	Recharge or replace battery
Low power warning	Insufficient sunlight	Increase panel size or adjust angle
Gate operates slowly	Weak battery	Charge or replace battery
System not charging	Loose or faulty wiring	Check and secure connections

Safety Precautions

- Do **not** connect both **AC power** and **solar power** simultaneously.
- Ensure all **connections are secure** to prevent electrical faults.
- Use **weatherproof enclosures** for the battery and charge controller if installed outdoors.

***For additional support, contact GATEPRO Technical Assistance or for further instructions, please refer to the SOLAR KIT instruction manual. ***

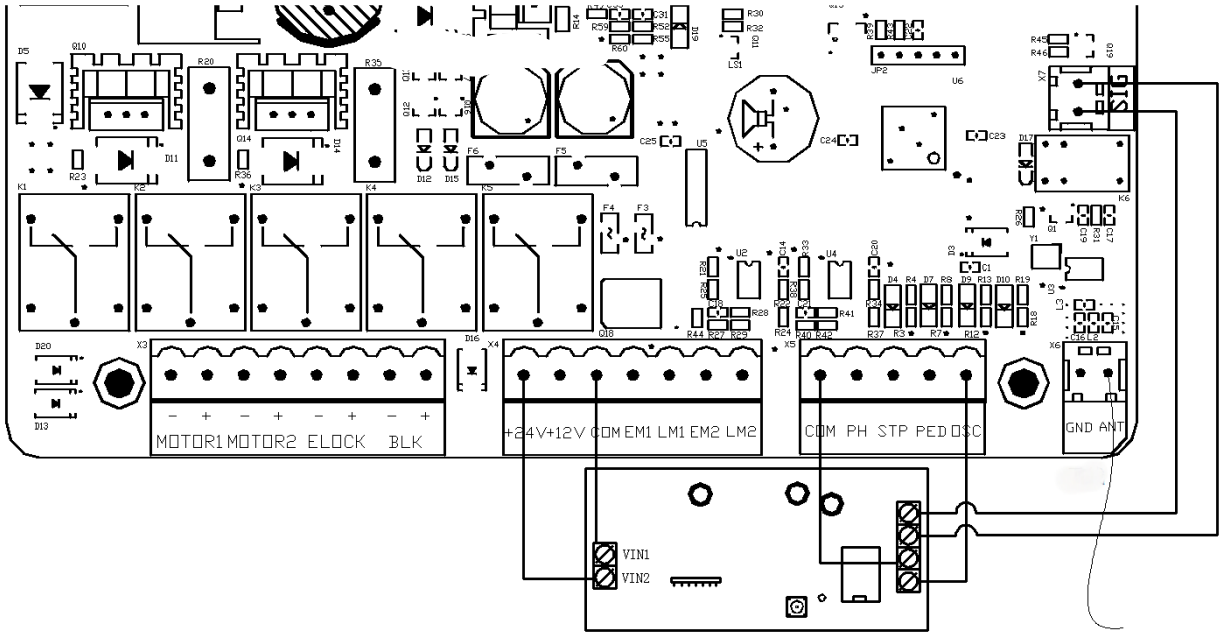
WIFI CONTROLLER INSTRUCTIONS (OPTIONAL)

Important Notice: To ensure optimal performance of the Wi-Fi Controller, a strong and stable **2.4Ghz Wi-Fi signal** is required. For the best connectivity, ensure the controller is installed within a reliable Wi-Fi coverage area and minimize interference from walls or other obstacles.

Main parameters of the module

1). Power Supply: 24VDC
2). Output single channel signal
3). Can accept closed in place signal

Wiring Instruction



WIFI Module(24VDC)

Output Terminal:

- Output signal – White Wire- Connect to "O/S/C" and "COM" terminals.
- Position Feedback – Green Wire – Connect to SIG.

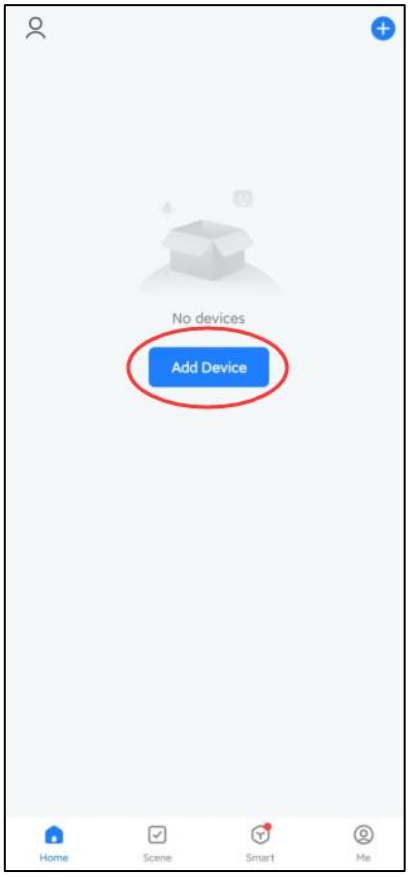
Power: Connect to 24VDC.

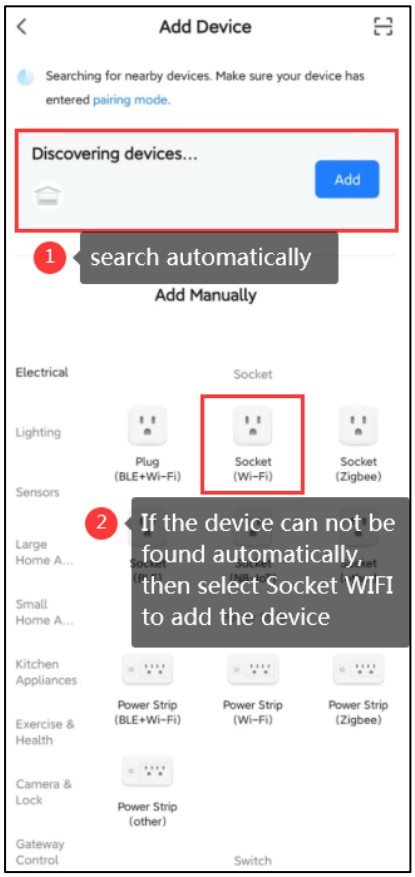
Connect to Equipment

1. Ensure your mobile phone is connected to the internet via **2.4G Wi-Fi**.
2. If your router supports both **2.4G and 5G Wi-Fi**, select **2.4G Wi-Fi**.
3. Download the **Tuya or Smart Life app** from the **App Store** or **Google Play Store**.
4. During pairing, ensure your **mobile phone** and **Wi-Fi device** are connected to the **same Wi-Fi router**.
5. Verify that your router's **MAC address is open**; if MAC filtering is enabled, disable it.

Tuya / Smart Life App Operation

1. Open the App and tap “Add Device”.
2. Connect to 2.4GHz Wi-Fi and reset the Wi-Fi device:
   a. Auto Search: Long press the reset button on the device, and your mobile will search for it automatically (Mark ①).
   b. Manual Add: If not found automatically, select “Add Manually,” choose “Socket Wi-Fi,” and follow the instructions (Mark ②).
3. Once added, the device will appear in the list. Rename it as needed for easy identification.



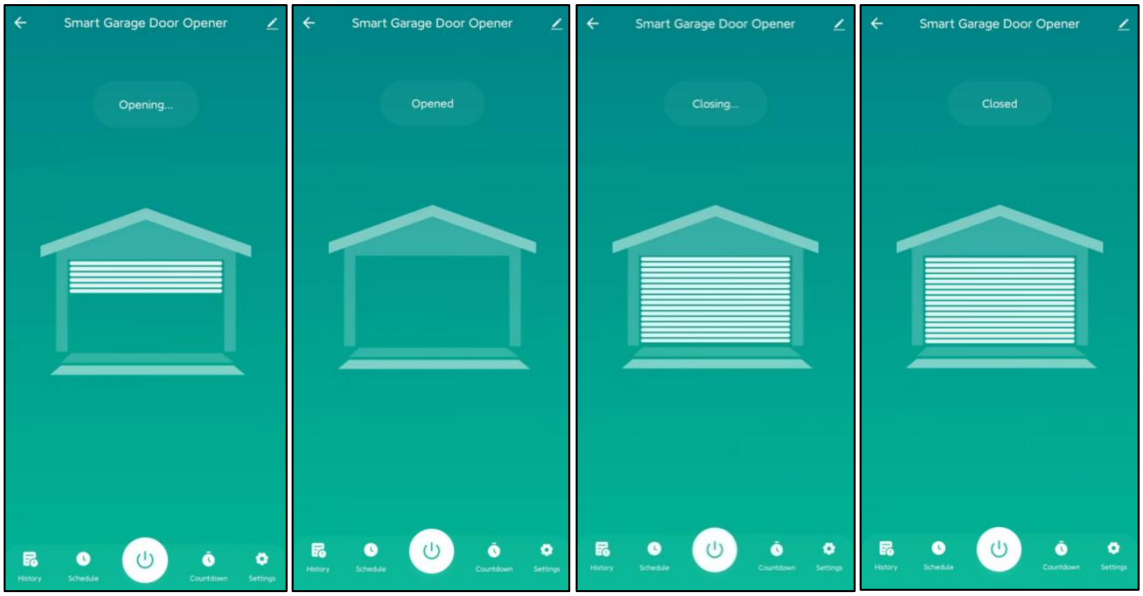


Step 4: Set Run Time Before Using Mobile Control

- Operate your gate for a full travel cycle (either open or close) and record the travel time.
- In the app settings, set the run time based on the gate’s travel time.
  - Example: If the gate takes 23 seconds to open, set the run time to 25 seconds (recommended to be slightly longer than actual travel time).
  - Default setting is 20 seconds—adjust if needed.
- Important: If the run time in the app is shorter than the actual travel time, a reminder notification will appear when the app’s timer ends before the gate completes its movement.

Step 5: Operate the Gate via Mobile App

- You can now control the gate from your mobile device.
- While the gate is opening, the app will display “Opening.”
- Once the gate reaches the open limit switch, the status will update to “Opened.”
- The same process applies when closing—the app will show “Closing,” then update to “Closed” upon reaching the closed limit switch.



Additional Notes on Wi-Fi Control

- You can still open and close the gate via the app, but there will be no feedback once the gate has fully opened or closed.
- It is strongly recommended to use Wi-Fi control only when the gate is within your visible range to prevent potential damage to people or property.

MAINTENANCE GUIDE

To maintain the efficiency and durability of your GATEPRO operator, routine maintenance is crucial. Follow these recommended procedures to ensure optimal functionality and safety.

SAFETY PRECAUTIONS: Before performing any maintenance or servicing of the GATEPRO operator, ensure all power sources are disconnected. This includes both AC power and battery power. The operator's AC power switch only turns off AC power to the control board and does NOT disconnect the battery. To fully power down the operator, ALWAYS disconnect the batteries before servicing.

1. Monthly Inspection:
   - Conduct a comprehensive inspection of the gate and operator to ensure proper functionality.
   - Verify that the gate moves smoothly without resistance, unusual noises and remains aligned.
   - Inspect key components such as wheels, guide rollers, tracks, and the motor assembly to ensure they are clean, debris-free, and in good condition.
2. Safety Equipment Verification:
   - To enhance safety, it is highly recommended to install an infrared protection system or other safety mechanisms to prevent accidents or collisions.
   - Regularly test these safety devices to ensure they are operational. Repair or replace any malfunctioning components immediately.
3. Pre-Installation and Operational Guidelines:
   - Prior to installing or using the GATEPRO operator, thoroughly read and follow the provided instructions.
   - Ensure that the gate is properly installed, leveled, and moves freely before integrating the operator.
4. Manufacturer's Rights:
   - The manufacturer reserves the right to modify or update the specifications and instructions of the GATEPRO operators without prior notice. Stay informed by reviewing the latest user manuals and guidelines available from authorized sources.
5. Additional Maintenance Notes:
   - High cycle / heavy-duty applications require more frequent maintenance checks.
   - The rack does not require lubrication.
   - It is recommended to measure voltage at the operator while onsite. Use a voltmeter to confirm that the incoming voltage remains within 10% of the operator's rated voltage.
   - Battery performance deteriorates over time due to usage and temperature variations. For optimal operation, replace them every two years.
   - Batteries contain lead and must be disposed of properly according to environmental regulations.

By following these maintenance guidelines, you can ensure the continued reliability, safety, and efficiency of your GATEPRO operator. If any issues arise or further assistance is needed, consult a qualified technician, or reach out to our support team for professional guidance.

WARRANTY

At GATEPRO, we are committed to providing high-quality products and excellent customer service. GATEPRO operator's come with a comprehensive warranty to ensure client satisfaction. Below are the detailed terms and conditions of the warranty policy:

1. Warranty Coverage

- This warranty covers factory defects in materials and workmanship for the GATEPRO operators.
- GATEPRO will repair or replace defective parts due to manufacturing defects or component failures at no cost during the warranty period.
- Warranty claims require proof of purchase (original invoice and warranty documentation).
- All warranty services must be performed by authorized service centers or qualified technicians designated by GATEPRO.

2. Warranty Period

- This warranty is valid for one (1) year from the original date of purchase.
- The purchase date on the invoice serves as the official start date of the warranty period.

3. Conditions for Warranty Service

The warranty applies under the following conditions:

- The product must be installed, operated, and maintained in accordance with the instructions provided in the user manual.
- The product must not have been disassembled, modified, or tampered with by unauthorized personnel.
- Any defect must be verified by an authorized service technician as a result of manufacturing defects or faulty components.
- The product must have been used as intended, without signs of misuse, abuse, or neglect.

4. Exclusions from Warranty

This warranty does NOT cover:

- Improper Use: Damage caused by incorrect installation, operation, or handling that does not follow the user manual.
- Man-Made Damage: Mechanical or physical damage due to accidents, impacts, vandalism, or external forces.
- Neglect or Lack of Maintenance: Issues arising from failure to perform regular maintenance or inspections.
- Environmental Factors: Damage due to extreme weather, natural disasters, acts of God, flooding, lightning, or exposure to corrosive substances.
- Unauthorized Repairs or Modifications: Any repairs, alterations, or disassembly performed by unauthorized personnel.

- Wear and Tear: Normal wear and tear of components such as rollers, tracks, or other consumable parts.
- Interference Issues: Problems caused by radio frequency interference, power surges, electrical issues, or electrical noise.
- Gate Hardware: This warranty does not cover gate-related issues, including but not limited to gate springs, rollers, alignment, hinges, or structural problems.

Service calls that determine the issue is related to one of the exclusions above may result in additional fees.

5. Warranty Claim Process

To file a warranty claim, please contact GATEPRO customer support or an authorized service center and provide the following:

- Proof of purchase (original invoice and warranty documentation).
- Detailed description of the issue or malfunction.
- Photos or videos (if applicable) to assist in diagnosing the problem.

Once the claim is approved:

- The product must be sent prepaid and insured to the designated service center.
- GATEPRO will repair or replace the defective product at no cost during the warranty period.
- Repairs may include new or refurbished parts, depending on availability.

6. Limitation of Liability

- GATEPRO shall not be liable for any indirect, incidental, or consequential damages resulting from the use or inability to use the product.
- GATEPRO's liability is strictly limited to the repair or replacement of defective parts as specified in this warranty.
- In no event shall GATEPRO’s liability exceed the original purchase price of the product.
- No individual or third party is authorized to assume liability or modify this warranty on behalf of GATEPRO.

7. Additional Information

- The manufacturer reserves the right to repair or replace defective parts at its sole discretion.
- This warranty does not cover labor costs for removal, reinstallation, or on-site service, unless explicitly stated.
- This warranty is non-transferable and applies only to the original purchaser of the product.
- The manufacturer reserves the right to update or revise these warranty terms without prior notice.

For support or further details, please contact GATEPRO customer service or visit our website. Retain your original purchase documents, as they are required to process any warranty claims.