Automation Systems®

AUSTRALIA

TiTAN 2410

with SL24T Advanced Digital Sliding Gate Controller

Tuya Smart Compatible

EASY

Step by Step Simple Installation Guide on Page 2

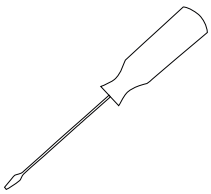
Photocell must be used to assist accident prevention. Not installing photocells is a safety risk.

Control Board Designed & Engineered In Italy

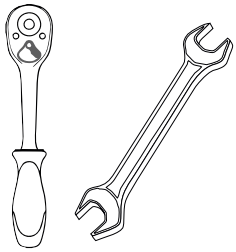
REV 2

Table of Contents

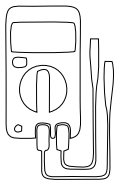
Typical Tools Required



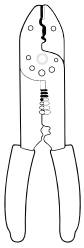
2/2.5mm Flat Head for Terminal Connections



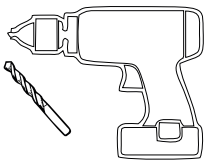
Socket & Spanner Sets



Multi Meter (not essential)



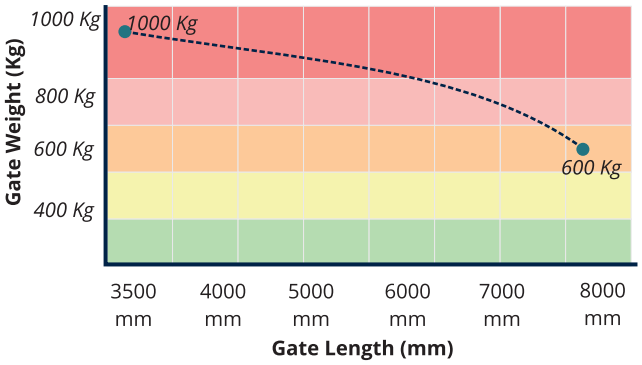
Wire Stripper



Drill and Drill Bits Masonry and Metal

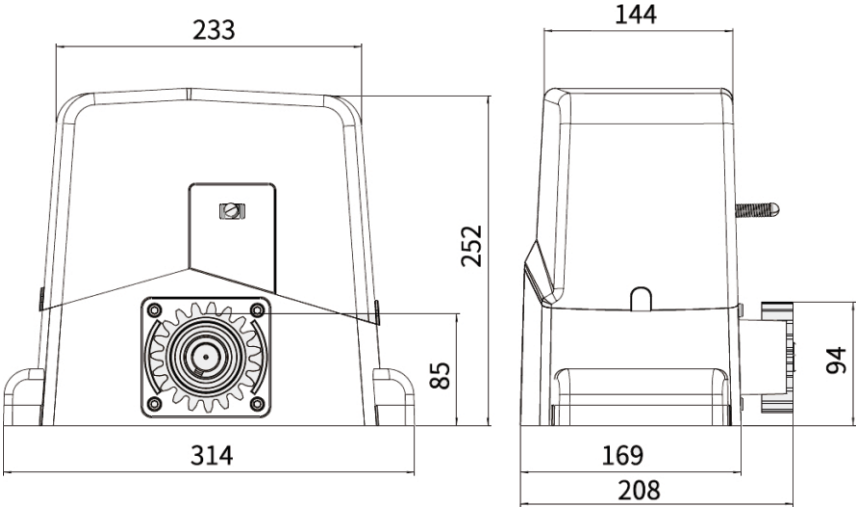
Specifications

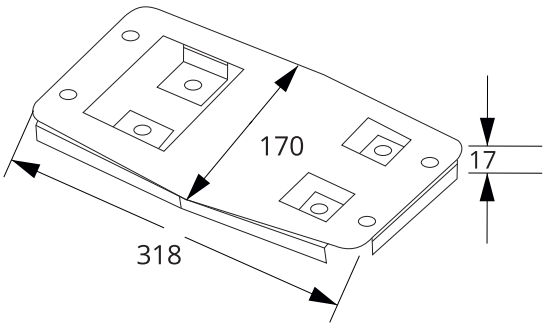
Operating Voltage	24V DC
Standby Consumption	~40mA
Battery Backup	Yes (Optional)
Speed	22-36 CM/S
Motor Limit	N/C Micro Switch
Torque	27 NM
Duty Cycle	40%
Warning Light Output	24VDC 1A MAX
Accesories Power	12V DC (250mA)
Safety Inputs	Photocell, Detector, Safety Edge
Operation Temprature	-10°C to +60°C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

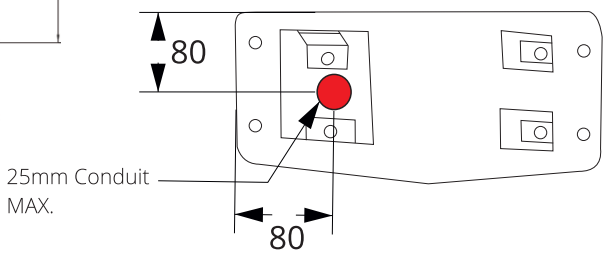


*Tested ratings are level gate installations and does not take into account inclined installations

Dimensions







Step by Step Installation Guide

Install gate motor, rack and limit strikers

Electric System Path

Connect in WIRED accesories
See accessories pages or there specific manuals

Solar System Path

Turn on the Power Point

Connect Solar System
PAGE. 7

Connect Battery Backup (if applicable)
PAGE. 8

Turn ON the load output on the solar regulator
PAGE. 7

Set the gate operating Direction
PAGE. 12

Pair remotes and wireless keypads
PAGE. 15

Run the motor Test
PAGE. 18

Set the correct direction by following the troubleshooting
PAGE. 18

Automatic Learning Cycle
PAGE. 19

Test system using a remote

Adjust DECEL, TIME and OBSTF
PAGE.9

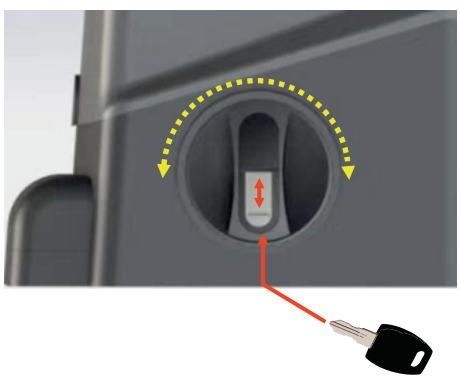
Set the automatic closing timer (if required)
PAGE. 17

Configure applicable safety devices, Photocell type, special detector and STOP
PAGE. 20/PAGE. 21

Test Safety Devices

TROUBLESHOOTING
PAGE. 20/PAGE. 21

Manual Release



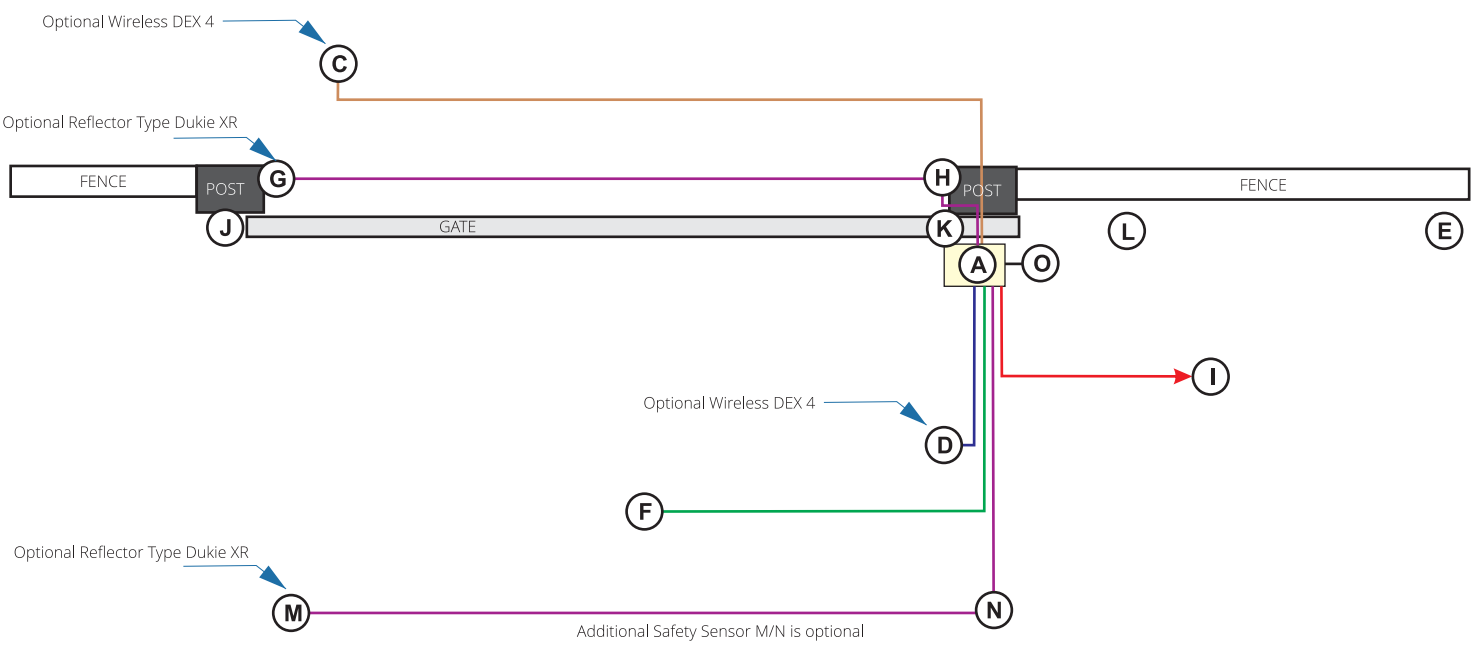
To manually release (disengage clutch):
1. Slide the key cover UP
2. Insert the key (fits only one way into the cylinder) and turn the key clockwise.
3. Turn the lever one full turn clockwise (360°)

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	Accesory	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/E Loop	Housed inside gate controller with 1 core cable for the driveway loop. E Loop: E trans Housed inside controller. Wireless to E Loop
G	Photocell Transmitter	No cable required for Dukie XR (Reflector) or Battery TX, Dukie X 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 Battery System 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 XR (Reflector) or battery TX, Dukie X 2 core Cable to gate controller
N	ADDITIONAL Photocell Receiver	Optional Additional Safety Device, 4 Core cable to gate controller
O	Warning 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).

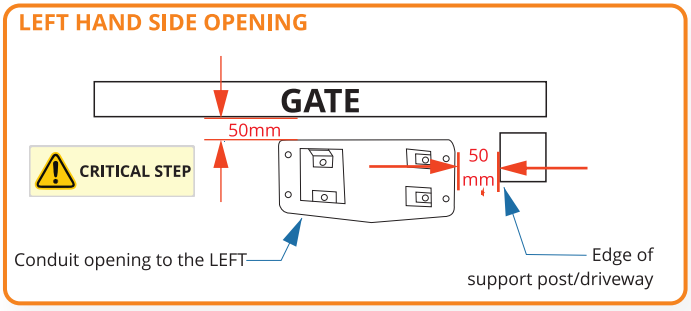
Step 2

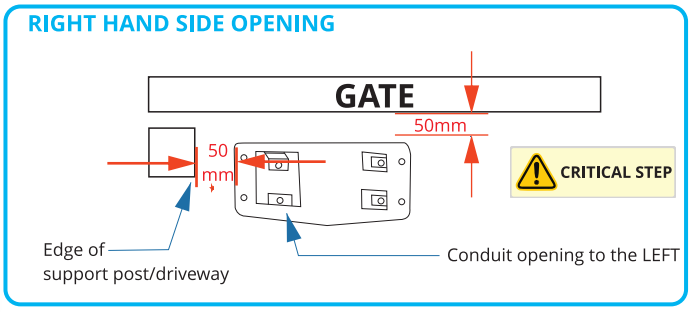
CRITICAL STEP

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 50mm from the support post/edge of the driveway.

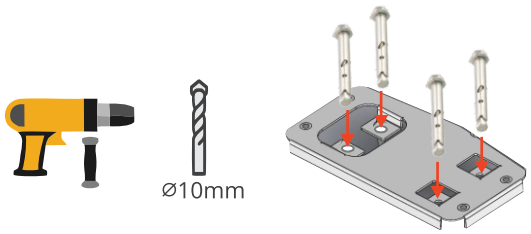
The base plate is positioned 50mm away from the backside of the gate to achieve the correct base distance for the limit switch spring and gear rack alignment. The motor distance can be fine tuned when installing to the base plate.





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.



Step 4

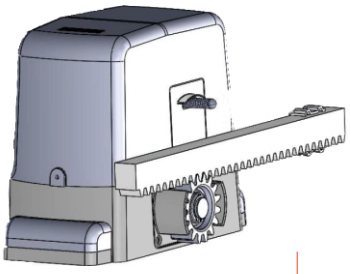
Install the gate motor to the metal base plate, ensure the front of the plate (side facing the gate) is flush with the front of the gate motor.

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.

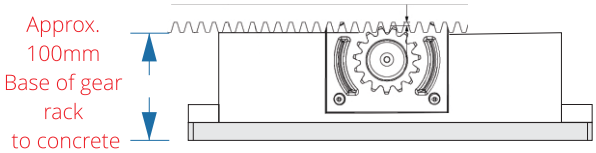
Screw in the first piece of gear rack in place using self drilling metal screws in the CENTRE of the elongated hole.



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.



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

CRITICAL STEP

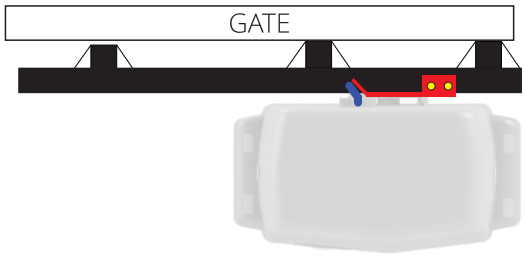
Install the TWO bolts to each striker plate.

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

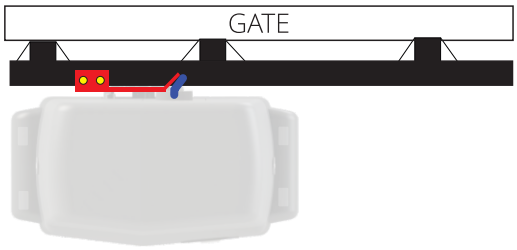
Install the striker plate to the gear rack THE SPRING SHOULD BE BENT to 45°, the striker plate CLAMPS to the gear rack and does not require any holes to be drilled.

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 to the left and has engaged the spring to a 45° bend



Gate has travelled to the right and has engaged the spring to a 45° bend

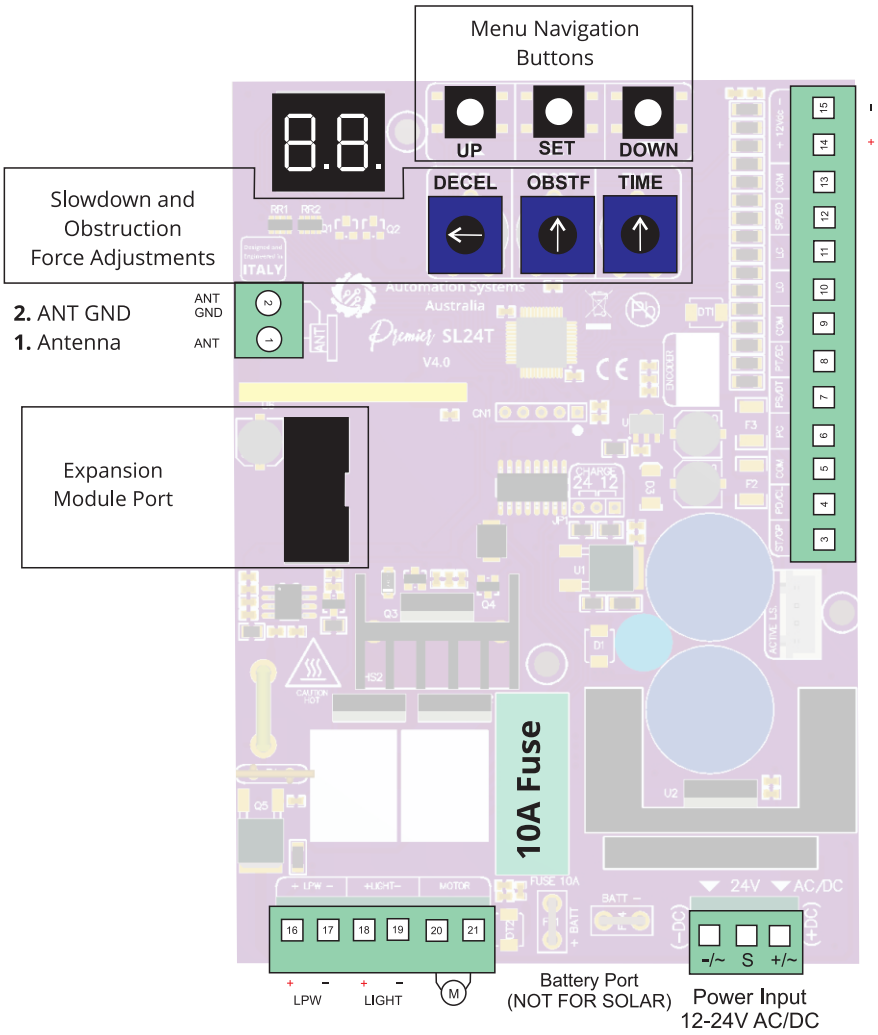
Step 8

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 (pg18) followed by learn time calibration (pg19)

Controller Layout



16. **LPW +** (Photocell Power in Solar Mode)
17. **LPW -** (Photocell Power in Solar Mode)
18. Light Output + (Not Regulated)
19. Light Output -

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/Low input Power (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 At
Pd	Pedestrian Input Active	Operating Logic St At
oP	Open Input Active	Operating Logic oc oA cd
cL	Close Input Active	Operating Logic oc oA cd

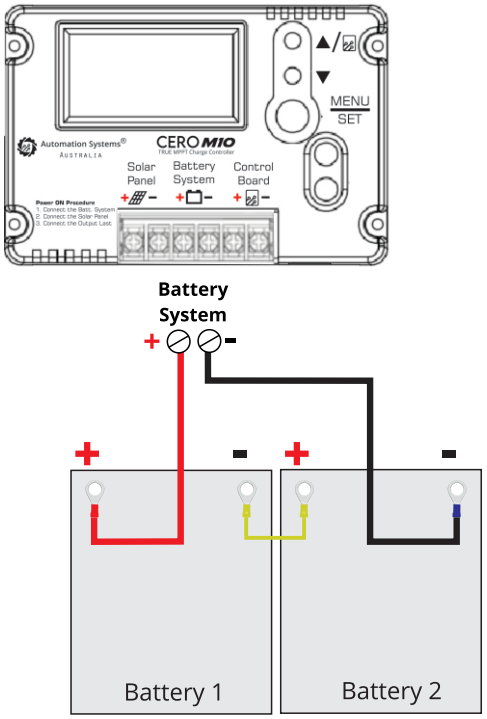
CERO/CERO M10 Standalone Solar System Connection

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 alternatives are wireless keypads (use there own batteries).

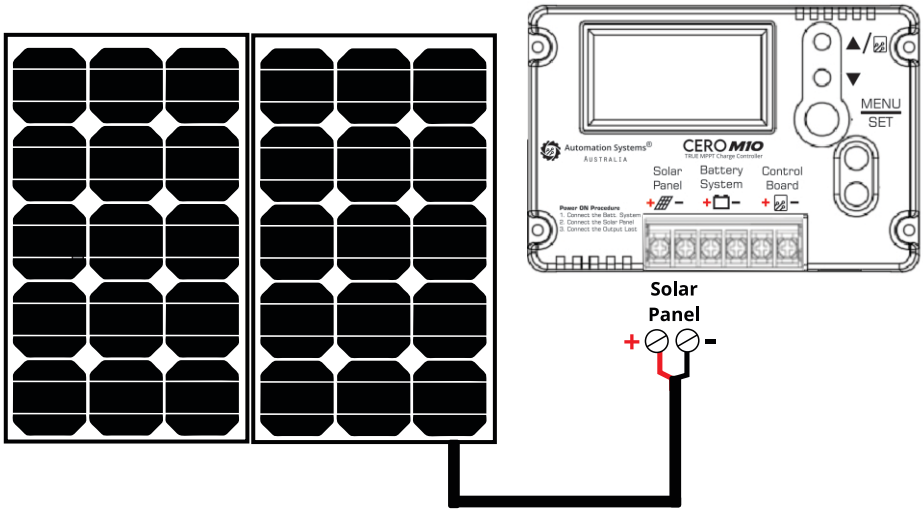
ALWAYS Connect the Solar Panel AFTER the batteries
to ensure the system can Auto-Detect the voltage configuration.

Batteries Connections

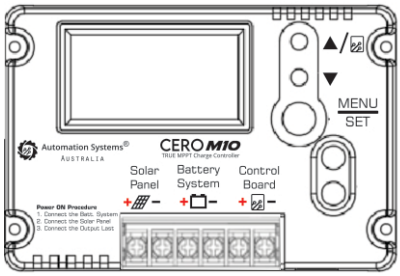
Step 1: Connect the Batteries First



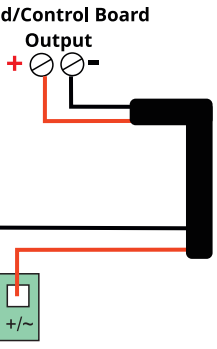
Step 2: Connect the Solar Panel Second



Step 3: Connect the Load/Control board Output Last



CERO M10 "▲" Turns ON/OFF the Output
CERO "SET" button Turns ON/OFF the Output

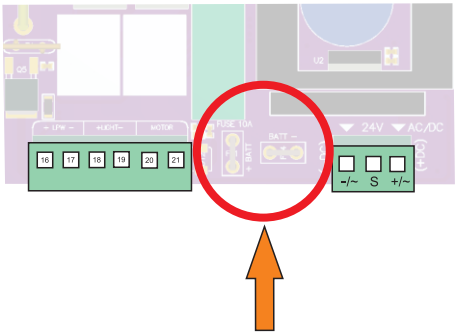


Charge controller output is OFF and terminal block is unplugged for wiring works.

INPUT Terminal
Positive on RIGHT SIDE (+)
Negative on LEFT SIDE (-)

Battery Backup Connection

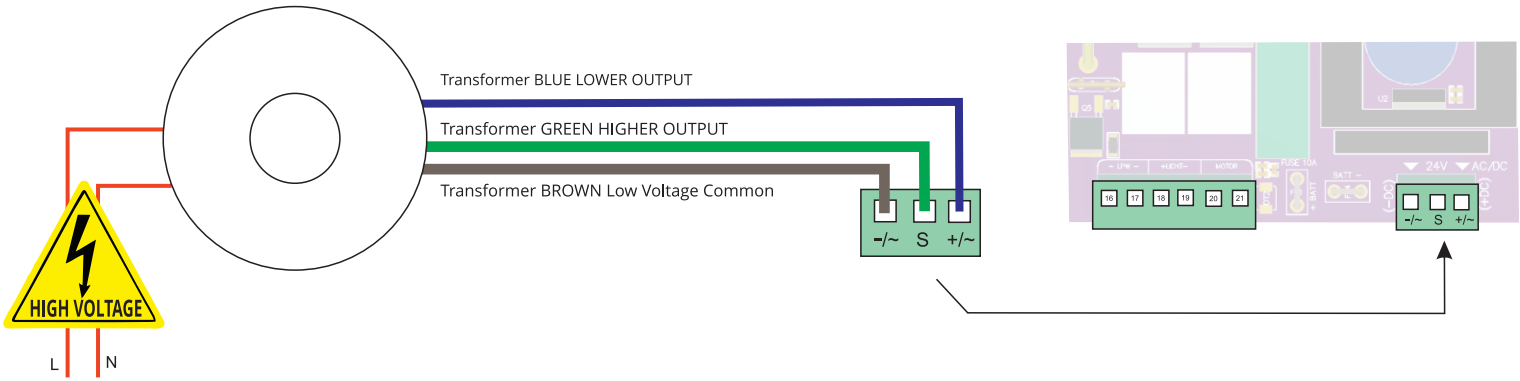
The battery backup will allow for uninterrupted usage in case of a power disruption. The battery backup system can operate the gate for a period of 4-6 hours during the power disruption. Once the power is restored the system will automatically recharge the battery system ready for the next use.



To connect the battery backup simply plug the two pin connector in the correct orientation into the battery port on the controller whilst the board is powered by mains.

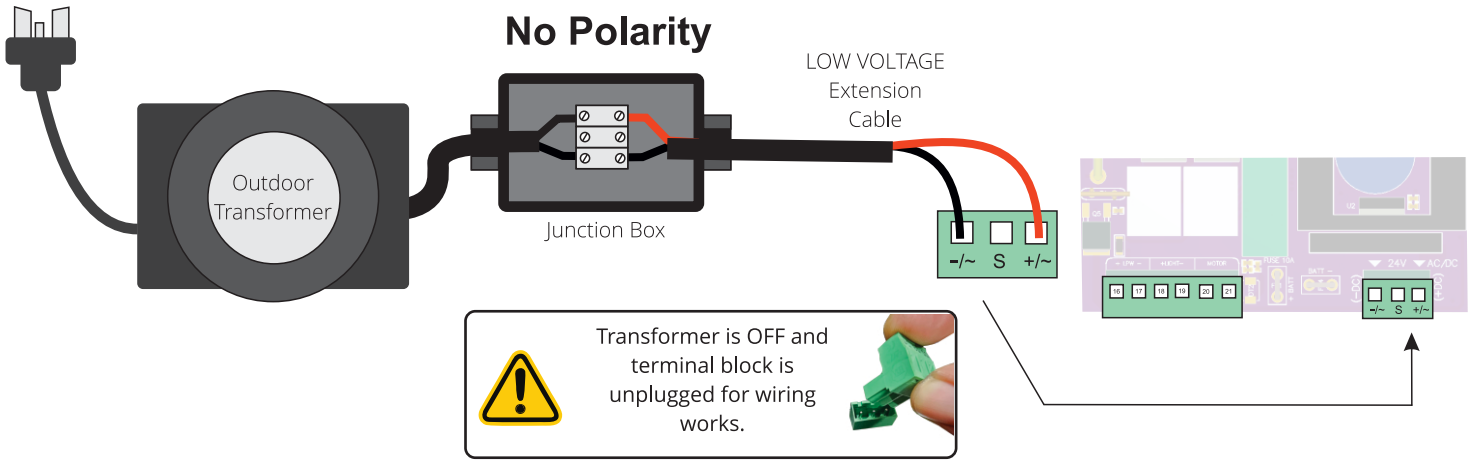
Multi Output Toroidal Transformer (Internal)

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 (white wire) which is typically suggested for most gate installs however incase required due to environmental forces it would be suggested to swap the lower output (green wire) for the higher output (yellow wire).



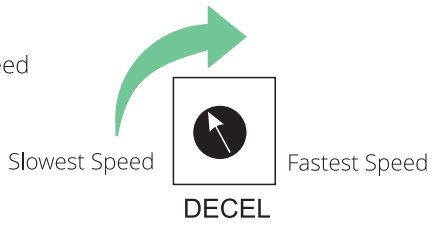
Outdoor Low Voltage Weatherproof Transformer (OT-24)

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 100 metres.



"DECEL" Slow Speed/De-acceleration Adjustment

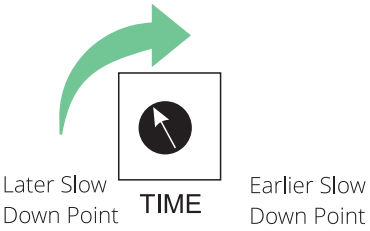
The "DECEL" Trim pot is the slow speed trimmer allowing a fine tuning of the SLOW Speed portion of the operating cycle, Typically adjustment range is 20% to 50% from the slowest speed (minimum) depending on gate size, weight and inertia.



"TIME" Slow Down Position Adjustment

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.

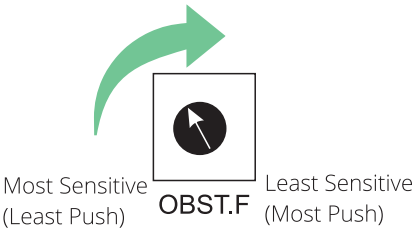
A TOO early position may cause difficulties in overcoming resistance points within the sliding movement of the gate and also creates a slower operating cycle time which may be undesirable.



"OBST.F" Obstuction/Overcurrent Adjustment

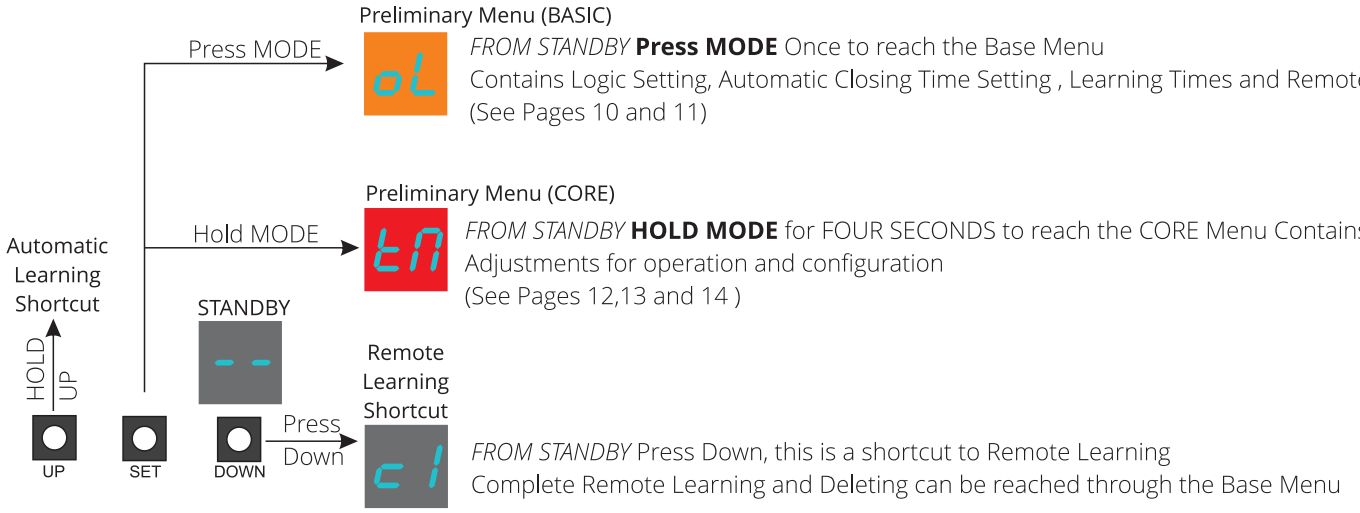
The "OBST.F" Trim pot is the pressure sensing adjustment before the controller recognises cut-off. Gate and Environmental factors will determine how high or low to adjust based on gate weight and the required power to operate the motor.

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.

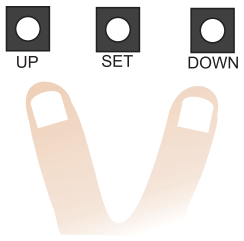


FROM STANDBY **Press MODE** Once to reach the Base Menu
Contains Logic Setting, Automatic Closing Time Setting , Learning Times and Remote Learning
(See Pages 10 and 11)

FROM STANDBY **HOLD MODE** for FOUR SECONDS to reach the CORE Menu Contains Primary Adjustments for operation and configuration
(See Pages 12,13 and 14)

FROM STANDBY Press Down, this is a shortcut to Remote Learning
Complete Remote Learning and Deleting can be reached through the Base Menu

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.

Basic Menu

oL Setting the system Operating Logic (Default Standard)

- **St** Standard
  Operates OPEN/CLOSE by remote and/or wired-wireless accessories
- **At** 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
- **oc** 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
- **oA** 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
- **cd** 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)	oL	c1	c2	c4
OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE	St At	OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE	Stop/Cancel Automatic Closing Timer
OPEN	CLOSE	oc	OPEN	CLOSE	Stop
OPEN	CLOSE	oA	OPEN	CLOSE	Stop/Cancel Automatic Closing Timer
OPEN	N/A	cd	OPEN	N/A	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, 16 & 17,

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

Lt Learn Working Times → Starts the learning procedure

SP Automatic Closing Time (Default 10 seconds)

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

FS Fast Speed Level (Default 07)
Re-Calibration after each change required → **07**
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 gate manually)

- **oP** Opens the gate
  Hold MODE to Operate
- **cL** Closes the gate
  Hold MODE to Operate

EX Exit the menu

Core Menu

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

Full Operation Working Time of Motor

Pedestrian Working Time

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 PHOTOCELL 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

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

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

Light Output Mode

Flashing illumination ON/OFF during the cycle

Static illumination during the cycle

Factory Default the Settings

Restore to Factory Default (Wireless memory is not affected)

Cancel without change

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

One Button Mode for Open-Stop Close and Another Button for Pedestrian Open-Stop-Close STRONGLY RECOMENDED

Four Button Layout

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

Check photocell/photostop Inputs before beginning and during the cycles. N/C Logics Only

Check photocell/Photostop Inputs at all times including standby. N/C and N/O Logics

Mobile APP Privileges (Module TSL1 Required)

User can only operate gate and check status
.

User has 00 Functions along with ability to change operating logics and change automatic closing time.

Remote Learning

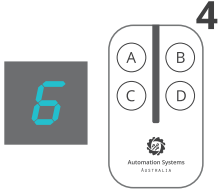
C1 Command Learning

1. From the standby screen press the SET button once
2. Cycle to Lc and press SET
3. Cycle to c1
4. Press the button you wish to use on the remote or wireless button.

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

C2 Command Learning

1. From the standby screen press the SET button once
2. Cycle to Lc and press SET
3. Cycle to c2
4. Press the button you wish to use on the remote or wireless button.



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

Operating Logic

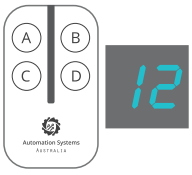
Residential

Commercial & Industrial

Lc	Remote Channels	
	c1	c2
Residential	OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE
Commercial & Industrial	OPEN	CLOSE
	OPEN	N/A

C4 Remote STOP command Learning

1. From the standby screen press the MODE button once
2. Cycle to Lc and press MODE
3. Cycle to c4
4. Press the button you wish to use on the remote



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

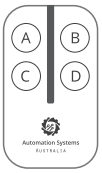
Delete by remote button

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 or the wireless button.



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 YS and press MODE to confirm deleting all remotes and wireless keypads/buttons
OR
Cycle to nt to cancel

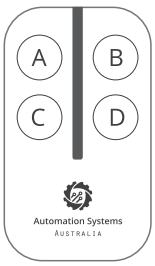
Remote Usage

A Operate this Gate Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)

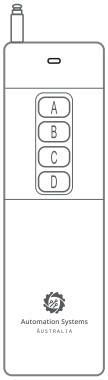
B Operate Pedestrian Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)

C Operate a garage door, etc.

D Operate another Gate Open - Stop - Close
(also stops the automatic closing timer if pressed during the countdown)



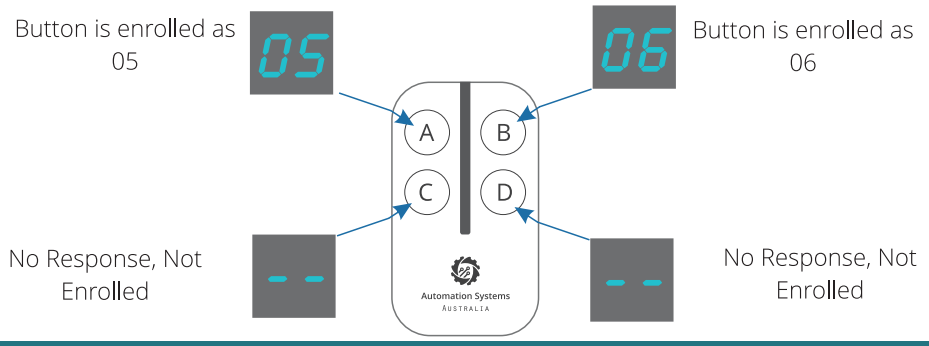
STX4K
Maximum Clear Line of Sight 100 Metres Operating Distance



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 easist 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

1 - From the standby screen press the MODE button once

2 - Cycle to Lc and press MODE

3 - Cycle to c1

4 - Type 1111

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

Pedestrian Gate

1 - From the standby screen press the MODE button once

2 - Cycle to Lc and press MODE

3 - Cycle to c2

4 - Type 2222

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

Setting the Automatic Close Timer

1 - From the standby screen press the MODE button once

2 - Cycle to oL and press MODE

3 - For residential homes select At

For apartments, complexes, industrial see Operating Logic Options Page 10

4 - To set the time cycle to SP

0!= Immediate Close
2-299= Delayed automatic Closing Time by the set value in Seconds
DEFAULT IS 10 Seconds

5 - EH once complete cycle to EH to return to standby

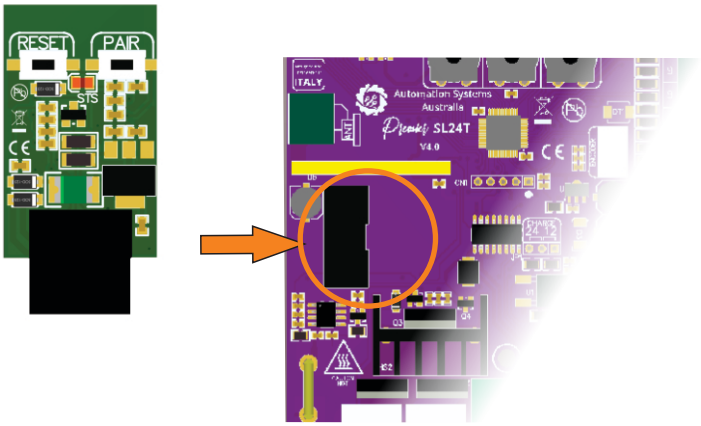
99 - Display example up to 99 Seconds

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

Optional TSL1 Mobile APP Expansion Module

Ensure the system is powered OFF before connecting in the TSL1 Mobile APP Module, reference the TSL1 APP module manual for Wi-Fi connection and mobile app usage.



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:
a) Correct polarity meaning they operate in the correct direction according to the control board.
b)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

1

From the standby screen press the MODE button once

2

Cycle to dn and press MODE

3

Cycle to oI and HOLD MODE, whilst holding set it will OPEN and It will stop on the limit switch, release the MODE Button.

* IF the gate does NOT stop on the limit switch, or too early see "Troubleshooting LS" below.
*If the gate Closes instead of Opening see "Troubleshooting MP" below.

4

Cycle to c2 and HOLD set, whilst holding set it will CLOSE and It will stop on the limit switch, release the MODE Button.

IF the gate does NOT stop on the limit switch see "Troubleshooting LS" below.

Cycle to EH to return to previous menu

Troubleshooting MP
If the gate(s) close whilst using the open feature this is easily resolved and must be rectified prior to moving forward.
1. Return to Standby
2. Go to the Advanced Menu
3. go to Gd Gate Direction Menu
4. Select the appropriate Direction being rh for Right Hand Opening and LH for Left hand opening
5. 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.
1. Confirm which of the limit switch metal striker plates is not set correctly (open limit/close limit)
2. 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 c1 and HOLD set, whilst holding set it will CLOSE the gate and It will stop on the limit switch, release the MODE Button

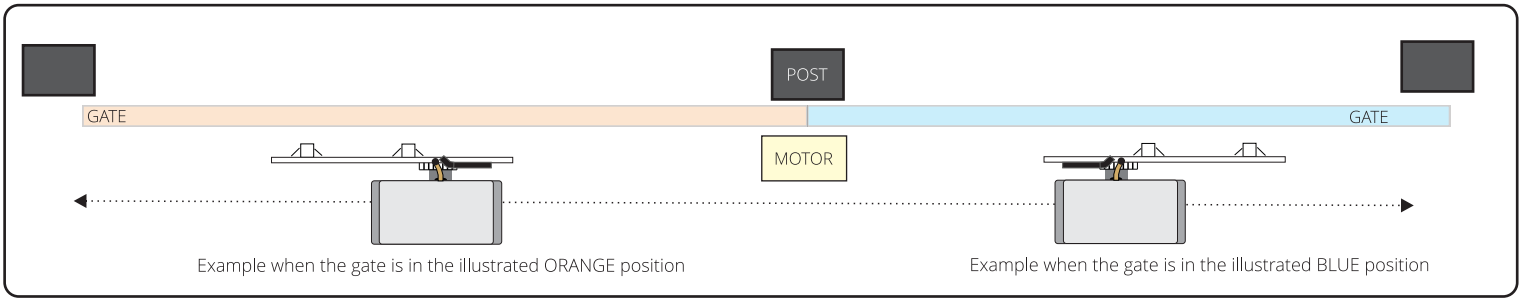
If during the c1 stage the gate did not close completely return to the motor test page and see **Troubleshooting LS**.

4 Cycle to EH to return to previous menu

5 Cycle to LE for automatic learning and press MODE

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.

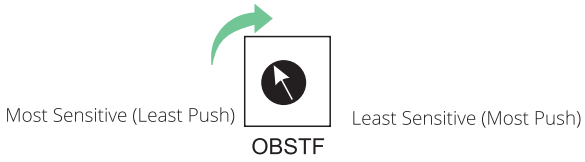
7 The gate will now CLOSE to the set closed position at a fast speed and stop after engaging the close limit switch to the metal striker plate.



Troubleshooting OBSTF

If AFTER the Automatic learning stage LE the gate did not completely open or completely close BUT was successful during the learning phase from earlier then adjust the obstruction OBSTF 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



Photocells

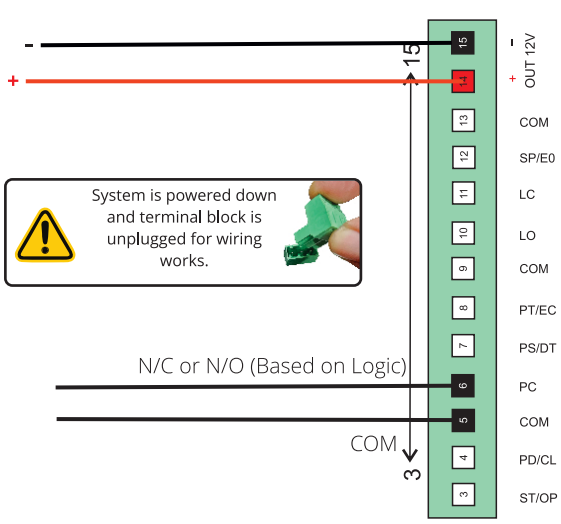
SEE NEXT PAGE ON SPECIAL DETECTOR AND PHOTOSTOP

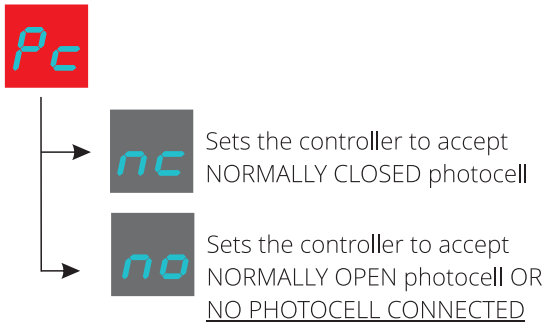
Photocells / Reflective Sensors are a necessity when automating, they provide an additional layer of safety by infrared beam across the driveway.

The photocell terminal is used as the primary sensor 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.

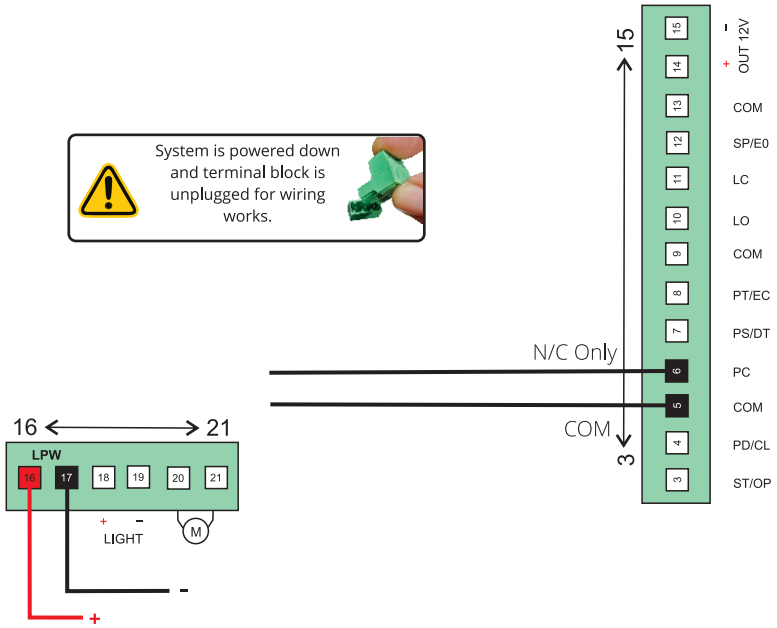
In the case where the automatic closing timer is used then each time an obstacle passes through the photocell infrared beam the timer will restart.

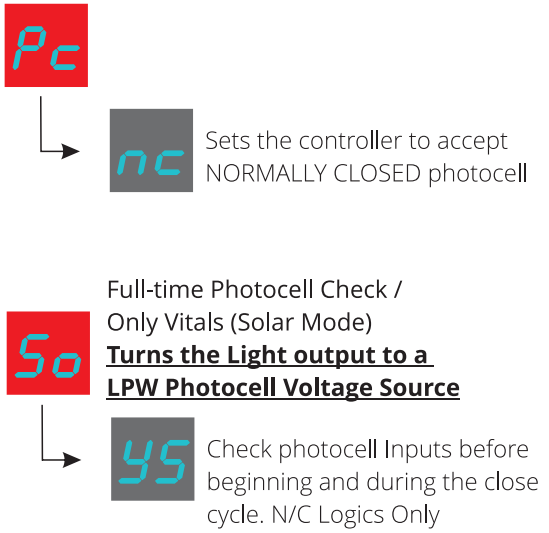
Powered Systems





Solar System (Must use NC Logic)





Troubleshooting PC

If after powering the system on you receive the error Pc displayed it means one of the following:

1. Bad photocell alignment or there is an obstacle, 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.
2. Wired/set for wrong relay on photocell, if totally covering the photocell the error disappears on the display It means the wiring/selection jumper on the RECEIVER photocell is incorrect OR the incorrect setting within the photocell menu has been chosen.
3. If a solar system (using LPW power output) set the controller So to Ys

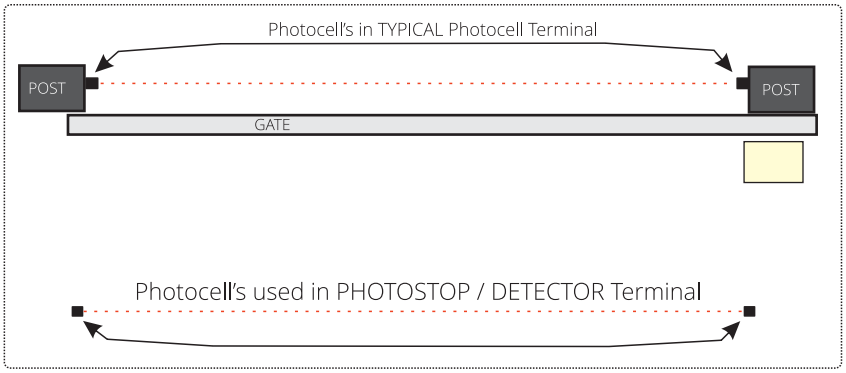
If all above is OK, then bad photocell alignment, wiring problem or there is an obstacle.
For solar systems temporarily use the OUT + terminal to power the photocell (ensure the LPW+ terminal is disconnected), then wave your hand in front of the RECEIVER photocell, you should hear a very low audibility 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.

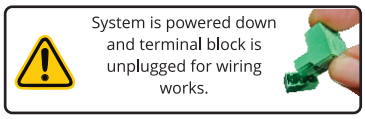
Special Detector Mode / Photostop

SEE PREVIOUS PAGE ON TYPICAL PHOTOCELL CONNECTION

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.

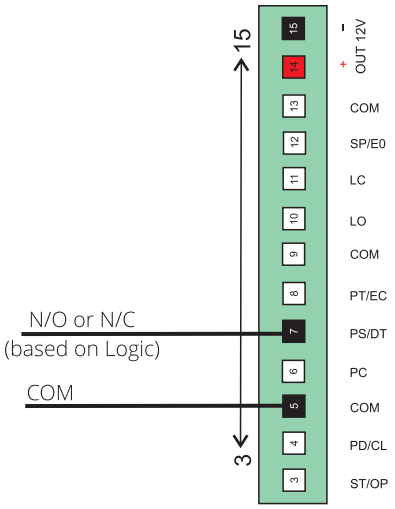
1. If detected whilst opening it will finish the opening then IMMEDIATELY close
2. Whilst closing it will re-open gate then IMMEDIATELY close the gate
3. Whilst open it will tell the gate to close (Detector)





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



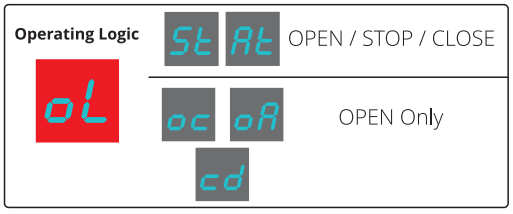
Troubleshooting PS/DT

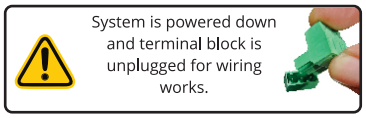
After powering the system the display may flash error PS or dt
1. If a solar system, only photostop can be used (using LPW power output) set the controller So to Ys
2. Ensure the photocell receivers jumper is also set to the correct NO/NC Setting

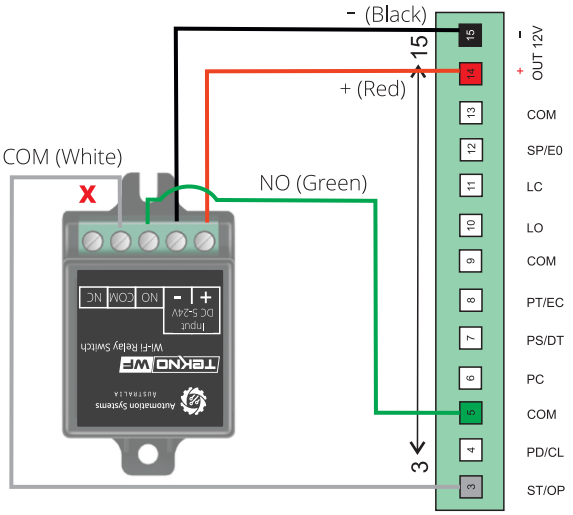
If all above is OK, then bad photocell alignment, wiring problem or there is an obstacle.
For solar systems temporarily use the OUT + terminal to power the photocell (ensure the LPW+ terminal is disconnected), then wave your hand in front of the RECEIVER photocell, you should hear a very low audibility 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 there LED indicators.

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.

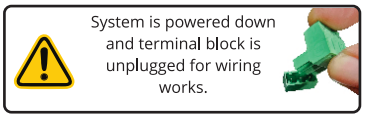


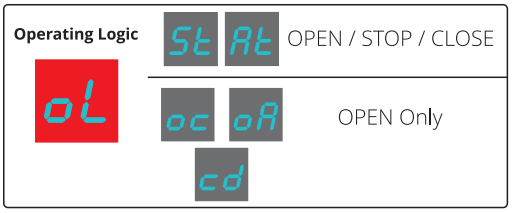


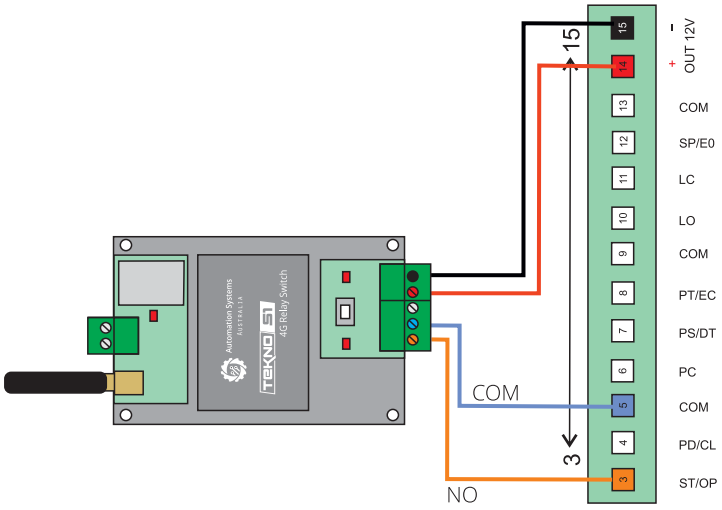


4G Module (Tekno S1)

The Tekno S1 uses a sim card to allow authorized users to operate the gate by a phone call from anywhere in the world.



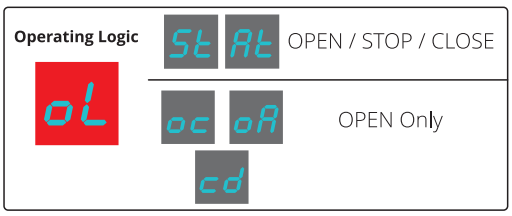


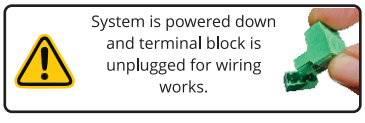


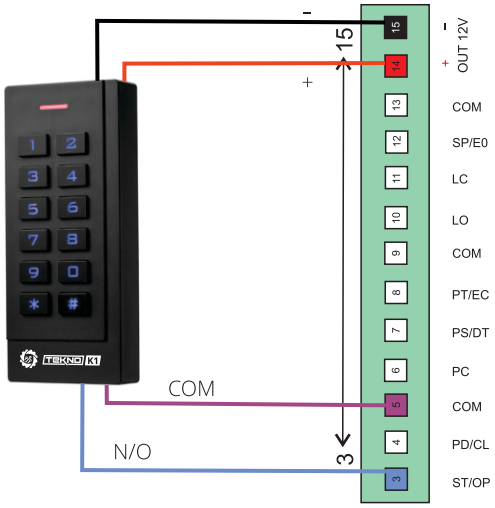
Tekno K1 Wired Keypad

NOT SUITABLE FOR SOLAR

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.







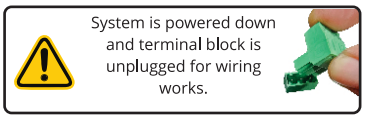
E Loop (WDT)

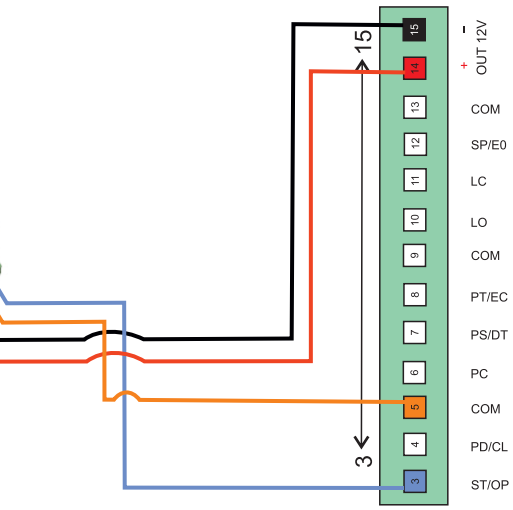
A wireless vehicle detector installed in commercial driveways or longer residential driveways to toggle the automatic opening of the gate.

Operating Logic

OPEN Only

Only Used with Logic Mode " Secure Complex"





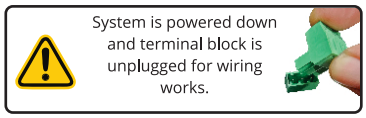
Loop Detector (12 Volt Version)

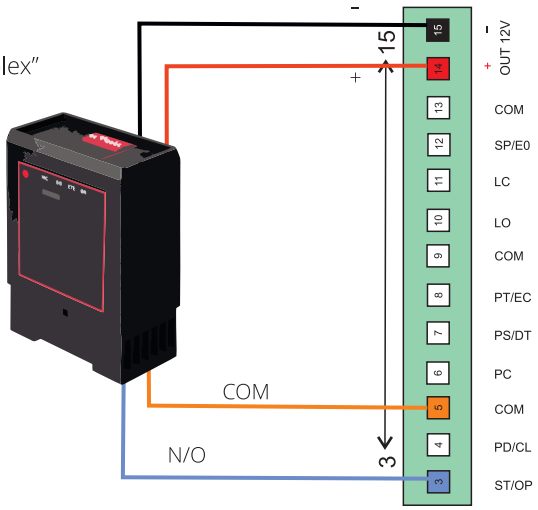
Typically for commercial and industrial use the loop detector can be used to command an OPEN or a CLOSE operation when detecting a vehicle.

Operating Logic

OPEN Only

Only Used with Logic Mode " Secure Complex"





Digital Weekly Timer (12 Volt Version)

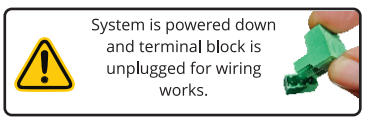
Typically for commercial and industrial the gate an be set to open at a certain time (and hold open), then close also at a set time. Multiple times can be programmed for all 7 days of the week selectively.

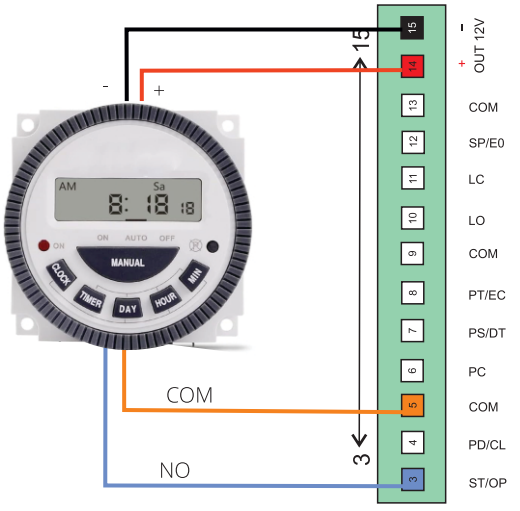
All other operations (outside of weekly time, eg. After Hours) by other access control devices such as a keypad will result in an automatic closing after the set control board automatic closing timer.

Operating Logic

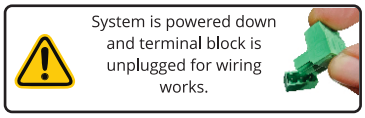
OPEN Only

Only Used with Logic Mode " Secure Complex"



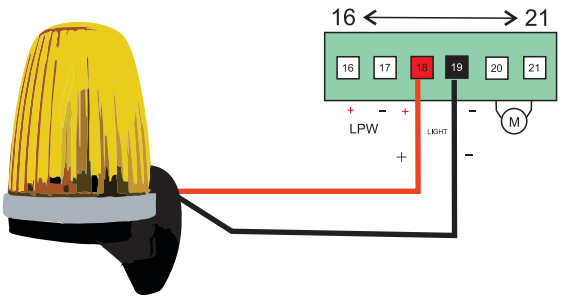


Warning Light Output (24V)



bL → YS Flashing illumination ON/OFF during the cycle

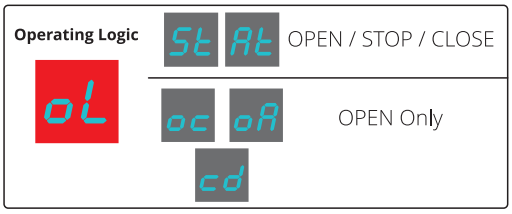
nt Static illumination during the cycle

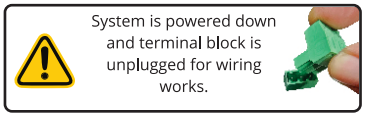


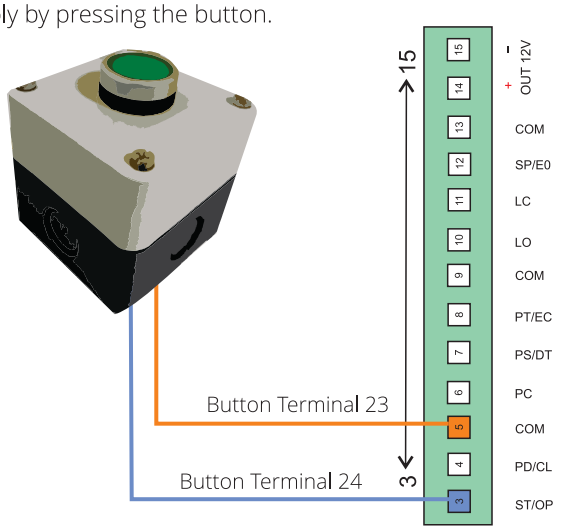
THIS IS NOT A DRIVEWAY LIGHT OUTPUT, Courtesy/Warning Lights Only

Push Button (WPB-PRESS/WPB-MHEAD)

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







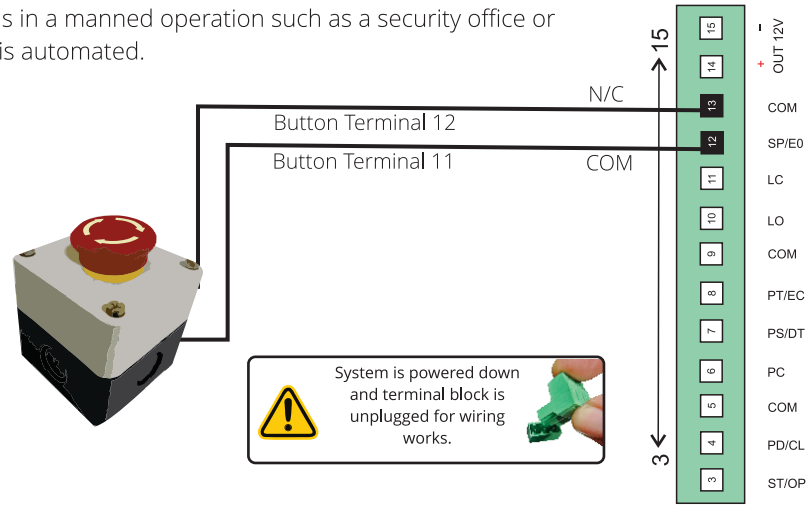
Emergency Stop Button (WPB-STOP)

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.

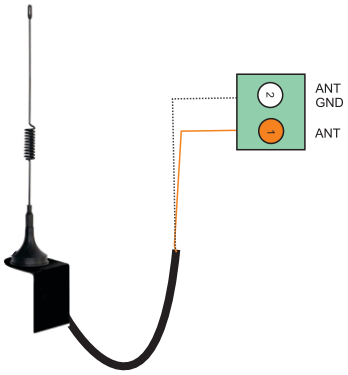
Eo → SP Sets the controller to Eo accept Stop Button

SP → nc Sets the controller to accept NORMALLY CLOSED Stop Button

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



ANT-5DB Antenna



The 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
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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 is discretion Automation Systems Australia will require the item determined by the support staff to be returned to base in it 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.