



Automation Systems AUSTRALIA

TITAN 2410

Advanced Digital Sliding Gate System

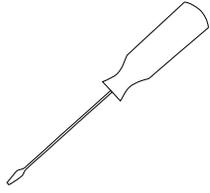


Step by Step Simple Installation
Guide on Page 2

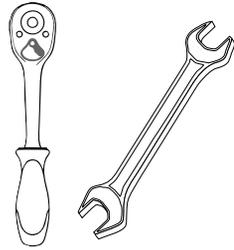
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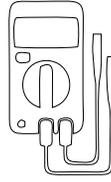
Typical Tools Required



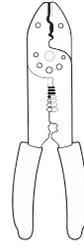
2/2.5mm Flat Head for Terminal Connections



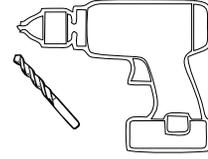
Socket & Spanner Sets



Multi Meter (not essential)



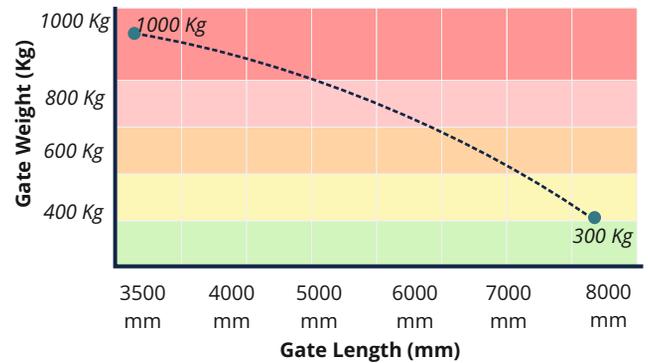
Wire Stripper



Drill and Drill Bits Masonry and Metal

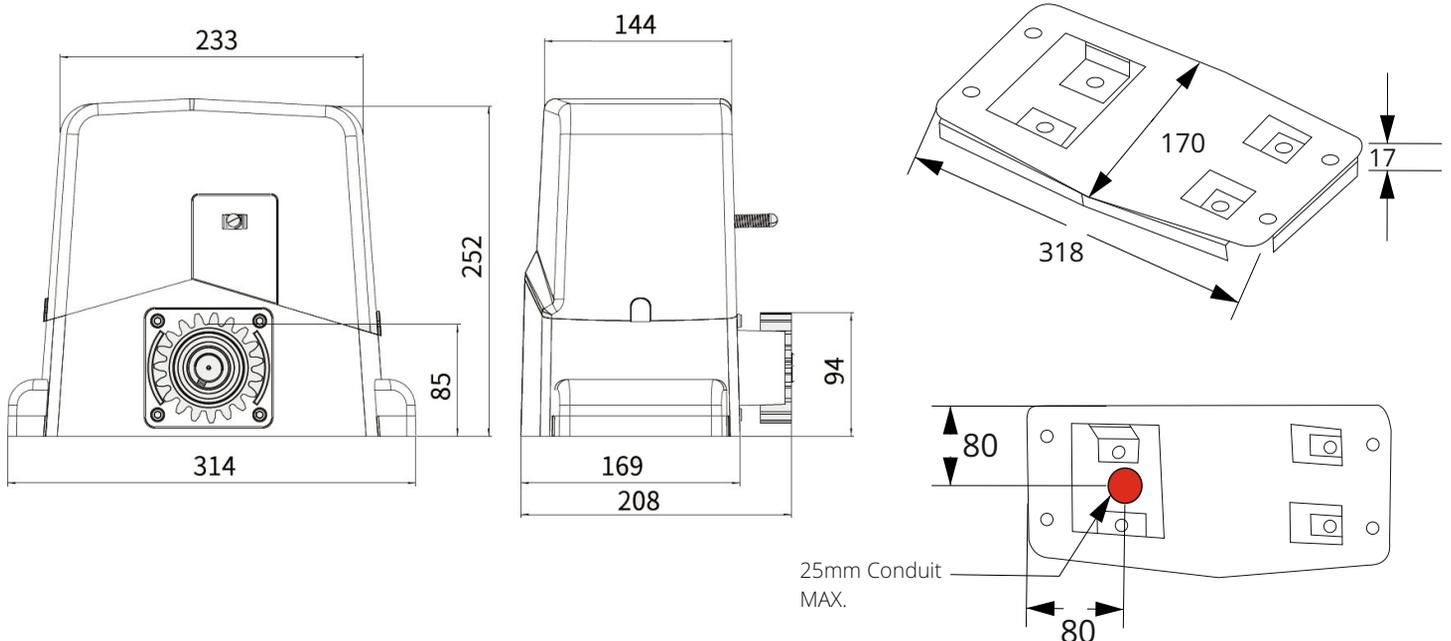
Specifications

Operating Voltage	24V AC/24V DC
Standby Consumption	~40mA
Battery Backup	Yes
Speed	22-36 CM/S
Motor Limit	N/C Micro Switch
Torque	27 NM
Duty Cycle	90%
Light Output	Warning 12VDC 1A MAX / Secondary Relay Max 3A
Accessories Power	12V DC (250mA)
Safety Inputs	Photocell, Detector, Safety Edge
Operation Temperature	-10°C to +60°C
Remote Button Capacity	250

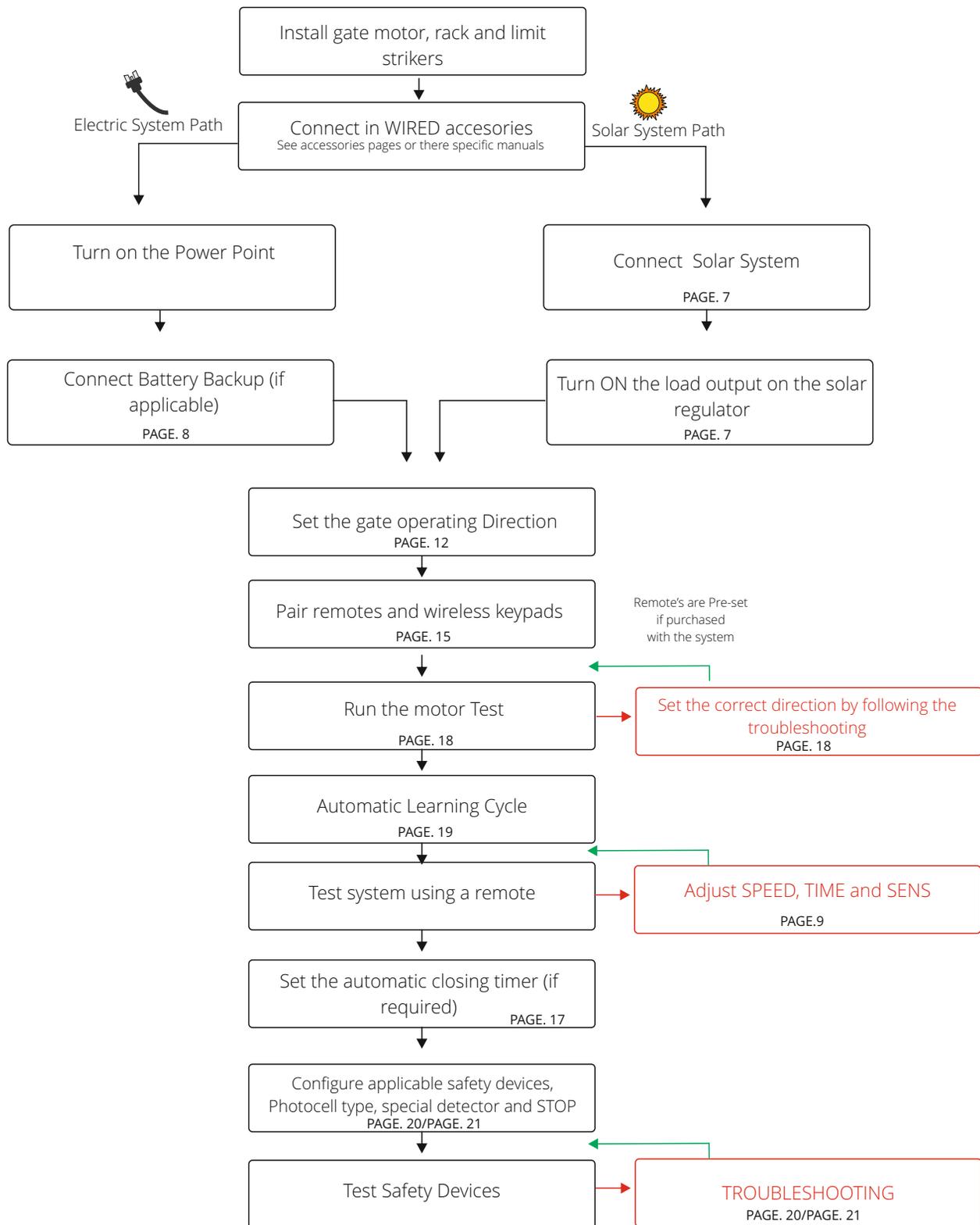


*Tested ratings are level gate installations and does not take into account inclined installations

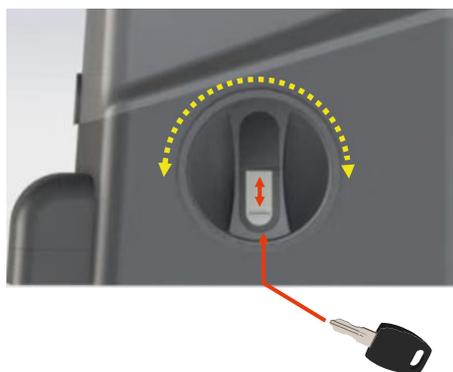
Dimensions



Step by Step Installation Guide



Manual Release



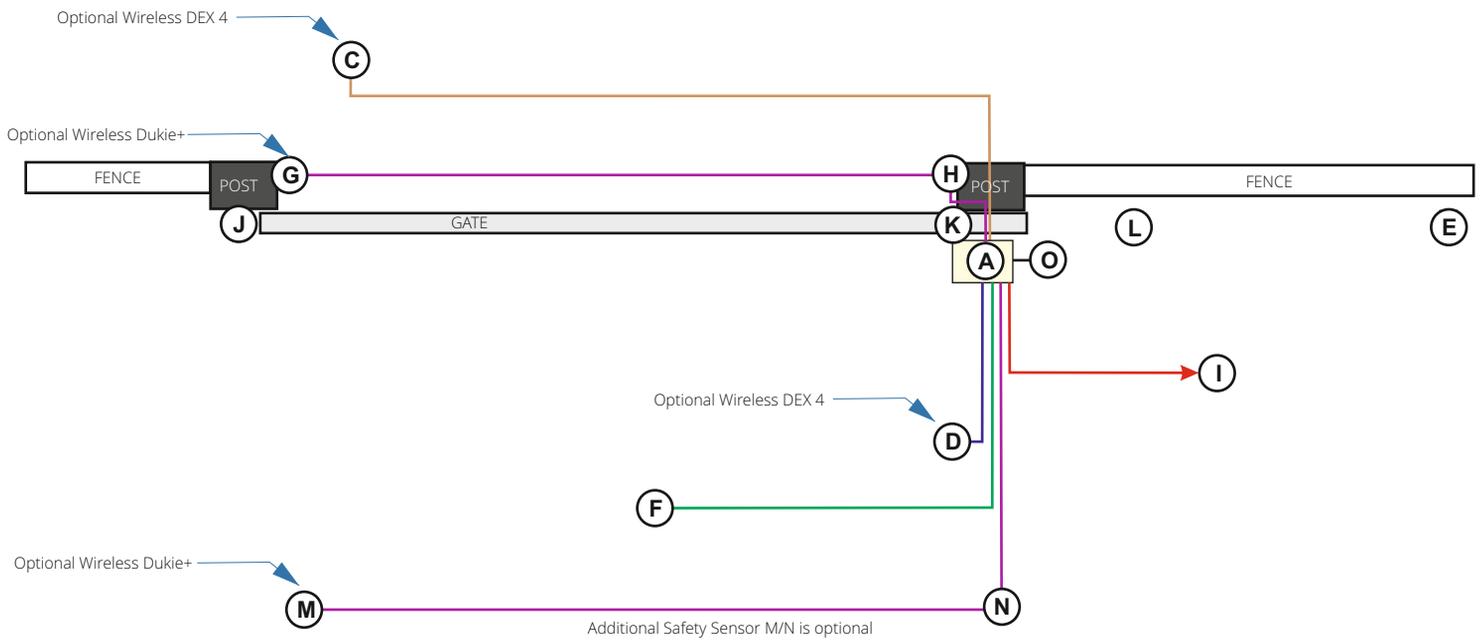
To manually release (disengage clutch):

1. Slide the key cover UP
 2. Insert the key (fits only one way into the cylinder) and turn the key clockwise.
 3. Turn the lever one full turn clockwise (360°)
- Gate can now be moved by hand.

To return to automated mode (engage clutch):

1. Turn the lever one full turn counter-clockwise (360°)
 2. Insert the key (fits only one way into the cylinder) and turn the key counter-clockwise.
 3. Slide the key cover DOWN
- Gate cannot be moved by hand and is ready for automated use.

Installation Layout



Number	Accessory	Requirments
A	Gate Motor	Power by transformer or Solar
C	Entry Keypad	Dex 4 (wireless), All others wired to gate controller by 4 core cable
D	Exit Keypad	Dex 4 (wireless), All others wired to gate controller by 4 core cable
E	Gate Stop	Physically Mounted Hardware Item. Mandatory Stop to prevent accident or injury incase of failure
F	Induction Loop	Housed inside gate controller with 1 core cable for the driveway loop
G	Photocell Transmitter	No cable required for Dukie+, Standard Dukie 2 core Cable to gate controller
H	Photocell Receiver	4 Core cable to gate controller
I	Gate Controller Power Source	Mains, Outdoor Transformer or Solar Panel to the Gate Controller
J	Meeting Point	Physically Mounted Hardware Item
K	Gate Top Guide	Physically Mounted Hardware Item
L	Ground Track	Physically Mounted Hardware Item
M	ADDITIONAL Photocell Transmitter	Optional Additional Safety Device, No cable required for Dukie+, Standard Dukie 2 core Cable to gate controller
N	ADDITIONAL Photocell Receiver	Optional Additional Safety Device, 4 Core cable to gate controller
O	Automatic Light	2 core cable to gate controller

Motor Installation

Step 1

Identify the OPENING direction of your gate based on the illustrations below.

Gate opens to the LEFT or RIGHT is always made from the inside looking towards the street (outside).

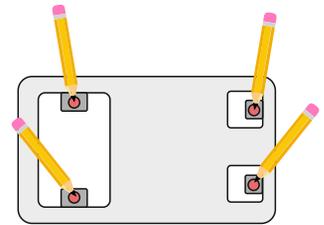


Step 2

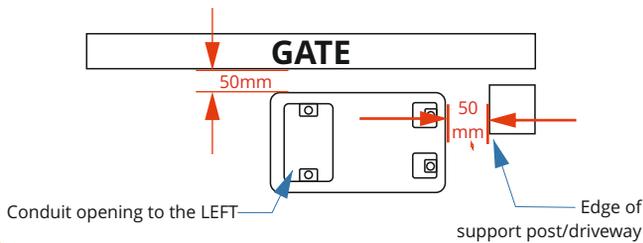
Mark the centre of the mounting holes of the base plate, note the orientation of the large conduit entry hole.

The base plate should be positioned within 50mm from the support post/edge of the driveway.

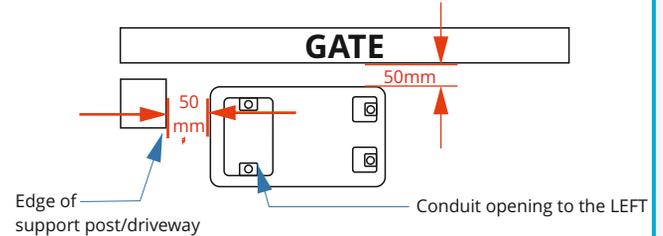
The base plate is positioned 55mm away from the backside of the gate to achieve the correct base distance for the limit switch spring and gear rack alignment. The motor distance can be fine tuned when installing to the base plate.



LEFT HAND SIDE OPENING



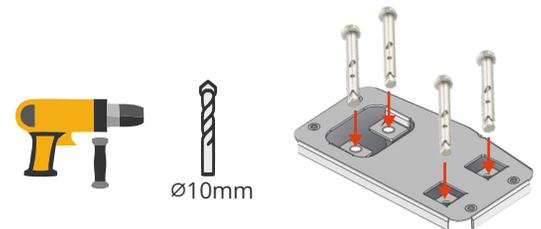
RIGHT HAND SIDE OPENING



Step 3

Drill the four fixing hole using a 10mm masonry drill, ensure that the holes are cleaned thoroughly in preparation to install the dyna bolts.

Install the base plate ensuring it is stable, if unstable against the concrete (can tilt back and forth) install with washers from the under side (with at least a 10mm ID) to achieve level. The dyna bolt will slip through the base plate then the washer. Tighten the dyna bolts.



Step 4

Install the gate motor to the metal base plate, ensure the front of the plate (side facing the gate) is flush with the front of the gate motor.



Step 5

Manually Release the gate motor and set the gate 250mm from the open position .

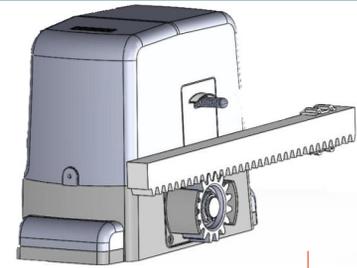
Sit a piece of gear rack on top of the motors pinion gear and level it according to the gates current level (adjustable later), allow for a 2-3mm clearance (backlash) between the top of the pinion tooth and the base of the gear rack.

Screw in the first piece of gear rack in place using self drilling metal screws in the CENTRE of the elongated hole.

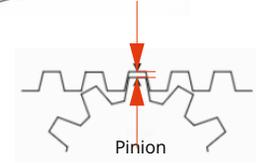
Slide in the next adjoining piece of gear rack and close the gate by hand til the pinion is centred to the ne piece of gear rack that has been added, once again as per the previous step the rack should be levelled according to the gates current level (adjustable later), once again allow for a 2-3mm clearance (backlash) between the top of the pinion tooth and the base of the gear rack.

Screw the piece of gear rack in place using self drilling metal screws in the CENTRE of the elongated hole.

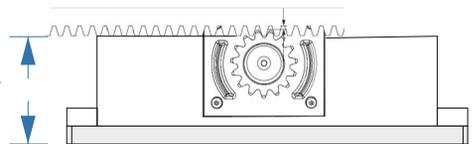
Repeat this step until the gate has gear rack installed across its entire length.



2-3 mm space between the Top of Pinion Tooth and the gear rack root



Approx. 100mm Base of gear rack to concrete



Step 6

Manually open and close the gate at a very slow speed, observe that the gear rack always retains the 2-3mm clearance backlash.

If the gate feels tight in certain areas most likely the backlash is less than advised, loosen the gear rack piece and adjust to correct then re-test.

If the gate feels loose in certain areas or the rack slips off the pinion most likely the backlash is greater than advised, loosen the gear rack piece and adjust to correct then re-test.

Step 7

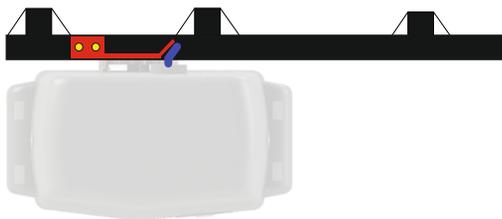
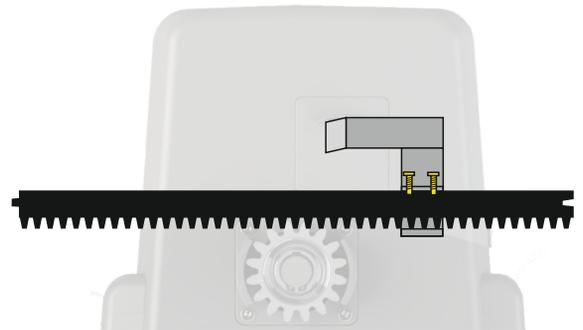
Install the TWO bolts to each striker plate.

OPEN the gate til 50mm before it touches the gate stop.

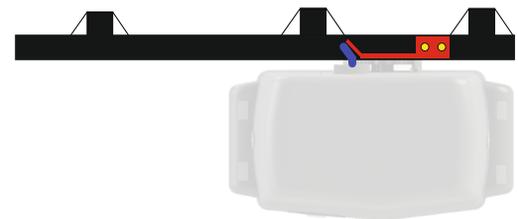
Install the striker plate to the gear rack THE SPRING SHOULD BE BENT to 45°, the striker plate CLAMPS to the gear rack and does not require any holes to be drilled.

CLOSE the gate til 20mm before it touches the meeting points base.

Install the striker plate to the gear rack THE SPRING SHOULD BE BENT to 45°, the striker plate CLAMPS to the gear rack and does not require any holes to be drilled.



Gate has travelled all the way to the right and has engaged the spring



Gate has travelled all the way to the left and has engaged the spring

Step 8

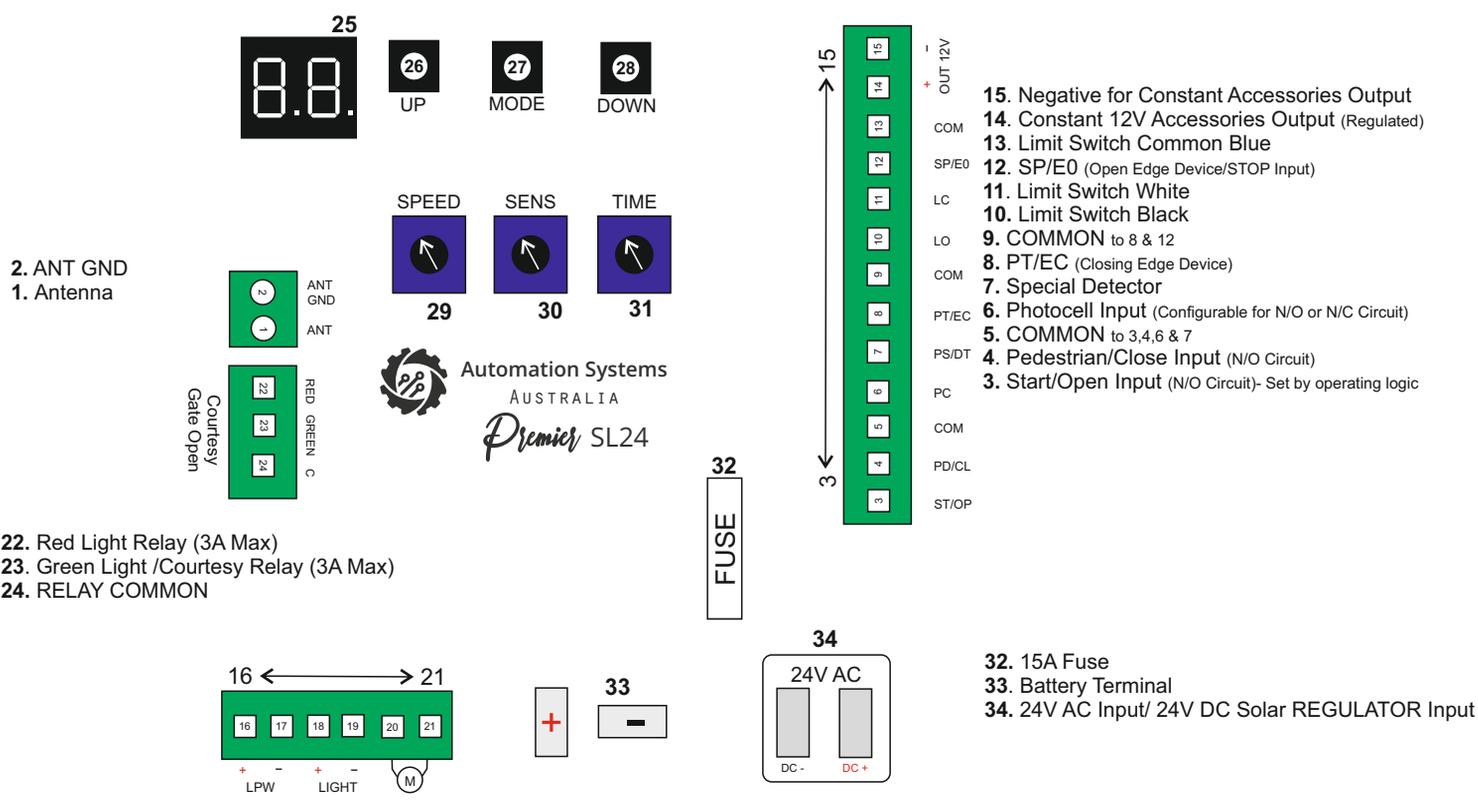
Cut off any EXCESS gear rack using an angle grinder, ensure the motor cover is installed and the excess rack is in the furthest possible and safe position away from the motor, cutting will produce sparks due to the racks steel core, ensure no stray sparks reach the gate motor to avoid damage.

Slip on the side covers on each side to cover the mounting bolts.

Move the gate to the half way point and engage the clutch and proceed to Motor Testing

Controller Layout

- 25. Digital Display
- 26. UP Button
- 27. MODE/OK Button
- 28. DOWN Button
- 29. Slow Speed Adjustment (SPEED)
- 30. Obstacle Detect Adjustment (SENS)
- 31. Slow Speed Travel Time (TIME)



- 16. +12V DC Accessories (ENERGY SAVER)
- 17. -12V DC Accessories (ENERGY SAVER)
- 18. Light Output + (Transformer voltage)
- 19. Lock Output -
- 20-21. Motor Terminal

Display Screen Status

General

- Standby
- oP Opening
Fast Speed 0.5 Second Flash
Slow Speed 1 Second Flash
- cL Closing
Fast Speed 0.5 Second Flash
Slow Speed 1 Second Flash
- Fo Full Open Position
- Fc Full Close Position
- . Battery Backup Mode (Flashes)
- 99 Automatic Closing Timer

Safety Status

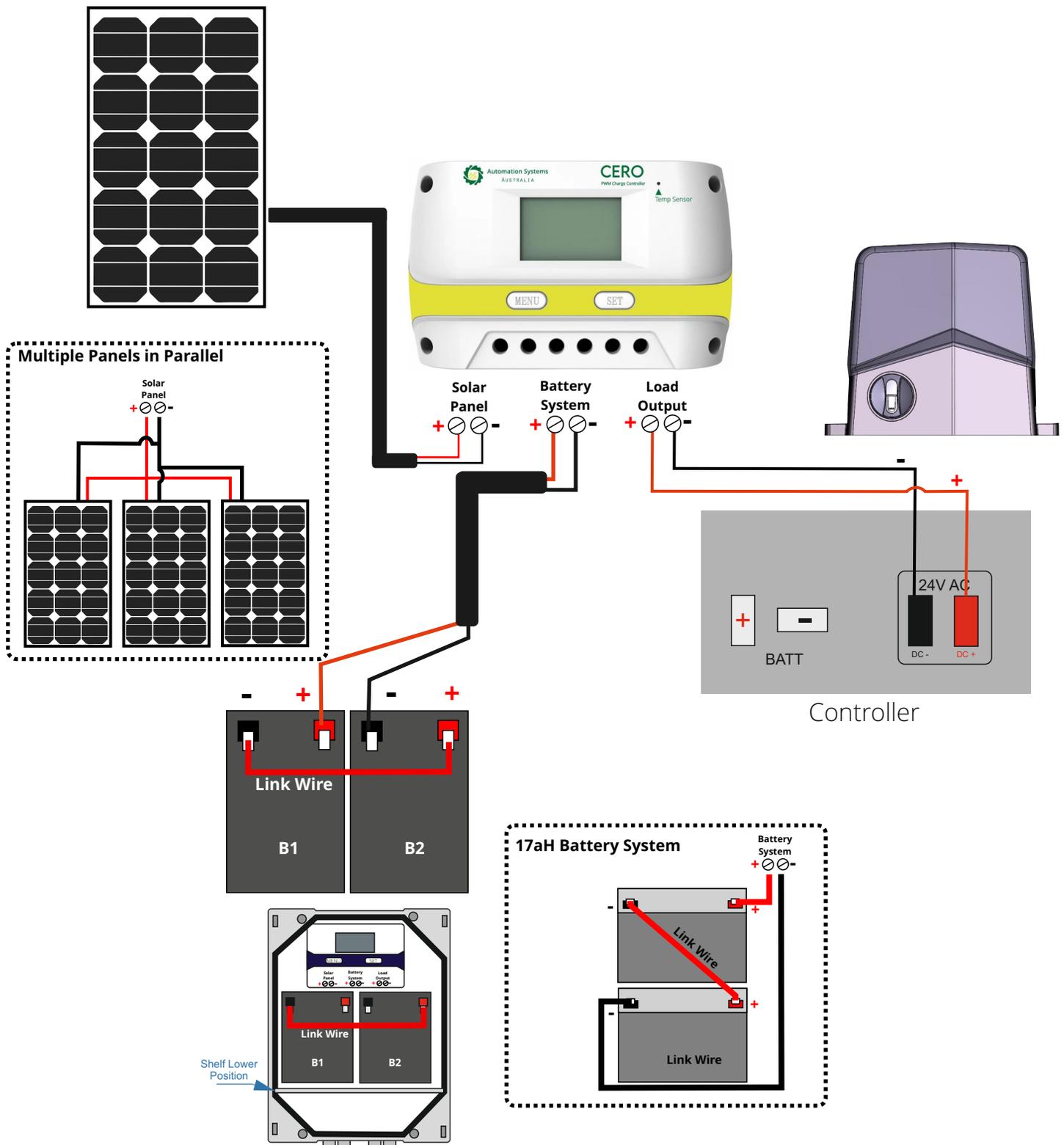
- Pc Photocell Input Active
- SP STOP Input Active
- PS Photostop Input Active (Special Detector)
- dt Detector Input Active (Special Detector)
- EO Edge Input Active (Opening Edge)
- Ec Edge Input Active (Closing Edge)

Operating Input Status

- St Start Input Active
Operating Logic: St Rt
- Pd Pedestrian Input Active
Operating Logic: St Rt
- oP Open Input Active
Operating Logic: oc oA cd
- cL Close Input Active
Operating Logic: oc oA cd

CERO Standalone Solar System Connection

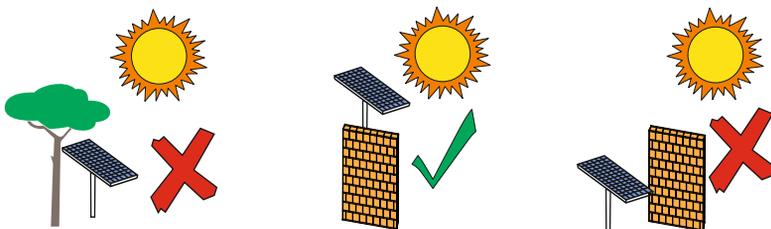
A standalone solar system is a totally off grid solution used for green energy initiatives or simply when its not possible to run power to the gate system. To conserve power constant power draw devices such as wired keypads are not to be used, the alternative is a wireless keypad as they use there own batteries.



1. A solar panel CANNOT be installed under a tree, it requires sun to charge and maintain the batteries.

2. A solar system is often maintenance free BUT the batteries may require a external charge in the winter months due to lack of sun (rare).

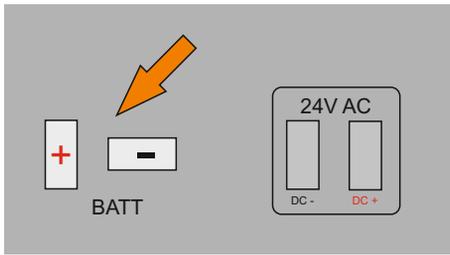
3. Constantly powered accessories such as wired keypads will increase the standby current draw, solar panel or battery upgrades may be required if sufficient collection is not achieved.



Battery Backup Connection

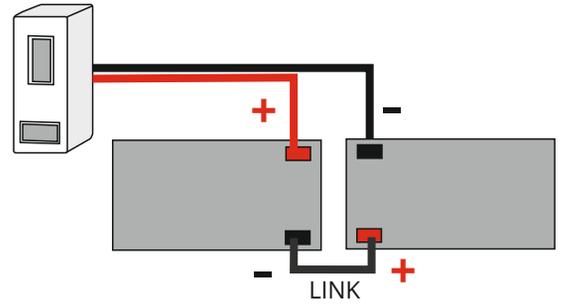
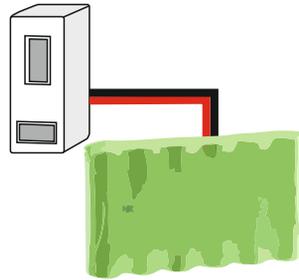
The battery backup will allow for uninterrupted usage in case of a power disruption. The battery backup system can operate the gate for a period of 24 to 36 hours during the power disruption. Once the power is restored the system will automatically recharge the battery system ready for the next use.

Note: When in battery backup mode the slowdown is disabled automatically to overcome any difference in speed.



Battery Pack

To connect the battery backup simply plug the two pin connector in the correct orientation into the battery port on the controller.

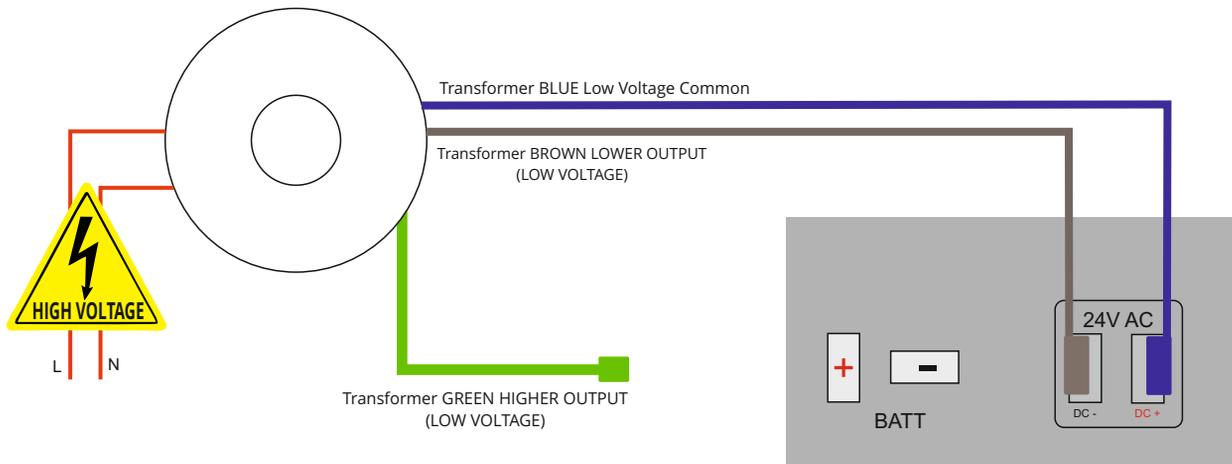


SLA Batteries

To connect the battery backup plug in the spade connectors according to the above illustration then plug the two pin connector in the correct orientation into the battery port on the controller.

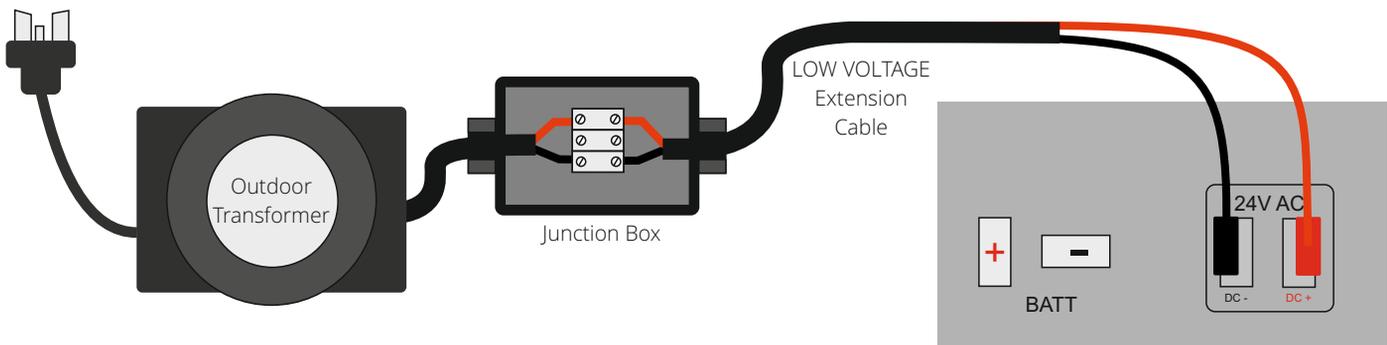
Multi Output Toroidal Transformer (Internal)

The transformer on a mains powered system is the primary source of power, it takes the high voltage input and transforms to low voltage which is connected to the controller. By default the controller uses the lower of the two outputs (brown wire) which is typically suggested for most gate installs however incase required due to gate forces it would be suggested to swap the lower output (brown wire) for the higher output (green wire).

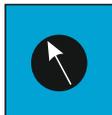


Outdoor Low Voltage Weatherproof Transformer

Where a power point is not available at the gate the Outdoor Transformer is used as the primary source of power, it takes the high voltage input and transforms to low voltage which is connected to the controller through the low voltage extension cable for a maximum distance of 120 metres.

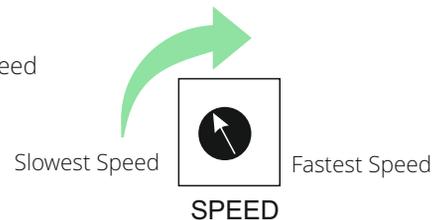


"SPEED" Slow Speed/De-acceleration Adjustment



SPEED

The "SPEED" Trim pot is the slow speed trimmer allowing a fine tuning of the SLOW Speed portion of the operating cycle, Typically adjustment range is 20% to 50% from the slowest speed (minimum) depending on gate size, weight and inertia.



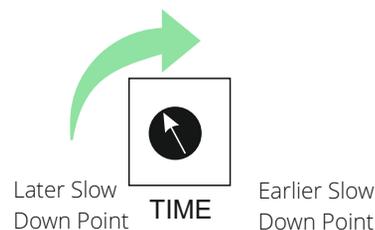
"TIME" Slow Down Position Adjustment



TIME

The "TIME" Trim pot is the adjustment in where the controller introduces the slow down speed. A TOO late position may cause the gate to stop more abruptly as it has not had enough time to decrease the speed of movement.

A TOO early position may cause difficulties in overcoming resistance points within the sliding moment of the gate and also creates a slower operating cycle time which may be undesirable.



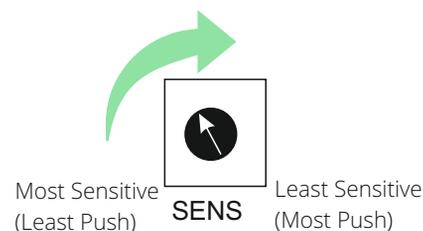
"SENS" Obstruction/Overcurrent Adjustment



SENS

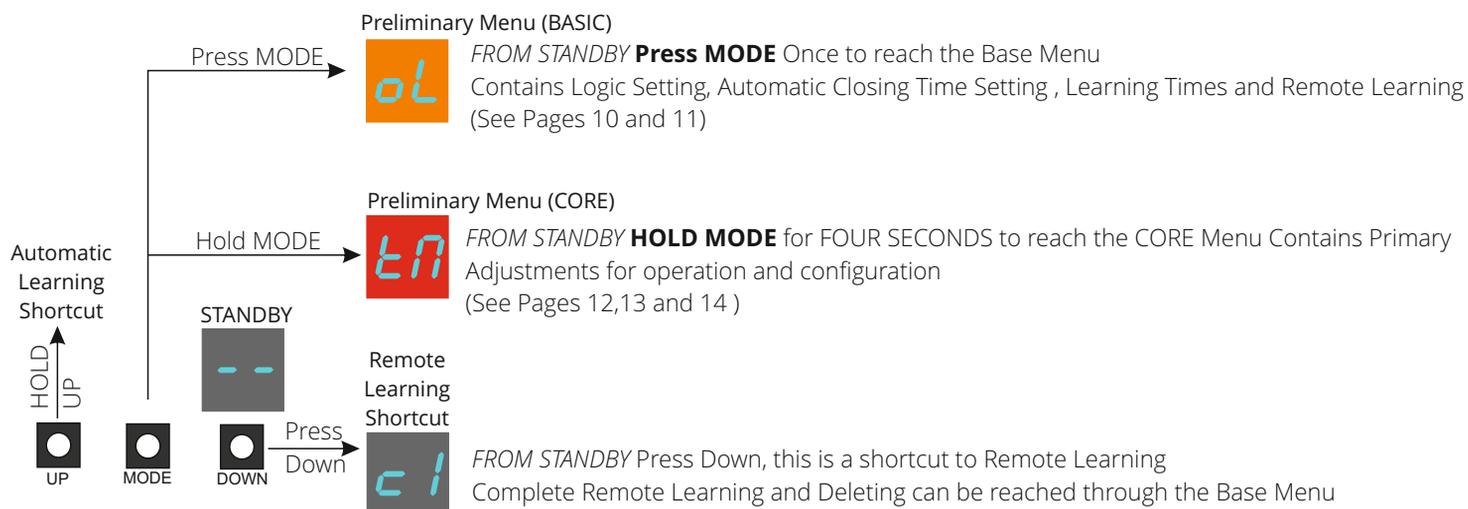
The "SENS" Trim pot is the pressure sensing adjustment before the controller recognises cut-off. Gate and Environmental factors will determine how high or low to adjust based on gate weight and the required power to operate the motor.

Setting too high will affect how quickly the controller will shut off under load or accident. setting too low can cause the controller to shut off too early (too sensitive) and cause intermittent operations.



System Menu Hierarchy

Throughout the manual to simplify identification the two preliminary menus will be displayed with a coloured background as illustrated below, any sub-menus and exit will be displayed with a grey background.



EXIT will take you back one level
From preliminary menus it will return to standby
From any setting menu it will cancel the change and return you to the preliminary menu



If in a setting adjustment and you wish to cancel press UP and DOWN together momentarily to return back one level.



If in a preliminary menu it will function the same as scrolling to exit.



Setting the system Operating Logic (Default Standard)

- 
Standard
 Operates OPEN/CLOSE by remote and/or wired-wireless accessories
- 
Standard WITH Automatic Closing Timer [Adjust the Automatic Closing Timer in SP menu](#)
 Operates OPEN remote and/or Wireless Accessories with an automatic closing timer (can still be closed earlier by remote and/or wired-wireless accessories)
 Timer can be cancelled using the STOP feature
- 
Typical Complex
 Operates OPEN/CLOSE by remote and/or wired-wireless accessories with the WIRED input terminals switching to loop detector mode OPEN Terminal and CLOSE Terminal
- 
Typical Complex WITH Automatic Closing Timer [Adjust the Automatic Closing Timer in SP menu](#)
 Operates OPEN/CLOSE by remote and/or wired-wireless accessories with the WIRED input terminals switching to loop detector mode OPEN Terminal and CLOSE Terminal along with an automatic closing timer (can still be closed earlier by remote and/or wired-wireless accessories)
 Timer can be cancelled using the STOP feature
- 
Secure Complex Mode WITH Automatic Closing [Adjust the Automatic Closing Timer in SP menu](#)
 Ignores additional commands during opening, automatic closing by the adjustable timer ONLY, no other methods to close

Wired Input Terminals		Operating Logic	Remote Channels			
Terminal 3 (ST/OP)	Terminal 4 (PD/CL)		C1	C2	C3	C4
OPEN /STOP/ CLOSE	<u>Ped.</u> OPEN /STOP/ CLOSE		OPEN /STOP/ CLOSE	<u>Ped.</u> OPEN /STOP/ CLOSE	Driveway Light	Stop/Cancel Automatic Closing Timer
OPEN	CLOSE		OPEN	CLOSE	Driveway Light	Stop
OPEN	CLOSE		OPEN	CLOSE	Driveway Light	Stop/Cancel Automatic Closing Timer
OPEN	N/A		OPEN	N/A	Driveway Light	Cancel Automatic Closing Timer

"OPEN" only commands always restart an automatic closing timer (if applicable).
 any "STOP" command by remote control always cancels the automatic closing timer (if applicable).
 any "CLOSE" command will bypass the automatic closing timer (if applicable) and close the gate.

Lc Remote and Wireless Keypad Learning/Deleting
Detailed Page 15 & 17,

- **c1** C1 Command
- **c2** C2 Command
- **c3** Driveway Light Command Learning
- **c4** STOP Command Learning
- **rt** Delete WITH the wireless component present
- **rn** Delete by memory position
- **ra** Delete the entire memory (format)

SP Automatic Closing Time (Default 10 seconds)

- **99** Only valid when using an OPERATION LOGIC **oL** that uses automatic closing
03= Immediate Close
2-299= Delayed automatic Closing Time by the set value in Seconds

Lt Learn Working Times → Starts the learning procedure

FS Fast Speed Level (Default 10) → **10** Sets the fast speed Percentage of input voltage (slow speed adjustment is by Trim Pot)
03= Minimum (30%)
10= Maximum (100%)

dn Motor Test (operate gates manually)

- **o1** Opens the gate
Hold MODE to Operate
- **c1** Closes the gate
Hold MODE to Operate

EH Exit the menu



Manual Adjustment of Working Time Menu (fine tuning of times)

- Full Operation Working Time of Motor
- Pedestrian Working Time
- Courtesy Light Time
(In multipliers of 10, eg. 01=10 Seconds, 60=600 Seconds)



Gate Direction (Default Right Hand Opening)

- Right Hand Opening
- Left Hand Opening



Photocell Input

- Sets the controller to accept NORMALLY CLOSED photocell
- Sets the controller to accept NORMALLY OPEN photocell OR NO PHOTOCCELL CONNECTED



STOP Button Input

- Sets the controller to accept NORMALLY CLOSED Stop Button
- Sets the controller to accept NORMALLY OPEN Stop Button OR NO STOP Button CONNECTED



Limit Switch Polarity

- Sets the controller to accept NORMALLY CLOSED limit switches
- Sets the controller to accept NORMALLY OPEN limit switches

SF Special Detector Input (Default dt)

- **PS** Photostop Mode (Normally Closed Circuit)
Similar to a typical photocell input but also incorporates the opening cycle.
 1. During opening it will pause gate till clear
 2. During auto close it will restart the timer
 3. During close it will stop the gates and re-open
 4. Whilst closed it will inhibit the operation of opening until clear again
- **dt** Detector Mode (Normally Open Circuit) OR NO SENSOR CONNECTED
Used to signal the system that the gate has been used and is ready to close.
 1. If detected whilst opening it will finish the opening then IMMEDIATELY close
 2. Whilst closing it will re-open gate then IMMEDIATELY close the gate
 3. Whilst open it will tell the gate to close

SS Soft Start

- **YS** Instead of starting motor(s) at full speed the operation begins at a reduced speed then ramps to full speed
- **nt** Feature is disabled

Eo Opening Safety Edge Input (Default ds)

- **SP** Stop Button Input mode (set stop button N/O or N/C by the **SP** menu.
- **ds** Disabled
- **nc** Normally Closed Circuit
- **no** Normally Open Circuit
- **An** Analogue Edge with 8K2 Resistance

Ec Closing Safety Edge Input (Default ds)

- **ds** Disabled
- **nc** Normally Closed Circuit
- **no** Normally Open Circuit
- **An** Analogue Edge with 8K2 Resistance

bl Light Output Mode

- **ys** Flashing illumination ON/OFF during the cycle
- **nt** Static illumination during the cycle

LH Auxiliary Light System Mode

- **cr** Driveway light output, set in working time (operates by individual remote button and also gate operation button), (Green and Common terminals)
- **oG** Strobe light output, is on in all statuses except closed (Green and Common terminals)
- **Gr** Traffic Light Mode
Green and Common terminals when gate is in the open position
Red and Common terminals all other times

rn Receiver Mode (1 Button/4 Button Receiver Mode) (Default 1b)

- **1b** One Button Mode for Open-Stop Close and Another Button for Pedestrian Open-Stop-Close
STRONGLY RECOMENDED
- **4b** Four Button Layout

nn Manned Depot Mode (only suitable for NON automatic closing Logics)

- **ys** Enables the manned deport mode, the operator presses the button according to the allowed quantity of vehicles to pass through, the system uses a photocell to count the vehicles then will automatically close the gate.
- **nt** Normal Operation

So Full-time Photocell and Photostop Check / Only Vitals (Solar Mode)

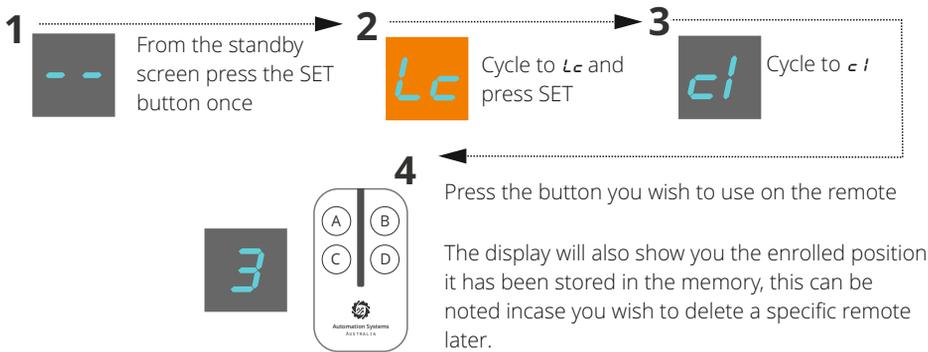
- **ys** Check photocell/photostop Inputs before beginning and during the cycles. N/C Logics Only
- **nt** Check photocell/Photostop Inputs at all times including standby. N/C and N/O Logics

d2 Factory Default the Settings

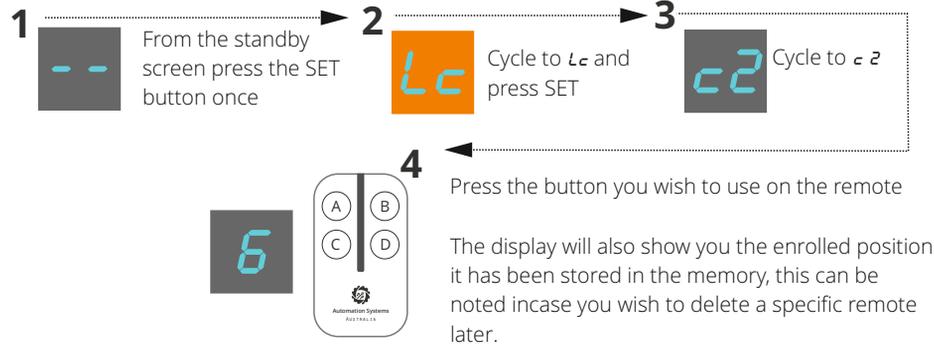
- **ys** Restore to Factory Default (Wireless memory is not affected)
- **nt** Cancel without change

Remote Learning

C1 Command Learning



C2 Command Learning



Operating Logic



Residential



Commercial & Industrial



Remote Channels

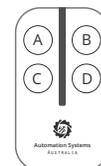
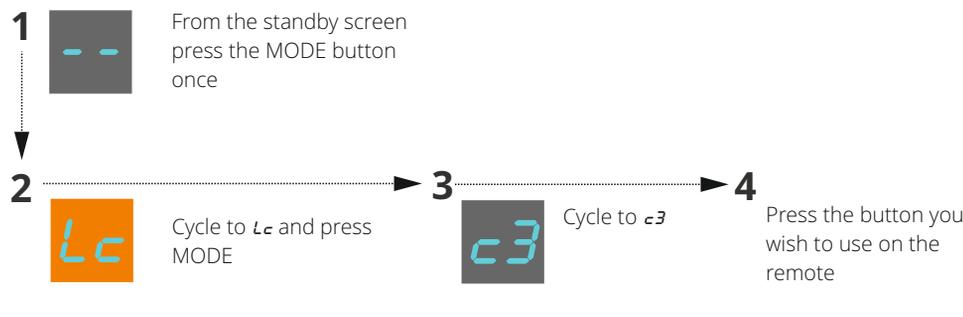


OPEN /STOP/ CLOSE Ped. OPEN /STOP/ CLOSE

OPEN CLOSE

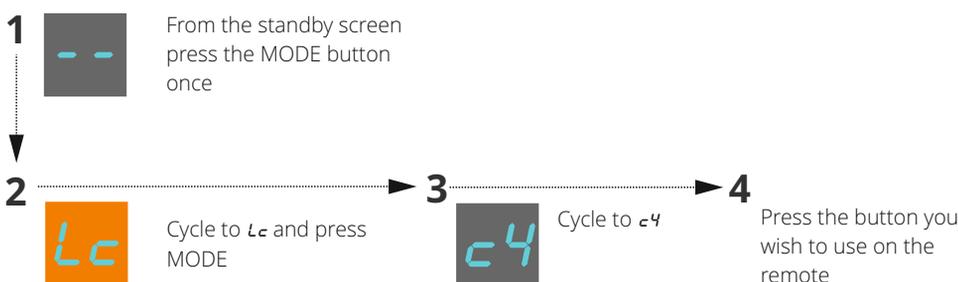
OPEN N/A

C3 Driveway Light Learning



The display will also show you the enrolled position it has been stored in the memory, this can be noted in case you wish to delete a specific remote later.

C4 Remote STOP command Learning



The display will also show you the enrolled position it has been stored in the memory, this can be noted in case you wish to delete a specific remote later.

Delete by remote button

- 1  From the standby screen press the MODE button once
- 2  Cycle to **Lc** and press MODE
- 3  Cycle to **rt**
- 4 Press the button on the remote you wish to delete



Delete by enrollment number

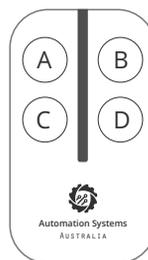
- 1  From the standby screen press the MODE button once
- 2  Cycle to **Lc** and press MODE
- 3  Cycle to **rn** and press MODE
- 4  Cycle to the enrolment number you wish to delete and press MODE

Delete entire memory

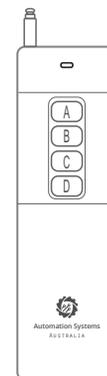
- 1  From the standby screen press the MODE button once
- 2  Cycle to **Lc** and press MODE
- 3  Cycle to **rA** and press MODE
- 4  Cycle to **y5** and press MODE to confirm deleting all remotes
OR
Cycle to **rt** to cancel

Remote Usage

- A Operate this Gate Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)
- B Operate Pedestrian Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)
- C Operate a garage door, driveway light etc.
- D Operate another Gate Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)



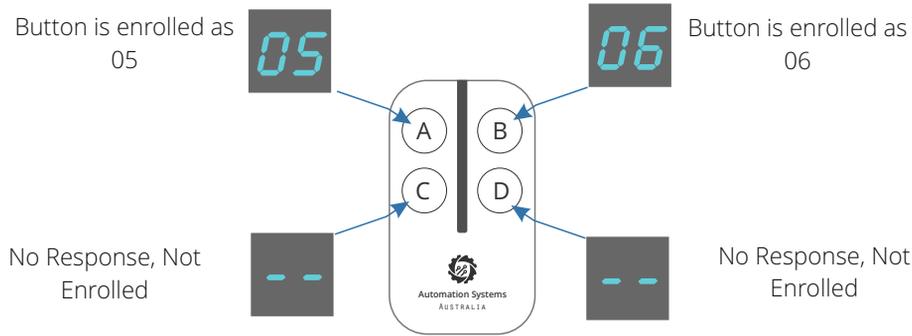
STX4K
Maximum Clear Line
of Sight 100 Metres
Operating Distance



STX4L
Maximum Clear Line
of Sight 800 Metres
Operating Distance

Identify the enrollment Number

From the standby Screen press each button on the remote INDIVIDUALLY, the number displayed on the screen upon each button press is the enrollment number, one remote MAY have multiple enrollment numbers based on the paired features

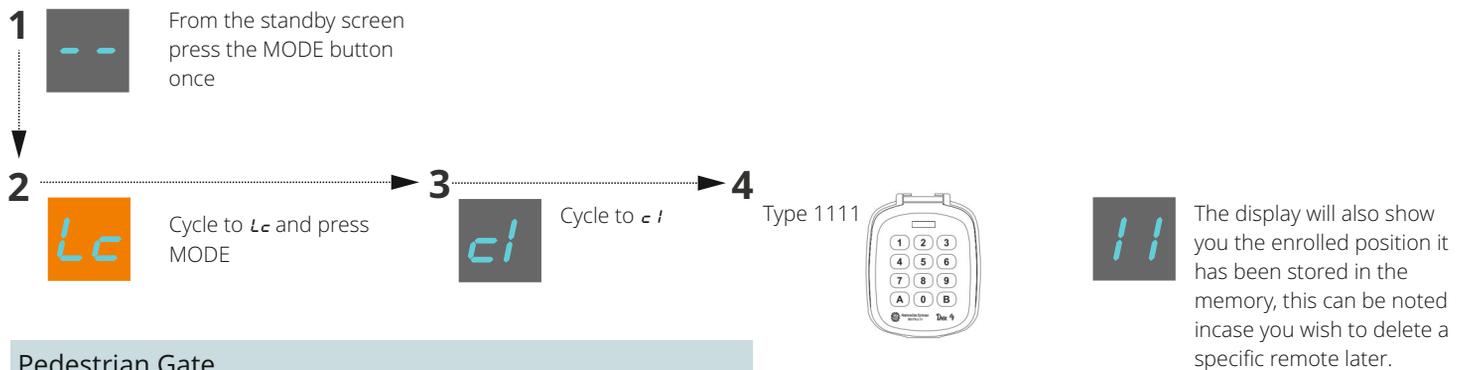


Wireless Keypad Learning

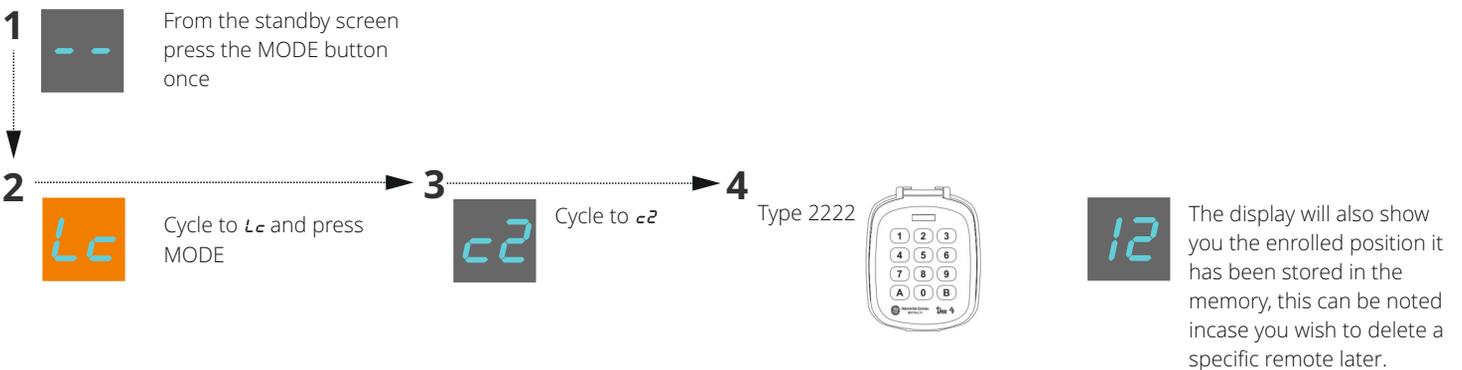
The easiest way to pair a keypad is to take it to the gate controller BEFORE installing onto the post or fence. The installation steps below detail the procedure using the default codes. It is suggested to change the codes AFTER completing the procedure and testing using the default code.

Default code 1111= Channel 1 of Keypad, Default code 2222= Channel 2 of Keypad

Operation Command Learning



Pedestrian Gate



Setting the Automatic Close Timer



99 Display example up to 99 Seconds

99. Display example GREATER than 99 Seconds and up to 199 Seconds

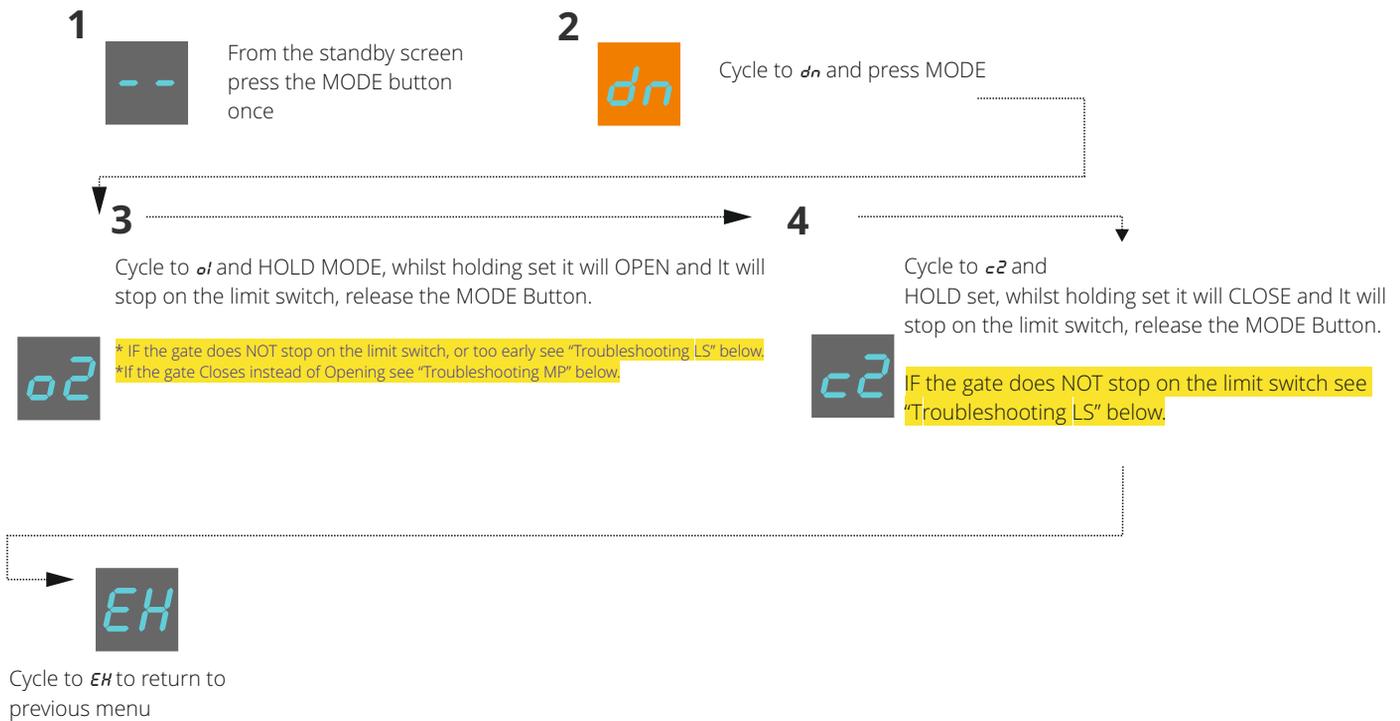
9.9. Display example GREATER than 199 Seconds and up to 299 Seconds

Motor Test Mode

The purpose of motor testing is to identify the correct operating procedure before the time travel calibration. The information that can be gained from the motor test is if the motors are wired:

- Correct polarity meaning they operate in the correct direction according to the control board.
- The limit switches have been correctly set for the OPEN and CLOSED position. This test can be repeated an unlimited amount til all is set correctly.

NOTE: Safety Inputs are disabled during this stage



Troubleshooting MP

If the gate(s) close whilst using the open feature this is easily resolved and must be rectified prior to moving forward.

- Return to Standby
- Go to the Advanced Menu
- go to *o2* Gate Direction Menu
- Select the appropriate Direction being *rh* for Right Hand Opening and *lh* for Left hand opening
- Restart the Motor testing procedure

Troubleshooting LS

If the gate(s) travel past the desired stop point OR stops too early the limit switch stiker is mis-configured and will need to be adjusted/set.

- Confirm which of the limit switch metal striker plates is not set correctly (open limit/close limit)
- Adjust /install the relevant limit switch striker.

Learn Time Calibration

The automatic learning procedure will teach the gate controller the operational times for the gate motors travel, this will allow for the correct calibration and introduce a slowdown at the appropriate position along with the relevant protection cut off time.

Please ensure that the system is set to the appropriate direction before proceeding (page 12).

Please ensure that the motors testing procedure has been completed successfully before following the below procedure (page 19).

NOTE: Safety Inputs are disabled during this stage

1  From the standby screen press the MODE button once

2  Cycle to *dn* and press MODE

3 

Cycle to *cl* and HOLD set, whilst holding set it will CLOSE the gate and it will stop on the limit switch, release the MODE Button

4 

Cycle to *EH* to return to previous menu

5 

Cycle to *Lt* for automatic learning and press MODE

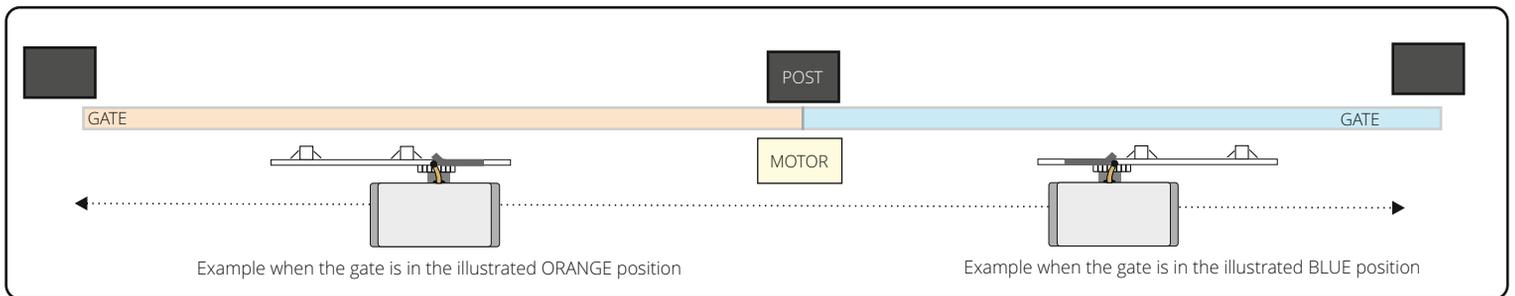
If during the *cl* stage the gate did not close completely return to the motor test page and see **Troubleshooting LS**

6 The gate will OPEN to the set open position at a fast speed and stop after engaging the open limit switch to the metal striker plate.

7 The gate will now CLOSE to the set closed position at a fast speed and stop after engaging the close limit switch to the metal striker plate.





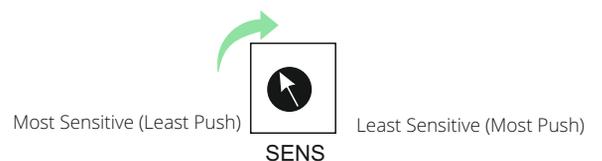


Troubleshooting OBS

If AFTER the Automatic learning stage *Lt* the gate did not completely open or completely close BUT was successful during the learning phase from earlier then adjust the obstruction SENS potentiometer clockwise SLIGHTLY and re-test.

THIS ADJUSTMENT IS NOT USED DURING THE LEARNING

Adjust in small increments only until function correctly, do not adjust in large increments



DUKIE and DUKIE+ Photocells

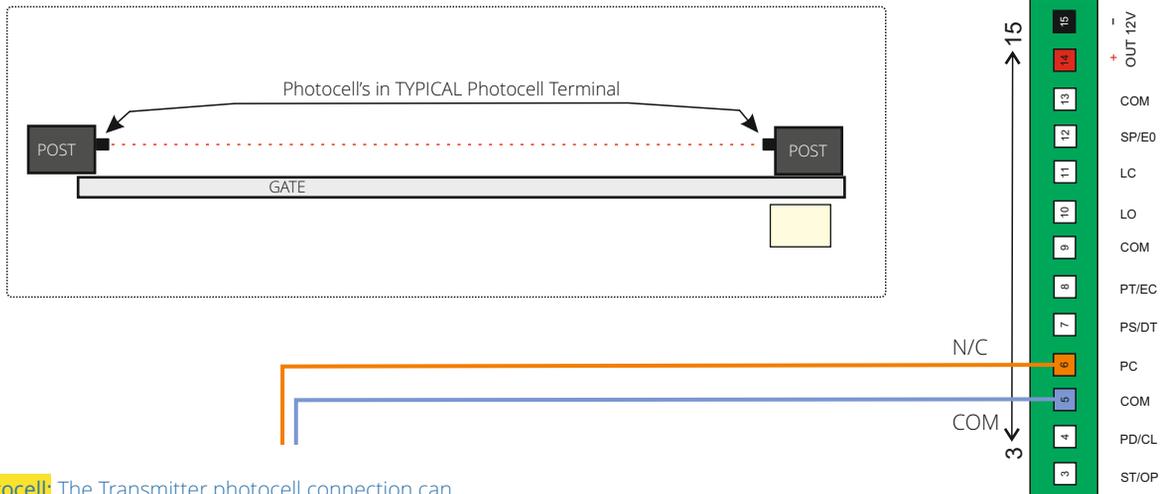
SEE NEXT PAGE ON SPECIAL DETECTOR AND PHOTOSTOP

Typical Photocell Arangement

Photocells are a necessity when automating, they provide an additional layer of safety by infrared beam across the driveway.

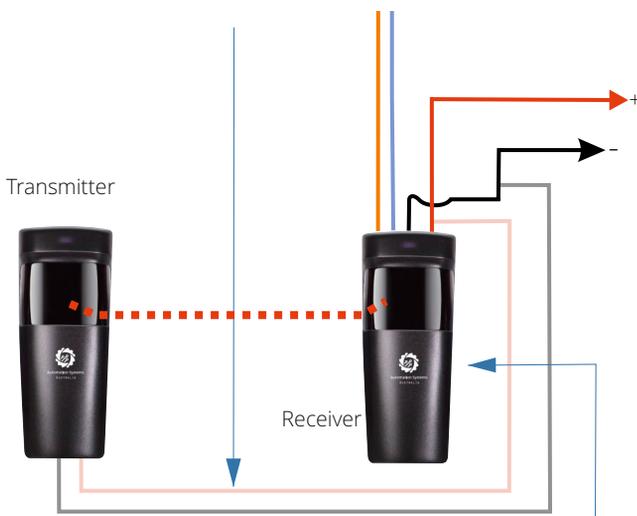
The photocell terminal is used as the primary photocell connection which will revert the gate back to open when an obstacle is detected during close. If an obstacle is present before a close command then it will prevent closure til the obstacle is clear.

In the case where the automatic closing timer is used then each time an obstacle passes through the photocell infrared beam the timer will restart.



DUKIE Photocell: The Transmitter photocell connection can occur at the receiver photocell HOWEVER it is preferred that it is wired directly to the control board

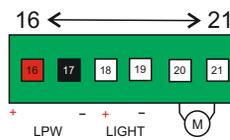
DUKIE+ Photocell: As the Transmitter photocell uses batteries it is a wireless device and does not require the additional cable to the transmitter. The receiver photocell however is still wired,



The receiver should be set for N/C (Normally Closed),

In the control boards configuration also set the photocell as N/C

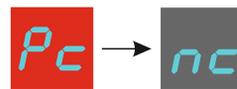
SOLAR SYSTEMS



Solar Terminal 16 LPW+
Solar Terminal 17 LPW-

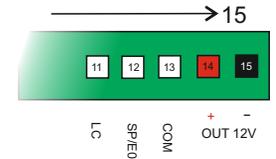


FOR SOLAR SYSTEMS USING LPW
Sets the controller into power saving (Checks when required)

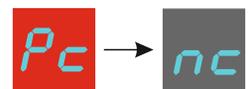


Sets the controller to accept NORMALLY CLOSED photocell OR NC PHOTOCELL CONNECTED

POWERED SYSTEMS



Powered Systems Terminal 14 OUT +
Powered Systems Terminal 15 OUT -



Sets the controller to accept NORMALLY CLOSED photocell OR NC PHOTOCELL CONNECTED

Troubleshooting PC

After powering the system the display will flash error **PC**

1. If a solar system (using LPW power output) set the controller **So** to **45**
2. For ALL systems ensure the setting of photocell **PC** is set to **nc**
3. Ensure the photocell receivers jumper is also set to NC

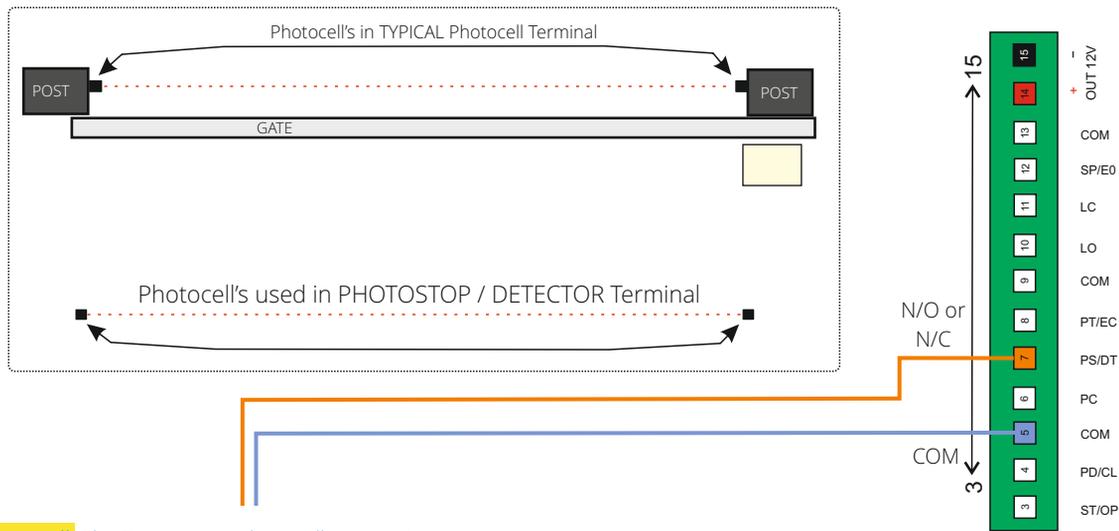


If all above is OK, then bad photocell alignment, wiring problem or there is an obstacle.

For solar systems temporarily use the OUT + terminal to power the photocell (ensure the LPW+ terminal is disconnected), then wave your hand in front of the RECEIVER photocell, you should hear a very low audibility click, this means the photocell is in alignment. No click means bad alignment, incorrect/bad wiring or no power at one or both each cells- check there LED indicators.

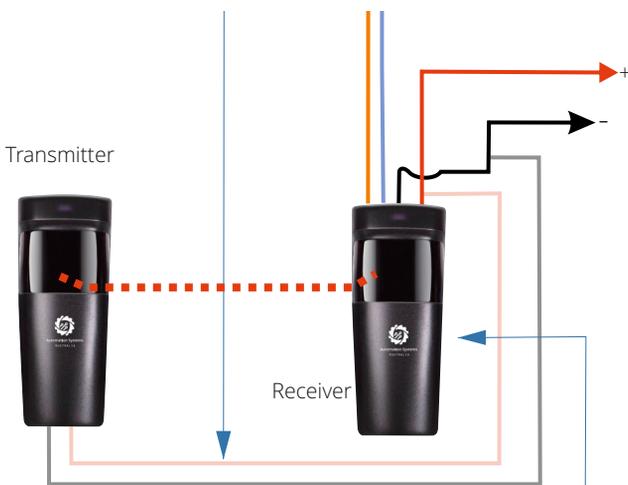
An additional set of photocells installed just past the gates open position. Ideal for scenarios requiring a command to close after the vehicle has passed through and used to signal the system that the gate has been used and is ready to close.

1. If detected whilst opening it will finish the opening then IMMEDIATELY close
2. Whilst closing it will re-open gate then IMMEDIATELY close the gate
3. Whilst open it will tell the gate to close (Detector)



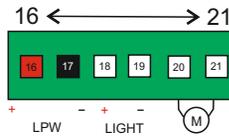
DUKIE Photocell: The Transmitter photocell connection can occur at the receiver photocell HOWEVER it is preferred that it is wired directly to the control board

DUKIE+ Photocell: As the Transmitter photocell uses batteries it is a wireless device and does not require the additional cable to the transmitter. The receiver photocell however is still wired,



The receiver must be set for either N/O (Normally Open) for detector mode or N/C (Normally Closed) for photostop mode

SOLAR SYSTEMS (Photostop ONLY)

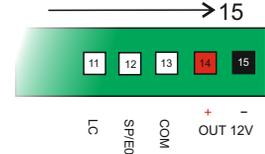


Solar Terminal 16 LPW+
Solar Terminal 17 LPW-



FOR SOLAR SYSTEMS USING LPW
Sets the controller into power saving (Checks when required)

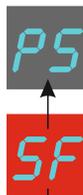
POWERED SYSTEMS (Photostop or Detector)



Powered Systems Terminal 14 OUT +
Powered Systems Terminal 15 OUT -

Photostop Mode (Normally Closed Circuit) Solar Compatible

- Similar to a typical photocell input but also incorporates the opening cycle.
1. During opening it will pause gate till clear
 2. During auto close it will restart the timer
 3. During close it will stop the gates and re-open
 4. Whilst closed it will inhibit the operation of opening until clear again



Detector Mode (Normally Open Circuit) OR NO SENSOR CONNECTED

- Used to signal the system that the gate has been used and is ready to close.
1. If detected whilst opening it will finish the opening then after two seconds close
 2. Whilst closing it will re-open gate then after two seconds close the gate
 3. Whilst open it will tell the gate to close

Troubleshooting PS/DT

After powering the system the display may flash error PS or dt



1. If a solar system, only photostop can be used (using LPW power output) set the controller 50 to 45
2. Ensure the photocell receiver's jumper is also set to the correct NO/NC Setting

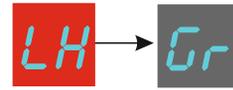
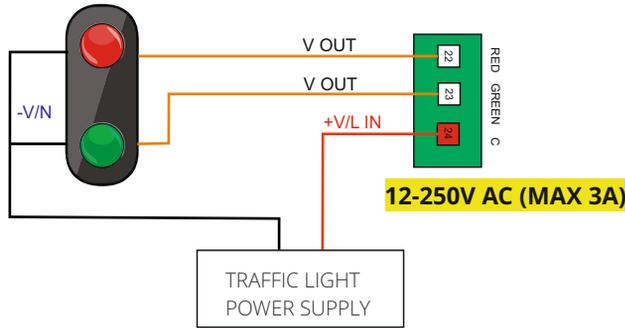


If all above is OK, then bad photocell alignment, wiring problem or there is an obstacle.

For solar systems temporarily use the OUT + terminal to power the photocell (ensure the LPW+ terminal is disconnected), then wave your hand in front of the RECEIVER photocell, you should hear a very low audibility click, this means the photocell is in alignment. No click means bad alignment, incorrect/bad wiring or no power at one or both each cells- check their LED indicators.

Traffic Light Control

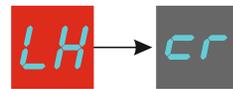
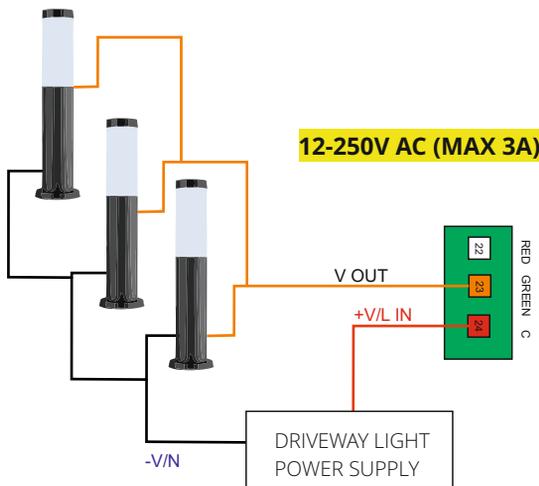
A traffic light can integrate directly into the system to alert the traffic when it is safe to pass through the gateway. When the gate has reached the open position, the green terminal will activate allowing for the green on the traffic light to illuminate. When OPENING, CLOSING or CLOSED the red terminal will activate allowing for the red on the traffic light to illuminate.



Set the system to Traffic Light Mode

Driveway Light Control

The system can manage the operation of driveway or yard lights when the gate system is operated for a set time and ALSO with the option to command the lights on by remote for the same set time. The maximum time per illumination cycle is 15 Minutes.



Set the system to Driveway Light Mode



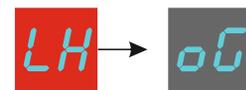
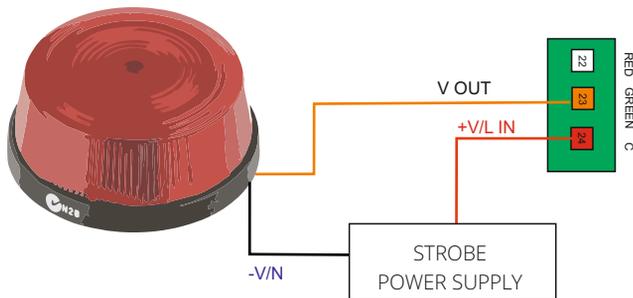
Set the illumination time which counts down from when the gate reaches the open position.

Set In multipliers of 10, eg. 01=10 Seconds, 60=600 Seconds

See remote programming if you wish to program a remote button to also command the lights on without operating the gate.

Alert Strobe Illumination

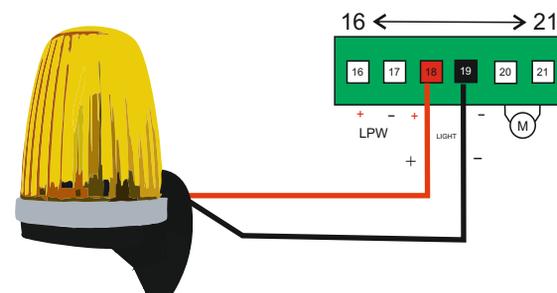
Alert Illumination allows power to a strobe AT ALL TIMES without a timeout except when the gate is not closed.



Set the system to Alert Strobe Mode

Warning Light Output

A typical 12V alert beacon to allow users to know the gate is in motion.



THIS IS NOT A DRIVEWAY LIGHT OUTPUT, Courtesy/Warning Lights Only

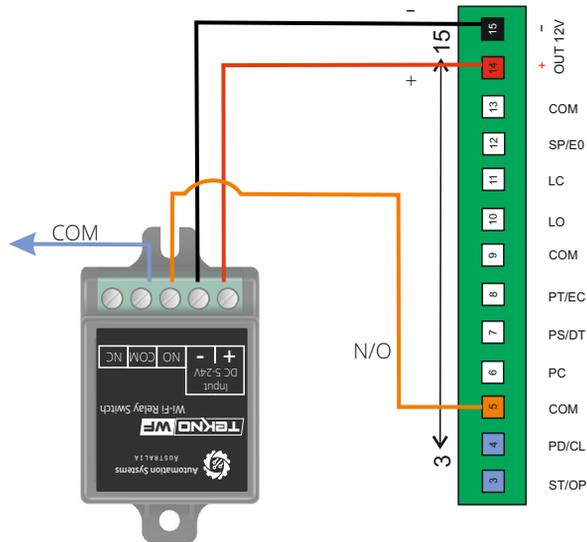
Tekno Wi-Fi APP Switch

The Tekno Wi-Fi App Switch integrates into the system allowing for operation by APP anywhere in the world, the Tekno module requires good 2.4GHZ connection to the Wi-Fi of the premises.

Using Logic Mode "Standard" or "Standard with Automatic Closing Timer"

For Full Gate operation connect to terminal 3 ST/OP

For Pedestrian Gate Operation connect to terminal 4 PD/CL

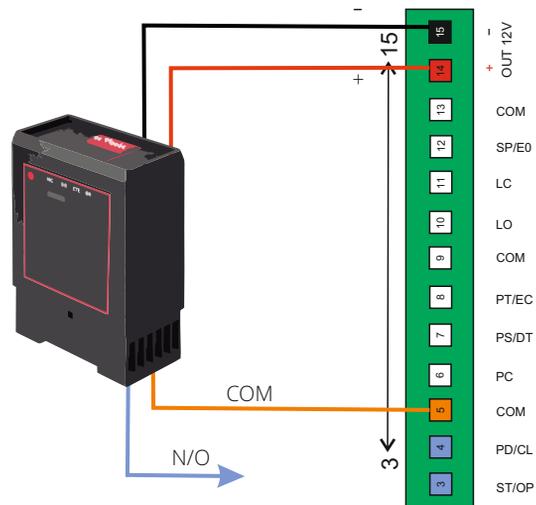


Loop Detector (12 Volt Version)

Typically for commercial and industrial use the loop detector can be used to command an OPEN or a CLOSE operation when detecting a vehicle.

Only Used with Logic Modes "Typical Complex", "Typical Complex with Automatic Closing Timer" or "Secure Complex"

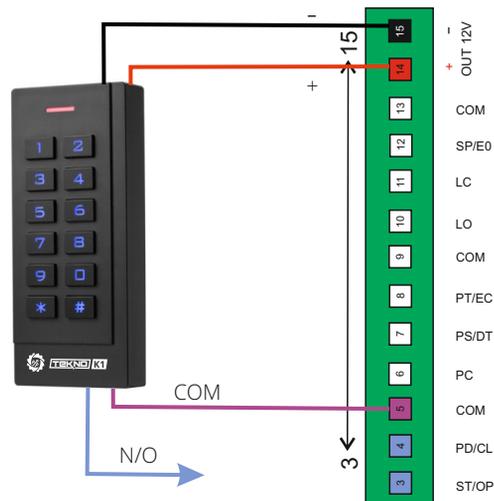
Operating Logic	Terminal 3 (ST/OP)	Terminal 4 (PD/CL)
oc	OPEN	CLOSE
oA	OPEN	CLOSE
cd	OPEN	



Tekno K1 Wired Keypad

A Tekno K1 wired keypad is typically (but not exclusively) used in a commercial or industrial environment as a wireless keypad can be used in a residential home. A wired keypad has little to no maintenance required as its power feed is supplied by the system through wiring.

Operating Logic	Terminal 3 (ST/OP)	Terminal 4 (PD/CL)
St At	OPEN/ STOP/ CLOSE	Ped. OPEN/ STOP/ CLOSE
oc	OPEN	CLOSE
oA	OPEN	CLOSE
cd	OPEN	



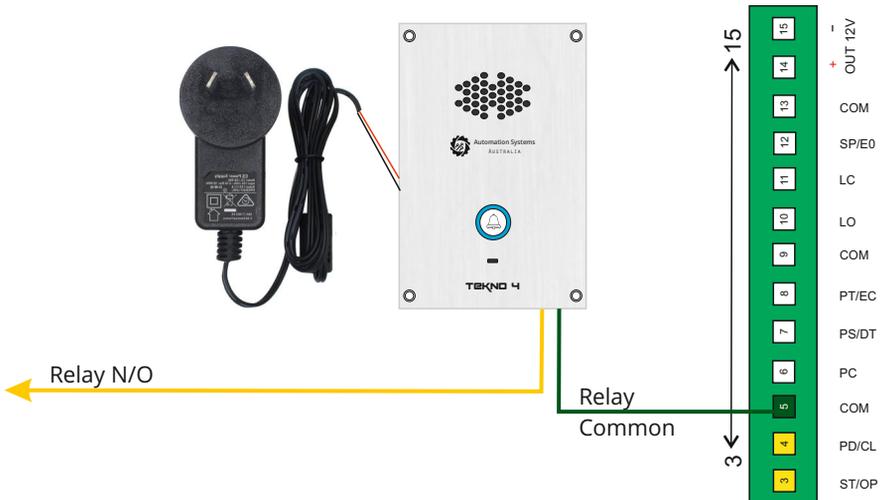
Tekno 4 GSM Intercom

The Tekno 4 GSM intercom allows totally wireless TWO WAY communication to any user, anywhere in the world using the mobile network. It allows for the automatic gate operation by pressing * during a call or by sending an SMS command at any time.

Using Logic Mode "Standard" or "Standard with Automatic Closing Timer"

For Full Gate operation connect to terminal 3 ST/OP

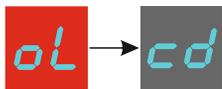
For Pedestrian Gate Operation connect to terminal 4 PD/CL



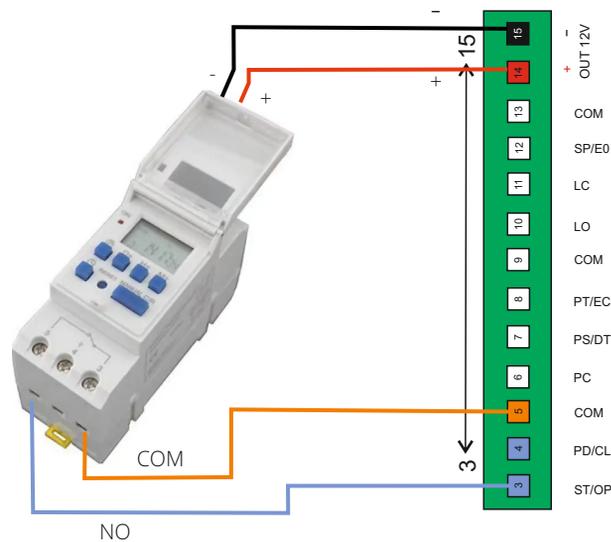
Digital Weekly Timer (12 Volt Version)

Typically for commercial and industrial the gate can be set to open at a certain time (and hold open), then close also at a set time. Multiple times can be programmed for all 7 days of the week selectively.

All other operations (outside of weekly time, eg. After Hours) by other access control devices such as a keypad will result in an automatic closing after the set control board automatic closing timer.



Only Used with Logic Mode "Secure Complex"



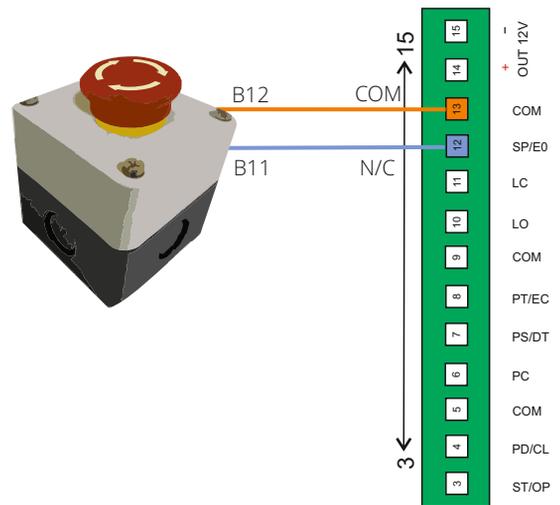
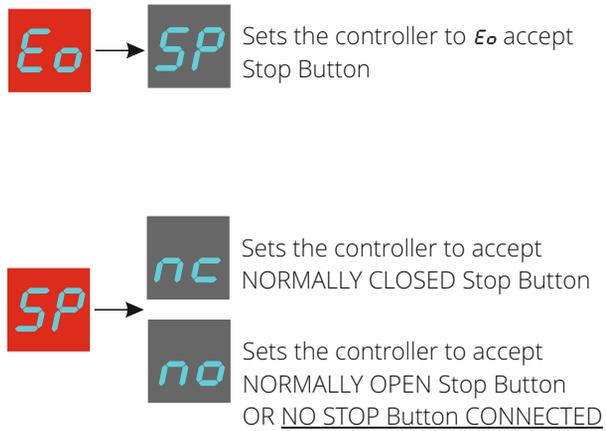
Push Button

Suitable for all applications a push button can be used to operate the gate simply by pressing the button.



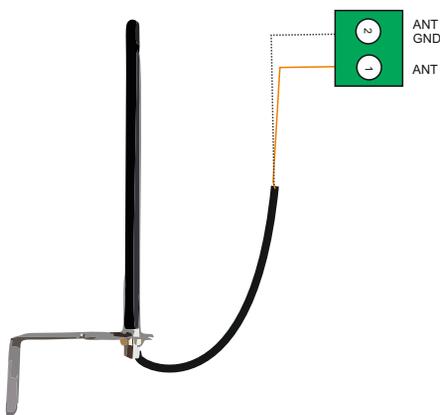
Emergency Stop Button

An emergency stop button is used typically if the system is in a manned operation such as a security office or gate house OR such applications where an internal door is automated.



Amplify Booster Antenna

The Amplify Booster Antenna will assist with remote signal in a case where the signal has been blocked by the fencing or the gate. The antenna should be installed as high as possible allowing it to be visually seen over the fence line.



Remote Enrollment number	Users Name/Employee ID	Feature
<i>01</i>		
<i>02</i>		
<i>03</i>		
<i>04</i>		
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<i>28</i>		

Warranty Terms and Conditions

The product is warranted for a period of twelve months (one year) from the date of purchase, unless expressly specified as extended warranty (extension to the warranty period). The product is to be installed for its intended purpose and for normal use as outlined within the installation manual, the product warranty is exclusively for defects in manufacturing and manufacturing workmanship. It does not cover out of guidelines use, natural or other disasters, abnormal weather conditions, damage incurred in shipping or handling, damage caused by disaster such as fire, flood, wind, earthquake, lightning, excessive voltage, mechanical shock, water damage, damage caused by unauthorized attachment, alterations, modifications, or foreign objects, damage caused by peripherals (unless such peripherals were supplied by Automation Systems Australia), defects caused by failure to provide a suitable installation environment for the products, damage caused by usage of the products for purpose other than those for which it was designed, damage from improper maintenance, damage arising out of any other abuse, mishandling, and improper application of the products.

At its discretion Automation Systems Australia will require the item determined by the support staff to be returned to base in its original unmodified condition for a warranty inspection if within the warranty period. A return authorization "RA" number will be provided to be enclosed with the product in question. The warranty will not cover freight fees to base, customs fees or any labour costs at the installation site but will cover repair or replacement of the product as seen fit. Automation Systems Australia will cover the freight of the returned item to the original address if deemed as a warranty repair or replacement item. Any warranty repairs or replacements continue to carry through the remaining warranty period and do not extend or restart the period.

Under no circumstances shall Automation Systems Australia be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose). And of all other obligations or purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

Automation Systems Australia will at its option repair or replace out-of-warranty products at a determined cost which are returned to its base according to the following conditions. Anyone returning goods to Automation Systems Australia must first obtain an authorization number. Automation Systems Australia will not accept any shipment whatsoever for which prior authorization has not been obtained. Products which Automation Systems Australia determines to be repairable will be repaired and returned. A set fee which Automation Systems Australia has been predetermined and which may be revised from time to time will be charged for each unit repaired. Products which Automation Systems Australia determines not repairable will be replaced by the nearest equivalent product available at that time. The current market price for the replacement product will be charged for each replacement unit.