V1.1.10

Automation Systems

Proteous Series

LOGICO 24



Attention Installer

The manual should be read cover to cover at least once prior to beginning installation

Installation flowchart on page 4

MADE IN ITALY

Installation

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Preliminary Checks

To ensure safety and an efficient automation make sure the following requirements are met:
1. The gate structure must be suitable for automation.
2. Make sure that the gate leafs move properly and uniformly without any irregular friction during their entire travel.
3. The gates hinges must be in good condition with no bitting, no rust and must be well greased.
4. The gates should be able to be freely opened and closed before installing the gates automation system.
5. It is strongly suggested to have a gate stop installed for the closed position.

Important Safety Information

Installer and owners should observe the following:
1. Make sure that there is sufficient space for the gate(s) to swing open fully to the desired opening angle.
2. The control Panel Box must be installed in the area within 9 meters maximum cable distance from motor and cannot be damaged.
3. Do not change with parts or components not supplied by the manufacturer, this includes sensors, buttons, solar panels, transformers and any component not listed in the compatibility list.
4. Make sure all wiring works are correct and in good condition before connecting the battery, solar panel or transformer to the control panel.
5. Turn off the power and disconnect the battery when doing any maintenance.
6. Ensure the control panel box is free from water leakage to avoid short circuiting of the control panel.
7. Do not supply mains power directly to the motor, control box or any accessories.
8. Do not install the operating system if in doubt. Contact the manufacturer.
9. Do not cross the gate while it is operating, Safety sensors are only to prevent accidents or injuries.
10. Keep the remote controls in safe place and away from children.

Before beginning installation the manual should be read thoroughly concerning all aspects of the installation including all precautions and safety information.

Proper steps should be taken to ensure efficient and safe installation for vehicles, property and persons within the operators working radius.

The system is fitted with an over current sensing feature to assist in preventing damages, injuries and death. All precautions must be taken by the installer that adjustments are set correct based on the gates weight, height and length. The system sensitivity should be set to allow consistent operation of the gates under normal operating conditions. This does not include operating against wind. The system may not detect (Over current sense) against light loads such as small object, young children and animals. It is the operators duty to ensure that the area is clear prior to operation. Photo sensors or Reflective sensors should always be installed to assist in accident or death prevention. Rubber edging should be installed onto the gates to assist in dampening any accidents or damages.

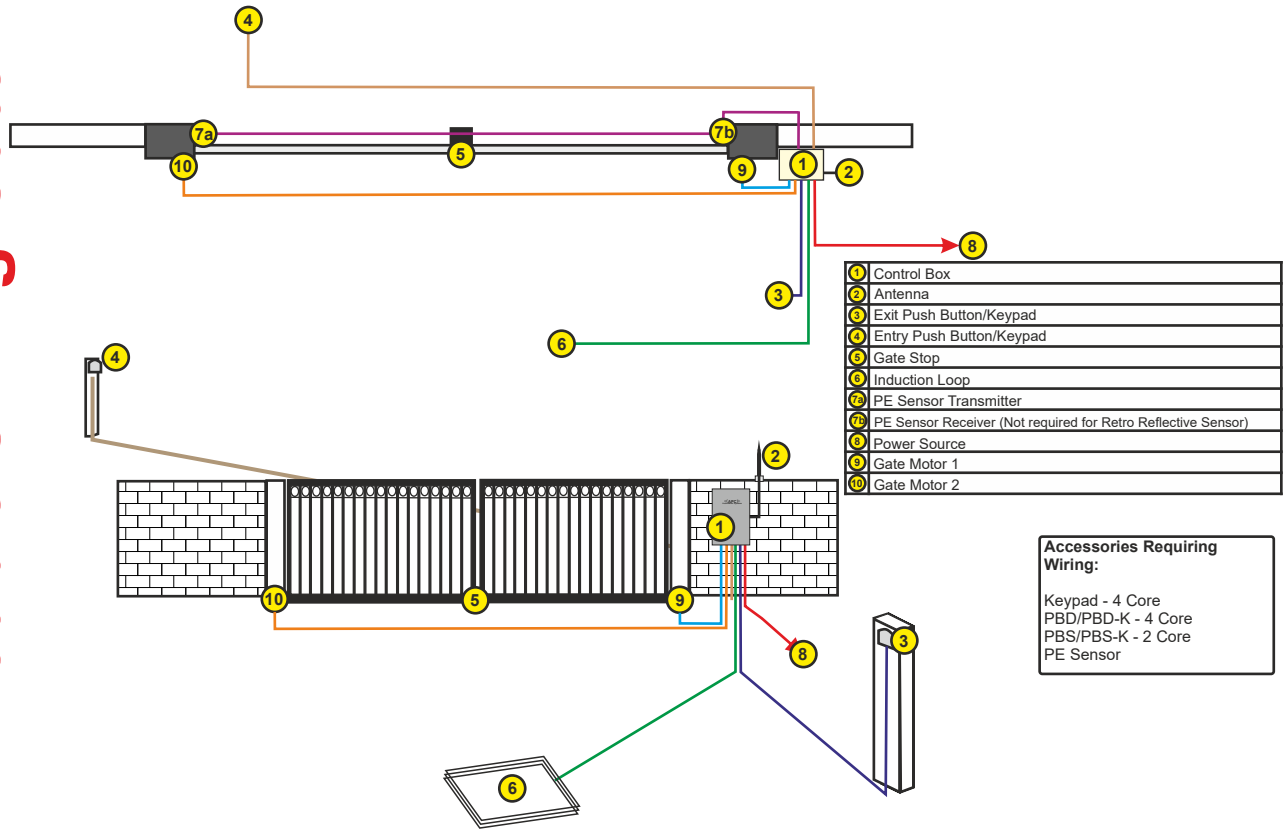
You agree to install this product following any and all safety requirements listed in this manual or required under local, state or national regulations. APC Australia, its distributors, stockist or sellers are not liable for any direct, indirect, incidental, special or consequentional damages or loss of profit wether based in contract or any other legal theory during the course of warranty or afterwards. If you do not feel capable of properly installing the operator based on the above information or otherwise do not proceed.

System Specifications

Input Voltage	24V DC
Max. Total Load (Accessories + Running Motors)	250W
Nominal Load (Each Motor)	80W
Max. Acc Load	7W
Duty Cycle	80%
Operating Temprature	-20°C - + 55°C
Protection	2.5A

Installation Layout

Double Swing Gate

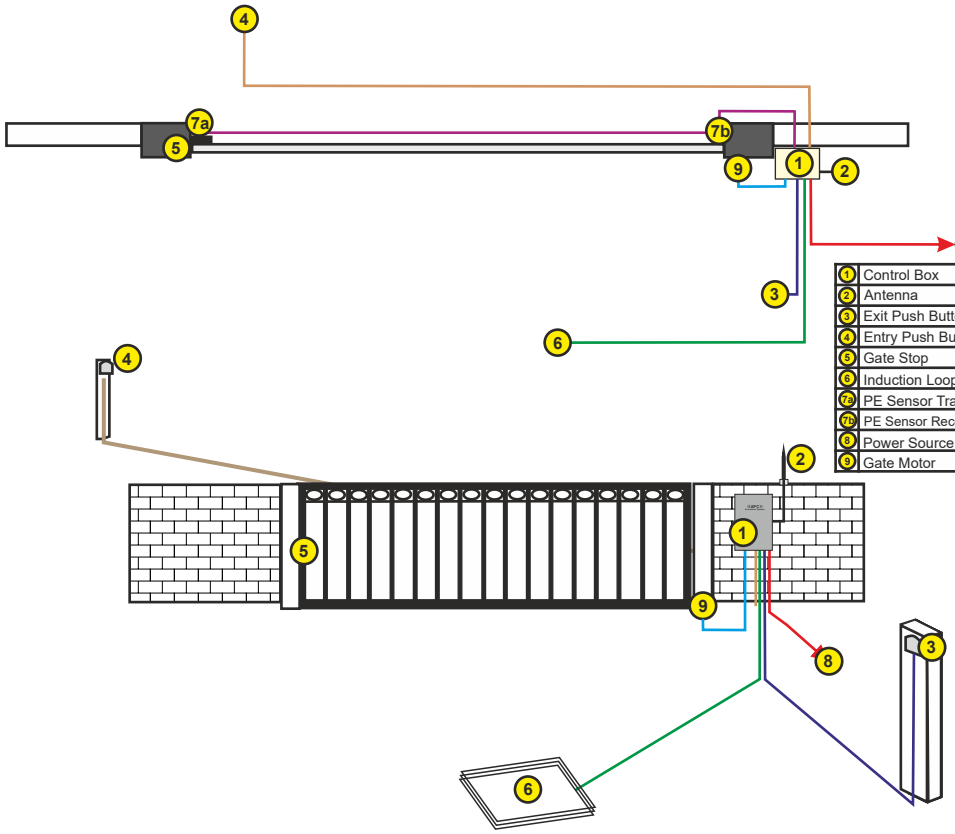


1	Control Box
2	Antenna
3	Exit Push Button/Keypad
4	Entry Push Button/Keypad
5	Gate Stop
6	Induction Loop
7a	PE Sensor Transmitter
7b	PE Sensor Receiver (Not required for Retro Reflective Sensor)
8	Power Source
9	Gate Motor 1
10	Gate Motor 2

Accessories Requiring Wiring:

Keypad - 4 Core
PBD/PBD-K - 4 Core
PBS/PBS-K - 2 Core
PE Sensor

Single Swing Gate



1	Control Box
2	Antenna
3	Exit Push Button/Keypad
4	Entry Push Button/Keypad
5	Gate Stop
6	Induction Loop
7a	PE Sensor Transmitter
7b	PE Sensor Receiver (Not required for Retro Reflective Sensor)
8	Power Source
9	Gate Motor

Accessories Requiring Wiring:

Keypad - 4 Core
PBD/PBD-K - 4 Core
PBS/PBS-K - 2 Core
PE Sensor
Receiver - 4 Core
Transmitter - 2 Core

Configuration according to Motor Type

Each motor type uses a different configuration based on the expectation of the controllers anticipation for end of stroke. See examples below.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to FC.En then press **OK**

Use the ▲▼ keys to adjust.

no for overcurrent motors (no limits)

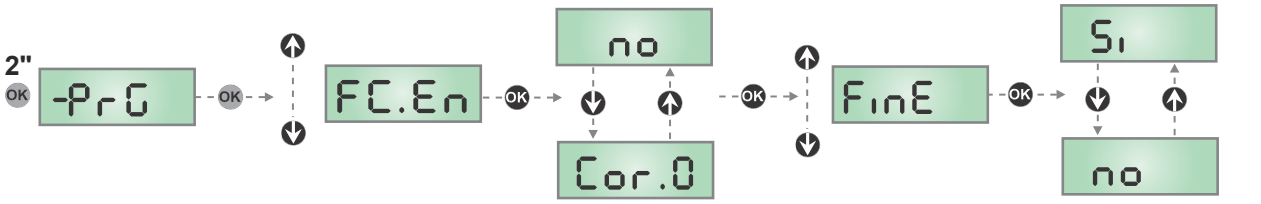
L.SW for motor with limits direct to control board

Cor.0 for motor with limits controller built in

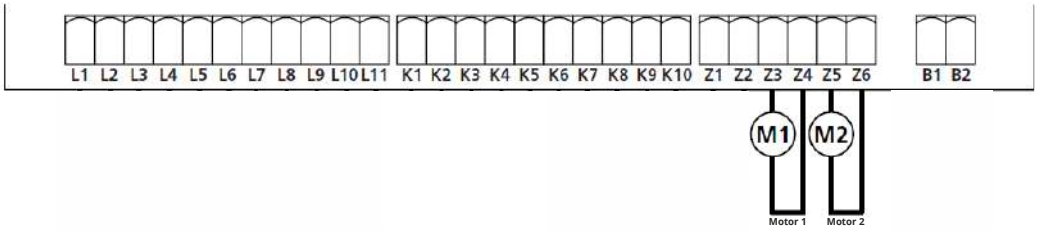
Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

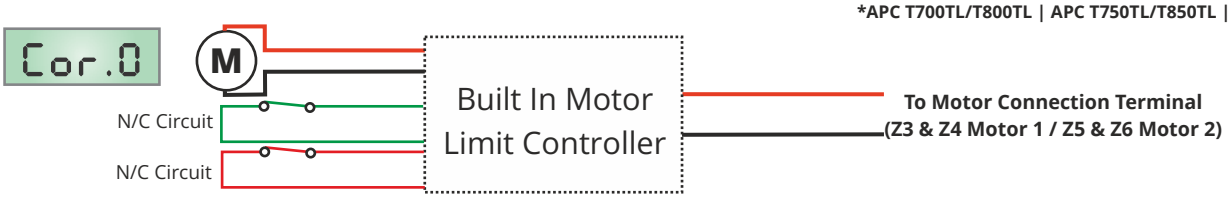


Motor Wiring



Motor* with built in limit controller (Two Wire Configuration)

***APC T700TL/T800TL | APC T750TL/T850TL | APC 790/890**



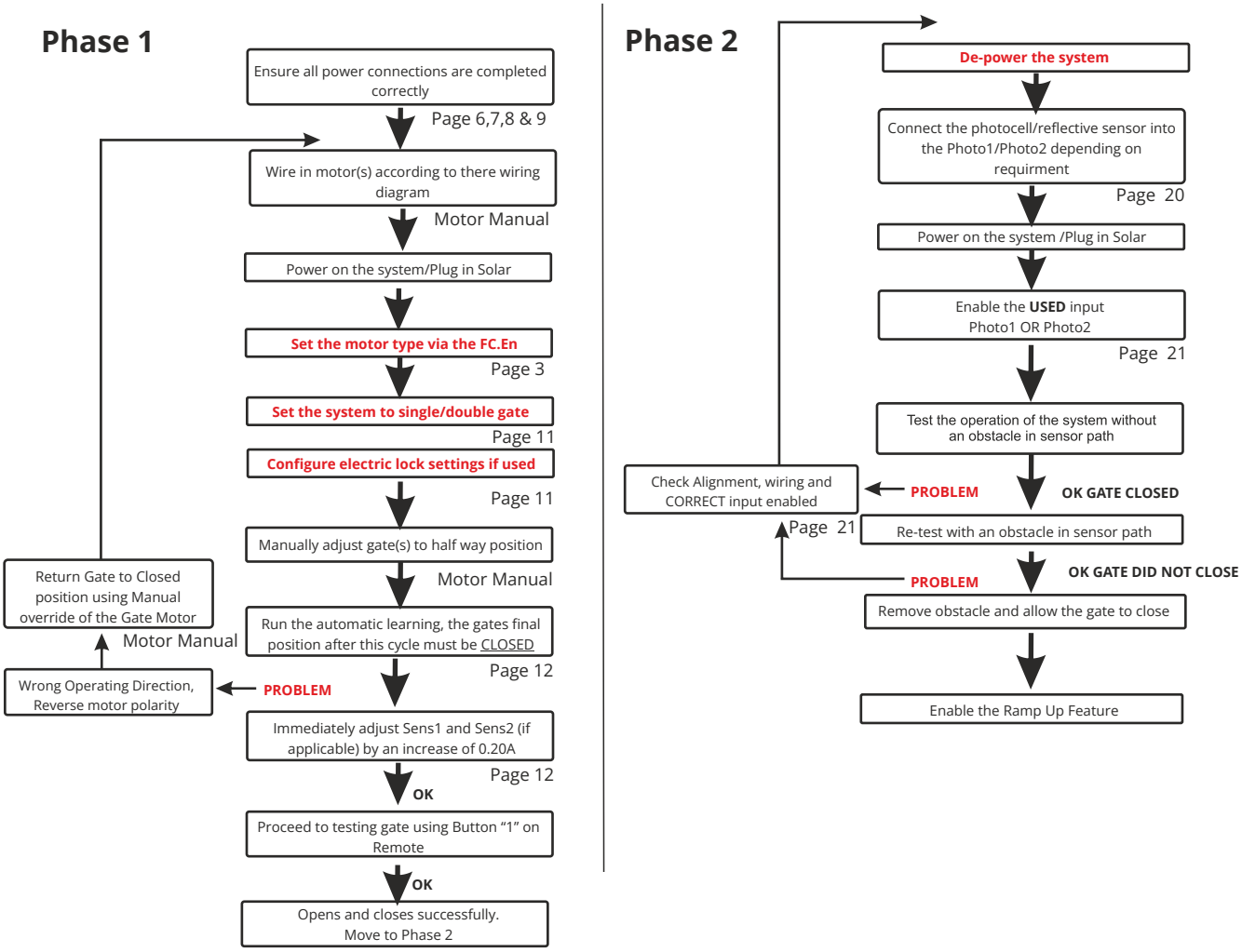
Over current only Motor* (Two Wire Configuration)

***APC T550/T650 | APC T575L/T675L | Proteous Max (PS-3000/PS-6000) | Proteous PT-5000/PT-9000**

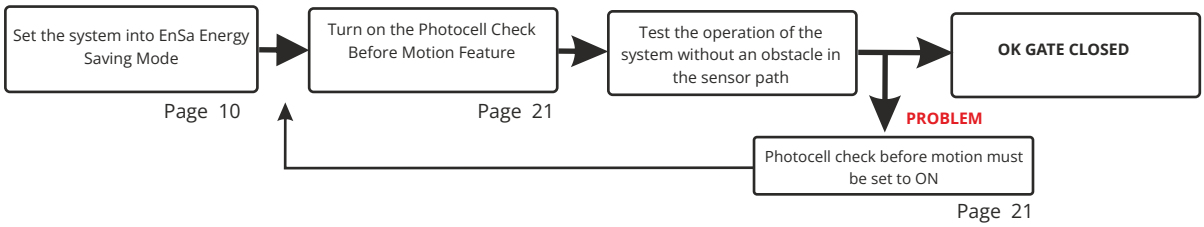


Successful Installation flowchart

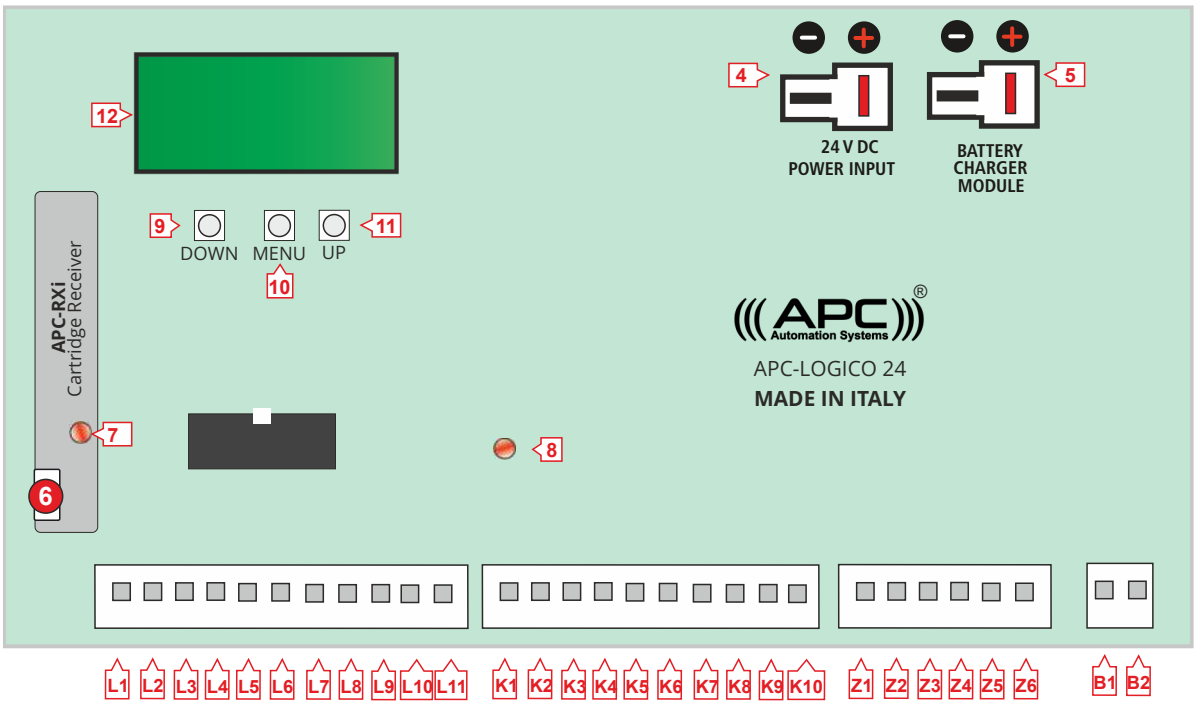
The below should be followed after the installation of the motor(s).



Phase 3 (SOLAR ONLY)



Quick Reference Guide



Operational Inputs
L3. Start (Full Operation) Command (N/O)
L4. Start P. (Pedestrian Operation) Command (N/O)
L5. Stop Command (N/C)
L6. Common Ground

Safety Inputs
L7. Photocell Input 1 ((N/C)
L8. Photocell Input 2 (N/C)
L9. Safety Edge Input 1 (N/C)
L10. Safety Edge Input 2 (N/C)
L11. Common Ground

Accessories Power
K6. Constant +V DC Output
K7. Common
K8. +V DC Output Only when in an operating cycle
K9 & K10: Lock Output

Lamp Output 24V
Z1. Lamp Output + (24V DC Max 3W)
Z2. Lamp Output - (24V DC Max 3W)

Antenna
L1. Antenna Shield (applicable with external antenna)
L2. Antenna Core

Light Output
B1. Pole 1
B2. Pole 2

Pre-Connected Fixed Wiring
1. Motor Connection
2. Limit Switches
3. Encoder

Voltage Supply
4. DC Power Input jack (Solar Input)

5. **Backup Battery Charger Port** (powered systems only)

Remote Cartridge Receiver
6. Remote Pairing Button
7. Remote Cartridge LED indicator

Overload
8. Overload LED indicator

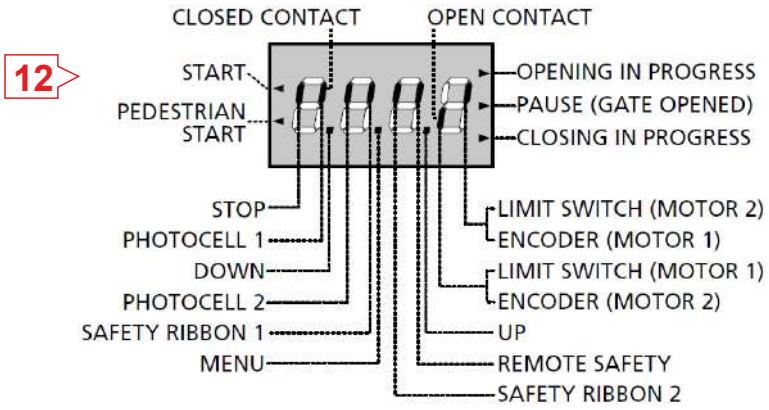
Menu
9. Menu Down / Operate Pedestrian
10. OK
11. Menu Up / Operate Full Gate

Follow your motor install manual for the following terminals:

Motor Output
Z3& Z4. Motor 1
Z5 & Z6. Motor 2

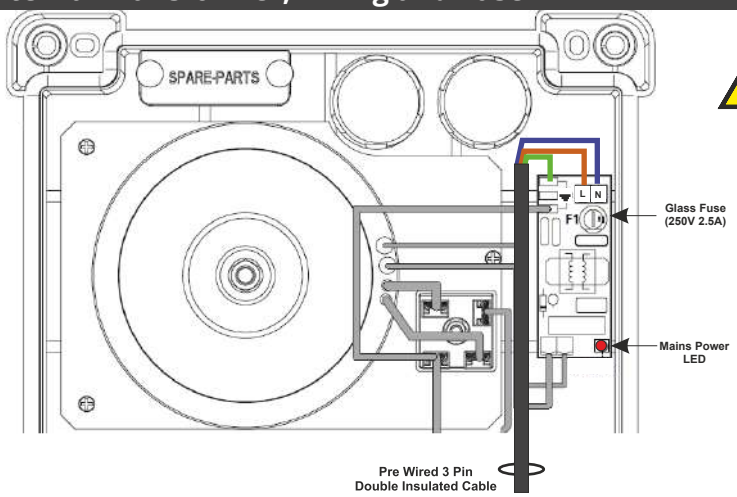
Limits/Encoder
K1. M1 Enc/Open Limit
K2. M1 Enc/Close Limit
K3. M2 Enc/Open Limit
K3. M2 Enc/Close Limit
K3. Limit Common

LCD Interface



Internal Transformer, wiring and Fuse

HIGH VOLTAGE

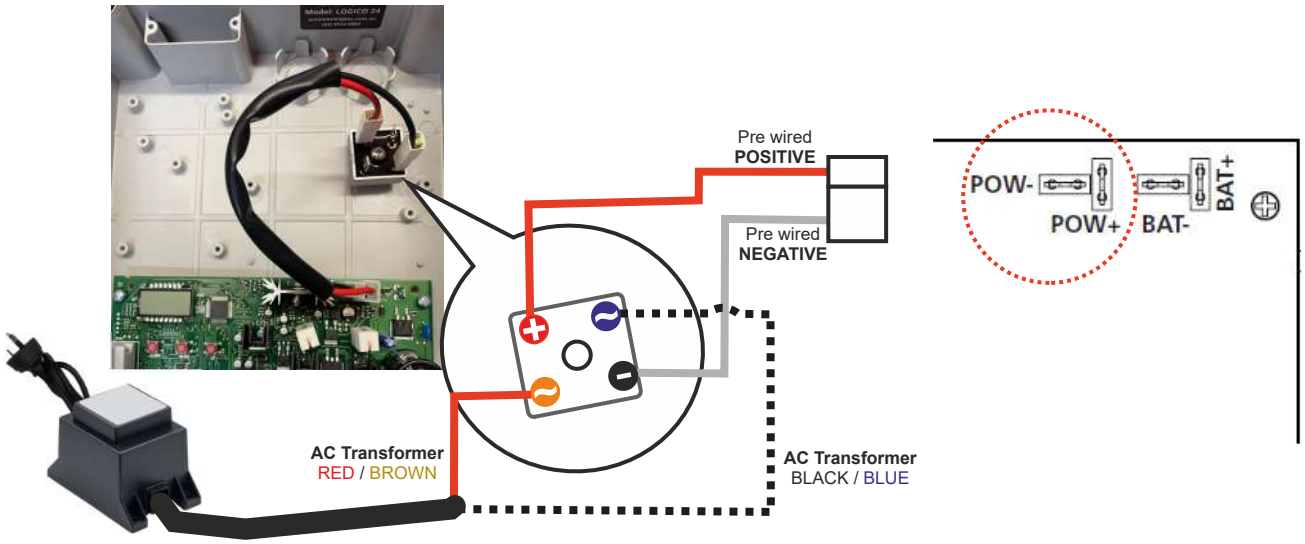


ANY High Voltage Connections MUST be carried out by a QUALIFIED Electrician

APC External AC Transformer (Low Voltage Systems)

Ensure the transformer is NOT powered on before proceeding with any low voltage connections

The diagram below will illustrate the low voltage transformer connection to the bridge rectifier located ABOVE the control board. The transformer should never be connected directly to the control board and must always be wired to the bridge, any other method of connection will result in immediate damage to the system.

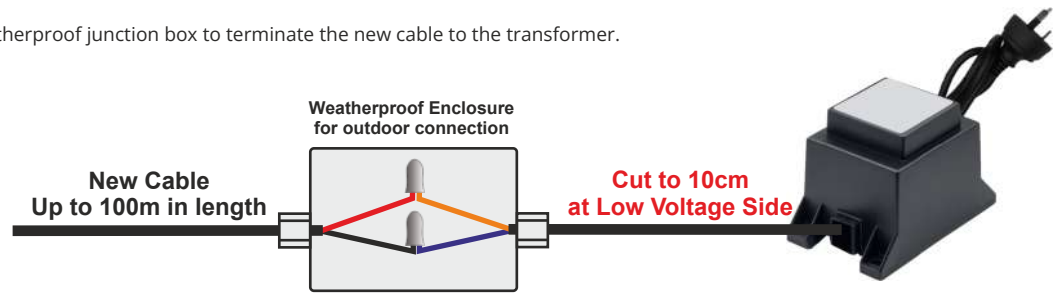


Extending the APC External AC Transformer (low Voltage)

Ensure the transformer is NOT powered on before proceeding with any low voltage connections

Maximum cable distance: The low voltage transformer can be run up to 100m in cable distance when using a 2mm pair conductor or greater. To run the transformer to maximum capacity the cable must be cut at the LOW VOLTAGE SIDE within 10cm from the output.

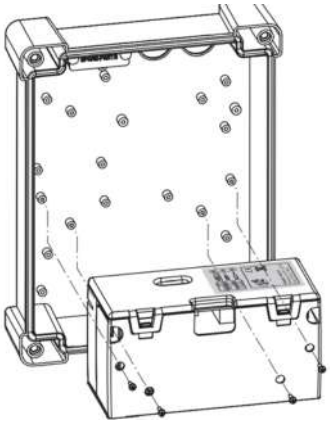
Note: Use a weatherproof junction box to terminate the new cable to the transformer.



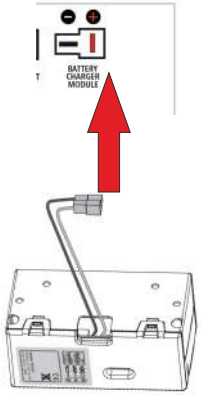
APC Battery Backup (APC-LOGICO-BATT)

Ensure the transformer is NOT powered on before proceeding with any low voltage connections

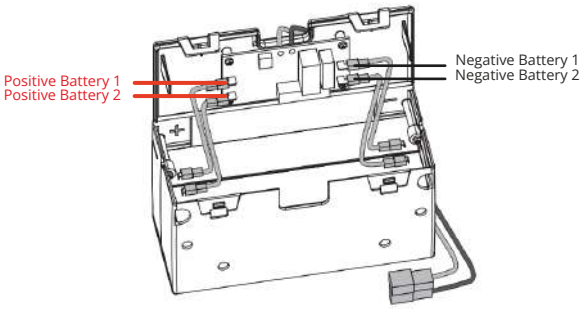
The diagram below will illustrate the battery connection input with the battery charger module. Ensure that the system is de-powered before beginning the wiring connection. Note: This system is only compatible with the APC-LOGICO-BATT.



Step 1:
Install Battery Backup into the enclosure.



Step 2:
Run battery backup cable to the main control box and plug into batter backup terminal.



Step 3:
Connect Batteries as illustrated.

Max. Power on Battery Backup

Default is no

When the system is functioning on battery backup (no mains power) the gates may function poorly due to the power difference, if this is the case it is recommended to enable this feature to give the gate motors maximum power through there battery backup cycles.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

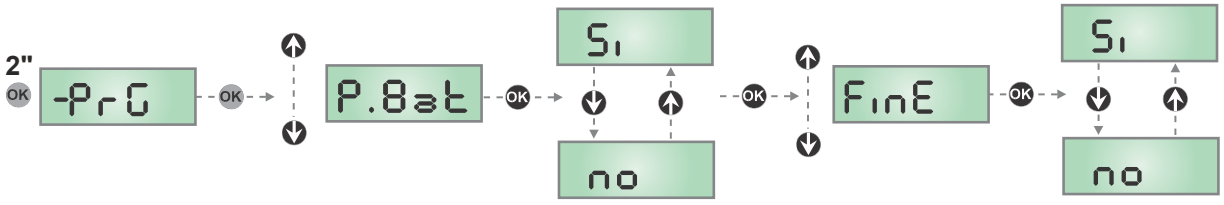
Use the UP/Down keys to cycle to P.Bat then press **OK**

Use the ▲▼ keys to cycle to the required logic based on the above options..

Now press **OK**

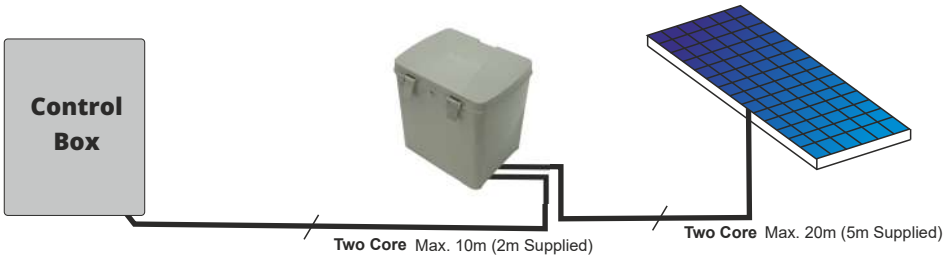
Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Solar System Installation

Taking into account that the solar panels maximum cable distance is 20 metres and the maximum distance between the solar box and the gate controller is 10 metres find a suitable location for the mounting of the box accordingly. Both the solar box and the solar panel are completely weatherproof and can be mounted in complete exposure to the elements.



Step 1: Installing the Solar Panel

LOOSLEY assemble the two clamps to the base plate.



Insert the post into the clamps and tighten. USE the rubber cutouts around the post for best grip



Assemble the base plate to the solar panel using the supplied bolts

1.The solar panel should be installed at 45° facing mid-day to afternoon sun.

2. Assemble and install the solar panel in a place that is exposed to the sun most of the day and as far as possible from any walls or trees.

3. Make sure that the two wires of the solar panel do not touch each other at any time during installation.

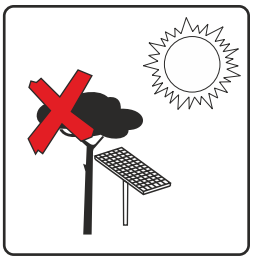
4. Install the solar panel at least 2m above the ground to protect it from dust and small stones.

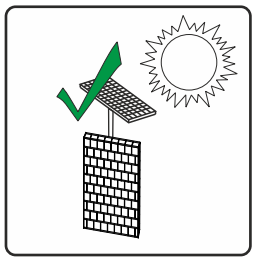
Solar Panel Placement

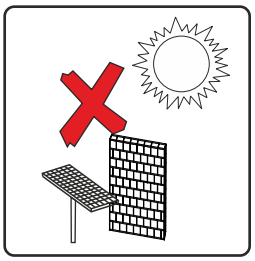
1. A solar panel CANNOT be installed under a tree, it requires sun to charge and maintain the batteries.

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

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

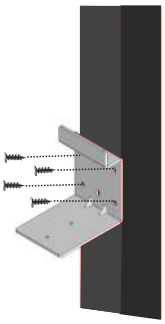




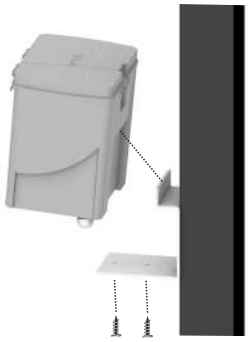


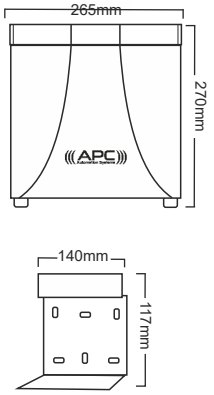
Step 2: Mounting the APC UNO Solar Box

1. Install the bracket to the wall or post using the appropriate fixings whilst adhering to the maximum cable distance of 10m (note that the system is supplied with 2m).



2. Position the solar box onto the installed bracket and secure in place using the two 4mm allen screws at the bottom.





3. Wiring the System to the APC Sun Power

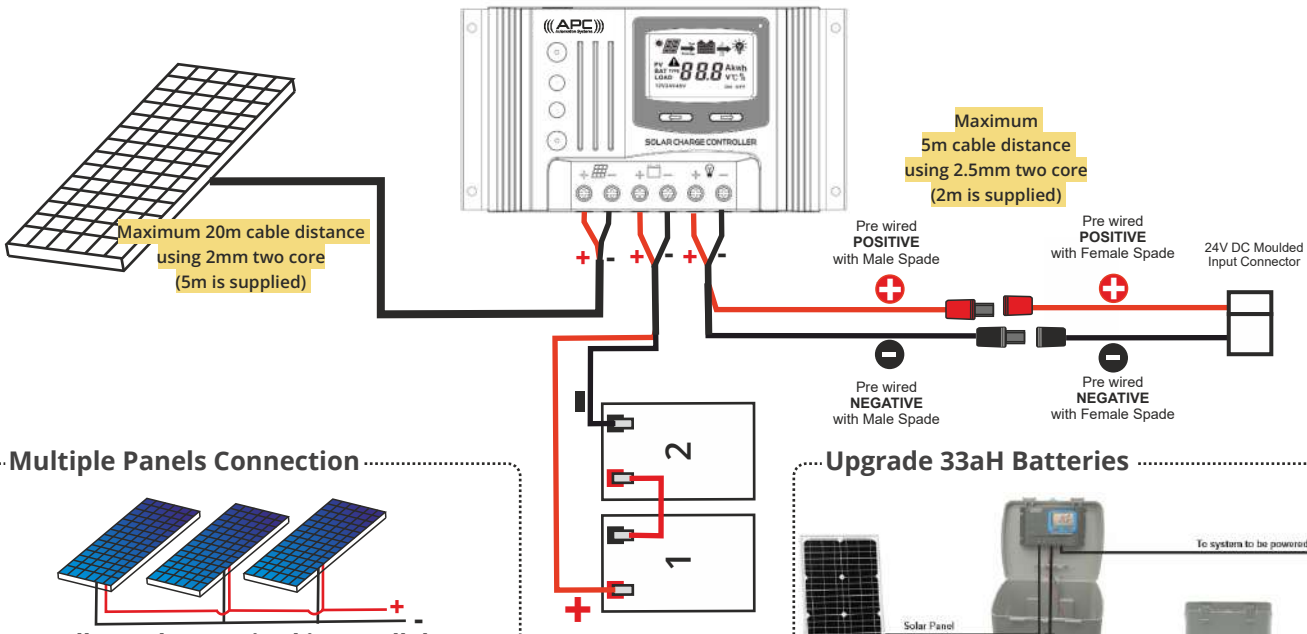
Taking into account that the solar panels maximum cable distance is 20 metres and the maximum distance between the solar box and the gate controller is 10 metres find a suitable location for the mounting of the box accordingly. Both the solar box and the solar panel are completely weatherproof and can be mounted in complete exposure to the elements.

1. Wire the positive and negative of the solar panel to there corresponding terminals.

2. Wire the batteries in series to create a 24V arrangement into the system and wire into the corresponding terminals. Regulator positive direct to battery 1,Regulator negative direct to battery 2,link the remaining terminal of each battery together

3. Wire the regulators load outputs to the control boards green to the 24V DC INPUT moulded connector

4. Plug the 24V DC Input Connector into the control board once ALL wiring works are completed



Multiple Panels Connection

All panels are wired in parallel

MAXIMUM 240W Total Input

When installing multiple collectors consider installing facing in different directions to gather morning and afternoon sun.

Upgrade 33aH Batteries

Step 4: Configuring the system for Energy Saving Mode

Used to reduce the current consumption of the system down to just 5mA whilst in standby enabling this feature will turn off the display of the system 30 seconds after any operating cycle or 30 seconds of being in a standby state.

Note: Energy saving mode also disables the accessories power output, this will affect induction loops, GSM systems, WiFi controllers etc. In such situations the battery system of should be selected carefully as the standby current is 30mA.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to EnSA then press **OK**

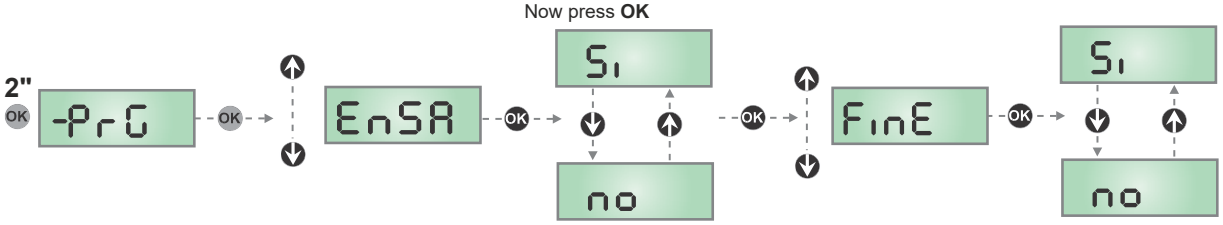
Use the ▲▼ keys to cycle to

EnSA To enable power saving mode
or
no To disable power saving mode

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



M2 Gate Delay in Opening

Default is 1 Second

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to r.AP then press **OK**

Use the ▲▼ keys to cycle to the required time

0.01" is 1 seconds.

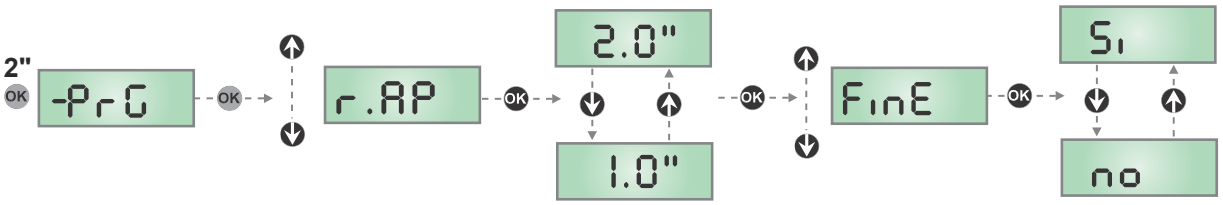
1'0 is 1 minute.

Min. is OFF (NO) **Max.** is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



M1 Gate Delay in Closing

Default is 3 Second

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to r.Ch then press **OK**

Use the ▲▼ keys to cycle to the required time

3.0" is 3 seconds.

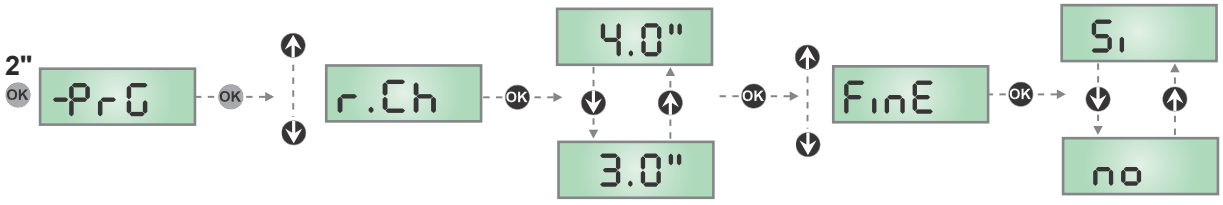
1'0 is 1 minute.

Min. is OFF (NO) **Max.** is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Setting the system to SINGLE GATE/DOUBLE GATE

In the case where the system is a single swinging gate the time for motor 2 output which is not used should be set to 00.0. In the case where the installation is double gate the time can be set to greater than 00.0 (ex. 00.5)as this will be calculated automatically in the SETUP cycle..

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.AP2 then press **OK**

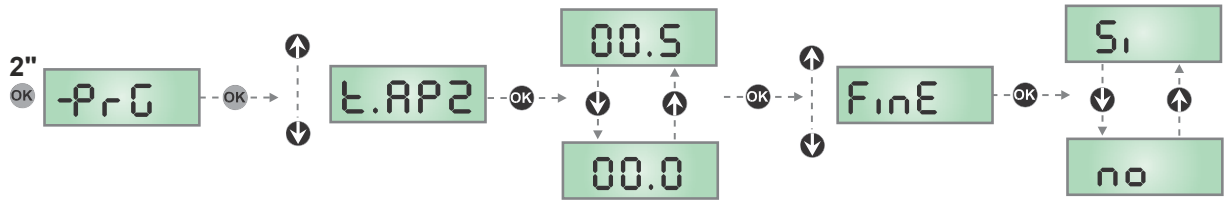
Use the ▲▼ keys to increase/decrease time.

00.0 for single gates
or
00.5 for double gates

Now press **OK**

Use the ▲▼ keys to cycle to FINE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Enabling the Electric Lock and Setting the Unlocking Time

Default is 2 Second

The Electric Lock can be enabled by setting a time or disabled by setting to “no”.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.SEr then press **OK**

Use the ▲▼ keys to cycle to the required time

2.0" is 2 seconds.

1'0 is 1 minute.

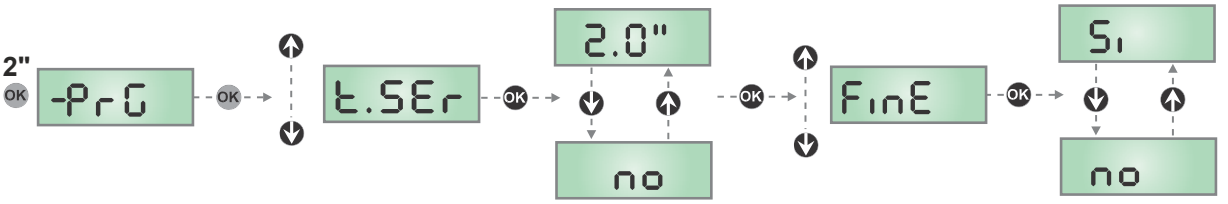
no is OFF

Min. is 0.5 seconds **Max.** is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FINE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Gate System SETUP Cycle



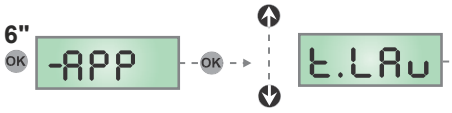
1. Set the Gate(s) Midway By Manual Override Before beginning
2. If the Installation is for a single gate, ensure that M2 is turned OFF
3. Adjust the M2 Opening and M1 Closing Delay If Double Gates and a Delay is required
4. Adjust Electric Lock Time if Required

SETUP CYCLE

Scan Me

1 The purpose of the SETUP cycle is so that the gate control panel can learn its opening and closing limits and learn its slowdown. If the control panel is not setup it may run inconsistently and/or may not reach its stopping points and/or slowdown incorrectly.

Press and hold the **OK** button for about six seconds til the screen displays -APP then immediately release



Use the UP/Down keys to cycle to t.LAU then press **OK**

The SETUP cycle will now open and close the gate(s) so that it can learn the travel distance. It will follow the sequence illustrated below.

2 Double Gate Procedure



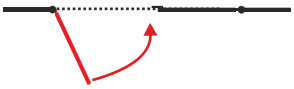
Both gates are set by clutch override to mid way then locked in place.



M1
Partially/Completly Opens



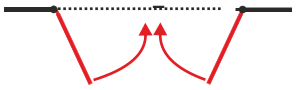
M2
Partially/Completly Closes



M1
Partially/Completly Closes



M1 & M2 Open
Completely Open
(With M2 Open Delay time if set)



M1 & M2 Open
Completely Close
(With M2 Open Delay time if set)

2 Single Gate Procedure



Gates is set by clutch override to mid way then locked in place.



M1
Partially/Completly Closes



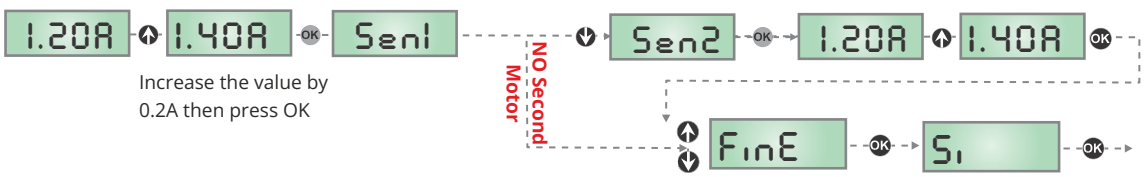
M1
Partially/Completly Opens



M1
Completly Closes

3 Final Settings and Saving

At the end of the procedure it will immediately display current value for M1 Sen1



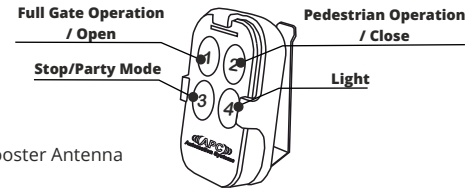
Increase the value by 0.2A then press OK

SECOND MOTOR (M2) Cycle to Sen2 and also increase by 0.2A

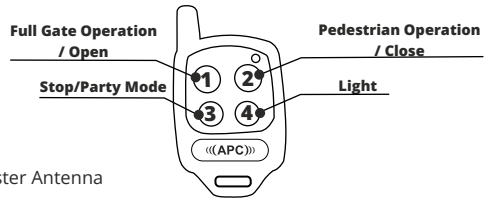
Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

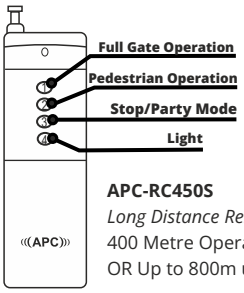
APC Remotes



APC-RC4-SV
Sun Visor Remote
30 Metre Operational Range as is
OR Up to 100m using an ANT-1 Booster Antenna



APC-RC4S
Keyring Remote
20 Metre Operational Range as is
OR Up to 80m using an ANT-1 Booster Antenna

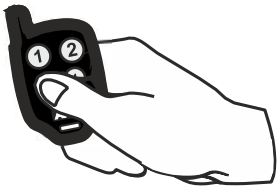


APC-RC450S
Long Distance Remote
400 Metre Operational Range as is
OR Up to 800m using an ANT-1 Booster Antenna

Party Mode

Party mode enables the user to keep the gate open by remote if there is an automatic close timer enabled. To keep the gate open press the STOP button on the remote (button 3) whilst the gate is counting down and it will remain open until the command to operate is given.

Press and **HOLD** "**3**" on the remote control for one second then release WHILST the gate is OPEN.

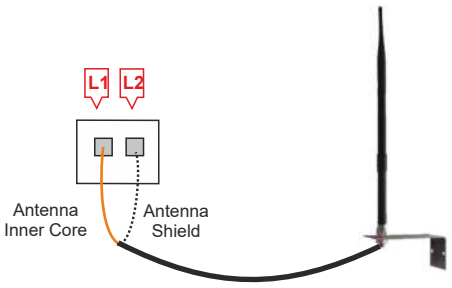


Connecting an APC-ANT1 External Antenna

The ANT-1 external antenna can boost the remote range drastically in most installations.
- APC-RC450S remote can be boosted UP TO 800m distance
- APC-RC4-SV remote can be boosted UP TO 100m distance
- APC-RC4-S remote can be boosted UP TO 80m distance

Inner core of the antenna cable to ANT (A2) on the control board.

Outer core/shield of the antenna to ANT Shield (A1) on the control board.

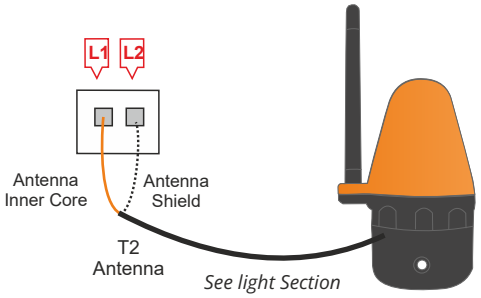


Connecting an APC-ULA Light with External Antenna

The APC-ULA external antenna can boost the remote range substantially with the added feature of a safety light.
- APC-RC450S remote can be boosted UP TO 600m distance
- APC-RC4-SV remote can be boosted UP TO 80m distance
- APC-RC4-S remote can be boosted UP TO 60m distance

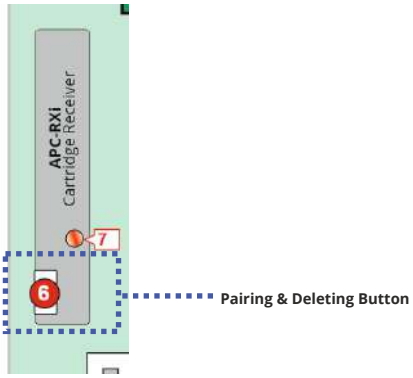
Inner core of the antenna cable to ANT (A2) on the control board.

Outer core/shield of the antenna to ANT Shield (A1) on the control board.



See light Section for light wiring page 23

Pairing & Deleting Wireless Items



REMOTE PAIRING

Scan Me

Pairing Wireless Equipment

1. Push the button on the receiver for one second.

2. A five second window is open to press any button on the remote/wireless push button you wish to pair or type the correct code into the wireless keypad.

• Each time an item is paired it restarts the five second window for additional individual items to be paired
• After five seconds of no activity the receiver will return to standby.

Clearing ALL wireless equipment

1. Turn OFF system power/disconnect 24V DC Power Input

2. Push and HOLD the button on the receiver and continue to hold, power on the system and continue to keep the button pressed. The led on receiver will illuminate for one second, then will blink four times, then will remain illuminated.

3. Release the button. The led will turn off, now the memory of the receiver is cleared.

Clearing an INDIVIDUAL wireless item

1. Turn OFF system power/disconnect 24V DC Power Input

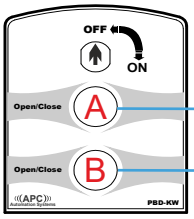
2. Push and HOLD the button on the receiver and continue to hold, power on the system and continue to keep the button pressed. The led on receiver will illuminate for one second, then will blink four times, before the fourth press release the button.

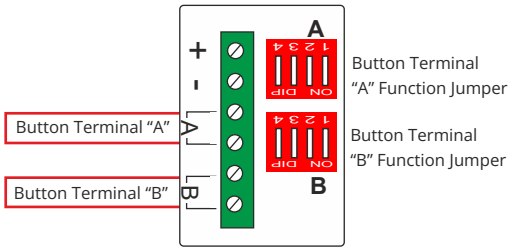
3.A five second window is open to press any button on the remote/wireless push button you wish to delete or type the correct code into the wireless keypad.

• Each time an item is deleted it restarts the five second window for additional individual items to be deleted.
• After five seconds of no activity the receiver will return to standby.

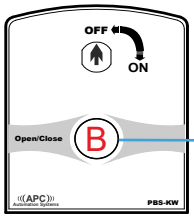
APC Smart Wireless Button Configuration

PBD-KW
(Double Push Button Switch)





PBS-KW
(Single Push Button Switch)



Max. 20 Metre Operational Range*

Setting

Using the DIP switch associated with the button in use (see linked diagrams on the left). You can adjust your DIP switch to enable it to toggle a specific feature. Simply turn the respective DIP switch to the ON position.

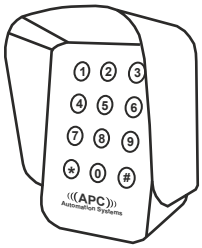


DIP 1
Full Gate Operation / OPEN
DIP 2
Pedestrian Operation / CLOSE
DIP 4 Light
DIP 3 Stop / Party Mode

APC-KP2W Pin number programming (4 Digit)

The APC-KP2W has TWO channels, each channel can control a different function on the system. To continue adding pin numbers after adding the first repeat the steps below.

Note: When you add your first pin number to each channel the default pin code will automatically be erased.



Type in the 4 digit pin code then press #

Default:
1111# For Full Gate Opening / OPEN
2222# For Pedestrian Opening / CLOSE

Max. 20 Metre Operational Range*

Quick Programming Pin Code

Channel 1
Full Operation / OPEN
(Supports 8 Pin Codes)

Master Code * 0 1 # Pin Code #

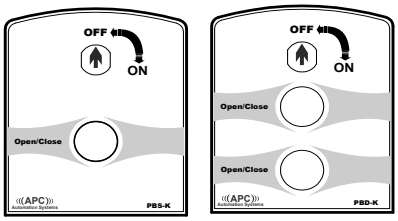
Channel 2
Pedestrian Operation / CLOSE
(Supports 3 Pin Codes)

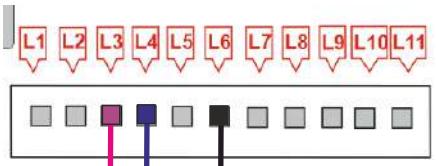
Master Code * 0 2 # Pin Code #

APC Wired Push Button Connection

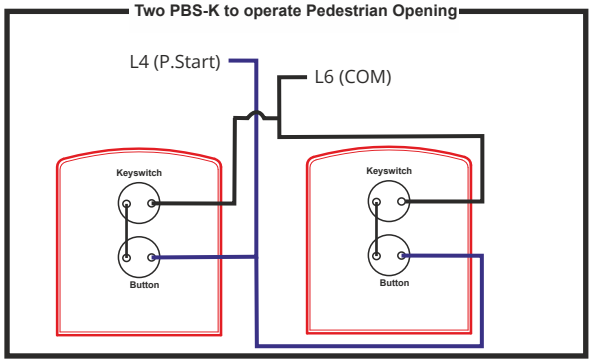
Push buttons are used for opening and closing the gates without using a remote.

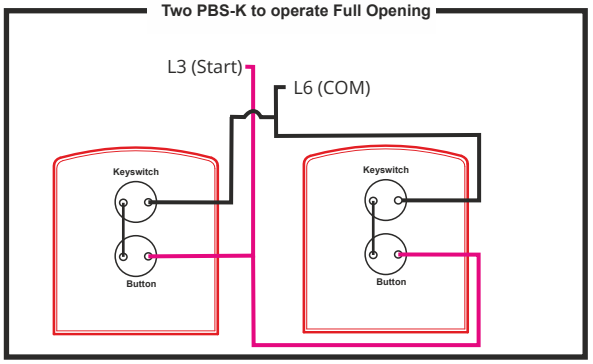
Push buttons can be used for a vast amount of purposes ranging from basic access control for visitors, workers or taking out the bins.

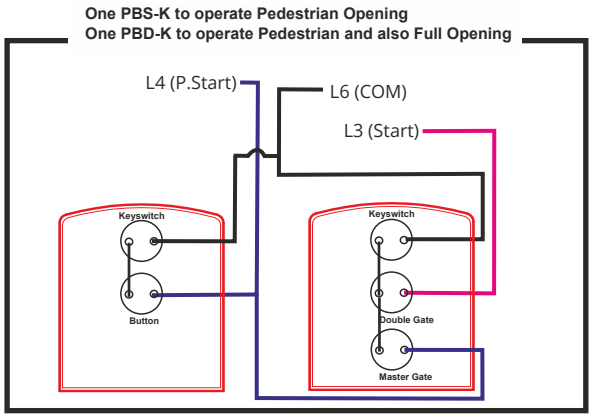


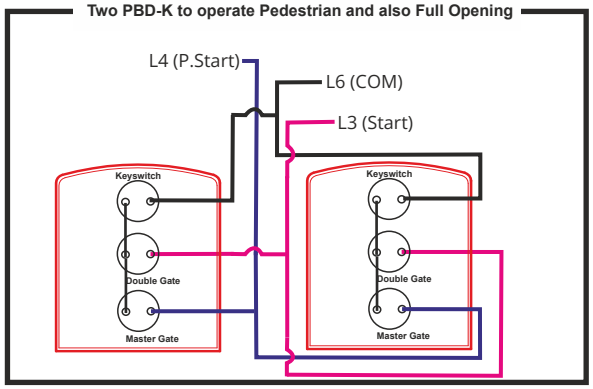


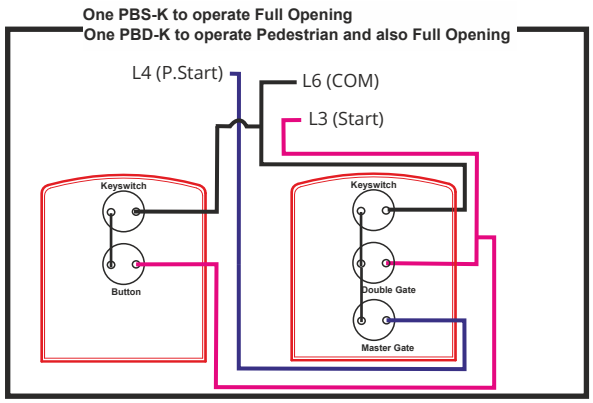
Full Gate opening connection **L3 Start**
Pedestrian Gate opening connection **L4 P.Start**
Common for both connections **L6 COM**







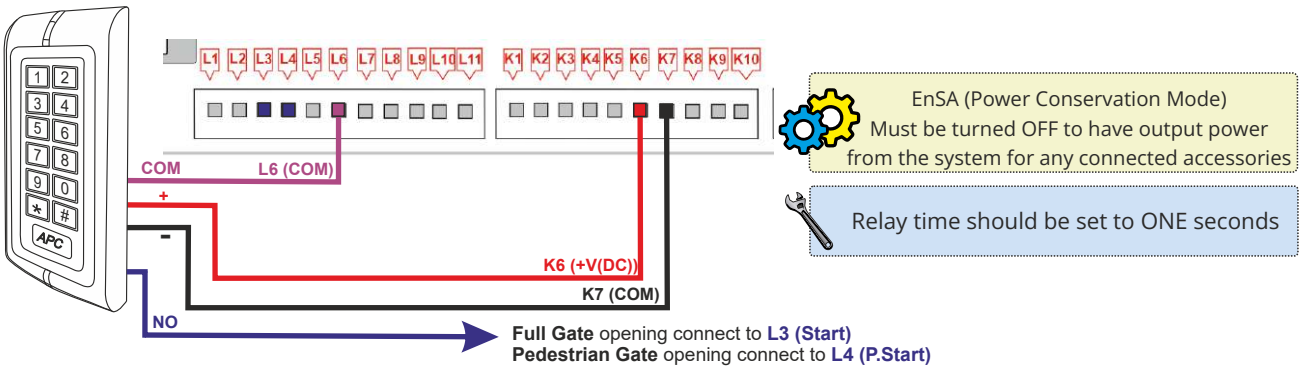




Connecting an APC Keypad (APC-KP1-C)

Unlike a push button entry switch using a keypad can provide a much higher security for access control for guests, workers, tenants etc.

Using a keypad will allow you to manage the users by adding and deleting as required. Its backlit illumination also allows for ease of use at night.



Quick Programming Pin Code / Swipe Tag

*888888#
1
User ID #
PIN/SWIPE #
*
*

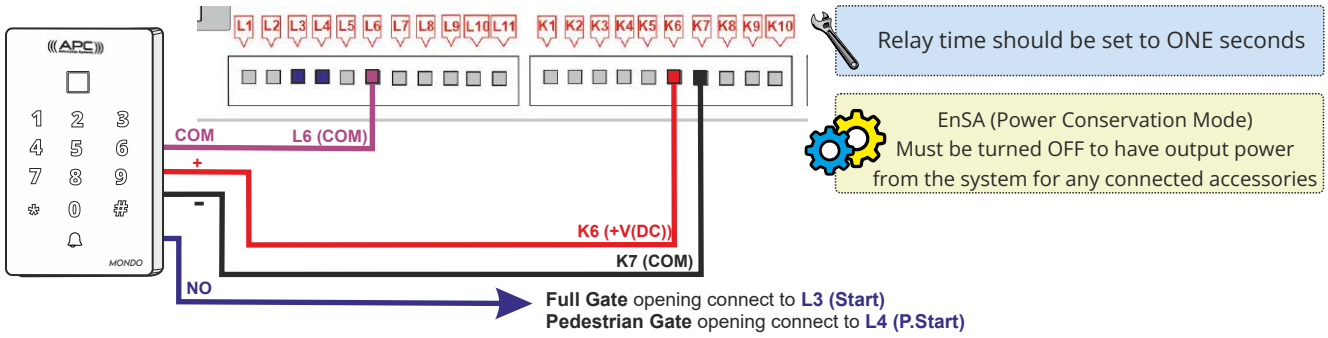
Master Code used to enter programming only
To enter Pin Code/Swipe Card Programming
Any number between 1-999, this number is unique to each pin code/swipe tag and cannot be used twice
The Pin code you would like to use to open the gate (4-6 Digits) OR Swipe the tag past the black window
To Exit programming and return to standby state

Connecting an APC Mondo Wi-Fi Keypad (APC-WF-KP)

Unlike a push button entry switch using a keypad can provide a much higher security for access control for guests, workers, tenants etc.

Using a keypad will allow you to manage the users by adding and deleting as required. Its backlit illumination also allows for ease of use at night.

Furthermore the keypad can be connected to your Wi-Fi network and can be controlled anywhere in the world through the APP.



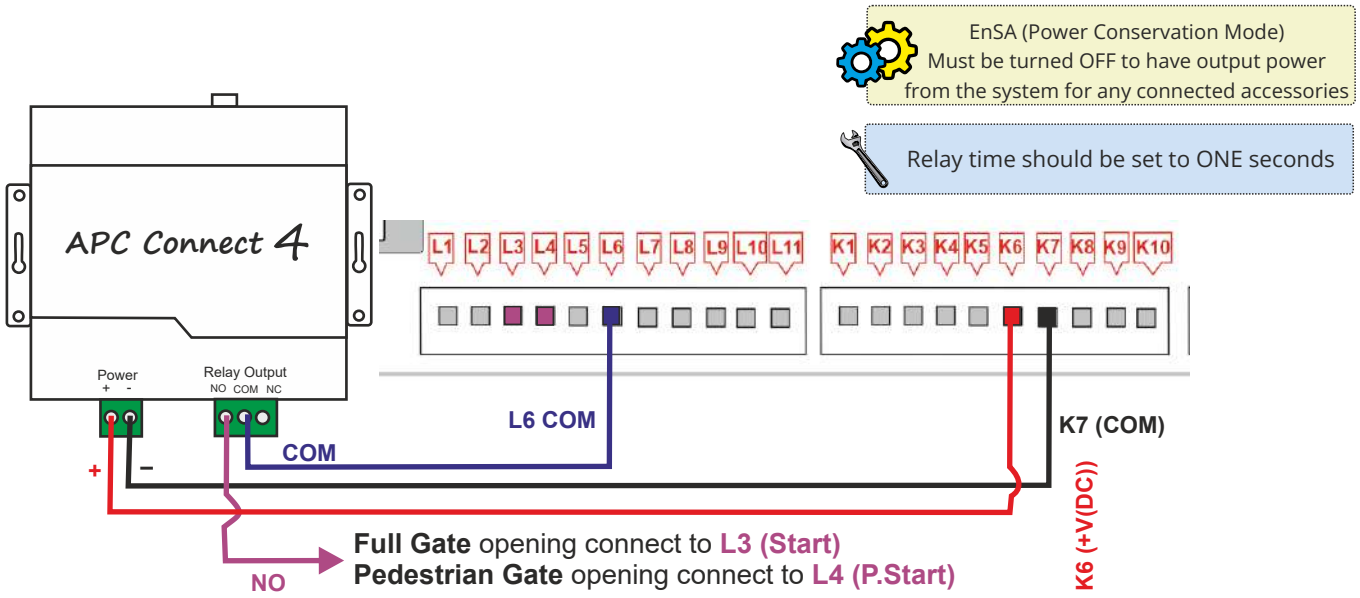
Quick Programming Pin Code / Swipe Tag

*999999#
1
User ID #
PIN/SWIPE #
*
*

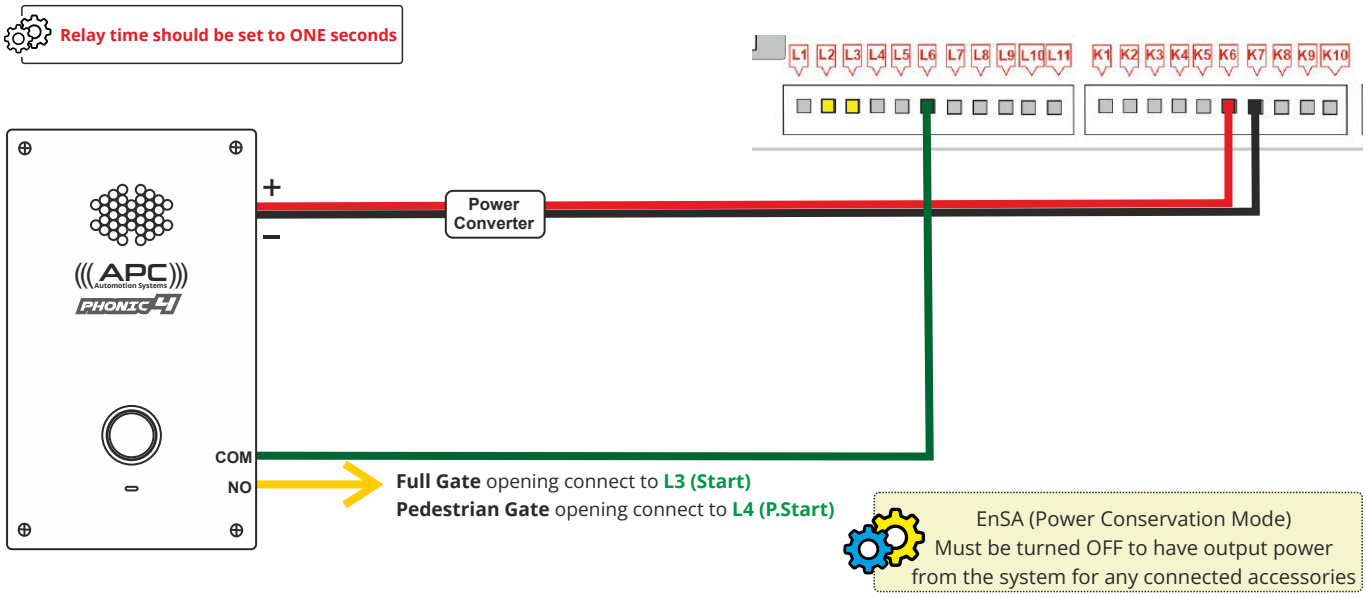
Master Code used to enter programming only
To enter Pin Code/Swipe Card Programming
Any number between 1-999, this number is unique to each pin code/swipe tag and cannot be used twice
The Pin code you would like to use to open the gate (4 Digits) OR Swipe the tag past the red square
To Exit programming and return to standby state

Connecting APC Connect4 GSM Receiver

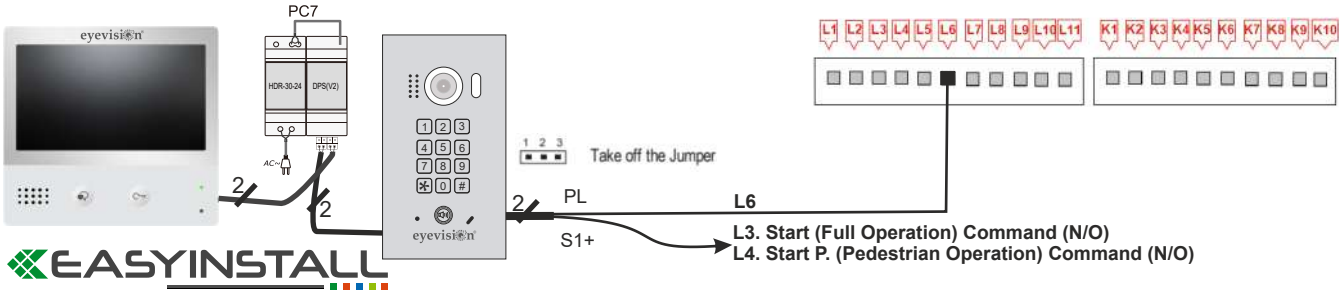
A GSM Receiver is the absolute most flexible form of access control. Providing there is good mobile reception at the gate the GSM switch can operate the gate from anywhere in the world. When receiving a call it will automatically reject the call and open or close the gate. SIM CARD IS NOT SUPPLIED.



Connecting APC PHONIC4 GSM Audio Intercom

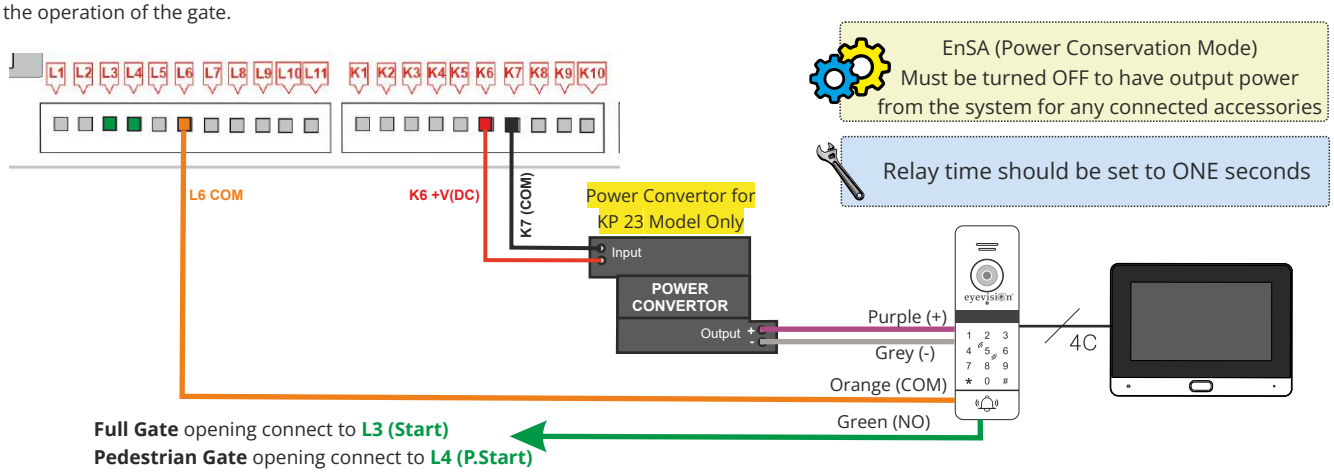


Connecting Eyevision® 2 Wire EasyInstall Video Intercom System



Connecting Eyevision® Intelli Series 4 Wire Video Intercom System

The intelli intercom range will allow you to see your visitors when they ring the doorbell wether on screen or by the APP and also control the operation of the gate.



EnSA (Power Conservation Mode)
Must be turned OFF to have output power from the system for any connected accessories

Relay time should be set to ONE seconds

Installing APC Infinity Wi-Fi Module

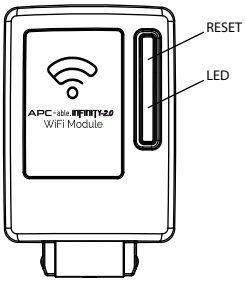
Download **Able to Use** APP from App Store or Google Play
Remote gate automation management with Smartphone

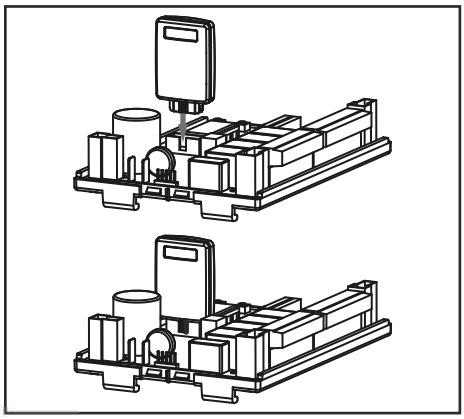
able. to use

Download on the App Store

Google play

APC-able.INFINITY-2.0 WiFi Module





INSTALLATION

1. Disconnect the power supply to the control unit
2. Insert the module into the ADI port of the control unit
3. At the first installation, make sure that the module is in access point mode (RED LED ON STEADY)
4. Then proceed to enroll the control panel to the server following the instructions provided by the **Able to Use** APP **(APC Able-Infinity-*2.0* User Manual)**

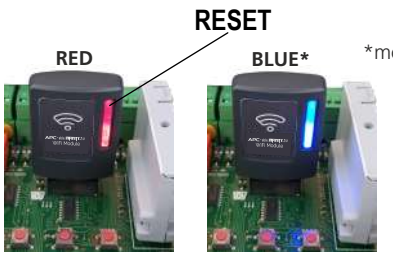
NOTE: If the module is not in access point mode, reset the module using the reset procedure: press the reset button for 3 seconds, the LED must go out and light up again, remaining steady red



control board

STATUS OF LED

- **FIXED RED:** The module is in Access Point mode, waiting for a connection
- **FLASHING RED:** mismatch between the serial of the control panel and the serial stored in the module. Perform the module reset procedure
- **FIXED BLUE:** STA mode, module connected to the server



*module connected

For further details see APC Able-Infinity user manual

EnSA (Power Conservation Mode)
Must be turned OFF to have output power from the system for any connected accessories

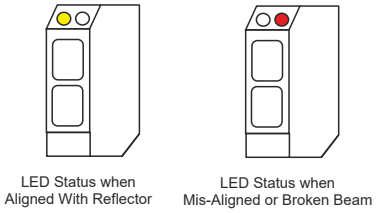
APC Infinity should be installed only after the gate automation is fully operational.

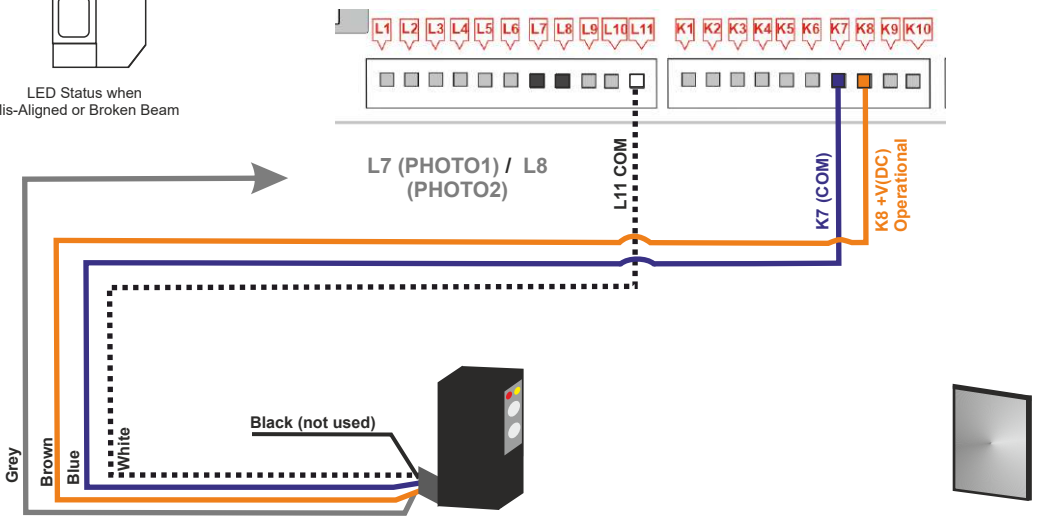
Connecting a Retro Reflective Sensor (APC-RR-11)

APC-RR-11 Reflective sensor (Transmitter only) **must be connected back to the control board** *(see wiring diagram)*.
Install the RR-11 Reflective sensor on the first entry point of the driveway from post to post at approx. 500mm above ground level.

The Transmitter and the Reflector must be inline with each other
(The yellow inline LED will be ON when Aligned with the transmitter).

If Using EnSA energy saving mode
Ensure the Photocell
"Check before motion" is enabled



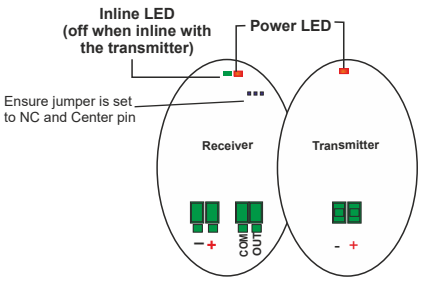


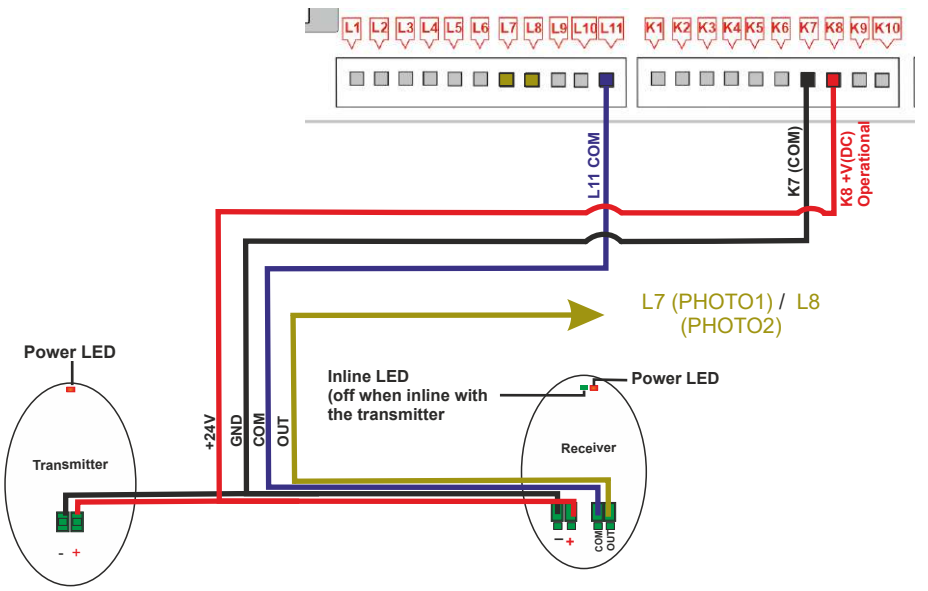
Connecting a PE Sensor (APC-PE2000)

APC-PE2000 PE sensor (Transmitter & Receiver) must be connected back to the control panel.
Install the PE2000 Photoelectric sensor on the first entry point of the driveway from post to post at approx. 500mm above ground level.

The Transmitter and the Receiver must be inline with each other
(The inline LED will be off when aligned with the transmitter).

If Using EnSA energy saving mode
Ensure the Photocell
"Check before motion" is enabled





Enabling the photocell and setting the logic

"Check before motion" for Photocell

Default is OFF

Prior to enabling the photocell you will first need to choose the logic system in which it will operate.
FOT1 Logic will function during both the opening and closing cycles (check can be enabled prior to beginning either cycle).
FOT2 Can be set to function in closing or in closing along with a check prior to beginning the closing cycle.

FOT2 Logic (PHOTO 2 Input)

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

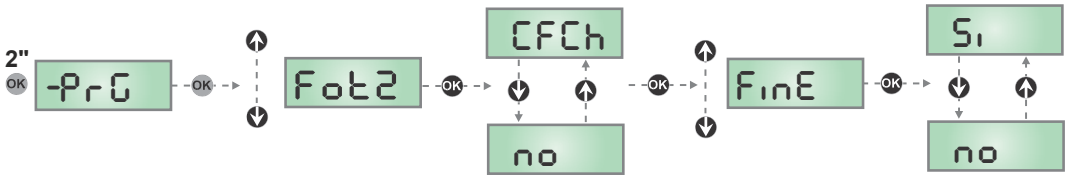
Use the UP/Down keys to cycle to Fot2 then press **OK**

Use the ▲▼ keys to cycle to the required logic based on the above options.
CFCh **Closing direction + check before motion of starting the close cycle**
Ch Closing direction only
no Disabled

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



FOT1 Logic (PHOTO 1 Input)

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to Fot1 then press **OK**

Use the ▲▼ keys to cycle to the required logic based on the above options.

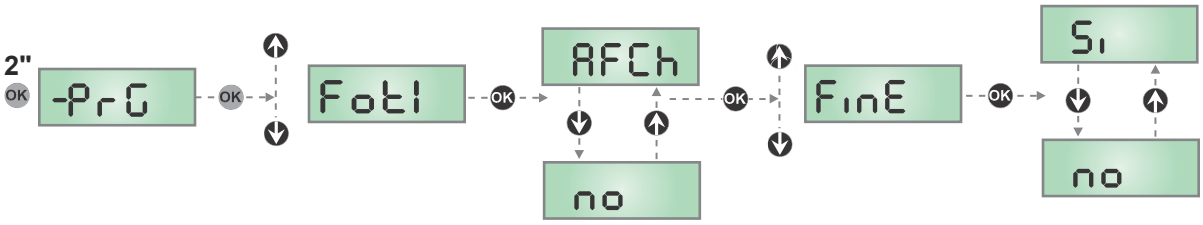
APCh Enabled

no Disabled

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Photocell Test *manual setting of check before motion*

Default is Off

Prior to gate movment a photocell test can be performed. This cycle takes place one second prior to movment of the gates.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to Ft.tE then press **OK**

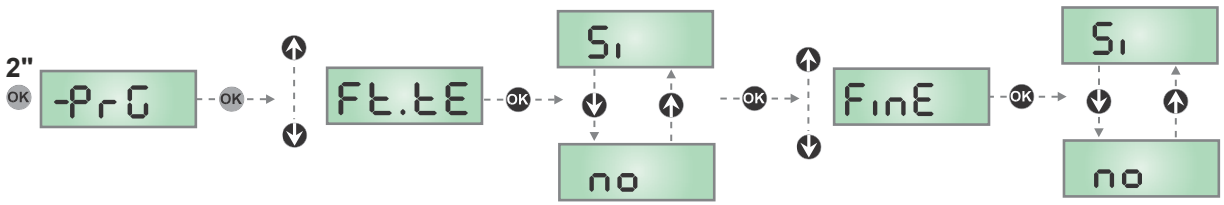
Use the ▲▼ keys to cycle to

Si for to enable the test
or
no to disable the test.

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Automatic Closing for Full Gate Operation

Default is Off

The full gate operation automatic close timer can be configured for anywhere from 5 second up to 20 minutes in 5 second increments. Note the symbol for seconds is “ and for minutes is ’.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to Ch.AU then press **OK**

Use the ▲▼ keys to cycle to

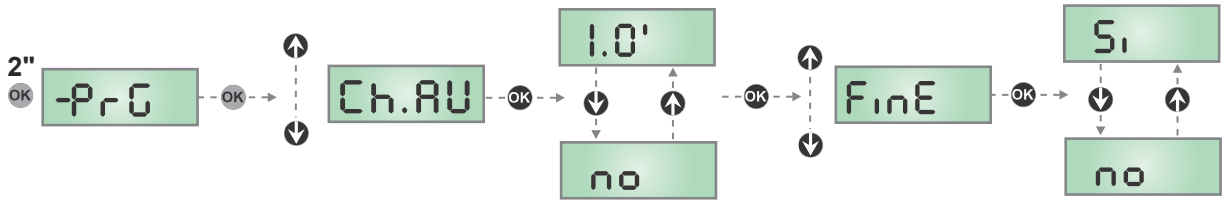
no for no automatic close or

HH.HH based on your desired auto close time.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Automatic Closing for Pedestrian Function

Default is Off

The pedestrian gate operation automatic close timer can be configured for anywhere from 5 second up to 20 minutes in 5 second increments. Note the symbol for seconds is “ and for minutes is ’.

The pedestrian gate automatic close timer begins from the last movement through the photocells and restarts each time accordingly every time there is a moment through the photocells.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to Ch.tr then press **OK**

Use the ▲▼ keys to cycle to

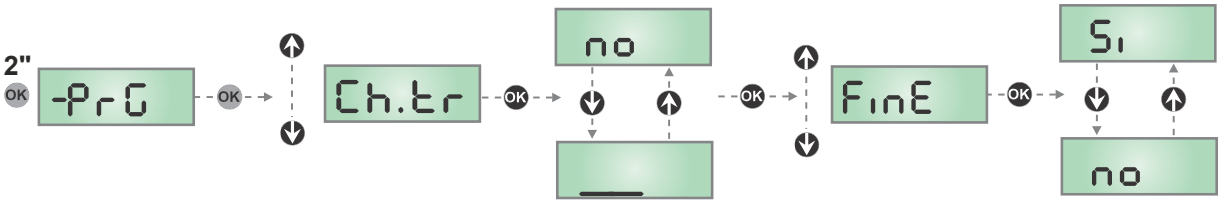
no for no automatic close or

HH based on your desired auto close time.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Automatic Closing after stopping the full gate operation

Default is Off

In the case where a user has stopped the gate part way though a full gate operation cycle the system can still be set to auto close from this position by enabling the feature using the command below. Once enabled it will use the same time that has been set for pedestrian gate auto close time.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to PA.tr then press **OK**

Use the ▲▼ keys to cycle to

no Requires the user to close the gate the normal by remote or access control

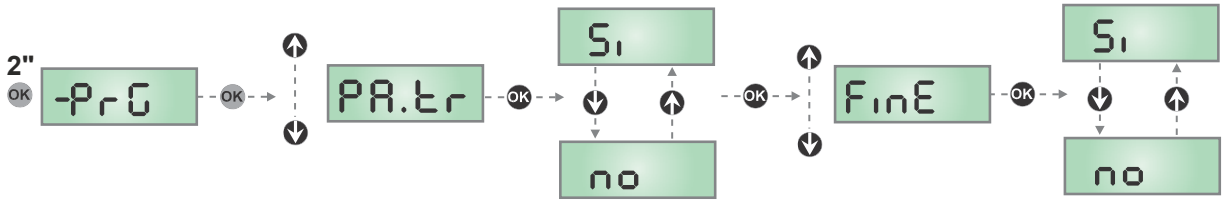
or

SI Will Automatically close based on pedestrian auto close time

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



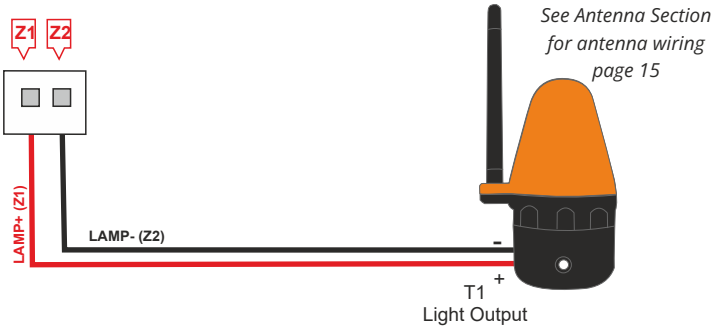
Connecting an APC-ULA Safety Lamp

Warning lights are used to alert pedestrians to be cautious as there may be vehicles entering and exiting.
Note: Ensure that the light is set to constant illumination mode (not flashing) as this can be set from the logic parameters below.

THIS OUTPUT IS NOT FOR DRIVEWAY LIGHTS
see driveway light section page 29

This internal relay will support an output of 24V 3W Maximum

EnSA (Power Conservation Mode) Must be turned OFF to have output power from the system for any connected accessories



See Antenna Section for antenna wiring page 15

Setting the Lamp Output

Default is Flashing

The lamp output can be set to OFF, Flashing at one rate (Slow 20HZ) or Conditional flashing based on the current status.
Conditional Flashing status:
Gate stopped (Lamp OFF)
Gate in auto close count down (the lamp is Continuously on)
Gate Opening (Slow 2HZ blinking)
Gate Closing (Fast 4HZ Blinking)

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to SPIR then press **OK**

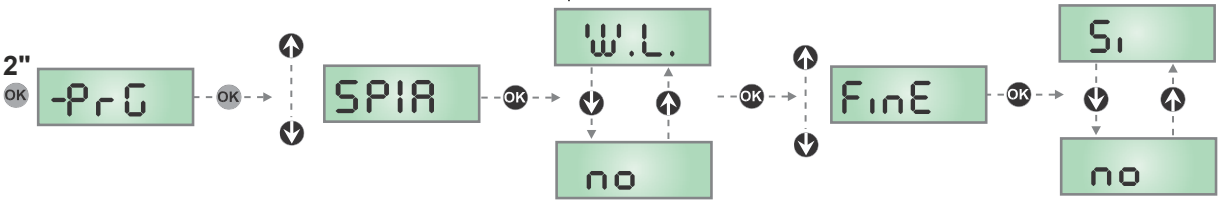
Use the ▲▼ keys to cycle to

no for OFF
FLSh for fixed frequency flashing
W.L. for conditional flashing

Now press **OK**

Use the ▲▼ keys to cycle to FINE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Enable Blinking During Auto Close Countdown

Default is OFF

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to LP.PR then press **OK**

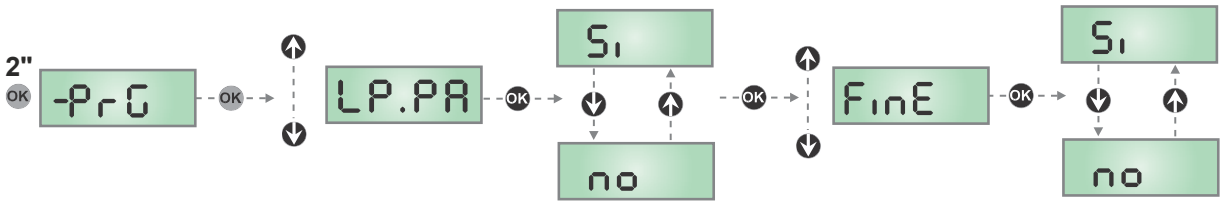
Use the ▲▼ keys to cycle to

no for OFF
S1 for ON

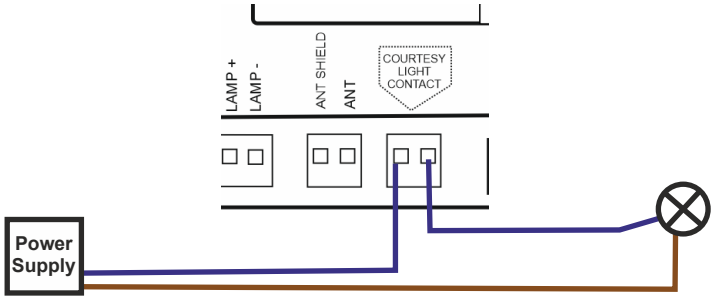
Now press **OK**

Use the ▲▼ keys to cycle to FINE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



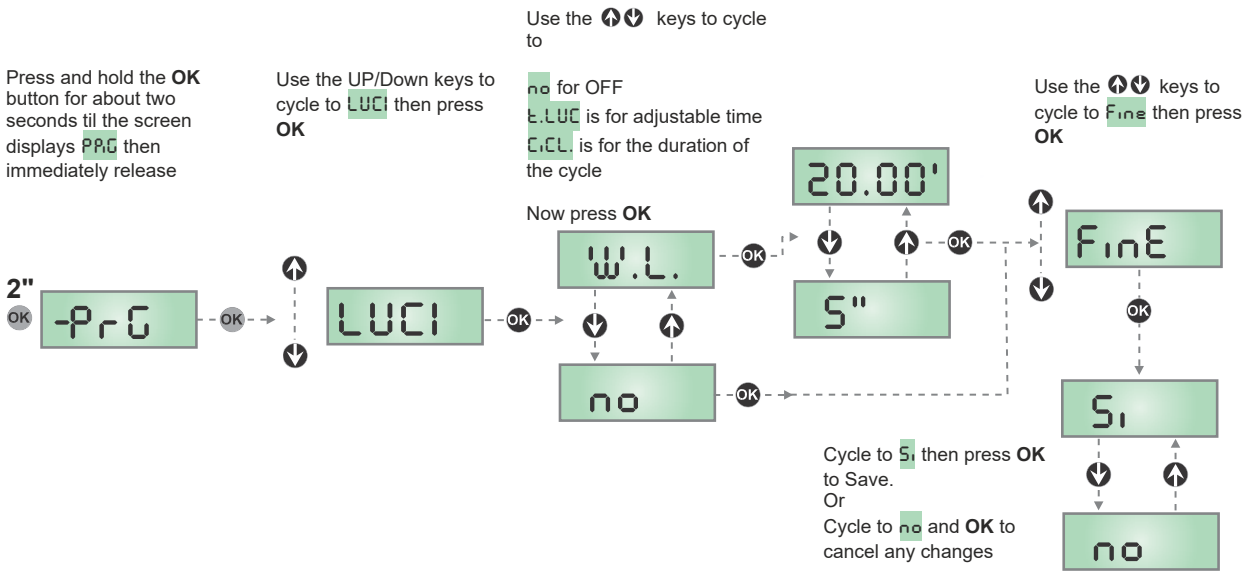
Connecting Driveway or Garden Lights



The internal relay will support up to a maximum of 230V AC (5A)

Setting the Light output

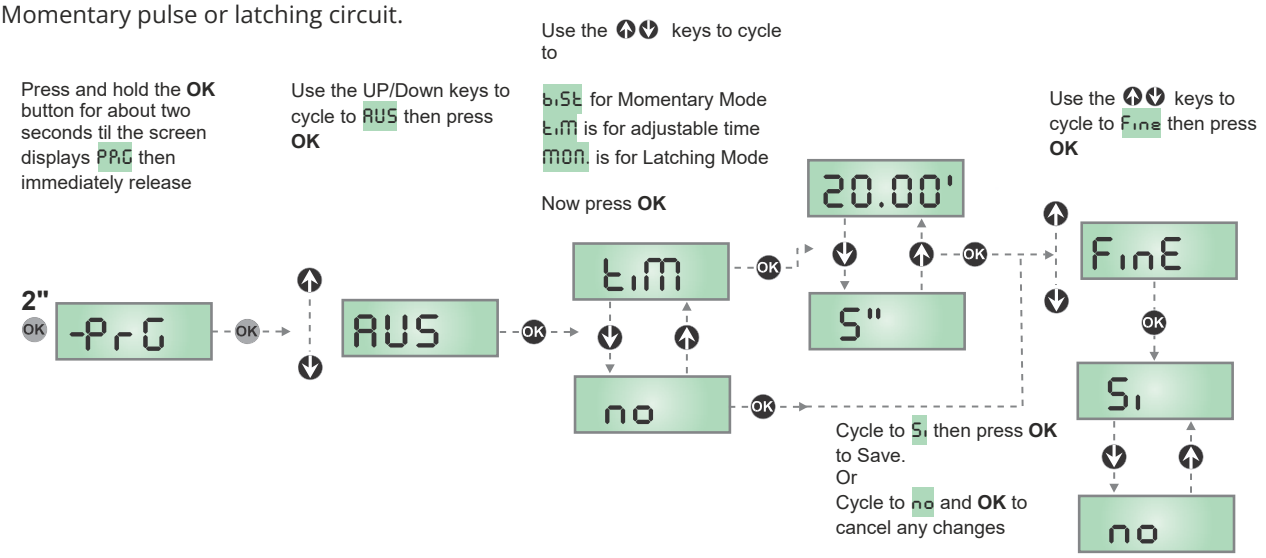
The light output can be set to OFF, On for the cycle duration or set to be on from 5 seconds to 20 minutes.



Setting the Light output

Default is Momentary

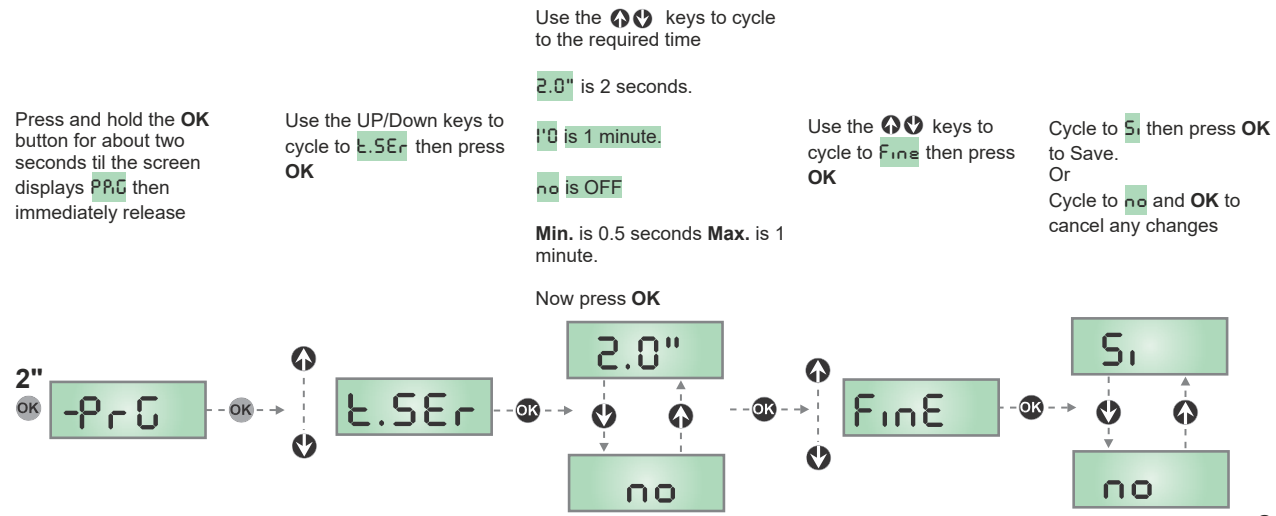
The light output can be set to be toggled by button 4 on the remote in a timed state (5 second to 20 minutes), Momentary pulse or latching circuit.



Enabling the Electric Lock and Setting the Unlocking Time

Default is 2 Second

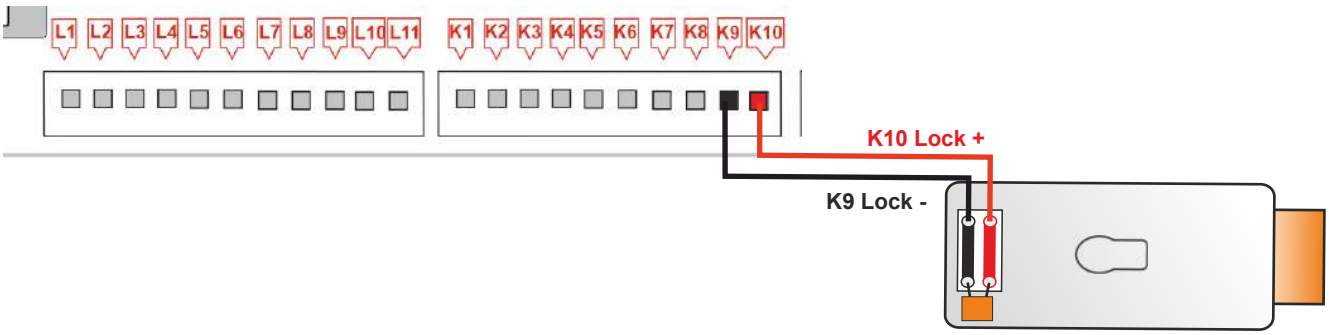
The Electric Lock can be enabled by setting a time or disabled by setting to “no”.



Connecting an Electric Lock

Ensure the transformer is NOT powered on before proceeding with any low voltage connections

You can wire to either side of the coil as shown in the illustrations above. When installing you must install both wires Side-By-Side.
The pre-installed capacitor must remain installed



Connecting an Magnetic Lock

NOT SUITABLE FOR SOLAR

12 Volts Relay is used for connecting a Magnetic Lock . Magnetic Lock is not recommended for Solar System.

When Magnetic Lock is Connected, Electric lock settings t.SEr need to be activated on the Control Board.

Steps in Connecting a Magnetic Lock.

1. Convert the Magnetic lock to 24 volts Lock by joining Orange and Blue wires.

2.12 Volts relay is used to connect the magnetic lock to the control board.

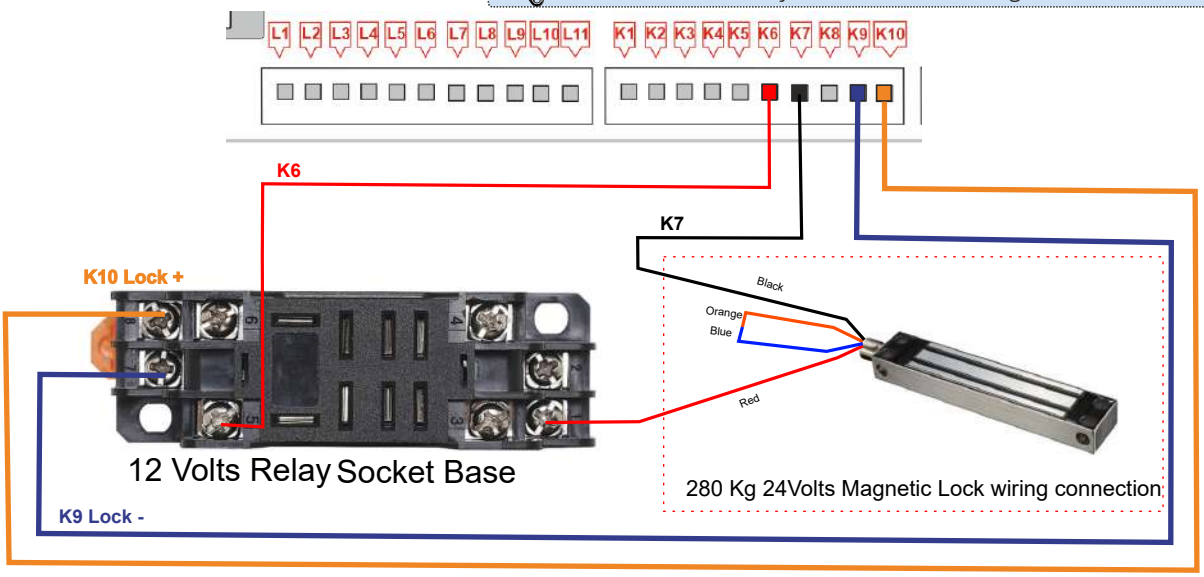
3. check the wiring connections given below.



12 Volts Relay

Ensure the transformer is NOT powered on before proceeding with any low voltage connections

The magnetic locks are polarity sensitive and must be connected correctly to avoid failure/damage.



12 Volts Relay Socket Base

280 Kg 24Volts Magnetic Lock wiring connection

ADVANCED CONFIGURATIONS

Manual Adjustment of M1 Opening Time

Default is 22 second

In the case a manual adjustment of the M1 total OPENING operating time is required it can be performed as follows. Minimum time is 0 Seconds, maximum time is 5 minutes.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

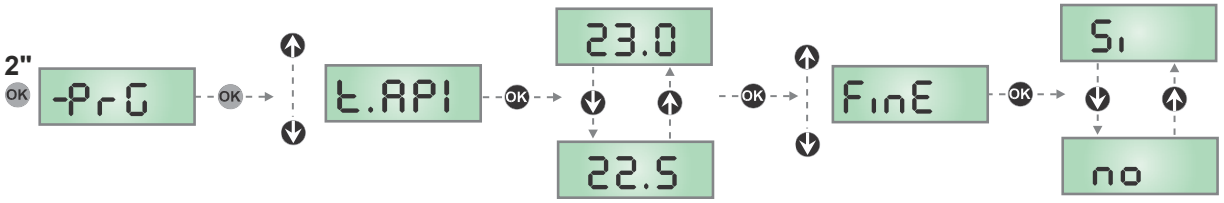
Use the UP/Down keys to cycle to t.AP1 then press **OK**

Use the ▲▼ keys to increase/decrease time.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manual Adjustment of M2 Opening Time

Default is 22 second

In the case a manual adjustment of the M2 total OPENING operating time is required it can be performed as follows. Minimum time is 0.5 Seconds, maximum time is 5 minutes.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

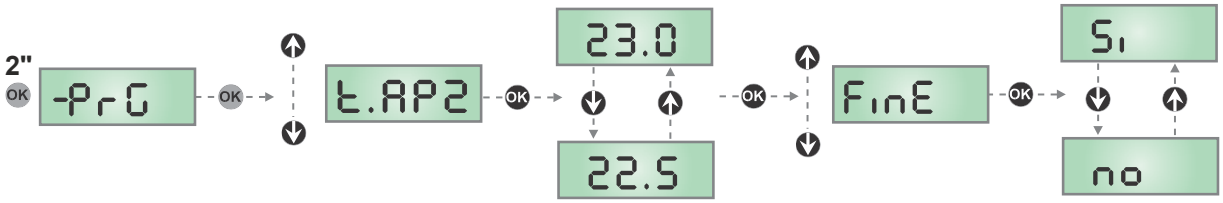
Use the UP/Down keys to cycle to t.AP2 then press **OK**

Use the ▲▼ keys to increase/decrease time.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Adjusting the Pedestrian opening distance

Default is 6 second

The pedestrian gate operation can be adjusted to suit the installation requirements based on an adjustable time setting.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.APP then press **OK**

Use the ▲▼ keys to cycle to the required time

1.0" is 6 seconds.

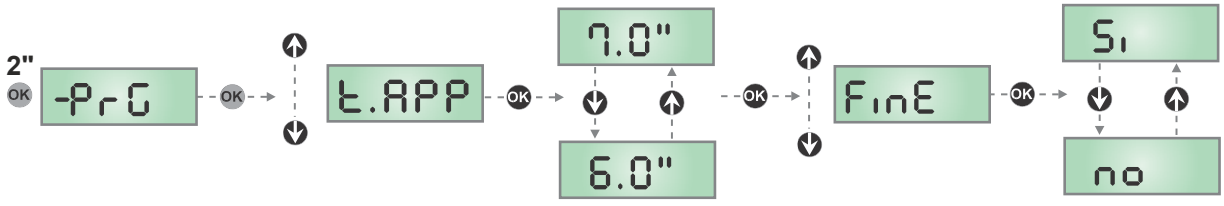
1'0 is 1 minute.

Min. is 0 seconds **Max.** is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manual Adjustment of M1 Closing Time

Default is 23 second

In the case a manual adjustment of the M1 total CLOSING operating time is required it can be performed as follows. Minimum time is 0 Seconds, maximum time is 5 minutes.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

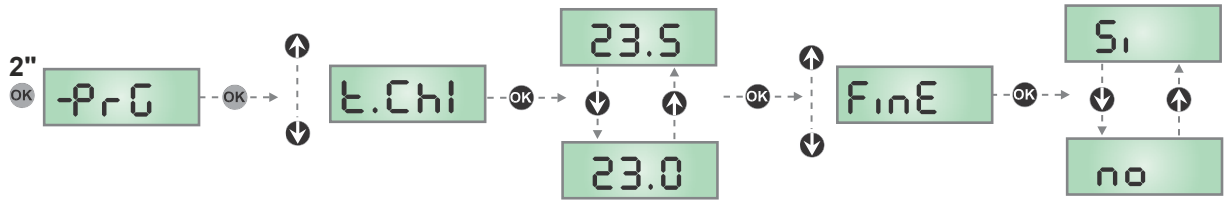
Use the UP/Down keys to cycle to t.Ch1 then press **OK**

Use the ▲▼ keys to increase/decrease time.

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manual Adjustment of M2 Closing Time

Default is 23 second

In the case a manual adjustment of the M2 total CLOSING operating time is required it can be performed as follows. Minimum time is 0.5 Seconds, maximum time is 5 minutes.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

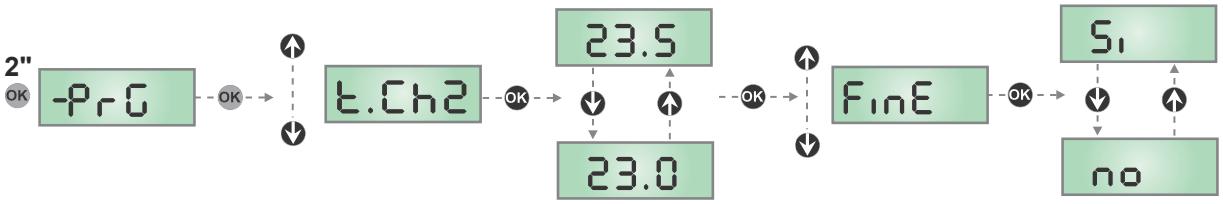
Use the UP/Down keys to cycle to t.Ch2 then press **OK**

Use the ▲▼ keys to increase/decrease time.

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Adjusting the Pedestrian closing distance

Default is 7 second

The pedestrian gate operation can be adjusted to suit the installation requirements based on an adjustable time setting. Note that the closing time should always be set slightly higher than the opening time.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.ChP then press **OK**

Use the ▲▼ keys to cycle to the required time

7.0" is 7 seconds.

1'0 is 1 minute.

Min. is 0.5 seconds **Max.** is 2 minute.

Now press **OK**

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



M2 Closing time in Pedestrian (return to base incase of wind)

Default is no

In the case that the M2 gate has moved after using the pedestrian function (due to wind or pre-load pressure) a movement time can be set to revert it back to the correct position so that the pedestrian gate cannot travel past/align correctly.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.C2P then press **OK**

Use the ▲▼ keys to cycle to the required time

7.0" is 7 seconds.

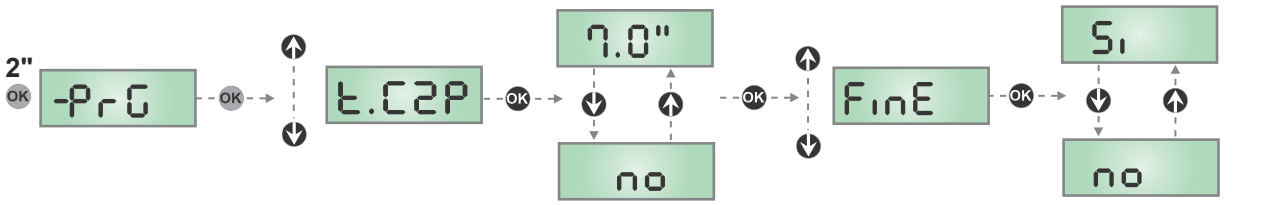
1'0 is 1 minute.

Min. is OFF (NO) **Max.** is 5 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Unlocking Pre-Motion Time

Default is 1 Second

The release time of the lock begins prior to the gate movement based on the PRE-MOTION time.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.RSE then press **OK**

Use the ▲▼ keys to cycle to the required time

0.0" is OFF.

2.0" is 2 seconds.

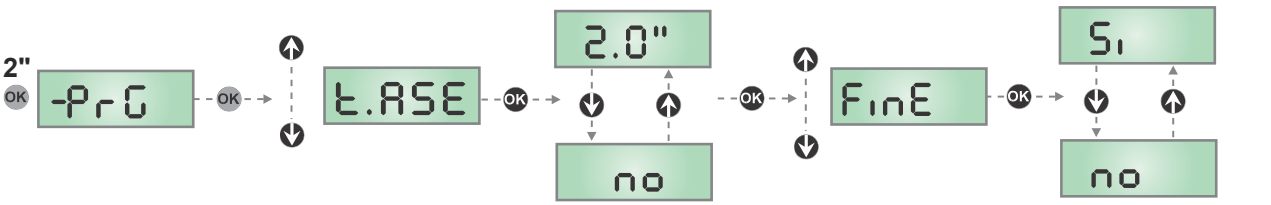
1'0 is 1 minute.

Min. is 0 seconds (OFF)
Max. is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Silent Locking

Default is ON

Reduces the current to the electric lock to reduce the noise of the solenoid whilst operating.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to SEr.S then press **OK**

Use the ▲▼ keys to cycle to the required time

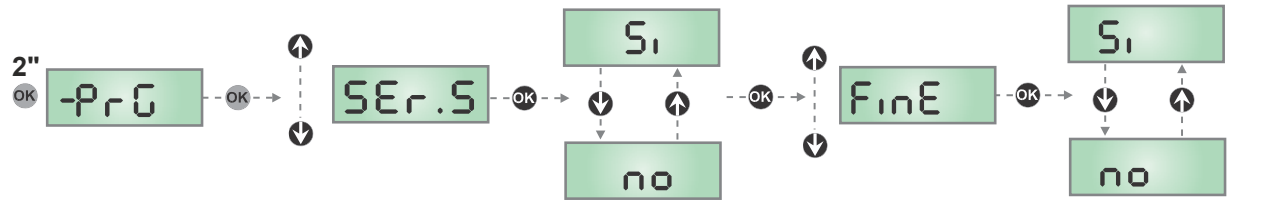
no is OFF.

SI is ON

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Gate Push for Unlocking

Default is no

In cases where the gate is being pushed towards open the electric lock may fail to release. It would be suggested to add in a PUSH time to help resolve the issue.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.inu then press **OK**

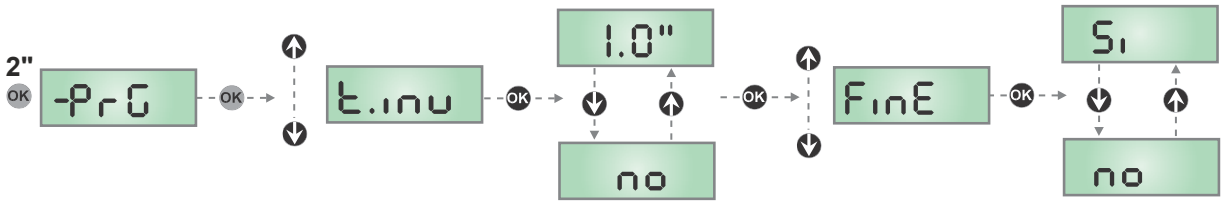
Use the ▲▼ keys to cycle to the required time
1.0" is 1 second.
2.0" is 2 seconds.
1'0 is 1 minute.

Min. is OFF (no)
Max. is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Gate FORCE to Lock (Slow Method)

Default is no

In cases where the gate is being pushed towards open (as its closing) the electric lock may fail to latch in place. It would be suggested to add in a FORCE time to help resolve the issue. This time will add in additional slow speed movement time after slowdown to FORCE the latching.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.inu then press **OK**

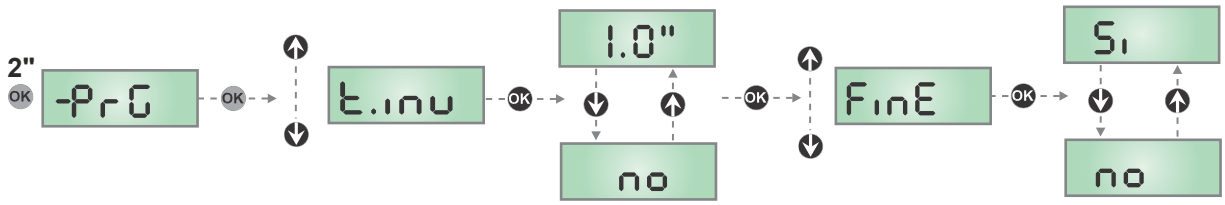
Use the ▲▼ keys to cycle to the required time
0.5" is half a second.
2.0" is 2 seconds.
1'0 is 1 minute.

Min. is OFF seconds (no)
Max. is 1 minute.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Gate FORCE to Lock (Fast Method)

Default is 0 seconds

In cases where the gate is being pushed towards open (as its closing) the electric lock may fail to latch in place. It would be suggested to add in a FORCE time to help resolve the issue. This time will add in additional fast speed movement time after slowdown to FORCE the latching.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to t.cue then press **OK**

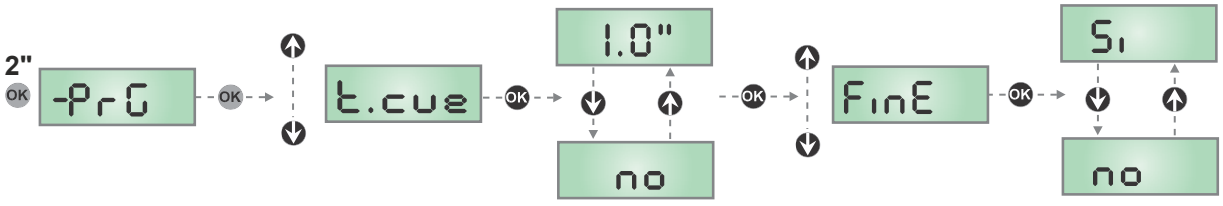
Use the ▲▼ keys to cycle to the required time
0.5" is half a second.
2.0" is 2 seconds.

Min. is 0 seconds.
Max. is 3 seconds.

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Full Gate Operation Trigger during Closing

Default is Stop

Adjust the response of the system when full gate operation command is triggered whilst closing

1. Stop When the command is triggered the gate will stop
2. APEr When the command is triggered the gate will stop and revert back to the close.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to St.Ch then press **OK**

Use the ▲▼ keys to cycle to

Select the logic based on the above.

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

Now press **OK**



Full Gate Operation Trigger during Opening

Default is Pause

Adjust the response of the system when full gate operation command is triggered whilst opening

1. PAUS When the command is triggered the gate will pause.
2. ChiU When the command is triggered the gate will stop and revert back to the close.
3. no When the command is triggered the gate will continue and ignore the command.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to St.AP then press **OK**

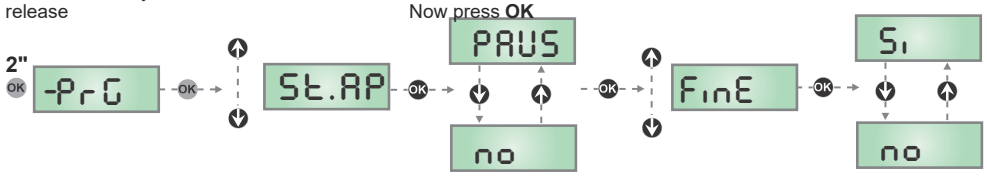
Use the ▲▼ keys to cycle to

Select the logic based on the above.

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

Now press **OK**



Full Gate Operation Trigger during Pause

Default is Closing

Adjust the response of the system when full gate operation command is triggered whilst opening

1. PAUS When the command is triggered the automatic close timer will restart.
2. ChiU When the command is triggered the gate will close.
3. no When the command is triggered the system will ignore.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to St.PA then press **OK**

Use the ▲▼ keys to cycle to

Select the logic based on the above.

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

Now press **OK**



Adjusting the STOP input (J3)

Default is Off

By default the stop input is ignored (no), if the stop input is activated it can be set frot wo diffrent logics.

1. ProS When the input it triggered the gate will stop, when triggering start the gate will continue operating in the SAME direction
2. invE When the input it triggered the gate will stop, when triggering start the gate will continue operating in the OPPOSITE direction

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to StoP then press **OK**

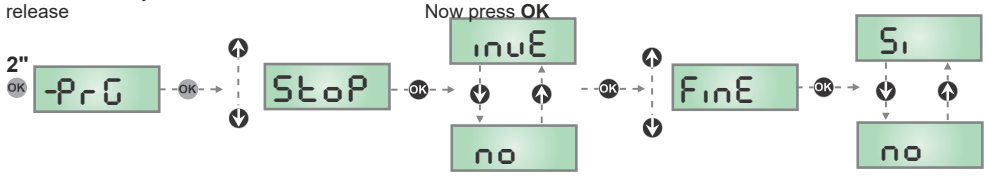
Use the ▲▼ keys to cycle to

Select the logic based on the above.

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes

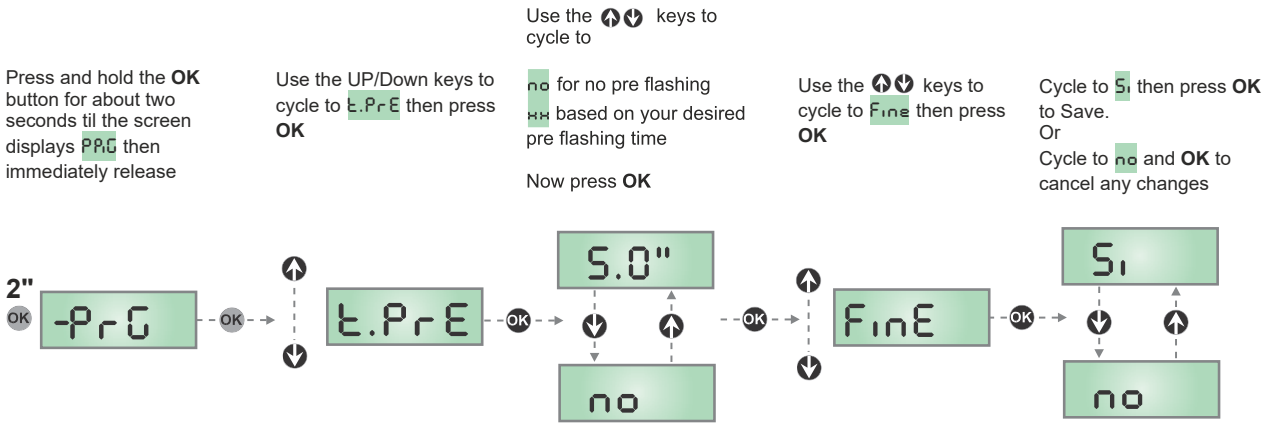
Now press **OK**



Pre Flashing Time (Open and Close)

Default is 1 second

Pre flashing time allows for the connected lamp to begin flashing PRIOR to the operating cycle based on the time you set. The minimum time is 0.5 seconds and maximum is 1 minute.



Note 1: Times set for pre-flashing will delay the gate from beginning its opening operation by the set value

Note 2: Times set for pre-flashing will delay the gate from beginning its closing operation by the set value after the Auto close time has elapsed, it can be adjusted to be OFF or increased in the closing pre-flash time setting.

Logical settings of the system inputs

Default is Stop

Standard mode Stan
START = START (a command will cause the complete opening of the gate)
START P. = PEDESTRIAN START (a command will cause the partial opening of the gate)

Open/Close command AP.Ch
START = OPENING (always controls the gate opening)
START P. = CLOSING (always controls the gate closing) This is an impulse command, that is to say that an impulse will cause the complete gate opening or closing.
(Button 1 on remote/Start is open, button 2 on remote/Start.P is closing)

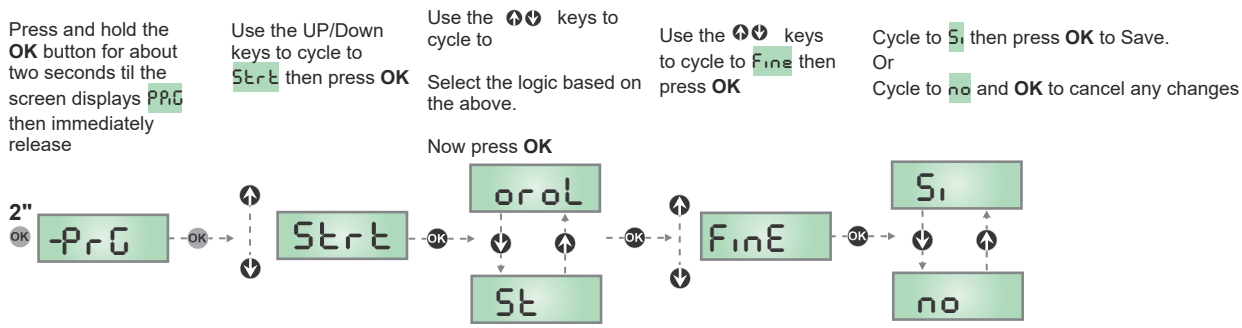
Manned operation PrES
START = OPENING (always controls the gate opening)
START P. = CLOSING (always controls the gate closing) This is a monostable command, that is to say, the gate will be opened or closed as long as the contact is closed and it will immediately stop as the contact is open

Full Timer mode orol **Using an external timer to open gate, timers latched circuit inhibits the gates closure**
ATTENTION: Automatic closing must be enabled
This feature allows you to program time slots during the day for the gate to be open by using an external timer or other maintained command devices (e.g. magnetic loop detectors or presence detectors).

START = START (a command will cause the complete opening of the gate)
START P. = PEDESTRIAN START (a command will cause the partial opening of the gate)

The gate stays open (completely or partially) while the contact is closed on input; as soon as the contact is open the pause time count down will start, after which the gate will be closed again.

NOTE: If the parameter of partial operation/pedestrian function P.APP **is set to 0%** = The timer connected to START P. does not cause the opening, but can inhibit the automatic closing at preset times.
In all modes, inputs must be connected to devices having normally open contacts.
Connect cables of device controlling the START input between terminals **L3 (START)** and **L6 (COM)** of the control unit. Connect cables of device controlling the START P. input between terminals **L4 (START P.)** and **L6 (COM)** of the control unit.



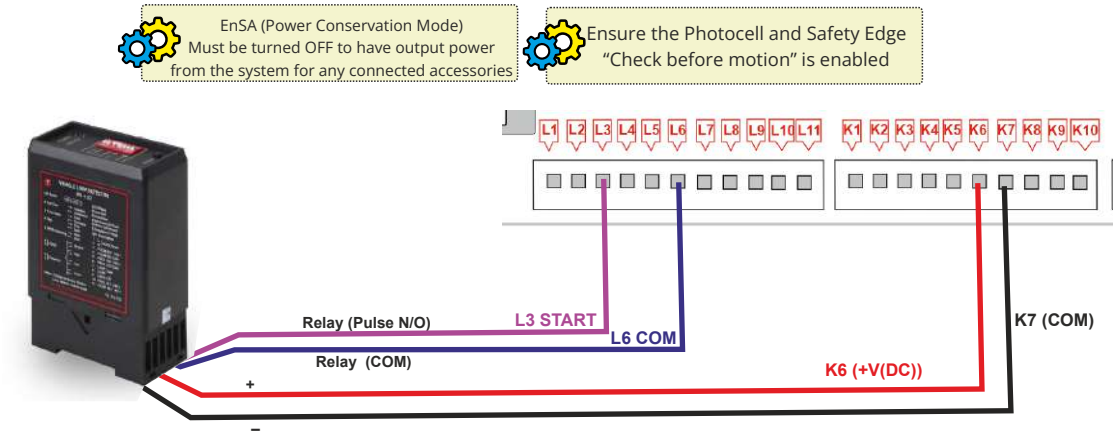
Induction Loops

Before connecting it is important to note that the system must be set to function for induction loops on a logic level, see below the recommended list of parameters.

Furthermore at minimum a photocell must be installed and the automatic close timer must be enabled.

APC Loop Detector For Auto Gate Opening

The APC Loop Detector will detect vehicles over the induction loop and automatically operate the gates to open.

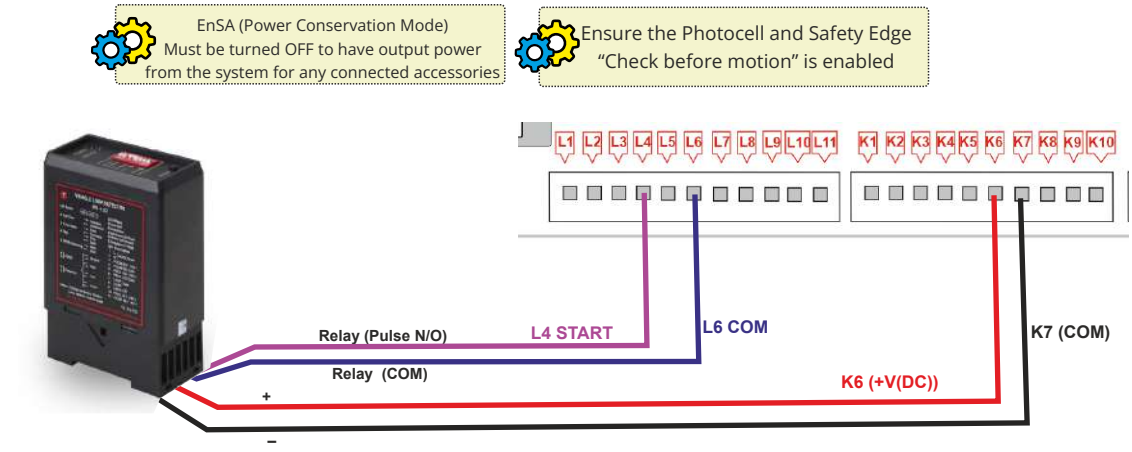


The below are the recommended setting when using an induction loop or a timer, these commands will change the logic of the **START L3** Input as follows:

`Strt` should be set to `oroL` to enable the function of full timer mode
`StoP` should be set to `no`, Stop input will be ignored
`St.AP` should be set to `no`, this will ignore commands whilst opening
`St.CH` should be set to `APEr`, this will revert the gate to open if a command is given during closure
`St.PA` should be set to `PAUS` to reset the automatic closing time when a command is given

APC Loop Detector For Inhibition

The APC Loop Detector will detect vehicles over the induction loop and stop the gate.



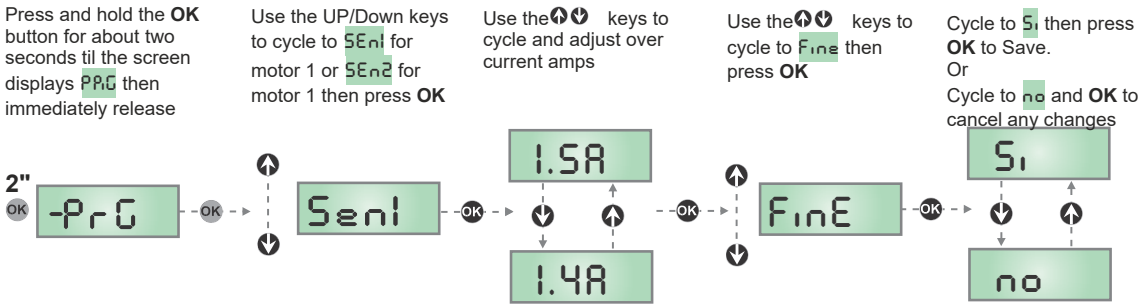
The below are the recommended setting when using an induction loop or a timer, these commands will change the logic of the **START.P L4** Input as follows:

`Strt` should be set to `oroL` to enable the function of full timer mode
`P.APP` should be set to `0`, this will hold the gate open and prevent automatic closure during circuits present times.

Manually adjusting the over current sensing

Default is 0

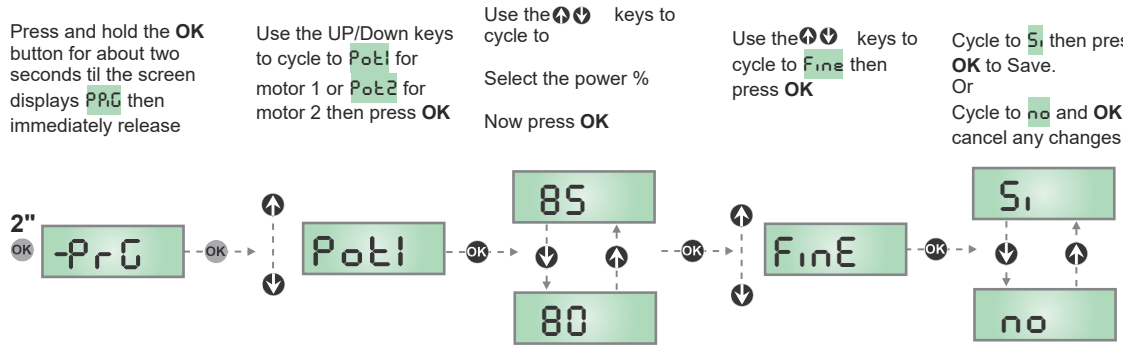
The system will automatically obstacle sense based on the configured settings however if a manual adjustment is required the system can manually be configured for an adjustment from 1.0A up to 14.0A for each gate motor individually.



Adjusting the motor power for fast operating speed

Default is 80

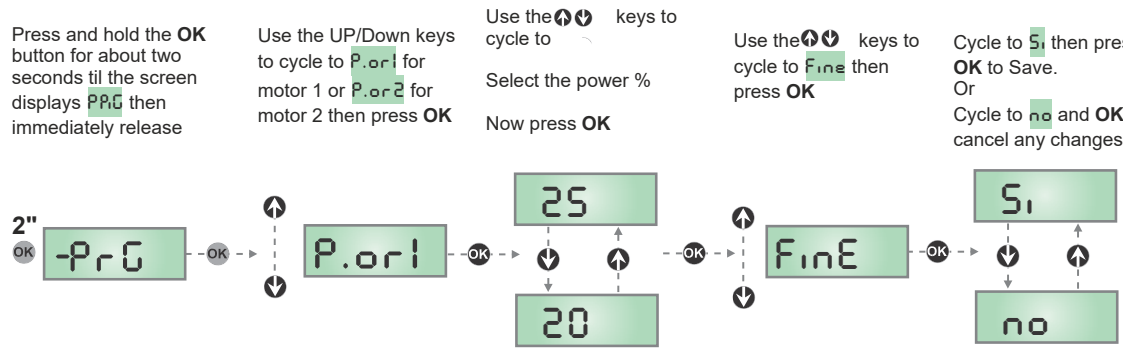
The displayed value is the current power setting for each individual motor, they are adjustable from 30(%) to 100(%).



Adjusting the motor power for slow operating speed

Default is 50

The displayed value is the current power setting for each individual motor, they are adjustable from 0(%) to 70(%).



Enable/Disable the Force Start Feature

Default is yes

If Enabled (yes) then the motor will run at maximum power for the startup procedure.

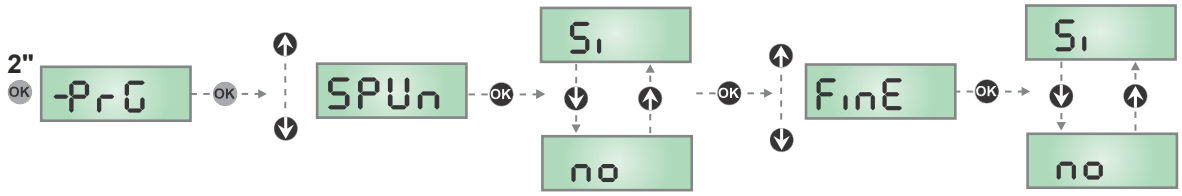
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to SPUn then press **OK**

Cycle to Si then press **OK** to disable ramp up.
Or
Cycle to no and **OK** to enable ramp up.

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Duration of the Ramp Up feature

Default is 4

If ramp up is enabled the duration can be adjusted to reach the full nominated power. This will help in reducing the sudden speed up of the gate if set to a higher power setting as it can be increased gradually over a longer duration. The maximum time is 6 seconds.

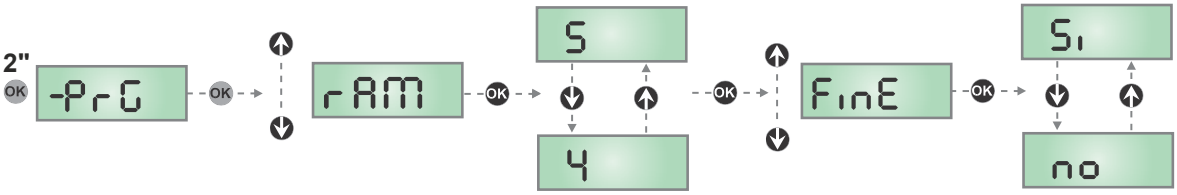
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to rAM then press **OK**

Use the ▲▼ keys to cycle and adjust the duration

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manually adjusting the slowdown distance for opening

Default is 0

The distance in % can be adjusted based on the cycle duration in which the slowdown will begin. For example if set to 15 then it will be the last 15% of the cycle. The adjustment is from 0% to 100%

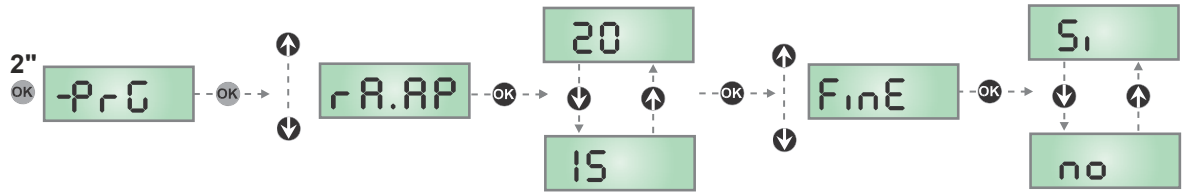
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to rA.AP then press **OK**

Use the ▲▼ keys to cycle and adjust the position of the slowdown by %

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manually adjusting the slowdown distance for closing

Default is 15

The distance in % can be adjusted based on the cycle duration in which the slowdown will begin. For example if set to 15 then it will be the last 15% of the cycle. The adjustment is from 0% to 100%

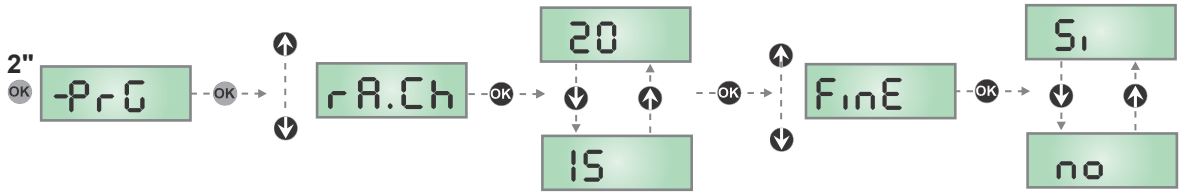
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to rA.Ch then press **OK**

Use the ▲▼ keys to cycle and adjust the position of the slowdown by %

Use the ▲▼ keys to cycle to Fine then press **OK**

Cycle to Si then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Enable/Disable Safety Edge 1

Default is OFF

The EDGE 1 input is used for fixed safety edges. By default it is set to no which is OFF. It has two options for Logic:

1. APCh Sets the edge to be active in OPENING and CLOSING cycles
2. AP sets the input to be active in the OPENING cycle only.

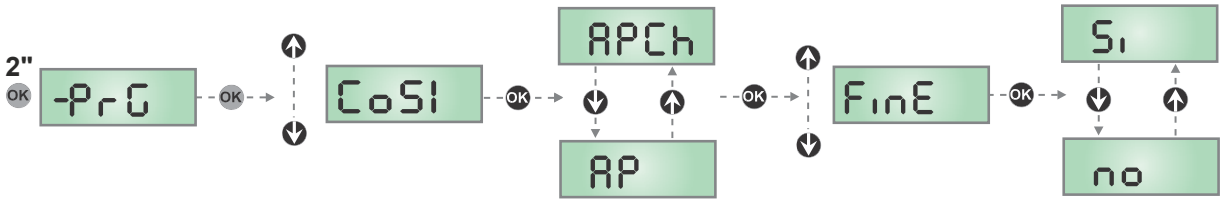
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to CoSI then press **OK**

Use the ▲▼ keys to adjust the logic then press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Enable/Disable Safety Edge 2

Default is OFF

The EDGE 2 input is used for optical safety edges. By default it is set to no which is OFF. It has two options for Logic:

1. APCh Sets the edge to be active in OPENING and CLOSING cycles
2. Ch sets the input to be active in the CLOSING cycle only.

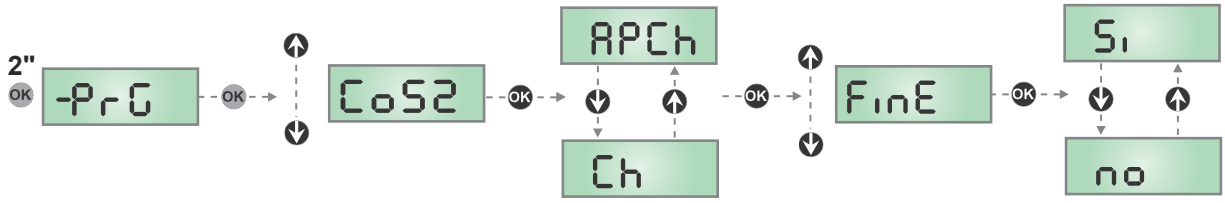
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to CoS2 then press **OK**

Use the ▲▼ keys to adjust the logic then press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Safety Edge Check Before Motion

"Check before motion" for Safety Edge

Default is OFF

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to Co.tE then press **OK**

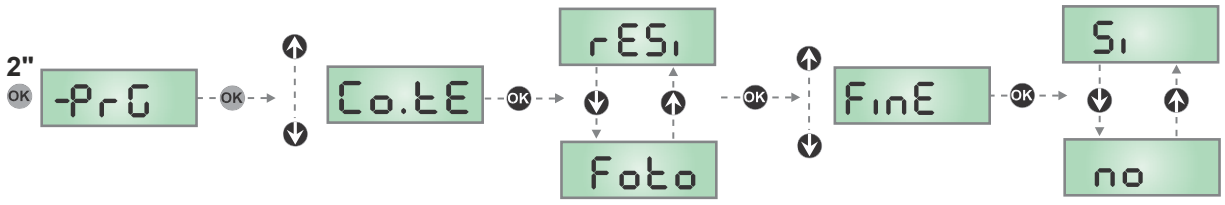
Use the ▲▼ keys to adjust the logic then press **OK**

rESi is for standard edge sensors
Foto is for optical type edge sensors

No is to disable testing prior to movment

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to SI then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Note: Enabling the test mode prior to operation is a necessity if the system is set to power conservation mode EnSA

Pause Gate when vehicle passes

Default is no

It is possible to set the gate to immediately stop and start counting down the auto close timer once a vehicle has passed through the photocells.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

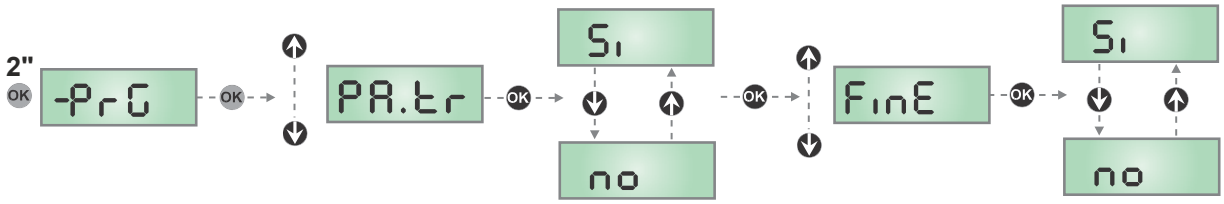
Use the UP/Down keys to cycle to PA.tr then press **OK**

Use the ▲▼ keys to cycle to the required logic based on the above options..

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Triggering Pedestrian Operation DURING pedestrian opening cycle

Default is Pause

This logic setting is if the pedestrian function was triggered whilst already moving in a pedestrian operation.
PAUS is the default and will simply stop the gate, it will stay in this position until the user triggers the operation again.
CHIU the gate will immediately start to close.
no setting will ignore the command.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

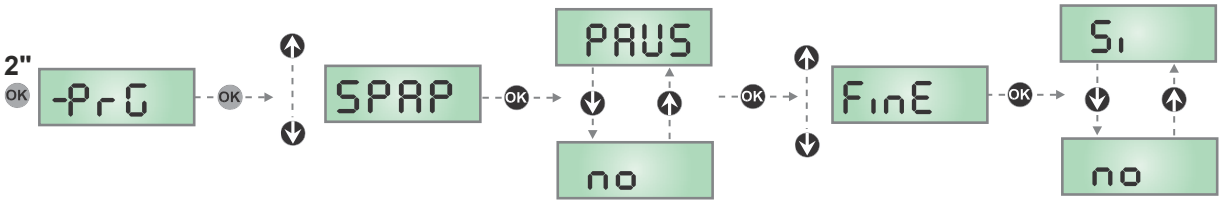
Use the UP/Down keys to cycle to SPAP then press **OK**

Use the ▲▼ keys to cycle to the required logic based on the above options..

Now press **OK**

Use the ▲▼ keys to cycle to FinE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Note: A full gate operation command will always take priority and cause the gate to complete a full gate operation regardless of the above setting. A pedestrian gate operation command however will not take priority over a full gate operation command and will be ignored.

Additional reversion time AFTER Photocell trigger

Default is OFF

In the case where the system is given the STOP command from the photcells the system will stop and revert. In some cases the calculated reversion time may not be enough due to factors such as weight, wind etc. Additional time could be added.

Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to ASM then press **OK**

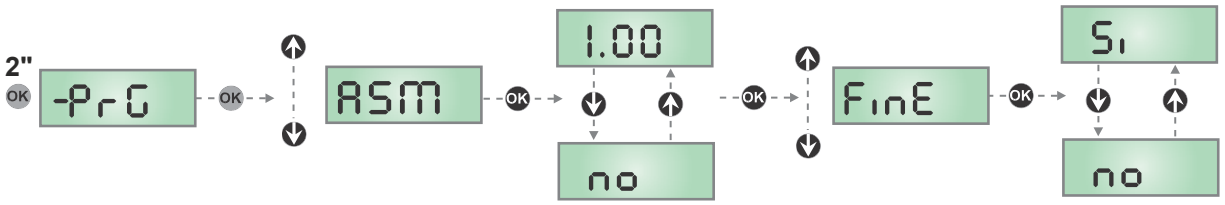
Use the ▲▼ keys to increase/decrease time.

no is OFF
or
1.0" for an additional ONE second
Minimum time is 0.5" and max time is 3.0"

Now press **OK**

Use the ▲▼ keys to cycle to FINE then press **OK**

Cycle to S1 then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Reset to Factory Default

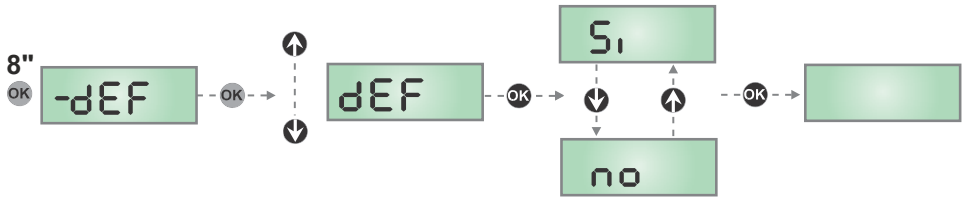
This will set all parameters to default, any changes made to the settings will be lost however remote's and other wireless equipment will remian.

Press and hold the **OK** button for about two seconds til the screen displays dEF then immediately release

Use the UP/Down keys to cycle to dEF then press **OK**

Use the ▲▼ keys to adjust the logic then press **OK**

System will return to standby



Setting the service interval counter

A Counter can be set to indicate when a service is required, the service requirement will be indicated by an additional five seconds of pre-blinking time of the connected lamp prior to the opening cycle.

The counter will be reset once the cycle counter is reset to the required quantity of cycles, if the counter is set to zero then the counter will be disabled. Each open and close is considered ONE cycle.

Press and hold the **OK** button for about four seconds til the screen displays Cnt then immediately release

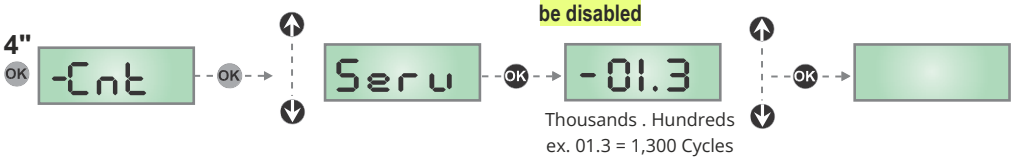
Use the UP/Down keys to cycle to MAN then press **OK**

Pressing ▲ will go up in thousands

Pressing ▼ will go down in hundreds

if set to 0 the counter will be disabled

Pressing OK returns to standby.



Thousands . Hundreds
ex. 01.3 = 1,300 Cycles

Viewing the total cycle count

The total cycle count cannot be reset, this is reading the total open and closes and considering them together as one cycle.

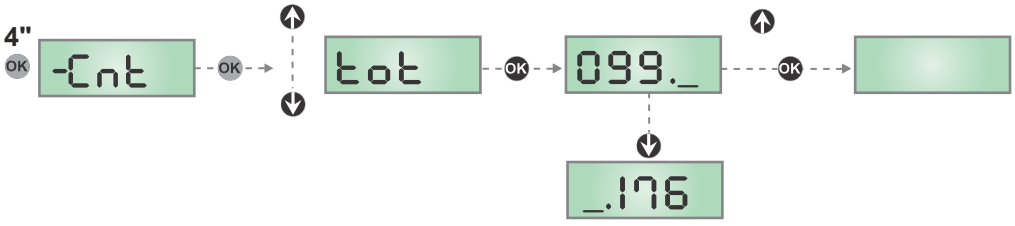
Press and hold the **OK** button for about four seconds til the screen displays Cnt then immediately release

Use the UP/Down keys to cycle to tot then press **OK**

First screen will show from 001. thousand up to 999. thousand.

Pressing ▼ will show the hundreds of cycles from .001 to .999 cycles .

Pressing OK returns to standby.



This counter example reads
99,176 TOTAL cycles

Troubleshooting

Overload LED On	Unplug the accessories power connector K6-K8 and disconnect all accessories. Fault find the faulty accessory power
Pre-Blinking longer than originally set	Indicates that the set cycle counter has lapsed and motor requires a service by the installer.
Slow movement of gate whilst closing then returns to normal	Motor encoder is out of alignment, power failure could occur whilst the gate was open.

Err1	Data could not be stored error. Fault with control board.
Err2	Motor not connected or motor driver issue on control board.
Err3	- Obstacle in sensor path - No sensor connected but sensor logic is enabled
Err4	- Command sent to open but motor is on clutch - Whilst in self learning: Magnets incorrect orientation (Sx and Dx) - No magnet detected during operation - Limit reader problem
Err5	Safety Edge test configured incorrectly
Err7	When an operation command is given but does not open (or partially opens) and displays error it could mean one of the following: - Motor/gate is mechanically locked - Learning of travel is not performed correctly -Encoder fault or no connection
Err8	- A setting of Logic is not compatible with another logic parameter ex. ADI is enabled but not interface module connected - If the error occurs during the self learning the Strt parameter must be set to Stan and Adi to no
Err9	Settings have been locked out by programmer module
Err10	Error 10 indicates Interface module is not connected correctly or is not connecting to the controller

Compatible Equipment

The equipment listed below does not affect the warranty of the control panel and have been tested and approved for use.Limited warranty is applied to the control panel when used with third party equipment.

Sensors
- APC-PE2000
- APC-RR-11
- APC-LD1-24V

Receivers
- APC-Connect 4
- APC-RX4
- APC-WF-CH1

Remotes
- APC-RC4S
- APC-RC4SV
- APC-RC450S

Keypads
- APC-KP1-C
- APC-KP2W
- APC-WF-KP

Solar Equipment
- APC Sun Power
- APC-SP24-20W
- APC-SP24-40W
- APC-SP24-60W

Courtesy Light
- APC-ULA

Push Buttons
- APC-PBS (K/KW)
- APC-PBD (K/KW)

Electric Locks
- EL-12V

External Transformers
- PS-24-10

Warranty Terms

APC WARRANTY

APC Automation Systems warrants the original purchasers or the APC gate(s) opening system for a period of twelve months from the date of purchase (not installation), the product shall be free of defects in materials and workmanship under normal use.
During the warranty period, APC shall, as its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials.
Any replacement and/or repaired parts are warranted for the remainder of the original warranty, The original owner must promptly notify APC in writing that there is defect in material or workmanship, such written notice must be received in all events prior to expiration of the warranty.

International Warranty

APC shall not be responsible for any freight fees, taxes or customs fees.

Warranty Procedure

To obtain service under this warranty, AND AFTER CONTACTING APC, please return the item(s) in question to the point of purchase.
All authorized distributors and dealers have a warranty program, anyone returning goods to APC must first obtain an authorization number.
APC will not accept any shipment for which prior authorization has not been used.

Conditions to Void Warranty

This warranty applies only to defects in repairs and workmanship relating to normal use. It does not cover:
- Damage incurred in shipping or handling
- Damage caused by disaster such as fire, flood, wind, earthquake or lightning
- Damage due to causes beyond the control of APC such as excessive voltage, mechanical shock or water damage
- Damage caused by unauthorized attachment, alterations, modifications, or foreign objects.
- Damage caused by peripherals (unless such peripherals were supplied by APC)
- 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.

Under no circumstances shall APC 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.

Disclaimer of Warranties

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.

Out of Warranty Repairs

APC will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions.
Anyone returning goods to APC must first obtain an authorization number.
APC will not accept any shipment whatsoever for which prior authorization has not been obtained.
Products which APC determines to be repairable will be repaired and returned. A set fee which APC has been predetermined and which may be revised from time to time will be charged for each unit repaired. Products which APC 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.