

TRITON SERIES



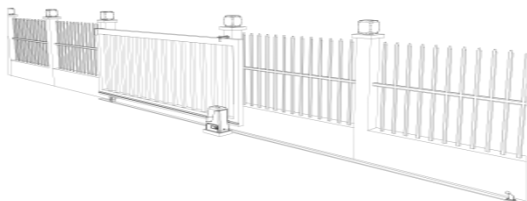
## WARNING

**Instructions must be read before installation. Please follow these instructions carefully, incorrect installation could affect gate operation.**

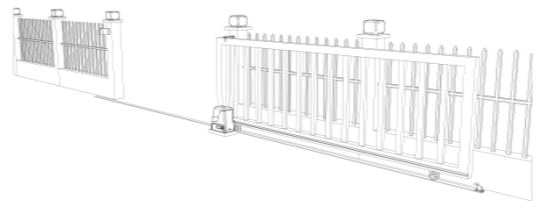
**When mounting and positioning this product please ensure the power cable is unplugged. The motor cover will need to be removed to mount the motor to the mounting plate. Any changes to the settings on this product can only be made by a licensed electrician. This product is only powered by AC110V/220V power supply; DC backup battery or solar power is not compatible.**

## Default Setting Instruction

The gate opener will open the gate to the right-hand side as its default setting. By default, the opener mounts on the right-hand side. (Figure 1)



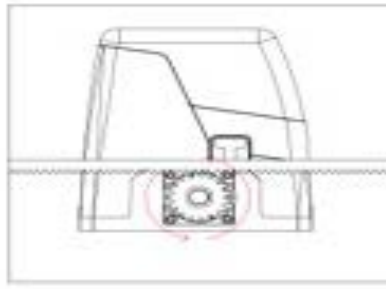
**Gate in closed position**



**Gate in open position**

**Figure 1**

**Before installation:** Test the gate opener by plugging it into a power source and pressing the remote. Press the opening button, the output gear rotates, then press the stop button, the output gear stops rotating. Finally, press the closing button, the output gear rotates to the opposite direction. This will give you an understanding of the way in which the opener will move the gate.



Rotating output gear will  
drive the gate frame.

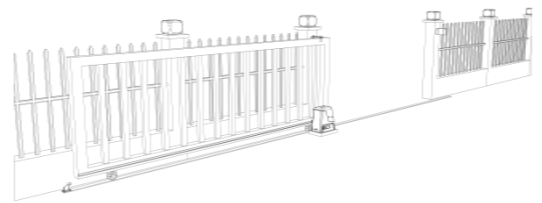
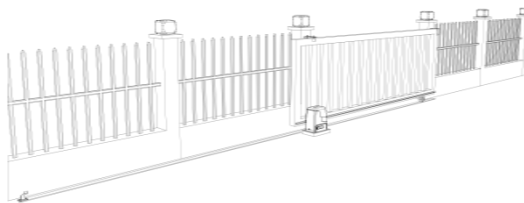


Then the gate will move in  
the set direction.

**Figure 2**

**Note: Ensure that the gate opener is unplugged before proceeding with installation. Please keep fingers away from the motor output gear whilst it is turning.**

If your gate needs to open from the other direction (to the left, refer to figure 3), your opener needs to be mounted on the left-hand side as shown, and a qualified electrician will need to swap over the MOT1 and MOT2 wires on J4 terminal and swap over wires of 11 & 13 on J5 terminal. (Factory default setting is for right-hand opening: opener mounted on the right-hand side).



**Figure 3**

**Any works done to the gate opener must be completed whilst the power is off, and the opener is unplugged.**

## Safety Instruction


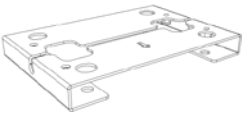

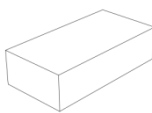
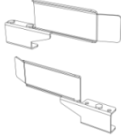
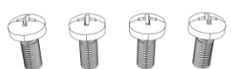

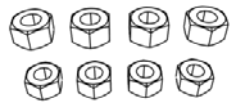

**Warning:** Incorrect or improper use of this product can cause damage to persons, animals or properties.


- Please ensure that the input voltage used matches with the supply voltage of gate opener.
- All modifications to wiring or electrics, and any adjustment or maintenance to input voltage must be done by a qualified electrician.
- All potential hazards and exposed pinch points of the gate must be eliminated or guarded prior to installation of this gate opener.

- Never mount any device that operates the gate opener where the user can reach over (under, around or through) the gate to operate the controls. These must be placed away from any moving range of the moving gate.
- Ensure power plug is disconnected from the power socket during installation or maintenance.
- Keep remote control and other control devices out of children's reach, in order to avoid unintentional activation.
- To ensure safety, before installing the motor, mount a Gate End Catch and a Gate Stop at each end of the rail to prevent the gate travelling off the track.
- If required, install infrared photocell to detect obstructions and prevent injury to person or damage to property.
- Instruct all users about the control systems provided and the manual opening operation in case of emergency.
- Ensure that the power cable is connected to a RCD protected weatherproof power outlet installed by a qualified electrician.
- Do not install this product in an explosive atmosphere or where there is any danger of flooding.
- This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.
- Only use original parts for any maintenance or repair operation. Our company declines all responsibility with respect to the automation safety and correct operation when other supplier's components are used.
- Do not modify the automation components, unless explicitly authorized by our company.
- The user must avoid any attempt to carry out any works or repairs on this product, and should always request the assistance of qualified personnel.
- This product is suitable for use on one sliding gate only.
- Anything which is not expressly provided for in these instructions is not allowed and will void warranty.
- Dispose of all packing materials (plastic, cardboard, polystyrene etc.) according to current guidelines. Keep plastic bags and polystyrene out of children's reach.
- Save these instructions for future use.

# Parts List

## Parts List (standard configuration)

No.	Picture	Name	Quantity
1		Motor	1
2		Mounting Plate	1
3		Manual Release Keys	2
4		Spring Limit Switch Accessories Box	1
5-1		Spring Limit Switch Stop	1
		Spring Limit Switch Stop Mounting Screw M6X10	4
5-2		Hexagon Head Bolt M10X50	4
5-3		Nuts M10	8
5-4		Flat Washers φ10	8

No.	Picture	Name	Quantity
5-5		Spring Washers $\phi 10$	8

## Technical Parameters

Model	TRITON 600AC	TRITON 800AC	TRITON 1500AC	TRITON 2000AC
Power Supply	220VAC/50Hz			
Motor Power	280W	370W	550W	750W
Gate Moving Speed	11-13m/min			
Maximum Loading Weight	600KG	800KG	1500KG	2000KG
Remote Control Distance	$\geq 30\text{m}$			
Remote Control Mode	Single button mode / Three button mode			
Limit Switch	Spring limit switch			
Working Noise	$\leq 60\text{dB}$			
Working Duty	S2, 20min			
Recording of up Remote Controls	Standard control board: 20; Intelligent control board: 40			
Remote Frequency	433.92 MHz			
Working Temperature	$-20^{\circ}\text{C} - +70^{\circ}\text{C}$			
Package Weight	15KG	16KG	17KG	17.5KG

## Installation

### Before You Start

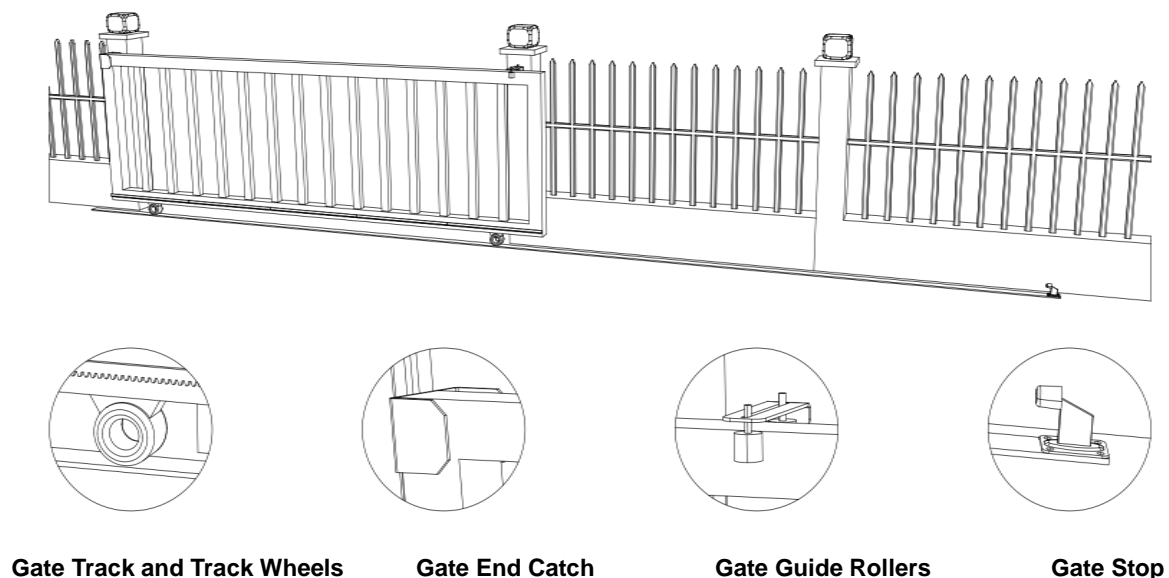
- Triton Series Sliding Gate Automation Kit is suitable for powering the opening and closing motion of gates up to 600, 800, 1500, 2000kg in weight, up to a length of 12m.
- Gate motion is achieved by the rotating output gear of the gate opener driving the gear rack (sold separately) fitted to the moving gate.
- The gate opener requires you to press the remote control once to open, and once again to close. This is a safety feature to ensure safe operation.
- The gate opener itself must be fitted within private property, never externally to a property's boundary.

**Any works done to the gate opener must be completed whilst the power is off and the opener is unplugged. Any modifications/alterations/works to AC power components must only be completed by a licensed electrician.**

## **Tools Required**

- Tape measure
- Level
- 12mm concrete drill and hammer (when uses expansion screws)
- Phillips head screwdriver
- Straight screwdriver

## **Example Sliding Gate**

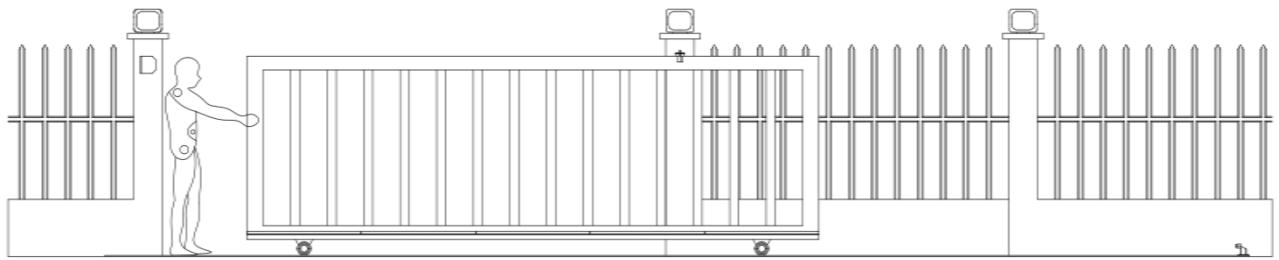


**Figure 4**

**Please ensure that the gate opener power cable is not plugged in at any stage before Step 8.**

## **Step 1 - Gate Preparation**

- Ensure that the sliding gate is correctly installed.
- The gate is horizontal and level and the gate can glide back and forth smoothly when moved by hand before installing the gate opener.
- Wheels and guide rollers should rotate easily and be free from dirt or grime.
- Track should be flat, level and firmly affixed.
- Any misalignment in the gate will affect performance of the automatic gate opener.

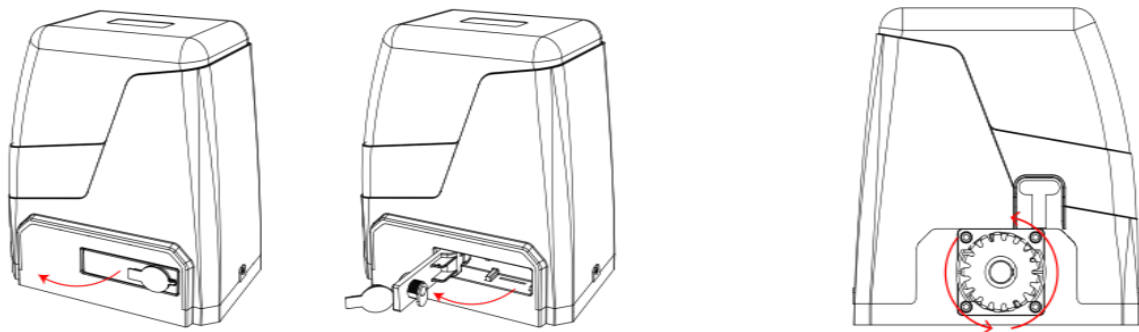


The gate should slide smoothly by hand before attempting to install the gate opener.

Figure 5

## Step 2 - Checking Manual Release

- Insert the key and open the manual release bar to enable the motor get into manual mode and check that the motor output gear rotates freely by hand (Figure 6).



To make the motor into manual mode, insert the key and open the manual release bar as shown.

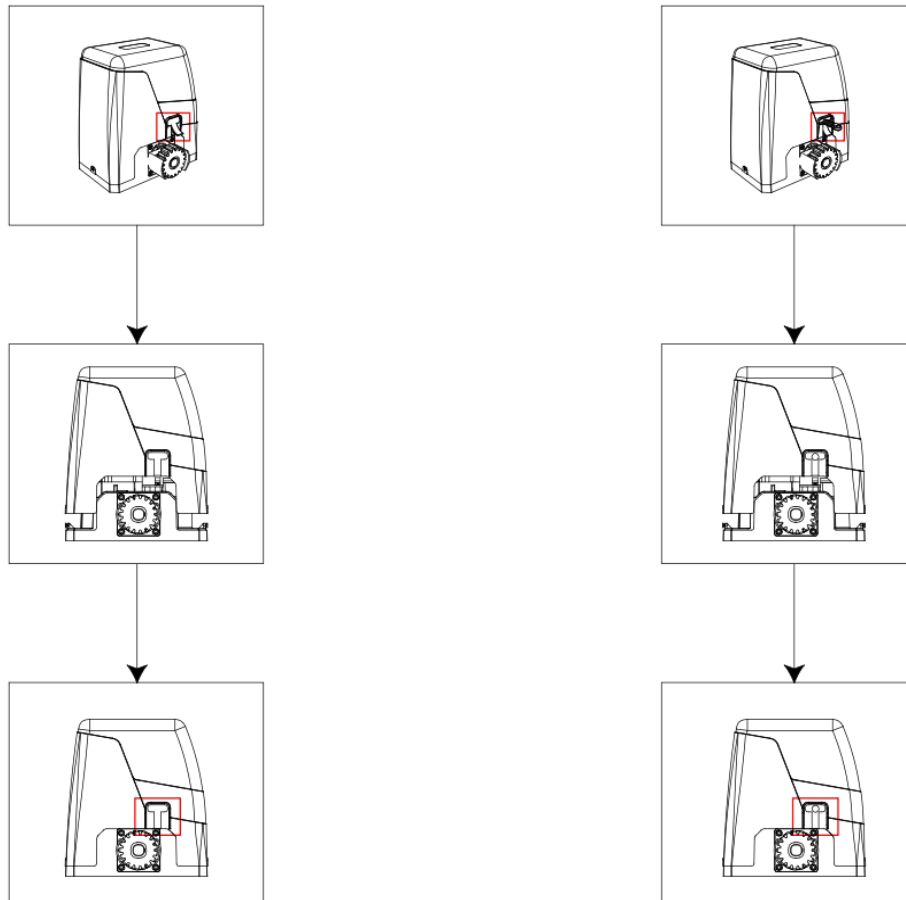
In manual mode, the gear can turn freely and the gate can be operated by hand.

Figure 6

## Step 3 - Removing / Installing Motor Cover

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



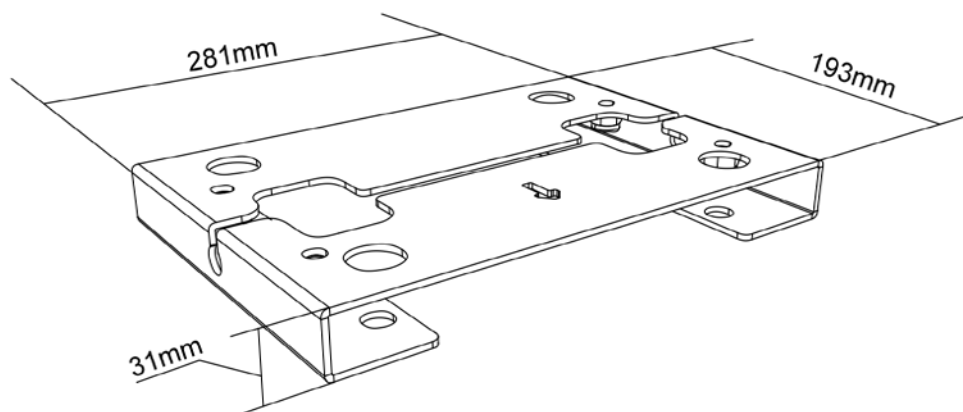


**Figure 7**

**Please Note:** the rubber grommet must be fitted back onto the motor cover once the cover has been re-fitted/replaced onto the base of the motor.

### **Step 4 - Motor Pad Footing**

- The motor pad concrete footing requires an area of no less than 450mm long x 300mm wide and a minimum depth of 200mm (Standard requirement).
- Ensure surface is level and parallel to the driveway.

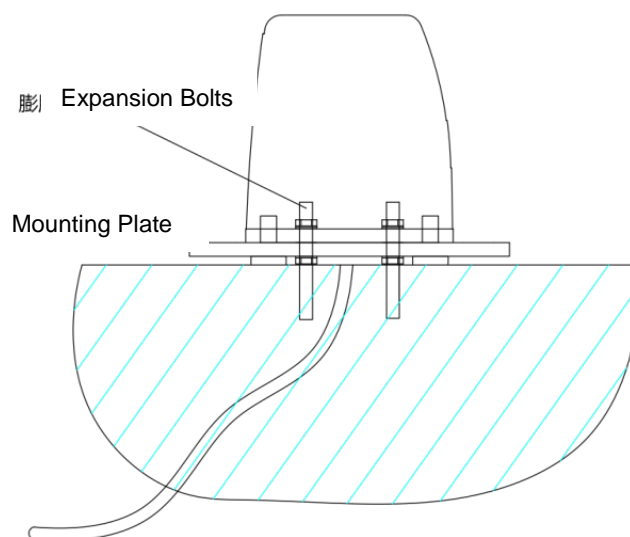


**Mounting Plate Dimensions**

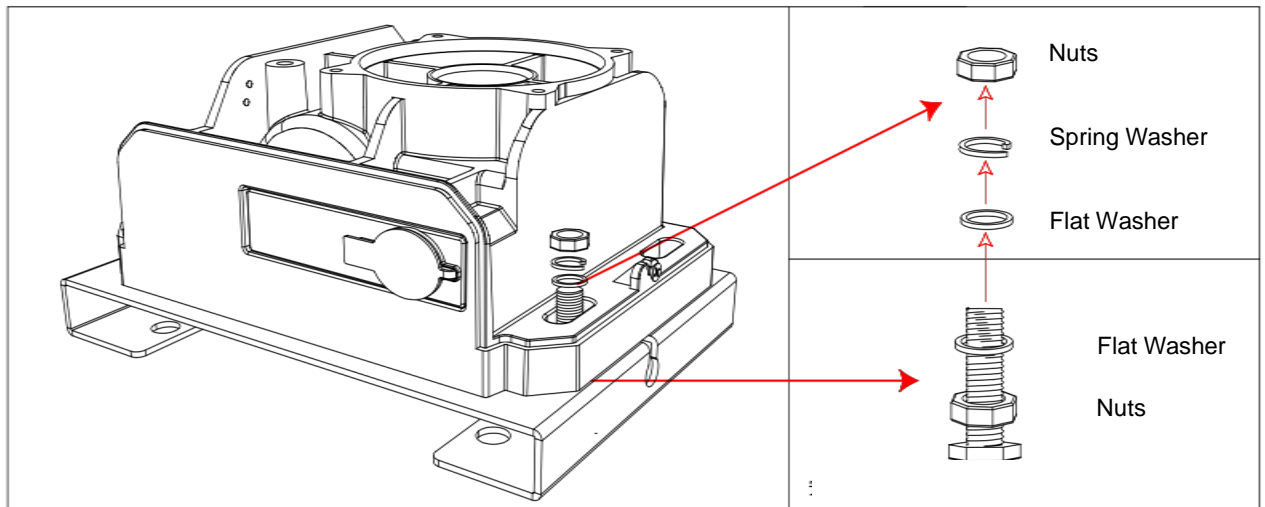
**Figure 8**

### **Step 5 - Fitting Mounting Plate and Motor**

- Drill holes as per Figure 8 for expansion bolts and fit expansion bolts. (Expansion bolts need to be prepared by customers).
- Fit and tighten expansion bolts (as per figure 9).
- Bolt motor to the mounting plate using the M10 x 50mm bolts with spring and flat washers provided and tighten as required (as per figure 10).



**Figure 9**



The bolts and flat washer between mounting plate and motor base are used for adjusting the height of the motor.

Figure 10

### Fitting Motor

- Fit motor and mounting plate on the concrete footing.
- Ensure the motor output gear and gear rack are correctly aligned. Gear and gear rack should be centered as much as possible.
- Take the motor away from mounting plate.

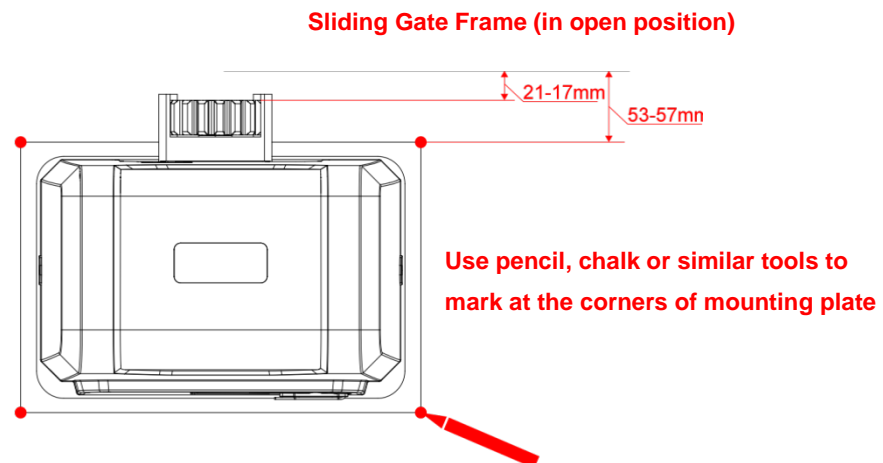
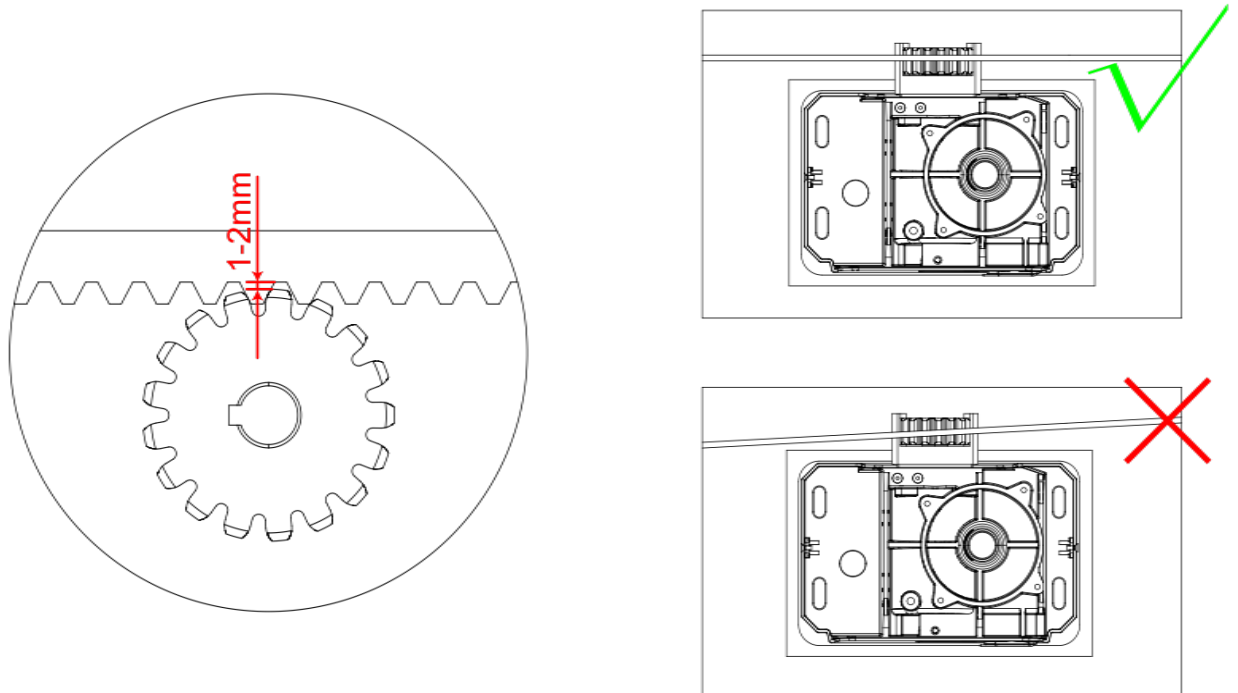


Figure 11

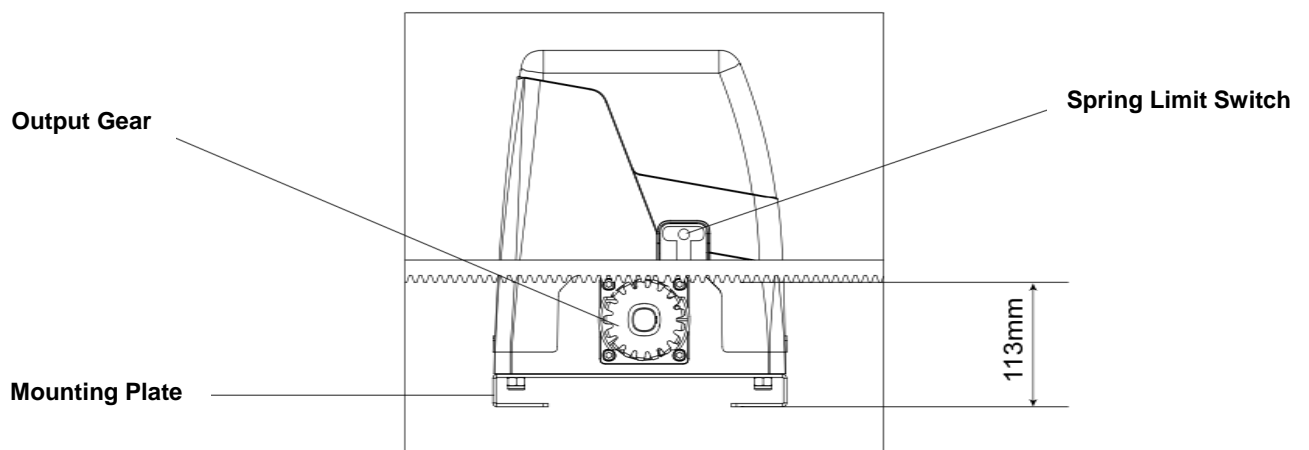
### Step 6 - Gear Rack & Motor Alignment

- See Figure 13 for recommended gear rack mounting height.

- Ensure that the output gear has a minimum clearance of 1-2mm along the entire length of gear rack fitted to the gate (as per Figure 12)
- Ensure output gear and gear rack are correctly aligned. Under no circumstances should the gate opener output gear carry any weight of the gate. It is the task of the gate castors or wheels to carry the weight of the gate (as per Figure 12).
- If the gate doesn't slide freely by hand, adjust the height of the gear rack accordingly until the full length of gate slides freely by hand.



**Figure 12**

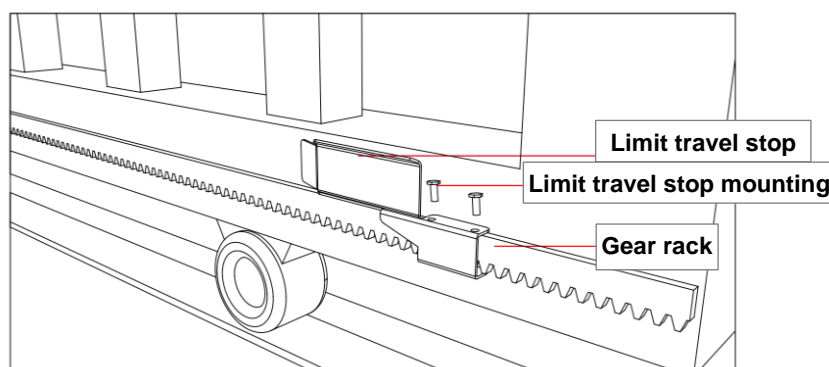


**Figure 13**

## Step 7 - Limit Switch Stops

Included in your gate opener kit are two limit switch stops which must be fitted to the gear racks on your gate to ensure safe operation.

The limit switch stops are designed to set the desired opening and closing position of your gate. These limit switch stops are designed to come into contact with the spring limit switch.

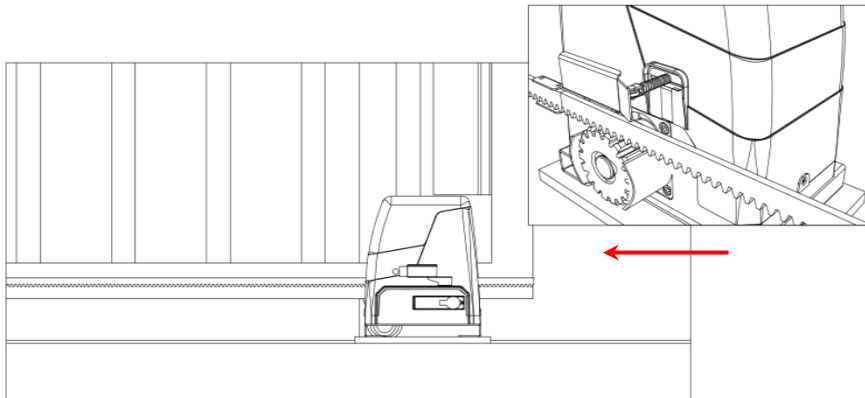


It is extremely dangerous that without or incorrect installation of the limit switch stops can cause crash of gate, damage of internal structure of the motor, moreover, the gate may slide off the guide rail.

## Setting the Limit Switch Stops

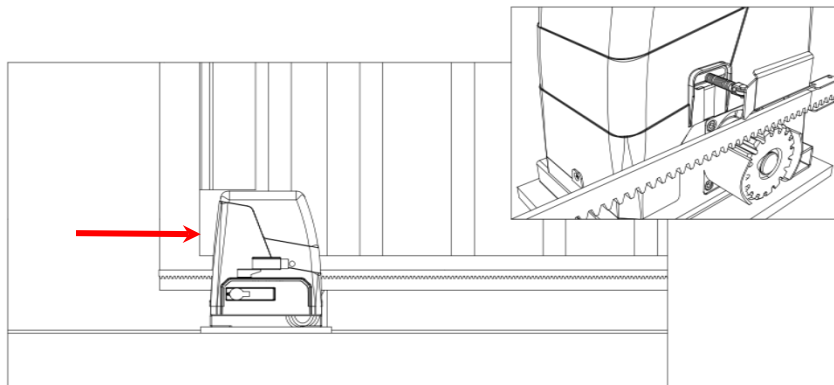
### Closed Position

- Position gate 150-200mm back from the gate end catch closed position. This will help in making sure you do not slam the gate into the end stop/catch when setting the closed position under power.
- Fit limit switch stop onto the top of gear rack at the point where it meets the spring limit switch on the motor.
- Tighten locking screws of limit switch stop.



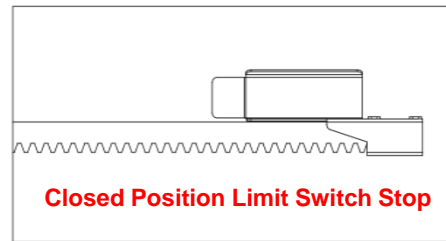
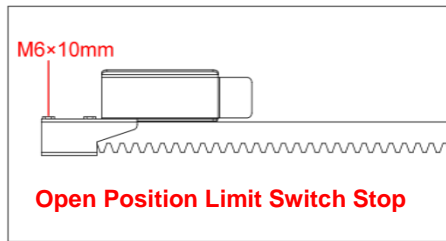
## Open Position

- Position gate 150-200mm back from the gate stop open position. This will help in making sure you do not slam the gate into the end stop/catch when setting the open position under power.
- Fit limit switch stop onto the top of gear rack at the point where it meets the spring limit switch on the motor.
- Tighten locking screws of limit switch stop.

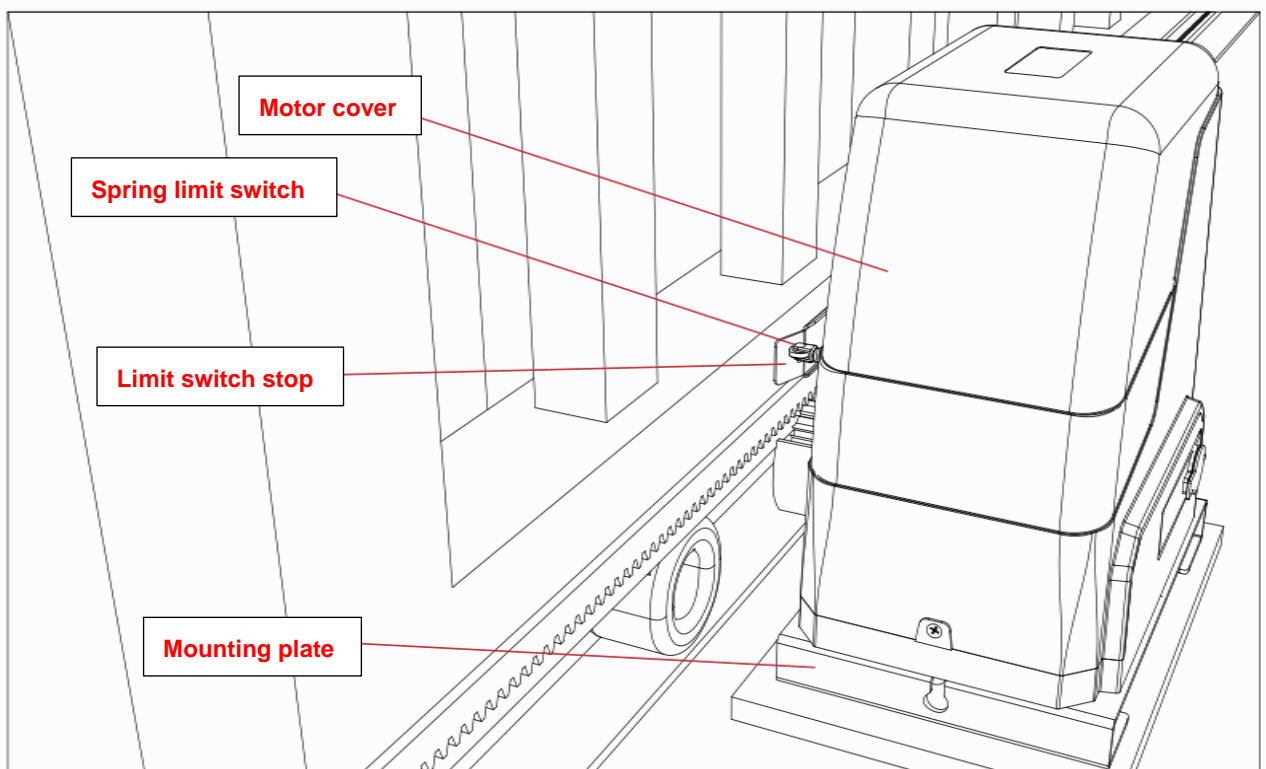


Test the spring limit switch stops by moving the gate manually until you hear a click, making sure contact is made with the spring limit switch on the motor.

**To Reset:** Turning the power off will reset the limit switch stop memory. Power on the gate opener again, pressing remote control or external push button switch to open and then close the gate once, then new limit switch stop setting is completed.



The installation of spring limit switch stops is shown in figure above.



Open Position

## Step 8 - Powering on

- Ensure that the outer cover has been fitted and fastened back onto the motor base.
- Before powering up the gate opener make sure the gate can travel by hand in manual mode (key unlocked).
- Slide the gate to between the middle of the posts, approximately (see below diagrams).
- Lock the manual release spanner (key locked) in readiness for automatic mode.

- Plug the power cord into an approved RCD protected weatherproof outlet.
- Remote controls included in this kit are factory paired ready for use.

## **Step 9 - Testing Travel and Limit Stops**

### **Testing the Closed Position**

- Ensure gate opener is installed as per step 5, 6 and 7 and the sliding gate is in the middle position.
- Press remote (remotes included in kit are factory paired to 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 distance remaining between the sliding gate and the desired closed position.
- You have now 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 have taken to get your final gate closed position. The ideal closed final position for the gate frame is 10-15mm from closed gate end catch.

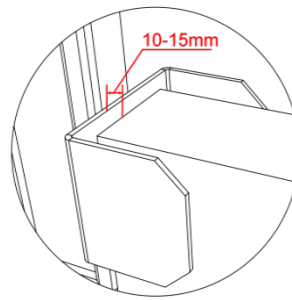
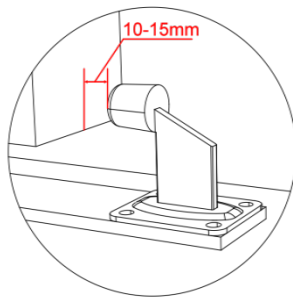
### **Testing the Open Position**

- Press remote, the sliding gate will begin to open.
- The limit switch stop will hit the limit switch and the sliding gate will stop.
- When the gate stops, measure the distance remaining between the sliding gate and the desired open position.
- You have now determined the open position of the sliding gate when the limit switch stop hits the limit switch
- Adjust the limit switch stops from the measurement you have taken to get your final gate open position. The ideal open final position for the gate frame is 10-15mm from the gate stop.

### **To Reset:**

- **When setting new limit stop positions please ensure that you turn the power off and then on again. Turning the power off will reset the limit stop memory, allowing for new limit switch stop positions to be recognized by the motor.**





Now the basic open and closed positions are set, for further setting functions and adjusting parameters, please refer to pages 17-29 in this manual.

## Maintenance

The gate should be checked every month to make sure it operates normally.

For the sake of safety, each gate is suggested to be equipped with infrared protector, and regular inspection is required.

Before installation and operation of the gate opener, please read all instructions carefully.

Our company keep the right to change the instruction without prior notice.

## Drawing and Measurements

