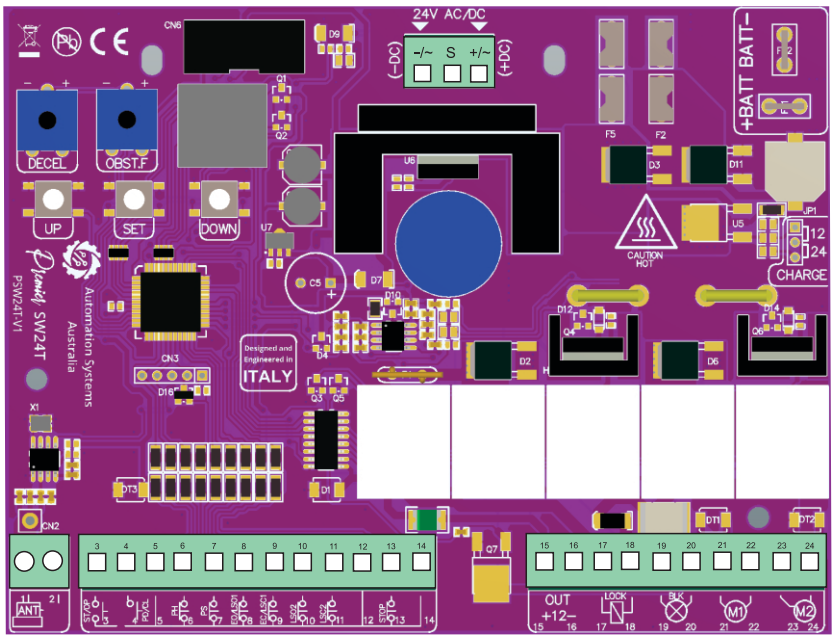
Automation Systems®

AUSTRALIA

Premier SW24T

Advanced Digital Swing Gate Controller



Designed & Engineered

In Italy

Tuya Smart Compatible

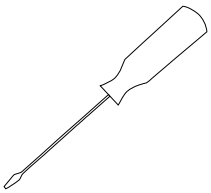
EASY

Step by Step Simple Installation Guide on Page 2

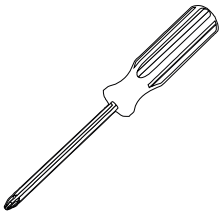
Photocell must be used to assist accident prevention. Not installing photocells is a safety risk.

Table of Contents

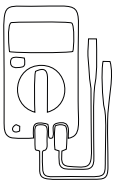
Tools Required



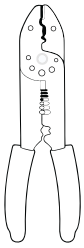
2/2.5mm Flat Head for Terminal Connections



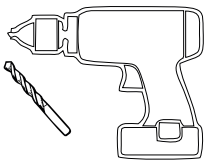
#1 Phillips Head or Bit (130mm length min.) Fixing to wall/post



Multi Meter (not essential)



Wire Stripper

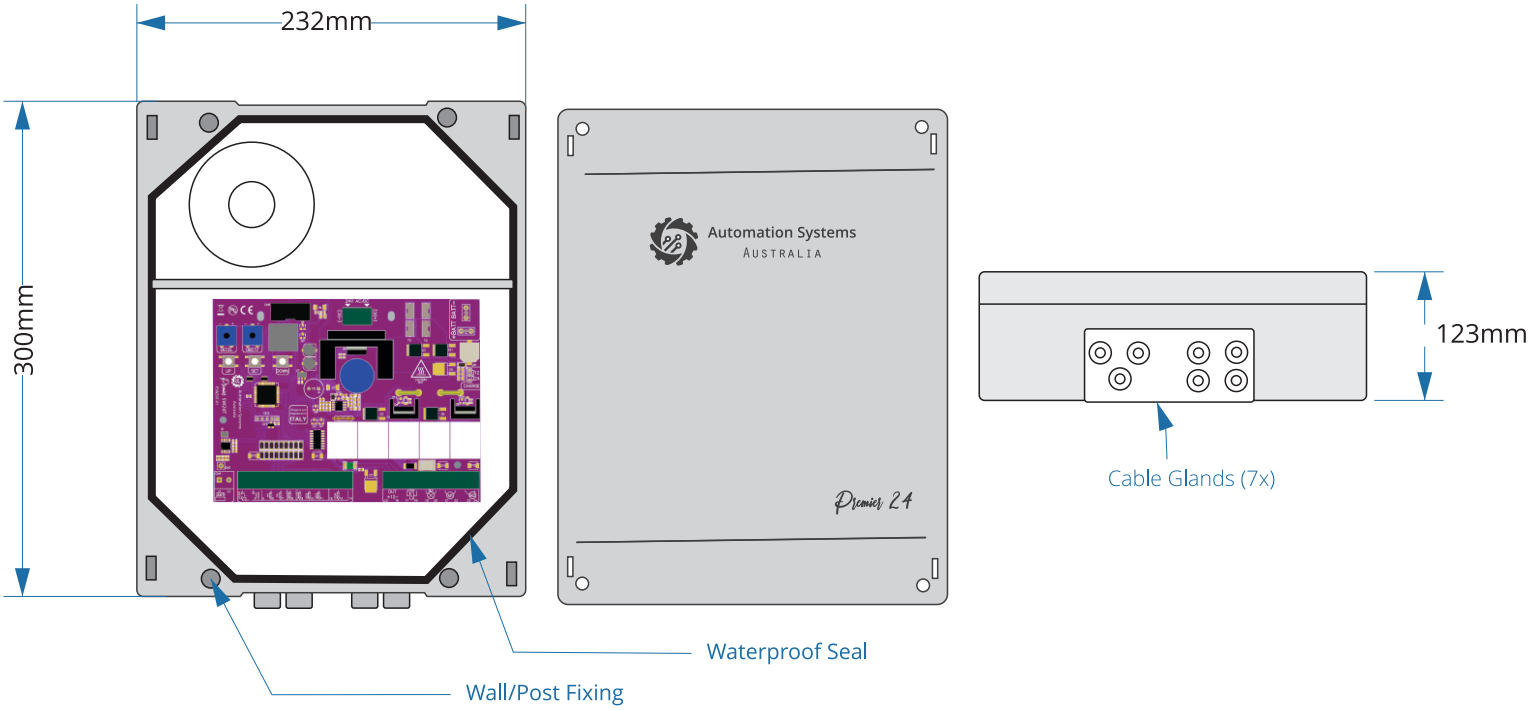


Drill and Drill Bits

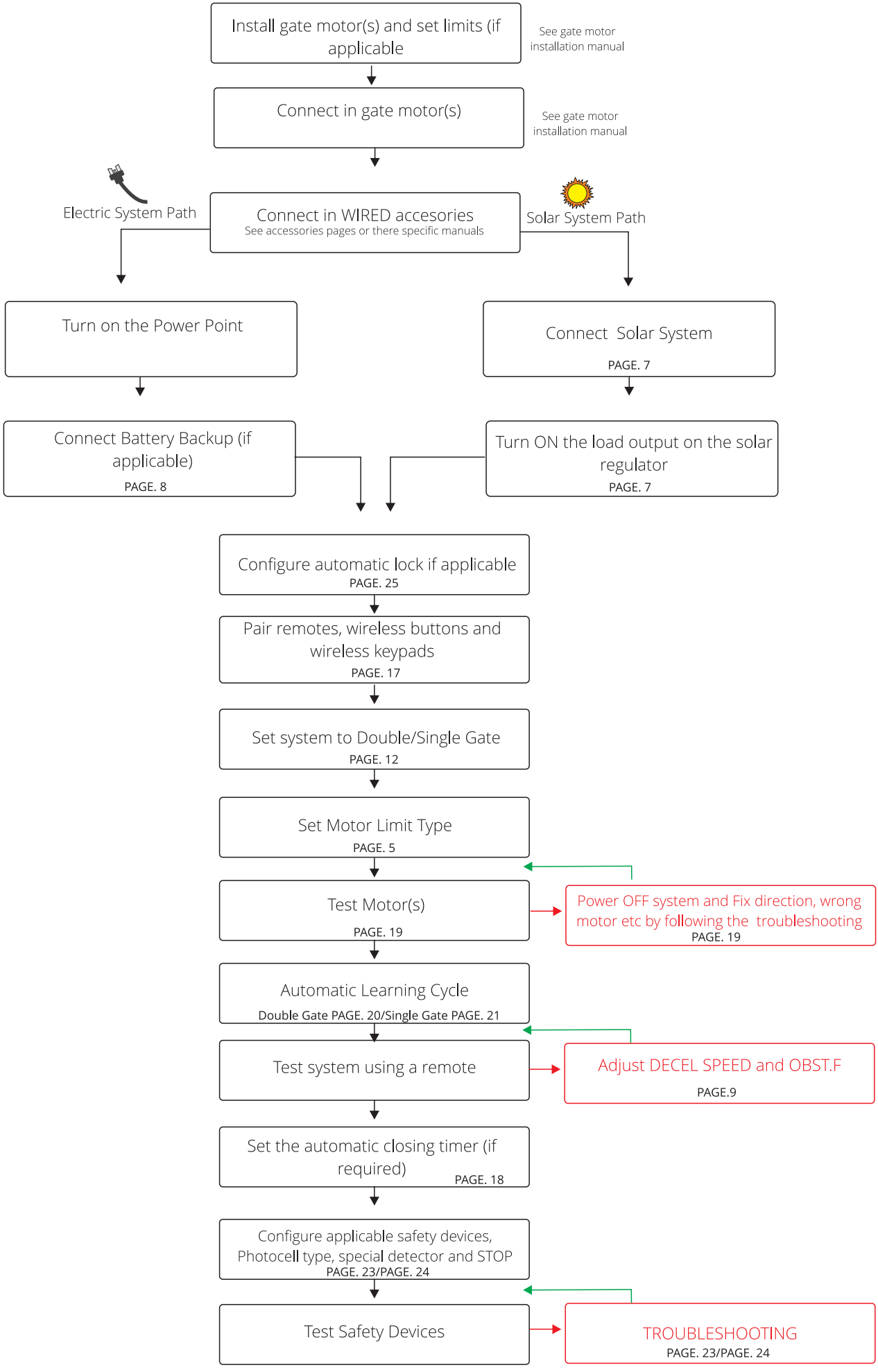
Specifications

Operating Voltage	24V AC/24V DC
Standby Consumption	~20mA
Battery Backup Support	Yes
Motor Outputs	TWO (Total Max. 12A)
Motor Limit Support	Direct to PCB, Wired In series and No Limits
Automatic Lock Support	YES, Electric and Magnetic Locks (24V) (Max. 2A)
Warning Light Output	Yes (Max 1A)
Accesories Power	12V DC (250mA)
Safety Inputs	Photocell, Detector, Safety Edge
Operation Temprature	-10°C to +60°C
Remote Button Capacity	192
Duty Cycle	70%

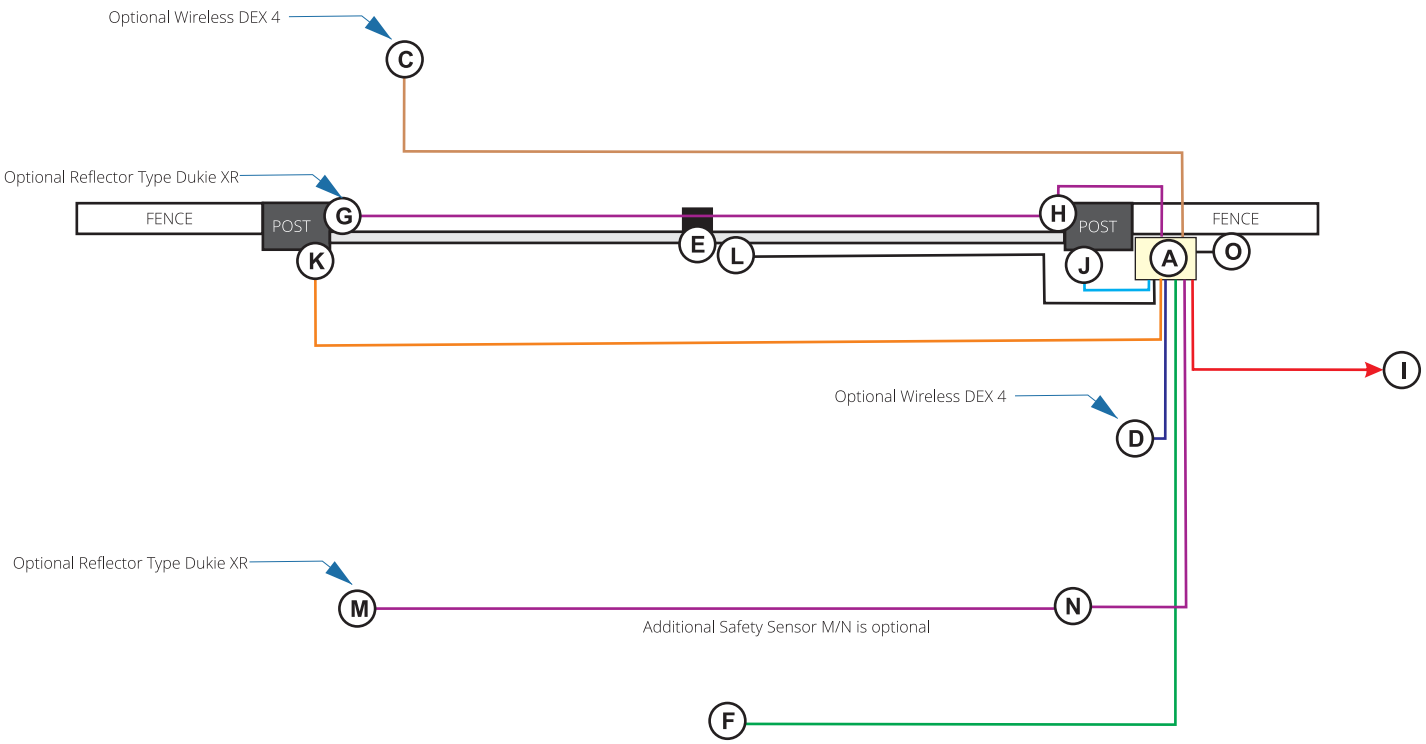
Dimensions



Step by Step Installation Guide

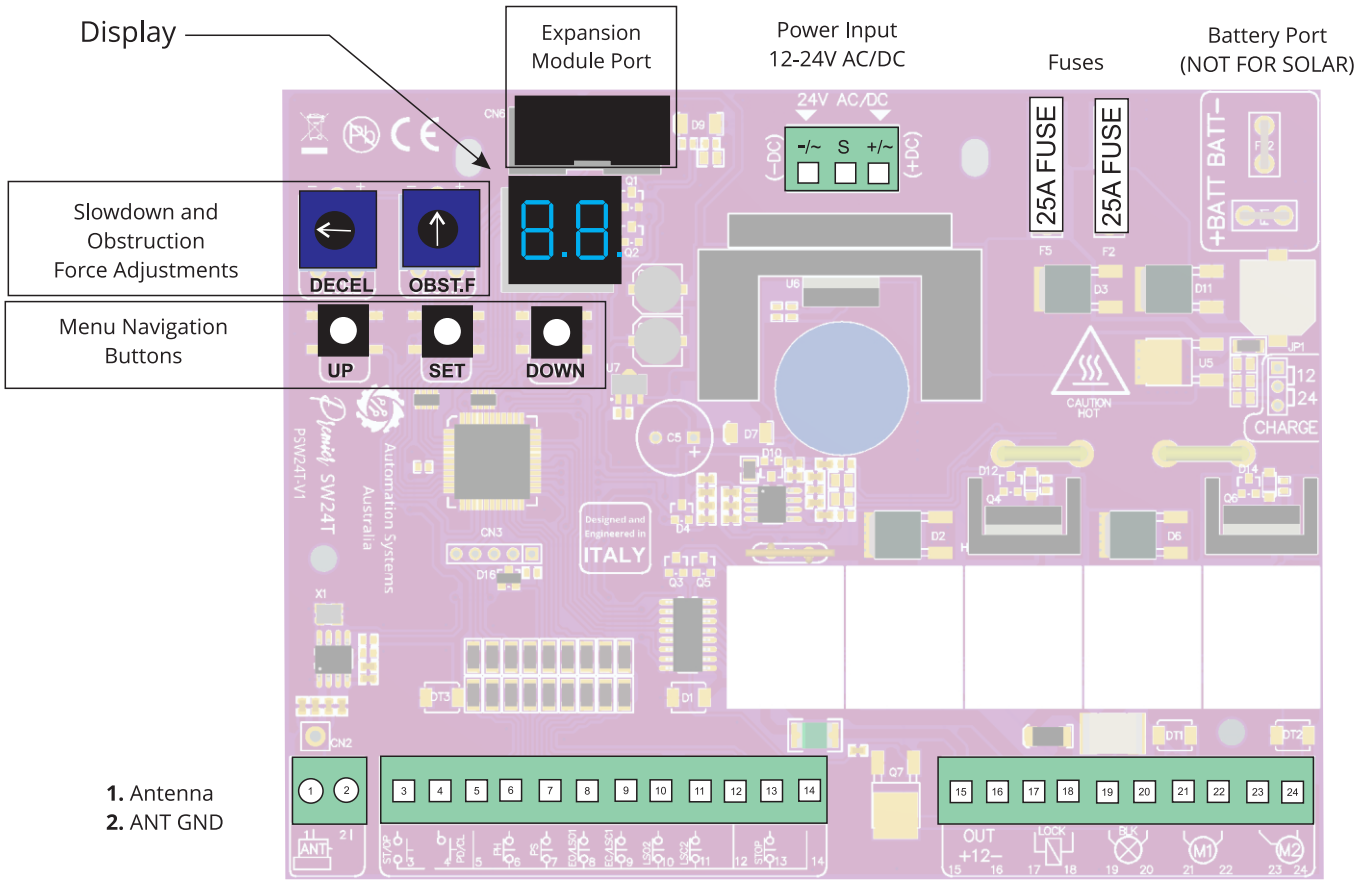


Installation Layout



Number	Accesory	Requirements
A	Gate Controller	Power by mains, outdoor 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	Driveway Ground Stop	Double Swing Gates Only, Single Swing Gate should have stop on gate post
F	Induction Loop/E Loop	Induction Loop: Housed inside gate controller with 1 core cable for the driveway loop. E Loop: E Trans Housed in control box. Wireless to E Loop.
G	Photocell Transmitter	No cable required for Dukie XR (Reflector), No Cable for Battery Powered TX, Dukie X requires 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	Motor "2"	Master Motor (First to Open) - Check Manual for Wiring Requirments
K	Motor "1"	Slave Motor (NOT USED SINGLE GATE) - Check Manual for Wiring Requirments
L	Automatic Lock	2 core cable to gate controller
M	ADDITIONAL Photocell Transmitter	No cable required for Dukie XR (Reflector), No Cable for Battery Powered TX, Dukie X requires 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

Controller Layout



3. Start/Open Input (N/O)
4. Pedestrian/Close Input (N/O)
5. COMMON to 3,4,6,7
6. Photocell Input (N/O or N/C)
7. Special Detector
8. OP Edge/LSO-1 (open edge device or DIRECT LIMIT M1 Open)
9. CL Edge/LSC-1 (close edge device or DIRECT LIMIT M1 Close)
10. LSO-2 DIRECT LIMIT M2 Open
11. LSC-2 DIRECT LIMIT M2 Close
12. COMMON to 8,9,10,11
13. STOP Input (N/O or N/C)
14. COMMON to 13

15. +12V DC OUTPUT for Accessories (Regulated)
16. **-12V DC** OUTPUT for Accessories
17. Lock Output + (Not Regulated)
18. Lock Output -
19. Light Output + (Not Regulated)
LPW+ (Photocell Power in solar Mode)
20. Light Output -
LPW- (Photocell Power in solar Mode)
21-22. M1 Terminal (SLAVE)
23-24. M2 Terminal (MASTER/SINGLE GATE)

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*
- `.` Battery Backup Mode/Low Input Power (Flashes)
- `99` Automatic Closing Countdown Timer

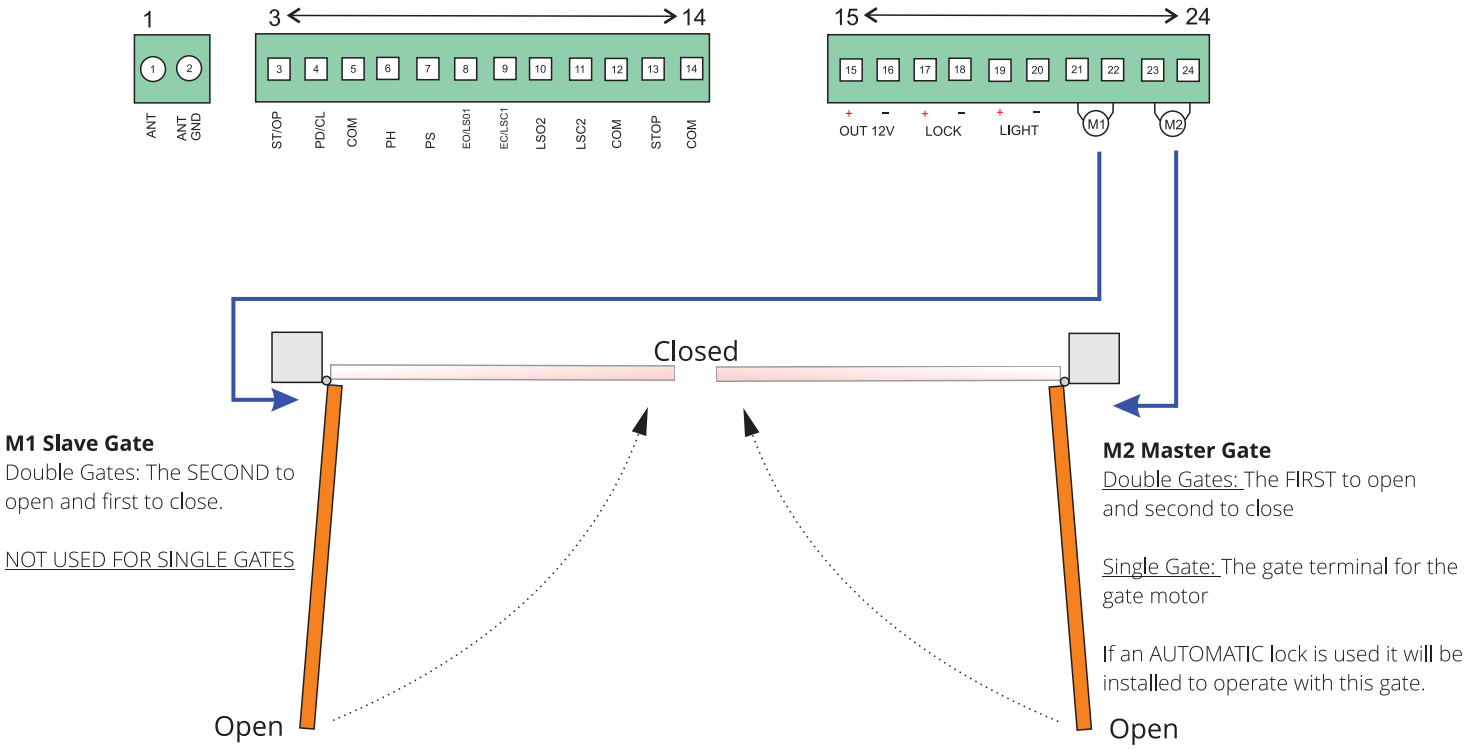
Safety Status

- `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`

Gate Motor Logic



M1 Slave Gate
Double Gates: The SECOND to open and first to close.

NOT USED FOR SINGLE GATES

M2 Master Gate
Double Gates: The FIRST to open and second to close

Single Gate: The gate terminal for the gate motor

If an AUTOMATIC lock is used it will be installed to operate with this gate.

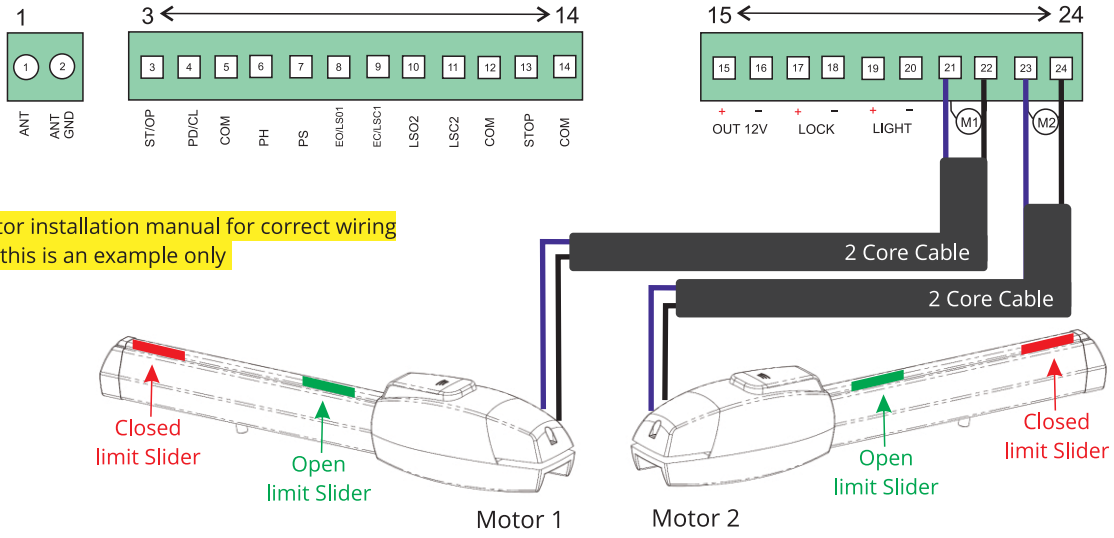
Internal SERIES Limit Switch Gate Motor Connection

COMMANDO, BANDIT, DINGO Series Motors

Limit Switch controller embedded within the gate motor passing power through the micro switches in a series circuit.

Limit Switches in SERIES to Motor

Feature is enabled and ready to detect limits.



Refer to gate motor installation manual for correct wiring this is an example only

No Limit Switch/Overcurrent Gate Motor Connection

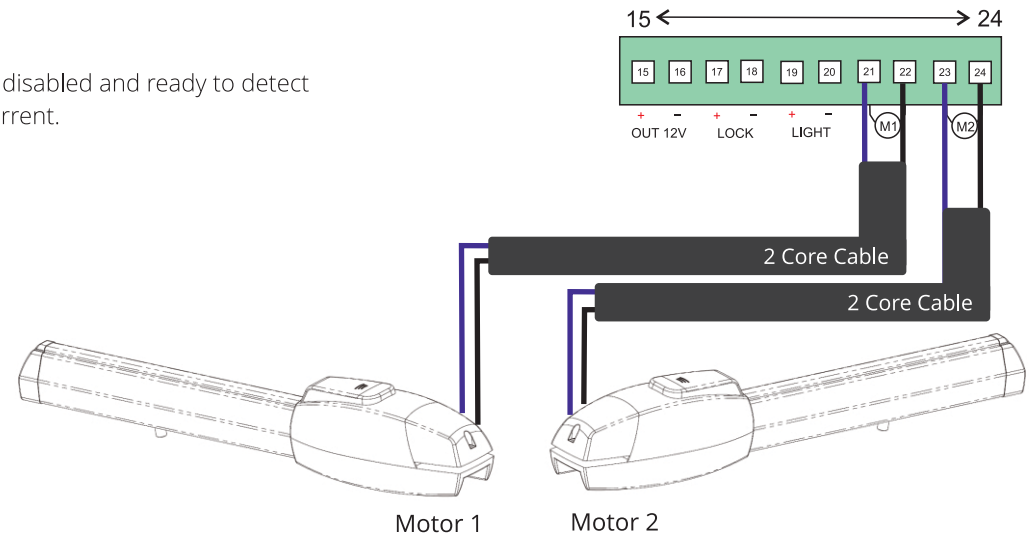
VIPER, APACHE, ORION Series Motors

When a gate motor is without limit switches.

Refer to gate motor installation manual for correct wiring this is an example only

SL Limit Switches in SERIES to Motor

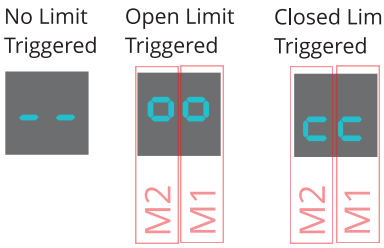
nt Feature is disabled and ready to detect by over current.



External Wiring Limit Gate Motor Connection (5/6 Wire Gate Motors)

Raptor Series Motors

Directly wired micro switches back to the gate controller.



OPEN POSITION SWITCH

Open Switch Terminal **10 (Motor 2)**
Open Switch Terminal **8 (Motor 1)**

CLOSED POSITION SWITCH

Close Switch Terminal **11 (Motor 2)**
Close Switch Terminal **9 (Motor 1)**

BOTH Micro Switch Commons Terminal 12

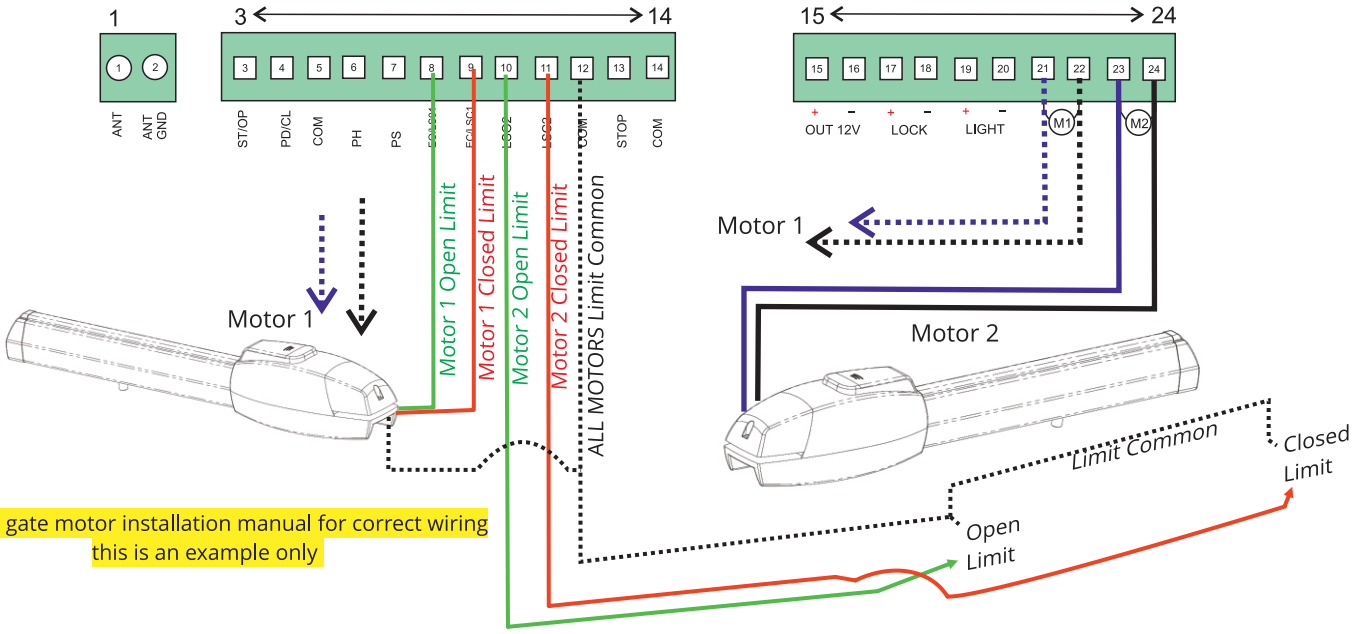
LS Direct to control board Limit Switches (NOT in series to motor)

nc Sets the controller to accept NORMALLY CLOSED limit switches directly to the control board limit switch terminals

no Sets the controller to accept NORMALLY OPEN limit switches directly to the control board limit switch terminals

SL Limit Switches in SERIES to Motor

nt Feature is disabled, Used for over current motors OR motors requiring the Limit Switches wired DIRECTLY to the controller



Refer to gate motor installation manual for correct wiring this is an example only

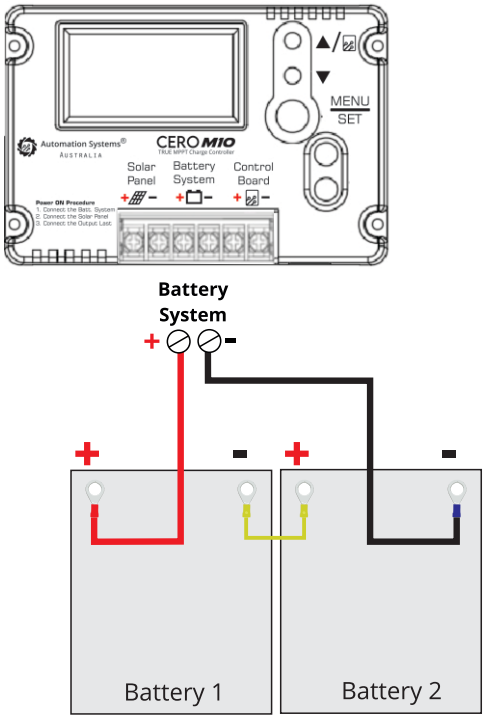
CERO/CERO M10 Standalone Solar System Connection

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 and magnetic locks are not to be used. The alternatives are wireless keypads (use there own batteries) and electric locks (only powered for two seconds per cycle).

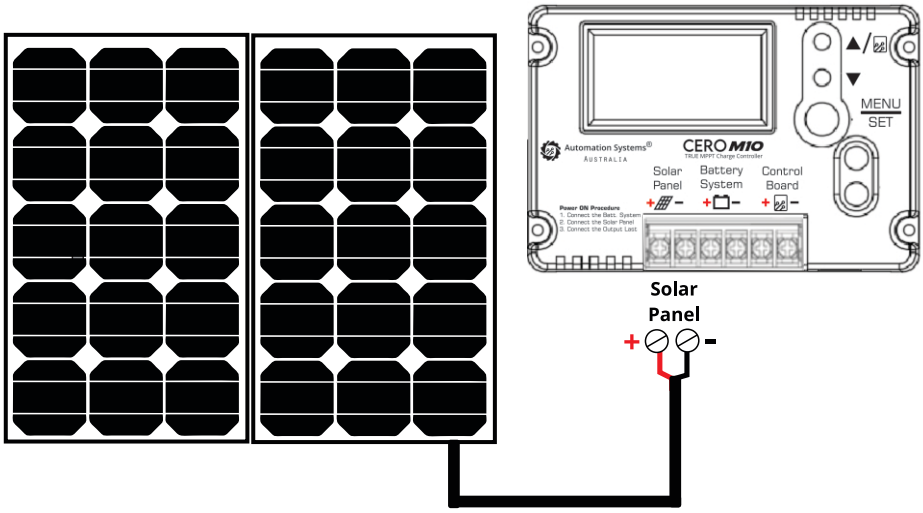
ALWAYS Connect the Solar Panel AFTER the batteries
to ensure the system can Auto-Detect the voltage configuration.

Batteries Connections

Step 1: Connect the Batteries First

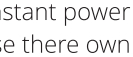


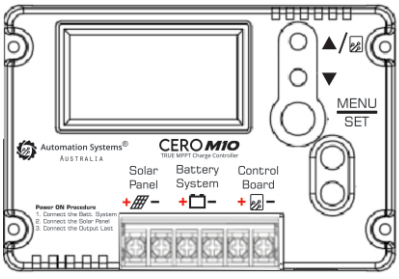
Step 2: Connect the Solar Panel Second



Step 3: Connect the Load/Control board Output Last

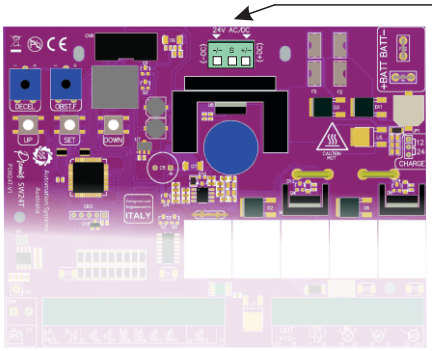
Charge controller output is OFF and terminal block is unplugged for wiring works.





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

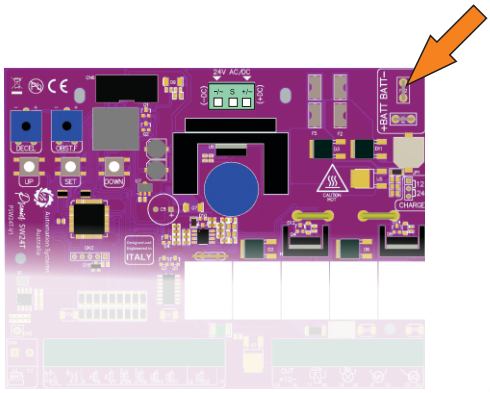
INPUT Terminal
Positive on RIGHT SIDE (+)
Negative on LEFT SIDE (-)



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.

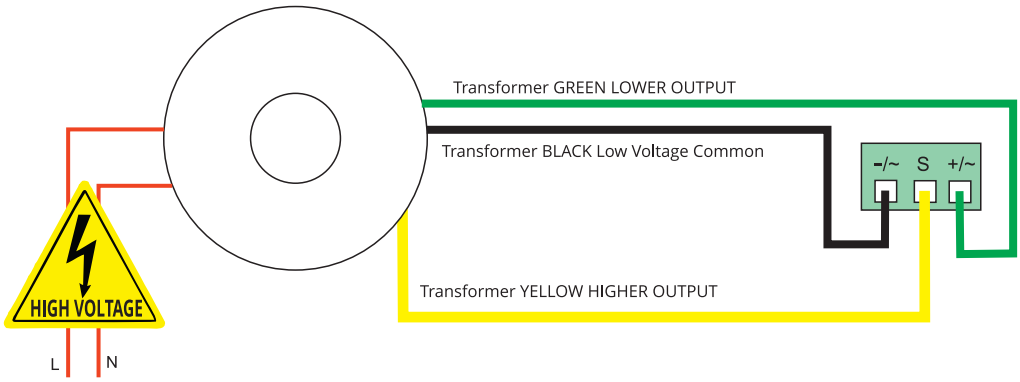
Note: When in battery backup mode the slowdown is disabled automatically to overcome any difference in speed.



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.

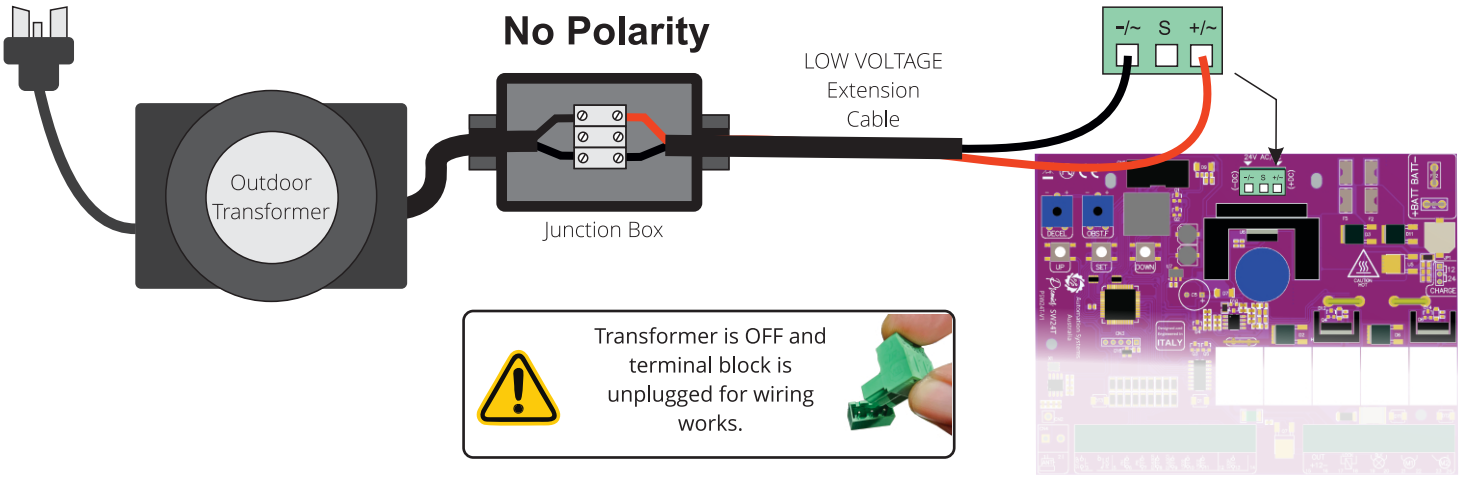
Multi Output Toroidal Transformer (Internal)

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).



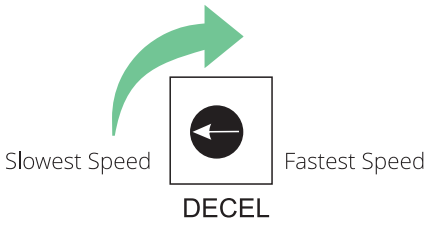
Outdoor Low Voltage Weatherproof Transformer (OT-24)

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.

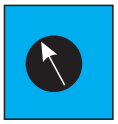


"Decel" Slow Speed/De-acceleration Adjustment

The "De-acceleration" 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.



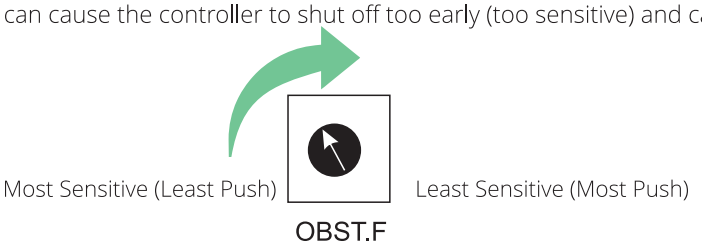
"OBST.F" Obstuction/Overcurrent Adjustment



The "Obstruction Force" 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, wind resistance and the required power to operate the motor.

Setting too high will affect how quickly the controller will shut off under load, accident or at all, If set too high motor(s) may not shut off at all - Do not set too high.

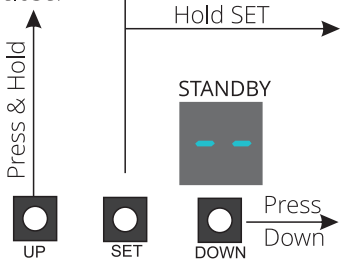
setting too low can cause the controller to shut off too early (too sensitive) and cause intermittent operations.



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.

Whilst gates are OPEN, FROM STANDBY **HOLD UP** and an automatic gate calibration will be initiated. Release the UP button when the gate begins to close.



Preliminary Menu (BASIC)

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

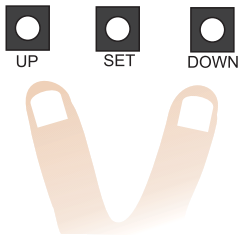
Preliminary Menu (CORE)

FROM STANDBY **HOLD SET** for FOUR SECONDS to reach the CORE Menu Contains Primary Adjustments for operation and configuration
(See Pages 12,13,14 and 15)

Remote Learning Shortcut

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, Can latch a timer circuit to hold the gate open, automatic closing by unlatching a timer (allows auto close timer countdown to begin), no other methods to close.

Wired Input Terminals		Operating Logic	Le Remote Channels	
Terminal 3 (ST/OP)	Terminal 4 (PD/CL)	oL	c1	c2
OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE	St At	OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE
OPEN	CLOSE	oc	OPEN	CLOSE
OPEN	CLOSE	oA	OPEN	CLOSE
OPEN	N/A	cd	OPEN	PED. Open

"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, Wireless button and Wireless Keypad Learning/Deleting
Detailed Page 16 & 17

- **c1** C1 Command (Full Gate Operation)
- **c2** C2 Command (Pedestrian/Partial Gate Operation)
- **rt** Delete WITH the wireless component present
- **rn** Delete by memory position
- **ra** Delete the entire memory (format)

Lt Learn Working Times

- **Au** Automatic Learning (Universal one direction)
- **Mn** Manual Learning
- **bd** Automatic Learning (Independent Directions)

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 Voltage Adjustment (Default 7)

- **07** Adjustment of fast speed
  The higher the number the higher the voltage in the Fast Speed (Max 10, Min 3)

dM Motor Test (operate gates manually)

- **o1** Open M1
  Hold SET to Operate
- **c1** Close M1
  Hold SET to Operate
- **o2** Open M2
  Hold SET to Operate
- **c2** Close M2
  Hold SET to Operate

EH Exit the menu

Core Menu

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

-  Total Working Time of M1 (OPENING)
-  Starting Time of Slowdown for M1 (OPENING)
-  Total Working Time of M2 (OPENING)
-  Starting Time of Slowdown for M2 (OPENING)
-  Total Working Time of M1 (CLOSING)
-  Starting Time of Slowdown for M1 (CLOSING)
-  Total Working Time of M2 (CLOSING)
-  Starting Time of Slowdown for M2 (CLOSING)
-  Opening Delay between M2 and M1 (Default 02)
-  Closing Delay between M1 and M2 (Default 03)
-  Automatic Lock Relay Operation Time (Default 02)
-  Pedestrian Feature Operating Time (Default 05)

Single Gate Mode (Default Double Gate)

-  Single Gate Mode
-  Double Gate Mode

Factory Default the Settings

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

Release Torque at the End of Travel (Default nt)

-  Release end of travel torque (motors without Limit Switches ONLY)
  Reverses 0.5 seconds in the opposite direction after reaching the full open/closed position
-  Does not release the torque at the end of travel

Kickback Stroke (Default nt)

-  Provides a full speed jolt (0.5s) at the end of closing to aid in the latching of an electric lock, motors with limit switches only
-  Feature is disabled

Soft Start

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

Limit Switches in SERIES to Motor (Default nt)

-  Must be enabled when using a motor WITH limit switches and they are wired through the motor, i.e only a total of TWO wires directly back to the control board
-  Feature is disabled, Used for over current motors OR motors requiring the Limit Switches wired DIRECTLY to the controller

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

Automatic Lock Mode

-  Magnetic Lock Mode (Magnetic Bar)
  Power OFF to Unlock
-  Electric Lock Mode (Solenoid Lock)
  Power ON to Unlock
-  Electric Bolt Mode (Solenoid Bolt)
  Power ON except when open/closed

LS Direct to control board Limit Switches (NOT in series to motor)

- **nc** Sets the controller to accept NORMALLY CLOSED limit switches directly to the control board limit switch terminals
  Opening **Eo** AND Closing edge **Ec** inputs must be set to **dS**
- **no** Sets the controller to accept NORMALLY OPEN limit switches directly to the control board limit switch terminals
  Opening **Eo** AND Closing edge **Ec** inputs must be set to **dS**

Eo Opening Safety Edge Input (Default ds)

- **dS** Disabled
- **nc** Normally Closed Circuit
  Direct Limit Switch Mode **LS** CANNOT be used in this instance as the terminals are reserved for an edge sensor
- **no** Normally Open Circuit
  Direct Limit Switch Mode **LS** CANNOT be used in this instance as the terminals are reserved for an edge sensor
- **An** Analogue Edge with 8K2 Resistance
  Direct Limit Switch Mode **LS** CANNOT be used in this instance as the terminals are reserved for an edge sensor

Ec Closing Safety Edge Input (Default ds)

- **dS** Disabled
- **nc** Normally Closed Circuit
  Direct Limit Switch Mode CANNOT be used in this instance as the terminals are reserved for an edge sensor
- **no** Normally Open Circuit
  Direct Limit Switch Mode CANNOT be used in this instance as the terminals are reserved for an edge sensor
- **An** Analogue Edge with 8K2 Resistance
  Direct Limit Switch Mode CANNOT be used in this instance as the terminals are reserved for an edge sensor

Pc Photocell Input

- **nc** Sets the controller to accept NORMALLY CLOSED photocell
- **no** Sets the controller to accept NORMALLY OPEN photocell OR NO PHOTOCELL CONNECTED

SP STOP Button Input

- **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

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

bL Warning Light Mode

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

So Full-time Photocell Check / Only Vitals (Solar Mode)
Turns the Light output to a LPW Photocell Voltage Source

- **YS** Check photocell Inputs before beginning and during the close cycle. N/C Logics Only
- **nt** Check photocell Input at all times including standby. N/C and N/O Logics

AP Mobile APP Privileges (Module TSL1 Required)

- **00** User can only operate gate and check status
  .
- **01** User has 00 Functions along with ability to change operating logics and change automatic closing time.

Remote Learning/Wireless Button Learning

C1 Command Learning

1 → 2 → 3

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 → 2 → 3

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

oL

Residential

StAt

Commercial & Industrial

ocoA

cd

Lc Remote Channels

c1	c2
OPEN /STOP/ CLOSE	Ped. OPEN /STOP/ CLOSE
OPEN	CLOSE
OPEN	PED. Open

Delete by remote button

1 → 2 → 3 → 4

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

Delete by enrollment number

1 → 2 → 3 → 4

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

Delete entire memory

1 → 2 → 3 → 4

1. From the standby screen press the SET button once
2. Cycle to Lc and press SET
3. Cycle to rA and press SET
4. Cycle to YS and press SET to confirm deleting all remotes
   OR
   Cycle to nt to cancel

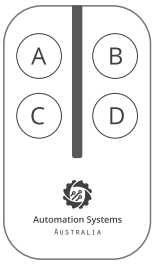
Remote Usage

A Operate this Gate Open - Stop - Close (Programmed to C1)
(also stops the automatic closing timer if pressed during the countdown)

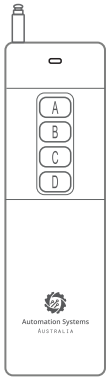
B Operate Pedestrian Open - Stop - Close (Programmed to C2)
(also stops the automatic closing timer if pressed during the countdown)

C Operate a garage door

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



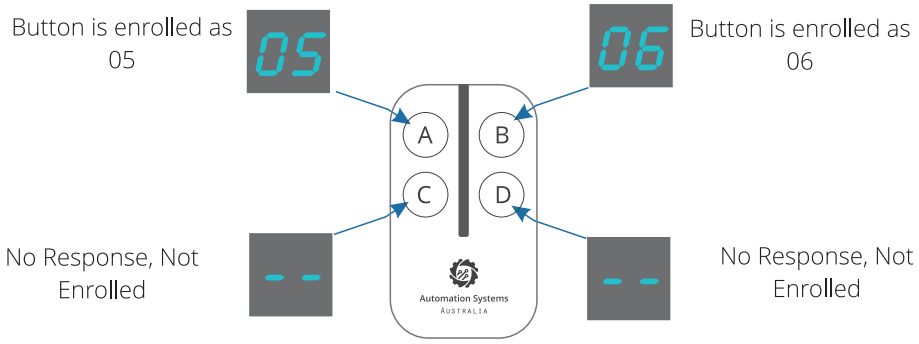
STX4K
Maximum Clear Line of Sight 100 Metres Operating Distance



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 SET button once

2 

Cycle to Lc and press SET

3 

Cycle to c1

4 
Type **1111**

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 SET button once

2 

Cycle to Lc and press SET

3 

Cycle to c2

4 
Type **2222**

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 SET button once

2 Cycle to oL and press SET

3 For residential homes select AE and press SET

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

4 To set the time cycle to SP and press SET

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

Adjust to the appropriate value and press SET

5 EH once complete cycle to EH and press SET to return to standby

99 Display example up to 99 Seconds

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

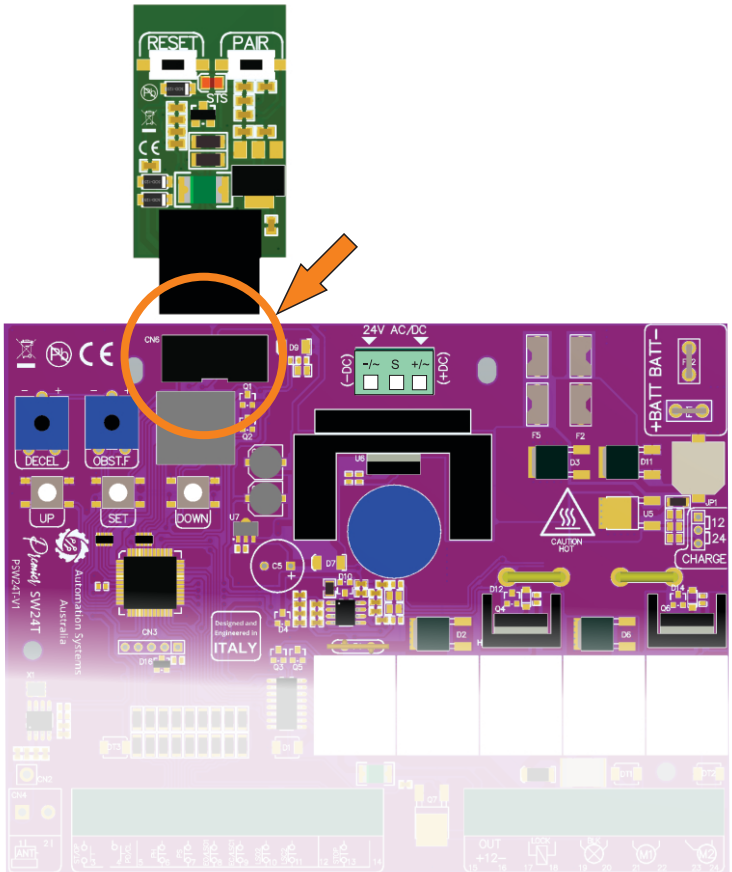
9.9. Display example GREATER than 199 Seconds and up to 299 Seconds

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

Pedestrian function will also inherit the automatic closing time. Consider the suitability and danger aspect for the installation.

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.
c) The correct operating sequence FOR DOUBLE GATES

O2 will open Gate 2 (M2) - The MASTER gate with the AUTOMATIC LOCK if used, First gate to open/ONLY GATE IF SINGLE GATE
C2 will close Gate 2 (M2) - Second gate to close IF double gates/ONLY GATE

O1 will open Gate 1 (M1) - Second gate (SLAVE) to open IF double gates
C1 will close Gate 1 (M1) - First gate to close IF double gates
O1/C1 is not used for single gate systems

NOTE: Safety Inputs are disabled during this stage

1

From the standby screen press the SET button once

2

Cycle to dn and press SET

3

Cycle to o2 and HOLD set, whilst holding set it will OPEN M2 and It will stop on the limit switch, release the SET 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.
*DOUBLE GATES- This SHOULD be the first gate to open, if not see "Troubleshooting WM"

4

SINGLE GATE SKIP to STEP 7

Cycle to o1 and HOLD set, whilst holding set it will OPEN M1 and It will stop on the limit switch, release the SET 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.

5

Cycle to c1 and HOLD set, whilst holding set it will CLOSE M1 and It will stop on the limit switch, release the SET Button.

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

6

Cycle to c2 and HOLD set, whilst holding set it will CLOSE M2 and It will stop on the limit switch, release the SET 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. Confirm which of the gate motor(s) is operating in the wrong direction
2. Power down the controller
3. Reverse the wires in the IDENTIFIED motor output terminal (this it the wires going to the gate motor)

Troubleshooting LS
If the gate(s) travel past the desired stop point OR stops too early the limit switch is misconfigured and will need to be adjusted.
1. Confirm which of the limit switches is not set correctly (open limit/close limit)
2. Adjust the relevant limit cam/slider (refer to your gate motors installation manual)
3. In cases of a direct wired limit switch ensure the appropriate motor terminal and open/close terminal is used

Troubleshooting WM
In the case of double gates IF the gate that should open second is opening on O1 this must be rectified prior to moving forward.
1. Power down the controller
2. SWAP the wires in M1 terminal to M2 and the wires in M2 to the M1 terminal

Learn Time Calibration for Double Gate

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 motors testing procedure has been completed successfully before following the below procedure (page 19 of Premier SW24T Manual).

NOTE: Safety Inputs are disabled during this stage

1 

From the standby screen press the SET button once

2 

Cycle to dn and press SET

If during the o2 or o1 stage the gates did not open completely return to the motor test page and see **Troubleshooting LS**.

3 

Cycle to o2 and HOLD set, whilst holding set it will OPEN M2 and It will stop on the limit switch, release the SET Button

4 

Cycle to o1 and HOLD set, whilst holding set it will OPEN M1 and It will stop on the limit switch, release the SET Button

5 

Cycle to EH to return to previous menu

6 

Cycle to Lt to enter the Learn Time menu

7 

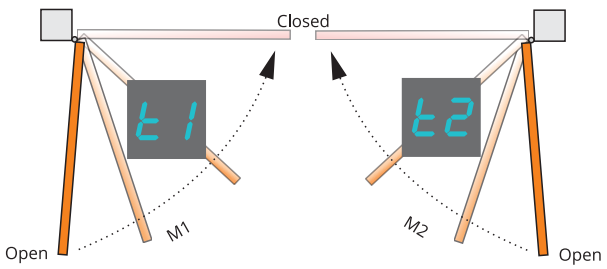
Cycle to bd for automatic learning and press SET

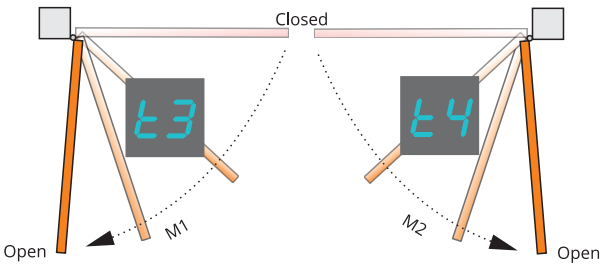
8

M1 will close followed by M2 til they reaches the limit or stop t1 will be displayed during the operation of M1. There will be a delay between the two motor operations (dc Delay time) .

9

M2 will open followed by M1 til they reaches the limit or stop t4 will be displayed during the operation of M1. There will be a delay between the two motor operations (do Delay time) .





Learn Time Calibration for Single Gate

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 motors testing procedure has been completed successfully before following the below procedure (page 19 of Premier SW24T Manual).

NOTE: Safety Inputs are disabled during this stage

1 

From the standby screen press the SET button once

2 

Cycle to dn and press SET

3 

Cycle to o2 and HOLD set, whilst holding set it will OPEN M2 and It will stop on the limit switch, release the SET Button

If during the o2 or o1 stage the gates did not open completely return to the motor test page and see **Troubleshooting LS**

4 

Cycle to EH to return to previous menu

5 

Cycle to LE to enter the Learn Time menu

6 

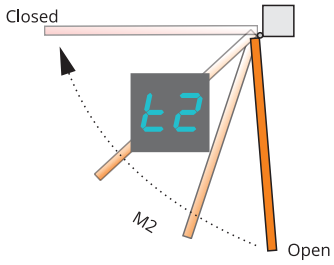
Cycle to bd for automatic learning and press SET

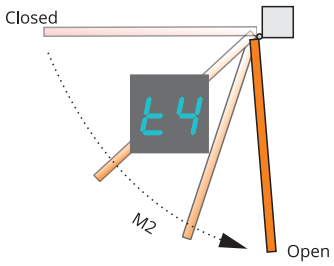
7

M2 will close til it reaches the limit or stop E2 will be displayed during the operation of M2.

8

M2 will open til it reaches the limit or stop E4 will be displayed during the operation of M2.





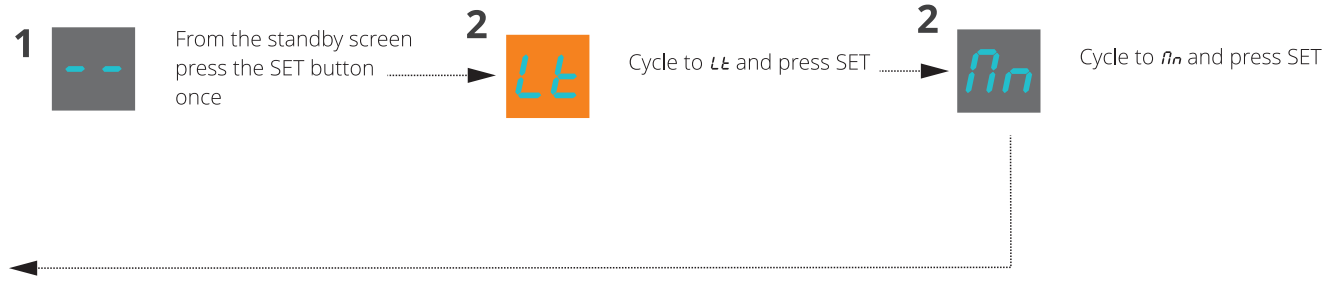
Advanced Manual Learn Time Calibration for Double Gate

The advanced manual learning procedure is used when the gates are unable to learn correctly during the automatic learning phase, it is a higher detail operation as the installer provides input on the gate slow down (DECEL) and Stop Positions (when no limits are used) .

Please ensure that the motors testing procedure has been completed successfully before following the below procedure (page 19).
Please ensure that the system is set to DOUBLE GATE mode before proceeding (page 12).

Please ensure gates are closed prior to proceeding

NOTE: Safety Inputs are disabled during this stage



A. Both gates begin to open in a slow speed (you can fine tune the slow speed trimmer to increase/decrease the speed whilst observing the operation), once both gates are OPEN press OK
B. Press OK to begin the closing phase of the learning, M1 will begin to close
C. Press OK again to command M2 to begin closing
D. Press OK again to set the slowdown position of M1
E. Press OK again to set the slowdown position of M2

If limit switches are installed AND set correctly the controller will detect the closed point and automatically finish the manual learning.
If no limit switches are used OR limits are not set correctly:
F. Press OK to stop M1 in the closed position
G. Press OK to stop M2 in the closed position

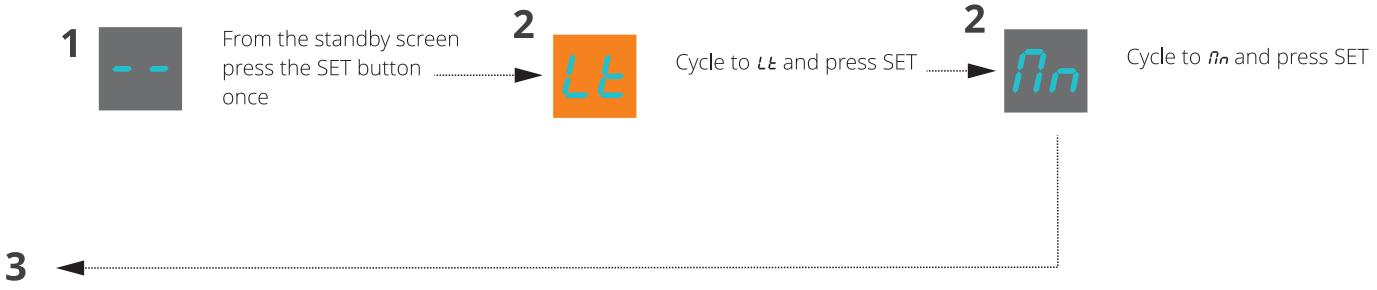
Advanced Manual Learn Time Calibration for Single Gate

The advanced manual learning procedure is used when the gate is unable to learn correctly during the automatic learning phase, it is a higher detail operation as the installer provides input on the gate slow down (DECEL) and Stop Positions (when no limits are used) .

Please ensure that the motors testing procedure has been completed successfully before following the below procedure (page 19).
Please ensure that the system is set to SINGLE GATE mode before proceeding (page 12).

Please ensure gates are closed prior to proceeding

NOTE: Safety Inputs are disabled during this stage



A. The gate begin to open in a slow speed (you can fine tune the slow speed trimmer to increase/decrease the speed whilst observing the operation), once the gate is OPEN press OK
B. Press OK to begin the closing phase of the learning, M2 will begin to close
C. Press OK again to set the slowdown position of M2

If limit switches are installed AND set correctly the controller will detect the closed point and automatically finish the manual learning.
If no limit switches are used OR limits are not set correctly:
D. Press OK to stop M2 in the closed position

Photocells

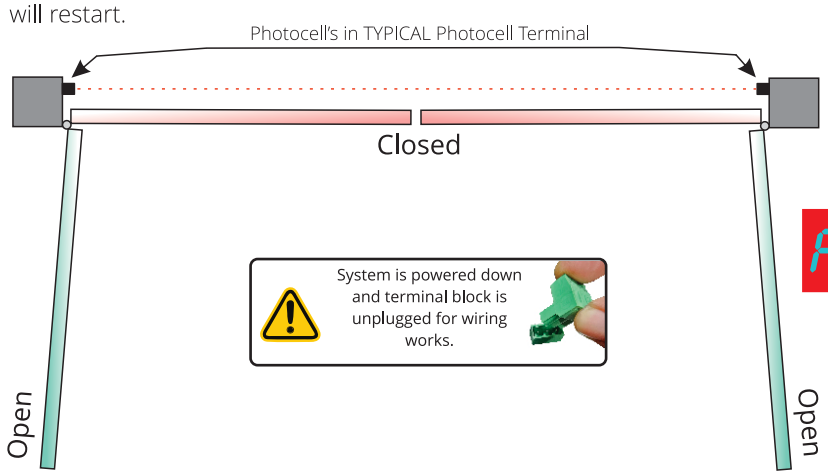
Typical Photocell Arangment

SEE NEXT PAGE ON SPECIAL DETECTOR AND PHOTOSTOP

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.

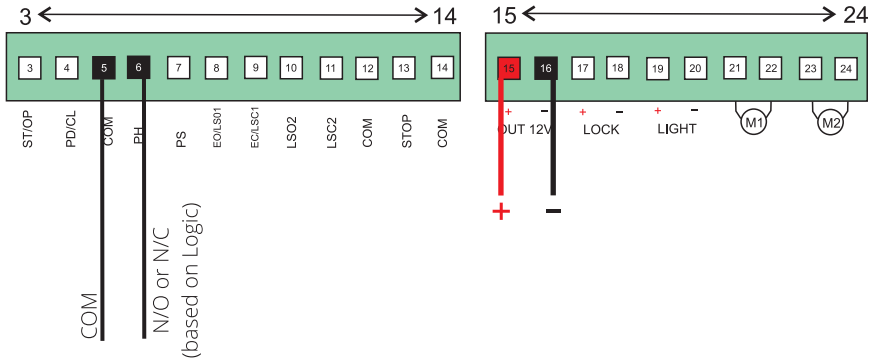
In the case where the automatic closing timer is used then each time an obstacle passes through the photocell infrared beam the timer will restart.



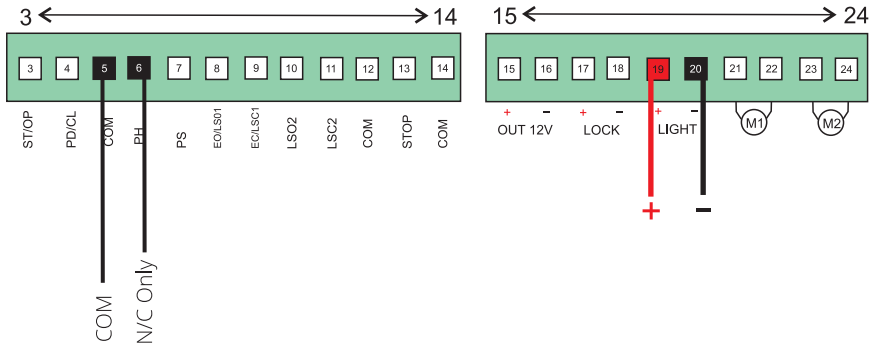
Sets the controller to accept NORMALLY CLOSED photocell (as per illustrated diagrams)

Sets the controller to accept NORMALLY OPEN photocell OR NO PHOTOCELL CONNECTED

Powered Systems



Solar Systems (Must use NC Logic)



Full-time Photocell Check / Only Vitals (Solar Mode) **Turns the Light output to a LPW Photocell Voltage Source**

Check photocell Inputs before beginning and during the close cycle. N/C Logics Only

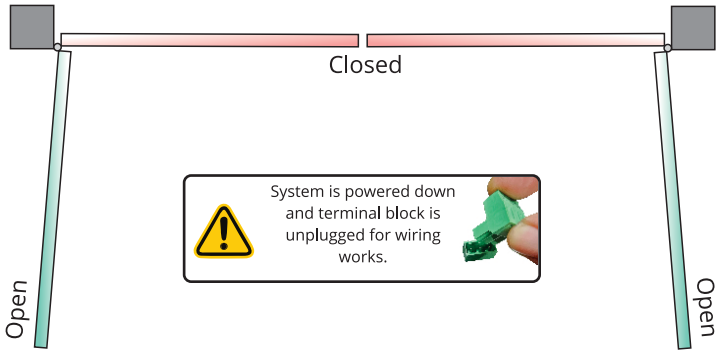
Troubleshooting PC

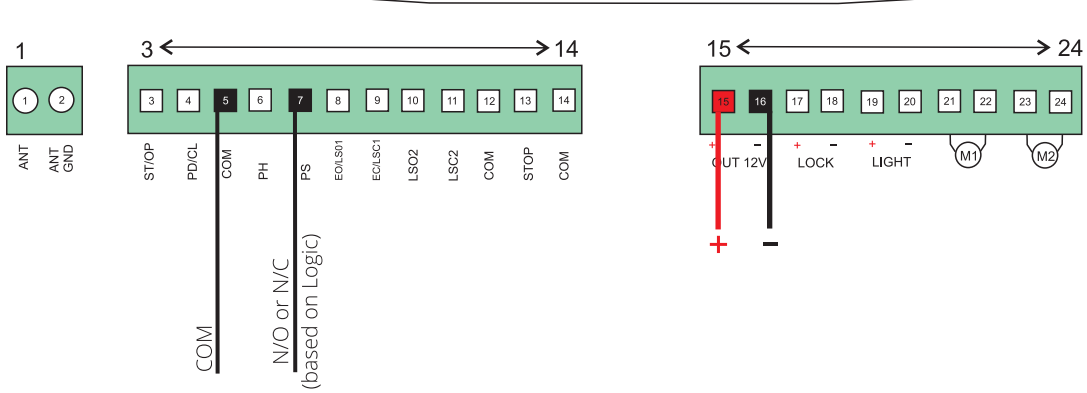
If after powering the system on you receive the error Pc displayed it means one of the following:
1. Bad photocell alignment or there is an obstacle, wave your hand in front of the RECEIVER photocell, you should hear a very low audibility click, this means the photocell is in alignment. No click means 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.

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 OR carport safety, outwards opening gate open prevention, etc.





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

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

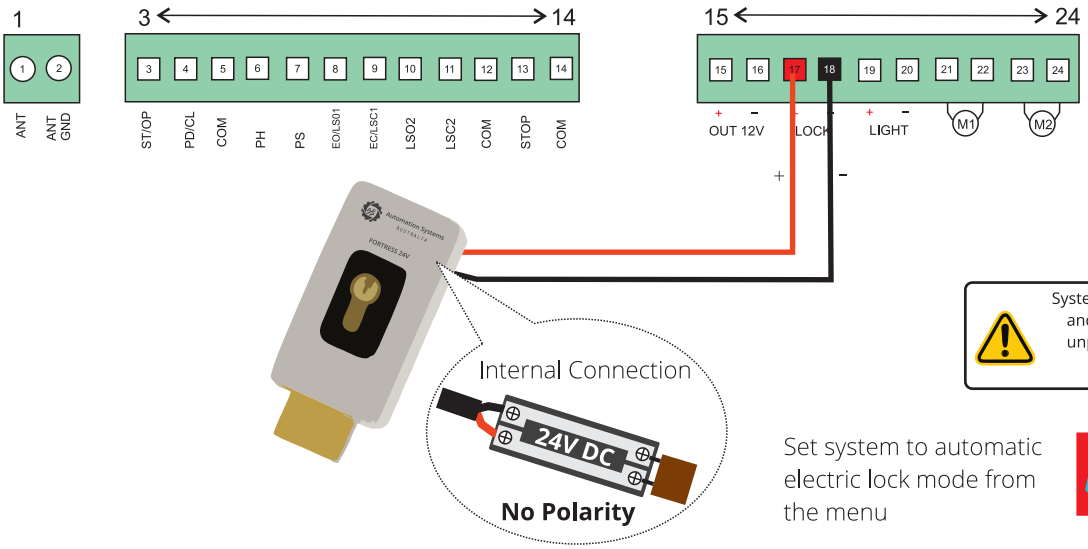
Troubleshooting PS/DT

If after powering the system on you receive the error PS or dt 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 special detector menu has been chosen.

Automatic Electric Lock (Fortress-EL)

The Fortress EL automatic electric lock will engage mechanically when closed into the latching plate and automatically release on the opening cycle. It provides added security and holding characteristics to prevent forces from pushing against the gate(s).



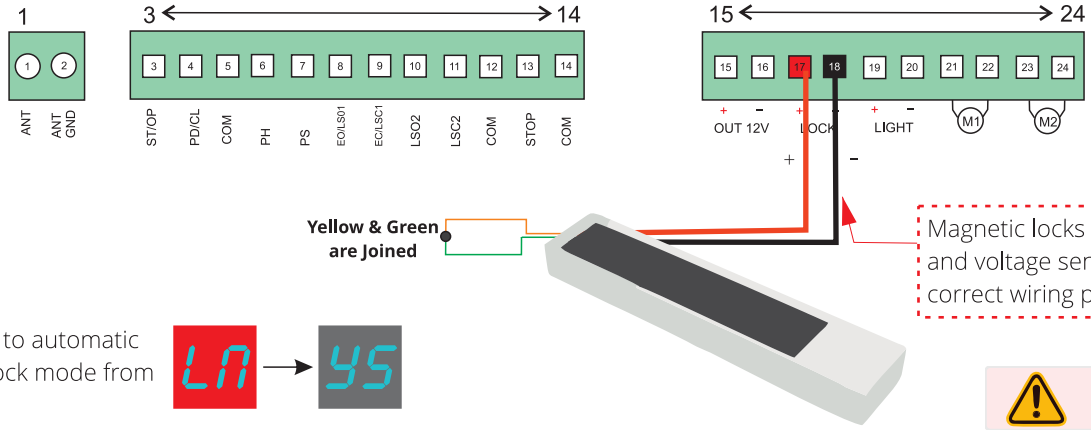
System is powered down and terminal block is unplugged for wiring works.

Set system to automatic electric lock mode from the menu

FORTRESS ML Magnetic Lock (EML-280)

NOT SUITABLE FOR SOLAR

The FORTRESS ML automatic magnetic lock will engage electrically when closed against by magnetizing to the armature plate and automatically release on the opening cycle. Just like an electric lock it also provides added security and holding characteristics to prevent forces from pushing against the gate(s). Benefit of a magnetic lock is that it can be mounted in different methods to the electric locks traditional mounting arrangements.



Magnetic locks ARE polarity sensitive and voltage sensitive items, ensure correct wiring prior to connection

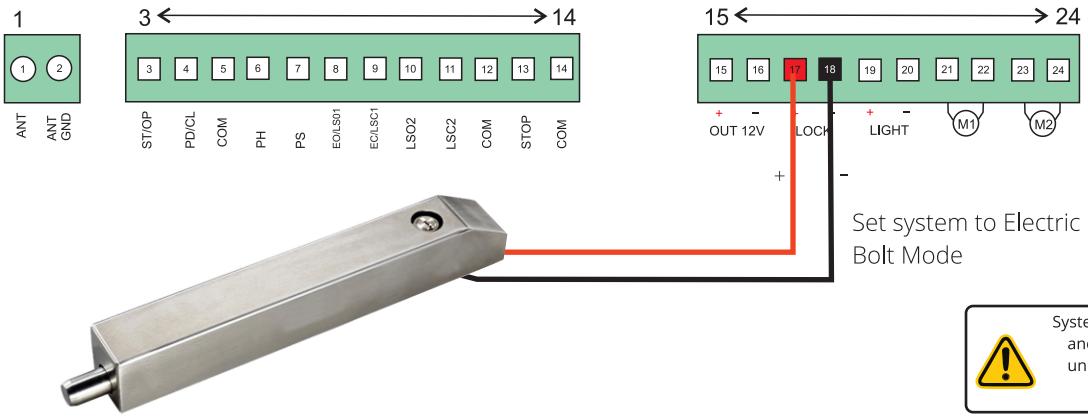
Set system to automatic magnetic lock mode from the menu

24V MODE

System is powered down and terminal block is unplugged for wiring works.

Fortress Automatic Electric Bolt (Fortress-EB)

The Fortress automatic electric bolt is powered in both the opening and closing directions to ensure the bolt is retracted before leaving the plunger engagement point and also before arriving to the engagement point.

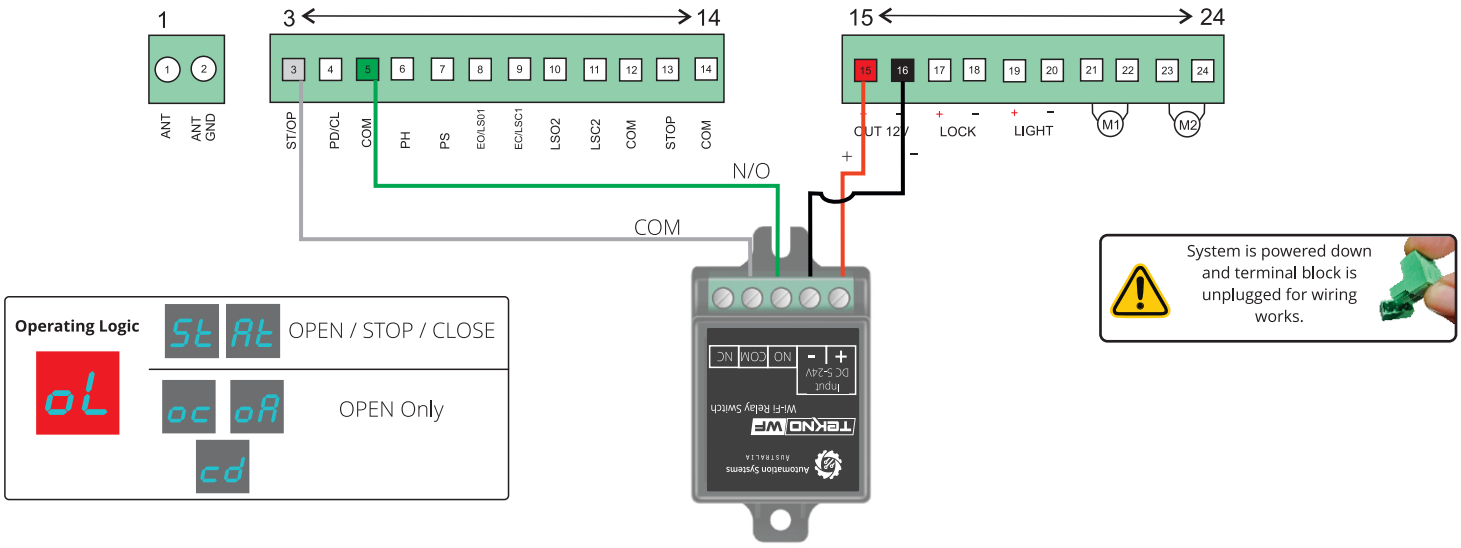


Set system to Electric Bolt Mode

System is powered down and terminal block is unplugged for wiring works.

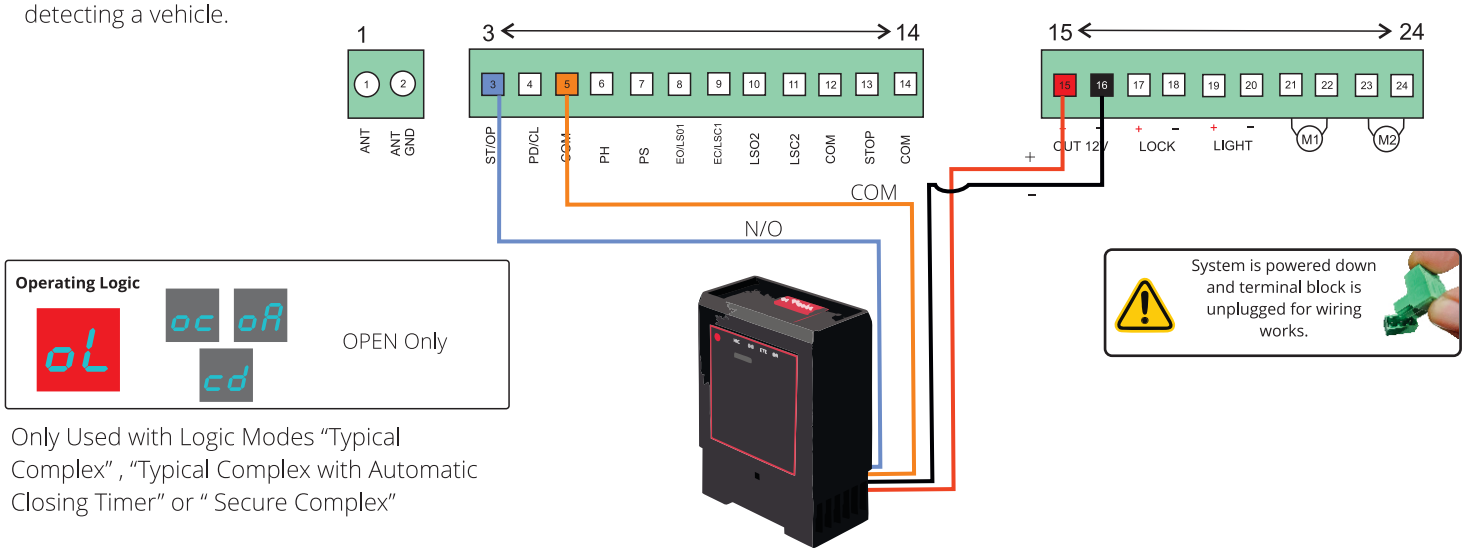
Wi-Fi APP Switch (Tekno-WF)

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.



Loop Detector (Loop12V)

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

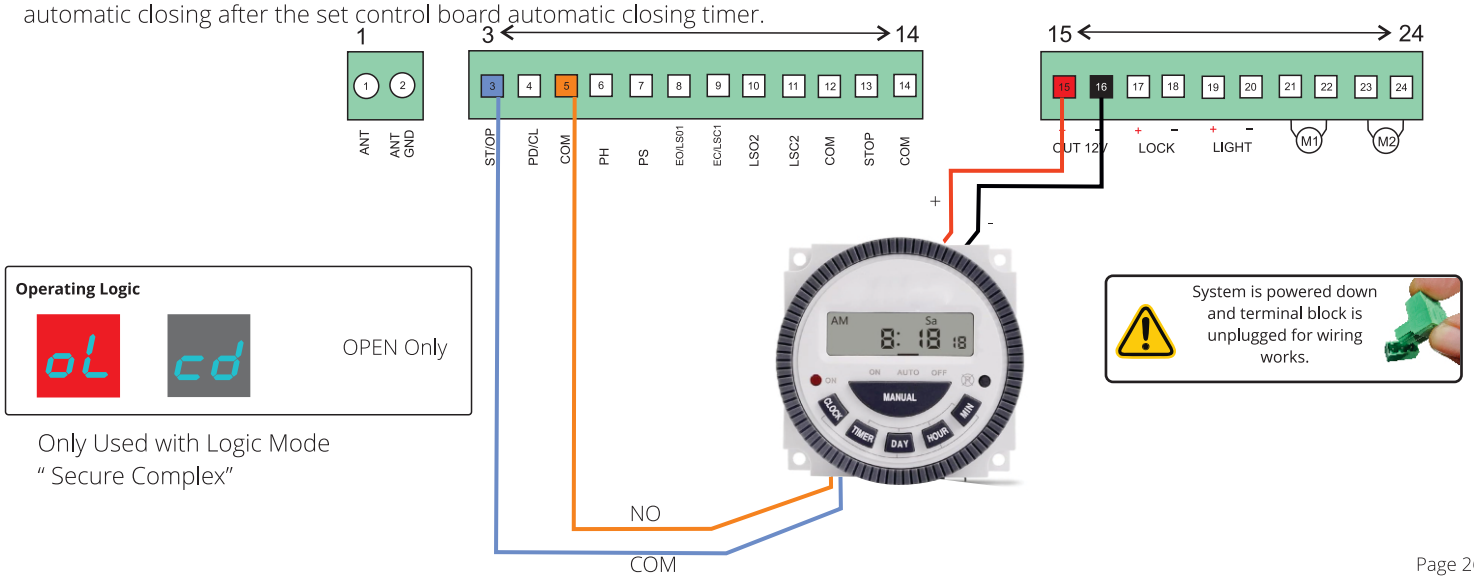


Only Used with Logic Modes “Typical Complex” , “Typical Complex with Automatic Closing Timer” or “ Secure Complex”

Digital Weekly Timer (WT-12V)

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.

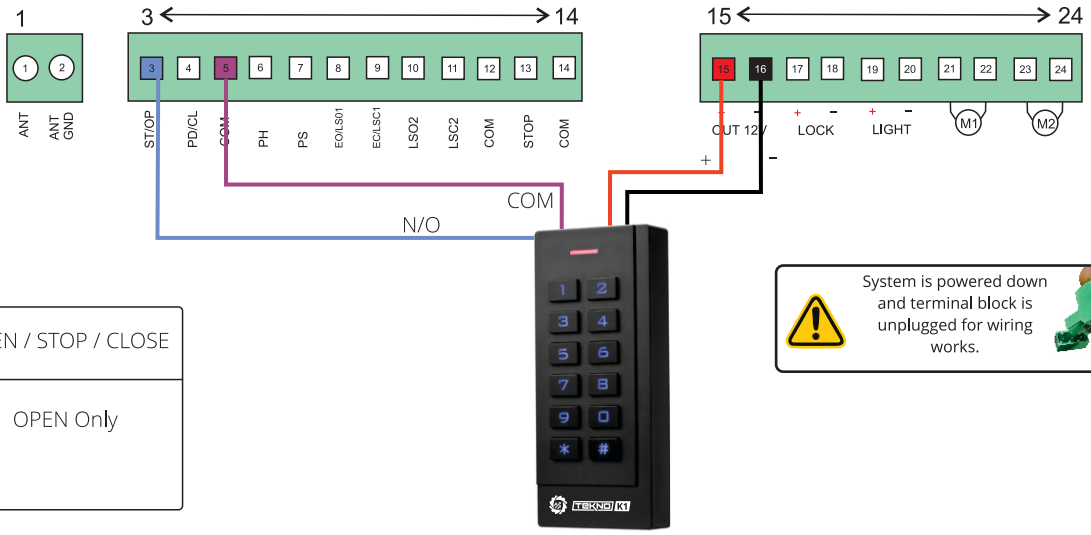


Only Used with Logic Mode
“ Secure Complex”

Wired Keypad (Tekno-K1)

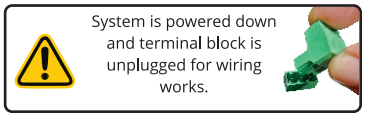
NOT SUITABLE FOR SOLAR

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.



Operating Logic

St At	OPEN / STOP / CLOSE
oc oA	OPEN Only
cd	



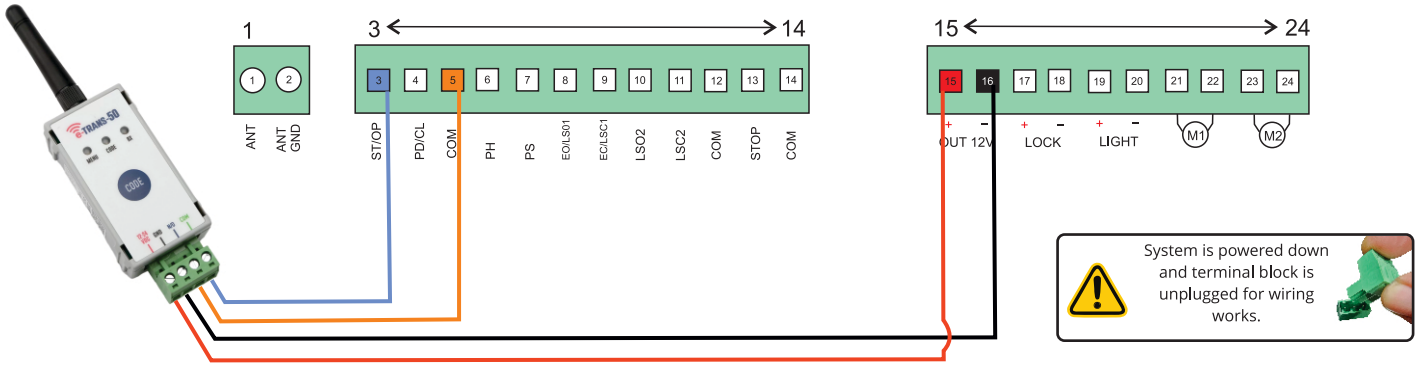
E Loop (WDT)

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

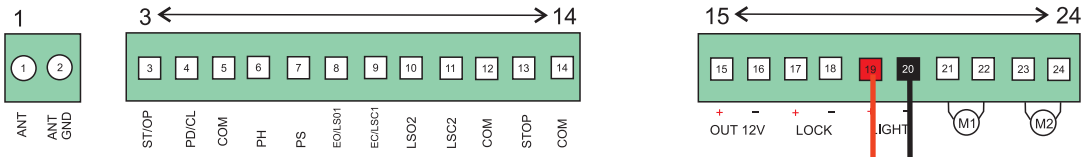
Operating Logic

oL cd	OPEN Only

Only Used with Logic Mode
" Secure Complex"



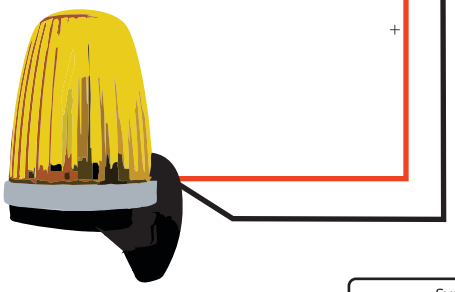
Warning Light Output (24V)

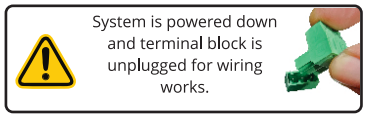


Set system to Flashing or Static Illumination

bL →

FS	Flashing illumination ON/OFF during the cycle
nt	Static illumination during the cycle

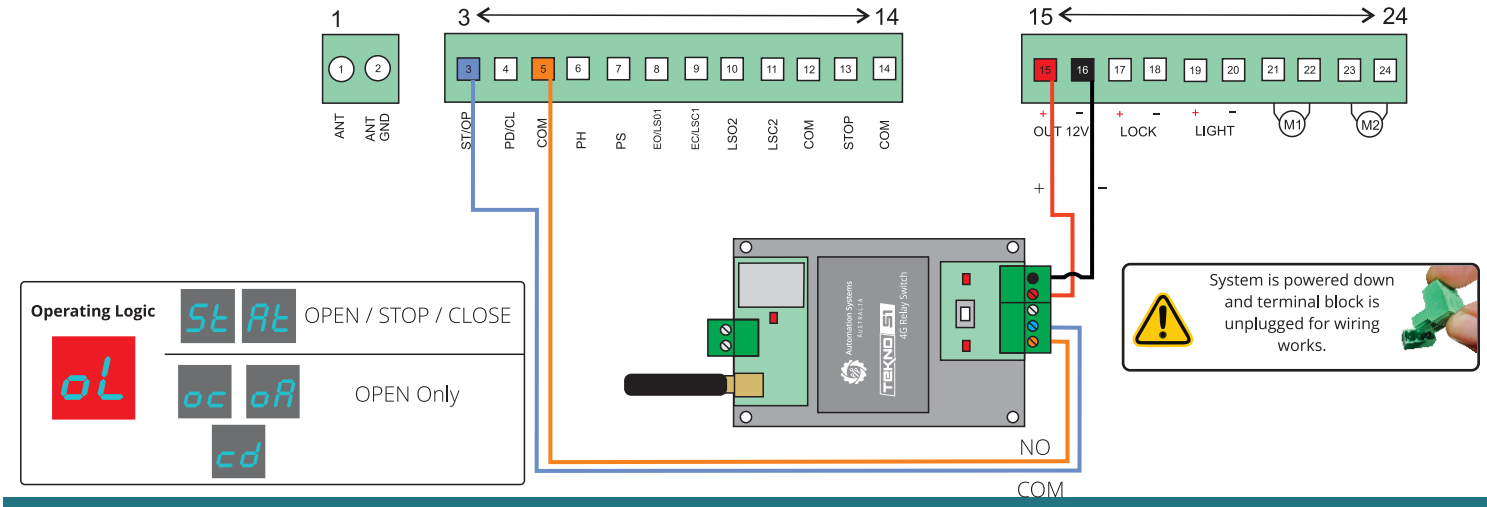




THIS IS NOT A DRIVEWAY LIGHT OUTPUT, Courtesy/Warning Lights Only
If using LPW this feature will be Static Illumination ONLY

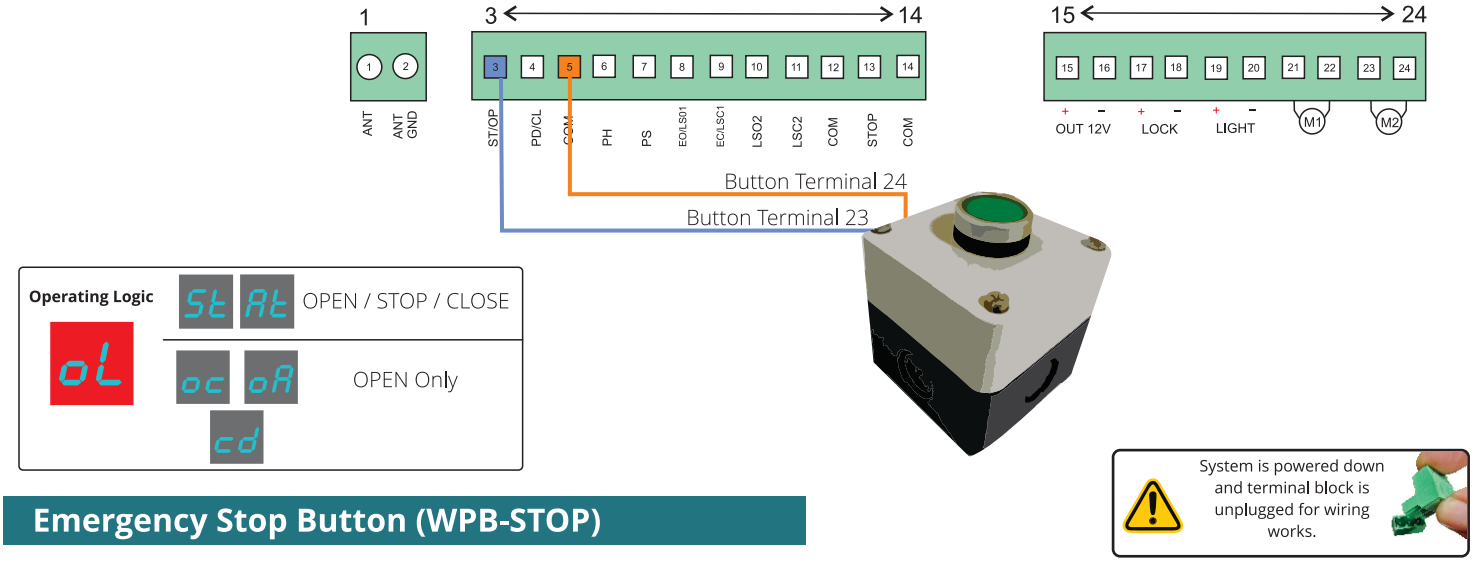
4G Module (Tekno S1)

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



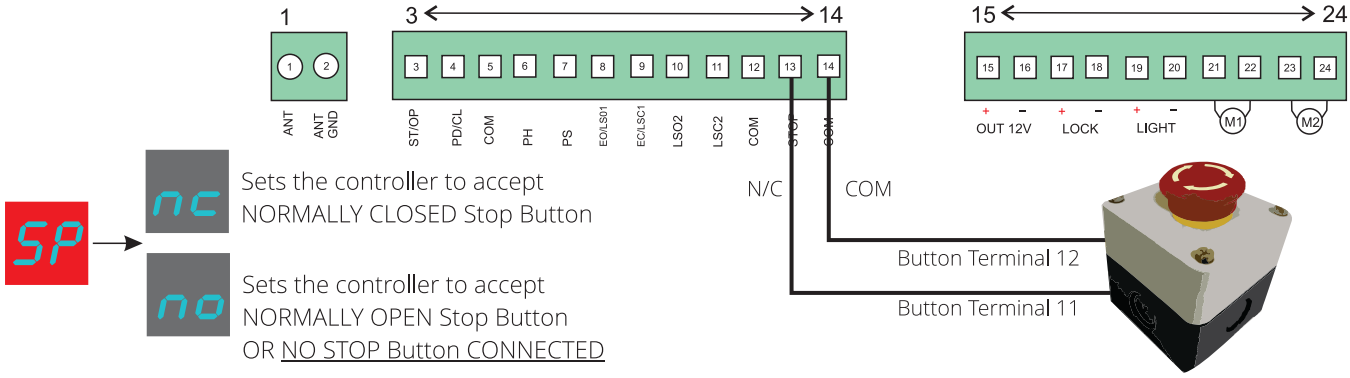
Push Button (WPB-PRESS/WPB-MHEAD)

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



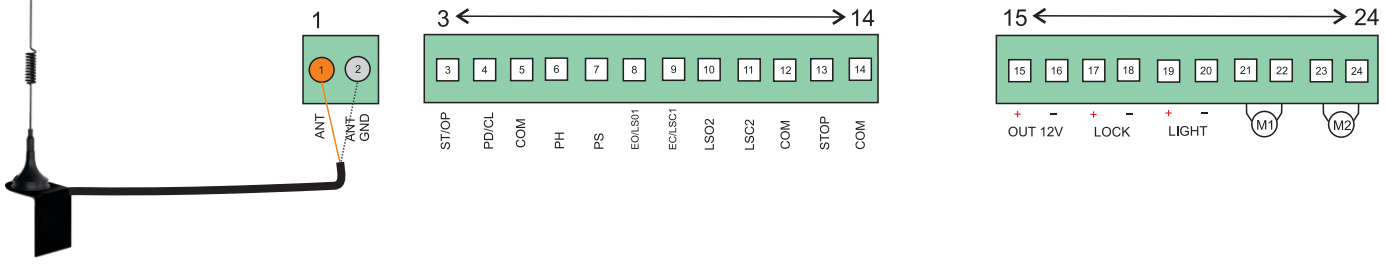
Emergency Stop Button (WPB-STOP)

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.



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
01		
02		
03		
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28		

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.