90 BLUE Plus

## (400mm stroke length)

**For dimensions of the 300mm model please contact us directly**

# Installer Instructions

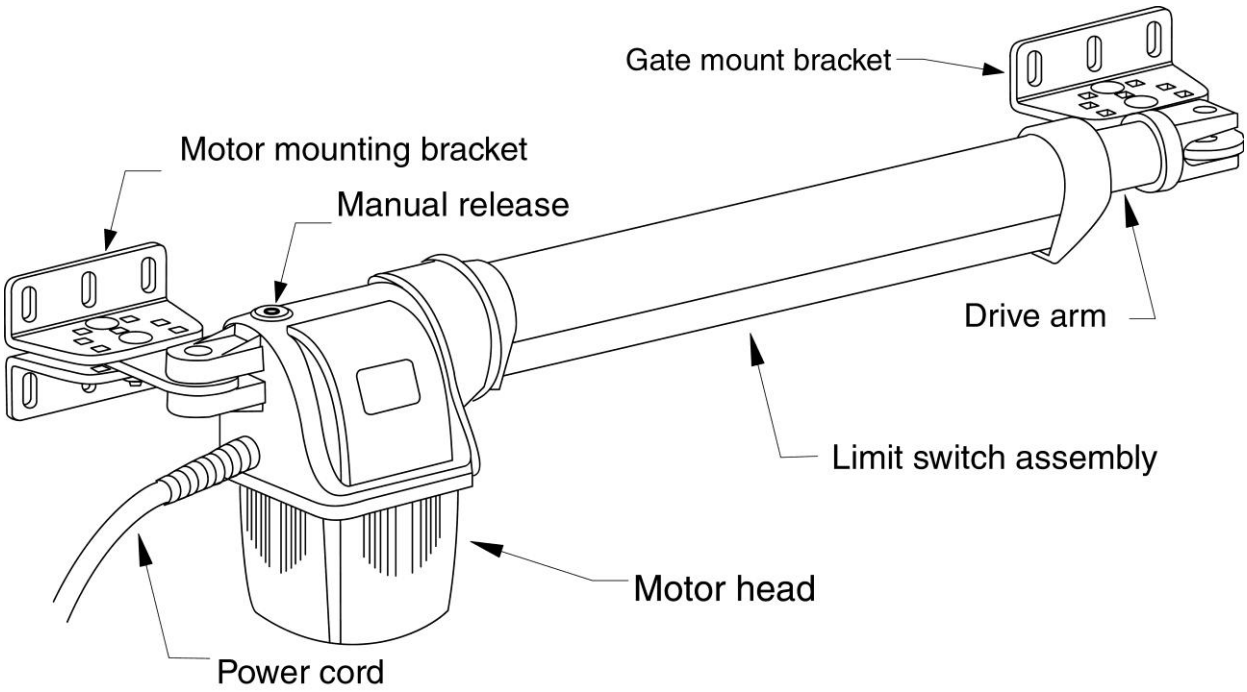
E.T. SYSTEMS

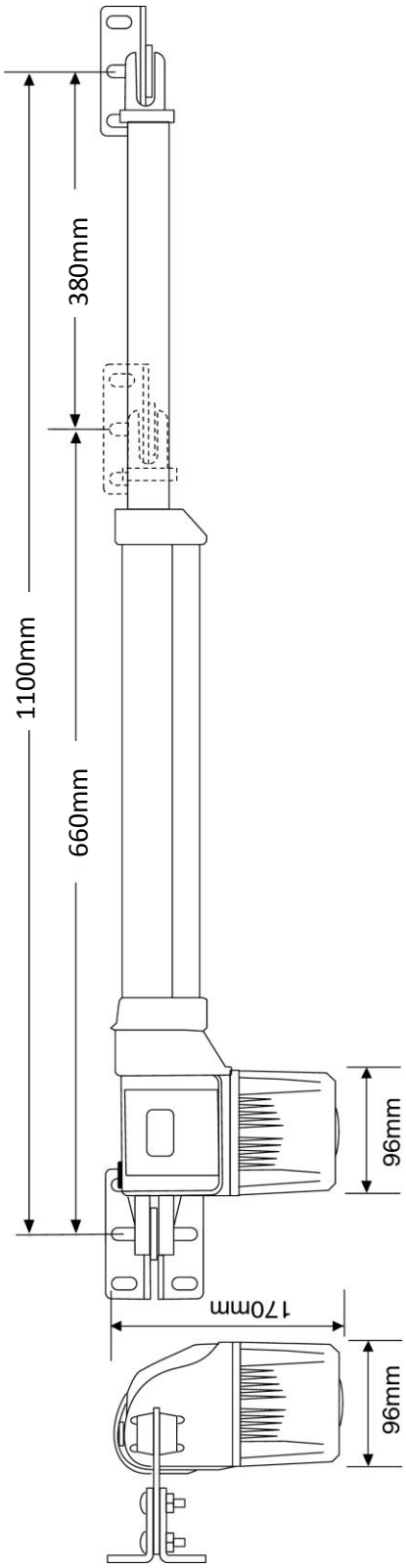
| Table of contents | |
|---|---|
| **Page** | **Category** |

**WARNING TO THE INSTALLER. GENERAL SAFETY OBLIGATIONS.**

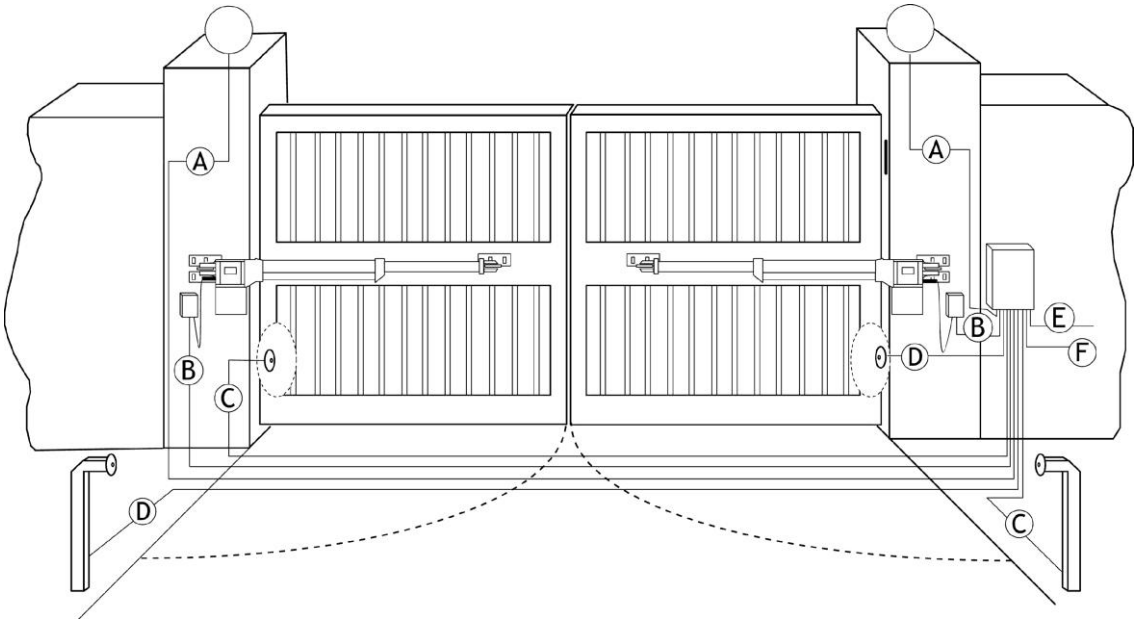
- Caution! It is important for personal safety to follow all the instructions carefully. Incorrect installation or misuse may cause serious personal harm.
- Keep the instructions in a safe place for future reference.
- This product was designed and manufactured strictly for the use indicated in this documentation. Any other use not expressly indicated in this documentation, may damage the product and/or be a source of danger.
- We accept no responsibility due to improper use of this product.
- Care must be taken not to install this product in an unsafe environment. I.e. near inflammable gases and or fumes.
- We will not accept responsibility if the principles of good workmanship are disregarded by the installer. The construction of the gate must be sound and automatable. It is the responsibility of the installer to ensure that all mountings to the gate are sufficient to withstand the necessary forces in cases of overload.
- Before carrying out any work on the product, ensure that the electrical supply is switched off.
- It is highly recommended that a set of safety infra-red beams be used in conjunction with this product.
- We accept no responsibility regarding safety and correct operation of the automation if other manufacturer's equipment is added to this product.
- Do not make any modifications or alterations to this product.
- It is the responsibility of the installer/ service provider to completely instruct and demonstrate the proper use of this product, especially the emergency override, to the end user. It is also the responsibility of the installer/ service provider to issue all end user documentation, which accompanies this product, to the end user.
- Ensure that other persons, especially children are clear of the gate and opener before and during operation.
- Keep remote transmitters away from children to prevent accidental activation of the system.
- The end user should refrain from attempting to make any repairs or adjustments to the system and should contact professional qualified assistance timorously.
- Anything other than expressly provided for in these instructions is not permitted.
- The electrical supply to this product must comply with the local electrical code of practice and any electrical work must be carried out by a qualified electrician.
- Over and above the recommendation to use safety infra-red beams with this product it is mandatory to ensure sufficient beam sets are installed and are in proper working condition when using the automatic closing feature.

| Technical specifications | |
|---|---|
| POWER SUPPLY AT GATE | 29V AC |
| POWER CONSUMPTION | < 30W (250Vac) |
| MOTOR VOLTAGE | 24V DC |
| MAX. DRIVE ARM SPEED | 16mm/sec |
| OPERATIONS PER DAY | 100 |
| OPERATING TEMPERATURE RANGE | -10 / +50° C |
| ANTI-CRUSHING SAFETY SENSING | ELECTRONIC |
| MAXIMUM GATE LEAF LENGTH | 2.5 meters |
| MAXIMUM GATE MASS | 200kg |
| AUXILIARY OUTPUT FOR ANCILLIARIES (Peak) | 12V DC at 300mA Automatic overload protection |
| RATED BATTERY CHARGING VOLTAGE | 27.5V DC |
| BUILT IN RECEIVER FORMAT | Keeloq ® Rolling code |
| RECEIVER FREQUENCY | 433.92MHz |



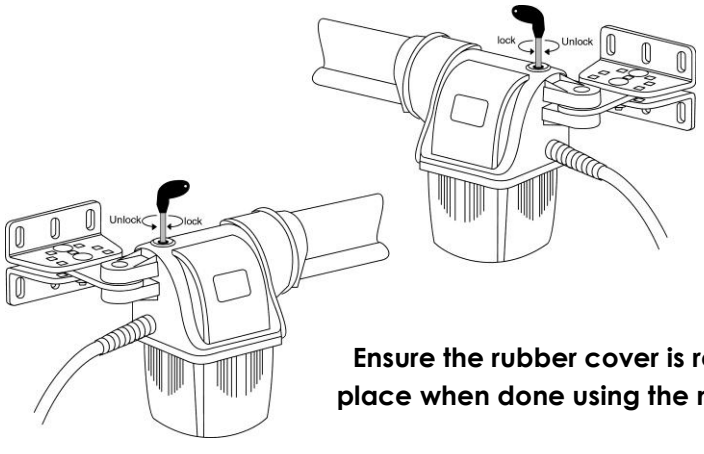

380mm
1100mm
660mm
96mm
170mm
96mm

## WIRING REQUIREMENTS




| | | |
|---|---|---|
| A | Courtesy Light | 2 + earth 1mm (3 Amp max load) |
| B | Motor 1 and 2 wiring | 2 x 2.5mm (Motor) and 3 x 0.5mm (Limits) |
| C | Infra-red safety beams TX | 2 x 0.5mm |
| D | Infra-red safety beams RX | 4 x 0.5mm |
| E | Triggers and status LED to and from house | 0.5mm x 2 – LED,<br>0.5mm x 1 – Common ,<br>0.5mm x 1 – Button trigger,<br>0.5mm x 1 – Pedestrian trigger. |
| F | Vac supply from house | 2 + earth 2.5mm |

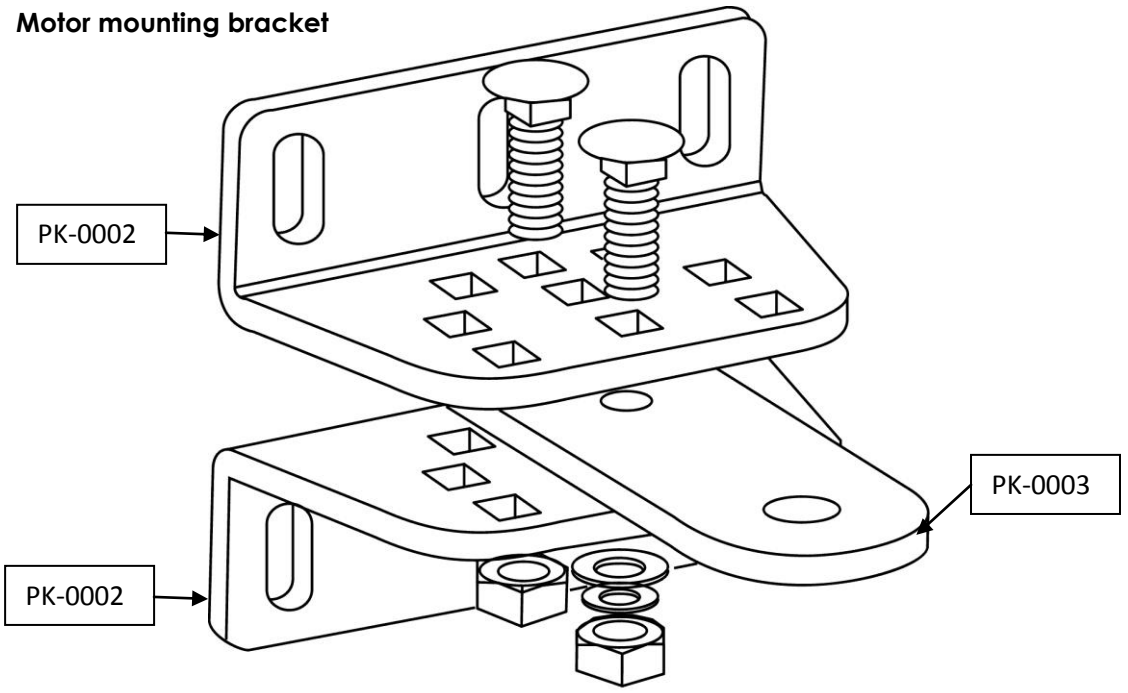
## USING THE MANUAL RELEASE



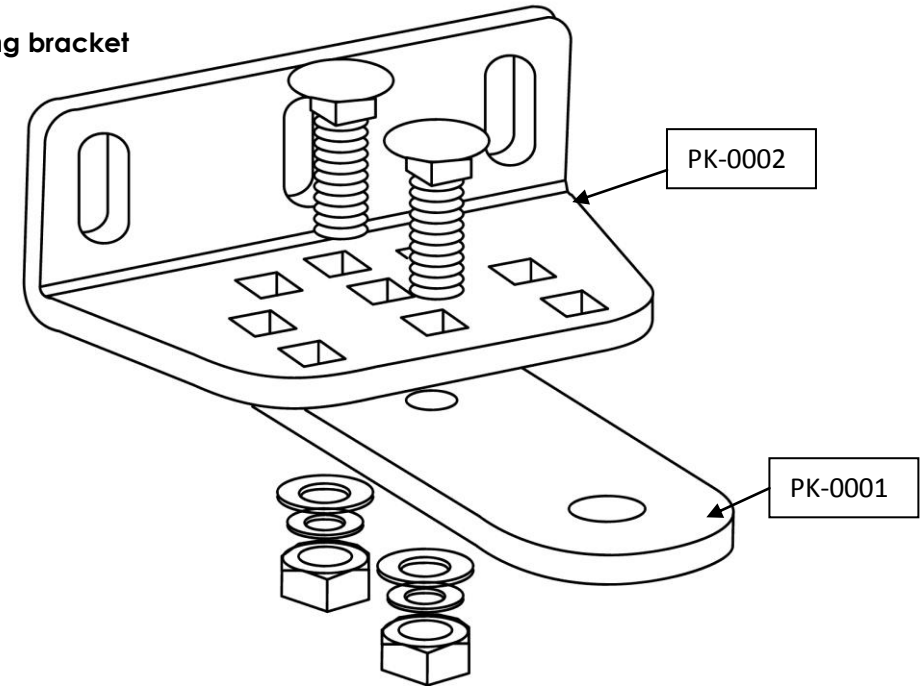

**Ensure the rubber cover is returned and in place when done using the manual release.**

## ASSEMBLING THE MOUNTING BRACKETS

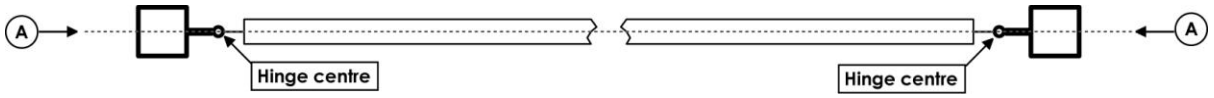
**Motor mounting bracket**



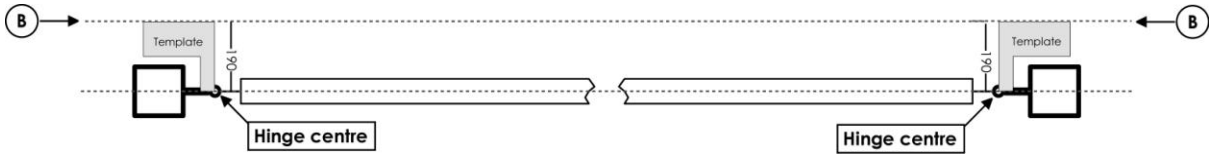

**Gate mounting bracket**



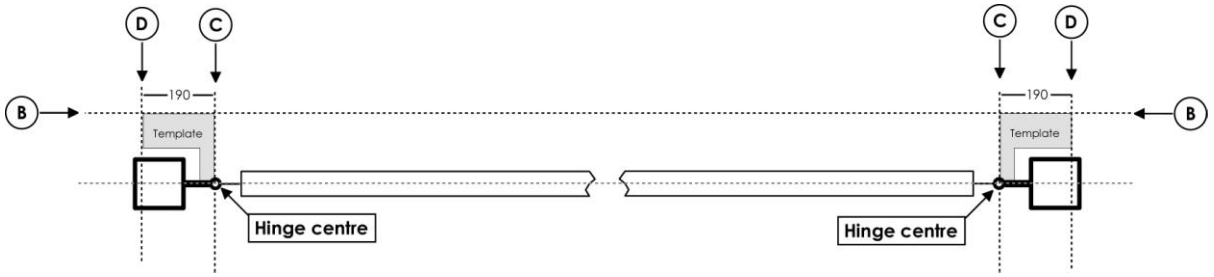
## INWARD SWING INSTALLATION METHOD




**A)** Using a chalk line project a line through the **centre** of each **hinge** as shown here. This is the **origin line**.

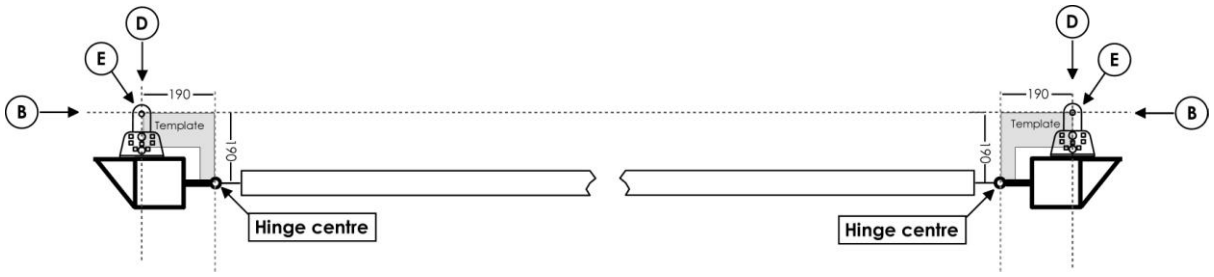



**B)** Using the template, supplied, or a tape measure, mark off a **setup line** parallel to the **origin line**. This **setup line** must be **190mm** away from the **origin line** on the secure side of the gates.



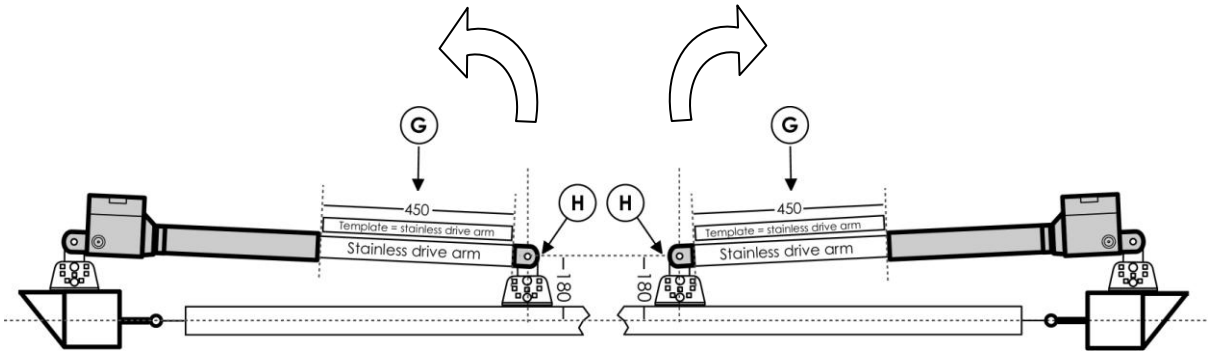

**C)** Once again use the **centre** of each **hinge** to start measuring from.

**D)** Measure along the setup line **190mm** away from the driveway. Use your template or a tape measure to do this. This should give you a point exactly 45˚ to the hinge.




**E)** Prepare the motor mount brackets as per page 5. Then mount the brackets so that the **motor pivot point** is **centred** over **(B and D)** on the **setup line**.

Inward swing = Motors installed on secure side of gates and gates opening into the secured property.




**F)** Install the motor on the motor mount bracket. Using the manual override key, unlock the gearbox.

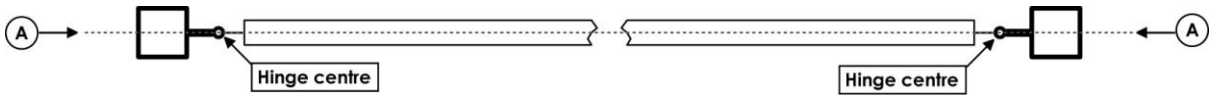
**G)** Extend the **stainless drive arm** until the amount of **exposed stainless** equals **450mm**. Use a tape measure or the template supplied for this.

**H)** Make up the gate mount bracket as per page 5 and install it on the gate mount end of the drive arm. Next swing the gate into the closed position (Directly over the origin line (A)). With the gate in the closed position swing the motor towards the gate to find the gate mount bracket mounting position. The distance between the gate mount bracket pivot point and the origin line should never exceed 180mm for this model. Thereby always ensuring the motor ends in a bracing position when open or closed. If the motor does not brace into the gate the positive locking angle will be ineffective making it easy to force the gate open.

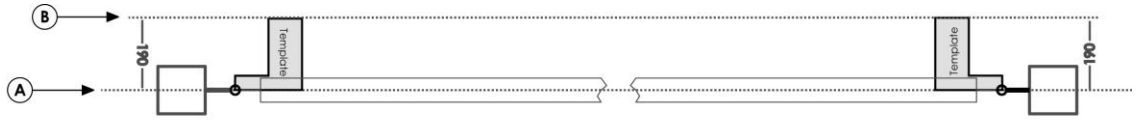
Engage the motor and run it directly off the battery to see if there is any stutter or binding in the gate movement. The time for the gate to swing to 45˚ in either direction should equal the time it takes to swing from 45˚ to the final 90˚.

If satisfied with the motor position and the movement of the gate, remove the motor again and using a welder weld the bracket components together to prevent shifting in the future. If possible the brackets should also be welded to the gates and posts for the same reason.

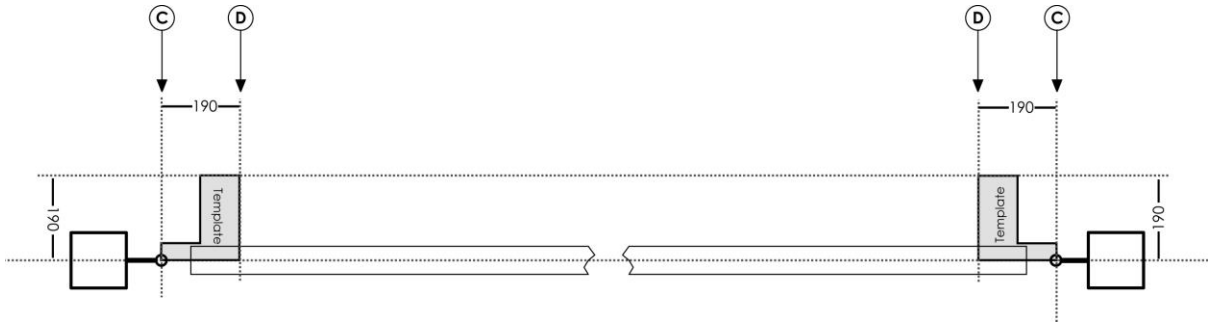
## OUTWARD SWING INSTALLATION METHOD.




**A)** Using a chalk line project a line through the **centre** of each **hinge** as shown here. This is the **origin line**.

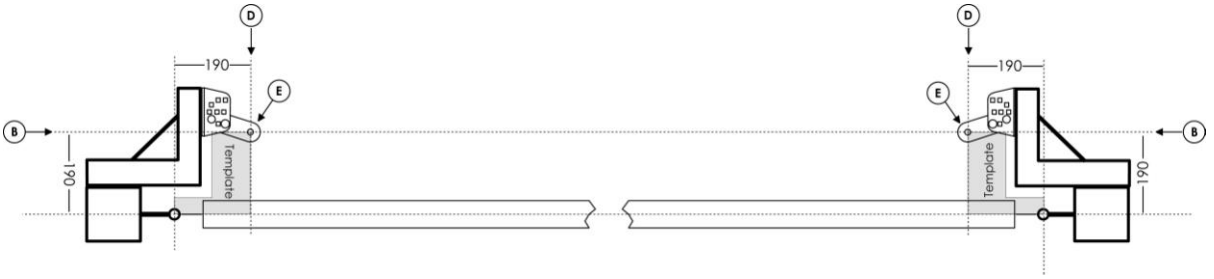



**B)** Using the template, supplied, or a tape measure, mark off a **setup line** parallel to the **origin line**. This **setup line** must be **190mm** away from the **origin line** on the secure side of the gates.




**C)** Once again use the **centre** of each **hinge** to start measuring from.

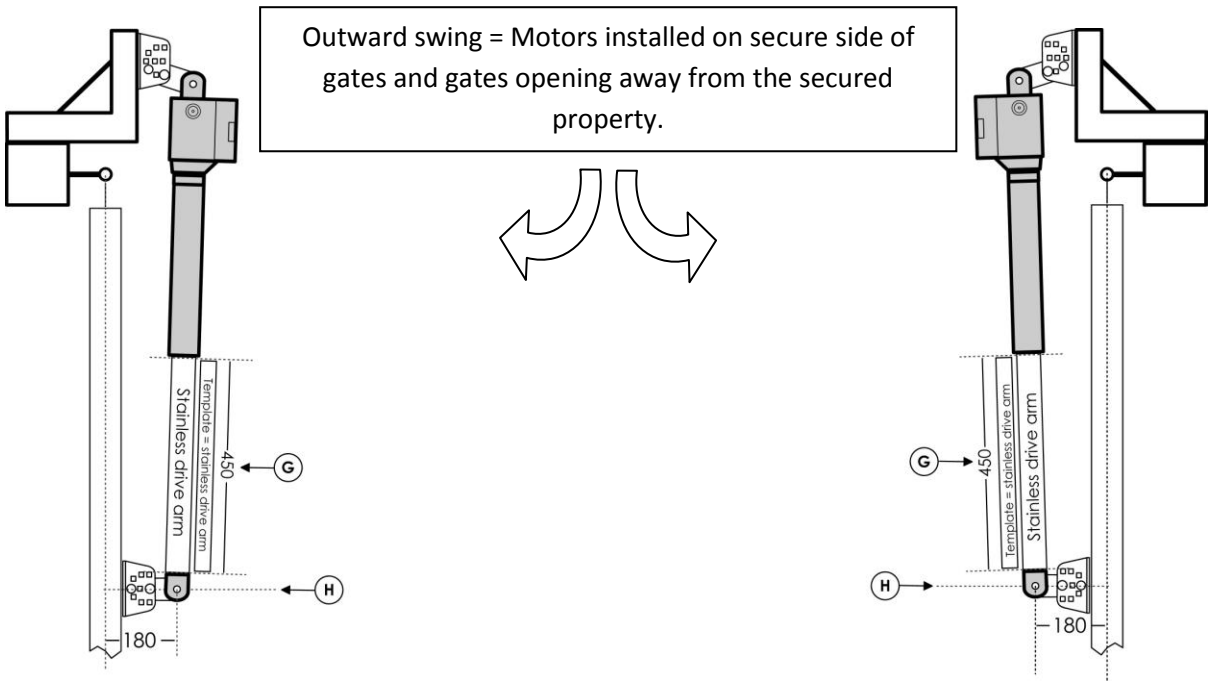
**D)** Measure along the setup line **190mm** towards the driveway. Use your template or a tape measure to do this. This should give you a point exactly 45˚ to the hinge.




**E)** Prepare the motor mount brackets as per page 5. Then mount the brackets so that the **motor pivot point** is **centred** over **(B and D)** on the **setup line**. For outward swings you will need to make up additional brackets as shown above to position the motor mounting brackets in position.

**F)** Make up the gate mount bracket as per page 5 and install it on the gate mount end of the drive arm.

Install the motor on the motor mount bracket. Using the manual override key, unlock the gearbox.



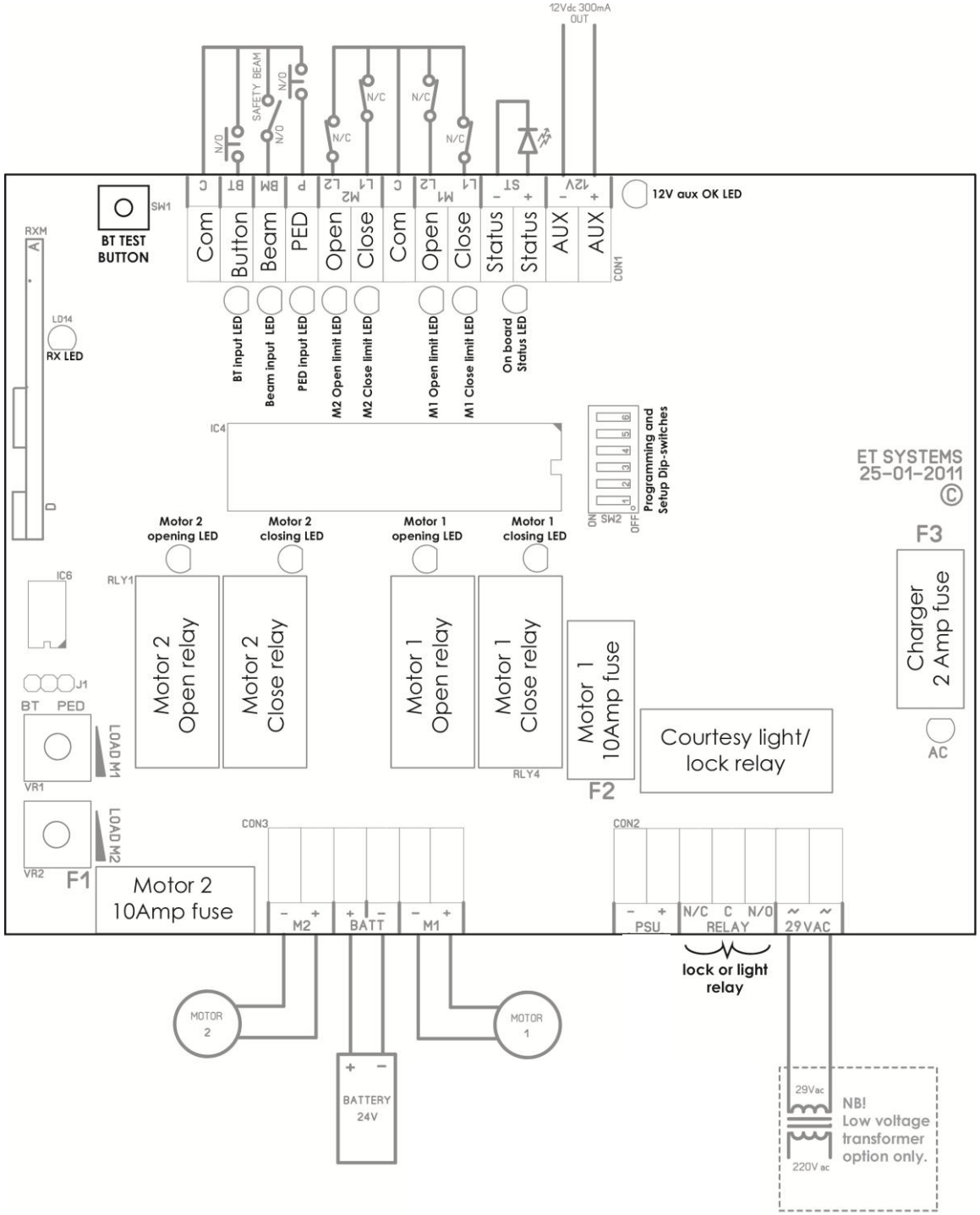

**G)** Extend the **stainless drive arm** until the amount of **exposed stainless** equals **450mm**. Use a tape measure or the template supplied for this.

**H)** Next swing the gate into the full open position. With the gate in the open position swing the motor towards the gate to find the gate mount bracket mounting position. The distance between the gate mount bracket pivot point and the hinge centre line should never exceed 180mm for this model. Thereby always ensuring the motor ends in a bracing position when open or closed. If the motor does not brace into the gate the positive locking angle will be ineffective making it easy to force the gate open.

Engage the motor and run it directly off the battery to see if there is any stutter or binding in the gate movement. The time for the gate to swing to 45˚ in either direction should equal the time it takes to swing from 45˚ to the final 90˚.

If satisfied with the motor position and the movement of the gate, remove the motor again and using a welder weld the bracket components together to prevent shifting in the future. If possible the brackets should also be welded to the gates and posts for the same reason.

## CONTROL BOX CONNECTIONS



## LIMIT SWITCHES AND MOTOR WIRING

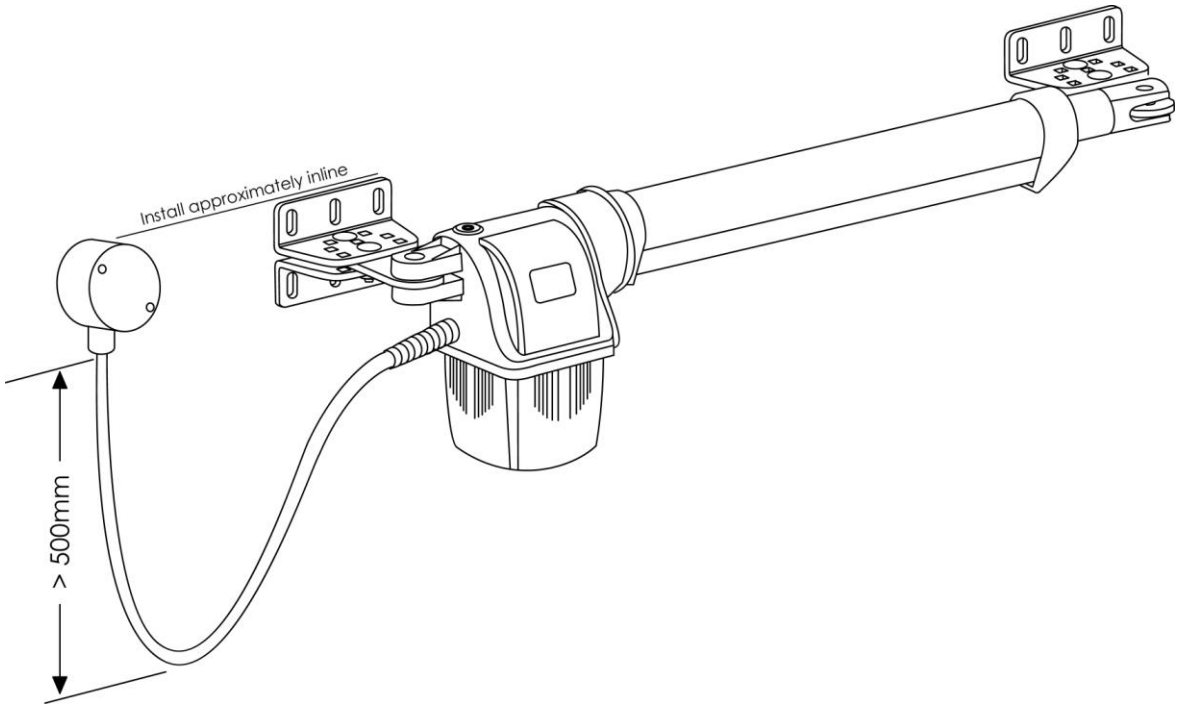
**NB!! A linear type motor such as the 90 Blue Plus swings in conjunction with the gate it is operating. This means the cable transferring the motor and limit switch circuits to and from the motor must also move. If sufficient slack is not allowed for the cable to flex and move, the cabled circuits can and will be damaged in this section of the circuit. Please ensure the cable is installed as per the following diagram to prevent unnecessary strain on the cable.**

**Do not trim the motor cables.**

**Do not cable tie, tape or fasten the cables to any fixed point.**

**Always allow the cables to hang naturally and free.**

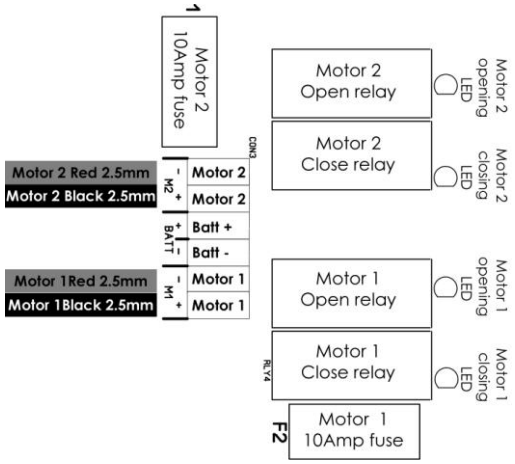
**Ensure the cables do not snag or catch on anything as the gates swing back and forth.**



## LIMIT SWITCHES AND MOTOR WIRING (INWARD SWING)

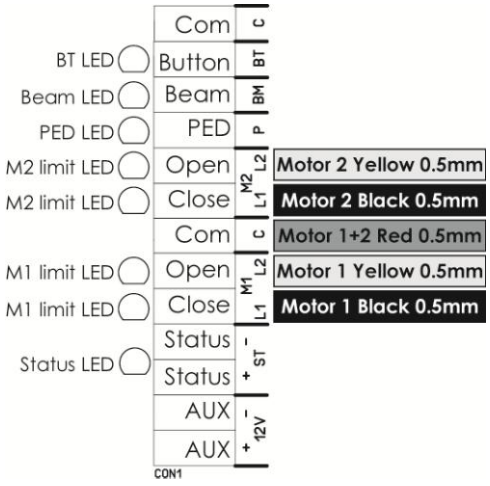
Connect the motor wires to the control card "con 3" terminal connector.

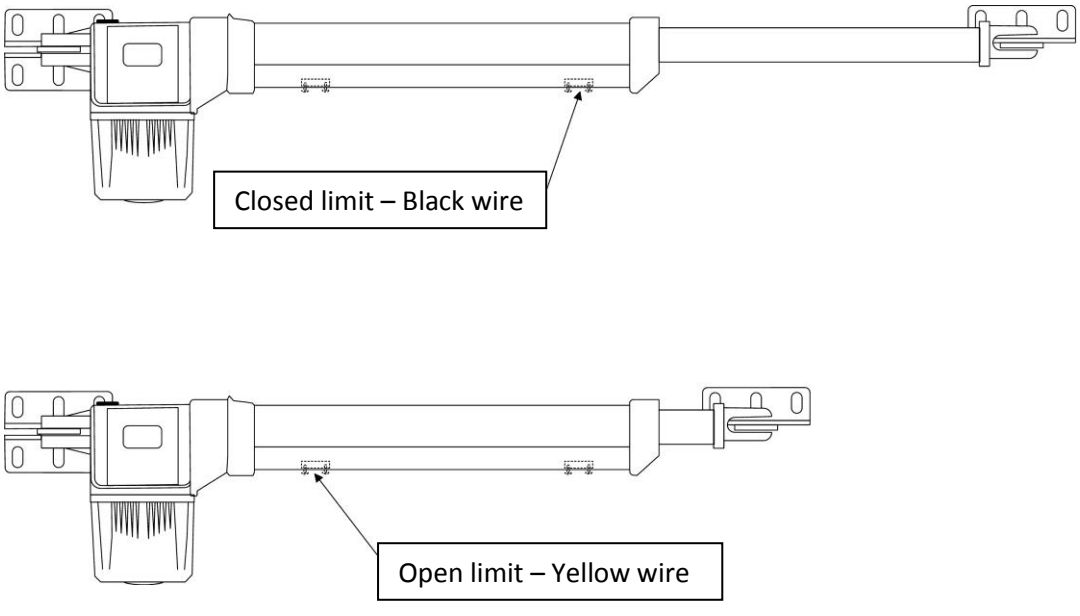
**See note on previous page about the motor cable preparation.**




Connect the limit wires to the control card "con 1" terminal connector.

**NB! RED = Common**
Black = Closed
Yellow =Open

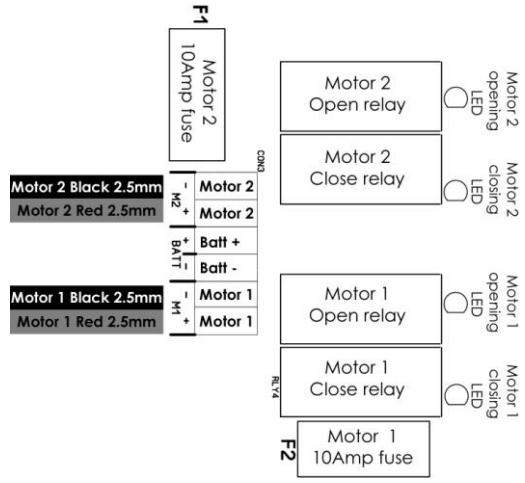


## LIMIT SWITCHES AND MOTOR WIRING (OUTWARD SWING)

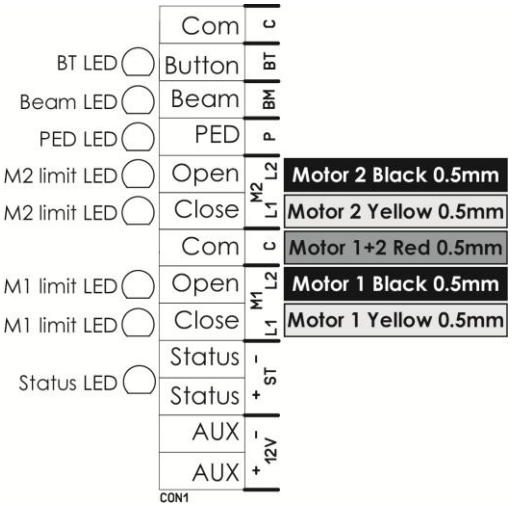
Connect the motor wires to the control card "con 3" terminal connector.

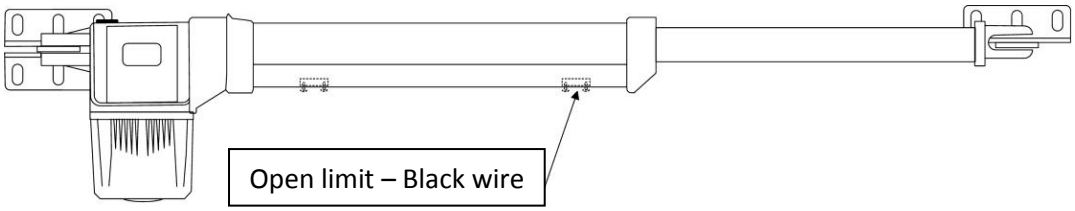
**See note on previous page about the motor cable preparation.**



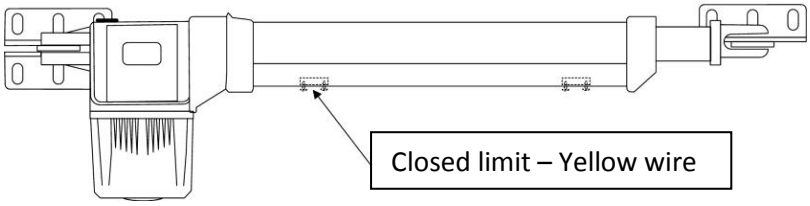

Connect the limit wires to the control card "con 1" terminal connector.

**NB! RED = Common**
Black = Open
Yellow = Closed



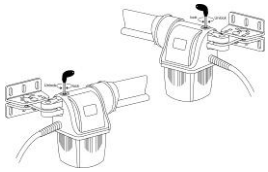
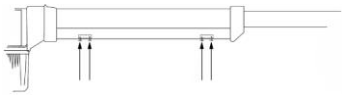
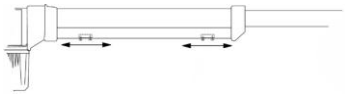
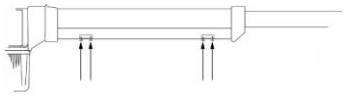



Open limit – Black wire

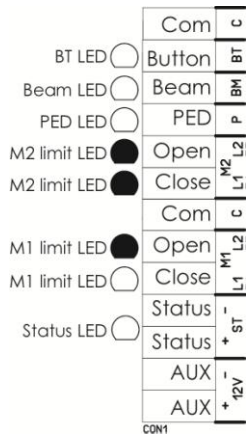
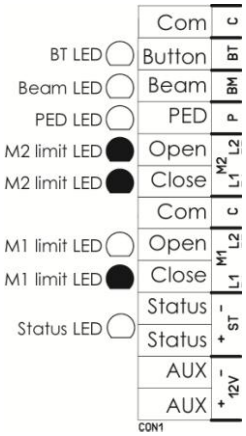
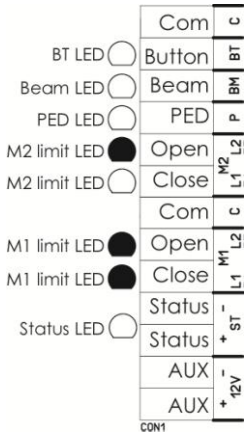
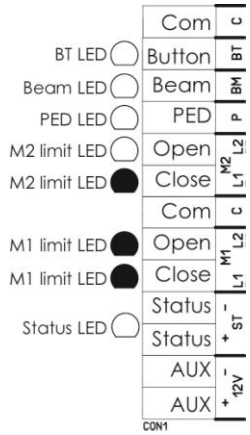


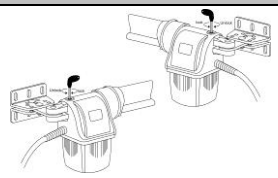
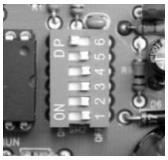
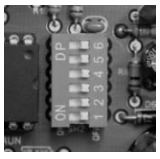
Closed limit – Yellow wire

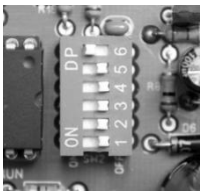
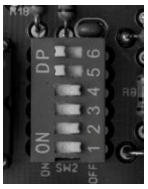
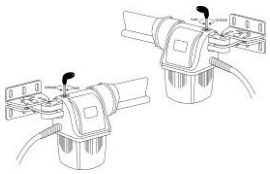
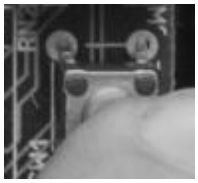
## VISUAL SETTING OF THE LIMIT SWITCHES

| Action | | Response |
|---|---|---|
| 1. Activate the manual override on both motors. |  | It is now possible to swing the gates by hand. |
| 2. Close the gate. | | Limit magnet attached to the drive arm approaches closed limit. |
| 3. Loosen the locking screws on the closed reed switch. For this example the inward swing is shown. Refer to "limit and motor wiring" on pages 12 and 13 |  | The reed switch can now be slid along the switch holder. Be careful not to rip the limit wires by pulling to hard when moving the switch. |
| 4. Slide the closed reed-switch along while monitoring the L1 limit LED or use the Audible limit test function explained on page 15. |  | The L1 limit LED for that motor will extinguish. |
| 5. When satisfied with the limit position, lightly tighten the locking screws to keep the reed-switch in place. |  | |

Move the gates to the open position and repeat for the open limits.

| **Motor 1's limit LED indication. Off when activated.** | | **Motor 2's limit LED indication. Off when activated.** | |
|---|---|---|---|
| **Closed limit** | **Open limit** | **Closed Limit** | **Open Limit** |
|  |  |  |  |

| AUDIBLE SETTING OF THE LIMIT SWITCHES AND TESTING THE LIMIT WIRING | | |
|---|---|---|
| | | |
| **Action** | | **Response** |
| 1. Unlock motors and move gates manually to middle of travel. |  | |
| 2. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 3. Press and release BT button. |  | Single beep tone and both motor 1 opening and closing LEDs come on indicating Motor 1inputs are being tested. |
| 4. Move gate 1 by hand to the closed position. | Single beep tone to indicate the correct closed limit has been activated, followed by a continuous tone as long as the switch is activated. Fine tune if necessary. | |
| 5. Move gate 1 by hand to the open position. | Double beep tone to indicate the correct open limit input has been activated, followed by a continuous tone as long as the switch is activated. Fine tune if necessary. | |
| 6. Press and release BT button. |  | Double beep tone and both motor 2 opening and closing LEDs come on indicating Motor 2 inputs are being tested. |
| 7. Move gate 2 by hand to the closed position. | Single beep tone to indicate the correct closed limit has been activated, followed by a continuous tone as long as the switch is activated. Fine tune if necessary. | |
| 8. Move gate 2 by hand to the open position. | Double beep tone to indicate the correct open limit input has been activated, followed by a continuous tone as long as the switch is activated. Fine tune if necessary. | |
| **Any multiple beeps at any stage indicate faulty wiring or limit switches.** | | |
| 9. Switch 6 off to exit limit position test mode. |  | |

| **TESTING THE GATE MOTOR DIRECTION WIRING**<br><br>**GATES MUST CLOSE FIRST!** | | |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 2. Switch dip-switch 5 on. |  | |
| 3. Manually move the gates to middle of travel and re-lock. |  | |
| 3. Press and hold BT button |  | Gates must run closed. If the gates begin opening release button to stop running. Then swap motor RED and BLK 2.5mm wires over. |

## PROGRAMMING OF TIMERS

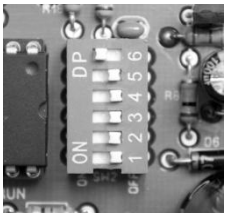
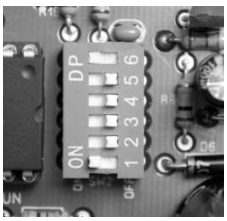
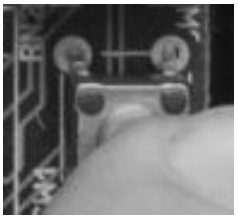
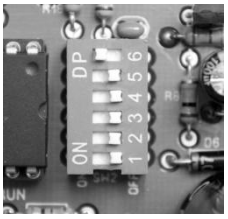
### AUTO-CLOSE TIMER:-

**(Only use auto-close functions when safety beams have been installed)**

(Default = 15sec.)

**NB! The auto-close mode type must still be selected after all programming is completed.**

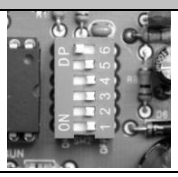
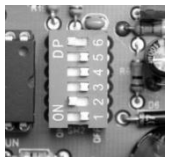
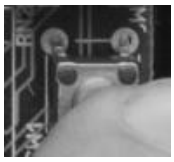
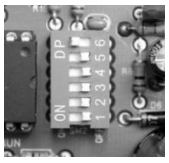
(See operating mode selection on page 30 and 31 )

| Action | | Response |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 2. Dip-switch 1 on |  | |
| 3. Press and hold BT button, count beeps for required time. |  | 1 = 1sec.<br>2 = 2sec.<br>....cont.<br>255 = 4 min 25 sec. (Max) |
| 4. Release BT button at required auto-close time |  | Continuous beep |
| 5. Dip-switch 1 off |  | Continuous beep stops |
| To change the time again without leaving programming, repeat from point 2. | | |
| Switch dip-switch 6 off or continue to another programming option. | | |
| **NB! This does not activate the Auto-close function. For this see selecting operating modes on page 30 and 31.** | | |

**PEDESTRIAN OPENING AND AUTO-CLOSE TIME:-**

**(Only use auto-close functions when safety beams have been installed)**

(Default = Motor 1 opens fully and 5sec. auto-close time)

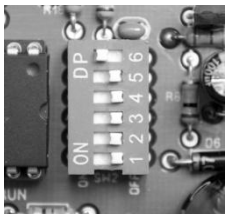
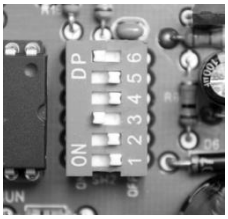
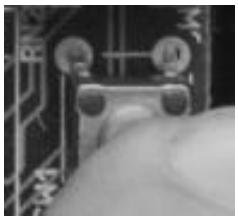
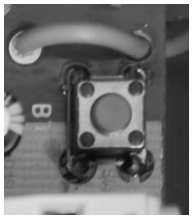
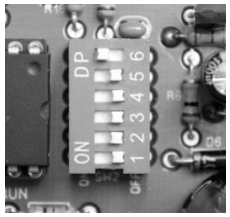
| Action | | Response |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 2. Dip-switch 2 on |  | |
| 3. Press and release BT button. |  | Motor 1 closes if not closed already. |
| 4. From the closed position motor 1 will begin opening. | | |
| 5. Press and release the BT button when the required opening distance is reached. |  | Motor 1 stops opening. |
| 6. Press and hold BT button, count beeps for required auto-close time. |  | 1 = 1sec.<br>2 = 2sec.<br>....cont.<br>255 = 4min 25 sec. (Max) |
| 7. Release BT button at required pedestrian auto-close time |  | Gate closes after which the buzzer emits a continuous beep tone. |
| 8. Dip-switch 2 off |  | Continuous beep tone stops |
| To change the settings again without leaving programming, repeat from point 2. | | |
| Switch dip-switch 6 off or continue to another programming option. | | |
| | | |

| **DELAY TIME:-**<br>**(Used when gates overlap each other)** |
|---|

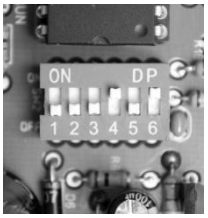
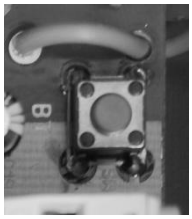
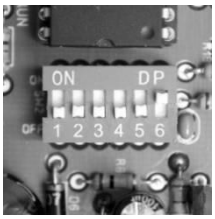
(Default = 3sec.)

**NB! The delay between gates must still be selected after all programming is completed.**

**(See operating mode selection on page 31)**

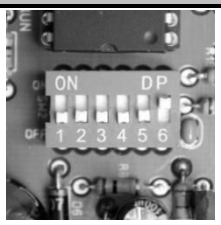
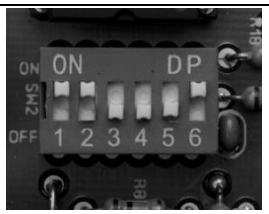
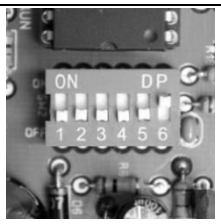
| Action | | Response |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 2. Dip-switch 3 on |  | |
| 3. Press and hold BT button, count beeps for required time. |  | 1 = 1sec.<br>2 = 2sec.<br>....cont.<br>255 = 4min25 sec. (Max) |
| 4. Release BT button at required delay time |  | Continuous beep |
| 5. Dip-switch 3 off |  | Continuous beep stops |
| To change the time again without leaving programming, repeat from point 2. | | |
| Switch dip-switch 6 off or continue to another programming option. | | |
| **NB! This does not activate the delay function. For this see selecting operating modes on page 31** | | |

| **COURTESY LIGHT ON TIME:-** |
|---|
| (Default = 4 minutes.)<br>**See page 32 Lock mode selection.** |

| Action | | Response |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | 2 beeps |
| 2. Dip-switch 4 on |  | |
| 3. Press and hold BT button, count beeps for required time. |  | 1 = 1 min.<br>2 = 2 min.<br>....cont.<br>255 = 4h25 min. (Max) |
| 4. Release BT button at required courtesy light on time |  | Continuous beep |
| 5. Dip-switch 4 off |  | Continuous beep stops |
| To change the time again without leaving programming, repeat from point 2. | | |
| Switch dip-switch 6 off or continue to another programming option. | | |
| | | |

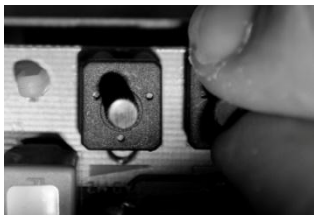
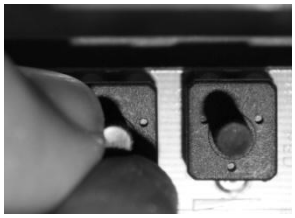
| **CHANGING SWITCH TYPE FOR SAFETY BEAM INPUT:-** |
|---|

Default:- Normally open

| **Action** | | **Response** |
|---|---|---|
| 1. Enter program mode by switching dip-switch 6 on only. |  | Two beeps |
| 2. Dip-switch 1 and 2 on |  | |
| 3. Press and release Set button |  | Beeps confirm change<br>1 = N/C<br>2 = N/O (Default) |
| After confirmation beeps | | Continuous beep |
| 4. Dip-switch 1 and 2 off |  | Continuous beep off |
| To change again without leaving programming, repeat from point 2. | | |
| Switch dipswitch 6 off or continue to another programming option | | |

## ADJUSTING SAFETY OBSTRUCTION SENSING:-

Default: - least resistance most sensitive

| Action | | Response |
|---|---|---|
| 1. Rotate Load pot for each motor independently to new sensing level. Motor 1 shown here. |  | Clockwise = heavier gate resistance less sensitive<br>Anti-clockwise = lighter gate resistance more sensitive |
| 1. Rotate Load pot for each motor independently to new sensing level. Motor 2 shown here. |  | Clockwise = heavier gate resistance less sensitive<br>Anti-clockwise = lighter gate resistance more sensitive |

## Adjusting the load sensing level

Load sensing level should be set to allow the gate to complete a full swing in either direction. However when standing in the gate path and allowing the gate to encounter your shoulder while your feet are braced apart, the gate sensing should stop the gate and respond as per the safety for the direction it was travelling in.

## **Collision/obstruction/hindrance while opening.** (All modes)

If a collision, obstruction or hindrance is encountered before the full open position is reached while opening, both gates will stop, and then only the gate obstructed will back off slightly from the obstruction. The controller then waits for the next trigger input. The status LED will flash rapidly once both gates are stationery. BT trigger clears the status LED indication. For trigger responses see mode selection on page 30.

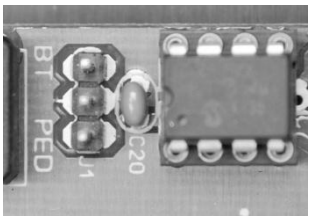
## **Collision/obstruction/hindrance while closing.** (All modes)

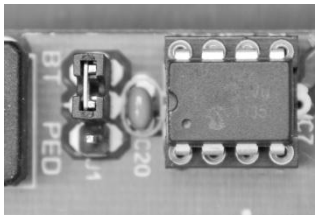
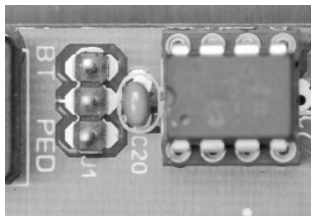
If a collision, obstruction or hindrance is encountered while closing, both gates will stop and reverse to the fully open position. The status LED will flash rapidly once both gates are stationery after opening away from the collision. The next trigger input starts the gates closing. BT trigger clears the status LED indication. For trigger responses see mode selection on page 30.

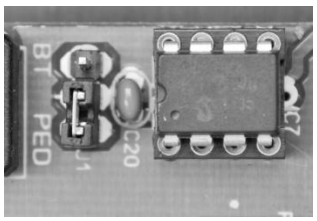
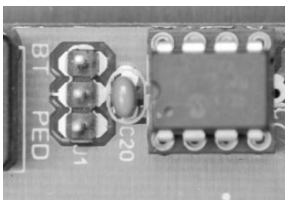
## Consecutive collision lock-out.

In cases of a collision, obstruction or hindrance inhibiting the gate from opening or closing fully to the corresponding limit, four times in a row, the controller will lock out all operation for 3 minutes after which it will beep once to indicate time - out is complete. After this mandatory time – out, attempts can be made to operate the gates again. If the cause of the collision lock-out is not cleared, the system will lock again on the fourth failure to reach the limit switch.

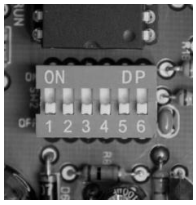
| **RECEIVER PROGRAMMING: - MASTER ERASE;<br>(Recommended on first time installation)** |
|---|

| **Action** | | **Response** |
|---|---|---|
| 1. All power off | | |
| 2. Short both (PED) pedestrian and (BT) button trigger pins to centre pin (Use the key-ring supplied with the transmitters to do this as shown here) |  | |
| 3. Power up |  | (RX) receiver LED flashes rapidly - stops flashing - on continuously. |
| 4. Remove all power | | |
| 5. Remove (RX) receiver pin short |  | |
| 6. Power up |  | (RX) receiver LED on |

| **Learning a TX button for (BT) Full opening operation using (RX) receiver pins: - (25 user memory)** | | |
|---|---|---|
| **Action** | | **Response** |
| 1. Press and hold required TX button |  | (RX) receiver LED flickers |
| 2. Short Centre (RX) receiver pin to (BT) button trigger pin. |  | (RX) receiver LED flashes confirmation<br>1 flash = First transmitter learnt<br>2 flashes = Successful there is still memory available<br>Multiple rapid flashes = memory full |
| 3. Remove short after confirmation |  | (RX) receiver LED remains lit in standby |
| 4. Release transmitter button | | |

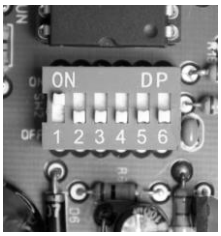
| **Learning a TX button for (PED) pedestrian ((PED) pedestrian) operation using (RX) receiver pins: - (6 user memory)** | | |
|---|---|---|
| **Action** | | **Response** |
| 1. Press and hold required TX button |  | (RX) receiver led flickers |
| 2. Short Centre (RX) receiver pin to (PED) pedestrian pin |  | (RX) receiver LED flashes confirmation<br>1 flash = First transmitter learnt<br>2 flashes = Successful there is still memory available<br>Multiple rapid flashes = memory full |
| 3. Remove short after confirmation |  | (RX) receiver LED remains lit in standby |
| 4. Release transmitter button | | |

## OPTIONAL OPERATING MODES

| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **All off** | | **STOP, START, STOP MODE** |

When the control is activated using any (BT) button trigger input the gates will open or close and can be stopped in mid cycle using any (BT) button trigger input again.
The gates can then be reversed by activating the (BT) button trigger input again.
In this mode the gates will remain open where they have been stopped by button or open limit until the (BT) button trigger input is activated again. (No auto close)

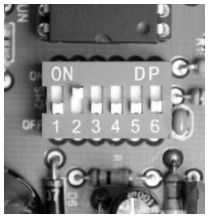
Party mode is available in this mode. (See additional features below)
Holiday lock out is available in this mode. (See additional features below)

| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **Dip-switch 1 ON** | | **SIMPLE AUTO-CLOSE**<br>(Default 15 sec.) |

As per Standard mode above however the following differs: -

The control unit times out the pre-programmed auto-close time from any open position after which it begin closing the gates.
While closing the gates any (BT) button trigger or BM input will stop and reverse the motors direction back towards the full open position.
In any open position while auto-close is timing out a BM input will reset the auto-close timer.

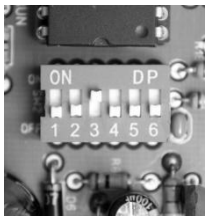
Auto-close override/Party mode is available in this mode. (See additional features below)
Holiday lock out is available in this mode. (See additional features below)

| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **Dip-switch 2 ON** | | **CONDO/LOOP AUTO-CLOSE**<br>(Default 15 sec.)<br>(select when using a loop detector) |

In this mode all triggers are ignored while the gates are opening. On reaching the full open position the unit times out the pre-programmed auto-close time after which it will begin closing the gates.
If the BM or BT button trigger input is activated while the auto-close timer is running the time will simply reset.
On closing any BT button trigger input or BM input will re-open the gates to the full open position.

USE THIS MODE WHEN CONECTING A LOOP DETECTOR.

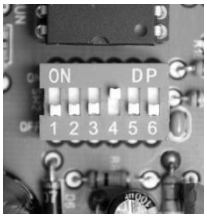
This mode excludes Holiday lock-out, Auto-close override/Party mode

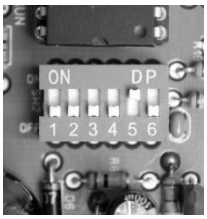
| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **Dip-switch 3 ON** | | **DELAY MODE**<br>(Default 3 sec.) |

This mode is used when an electric lock is installed to lock the two gates together or one of the gates overlaps the other in the closed position.

From the closed position Motor 1 will begin opening the programmed delay time before Motor 2 (default is 3 seconds). From the open position Motor 2 will begin closing first followed after the delay time by motor 1.

This mode ensures the gates never snarl up in the closed position and can be used where one gate must open further than the other.

| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **Dip-switch 4 ON** | | **STRIKE LOCK MODE** |
| With this mode selected the courtesy light relay becomes an in line switch (N/O) to be used in the power supply circuit for a spring loaded solenoid electric lock such as an electric strike, rim or catch lock. When in the closed position the courtesy light relay will pulse momentarily, before the motors start running. The reason for this is to prevent the motors pulling against the lock before it has released. | | |

| Dip-switch selection | | Mode |
|---|---|---|
| |  | |
| **Dip-switch 5 ON** | | **MAGNETIC LOCK MODE** |
| With this mode selected the courtesy light relay becomes an in line switch (N/C) to be used in the power supply circuit for a continuous supply magnetic lock. When the gates are trigger to operate in either direction, the courtesy light relay will energise for prior to the motors running and will remain energised as long as the motors are running. The reason for the delay is to prevent the motors pulling against the lock before it has released. | | |

**If all that happens when triggering the gates is 20 beeps, then both dip-switch 4 and 5 have been selected to on. Correct the combination to both off, 4 on only or 5 on only as per the installation requirements to clear the error condition.**

| ADDITIONAL FUNCTIONS |
|---|

| HOLIDAY LOCK-OUT<br>Available in all but Condo/loop Auto-close mode. | | |
|---|---|---|
| | | |
| **Action** | | **Response** |
| 1. Close gates | | |
| 2. Press and hold the (PED) pedestrian button on a master remote |  | Until 5sec beep begins. |
| 3. Release (PED) pedestrian button on master remote |  | Beeping will continue until confirmation or 5sec expires. |
| 4. Press and release (BT) button trigger button on the master remote before 5sec beep stop. |  | 1 x multiple rapid beeps will confirm holiday lock-out is active. |
| To unlock repeat | | After multiple confirmation beeps gate will immediately start opening when unlocked. |
| Holiday lock-out is available only when using a master remote. (No hardwired devices will activate or de-activate it)<br>A master remote is a remote that has (BT) button trigger control as well as (PED) pedestrian opening control.<br>If no (BT) button trigger confirmation trigger is received by the time the intermittent beeps stop (5sec.), the gates will not change status. | | |

| COURTESY LIGHT OUTPUT<br>Not available in strike lock or Magnetic lock mode. |
|---|
| |
| The courtesy light output will activate on any opening trigger ((BT) button trigger or (PED) pedestrian).<br>The light on timer will only start timing out once the gates are closed again. |

| **AUTO-CLOSE OVERRIDE/PARTY MODE**<br>**Available in all but Complex Auto-close mode.** | | |
|---|---|---|
| | | |
| **Action** | | **Response** |
| 1. With the gates stopped at any position other than fully closed. |  | |
| 2. Press and hold any TX (BT) button trigger button | | After 5sec unit will emit Multiple rapid beeps to confirm. |
| 3. Release button after beeps | | Gates will not begin closing after auto-close time has expired. |
| 4. To deactivate repeat 2 and 3 above | | 1 x long beep and gates starts closing. |
| If any (PED) pedestrian or (BT) button trigger input is momentarily activated while the unit is in either Holiday lock-out or Auto-close override/Party mode the unit will only emit the multiple rapid beeps and not run the gate. | | |

| **PEDESTRIAN FUNCTION.**<br>**Available in all modes** | | |
|---|---|---|
| | | |
| **Action** | | **Response** |
| 1. With the gates closed | | |
| 2. Press and release any PED (pedestrian) input. |  | 1. Three beep tones<br>2. Only gate 1 opens to open limit.<br>3. After pedestrian auto-close time the gate returns to the close position. |
| Any further (PED) pedestrian input triggers while the gate is running are ignored except in the open position, where the auto-close timer will simply reset.<br><br>Any BM input while the (PED) pedestrian routine is running will cause the gate to continue to the open position if busy opening or reverse back to the open position if closing. If already in the open position, the pedestrian auto-close timer will simply reset.<br><br>If any (BT) button trigger input is activated while at any stage of the pedestrian routine, the controller will exit pedestrian mode and run both gates to the open position as per the operating mode selected. | | |

| BUZZER INDICATIONS OVERVIEW | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Beeps | Gate status | Dip-switch 6 PROG | Action | Response Motor | Condition | Solution | Table ref: |
| | | | | | | | |
| 2 x Rapid beeps | Gates anywhere | Off or On | Momentary BT or Ped input | Attempts to run | Battery flat or faulty | Allow recharge and check for Aux devices overload. If problem persists after ±8 hours charging, replace battery | |
| 2 x 2sec. Beeps | Gates stopped | Off | Momentary BT | Gates run after beeps | Household mains failure | Restore power supply | 16 |
| 3 x 1sec. Beeps | Gates closed | Off | Momentary Ped | Gates open partially | Pedestrian function activated | | 34 |
| 5 x Rapid beeps | Gates anywhere but closed | Off | Momentary BT or Ped input | None | Auto-close override/party mode active | Toggle off | 34 |
| 5 x Rapid beeps | Full closed | Off | Momentary BT or Ped input | None | Holiday lock-out active | Close gates Toggle off | 33 |
| 20 Beeps | Gates anywhere | Off | Momentary BT or Ped input | None | Both dipswitches 4 and 5 on. | Select correct setting | 32 |
| Continuous rapid beeps | Gates anywhere | On | None | None | Holiday lock-out active | Close gates Toggle off | 33 |
| Continuous as long as trigger is held | Gates anywhere | Off | Continuous BT or PED Input | None | Multiple collision lock-out | Clear obstruction and wait three minutes before using gates again. | 27 |

| STATUS LED OVERVIEW | |
|---|---|
| | |
| Off | Gates are closed |
| Slow flash | Gates are running or waiting for auto-close time to time out |
| On | Gates are open |
| Rapid Flash | Gates are obstructed or have exceeded max run time. |

**WARRANTY:** All goods manufactured by G&C Electronics cc T/A ET Systems carry a 12 month factory warranty from date of invoice. All goods are warranted to be free of faulty components and manufacturing defects. Faulty goods will be repaired or replaced at the sole discretion of ET Systems free of charge. This warranty is subject to the goods being returned to the premises of ET Systems. The carriage of goods is for the customer's account. This warranty is only valid if the correct installation and application of goods, as laid out in the applicable documentation accompanying said goods, is adhered to. All warranty claims must be accompanied by the original invoice. All claims made by the end user must be directed to their respective service provider/installer.

The following conditions will disqualify this product from the warranty as laid out above.

These conditions are non-negotiable.

- Any unauthorized non-manufacturer modifications to the product or components thereof.
- The use of the ET 90 BLUE PLUS swing gate operators in heavy traffic applications such as office parks and residential complexes.

The following items are not included in the warranty.

- The battery
- The motor brushes
- Damage resultant of wind and other climatic influences such as lightning strikes.
- Damage due to high voltage surges on the household mains or short circuiting of the gates to the electric fencing.
- Damage due to infestation i.e. Ants nesting…