TRIPLO W
Criamos Segurança!

TW-500ACL

Sliding port motor

Installation Guide
User Manual

ATTENTION:

Leia o manual com atenção antes da instalação e guarde-o para uso futuro.

Guarde as chaves mecânicas num local seguro para, em caso de avaria ou emergência, poder abrir a porta mecanicamente.

NOTICE:

- The instructions must be read before installation. Follow these instructions carefully; incorrect installation may affect the gate's operation.

- When assembling and positioning this product, ensure that the power cord is disconnected.

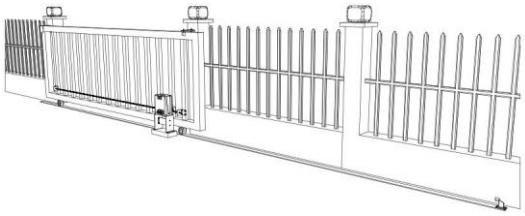
- The motor cover will need to be removed to mount the motor to the mounting plate or directly to the concrete base.

- Any changes to the settings of this product may only be made by a licensed electrician.

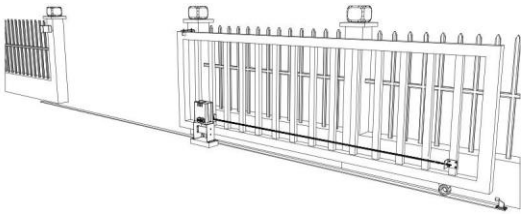
- This product is powered by 220 VAC power supply only;
- Battery backup or solar power are not supported.

Standard Configuration Instructions:

The motor will open the gate to the right side as the default setting. By default, the motor is mounted on the right side. (Figure 1)



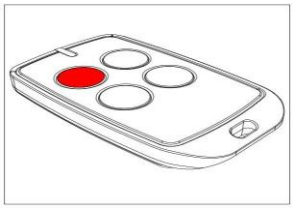
Gate in closed position

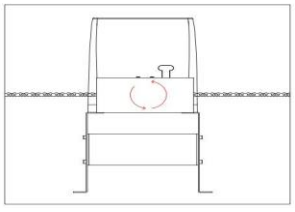


Gate in open position

Figure 1

Before installation: Test the gate motor by connecting it to a power source and pressing the remote control. Press the open button, the output sprocket rotates, then press the stop button, the output sprocket stops rotating. Finally, press the close button, and the output sprocket rotates in the opposite direction. This will give you an understanding of how the motor moves the gate.





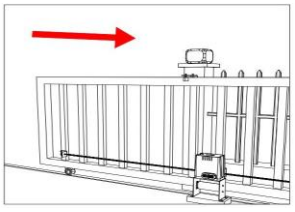


Figure 2

Note: Make sure the gate motor is turned off before proceeding with the installation. Please keep the fingers away from the motor output sprocket while it is rotating.

If your gate needs to open in the other direction (to the left, see Figure 3), the motor needs to be mounted on the left side, as shown. The corresponding wires need to be swapped. See the "Terminal Instructions" to make the swap. (The factory default setting is for right-hand opening: motor mounted on the right side.)

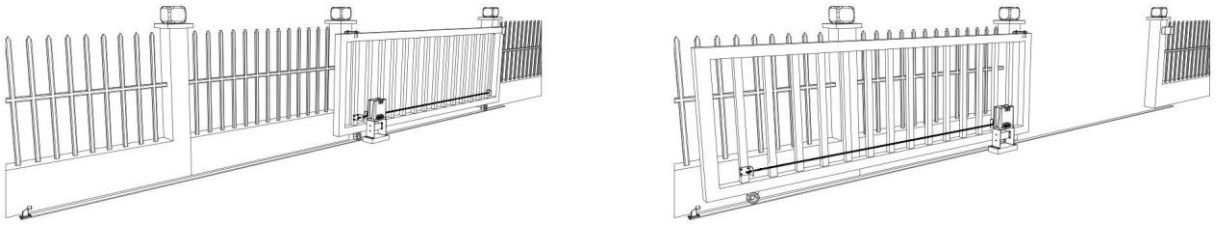


Figure 3

Any work performed on the gate motor must be completed while the power is off and the motor is disconnected.

Safety Instructions

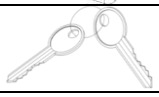
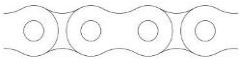
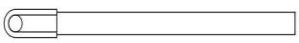
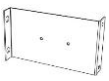
Warning: Incorrect or improper use of this product may cause harm to people, animals or property.

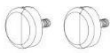
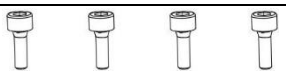
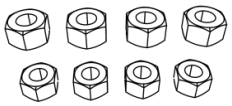
- Make sure the input voltage used matches the door motor supply voltage.
- All modifications to the wiring or electrical system, and any adjustments or maintenance at the input voltage must be done by a qualified electrician.
- All potential hazards and exposed pinch points on the gate must be eliminated or protected before installing this gate motor.
- Never install any device that operates the gate motor where the user can reach above (below, around, or through) the gate to operate the controls. They should be placed away from any moving range of the mobile gate.
- Make sure the power plug is disconnected from the socket during installation or maintenance.
- Keep the remote and other control devices out of reach of children to prevent unintentional activation.
- To ensure safety, before installing the motor, install a gate latch and gate stop at each end of the track to prevent the gate from coming off the track.
- If necessary, install an infrared photocell to detect obstructions and prevent personal injury or property damage.
- Instruct all users on the control systems provided and the manual opening operation in case of emergency.
- Make sure the power cord is plugged into a weatherproof, grounded electrical outlet installed by an electrician.

qualified.

- Do not install this product in an explosive atmosphere or where there is a risk of flooding.
- This product has been designed and manufactured exclusively for the use specified in this documentation. Any other use not specified in this documentation may damage the product and be dangerous.
- Use only genuine parts for any maintenance or repairs. Our company declines any responsibility regarding the safety of the automation and proper operation when using components from other suppliers.
- The user must avoid any attempt to carry out any work or repairs on this product and must always seek assistance from qualified personnel.
- This product is suitable for use on one sliding gate only.
- Anything not expressly provided for in these instructions will not be permitted and will void the warranty.

Package Contents

N.	Photography	Name	Amount
1		Engine	1
2		Manual opening keys	2
3		Remote controls	2
4		Mounting accessories box	1
4-1		Sprocket cover	1
4-2		Chain (including 2 chain links)	6m
4-3		Steering bar	2
4-4		Square screw	4
4-5		Round screw	4
4-6		Door connection plate	2
4-7		Horizontal mounting plate	1
4-8		Vertical mounting plate	2

N.	Photography	Name	Amount
4-9		M8 anchor bolts	4
4-10		Stop by magnetic limit switch	2
		Magnets	2
		Hex head screw M6X65	4
		M8 nut	4
		Flat washer φ8	2
		Spring washers φ8	2
4-11		Hex socket head screw M6X20	4
4-12		Hex head screw M8X40	4
4-13		M6 nut	16
		M8 nut	16
4-14		Flat washer φ6	16
		Flat washer φ8	16
4-15		Spring washers φ6	16
		Spring washers φ8	12

Note: Extra flat washers and spring washers are spare parts.

Technical Specifications

Power source	220 VAC/50 Hz
Engine power	280 W
Gate movement speed	13 m/minute
Maximum load weight	600 kg
Remote control distance	≥30m
Remote command mode	Single button mode
Limit switch	Magnetic limit switch
Working noise	≤56dB
Recording remote commands	Standard control board: 25; Smart control board: 40
Remote Frequency	433.92 MHz

Before Installing

- The TW-500ACL sliding gate automation kit is suitable for opening and closing gates weighing up to 600 kg and 800 kg and measuring up to 12 m in length. (The standard kit contains a 6 m chain. If the gate length is more than 5.5 m, consider increasing the chain length.)
- The movement of the gate is obtained by the rotation of the gate motor's output sprocket, driving the installed chain at the moving gate.
- The gate motor requires you to press the control once to open and once more to close. This is a safety feature to ensure safe operation.
- The gate motor itself must be installed within private property, never outside the property boundaries.

Any work performed on the gate motor must be completed while the power is off and the motor is switched off. Any modifications/changes/work on the power components must only be carried out by a licensed electrician.

Necessary tools

- Tape measure
- Level
- Drill and 12mm concrete hammer (when using expansion bolts)
- Phillips screwdriver
- Straight screwdriver

Example of a sliding gate

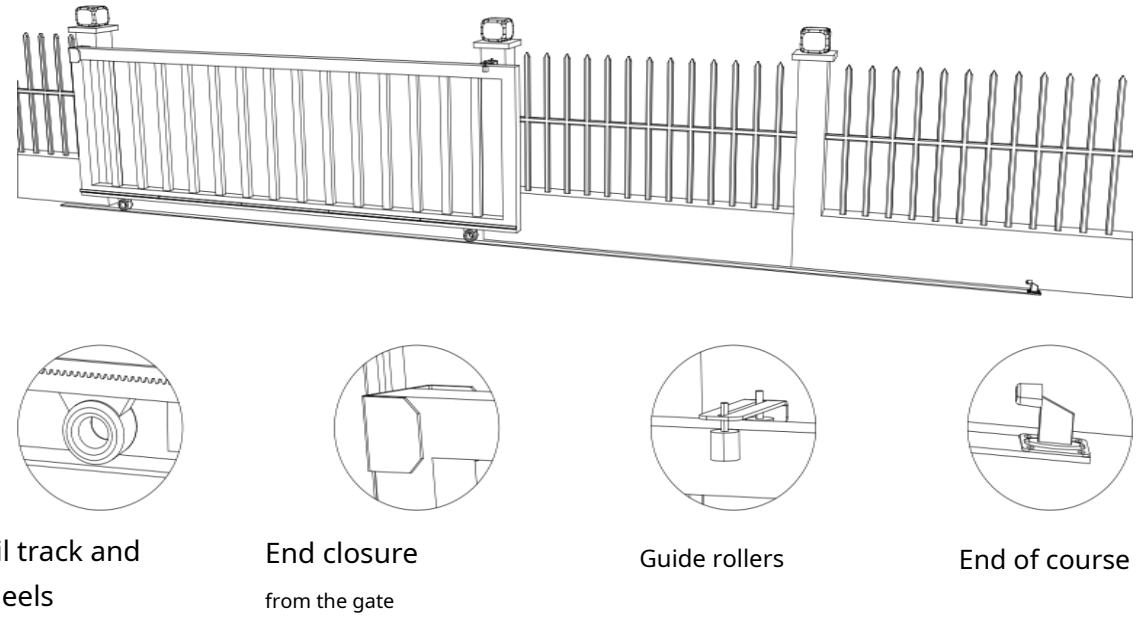
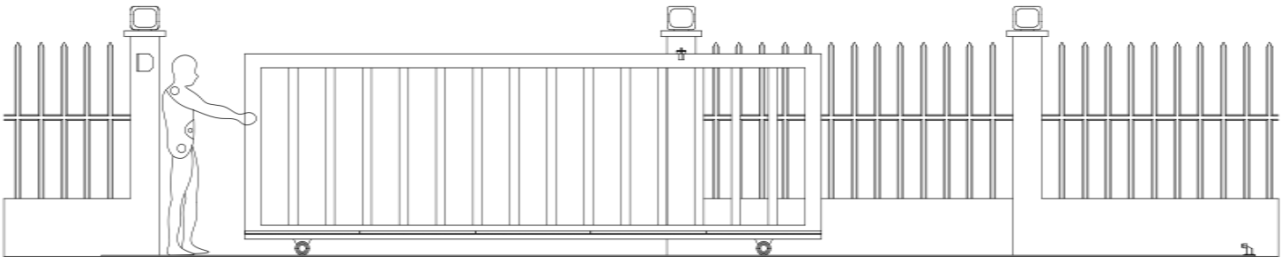


Figure 4

Step 1 - Preparing the gate

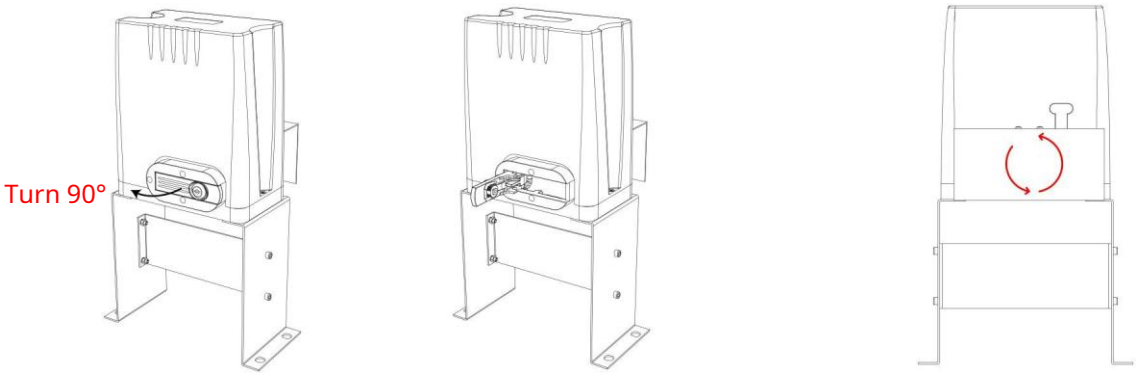
- Make sure the sliding gate is installed correctly.
- The gate is horizontal and level and can slide back and forth smoothly when moved manually before the gate motor is installed.
- Wheels and guide rollers must rotate easily and be free of dirt or grime.
- The rail must be flat, level and firmly fixed.
- Any misalignment in the gate will affect the performance of the automatic gate motor.



The gate should slide smoothly by hand before attempting to install the gate motor.

Step 2 - Manual Release Verification

- Insert the key and open the manual release bar to allow the motor to enter manual mode and verify that the motor output sprocket rotates freely by hand (Figure 6).



To put the engine in manual mode, insert the key and open the manual release bar until it rotates 90°.

In manual mode, the sprocket can rotate freely and the gate can be operated manually.

Figure 6

Step 3 - Removing/Installing the Engine Cover

- Unscrew the two cover screws located on each side of the engine cover.
- Remove the rubber grommet below the limit switch (Figure 7).

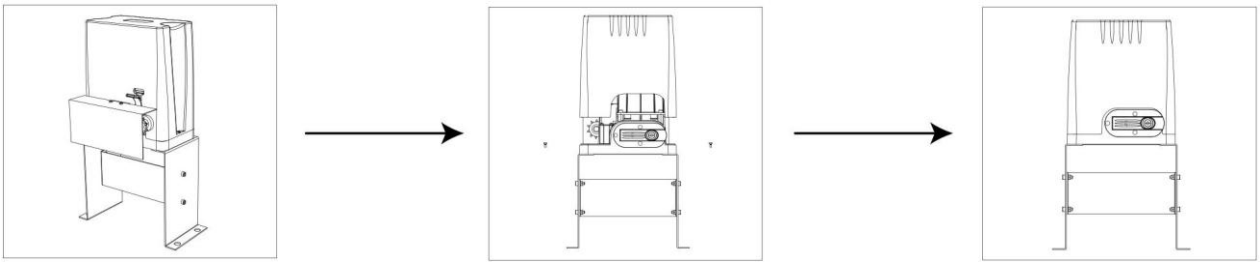


Figure 7

- Installing the sprocket cover as shown in Figure 8

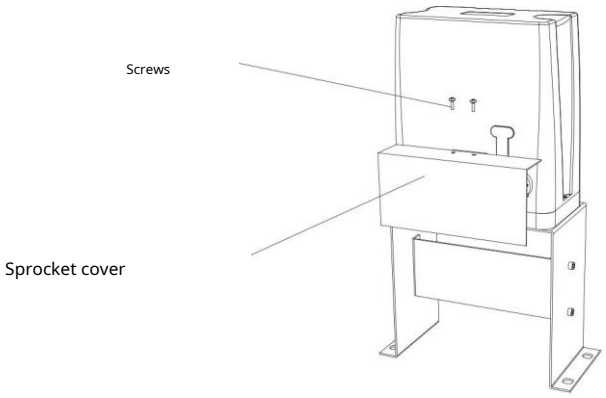
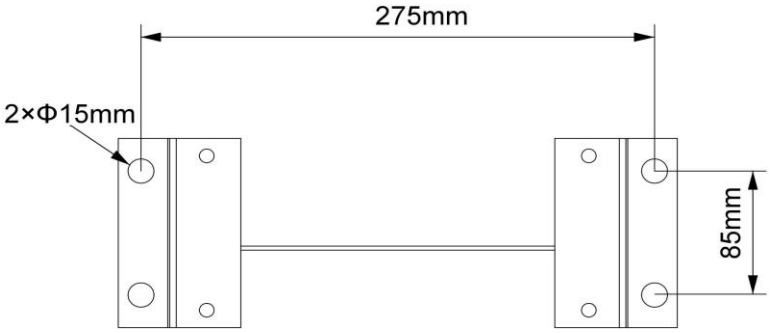


Figure 8

Note: The rubber grommet must be replaced on the motor cover once the cover is replaced/ placed on the motor base.

Step 4 - Motor base

- The concrete engine base requires an area of at least 500mm long x 350mm wide and a minimum depth of 200mm (standard requirement).
- Make sure the surface is level and parallel to the driveway.



Mounting base dimensions

Figure 9

Step 5 - Assembling the mounting base and motor

- Install anchor bolts (included in the kit) or expansion bolts (must be prepared by users) according to the holes on the mounting base (as per Figure 9).
- Place the mounting base and secure it as shown in Figure 10.
- Secure the motor to the base using the M8x40 screws with spring and flat washers provided and tighten as needed.

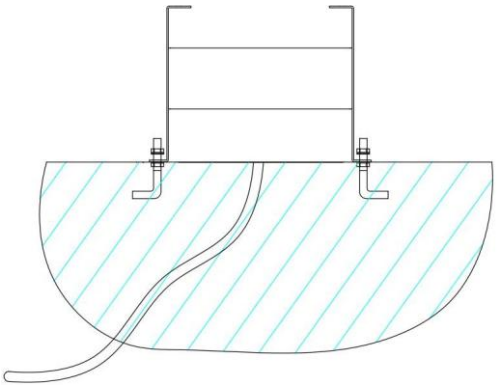


Figure 10

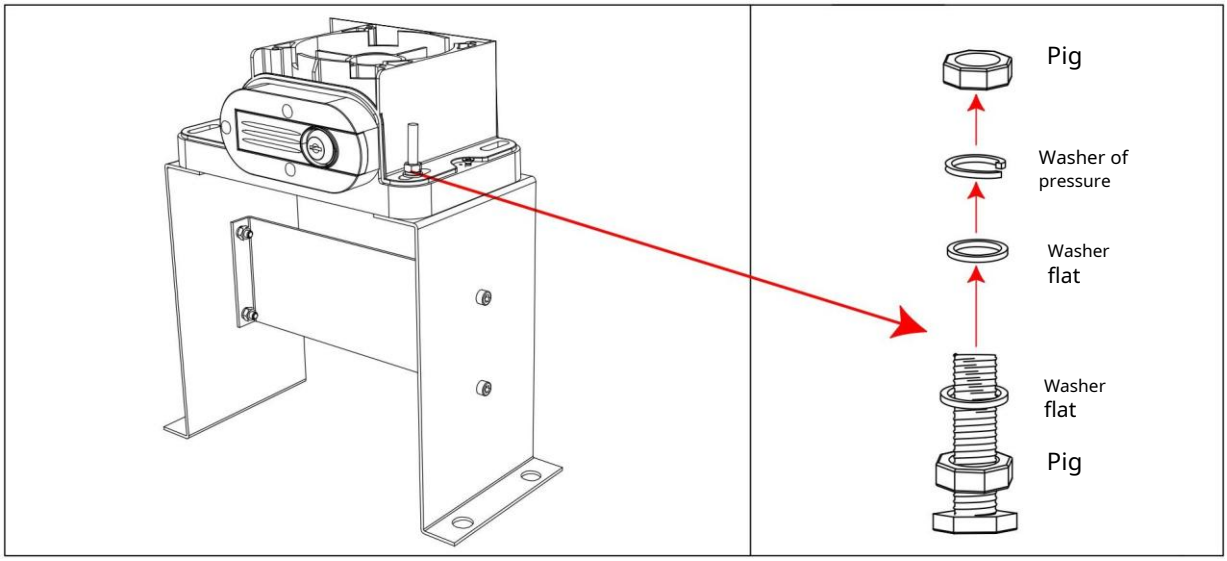


Figure 11

Engine assembly

- Fit the motor and mounting base to the concrete base.
- Make sure the engine output sprocket and chain are correctly aligned.

  aligned. The sprocket and chain should be as centered as possible.
- Remove the motor from the mounting base.
- Leave a space of 30 cm from the motor to the end of the chain.

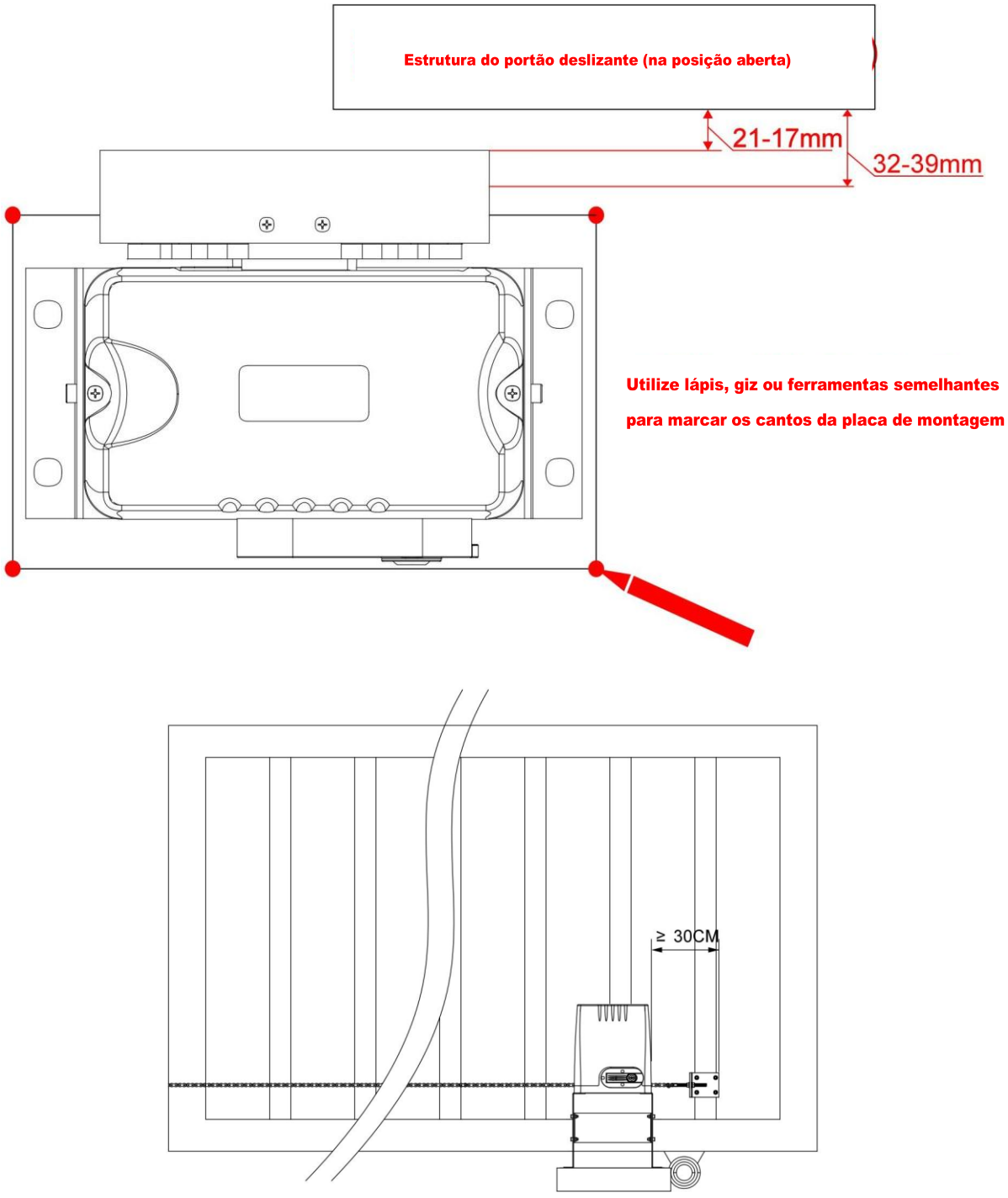


Figure 12

Step 6 - Aligning the sprocket, chain and engine

- Make sure the output sprocket and chain are correctly aligned. In
  under no circumstances should the gate motor output sprocket support the weight of the gate.
  The task of the gate wheels or casters is to support the weight of the gate.

- If the gate does not slide freely by hand, adjust the chain height until the entire length of the gate slides freely by hand.
- Make sure the chain is properly tightened after installation. (see Figure 14)

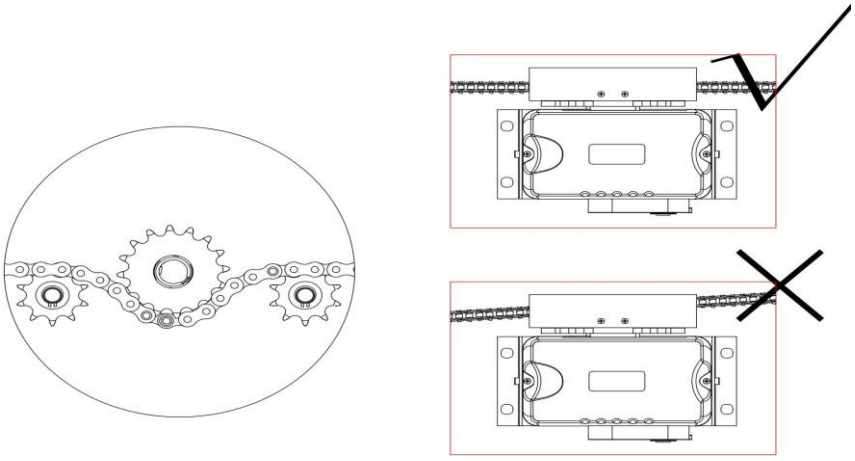


Figure 13

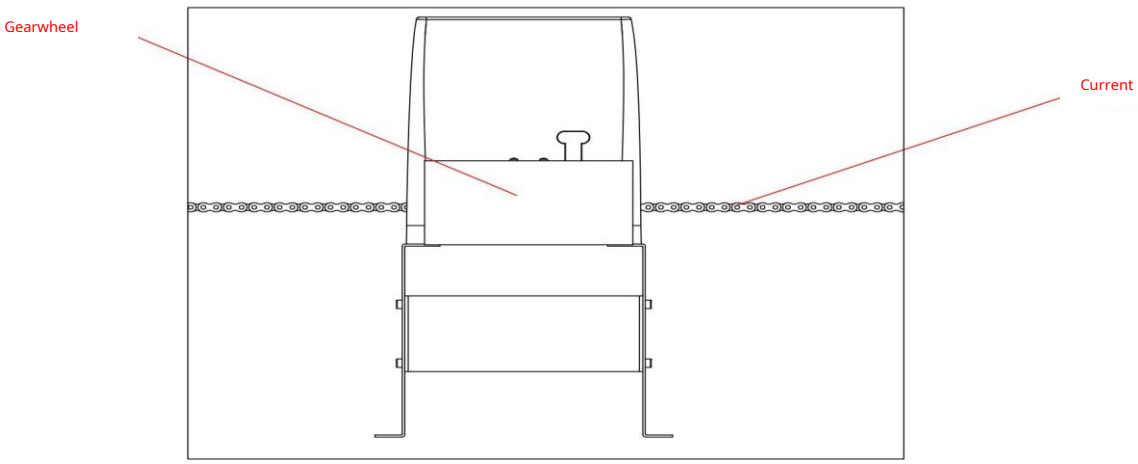
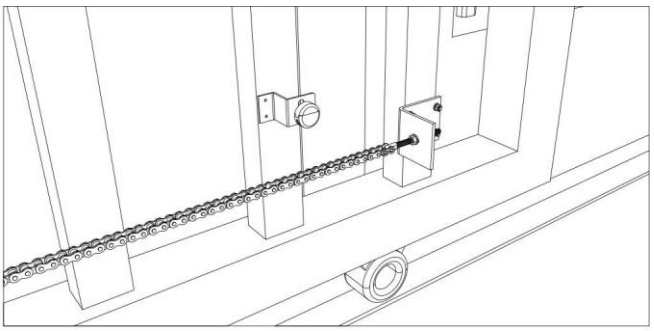


Figure 14

Step 7 - Limit Switch Stops



Included in the gate motor kit are two limit stops that must be installed to ensure safe operation.

The limit stops are designed to set the desired opening position and closing the gate. When the limit switch enters in contact with the magnet, the gate stops.

Incorrect installation or absence of limit switches may cause the vehicle to fall.

gate, damage to the internal structure of the motor and the gate may slide off the guide rail.

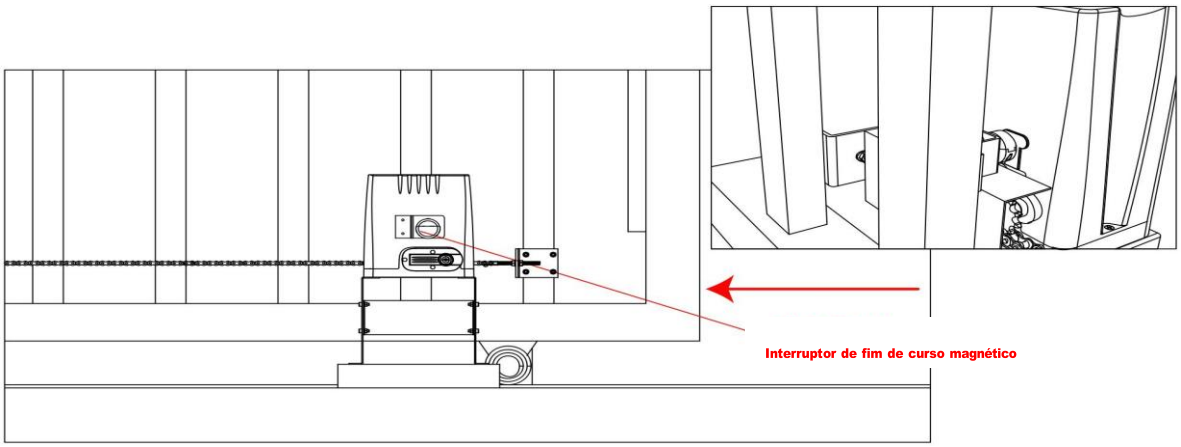
Configure limit switch stops

Closed Position

- Position the gate 150-200 mm behind the closing position of the gate end latch. This will help ensure the gate does not hit the end stop/lock when closing under power.

- Fit the limit switch stop onto the top of the chain where it meets the magnetic limit switch on the

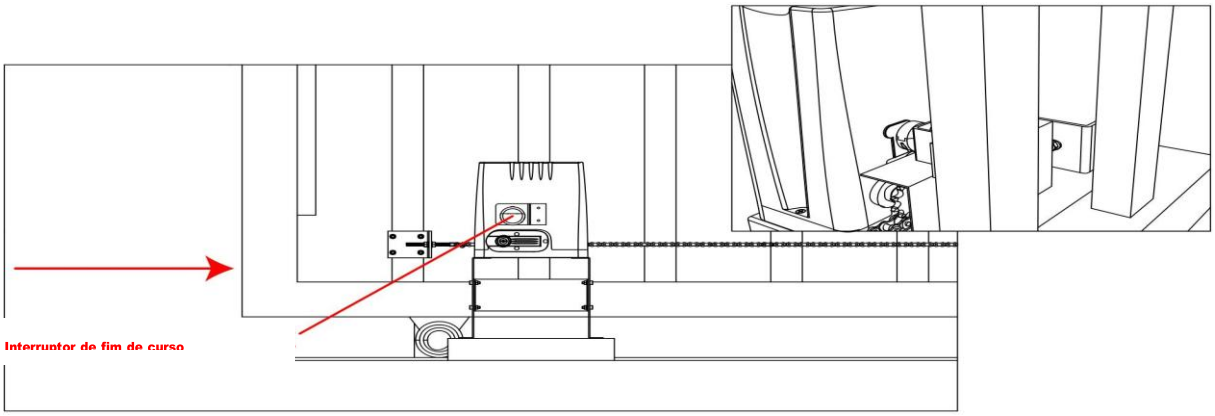
  engine.
- Tighten the limit switch limiter mounting screws.



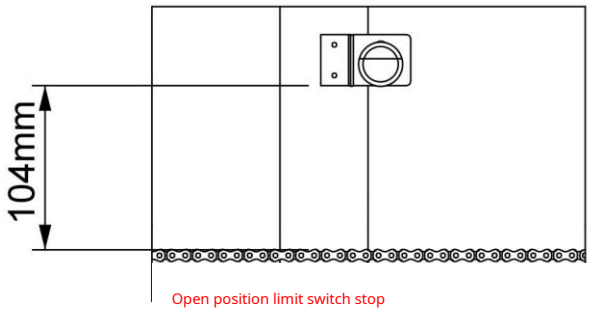
Open position

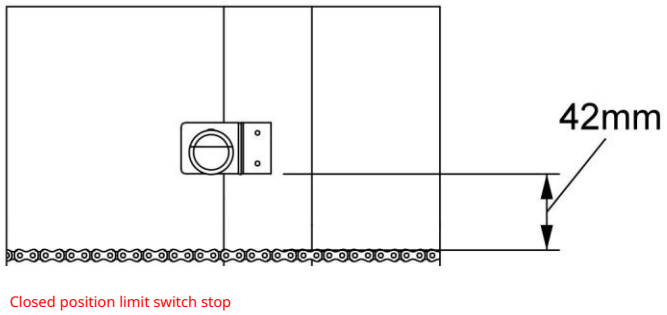
- Position the gate 150-200 mm behind the open stop position. This will help ensure the gate doesn't hit the end stop/lock when setting the power open position.
- Fit the limit switch stop onto the top of the chain where it meets the magnetic limit switch on the

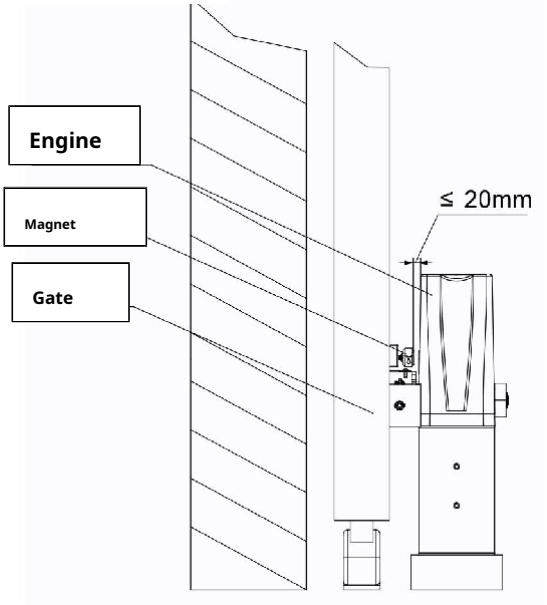
  engine.
- Tighten the limit switch limiter mounting screws.



Test the magnetic limit switch by moving the gate manually until you hear a click, ensuring that there is contact with the magnetic limit switch on the motor.







To reset: Turning the power off will reset the limit switch stop memory.

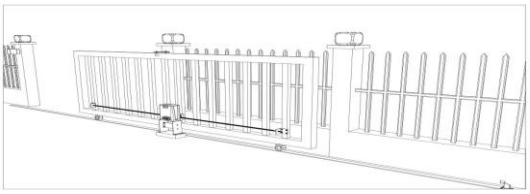
course. Turn the gate motor back on by pressing the remote control or the external button to open and close the gate once. Then the new gate stop setting

limit switch will be completed.

Step 8 - Connect

- Make sure the outer cover has been installed and re-secured to the motor base.
- Before turning on the gate opener, make sure the gate can be opened.

  manually in manual mode (key unlocked).
- Slide the gate approximately halfway up the posts (see diagrams below).
- Lock the manual release key (key locked) to prepare for automatic mode.
- Connect the power cord to an approved, weatherproof, RCD-protected socket.
- The remotes included in this kit are factory paired and ready to use.



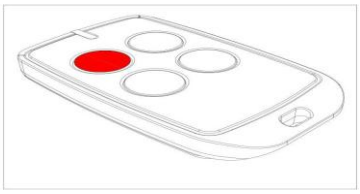


Figure 15

Step 9 - Test trips and stops limits

Test the closed position

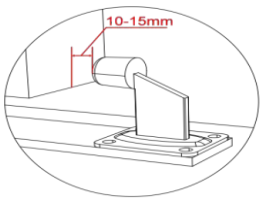
- Make sure the gate motor is installed according to steps 5, 6 and that the sliding gate is in the intermediate position.
- Press the remote control (the remote controls included in the kit are factory-paired with the motor). The sliding gate will begin to close.
- The limit switch stop will hit the limit switch and the sliding gate will stop.
- When the gate stops, measure the remaining distance between the sliding gate and the intended closed position.
- Now you have determined the closed position of the sliding gate when the limit switch stop hits the limit switch.
- Adjust the limit switch stop from the measurement you took to obtain the final closing position of the gate. The ideal final position for the gate stop is 10-15 mm from the end of the closed gate latch.

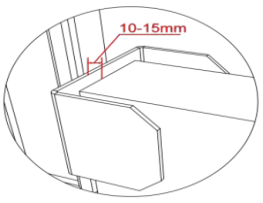
Test the open position

- Press the command and the sliding gate will start to open.
- The limit switch stop will hit the limit switch and the sliding gate will stop.
- When the gate stops, measure the remaining distance between the sliding gate and the intended opening position.
- You have now determined the open position of the sliding gate when the limit stop reaches the limit stop.
- Adjust the limit switch stops from the measurement you took to obtain the final opening position of the gate. The ideal final opening position of the gate frame is 10-15 mm from the gate jamb.

To replace:

When setting new limit stop positions, be sure to turn the power off and then back on again. Turning the power will reset the end stop memory, allowing new switch stop positions end of stroke are recognized by the engine.





The basic open and closed positions are now set. For more configuration and parameter adjustment functions, see pages 15 to 28 of this manual.

Schedule

Any work on the electrical network should only be carried out by a licensed electrician.

Make sure the power is off before making any modifications.

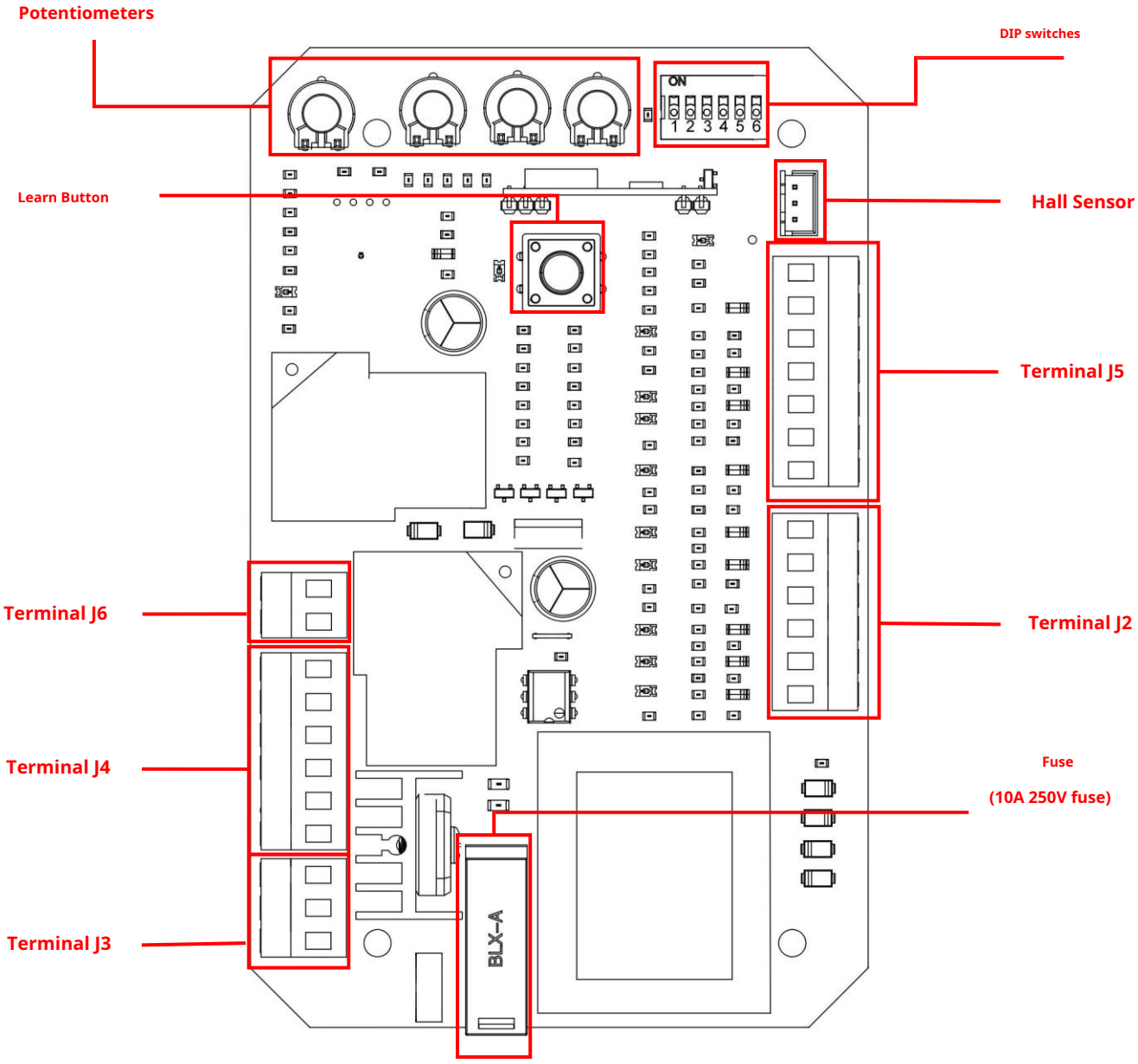


Figure 16

DIP switch adjustment

All changes to these settings must be completed by a licensed electrician.

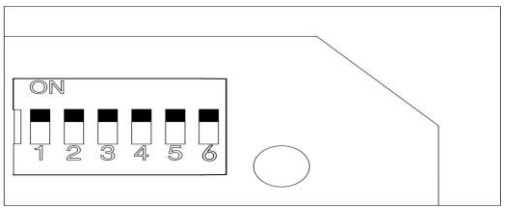


Figure 17

N.	Function	Description
1	**Soft start/close Function**	OFF–enabled ON–off The default position is OFF.
2	**Configuration of limit switch**	OFF–Normally open ON – Normal closing The default position is ON, it must be aligned with the switch end of stroke and it is not recommended that it be modified by users.
3	**Closing time automatic Definition**	Automatic closing time setting: the gate is operated to open by remote control and will close automatically after a few seconds delay. 3 OFF 4 ON: The automatic closing delay time is 12 s. 3 ON 4 OFF: the delay time of the automatic closing is 24 s. 3 ON 4 ON: the automatic closing delay time is 36 s. 3 OFF 4 OFF: No automatic closing function.**Settings** **Default: 3 OFF 4 OFF Disables the automatic closing function.**
4		
5	**Reversal function automatic**	OFF-enabled ON-disable The default position is OFF, it must be aligned with the state of the opener and is not recommended to be modified by users.
6	**Control mode remote/switch**	OFF - single channel mode ON - four-channel mode

Potentiometer adjustment

All changes to these settings must be completed by a licensed electrician.

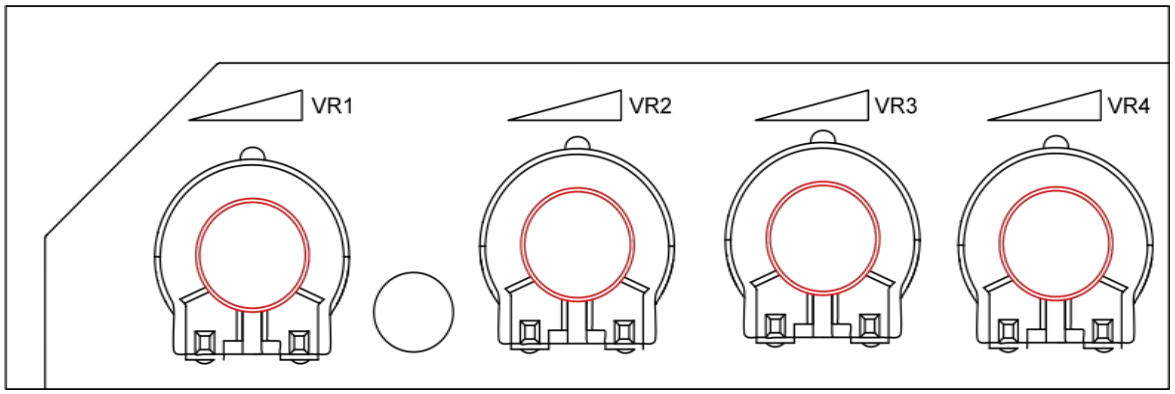


Figure 18

VR1: Force Stop Mode

Maximum = More Force = Less Sensitive Minimum = Less Force = More Sensitive

When Stall Force mode is activated (DIP switch 5 is in the OFF position), the gate opener will detect obstacles and impacts on the gate. If this occurs during opening, the gate will stop; if it occurs during closing, the gate will stop and then reopen. Turn VR1 clockwise to increase the stopping force, counterclockwise to decrease it.

For security reasons, we strongly recommend that Force Lock Mode be left enabled (DIP switch 5 is in the OFF position). Do not turn DIP switch 5 to the ON position.

VR2: Brake force regulation

To adjust the braking force at the limit position during gate opening and closing. This should only be adjusted for heavy gates that require additional force to brake when the limit switch is detected.

Turn VR2 clockwise to increase and counterclockwise to decrease. The default setting is minimum.

VR3: Slow start/stop width adjustment

This switch controls how many seconds the gate opener operates at maximum speed. Turn VR3 clockwise to increase speed, and counterclockwise to decrease speed.

When VR3 shifts to minimum, the slow start/stop function is disabled.

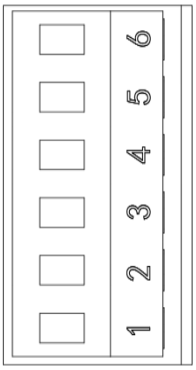
VR4: Motor output force adjustment

For best performance, set the torque to the lowest setting for safe use. Turn clockwise to increase, counterclockwise to decrease.

The default setting is max.

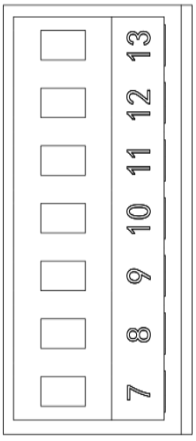
Terminal Instructions

All changes to the settings below must be completed by a licensed electrician.



Terminal J2 (as shown in Figure 16):
Terminal 6: Pedestrian switch with external push button
Terminal 5: External open/stop/close/stop circuit control by pressure. Button (Open/ Stop/Close repeat)
Terminal 4: Common terminal for all external commands Button

Terminal 3: External stop button switch. **Terminal 2:**External pushbutton switch open. **Terminal 1:**External lock button switch.



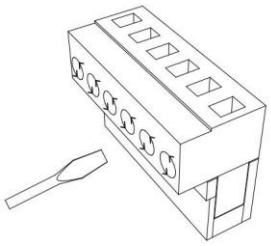
Terminal J5: Limit switch and accessories. Additional accessories sold separately.

Terminal 13: Limit switch open **Terminal 12:**Limit switch common terminal **Terminal 11:**Closed limit switch

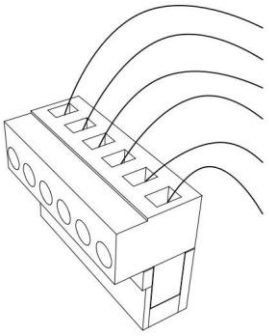
Terminal 10: Loop detector connector (factory pre-wired) **Terminal 9:** Ground (GND)
Terminal 8: Photocell input (NC).**If there is no photocell installed, use a jumper between terminals 8 and 9.**
Terminal 7: Accessory power supply (+15V)

Note: If it is necessary to change the direction of movement, wires 11 and 13 at terminal J5 must be swapped.

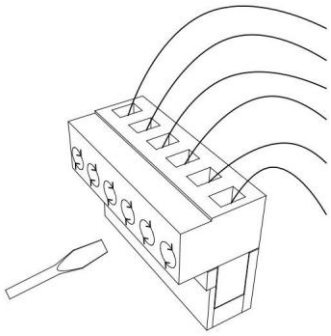
Cablagem para o Terminal



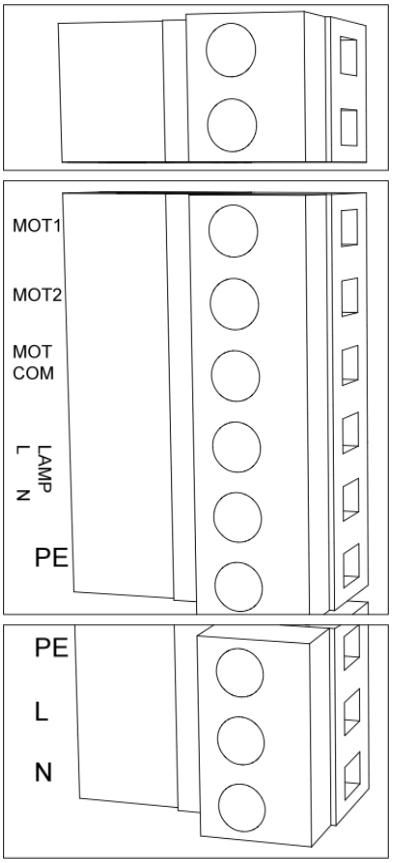
Use a wrench slits to release the screw on the side of the terminal.



Insert the wire into the number of the terminal to which you intend call. See page 15.



Tighten with a screwdriver to fix the wire in place.



Terminal J6:

Motor capacitor

Terminal J4:

MOT1: Motor terminal, swap with MOT2 to change the direction of gate movement.

MOT2: Motor terminal, swap with MOT1 to change the direction of gate movement.

MOTCOM: Motor common terminal.

LAMP (L&N): Connection for light warning.**Physical education:**Land of engine and warning lamp

Note: If the direction of movement needs to be changed, not only do wires MOT1 and MOT2 have to be swapped, but wires 11 and 13 at terminal J5 also have to be swapped with each other.

Terminal J3:

FOOT: Ground (yellow/green wire).

L: Power (brown wire).

N: Power (blue wire).

Connection of infrared photocells

The steps below must be completed by a licensed electrician.

The use of infrared photocells as an additional safety feature is highly recommended.

When closing, if the infrared photocell beam is blocked, the gate will stop and reverse immediately to protect the safety of the user and property. To install photocells, connect the wiring as shown in Figure 19. You must remove the jumper from the wire between the terminal 8 and terminal 9 on J5 (see Figure 20).

The distance between the photocell receiver and the photocell transmitter must not be less than 2 meters; if on the contrary, the effect of induction of photocell can be affected.

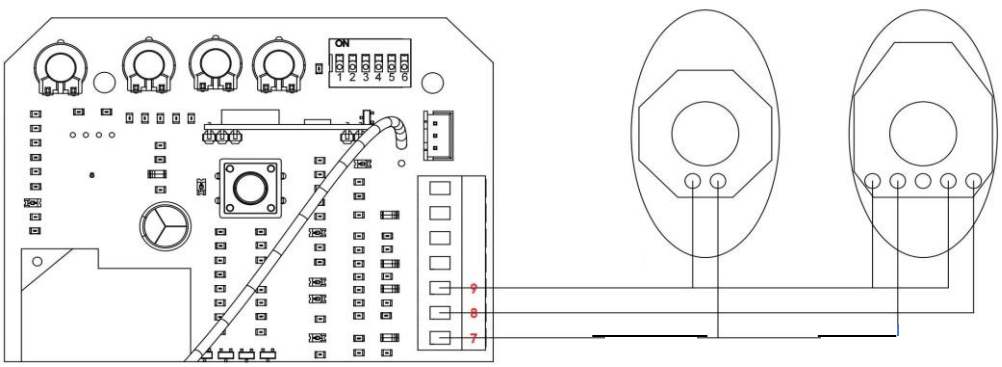
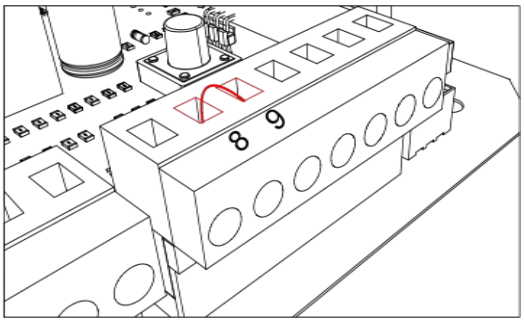


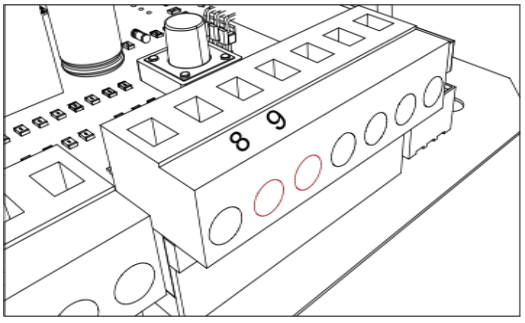
Figure 19

Before installing photocells



Release ports 8 and 9 on terminal J5 with a screwdriver. Make sure that the power is off before to do so.

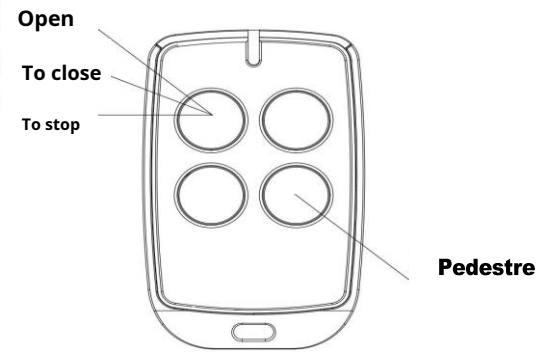
Figure 20



Remove the jumper from the wire between doors 8 and 9 in the terminal J5.

Remote control operation

Remote control with single button mode:
OPEN/CLOSE/STOP the motor are controlled by a circular button on the remote control.
The fourth button on the remote control is Pedestrian Mode: press the fourth button while the gate is closed and it will open 1 m wide to allow pedestrian access.

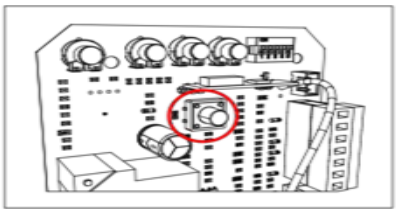


Remote control with single button mode

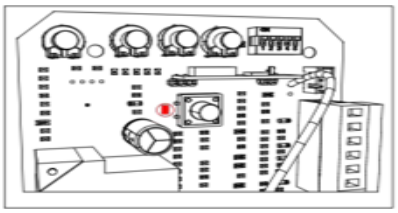
Figure 21

Remote control learning

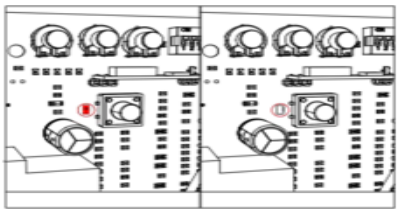
Remove the outer cover of the motor and continue to remove the transparent cover of the PCB, press the 'S1' button on the control board until the 'LEARN' indicator light comes on, then release the button. While the light is on, double-press the button you want to pair on the remote control. "LEARN" indicator light will flash repeatedly and then go out when the remote is paired. A maximum of 40 remote controls can be paired with one motor.



Prima e mantenha premido o botão de aprendizagem (S1) até que o LED de aprendizagem pisque.



Enquanto a luz estiver acesa, pressione o primeiro botão do comando duas vezes



O LED de aprendizagem piscará repetidamente e depois desligará quando os telecomandos estiverem emparelhados.

Delete remote commands

Remove the motor cover and then the transparent protective cover from the plate, press and hold down the 'S1' button until the LEARN LED lights up. When the LEARN LED delete, all previously paired commands will be deleted.

Maintenance

The gate should be checked monthly to ensure it is functioning properly. For safety reasons, it is recommended that each gate be equipped with a safety guard.

infrared, requiring regular inspection.

Before installing and operating the gate opener, please read all instructions carefully. Our company reserves the right to change these instructions without prior notice.

ERRORS

Any troubleshooting work below done on the motor must be completed by a licensed professional electrician and only while the power is off and the motor is off!

Problem	Possible reason	Solution
The gate does not open or close normally and the LED does not light up.	1. The source of food is off. 2. The fuse is blown. 3. Terminal X1 of control board connected incorrectly.	1. Turn on the power supply. 2. Check the fuse (FU) and replace it. or if it is burned. 3. Reconnect the wiring according to the user manual. user.
The gate only can open, but no can close.	1. Photocell with incorrect wiring. 2. Wrong photocell installed. 3. The photocell is blocked by objects. 4. The sensitivity of the obstacle is very high (smart type). 5. Parts damaged Hall sensor (smart type).	1. If you do not connect the photocell, please make sure that the infrared port and GND port have a jumper wire; if you connect the photocell, please make sure that the wiring is correct and the photocell status is NC 2. Make sure the position of photocell assembly can be aligned mutually. 3. Remove the obstacle. 4. Reduce the sensitivity of the obstacle. 5. Replace the Hall sensor parts.

Remote control does not work.	1. The battery level is too low. 2. ° Remote control not paired.	1. Replace the battery. 2. Pair the remote with the opener of gate.
Press OPEN, TO CLOSE button, the gate it is not being move, the engine is noisy.	1. Damaged capacitor. 2. The condenser is poorly connected. 3.The gate movement is not smooth	1. ° Replace the capacitor. 2. ° Check the capacitor wiring. 3. Adjust the motor or gate according to the actual situation.
Don't stop when running to the end of course opening or closure position.	1.The end of the course of opening or closing is in opposite position. 2. Limit switch poorly installed magnetic.	1. Check if the wiring of the limit switch is consistent with the direction of engine operation. 2. Check that the distance and height between the magnetic limit switch and the engine meets standard requirements.
Leakage switch stumbled.	Short circuit in the cable power supply or short-circuit in the motor wire.	Check the wiring.

Drawing and Measurements

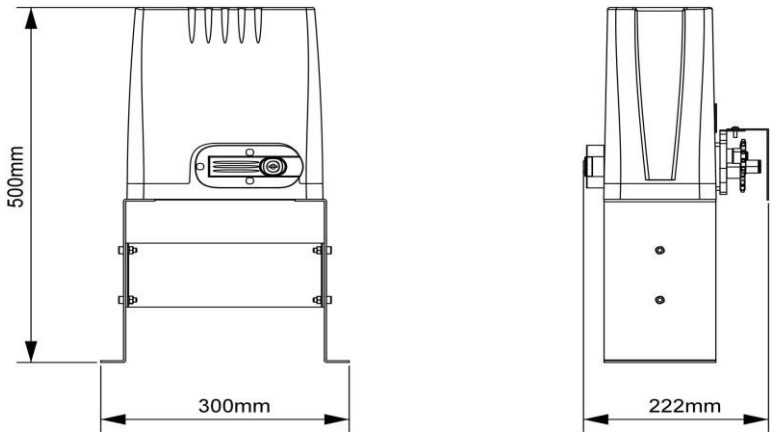


Figure 27