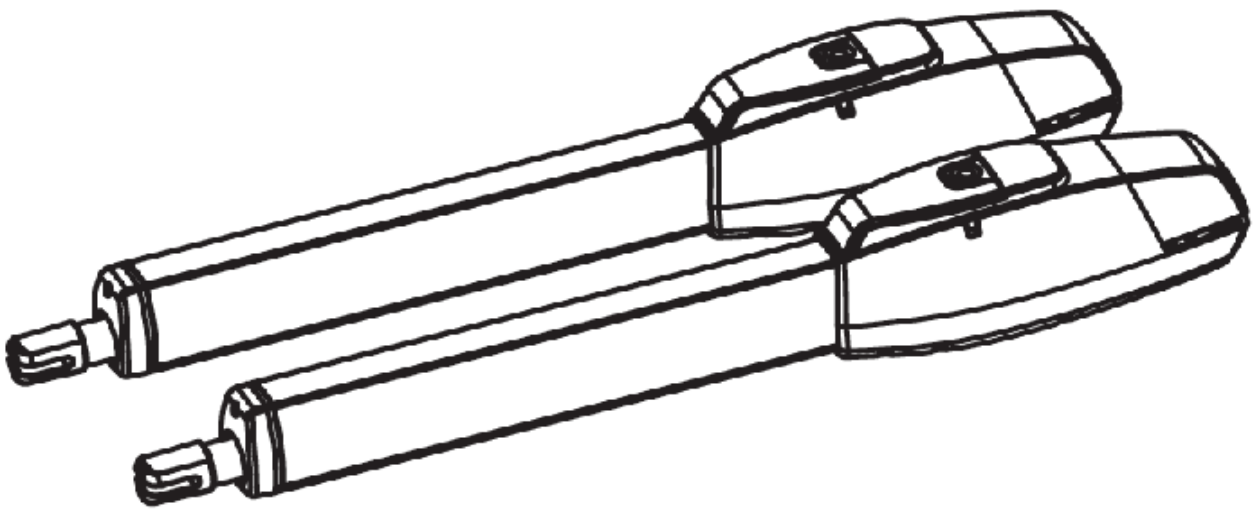


# TMT 400LLS SWING GATE OPENER

WITH LIMIT SWITCH AND LED INDICATOR



Scan here for  
Helpful Videos

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# WARNING

## Important Safety Information

Gate equipment has hazards associated with its use and therefore by installing this product the installer and user accept full responsibility for following and noting the installation and safety instructions. Failure to follow installation and safety instructions can result in hazards developing due to improper assembly.

READ ALL INSTRUCTIONS CAREFULLY AND COMPLETELY before attempting to install and use this automatic gate operator. This gate operator produces a high level of force. Stay clear of the unit while it is operating and exercise caution at all times.

All safety instructions should be read and completely understood by the installer and the owner prior to the installation of the TMT gate system. This product is designed and manufactured for the use indicated in the manual.

Remember that all automatic gates are intended for vehicular gates only. A separate gate or entrance must be installed for pedestrian use. Any other use, not expressly indicated may damage the product or be a source of danger.

### Swing Gate Motor - TMT 400LLS

TMT 400LLS gate motor is suitable for light - heavy gates. Do not use it on large sized gates which exceed the maximum recommended gate weight and length nor on gates with rising hinges or self closing hinges. Wrong selection of motor will result in an unreliable operation and will void your warranty.

## Please Read This First!

Thank you for purchasing the TMT “do-it-yourself” automatic gate opener! When correctly installed and properly used, your TMT gate opener will give you many years of reliable service.

The TMT Opener is designed for installation on a pull-to-open or push-to-open gate and can be used on aluminum, chain link, farm tube, wrought iron gates and timber gates.

TMT can be installed onto solid gates with a maximum size of 3.5mtrs long x 1.8mtrs high. The Electric Gate Lock must be installed when gate are over 3.5mtrs or 40% of the gates surface area is enclosed.

The TMT gate opener accommodates extra transmitters, digital keypads, solar panels, push buttons, electric gate locks, and other access control products.

The TMT gate opener features an obstruction sensor. This feature makes the gate stop and reverse when it comes in contact with an obstruction. This sensitivity can be adjusted on the main control board.

The TMT gate opener has an adjustable auto-close feature. After the gate reaches the fully open position, it can be set to remain open up to 300 seconds before automatically closing. Pressing the transmitter button at any time after the gate opens fully will cause it to close immediately. OFF is the factory setting; meaning the gate will stay open until you press the transmitter (or keypad, etc.) again. You can adjust this in the menu settings.

# Important Safety Information

Because automatic gate operators produce high levels of force, consumers need to know the potential hazards associated with improperly designed, installed, and maintained automated gate opener systems. Keep in mind that the gate opener is just one component of the total gate operating system. Each component must work in unison to provide the end user with convenience, security, and safety.

This manual contains various safety precautions and warnings for the installer and end user. Because there are many possible applications of the gate operator, the safety precautions and warnings contained in this manual cannot be completely exhaustive in nature. It does, however, provide an overview of the safe design, installation, and use of this product.

**CAREFULLY READ AND FOLLOW ALL SAFETY PRECAUTIONS, WARNINGS AND INSTALLATION INSTRUCTIONS TO ENSURE THE SAFE SYSTEM DESIGN, INSTALLATION AND USE OF THIS PRODUCT.**

Because the TMT automatic gate opener is only part of the total gate operating system, it is the responsibility of the installer and end user to ensure that the total system is safe for its intended use.

## For the Installer and End User

### After Installation

1. Attach the warning sign (included) to the gate to alert the public of automatic gate operation.
2. The gate is automatic and could move at any time, posing serious risk of entrapment. No one should be in contact with the gate when it is moving or stationary.
3. Do not attempt to drive into the gate area while the gate is moving; wait until the gate comes to a complete stop.
4. Do not attempt to "race the gate" while the gate is closing. This is extremely dangerous.
5. Do not allow children or pets near your gate. Never let children operate or play with gate controls. Keep the remote control away from children and unauthorized users; store controls where children and unauthorized users do not have access to them.
6. **KEEP GATE SYSTEM MAINTAINED.** Always disconnect any power source from the operator before performing any maintenance.
7. To operate this equipment safely, **YOU** must know how to disconnect the operator for manual gate operation.
8. Disconnect the operator **ONLY** when all power sources are **DISCONNECTED** and the gate is **NOT** moving.
9. Make arrangements with local fire and law enforcement for emergency access.
10. Distribute and discuss copies of the **IMPORTANT SAFETY INFORMATION** section of this manual with all persons authorized to use your gate.
11. **IMPORTANT:** Save these safety instructions. Make sure everyone who is using or will be around the gate and gate operator are aware of the dangers associated with automated gate systems. In the event you sell the property with the gate operator or sell the gate operator, provide a copy of these safety instructions to the new owner.

# Important Safety Information

## WARNING

### To reduce the risk of injury or death:

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. Never let children operate or play with gate controls. Keep the remote control away from children.
3. Always keep people and objects away from the gate. NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.
4. Test the gate operator monthly.
5. Use the manual/emergency release only when the gate is not moving.
6. KEEP GATES PROPERLY MAINTAINED.
7. The entrance is for vehicles only. Pedestrians must use separate entrance.
8. The gate must be installed in a location that provides adequate clearance between it and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates must not open into public access areas.
9. We highly recommend an electric gate lock for gates 3mtrs or longer

### Owner should observe the following:

1. Do not cross the gate while it is operating.
2. Keep children away from the gate and the remote controls.
3. Test the system frequently and monitor the high and low speed of the system.
4. Practice the use of the emergency release key. This is crucial in the event that the system does not work.
5. Place the WARNING signs prominently on the gate to warn pedestrians of the automatic gate operation on your premises. It is your responsibility to post the warning signs on both sides of the gate.

### Installer should observe the following:

1. Make sure the gate weight and length does not exceed the maximum specifications.
2. The gate design must be suitable for the installation of the auto gate system.
3. Ensure that the gate is installed level and plumb and can swing freely in both directions along the entire swing of the gate. A properly balanced swinging type gate should NOT swing open or swing close when no pushing or pulling force is exerted onto it.
4. Control panel box must be installed in the area where it is not easily damaged.
5. Do not change with parts or components not supplied by manufacturer.
6. Make sure all wiring is correct and in accordance with electrical bylaws and in good condition before supplying the mains power to the control panel.
7. Remove all power when doing any maintenance including solar.
8. Ensure the control panel box is free from water leakage and insects to avoid short circuiting of the control panel. Silicon off any holes (moth balls may also help in the prevention of insects)
9. Never supply mains power directly to the DC motor
10. Transformer MUST be connected to mains power via RCD (residual current device).
11. Do not install the operating system if in doubt.

# Technical Specifications

Max gate length	5mtrs
Max gate weight	450kgs
Power Supply	240VAC down to 24VAC (50-60Hz)
Motor power supply	24Vdc
Gear type	Worm gear
Peak thrust	4500N
Normal thrust	4000N
Operation stroke	540mm
Piston extension	25.5mm/sec
Opening time	Dependant on opening angle and stroke used
Protection grade (IP)/	IP44
Protection class	
Absorbed current (A)	5.5A for maximum 10 secs
Absorbed power (W)	144W
Manual release	Key
Enclosure dimensions	1030mm * 123mm * 124mm

## Kit Includes

Standard Packaging of the swing gate opener kit includes:

Single = 1 leaf    Double = 2 leafs

Actuator Arm:	1 x for single or 2 x for double
Primary Post Bracket:	1 x for single or 2 x for double
Secondary Post Bracket:	1 x for single or 2 x for double
Gate Bracket:	1 x for single or 2 x for double
Rubber Gate Stop:	1 only
Release Keys:	2 only
Primary Bracket Bolts:	Not supplied (Single x 4 or Double x 8)
Secondary Bracket Bolts:	2 x for single or 4 x for double
Gate Bracket Bolts:	2 x for single or 4 x for double
Securing Pins:	2 x for single or 4 x for double
Allen key:	1 only
Control Box:	1 only
Battery Box:	1 only (if solar)
Main Control Board:	1 only
Receiver:	onboard
Remotes/fobs:	2
12v Battery:	2 only (if solar)
Regulator:	1 only (if Solar)
24volt 40Watt Solar Panel:	1 only (if Solar) with 10mtrs cable + mounting bracket
Transformer 24VAC 6amp:	1 only (if Electric)
Cable:	1 @ 2mtrs prewired arm cable (single kit) 1 @ 2mtrs and 1 @ 12mtrs prewired arm cable (double kit)

### PLEASE NOTE:

POST BRACKET BOLTS AND CONTROL BOX MOUNTING BOLTS ARE NOT SUPPLIED

# STANDARD KIT INCLUSIONS



Actuator Arm



Control Box



Remotes



Main control board



Rubber stop



Release keys



Post & secondary brackets



Gate bracket with bolts and Arm Pins



Transformer (if Electric)



2 x 12v Battery (if Solar)



Regulator (if Solar)



24v 40watt Solar Panel (if Solar)



Battery box with brackets (if Solar)



# OPTIONAL EXTRAS



Round Post Brackets



Round Gate Bracket



Electric Gate Lock  
*\*highly recommend for gates 3mtrs or longer*



Long Range Receiver



Wireless Keypad



Semi wireless Eyebeams



Push Button



Keyed Push Button  
(wireless or wired available)



Warning Light



Adjustable Hinge



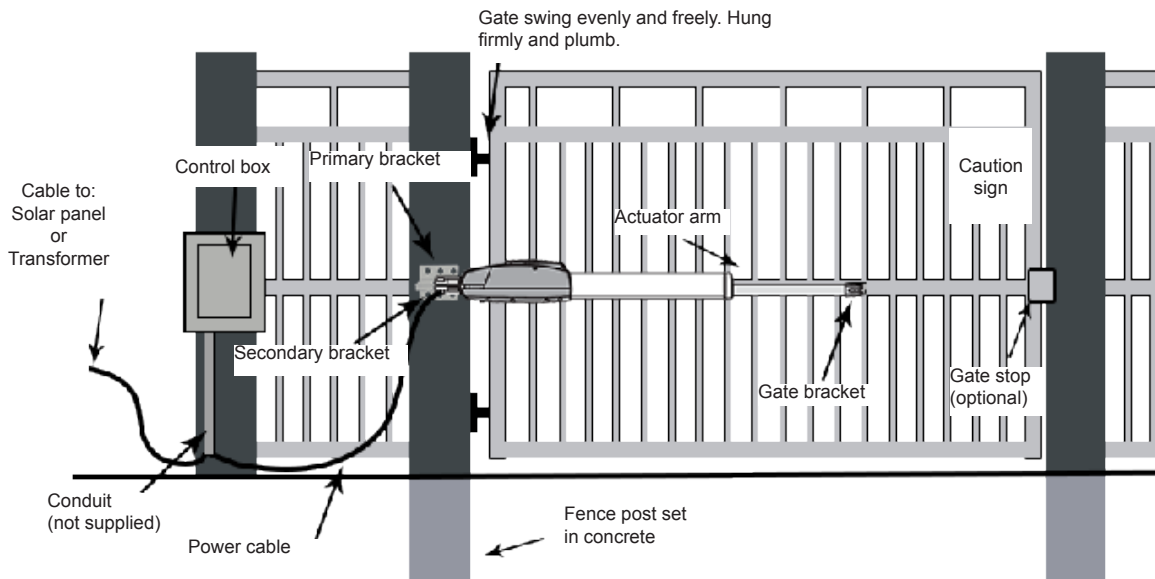
Scan me to see  
more accessories  
available



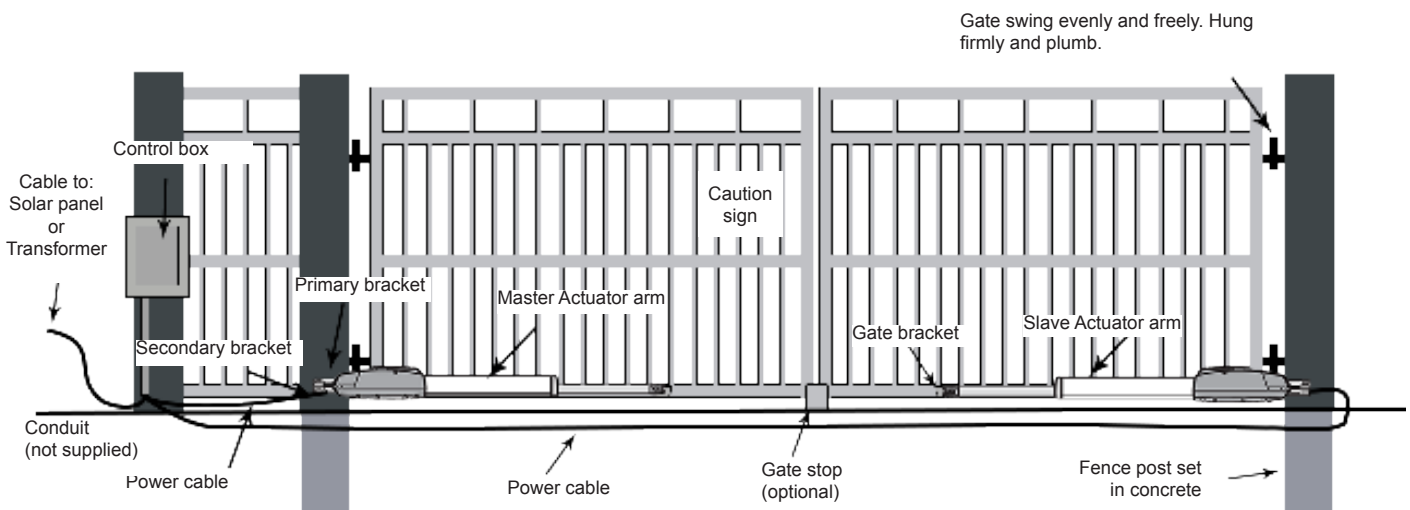
# Swing Setup Examples

## Installations vary slightly on different types of gates

### Single gate



### Double gates



Slave Arm = arm furthest away from control box, usually arm across the driveway  
Master Arm = arm closest to the control box

### IMPORTANT

Be aware of the size of your gate posts and hinge position as your gates should be no more than 100mm in from the post corner.  
Refer to Actuator arm Dimension chart page 14

# Before You Begin

## POWER OPTIONS

### 1. Transformer or solar

NEVER USE TRANSFORMER AND SOLAR PANEL(S) AT THE SAME TIME.  
It will damage the control board.

### IMPORTANT

Transformer is suitable for outdoor use. Use 2.5mm twin core cable (max cable run 30mtrs)

Can run solar panel cable up to 30mtrs if required for suitable lighting  
Additional solar panels can be added to increase charge rate.

## SOLAR PANEL

The solar panel should face full NORTH with a minimum of 6 hours of DIRECT sun exposure to be effective (filtered sunlight not acceptable). The solar regulator supplied is not weatherproof and must be located in the main battery box to protect it.

The performance of your gate opener is dependent on your geographical location, weather conditions and seasonal lighting availability. On cloudy days and during winter, your solar panel will not receive as much direct sunlight, resulting in reduced output and may reduce operating time. Accessories connected to your system will draw additional power from the battery. It is recommended to not use more than 1 hard wired device, such as keypad, gsm, safety beams etc. For maximum charge see below for your area and recommended tilt:

**Brisbane 38°**  
**Sydney 45°**  
**Melbourne 50°**  
**Tasmania 56°**  
**Adelaide 48°**  
**Darwin 14°**  
**Perth 43°**  
**0° being flat and 90° vertical**

**Important:** just one hand print of shade on your solar panel can reduce your solar panels output by up to 80%.

Solar panel should be installed with junction box at the top

INCORRECT

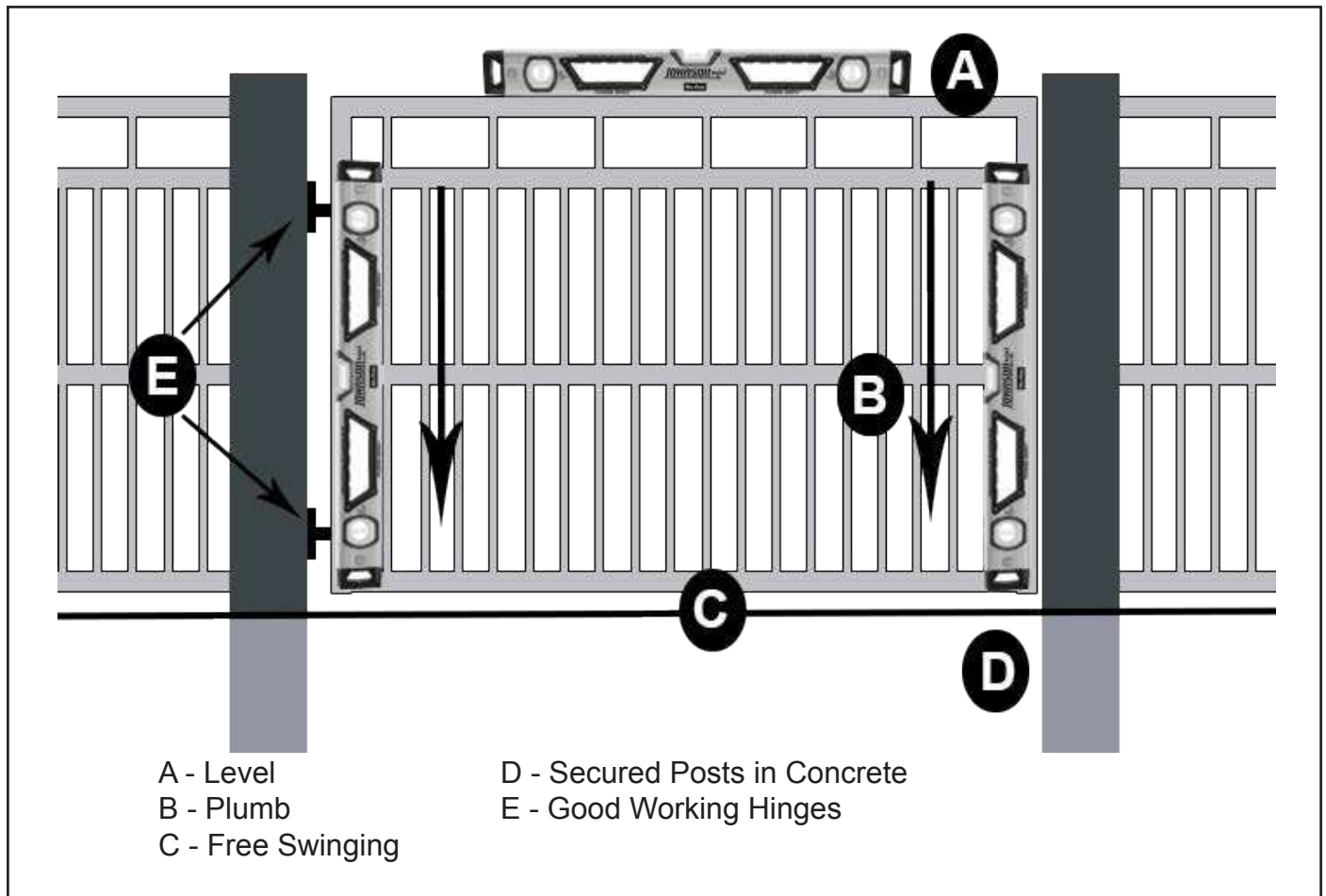


CORRECT



## IMPORTANT: Check For Proper Gate Installation

- The gate must be plumb, level, and swing freely on its hinges.
- The gate must move throughout its arc without binding or dragging on the ground.
- A properly leveled/plumbed gate will not have the tendency to self-open or self-close and remain stationary. A self-opening or closing gate suggests that the gate is not level/plumb. This will cause accelerated wear to your automatic gate system.
- Wheels must NOT be attached to the gate.
- Post must be secured in the ground with concrete (minimizes twist/flex when the operator is activated).
- Make sure there is a stable area for mounting the gate bracket.
- We recommend you position the operator near the centre-line of the gate to keep the gate from twisting and flexing, and to avoid back-splash from rain.
- We highly recommend using either nylon bush or bearing hinges to achieve maximum specs.
- Poor hinges will reduce gate openers specs.



## Installation Pointers

The proper position of the Primary (post bracket) and Secondary Brackets and gate bracket is crucial to the efficiency and leverage of the gate opener. Attention needs to be paid to both its correct height and its position on the post in respect to the relationship between your gate hinge pivot point and the motor pivot point on the bracket. Once you have determined the general desired height of the actuator arm, position the bracket and take note of the dimensions.

For a single gate, it's best to locate the actuator arms approximately in the middle between the top and bottom of the gate. This will prevent the gate from twisting or flexing and provide a more even pull and push over the entire gate. Double gates are best off with the actuator arms mounted between the middle of the gate and the bottom frame.

### **Pull-to-Open and Push-to-Open (Terminology)**

- For pull-to-open gate - Arm is fully retracted when the gate is fully opened (gate pulls inwards)
- For push-to-open gate - Arm is fully extended when the gate is fully opened (gate pushes outwards)

### **Mounting of the Control Box**

Select a flat and sturdy surface for the mounting of the control box.

Care must be taken to ensure that the mounting screws and holes on the control panel are properly sealed to prevent water seepage and insects into the control box (silicon around screws). All cabling must go through the entry holes located at the bottom of the control box.

Water damage or insect damage to the control board will void your warranty.

The mounting point guides located in your control box serves only as reference and a guide for your installation. We recommend that the mounting points be lower than the control board, so that in the unlikely event that water seeps in, it will not flow onto the control board.

## Limits or Over Current - Which setup will work for me?

The TMT can be setup one of 2 ways.

**Option 1:** Setup using over current. This is the default for the system.

This setup will require the gate or gates to close onto a physical stop as the system will require over current to switch off. If you have a single gate then your gate can close onto the opposite post or another physical stop. If you have double gates then you will need to install the ground stop supplied in the kit to the driveway for both gates to close onto.

**Option 2:** Setup using limits.

You will need to adjust your control board setting for this - see page 42 under 'F2 Motor Type' This setup will not require physical stops. You will adjust the limit stops under the top cover of the actuator arm which is explained on pages 33 and 34. This setup is ideal if you have double swing gates and cannot install a ground stop in the middle of the driveway for the gates to close onto.



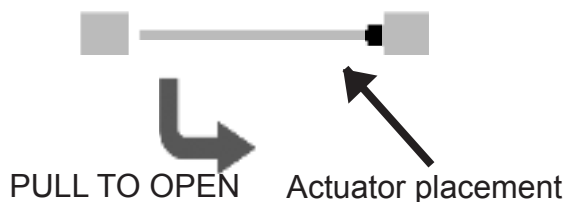
Scan QR Code to watch our  
video on setting up limits



Scan QR Code to watch our  
video on setting up over current

# How to determine if I have a pull or push to open setup

Road/outside property



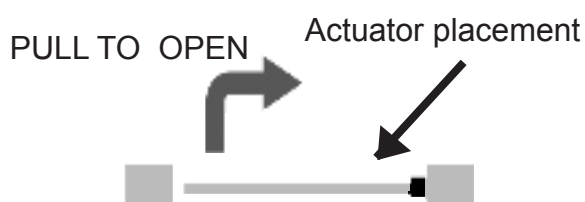
Inside property

## Pull to open setup A

Actuator arm mounted on the inside of the property pulling the gate into the property to open.

[Go to page 23 for setup](#)

Road/outside property



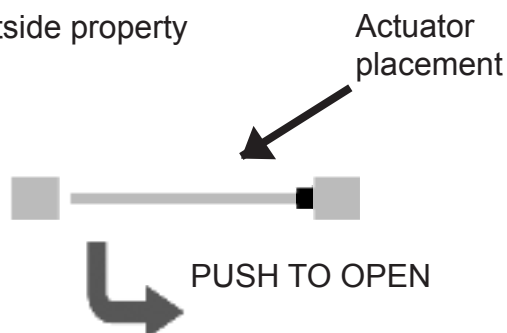
Inside property

## Pull to open setup B

Actuator arm mounted on the outside of the property pulling the gate outwards to open.

[Go to page 23 for setup](#)

Road/outside property



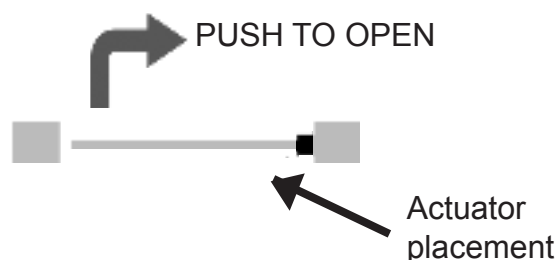
Inside property

## Push to open setup A

Actuator arm mounted on the outside of the property pushing the gate inwards to open.

[Go to page 27 for setup](#)

Road/outside property



Inside property

## Push to open setup B

Actuator arm mounted on the inside of the property pushing the gate out towards the road to open.

[Go to page 27 for setup](#)

# Actuator Arm Dimension Chart

Pull to open setup only

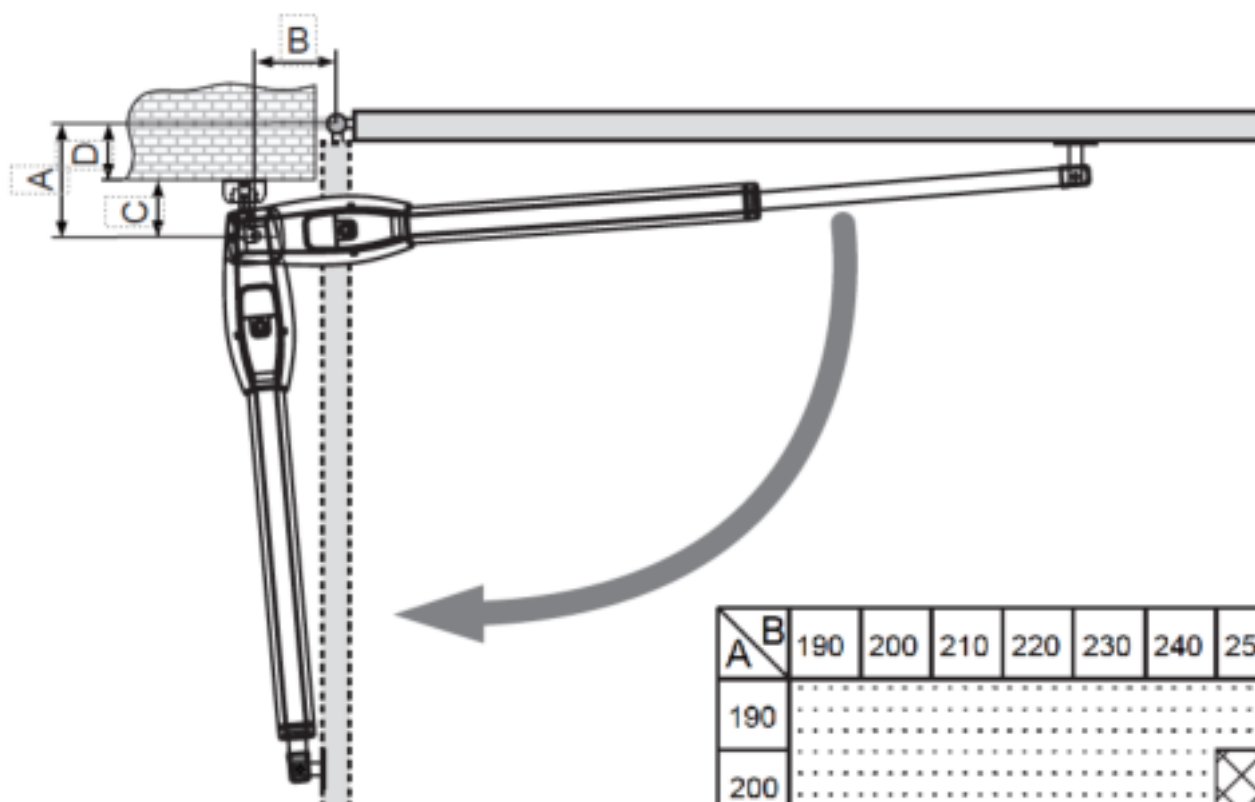
Comply with the measurements shown on the chart for proper installation.

Adjust the gate structure if necessary to fit the automation.

Before preceding the installation, be sure that gate moves freely and that:

1. Hinges are properly positioned and greased.
  2. No obstacles in the moving area.
  3. No frictions between two gate leafs or with the ground while moving
  4. "C" value is 140mm - 165mm (maximum)
  5. "D" can be measured from the gate easily and should not exceed 100mm
  6. "A" = "C" + "D"
  7. The value of "B" can be calculated from the value of "A" and the leaves opening angle.
- Ex. If "A" = 160mm with the leaves opening angle of 100 degrees, then the value of "B" is approximate 190mm.

\*\* Please make sure "B" and "A" are similar or the same in value that the leaves can be operated smoothly, also to reduce the burden of the motor.



A \ B	190	200	210	220	230	240	250	260
190								
200								
210								
220								
230								
240								
250								
260								

The table shows the relationship between dimensions A and B for different opening angles. The shaded areas represent the recommended ranges for the opening angle:

- >120°: A < 210, B < 210
- 110°~120°: A < 240, B < 240
- 100°~110°: A < 250, B < 250
- <100°: A < 260, B < 260

## Installing the Gate Stop if using the Over Current Setup

### Double Gates

Installing the rubber gate stop is required to ensure proper alignment of the two gates and for them to have a solid push onto the stopper in the fully-closed position.

### Single Gates

The gate should either stop onto a post in the closed position, or you can use the rubber gate stop and place it onto the post allowing the gate to have a solid push in the closed position. If using the rubber stop, make sure you place it on the same level as the actuator arm to avoid bending and twisting of the gate.

### Full-Close Position

Each gate must stop on a firm and well secured Gate Stop in the closed position. Failure to do so may result in misalignment and accelerated wear to the system and the gate hinges.

### Full-Open Position

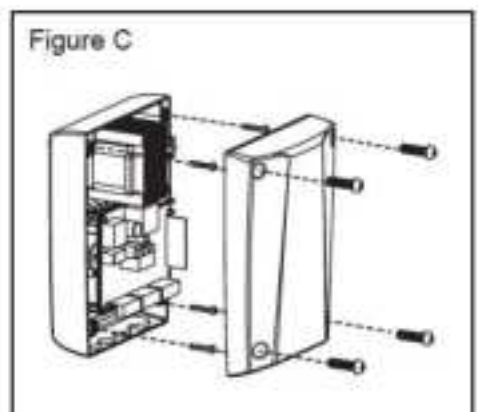
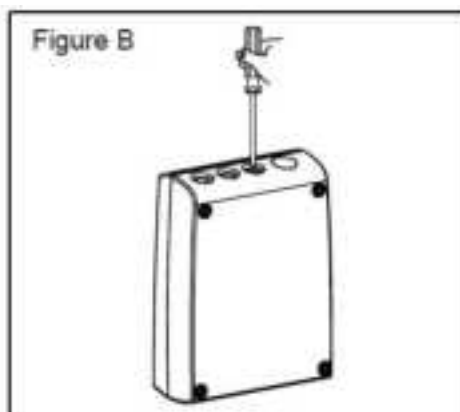
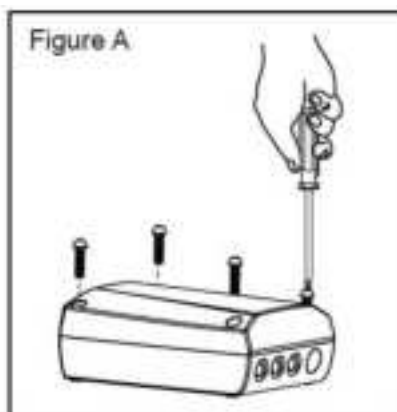
In the full-open position, the gates can either be hard stopped by a peg / stopper, or be stopped by the internal built-in mechanism at the end of the retracted arm (Pull-to-Open gate) or fully extended arm (Push-to-Open gate).

It is highly recommended that you do install a gate stop for the gate/s to close onto.

If there is no physical way for you to achieve this setup then you will need to set the actuator arms via their limit switch settings which you will find instructions for on page 33 if your gate is pull to open and page 34 if your gate is pushing outwards to open.

## Control Box Installation

1. Decide the installation position of control box first, it is suggested to be installed near the gate and should be protected from possible damage. Be aware of the motor cable length before deciding the installation position.
2. Remove the cover by unscrewing the four screws on the cover. See Figure A
3. Use a screwdriver to puncture the holes beneath the bottom of the control box. See Figure B
4. Secure it on the wall. See Figure C





## Wiring in your power option

### Solar setup

Once your main control box is secured to a post or fence, locate your battery box with all parts. Inside your battery box is a long black cable with internal red and black cables stripped back. This cable will be used to wire from the main control board to your solar regulator. Wire your red and black cable to your main control board as show in image A. Making sure that red wires to positive (+) and black wires to negative (-). If polarity is reversed you will damage the control board and void your warranty.

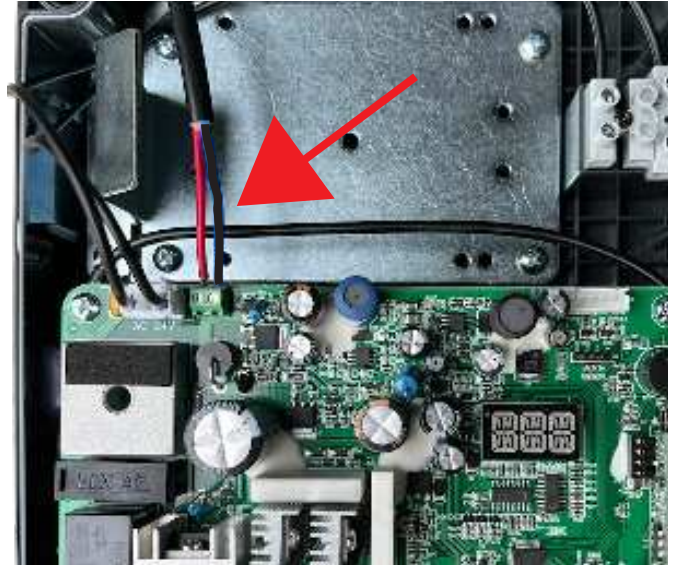


Image A - wiring for battery

### Electric setup

Wiring your transformer to the main control board. Please note that transformer cable colours may differ than the example shown in Image B. Wire in as shown.

The main board is not polarity sensitive when wiring up your transformer.

If using a backup battery in your electric system, locate your battery box with all parts. Inside your battery box is a long black cable with internal red and blue cables. This cable will be used to wire from the main control board to your batteries. Wire your red and blue cable to your main control board as shown in Image A. Making sure that red wires to positive (+) and blue wires to negative (-). If polarity is reversed you will damage the control board and void your warranty.

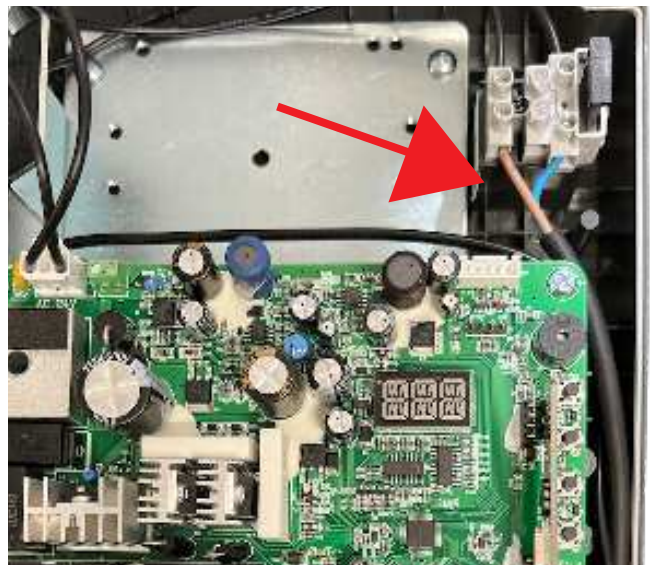


Image B

## Battery Box Install

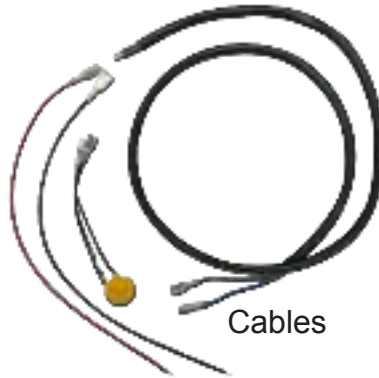
Installing the battery box.

If you are installing a solar kit then you will be supplied with a battery box that will house your 2 x 12volt batteries along with your solar regulator. If you have an electric kit, you may have ordered this battery box to house your 2 x 12volt batteries, this is completely optional for the electric kit.

It is ideal to place your control box no further than 300mm from the main control box or should be as close as possible. Under no circumstance should you drill any holes into this control box

Inclusions:

- 1 x Battery box
- 1 x Mounting bracket with 4 screws
- 1 x Battery bracket with 4 screws
- 5 x Glands
- 4 x Plastic tabs with 4 screws
- Cables as shown in image



Battery bracket



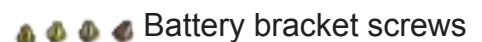
Mounting Bracket



Glands



Tabs

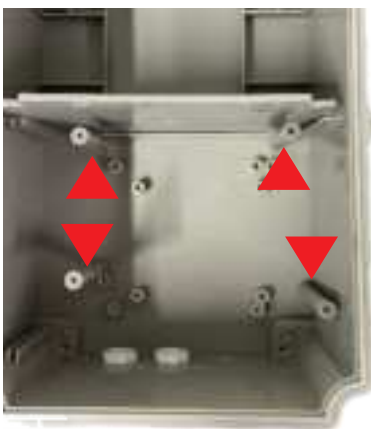


Tab screws



Mounting Bracket screws

### Installation steps



1. Open battery box and remove the 4 plastic legs as shown above



2. Turn the battery box over and have ready the 4 plastic tabs along with required screws

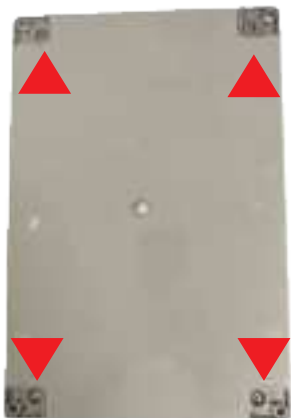


3. Place each plastic tab to each corner of the control box as show above



4. Secure each plastic tab with a screw as shown above

continued....



All 4 tabs should now be in place and secured with a screw as shown above



5. Locate the mounting bracket and secure to your post or fence using holes provided and making sure the bottom section of the plate is at the bottom



6. Place the battery box on the mounting bracket making sure the glands are protruding out the bottom section and the box lines up with each side of the bracket



7. Locate the mounting bracket screws and secure the box in each corner as shown above.

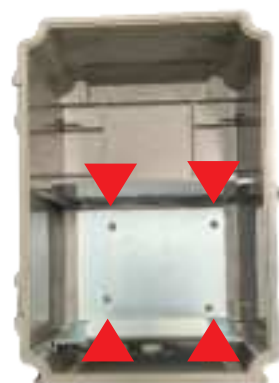
*Tip: You are best off bringing your required cables through the glands of the control box prior to installing the battery bracket - see next page for required cables*



8. Locate the internal battery bracket along with its 4 screws



9. Place the battery bracket inside the main control box as shown above



10. Secure the battery bracket in place using the 4 screws provided

At this stage your control box is now set and ready for either:

- A. Solar setup which will require your 2 12v batteries and solar regulator or
- B. Electric backup battery with your 2 12v batteries

## Solar Setup

At this stage you will have your control box and battery box mounted and if you haven't already, you will need to bring through your solar panel cable along with the 'control board/battery cable' (red & black cable) ready to connect.

1. Cables to bring through the bottom glands are the solar panel cables and the control board/battery cables that you have already wired to the main control board. Bring approximately 30cm of cable through for both so you are not left short (you can always pull back through any excess cable).

At this point with solar you will be required to cut off the battery connectors (if provided) on the long red and black battery cables. After cutting them off, wire these 2 cables to your solar regulator as shown in Image C

2. Position the 2 batteries as shown in Image D



Image A



Image B

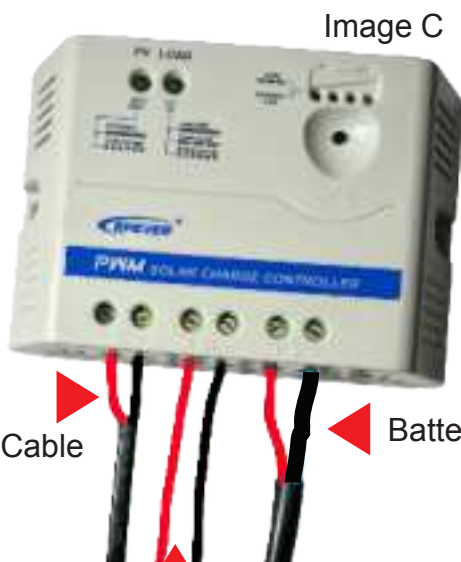


Image C

Solar Panel Cable

Battery cable = Red (+) and black (-)

3. Small red and black battery cables - wire to solar regulator.

4. Connect the small black and red cables to the batteries - black cable wires to the bottom battery, red cable will wire to the top battery see image D

5. Connect the black loop cable between both batteries (negative & positive) see Image E

### IMPORTANT

You must wire up your battery cables and plug in batteries before wiring in your solar panel

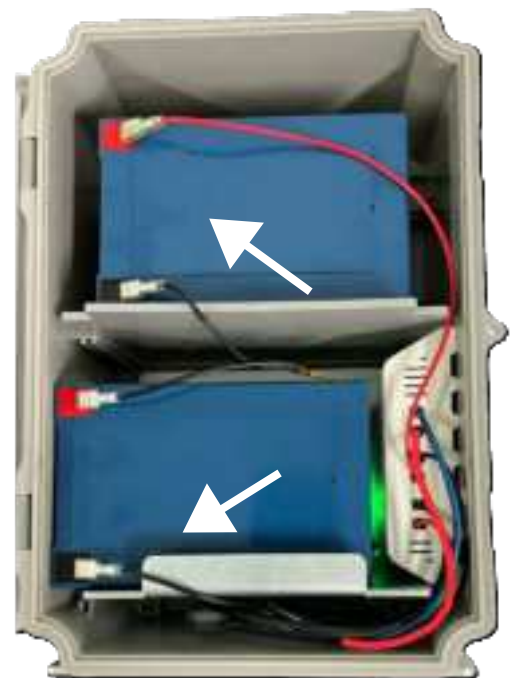


Image D



continued....

6. Wire in your solar panel cables to the solar regulator red to positive and black to negative (DO NOT cross polarity)
7. Position solar regulator as shown in Image F

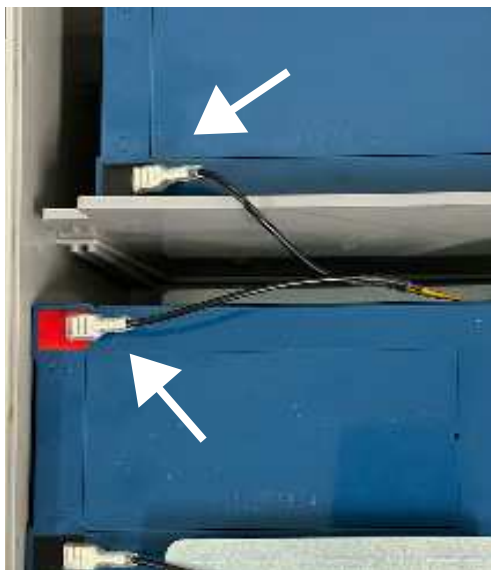


Image E

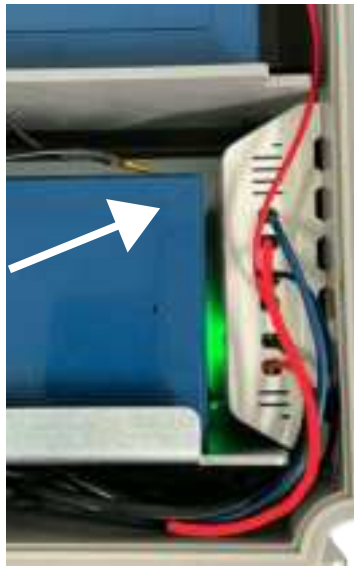


Image F

## Electric Backup Battery Setup

At this stage you will have your control box mounted and if you haven't already, you will need to bring through your 'control board/battery cable (red & blue cable) ready to connect.

Cable to bring through the bottom gland is the control board/battery cables. Bring approximately 30cm of cable through so you are not left short (you can always pull back through any excess cable). You may need to strip back the black cable to expose more of the battery cables to reach each battery, as shown in Image D



Image A

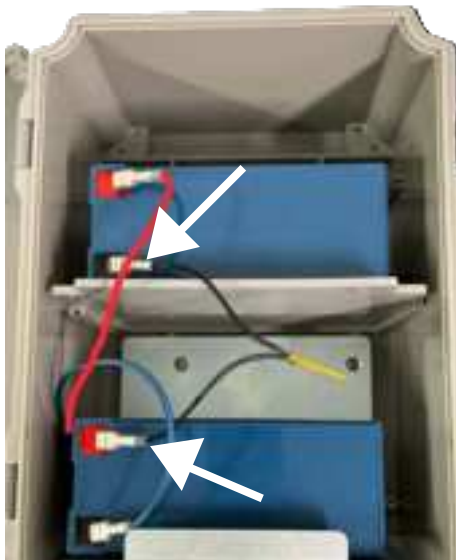


Image C

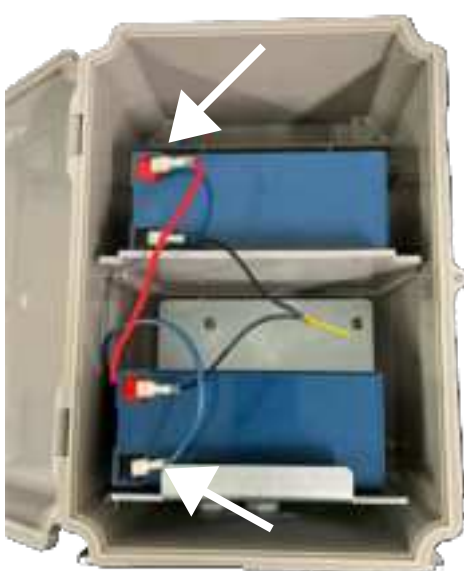


Image D



Image B

continued....

Position the 2 batteries as shown in Image D

Connect the black loop cable between both batteries (negative & positive) see Image C

Connect the blue (-) and red (+) battery cables - the blue cable will wire to the bottom battery attaching to the negative terminal and the red cable will wire to the top battery attaching to positive terminal, see image D

Care must be taken when wiring up your solar regulator and or battery terminals.  
A reverse in polarity will VOID your warranty

## Optional Extra Round Gate Bracket

The round gate bracket is an optional accessory if you have a farm gate with a round tube frame. Using this bracket allows for no drilling through your gate frame when attaching the standard gate bracket and more adjustment when initially setting up.



Round gate bracket setup on a tube gate



Round gate bracket setup on the gate with the standard TMT gate bracket attached, ready for the actuator installation



## Manual Release

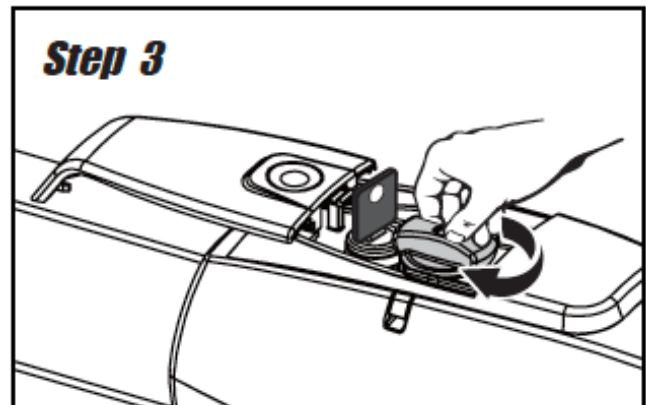
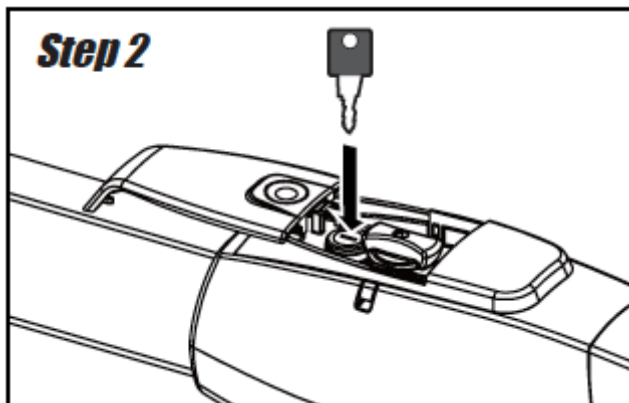
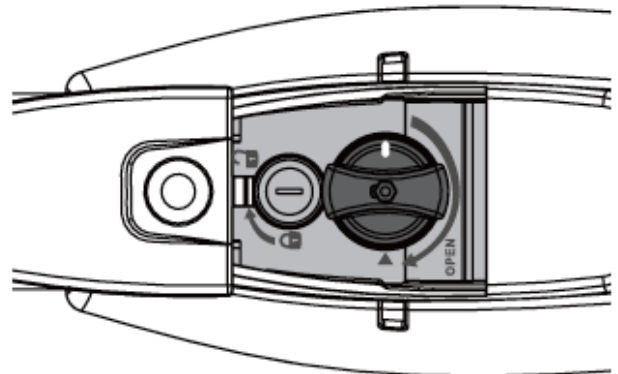
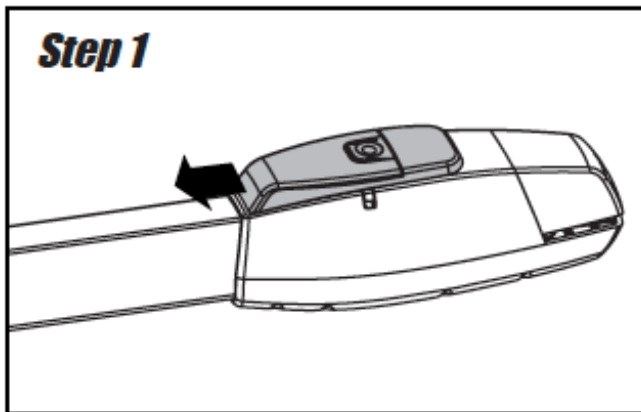
In case of power failure, slide the lid of the release chamber (located on top of the actuator motor end) and move it forward. Insert the key and turn clockwise to unlock, then turn around the knob to release. To restore the automation, simply reverse the above procedures.

Step1. Push/slide the lid of release chamber and move forward

Step2. Insert the key and turn clockwise to the unlock position

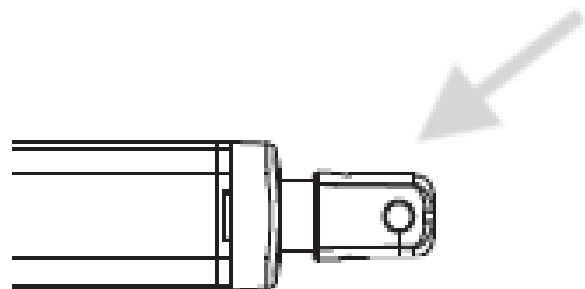
Step3. then turn clockwise the knob to release the motor

Make sure the White bar on the knob is on the position opposite to the triangle indication.  
To restore the automation, simply reverse the above procedure.



Now that you have the arm in the manual release mode, if the arm is attached to the gate you can freely swing the gate open or closed.

If the arm for some reason is off the gate bracket and you need to retract the arm then you will push the end of the arm in. If you need to manually extend the arm then you will hold and pull the end of the actuator arm out.





## Pull to open setup

### Installing the post bracket and secondary bracket

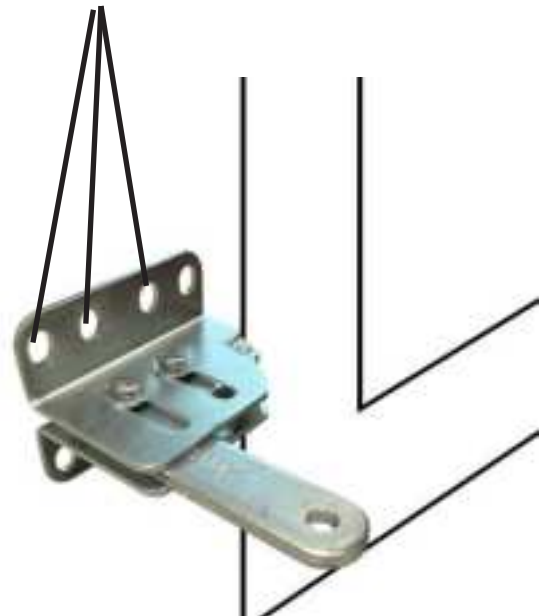
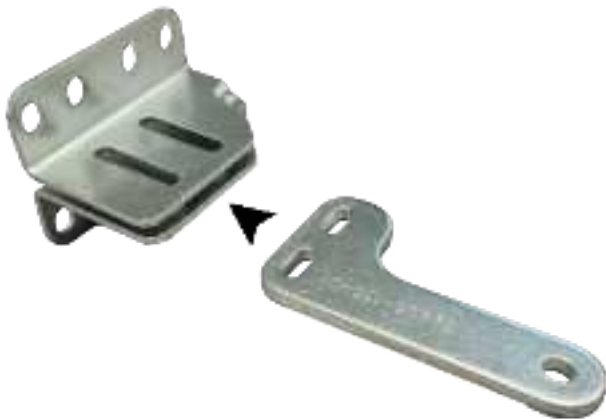
Installing your post bracket.

Working out your pivot point for your actuator arm, follow the Dimension Chart located on page 14

Once you have your pivot point marked out, you will go ahead and secure your post and secondary brackets to your post as shown in the images below.



Secure post bracket to post using the correct fixings for your setup.  
\*Note - these fixings are not provided



### Installing the arm to the secondary and gate bracket

Make sure the actuator arm is in the full retracted position. The actuator will be fully retracted when you receive your kit and it will be locked/engaged.

See page 22 for help on manual operation if required.

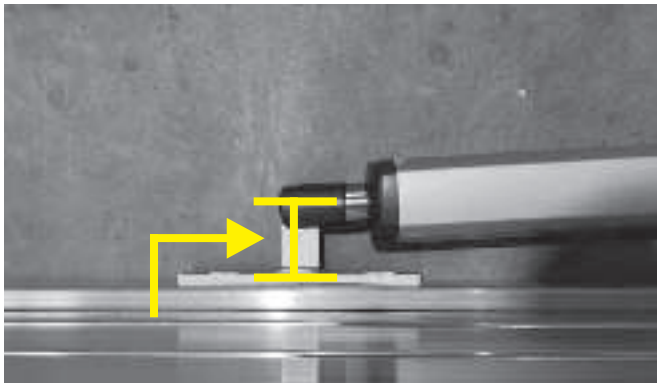
Setting the arm up on the gate will involve having the gate in the full open position.

You would have worked out your gate opening when setting up your post bracket using the 'Actuator Arm Dimension Chart' on page 14.

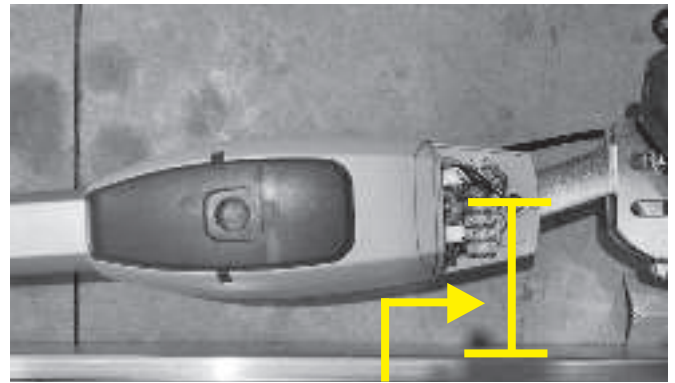
**Additional fixings may be required to prevent the secondary bracket from shifting see pg 29**

## Pull to open setup

Minimum clearances required between the gate and actuator arm are shown below with the gate in the open position and arm fully retracted - this is to prevent the gate opener from running parallel with the gate.



1. Minimum measurement required between centre pin and gate



2. Minimum measurement required between centre back pin and gate

Using standard gate bracket = 60mm

Using round gate bracket = 72mm

Using standard gate bracket = 130mm

Using round gate bracket = 142mm

Larger Gates may require a greater angle due to higher push forces needed to close gate

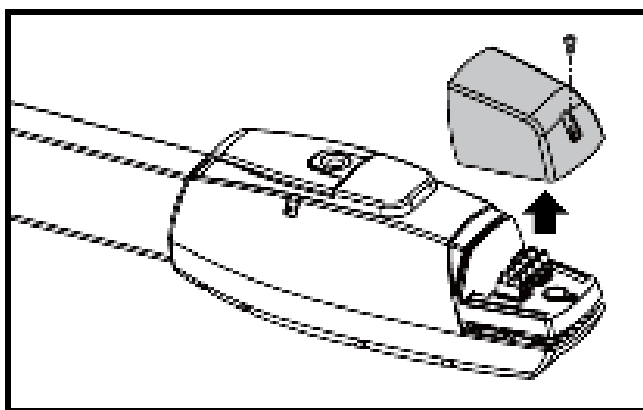
Ensure there is sufficient angle so that the gate never runs parallel with the actuator arm in either the closed or open positions.

It is important that in both the full open and full close positions, the arms must not be parallel to the gate. A parallel arm will not result in a turning movement to the gate causing potential damage to both gate and actuator arm.

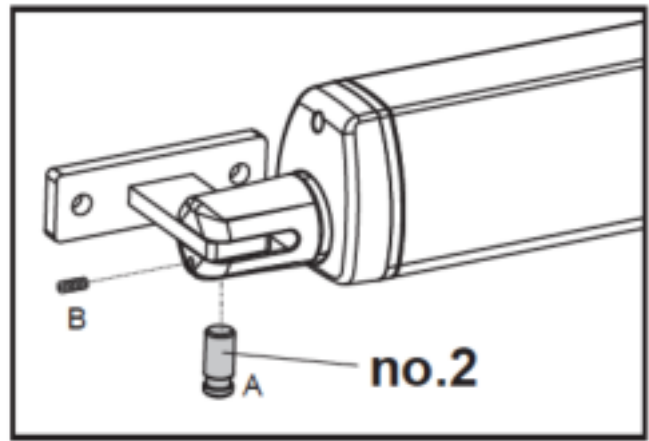
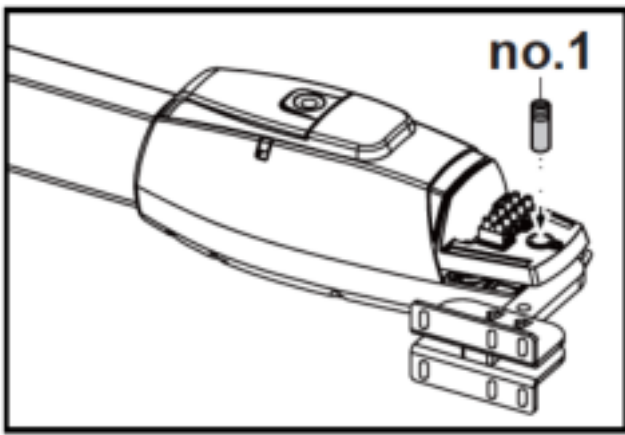
With the gate in the open position and the actuator arm fully retracted, attach the actuator arm to the secured secondary bracket.

Remove the wire cover and fix the secondary bracket with the pin shown in image 1.

Attach the gate bracket fitting to the actuator with the pin as shown in image 2.



use screw if required to remove pin



Now to position your gate bracket to your gate. With the gate in it's open position, move the arm with the gate bracket and position onto the gate. At this point it is best to clamp the gate bracket to the gate or if you purchased a round gate bracket then you can secure this to your gate. Once you have your gate bracket clamped to the gate, place the actuator arm into manual mode and swing the gate closed. If the gate closes fully, then you know you have your bracket positions correct, however if the gate does not fully close due to the arm running out of stroke, then you will need to revisit your secondary bracket pivot point. Before going ahead and bolting your gate bracket to the gate, make sure the actuator arm is mounted in the horizontal position and is level especially in these positions:

1. When gate is in the CLOSED position
2. When gate is in the OPEN position
3. When the gate is at 45° angle position

Also make sure that your actuator arm is not running parallel with the gate and that there is no binding on brackets.

Gate closed - arm will be extended  
Gate open - arm will be retracted



**INCORRECT SETUP**  
Arm must not bind on the secondary bracket



## VERY IMPORTANT

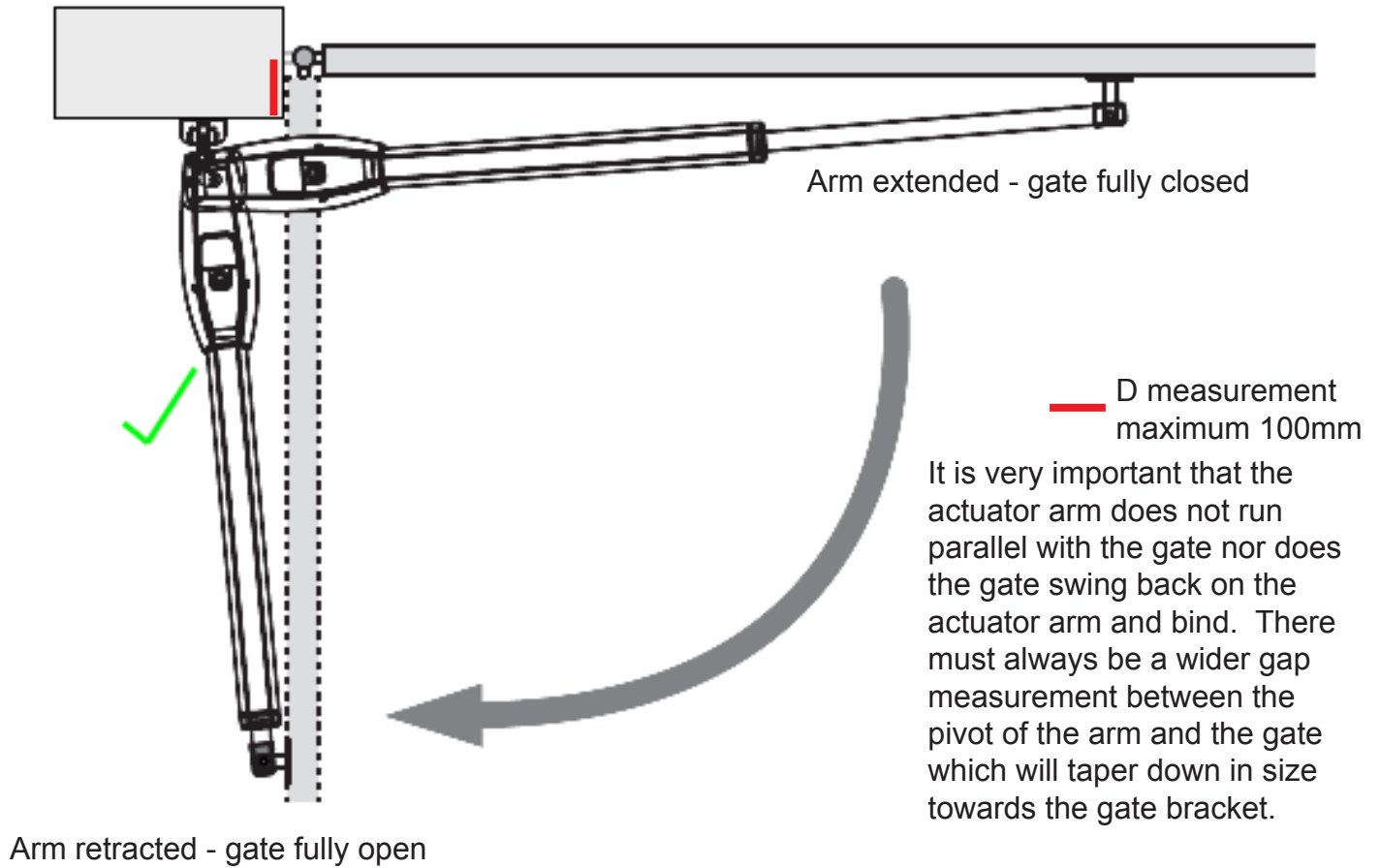
**CORRECT SETUP**  
Arm must not bind on the secondary bracket



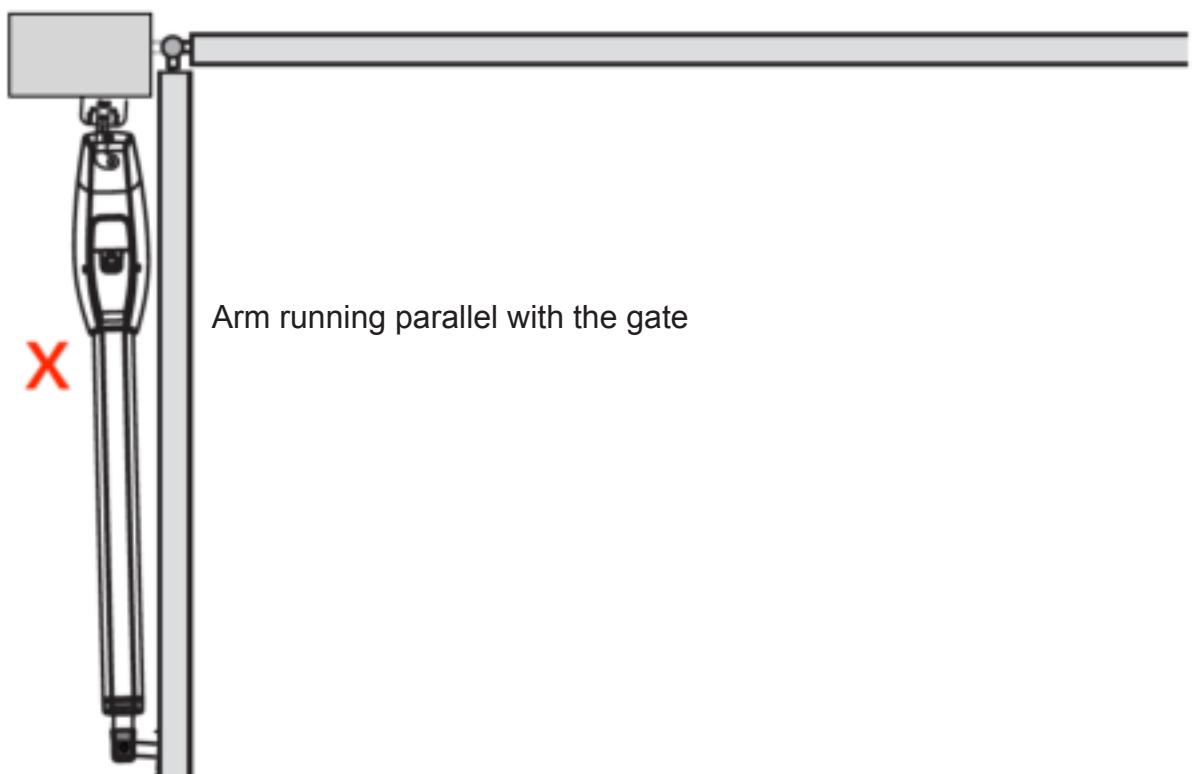
Binding should be checked as per your Routine Maintenance schedule noted on page 50 of this manual.

## Pull to open setup

### Ideal gate and actuator arm setup



### Incorrect arm setup



## Push to open setup

### Installing the post bracket and secondary bracket - 2 options

Identifying the Primary post bracket position

There are 2 possible mounting positions for the post bracket for push to open gates.



#### Option A

Rear post mounting - you would have ordered the push to open bracket for this setup

#### Option A

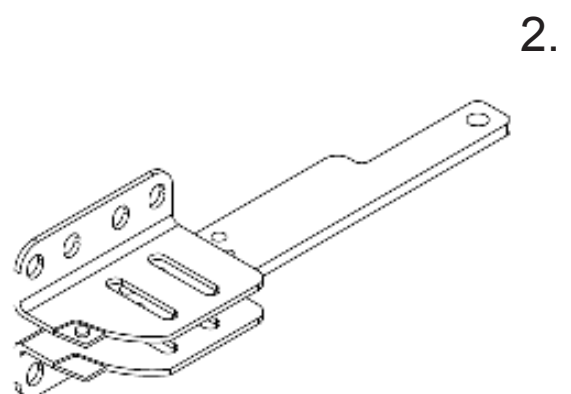
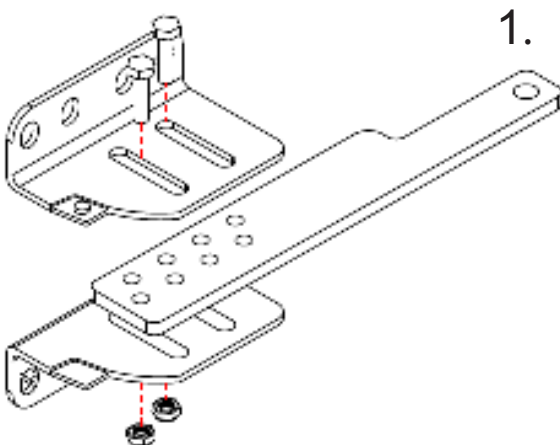
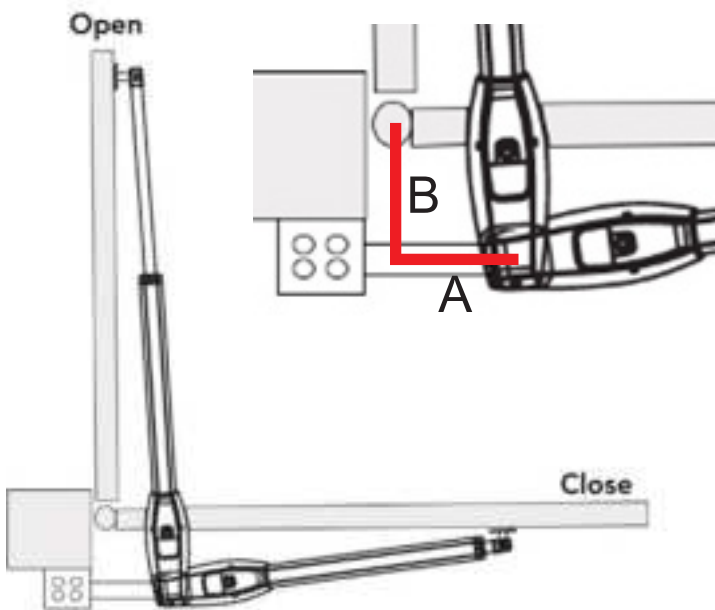
Mounting your primary post bracket to the rear of your post. Place the post bracket on the back edge of your post as shown in the images below. It's best to clamp it in position for now if you can, otherwise fix it in position. For this setup you will have your 'push to open bracket' (see images 1 & 2) also known as the secondary bracket which you will attach to your primary post bracket as shown below.

Gate closed - arm will be retracted

Gate open - arm will be extended

A = 140mm minimum

B = 200mm minimum



Additional fixings may be required to prevent the secondary bracket from shifting see pg 29



## Push to open setup

### Option B

Mounting your primary post bracket to the inside face of your post.

Working out your pivot point for your actuator arm, follow the Dimension Chart located on page 14 along with the diagram below

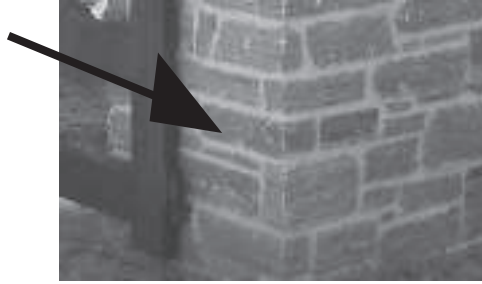
Once you have your pivot point marked out, you will go ahead and secure your post and secondary brackets to your post.

Gate closed - arm will be retracted

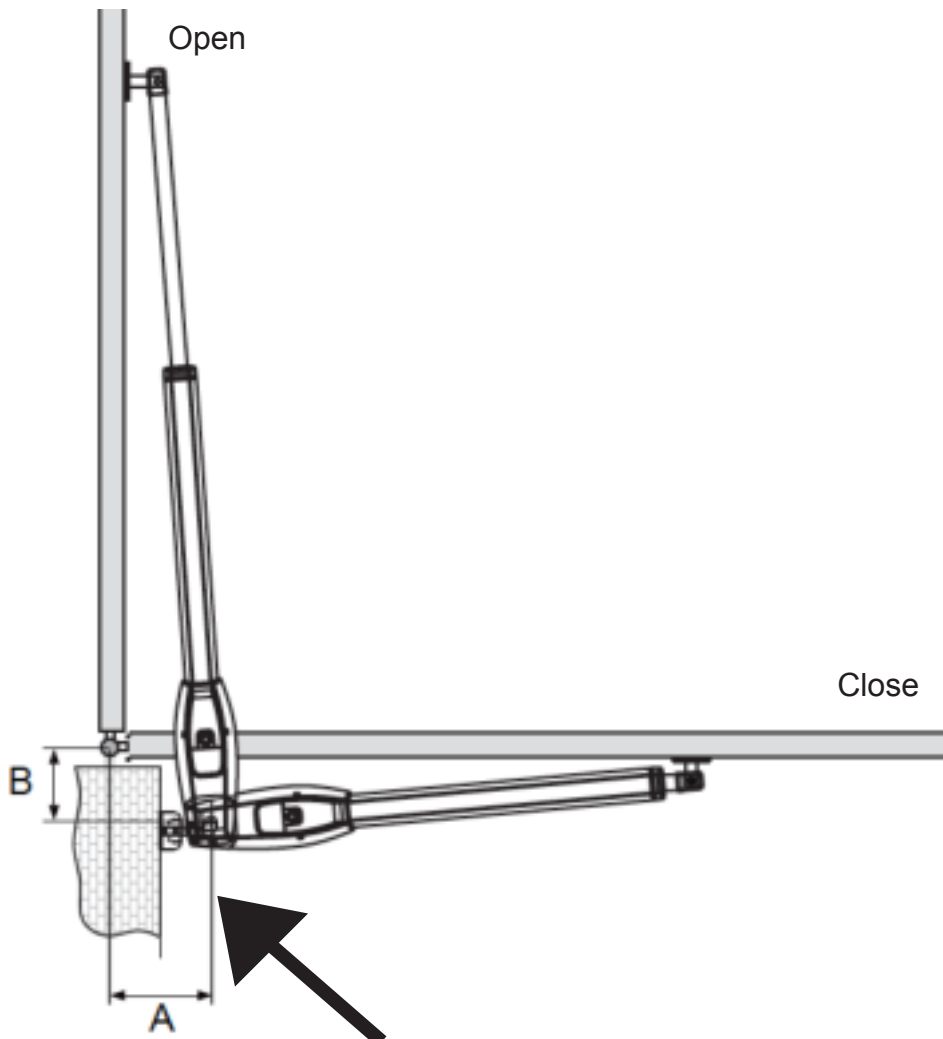
Gate open - arm will be extended

### Option B

Inside face mounting - the standard post bracket supplied in the kit will work with this setup



Scan the QR code for further installation details on the PUSH TO OPEN setup



## Push to open setup

### EXAMPLES OF CORRECT AND INCORRECT SETUPS

An incorrect setup will cause your actuator to not function correctly and may void your warranty



Incorrect setup showing the arm running parallel with the gate



Correct setup showing the arm with an angle to the gate



Correct setup showing the arm with an angle to the gate



Incorrect setup showing the arm running parallel with the gate

## Additional fixings if required



Pull to open setup

Some setups may require extra fittings to prevent the secondary bracket from shifting overtime.

This should be checked as per your Routine Maintenance schedule noted on page 50 of this manual.



Push to open setup



## Push to open setup

### Installing the arm to the secondary and gate bracket

Make sure the actuator arm is in the full extended position. The actuator will be fully retracted when you receive your kit and it will be locked/engaged.

See page 22 for help on manual operation to extended the actuator arm.

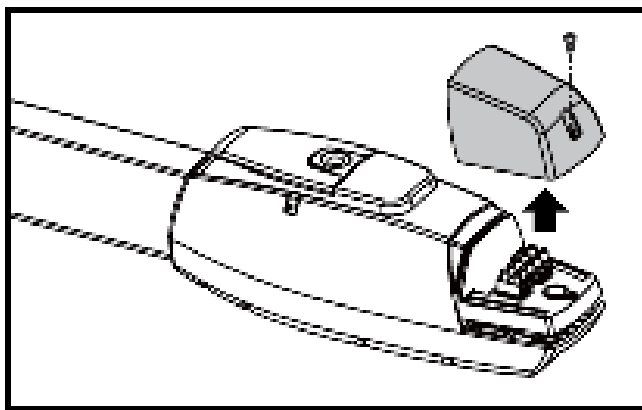
Setting the arm up on the gate will involve having the gate in the full open position. This position will be where you always want the gate to open to.

With the gate in the open position and the actuator arm fully extended attach the actuator arm to the secured secondary bracket.

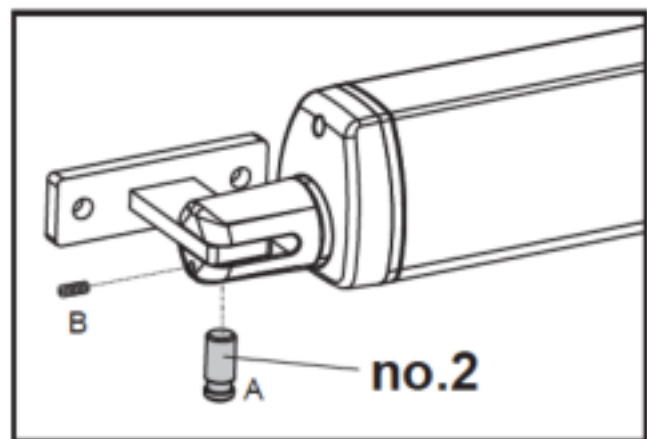
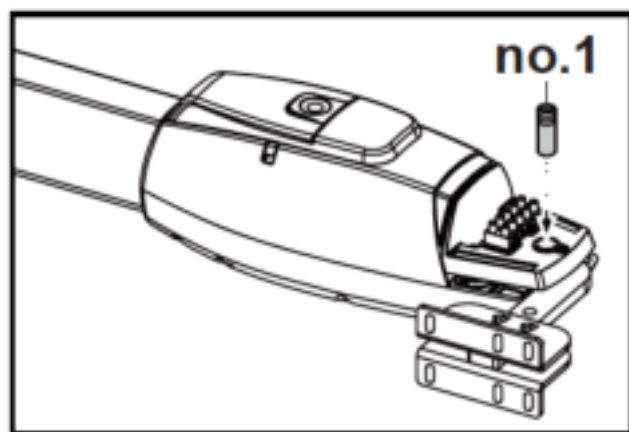
Remove the wire cover and fix the secondary bracket with the pin shown in image 1.

Attach the gate bracket fitting to the actuator with the pin as shown in image 2.

Additional fixings may be required to prevent the secondary bracket from shifting.



use screw if required to remove pin



Now to position your gate bracket to your gate. With the gate in it's open position, move the arm with the gate bracket and position onto the gate. At this point it is best to clamp the gate bracket to the gate or if you purchased a round gate bracket then you can secure this to your gate. Once you have your gate bracket clamped to the gate, place the actuator arm into manual mode (if not already) and swing the gate closed. If the gate closes fully, then you know you have your bracket positions correct, however if the gate does not fully close due to the arm running out of stroke, then you will need to revisit your secondary bracket pivot point.

Before going ahead and bolting your gate bracket to the gate, make sure the actuator arm is mounted in the horizontal position and is level especially in these positions:

1. When gate is in the CLOSED position
2. When gate is in the OPEN position
3. When the gate is at 45° angle position

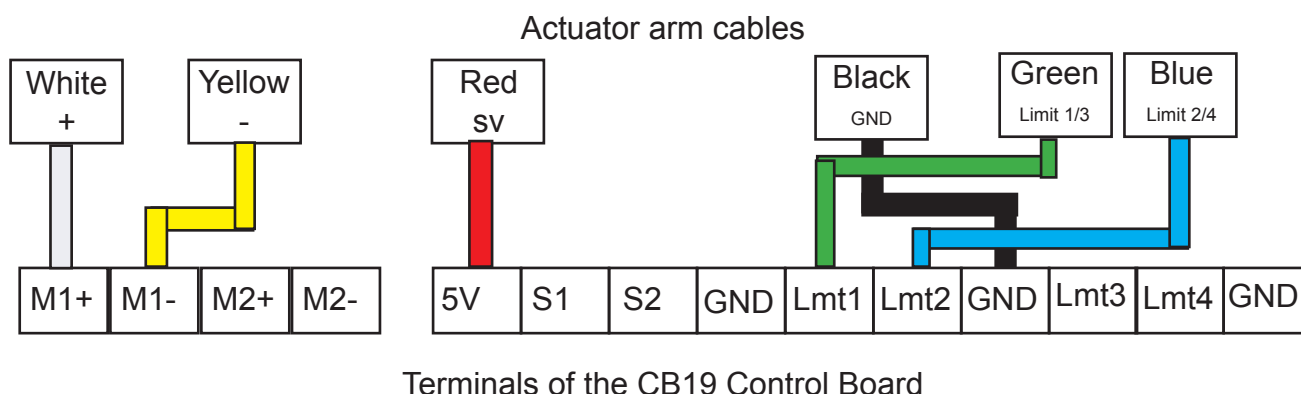
Also make sure that your actuator arm is not running parallel with the gate and that there is no binding on brackets. **SEE PAGE 25 FOR FURTHER INFORMATION ON BINDING**

Gate closed - arm will be retracted

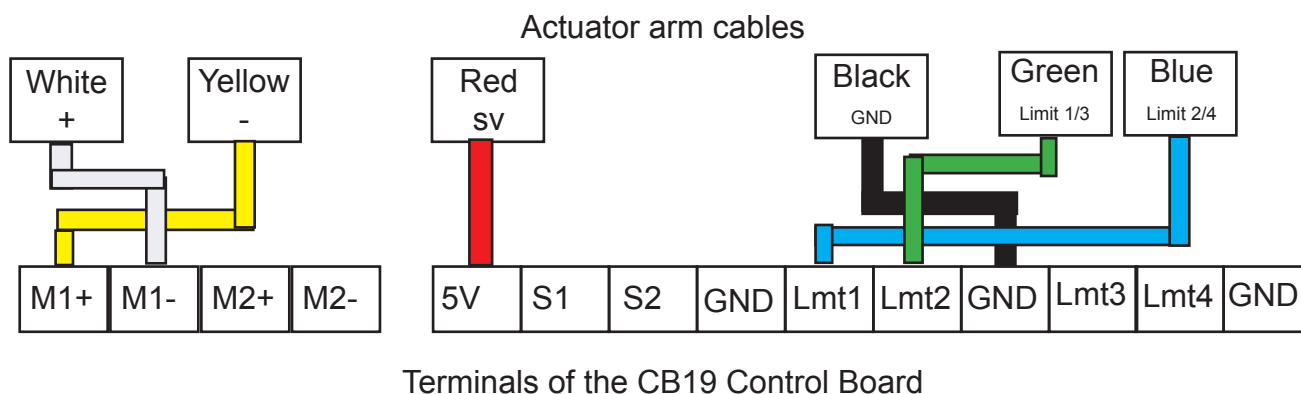
Gate open - arm will be extended

## Actuator wiring to main control board

### Single gate - push to open setup



### Single gate - pull to open setup

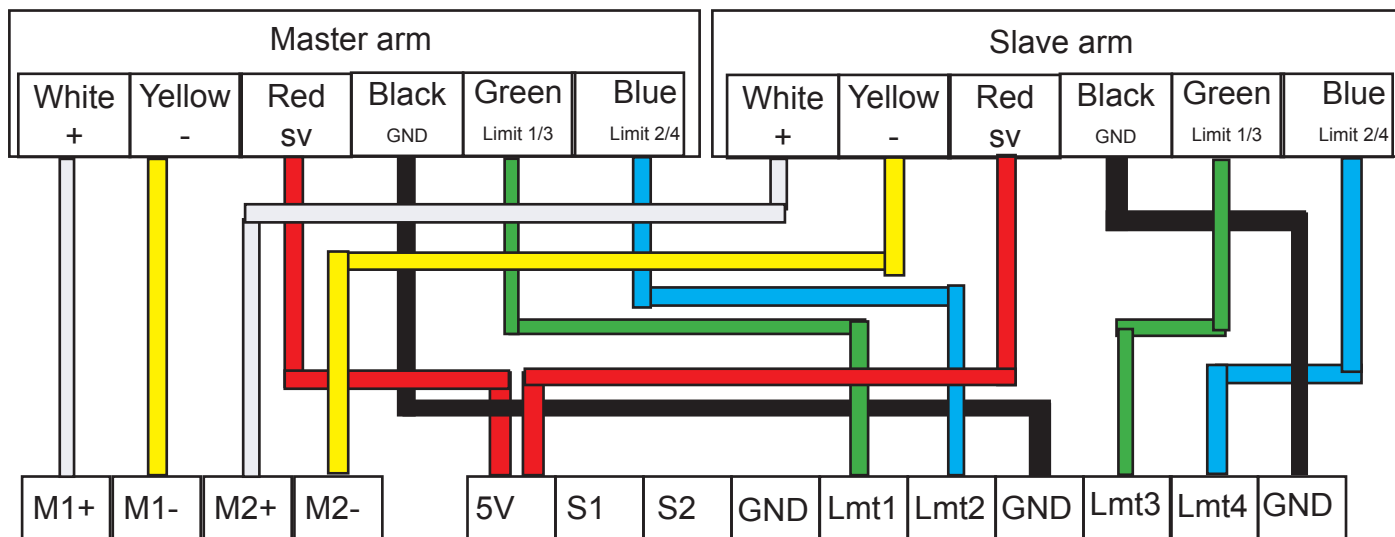


You will notice a small thin white cable loose, this cable is not required to be wired in

# Actuator wiring to main control board

## Double gate - push to open setup

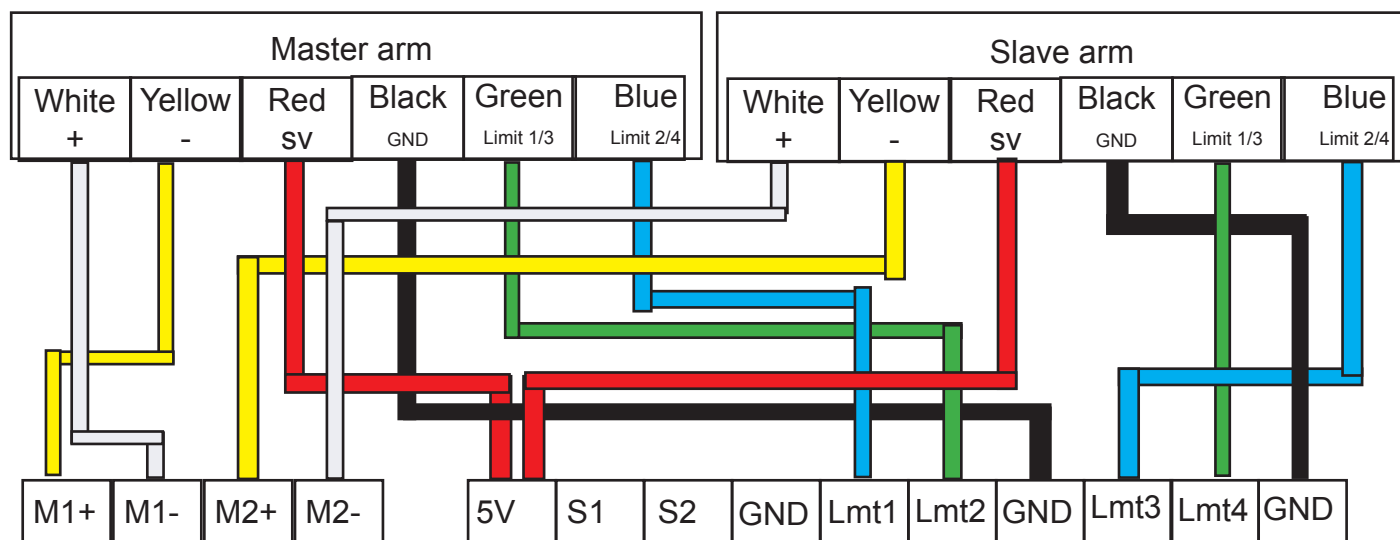
Actuator arm cables



Terminals of the CB19 Control Board

## Double gate - pull to open setup

Actuator arm cables



Terminals of the CB19 Control Board

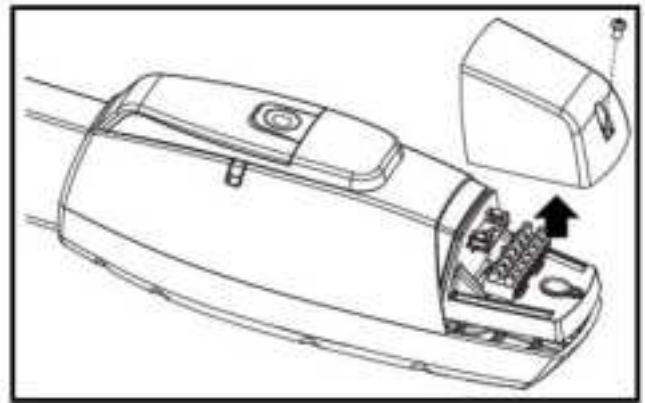
You will notice a small thin white cable loose, this cable is not required to be wired in

## Limit switch adjustment - PULL TO OPEN

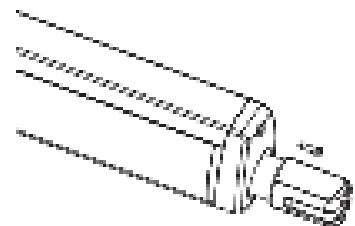
If not using limits, go to page 36

### Pull To Open

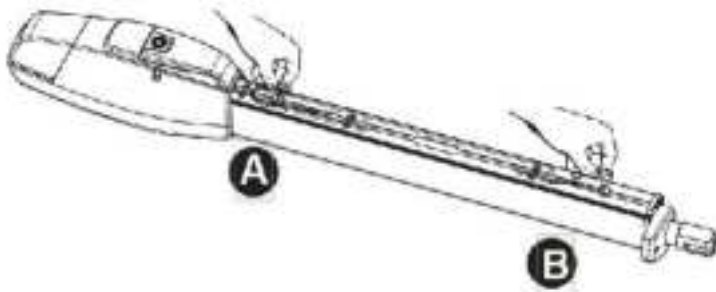
With the TMT400LLS wired into the control board terminals, now power up the control board with transformer (if electric) or batteries (if solar). Make sure you have the rear cap off the TMT 400LLS arm so you can see the LED indicator lights (RED and GREEN).



Now put the arm into manual release, push the gate closed. With the gate in the closed position, remove the screw from the anti shaker ring (see image) and place the screw to the side (ensure you do not lose this screw). Now move the shaker ring to the side so you can now slide off the top outer cover.



You will now see the rear and front limit adjustment screws A and B (see image). With the gate still in the closed position and the 2 LED indicator lights on, loosen the limit screw B and slide the limit back towards the motor slowly until you see one of the LED indicator lights go out. If the LED indicator light is already out, then your limit B is already in the correct position and no adjustment is needed. Now tighten the limit screw B back up. Now swing the gate to the open position. Loosen the limit screw A and slide it away from the motor until you see the LED indicator light go off. If the light is already off, then your limit A is already in the correct position and no adjustment is needed.



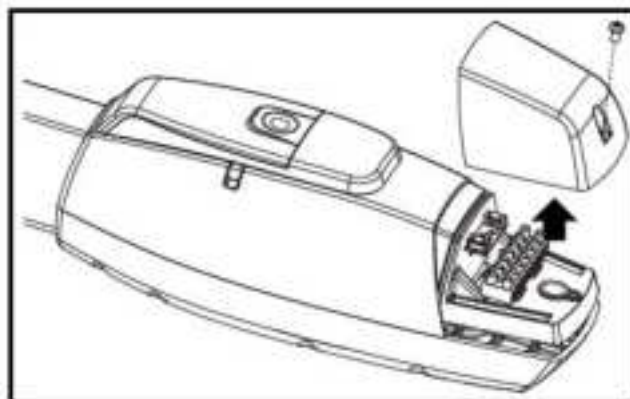
Scan QR Code to watch our video on setting up limit switches

Now run the travel function on page 35. Once you have run the travel function, trigger your gate to open and close. Make sure the gate closes and opens to the limit A and B. If the gate falls just short of your desired open or close position, loosen off the corresponding limit and adjust accordingly. Operate the gate again to make sure the setting is correct. Now reattach the top outer cover back onto the TMT 400LLS actuator arm and push it all the way back until it is back into position. Now put the anti shaker ring back to the correct position and reattach with the screw. Do not over tighten the screw.

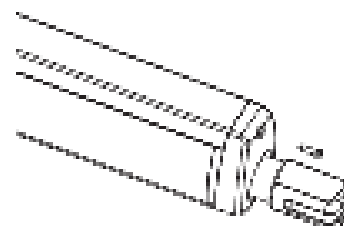
## Limit switch adjustment - PUSH TO OPEN

### Push To Open

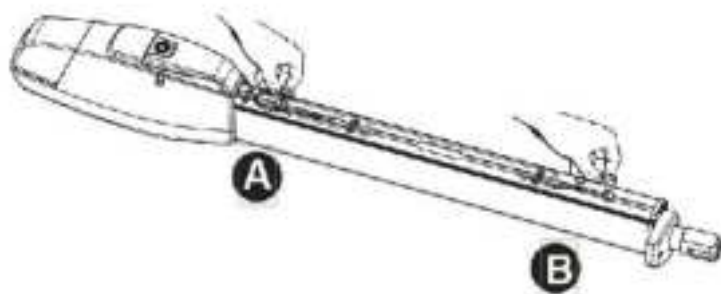
With the TMT400LLS wired into the control board terminals, now power up the control board with transformer (if electric) or batteries (if solar). Make sure you have the rear cap off the TMT 400LLS arm so you can see the LED indicator lights (RED and GREEN).



Now put the arm into manual release, push the gate open. With the gate in the open position, remove the screw from the anti shaker ring (see image) and place the screw to the side (ensure you do not lose this screw). Now move the shaker ring to the side so you can now slide off the top outer cover.



You will now see the rear and front limit adjustment screws A and B (see image). With the gate still in the open position and the 2 LED indicator lights on, loosen the limit screw B and slide the limit back towards the motor slowly until you see one of the LED indicator lights go out. If the LED indicator light is already out, then your limit B is already in the correct position and no adjustment is needed. Now tighten the limit screw B back up. Now swing the gate to the closed position. Loosen the limit screw A and slide it away from the motor until you see the LED indicator light go off. If the light is already off, then your limit A is already in the correct position and no adjustment is needed.



Scan QR Code to watch our video on setting up limit switches

Now run the travel function on page 35. Once you have run the travel function, trigger your gate to open and close. Make sure the gate closes and opens to the limit A and B. If the gate falls just short of your desired open or close position, loosen off the corresponding limit and adjust accordingly. Operate the gate again to make sure the setting is correct. Now reattach the top outer cover back onto the TMT 400LLS actuator arm and push it all the way back until it is back into position. Now put the anti shaker ring back to the correct position and reattach with the screw. Do not overtighten the screw.

## Travel function for 'Limit Switch' setup

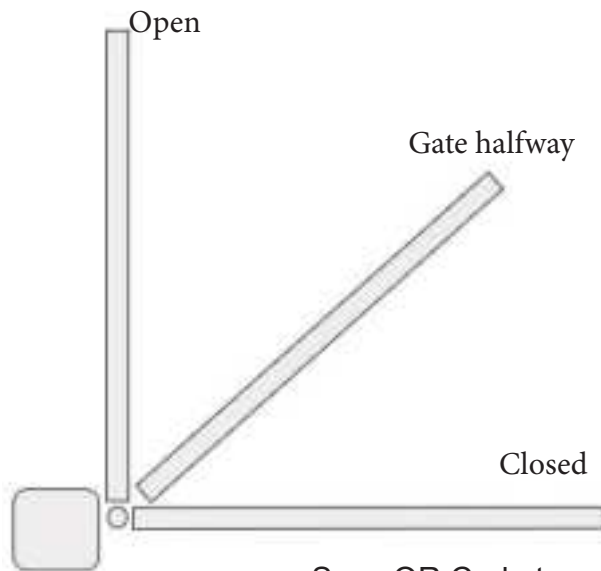
### IMPORTANT - must do

Travel Function when using LIMIT SWITCHES (preferred option) setting (Physical Stop preferred in closed position)

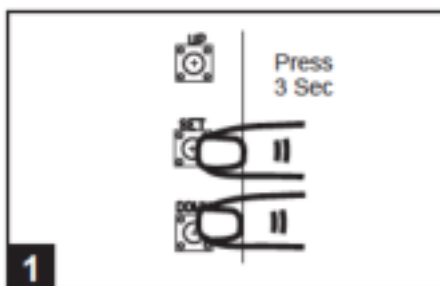
To run the Travel Function cycle so the TMT 400LLS can learn the open and close limits, you will first need to override the actuator arms manual release and put the gate into a half open/close position.

Power the control board up with transformer (if electric) or batteries (if solar). If your TMT unit is a Single Swing Kit, you will need to adjust F1 setting to 1 (F11). If your TMT unit is a Dual Swing Kit, the default setting for F1 will already be set on 2 for Dual Swing (F12). Now you will need to turn limit switch setting on by adjust setting F2 to 2 (F22) See page 40 for adjusting control board settings.

To start the Travel Function – Press the buttons “SET” and “DOWN” at the exact same time and hold until the digital screen says “LEA” (3 to 4 seconds). Once you see “LEA” on the screen you can remove your fingers from the buttons. Now press the “SET” button once and let go. 2 seconds after you let go, the gate or gates will begin the travel function.



Scan QR Code to watch our video



For a Single Swing Gate, you will see the gate CLOSE until the gate reaches the closed limit switch, the gate will then OPEN until the gate reaches the open limit switch, the gate will then CLOSE again until the gate reaches the closed limit switch. The digital screen will then say S-G which means Single Gate has been learnt. Using a remote, trigger your gate to ensure the default settings are correct. If adjustments need to be made, please refer to control board settings on page 40

For Dual Swing Gates, you will see the following sequence. Motor 2 (slave gate) will CLOSE the gate until it reaches the closed limit switch, then Motor 1 (master gate) will CLOSE the gate until it reaches the closed limit switch. Now Motor 1 will OPEN until the gate reaches the open limit switch, then Motor 2 will OPEN until the gate reaches the open limit switch. Now Motor 2 will CLOSE until the gate reaches the closed limit switch, then Motor 1 will CLOSE until the gate reaches the closed limit switch. The digital screen will then say D-G which means Dual Gates have been learnt. Using a remote, trigger your gate to ensure the default settings are correct. If adjustments need to be made, please refer to control board settings on page 40



## Travel function for 'Over Current' setup

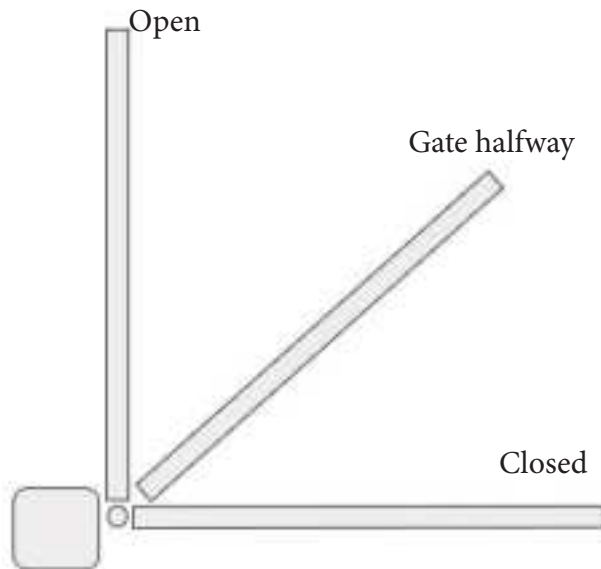
### IMPORTANT - must do

Travel Function when using OVER CURRENT setting (Physical Stops required in closed position)

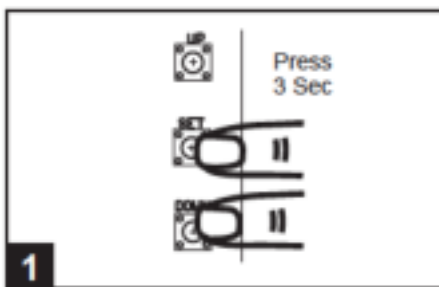
To run the travel function cycle so the TMT 400LLS can learn the open and close operating times, you will first need to override the actuator arms manual release and put the gate into a half open/close position.

Power the control board up with transformer (if electric) or batteries (if solar). If your TMT unit is a Single Swing Kit, you will need to adjust F1 setting to 1 (F11). If your TMT unit is a Dual Swing Kit, the default setting for F1 will already be set on 2 for Dual Swing (F12). See page 40 for adjusting control board settings.

To start the Travel Function – Press the buttons “SET” and “DOWN” at the exact same time and hold until the digital screen says “LEA” (3 to 4 seconds). Once you see “LEA” on the screen you can remove your fingers from the buttons. Now press the “SET” button once and let go. 2 seconds after you let go, the gate or gates will begin the travel function.



Scan QR Code to watch our video



For Single Swing Gate, you will see the gate CLOSE and hit your physical stop, the gate will then OPEN and hit a physical stop, the gate will then CLOSE again hitting the physical stop. The digital screen will then say S-G which means Single Gate has been learnt.

Using a remote, trigger your gate to ensure the default settings are correct.

If adjustments need to be made, please refer to control board settings on page 40

For Dual Swing Gates, you will see the following sequence. Motor 2 (slave gate) will CLOSE and hit your stop, then Motor 1 (master gate) will CLOSE and hit the stop. Now Motor 1 will open until the gate reaches the open position, then Motor 2 will open until the gate reaches the open position. Now Motor 2 will close until the gate reaches the closed position, then Motor 1 will close until the gate reaches the closed position. The digital screen will then say D-G which means Dual Gates have been learnt. Using a remote, trigger your gates to ensure the default settings are correct. If adjustments need to be made, please refer to control board settings on page 40



## Function of the LED display

### LEA

Means motor into the system learning mode, do not interrupt during this procedure

### D-G

Means motor completed the learning procedure for dual gate installation

### S-G

Means motor completed the learning procedure for single gate installation

### N-L

Means system learning failed

### CLN

The memory of the system is all deleted/cleared by pressing and holding the UP + SET + DOWN buttons together for 5s and the panel will be back to default settings

### OPN

When the gate is opening, the LED Display shows 'OPN' for 2s and then change to Amp current indication

### STP

When the gate has stopped, the LED Display shows 'STP' until next command has been made, after 10s no further movement, the LED turns OFF

### CLS

When the gate is closing, the LED display shows 'CLS' for 2s and then changes to AMP current indication

### 501

LED display shows '501' means the panel did not detect the M1+/M1 and M2+/M2 both been connected before the system learning procedure, check the 2 motor wire connections, for a dual gate system

### 502

If you experience '502' fault check that F1 setting has been set correctly.

Single gate = F11, Double gates = F12

Make sure if you have a single gate you wire the arm into M1+/M1 and if double gates wire to both arms into M1+/M1 and M2+/M2

### 503

LED display shows '503' means same button on the remote has been identified for more than 2 functions

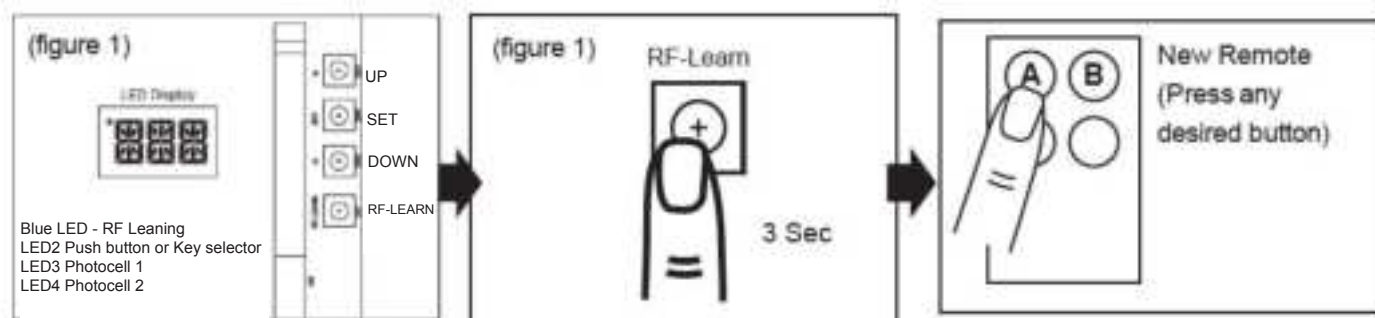


Scan here for helpful videos

## Remote tuning and deleting

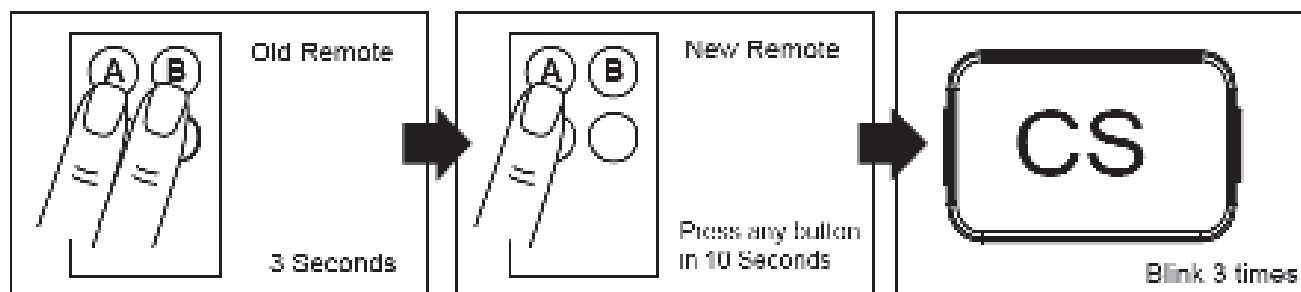
### Remote tuning with main control board

Press 'RF-Learn' button for 3 seconds, the LED display will show "CS". Then press the button on the remote, the LED display will blink "CS" three times and stay on. Continue to tune all other remotes if required. 7 seconds after all remotes are tuned in and without any new remote learning, the LED will go off and the remote learning is now complete.



### Remote learning without main control board

You are best off standing near the control box so you can hear the main control board beep. Press the A & B buttons on the OLD remote and hold for at least 5 seconds or until you hear a long beep inside the box. Now press any button on the NEW remote within 10 seconds (the alarm will beep 3 times). You must complete this procedure for each new remote you have.

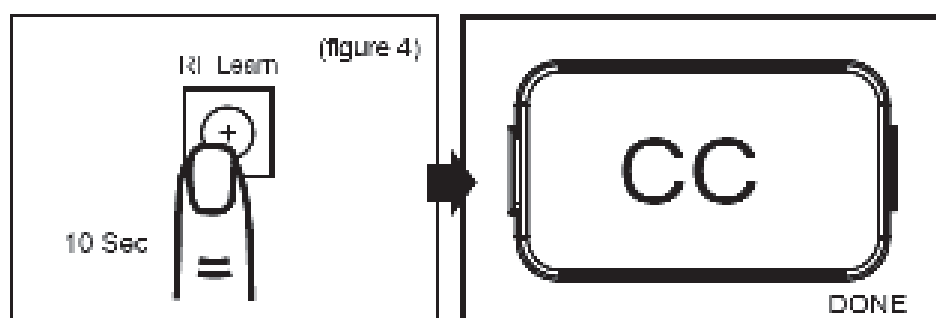


### Deleting all remotes

With this operation all the stored remotes will be deleted.

Press and hold down RF-LEARN button on the control board for 10 seconds or wait until the LED displays shows 'CC'

Now all remotes are deleted



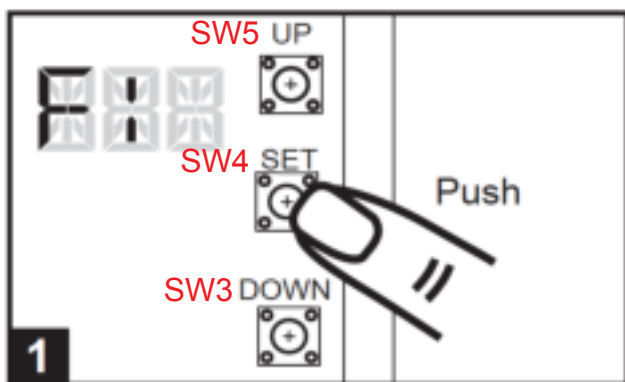
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## Auto close override (PARTY MODE)

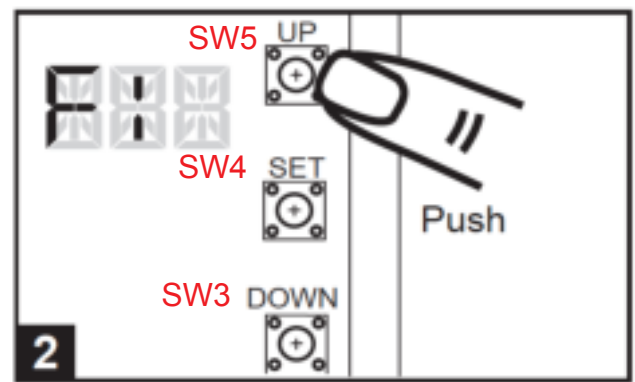
To allow your remote to override your set auto close timer, you first need to set a remote button to “Turn auto close off via remote”. You will need to set 1 of the spare buttons on your remote for this function. Likely button C which is setting FV or button D which is setting FW. Set either one of those settings to 3. Now that this has been adjusted and you have auto close set, trigger your gate to open with your full trigger button. Once the gate has opened and turned off, press and hold for 3 to 5 seconds the button you set for auto close override. You will now hear the control board make a long BEEP sound. Your gate will now stay open. To close your gate, you will now press and hold your auto close override button for 3 to 5 seconds, you will now hear a long beep, your gate has now started the auto close count down. You can either wait for the count down to finish or you can trigger your gate to close straight away.

## Working the Display Screen

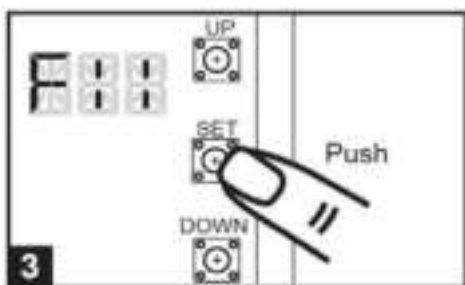
You will find the 4 programming buttons on the far right side of the control board (SW1, SW3, SW4, SW5) note that you will only use the top 3 buttons (SW3, SW4, SW5)



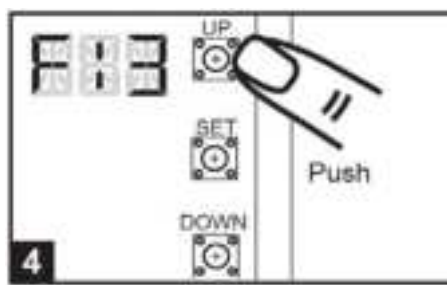
Press “SET” for 3 seconds to get into the program setting display from F1



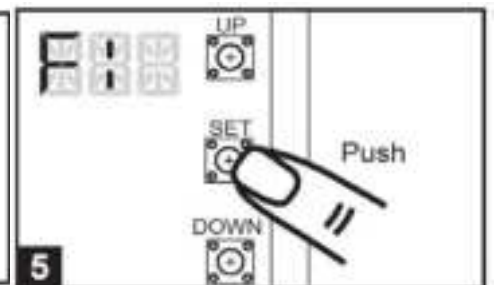
Press “UP” or “DOWN” to change setting items from F1 to FW



Press “SET” button again to get into the menu setting



Press “UP” or “DOWN” to change from F11 to F12



Press “SET” button again to confirm setting

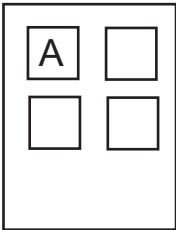
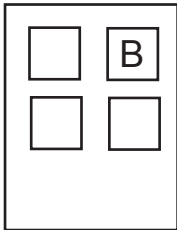
## Settings

LED Display	Definition	Parameter	Table	Discription
F1	Double/Single Gate	F11 F12	Single Gate Double Gates (Default)	Factory setting F12
F2	Motor Type	F21 F22 F23	Over current (Default) Limit Switch Not used	Factory setting F21
F3	Over current for gate opening	F31 F32 F33 F34 F35 F36	2A - Light gate 3A 4A - Default 5A 6A 7A - Heavy enclosed gate	Factory setting F33
F4	Over current for gate closing	F41 F42 F43 F44 F45 F46	2A - Light gate 3A 4A - Default 5A 6A 7A - Heavy enclosed gate	Factory setting F43
F5	Ramp up timing for opening (from 0 to full speed)	F51 F52 F53	0.25 sec 0.5 sec - Default 0.75 sec - Suits longer gates	Factory setting F52
F6	Ramp up time for closing (from 0 to full speed)	F61 F62 F63	0.25 sec 0.5 sec - Default 0.75 sec - Suits longer gates	Factory setting F62
F7	Motor speed for opening	F71 F72 F73 F74 F75 F76	50% of full speed 60% of full speed 70% of full speed 80% of full speed 90% of full speed - Default 100% of full speed	Factory setting F75
F8	Motor speed for closing	F81 F82 F83 F84 F85 F86	50% of full speed 60% of full speed 70% of full speed 80% of full speed 90% of full speed - Default 100% of full speed	Factory setting F85 For limit switch operation, a slower speed is recommended for closing direction

LED Display	Definition	Parameter	Table	Discription
F9	Ramp down timing for opening	F91 F92 F93	0.25 sec 0.5 sec - Default 0.75 sec - Suits longer gates	Factory setting F92
FA	Ramp down timing for closing	FA1 FA2 FA3	0.25 sec 0.5 sec - Default 0.75 sec - Suits longer gates	Factory setting FA2
FB	Speed from ramp down to turning off for opening direction	FB1 FB2 FB3 FB4	FB1= Slowest crawl speed FB2 = Slow crawl speed FB3 = Moderate crawl speed FB4 = Faster crawl speed	Factory setting FB3 FB1 or FB2 suits limits for more precise
FC	Speed from ramp down to turning off for closing direction	FC1 FC2 FC3 FC4	FC1= Slowest crawl speed FC2 = Slow crawl speed FC3 = Moderate crawl speed FC4 = Faster crawl speed	Factory setting FC3 FC1 or FC2 suits limits for more precise
FD	Distance the crawl speed will run for opening direction	FD1 FD2 FD3 FD4	FD1 = Longest crawl distance FD2 = Long crawl distance FD3 = Moderate crawl distance FD4 = Shortest crawl distance	Factory setting FD3 FD4 not recommended using limits
FE	Distance the crawl speed will run for closing direction	FE1 FE2 FE3 FE4	FE1 = Longest crawl distance FE2 = Long crawl distance FE3 = Moderate crawl distance FE4 = Shortest crawl distance	Factory setting FE3 FE4 not recommended using limits
FF	Time delay with 2 gates opening	FF0 FF1 FF2 FF3 FF4 FF5 FF6 FF7 FF8 FF9	0 second 2 seconds - Default 4 seconds 6 seconds 10 seconds 15 seconds 20 seconds 25 seconds 30 seconds 35 seconds	Factory setting FF1
FG	Time delay with 2 gates closing	FG0 FG1 FG2 FG3 FG4 FG5 FG6 FG7 FG8 FG9	0 second 2 second - Default 4 second 6 second 10 second 15 second 20 second 25 second 30 second 35 second	Factory setting FG1

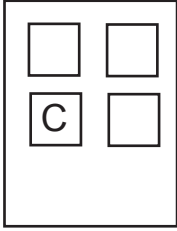
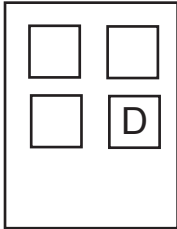


LED Display	Definition	Parameter	Table	Discription
FH	Auto Close	FH0 FH1 FH2 FH3 FH4 FH5 FH6 FH7 FH8	Function OFF - Default 3 seconds 10 seconds 20 seconds 40 seconds 60 seconds 120 seconds 180 seconds 300 seconds	Factory setting FH0
FI	Safety device function Mode	FI1 FI2 FI3 FI4	Mode 1 - Default Mode 2 Mode 3 Mode 4 - used for safety beams	Factory setting FI1
FJ	Pedestrian Mode	FJ0 FJ1	Function OFF - no operation Function ON - Default	Factory setting FJ1 Single gate opens 50% Double gates/master opens fully
FK	Flashing Light	FK0 FK1	Function OFF - Default Function ON	Factory setting FK0 FK0 - light will flash when motor is operating FK1 - light will flash for 3sec before gate opens.
FL	Safety beam 1 activation PH1	FL0 FL1	Function OFF - Default Function ON	Factory setting FL0
FM	Safety beam 2 activation PH2	FM0 FM1	Function OFF - Default Function ON	Factory setting FM0
FN	Alarm Buzzer	FN0 FN1	Function OFF - Default Function ON	Factory setting FN0
FO	Electric latch release time	FO1 FO2 FO3 FO4 FO5 FO6	1 second 2 seconds - Default 3 seconds 4 seconds 5 seconds 6 seconds	Factory setting FO2

LED Display	Definition	Parameter	Table	Discription
FP	Electric latch mode	FP1 FP2	Standard gate opening - Default Release gate tension before opening (gate reverse for 0.25s)	Factory setting FP1
FR	LED Direction	FR0 FR1	When terminal block is at bottom (for swing gate motor - Default) When terminal block is at top (for articulated arm motor)	Factory setting FR0 Up ▲ and Down ▼ buttons will switch according to the parameter setting. When FR0, button SW5 stands for ▲ Up and button SW3 stands for ▼ Down. When FR1, button SW3 stands for ▲ Up, and button SW5 stand for ▼ Down.
FS	Over current tension release when closing	FS0 FS1 FS2 FS3 FS4 FS5 FS6	Function OFF - Default 0.1 sec 0.2 sec 0.3 sec 0.4 sec 0.5 sec 0.6 sec	Factory setting FS0 Recommend setting FS1 for ease of manually releasing the gate
FT	A Button function (Remote) 	FT0 FT1 FT2 FT3 FT4	Function OFF Open-Stop-Close - Default Pedestrian mode Turn auto close off via remote Open only	Factory setting FT1
FU	B Button function (Remote) 	FU0 FU1 FU2 FU3 FU4	Function OFF Open-Stop-Close Pedestrian mode - Default Turn auto close off via remote Open only	Factory setting FU2



Scan here for helpful videos

LED Display	Definition	Parameter	Table	Discription
FV	C Button function (Remote) 	FV0 FV1 FV2 FV3 FV4	Function OFF - Default Open-Stop-Close Pedestrian mode Turn auto close off via remote Open only	Factory setting FV0
FW	D Button function (Remote) 	FW0 FW1 FW2 FW3 FW4	Function OFF - Default Open-Stop-Close Pedestrian mode Turn auto close off via remote Open only	Factory setting FW0
FX	D Key function (PCB Terminal)	FX1 FX2 FX3 FX4 FX5	Trigger Function: Open-Stop-Close-Stop - Default Open Only Pedestrian mode Close only No function	Factory setting FX1
FY	S Key function (PCB Terminal)	FY1 FY2 FY3 FY4 FY5	Trigger Function: Open-Stop-Close-Stop - Default Open Only Pedestrian mode Close only No function	Factory setting FY1
FZ	Over current sensitivity setting	FZ1 FZ2 FZ3 FZ4 FZ5 FZ6 FZ7 FZ8 FZ9 FZA	0.1 sec 0.2 sec 0.3 sec 0.4 sec 0.5 sec - Default 0.6 sec 0.7 sec 0.8 sec 0.9 sec 1 second	Factory setting FZ5  How long the gate will push at the set over current level

## Safety Beams - Photocells

### FI1 Photocell OPEN/CLOSE

Position of Gate	When safety devices are activated	
Type of Safety Device	PH1 Photocell - Close	PH2 Photocell - Open
FULLY CLOSED	No effect	Open not allowed
FULLY OPENED	Reload automatic closing time	No effect
STOP DURING MOVING	Reload automatic closing time	Open not allowed
CLOSING	Open	No effect
OPENING	No effect	Close

### FI2 Safety Edge

Position of Gate	When safety devices are activated	
Type of Safety Device	PH1 Photocell - Close	PH2 Safety Edge
FULLY CLOSED	No effect	Open not allowed
FULLY OPENED	Reload automatic closing time	Reload automatic closing time
STOP DURING MOVING	Reload automatic closing time	Open/Close not allowed
CLOSING	Open	Reverse to open for 2 seconds
OPENING	No effect	Reverse to close for 2 seconds

### FI3 Open only Device (Vehicle Detector)

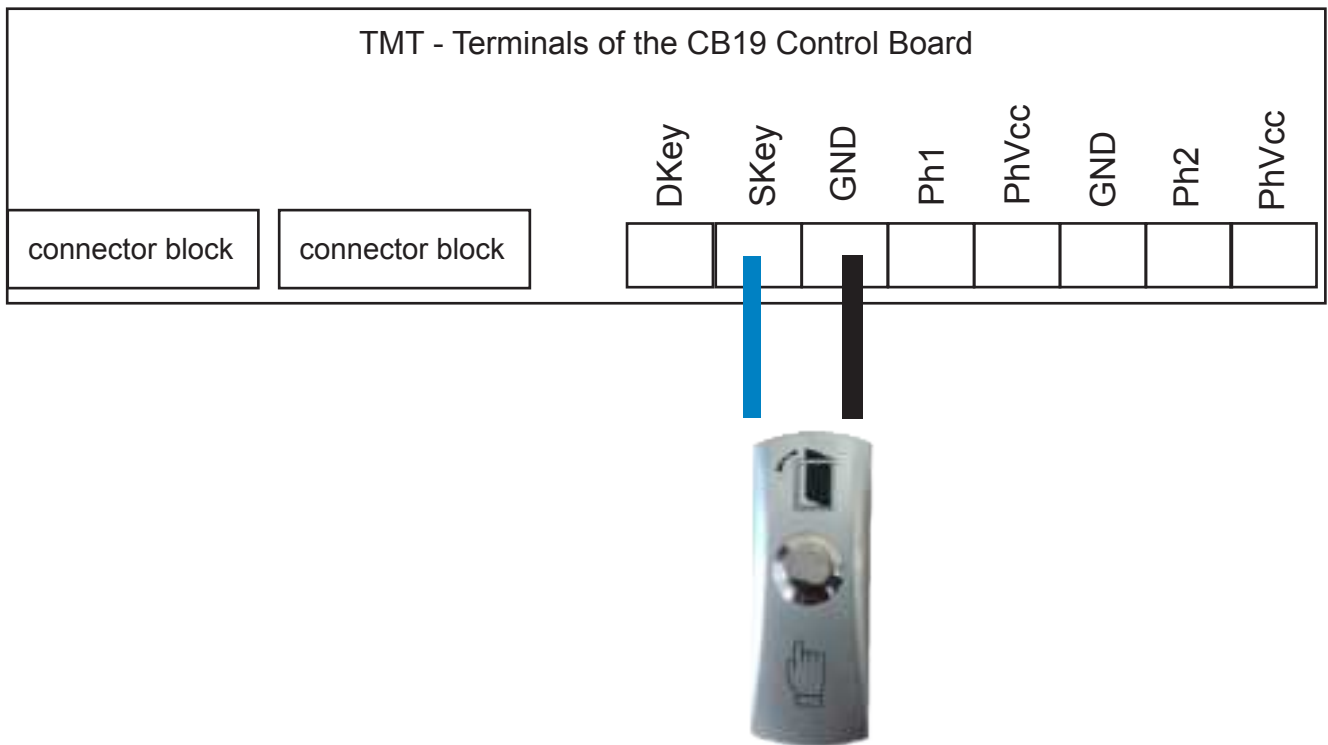
Position of Gate	When safety devices are activated	
Type of Safety Device	PH1 Opening Device	PH2 Photocell - Close
FULLY CLOSED	Open	No effect
FULLY OPENED	Reload automatic closing time	Reload automatic closing time
STOP DURING MOVING	Open	Reload automatic closing time
CLOSING	Open	Open
OPENING	No effect	No effect

### FI4 Double photocell setup

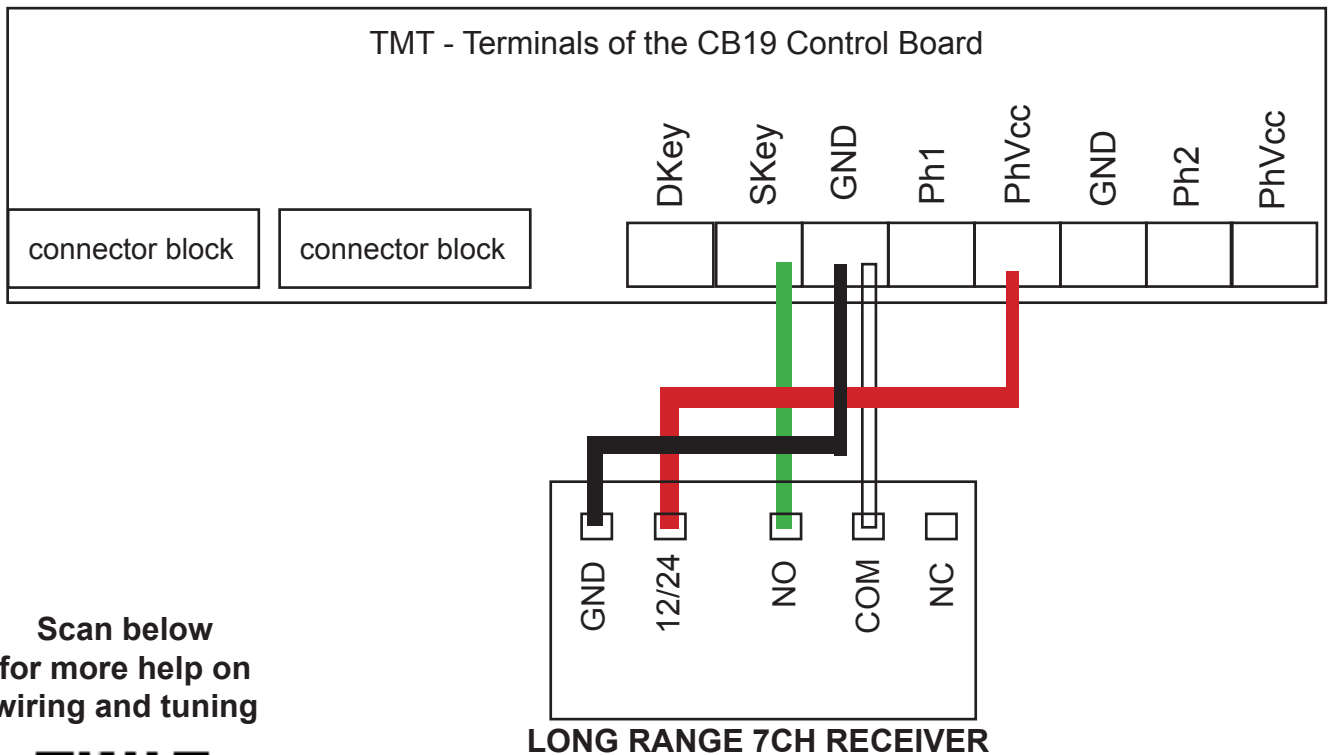
Position of Gate	When safety devices are activated	
Type of Safety Device	PH1 Photocell - Open/Close	PH2 Photocell - Open/Close
FULLY CLOSED	No effect	No effect
FULLY OPENED	Reload automatic closing time	Reload automatic closing time
STOP DURING MOVING	Reload automatic closing time	Reload automatic closing time
CLOSING	Open	Open
OPENING	No effect	No effect

## Adding Accessories

### Wiring in your visitor push button



### Wiring in your Long Range Receiver

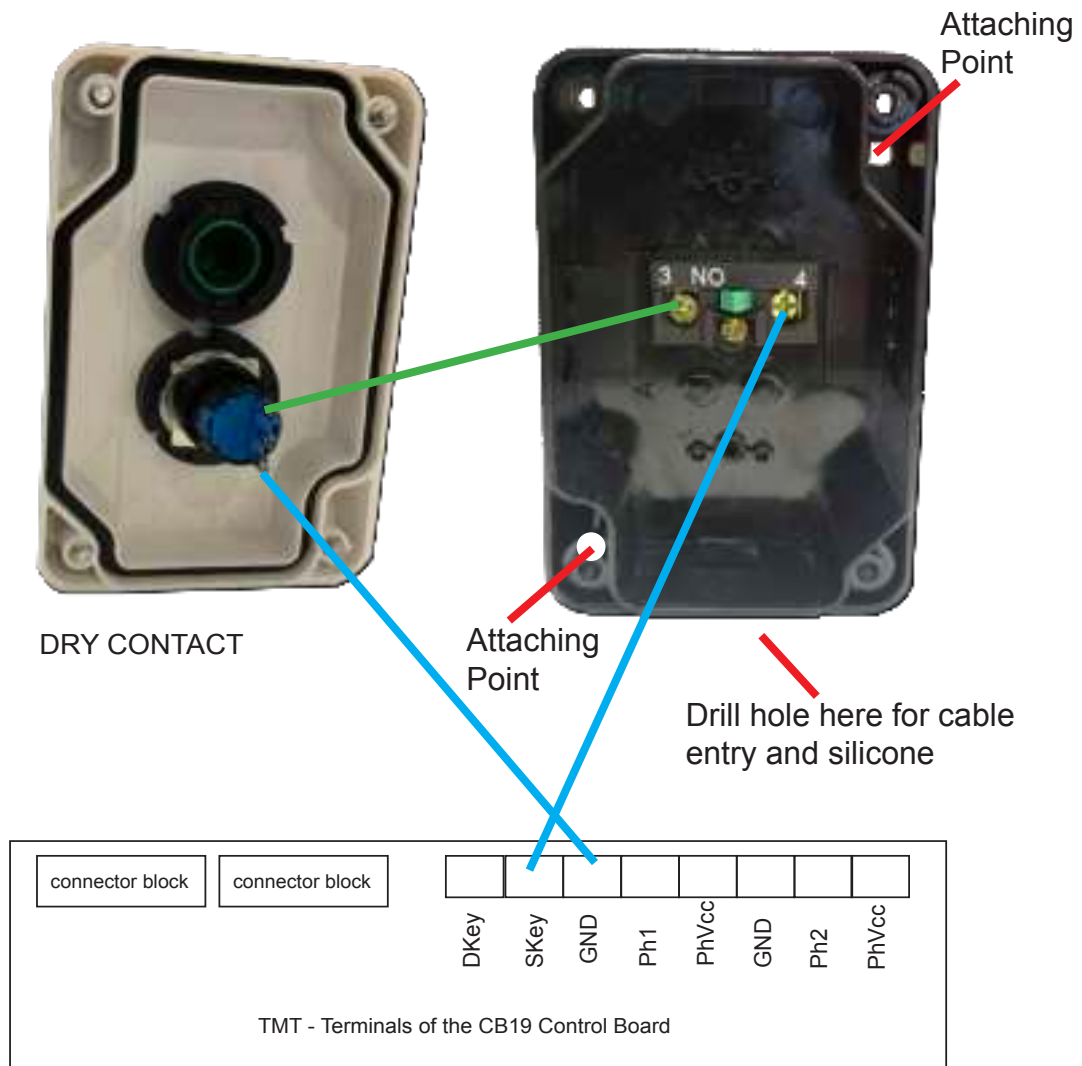


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for more help on  
wiring and tuning

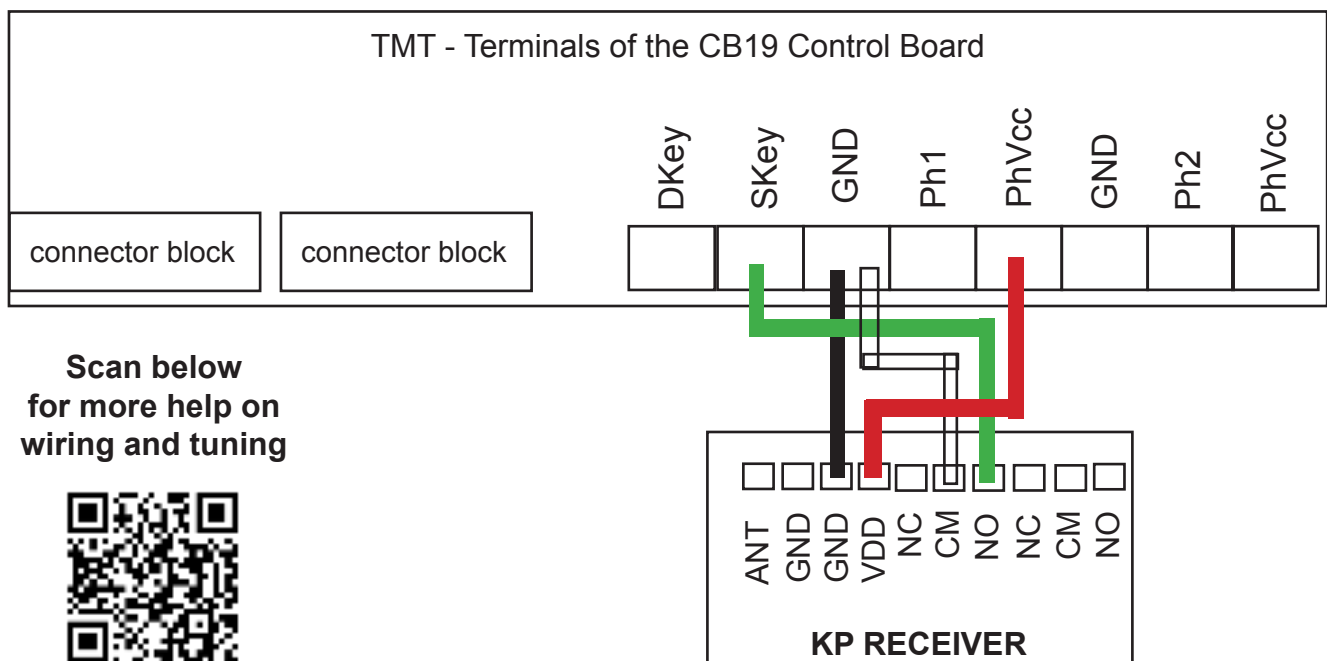




## Wiring in your visitor key push button



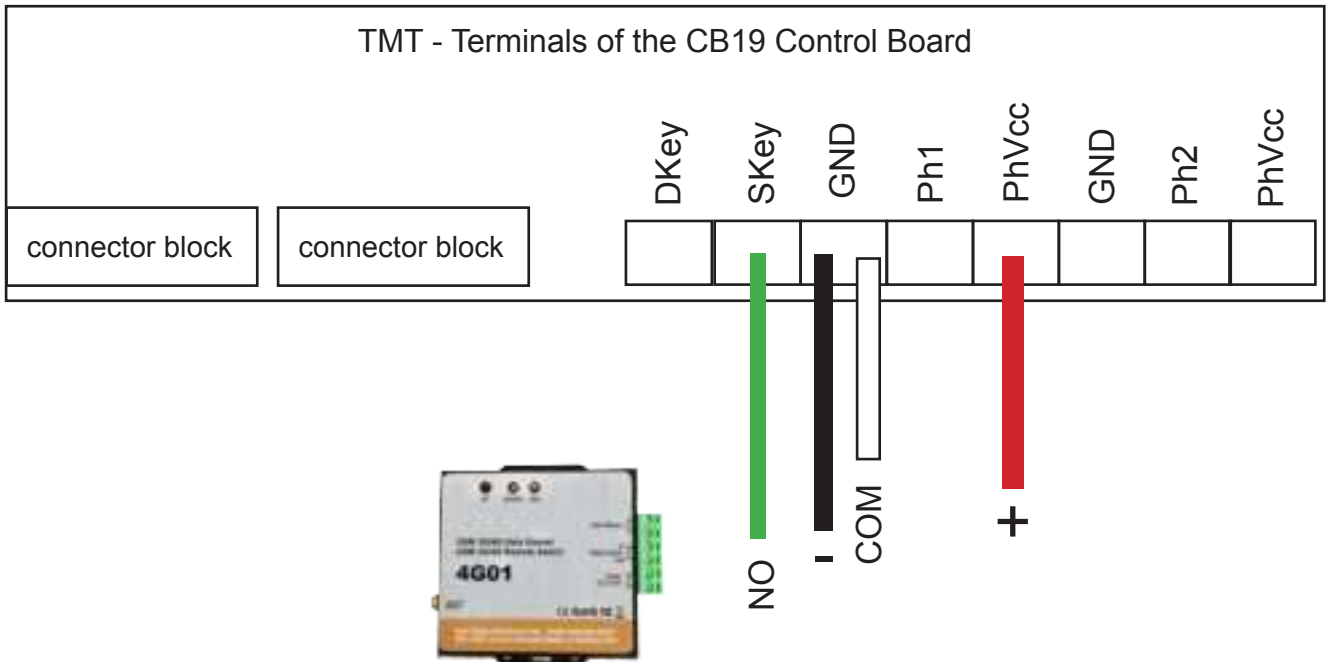
## Wiring in your KP receiver for your Wireless Keypad or Wireless Push Button



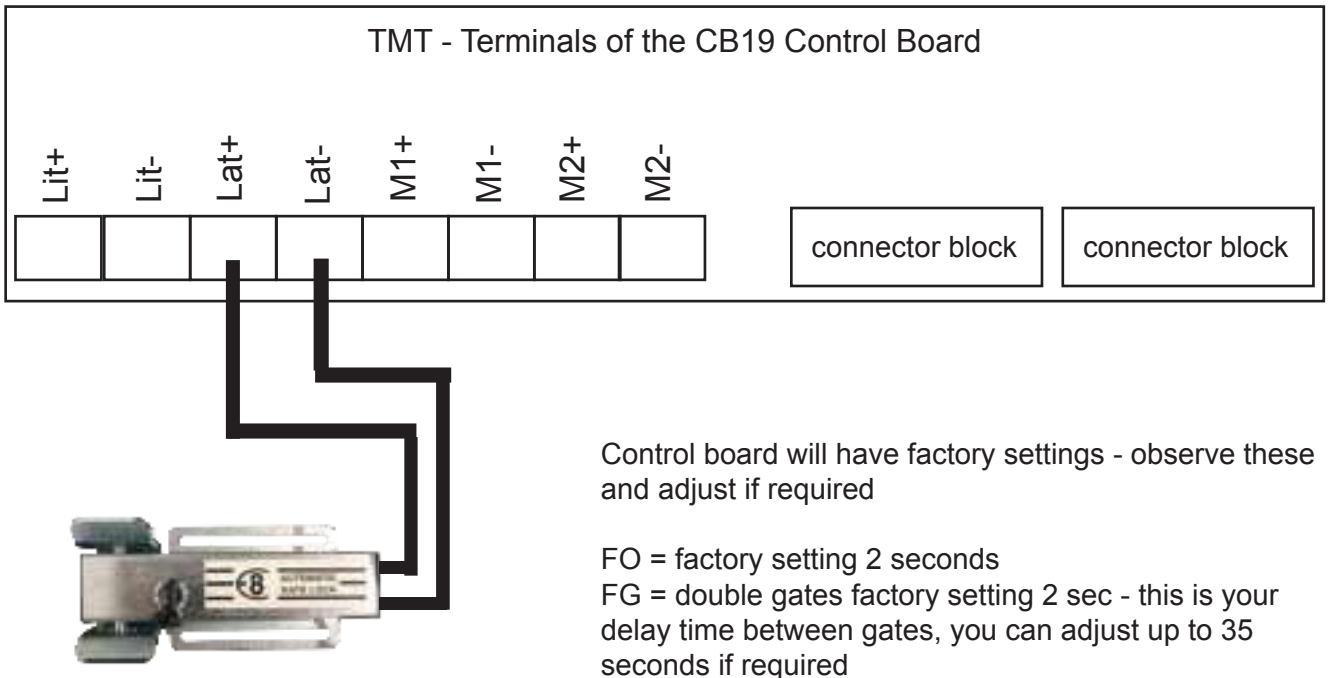
Scan below  
for more help on  
wiring and tuning



## Wiring in your GSM Gate Opener



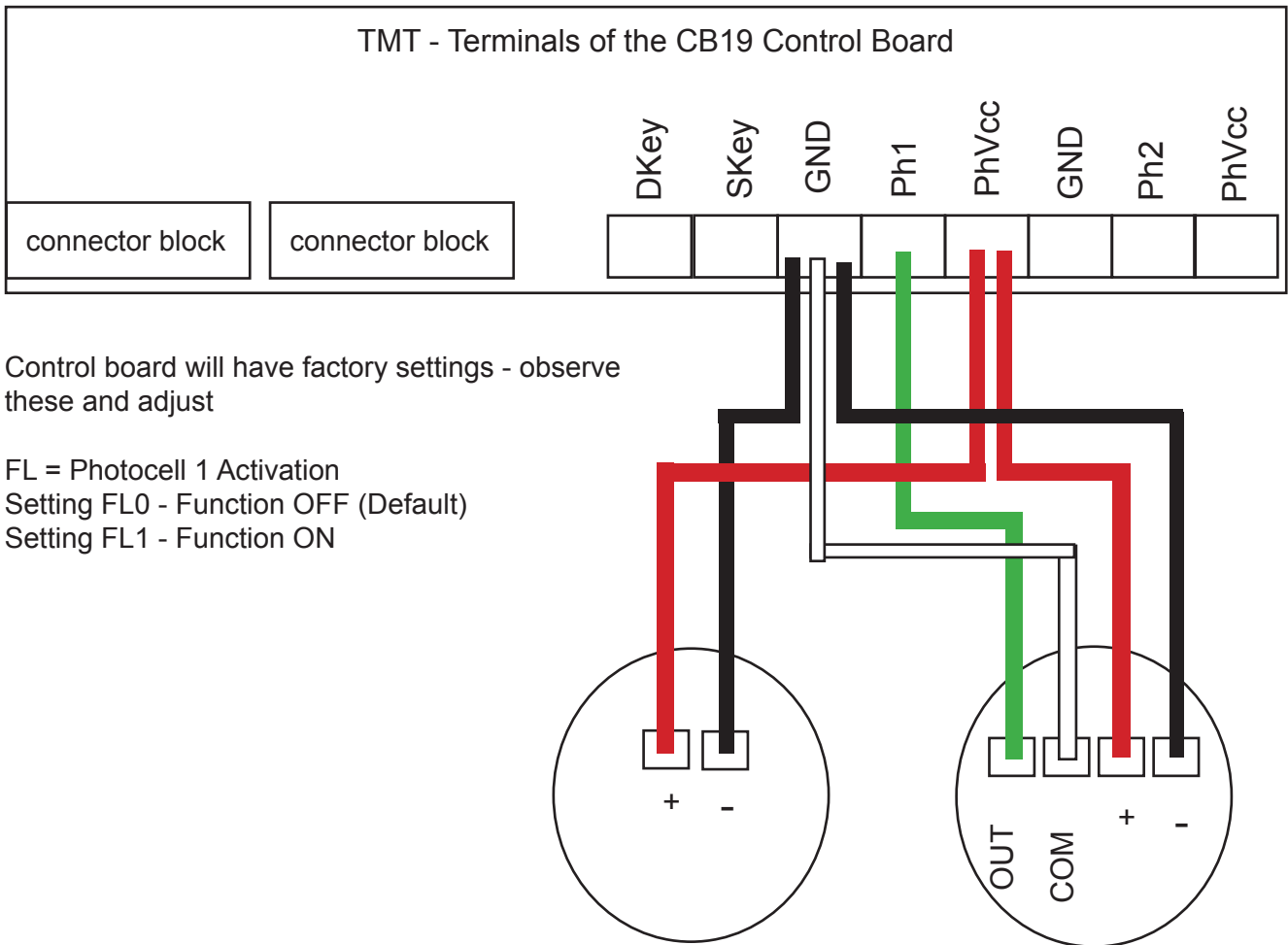
## Wiring in your Electric Gate Lock



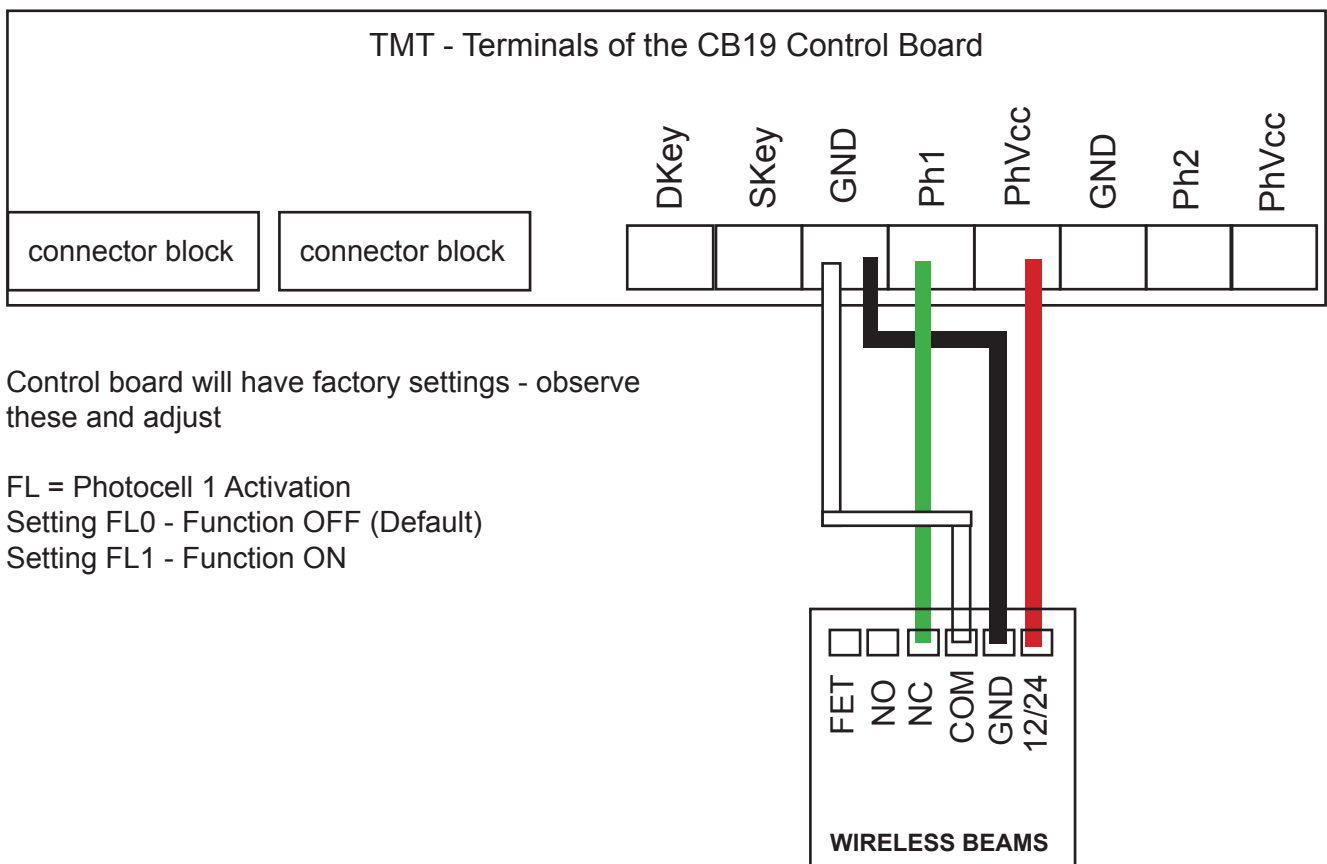
IF YOU CANNOT FIND YOUR ACCESSORY INFO HERE  
 PLEASE SCAN THE QR CODE WHICH WILL TAKE YOU TO  
 OUR WEBSITE FOR FURTHER INFORMATION



## Wiring in your hard wired safety beams



## Wiring in your semi wireless safety beams



## Routine Maintenance

1. Monthly - Check gate over to ensure gate is still in good working order – See pg 11 of user manual
2. Monthly - Check that mounting brackets have not shifted and that bolts are tightened
3. Monthly - Check the actuator arm isn't binding on the secondary bracket at any stage
4. Monthly - Check the actuator arm cable is still in good condition and no twists or kinks
5. Monthly - Check all parts for any damage or wear and tear
6. Monthly - Check inside main control box to ensure no insects or moisture is visible
7. Monthly - Check silicone is still in place of all entry points to the main control box and has not deteriorated over time
8. Monthly - Check over all accessories that are connected to your automation kit such as keypads, push buttons, receivers etc.
9. Every 3 Months - Use moth balls inside the control box to help deter insects.

# Warranty

## Limited 2 Year Warranty

BMG's 2 year limited warranty starts from date of purchase and covers the motor and control board, it excludes any other components that might have been supplied with the operator such as a transformer or remotes. This warranty explicitly only covers the repair, components and labour carried out a BMGi, all other costs will be for the account of the purchaser.

2 year - motor and control board

1 year - transformer and solar panel

6 months - remotes (it is expressly noted that remotes and batteries carry a six month warranty due to the nature of these products being such that they are subject to possible misuse)

This warranty does not apply if:

- the operator was subjected to misuse,
- the operator was installed contrary to the specifications provided in the manual,
- to any product being installed within 800mtrs of the sea or other body of water of equivalent or greater salt concentration
- any attempt has been made to repair the goods by any workshop and/or person not authorised to do so by BMG or
- if goods have been repaired using components not tested, passed or authorised by BMG

This warranty does not cover:

- any acts of god, including lightning, hail, water, power surge, insect damage or corrosion,
- consumables including but not limited to: batteries, fuses, globes, sensitivity adjustment, transmitter and receiver range
- the transport, or costs associated with the transport, of the defective product to a designated BMG contractor or other third party costs
- any other costs that may have been incurred by the purchaser or any other party or
- on site repairs

## How to Make a Claim

To make a warranty claim, please:

1. Contact us on (07) 32053002 or email [sales@bmgi.com.au](mailto:sales@bmgi.com.au)
2. Provide proof of purchase (e.g. invoice).
3. Describe the issue with the product.
4. If requested, return the product to us for assessment
5. Complete the Return Authority Form via this link <https://bmgi.com.au/return-authority-form>

## Your Responsibilities

- Use the product as intended and follow any provided instructions.
- Retain proof of purchase to support your claim.
- Notify us of any issues promptly to avoid further damage.

## Contact Us

For warranty claims or inquires, please contact:

- Email: [sales@bmgi.com.au](mailto:sales@bmgi.com.au)
- Phone: 07 32053002
- Address: unit 3 260 Leitchs Road, Brendale QLD 4500





## **Important Notice**

An auto gate system cannot prevent burglary. It is only a replacement way for the user to open the gate. Auto gate systems are generally very reliable but they may not work under all conditions and they are not a substitute for prudent security practices or life and property insurance. Your auto gate system should be installed and serviced by qualified professionals who should instruct you on the level of protection that has been provided and on the system operations.

## **Note to Installers**

This warning contains vital information. As the only individual in contact with the systems user, it is your responsibility to bring each item in this warning to the attention of the users of this system.

## **Systems Failures**

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types of emergencies where it may not provide protection. Any auto gate system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

### **Inadequate Installation:**

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that everything is correct.

### **Criminal knowledge:**

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that an auto gate system be reviewed periodically to ensure that its features remain effective and that it be upgrade or replaced if it is found that it does not provide the protection expected.

### **Power Failure:**

Control units require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

### **Failure of Replaceable Batteries:**

The expected battery life is a function of the device environment, usage a type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. A low battery will cause a low power condition in the system which will then have a problem functioning as usual. Regular testing and maintenance will keep the system in good operating condition.

### **Compromise of Radio Frequency (Wireless) Devices:**

Signals may not reach the receiver under all circumstances which would include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

### **Component Failure:**

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.

### **Inadequate Testing:**

Most problems that would prevent an auto gate system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, fire, storm, earthquake, accident, or any kind of construction activity inside or outside the premises.

**PLEASE VISIT OUR WEBSITE FOR TERMS AND CONDITIONS [WWW.BMGI.COM.AU](http://WWW.BMGI.COM.AU)  
OR SCAN THE QR CODE BELOW**

