User Manual v04.7.2-231109

Proteous 450 *Sprint*
Proteous 500

Installation flowchart on page 6

MADE IN ITALY

Installation

ADVANCED Adjustments

Other

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 move properly and uniformly without any irregular friction during their entire travel.
3. The gates wheels and track 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 open position for setup and emergency purposes.

Important Safety Information

Installer and owners should observe the following:

1. Make sure that there is sufficient space for the gate to slide open fully without interference.
2. The solar box must be installed in the area within 10 meters maximum cable distance from motor.
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.

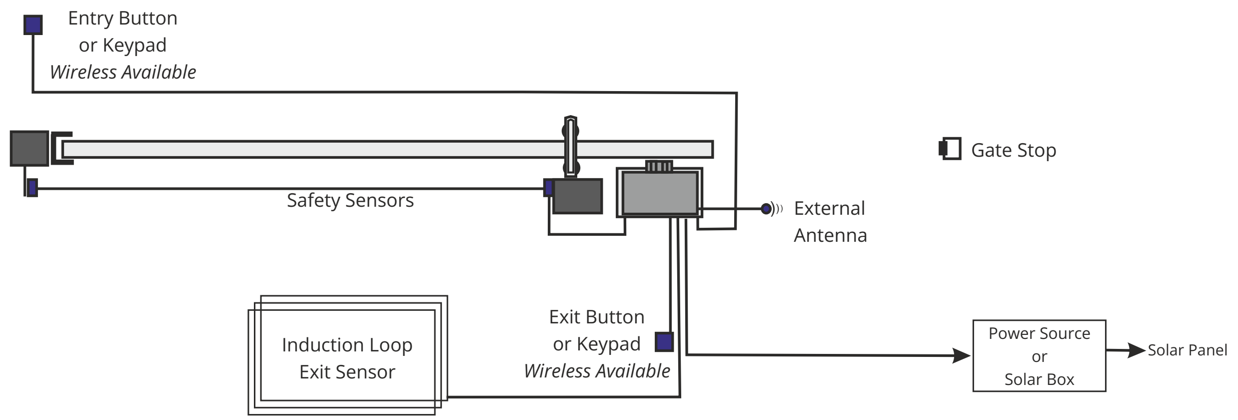
The system is fitted with an over current sensing feature to assist in preventing damages, injuries and death. All precautions must be taken by the installer that adjustments are set correct based on the gates weight, height and length. The system sensitivity should be set to allow consistent operation of the gates under normal operating conditions. This does not include operating against wind. The system may not detect 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.

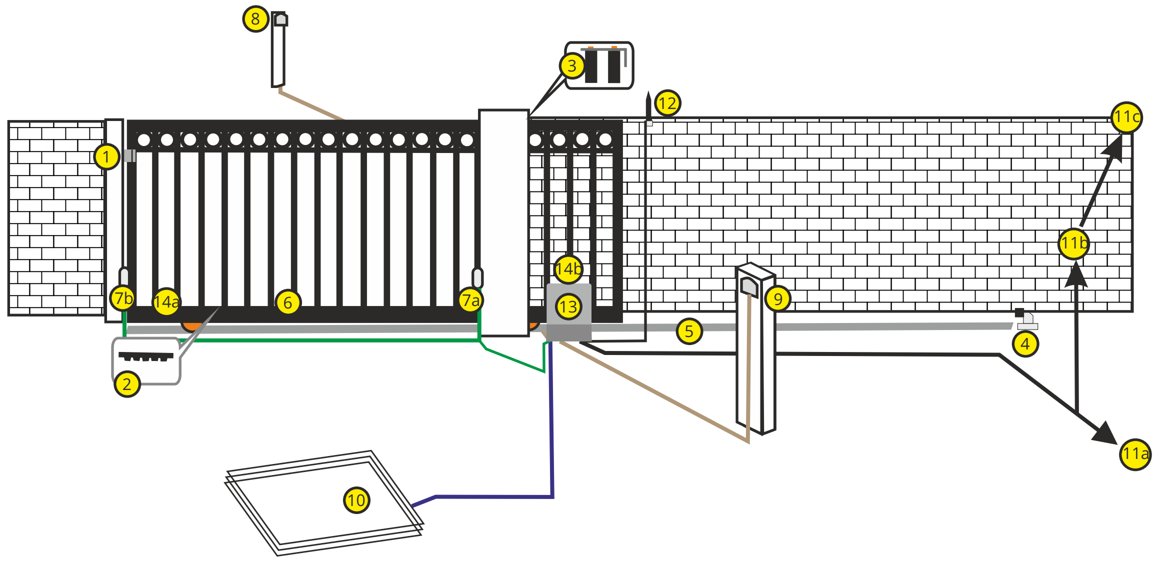
You agree to install this product following any and all safety requirements listed in this manual or required under local, state or national regulations. APC Automation Systems, its distributors, stockist or sellers are not liable for any direct, indirect, incidental, special or consequentional damages 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.

Motor Specifications

	Proteous 500	**Proteous 450 *Sprint***
Gate Max. Weight	500KG	450KG
Motor Power	300W	250W
Max. Speed	29 cm/s	36 cm/s
Max. Thrust	600N	400N
Duty Cycle	90%	70%
Operating Temprature	-20°C - + 55°C	-20°C - + 55°C
Protection	Ip44	Ip44
Max. Accessories Load	7W	7W
Protection fuses	T.16A	T.16A

Installation Layout





1. U Guide/Keep
2. Wheels
3. Rollers and Bracket
4. Gate Stop
5. Floor Track
6. Gear Rack

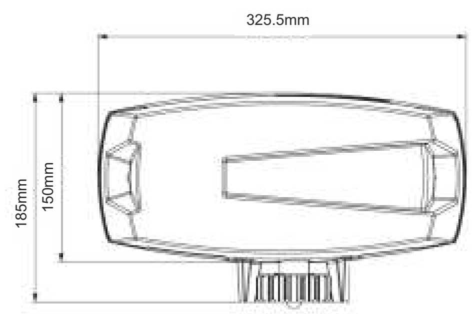
- **7a** PE Sensor Transmitter
- **7b** PE Sensor Receiver (Not required for Retro Reflective Sensor)
- **8** Entry Keypad/Push Button
- **9** Exit Keypad/Push Button
- **10** Induction Loop Exit Sensor
- **11a** Power Source (Mains/Low Voltage)
- **11b** Solar Box
- **11c** Solar Panel
- **12** External Antenna
- **13** Gate Motor
- **14a** Open Magnet
- **14b** Close Magnet

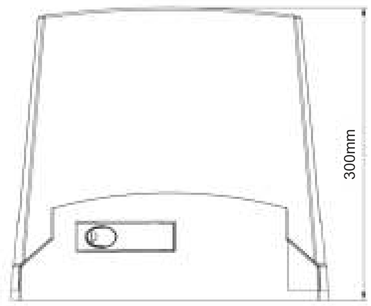
Requiring Wiring:

- Keypad - 4 Core (Wireless available)
- PBD-K - 4 Core (Wireless available)
- PBS-K - 2 Core (Wireless available)
- PE Sensor
  - Receiver - 4 Core
  - Transmitter - 2 Core

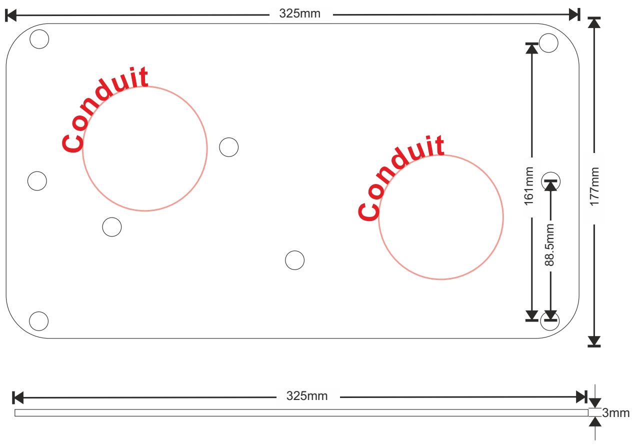
- Induction Loop 1 Core Teflon Cable

Motor And Base Plate Dimensions

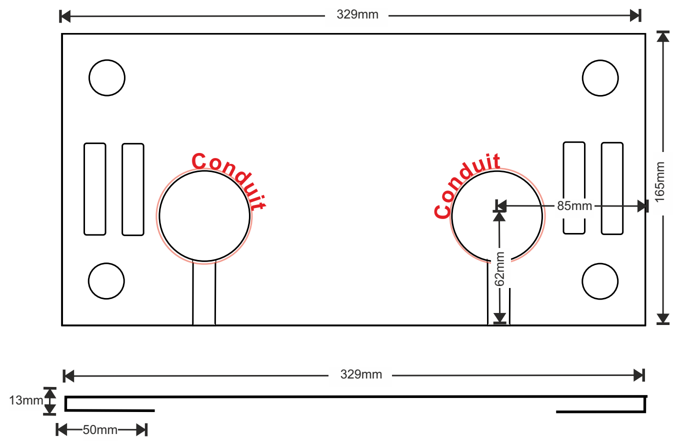




Concrete in Base Plate



Bolt Down Base Plate



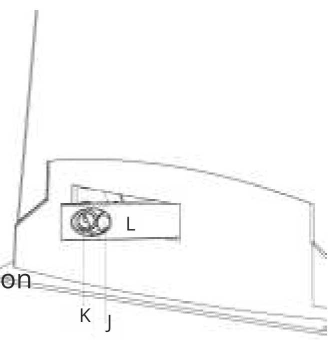
Emergency Override/Clutch Override

Unlocking

1. Operate the manual release moving back the key hole cover (J).
2. Insert the key in the cylinder lock (K) and turn it of 90° clockwise direction.
3. Pull the lever (L) till it is perpendicular to the gear-motor.

Locking

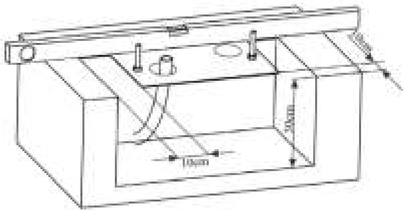
1. Bring back the lever (L) in the original position.
2. Insert the key in the cylinder lock (K) and turn it of 90° anticlockwise direction.
3. Slide the cover (J) back to the original position.

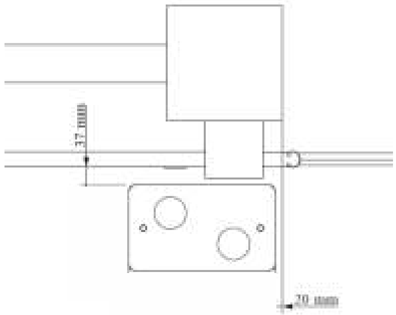


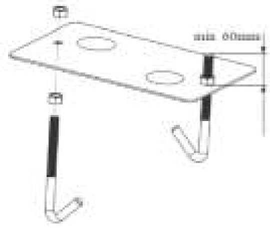
Installation (Concrete in Base Plate)

1. Using the measurements indicated in the drawing of the concrete plate arrange for one or two conduits based on the accessories to be installed.
2. Assemble the two J bolts to the anchoring plate and fix them with the four nuts supplied. .
3. Pour the concrete and position the anchoring plate as per the drawing below.

1

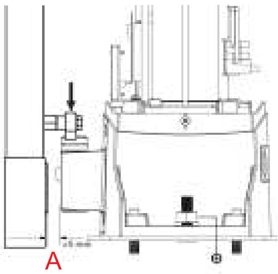


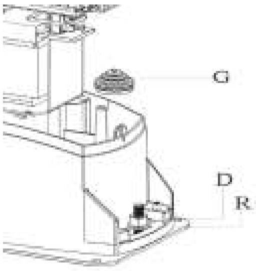


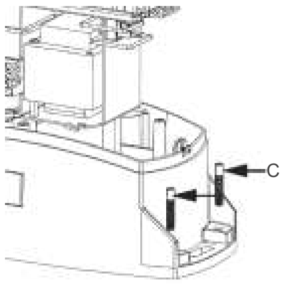


1. Wait for the complete setting of the concrete
2. Unscrew the two top nuts fixing the anchoring plate and put the motor on top of the anchoring plate noting measurement A. Ensure to thread the cables through plastic grommet **G**.
3. Insert the four threaded adjusters **C** with their nuts at each corner of the motor base and adjust to make the motor perfectly level.
4. Adjust so that the motor is perfectly parallel to the gate, then insert the two washers **R** and lightly screw the two fixing nuts **D**

2







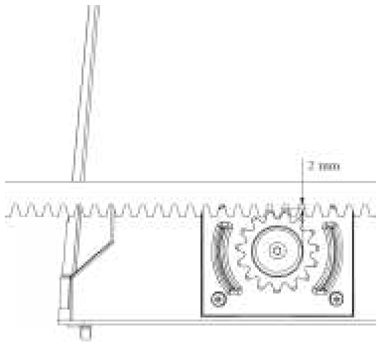
3

Install the gear rack onto the gate.

The best method for installation is to have the gate closed, sit the first piece on the pinion of the motor then fix directly to the gate in the center of the fixing hole (make sure it is 100% level first).

Now loosen the fixing and adjust the spacing between the motors pinion and the gear rack (as illustrated) then re-tighten. Each piece of gear rack will clip into the previous piece and providing you use a level minimal adjustments will be required afterwards.

You can use the clutch feature of the motor to open and close the gate whilst the gear rack is fitted.



4

DO NOT SKIP THIS STEP

Test the gear rack installation by setting the motor to manual override then very slowly pull the gate open and closed, you will find tight and loose points in the gearing. These must now be rectified by loosening the fixing screws and adjusting the gear rack up/down until the gate is 100% consistent.

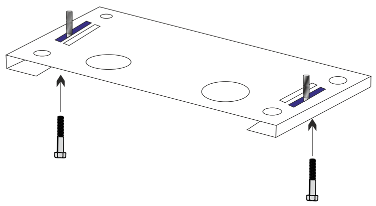
5

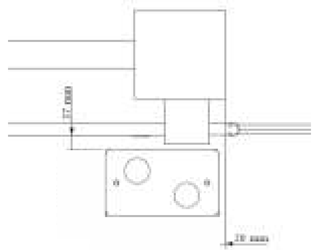
PROCEED WITH SX AND DX MAGNET PLACEMENT

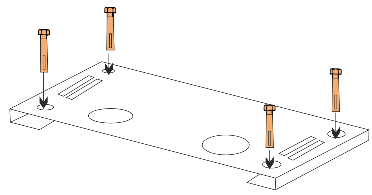
Installation (Bolt Down Base Plate)

1

1. Using the measurements indicated in the drawing of the bolt down plate arrange for one or two conduits based on the accessories to be installed then pour the concrete foundation.
2. Pass through the two supplied bolts from underneath the plate (the two outer slots marked in blue) first prior to its installation
3. Dynabolt the plate in place according to the positioning in the illustration.

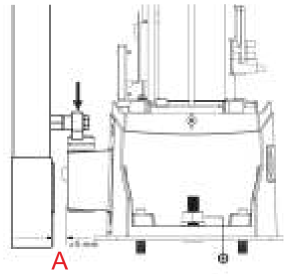


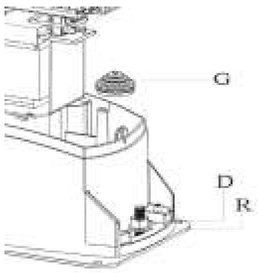


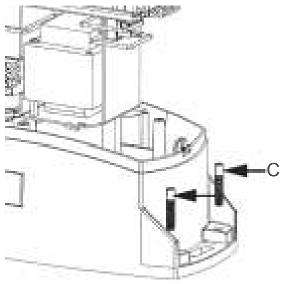


2

1. Sit the motor on top of the plate ensuring the bolts come through and loosely install the two washers and nuts **R** and **D**. Note measurement **A**.
2. Pass through the cables in grommet **G**.
3. Insert the four threaded adjusters **C** with their nuts at each corner of the motor base and adjust to make the motor perfectly level.
4. Adjust so that the motor is perfectly parallel to the gate, then tighten two nuts **D**







3

Install the gear rack onto the gate.

The best method for installation is to have the gate closed, sit the first piece on the pinion of the motor then fix directly to the gate in the center of the fixing hole (make sure it is 100% level first).

Now loosen the fixing and adjust the spacing between the motors pinion and the gear rack (as illustrated) then re-tighten. Each piece of gear rack will clip into the previous piece and providing you use a level minimal adjustments will be required afterwards.

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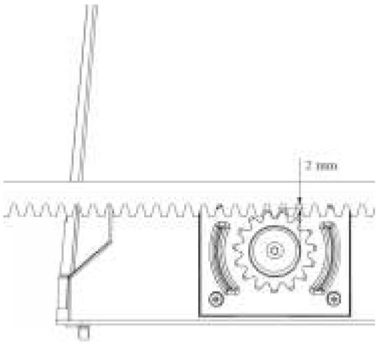

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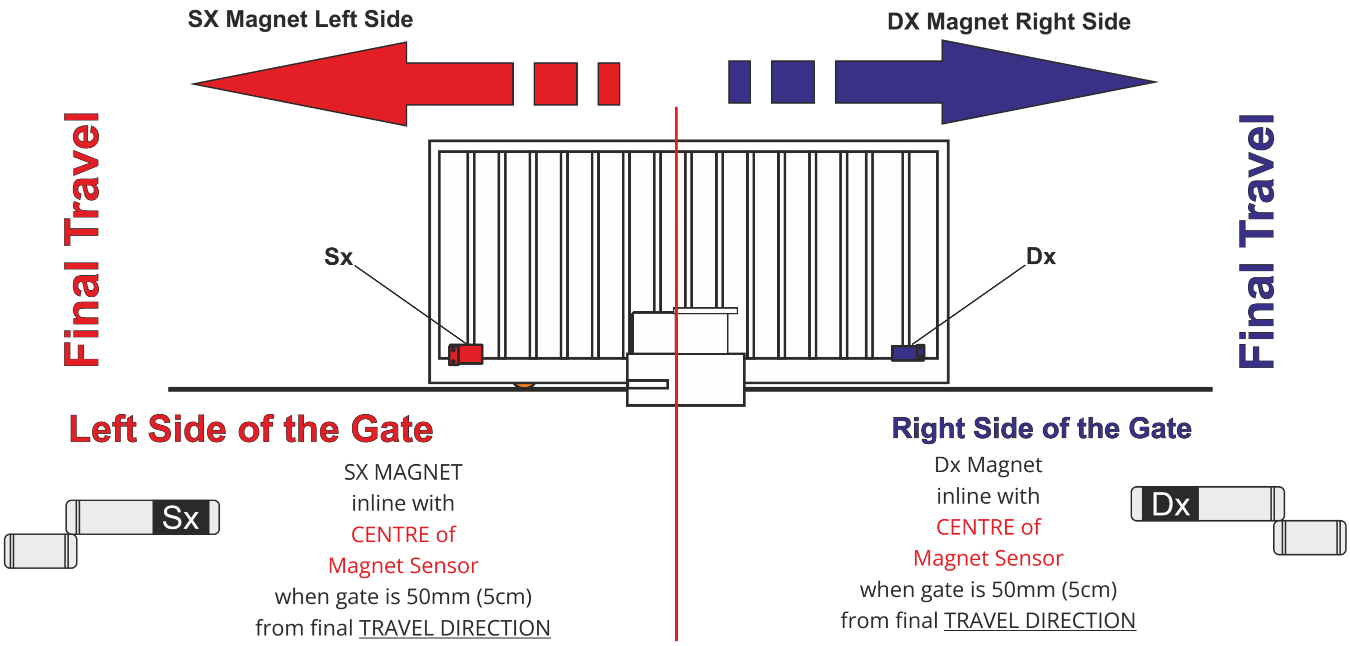
5

PROCEED WITH SX AND DX MAGNET PLACEMENT

Sx and Dx Magnet Placment



Magnet Sensor on front side of the motor

Successful Installation flowchart

The below should be followed after following pages 3 through to 5 for the physical installation of the motor.

Phase 1

- **Ensure magnets are set correctly** — Page 6
- Ensure all power connections are completed correctly — Page 8/Page 10
- Power on the system/Plug in Solar
- Set the operating direction — Page 13
- Run the automatic learning, the gates final position after this cycle must be CLOSED — Page 13
  - PROBLEM → Wrong Operating Direction, Reset the operating direction — Page 13 → Return Gate to Closed position using Manual override of the Gate Motor — Page 3 → back to Set the operating direction
  - OK ↓
- Proceed to testing gate using Button “1” on Remote
  - OK ↓
- Opens and closes successfully. Move to Phase 2

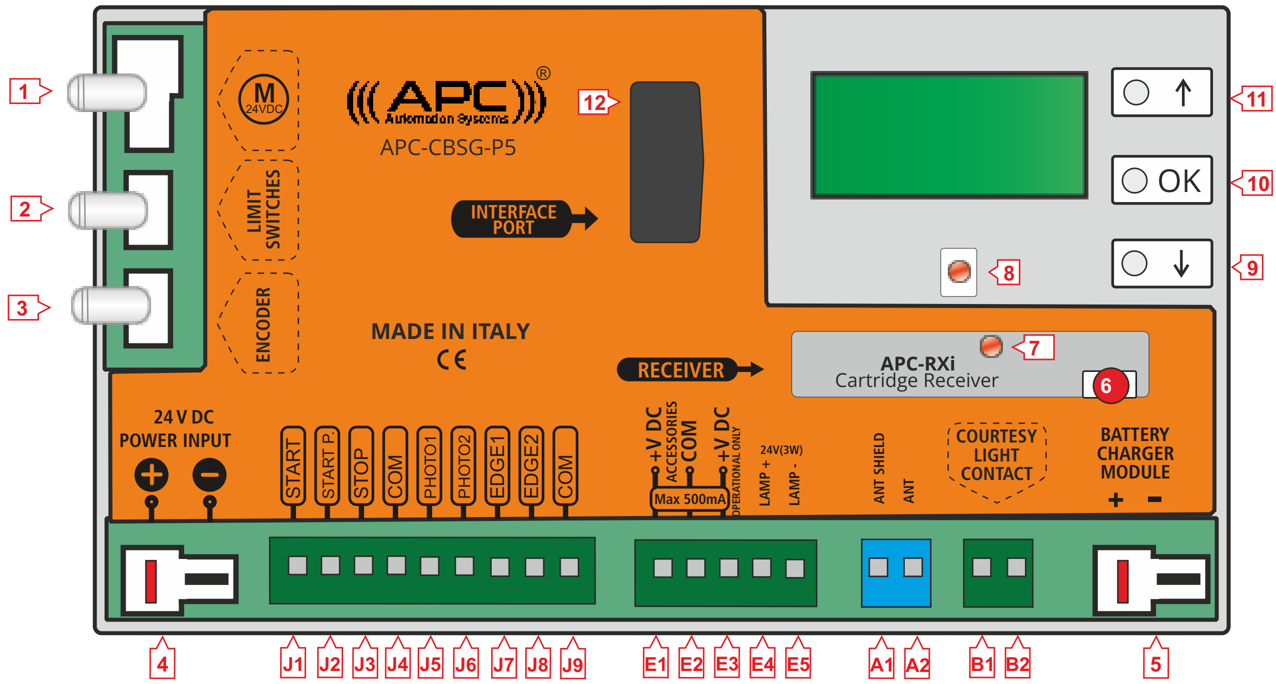
Phase 2

- **De-power the system**
- Connect the photocell/reflective sensor into the Photo1/Photo2 depending on requirement — Page 20
- Power on the system /Plug in Solar
- Enable the **USED** input Photo1 OR Photo2 — Page 21
- Test the operation of the system without an obstacle in sensor path
  - PROBLEM → Check Alignment, wiring and CORRECT input enabled — Page 20 → back to De-power the system
  - OK GATE CLOSED ↓
- Re-test with an obstacle in sensor path
  - PROBLEM → Check Alignment, wiring and CORRECT input enabled — Page 20
  - OK GATE DID NOT CLOSE ↓
- Remove obstacle and allow the gate to close

Phase 3 (SOLAR ONLY)

- Set the system into EnSa Energy Saving Mode — Page 12
- Turn on the Photocell Check Before Motion Feature — Page 21
- Test the operation of the system without an obstacle in the sensor path
  - → OK GATE CLOSED
  - PROBLEM → Photocell check before motion must be set to ON — Page 21 → back to Turn on the Photocell Check Before Motion Feature

Quick Reference Guide



Operational Inputs
J1. Start (Full Operation) Command (N/O)
J2. Start P. (Pedestrian Operation) Command (N/O)
J3. Stop Command (N/C)
J4. Common Ground

Safety Inputs
J5. Photocell Input 1 ((N/C)
J6. Photocell Input 2 (N/C)
J7. Safety Edge Input 1 (N/C)
J8. Safety Edge Input 2 (N/C)
J9. Common Ground

Accessories Power
E1. Constant +24V DC Output
E2. Common
E3. +24V DC Output Only when in an operating cycle

Lamp Output 24V
E4. Lamp Output + (24V DC Max 3W)
E5. Lamp Output - (24V DC Max 3W)

Antenna
A1. Antenna Shield (applicable with external antenna)
A2. 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)

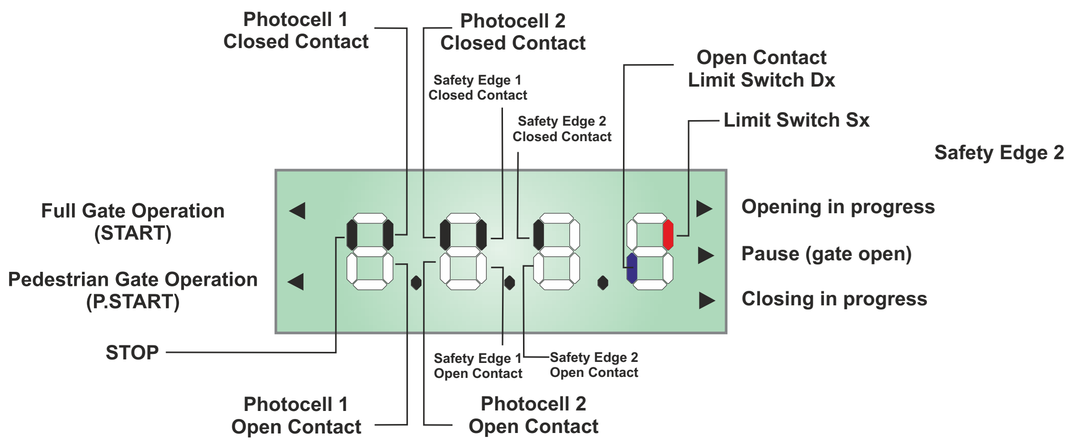
5. **Backup Battery Charger Port** (powered systems only)

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

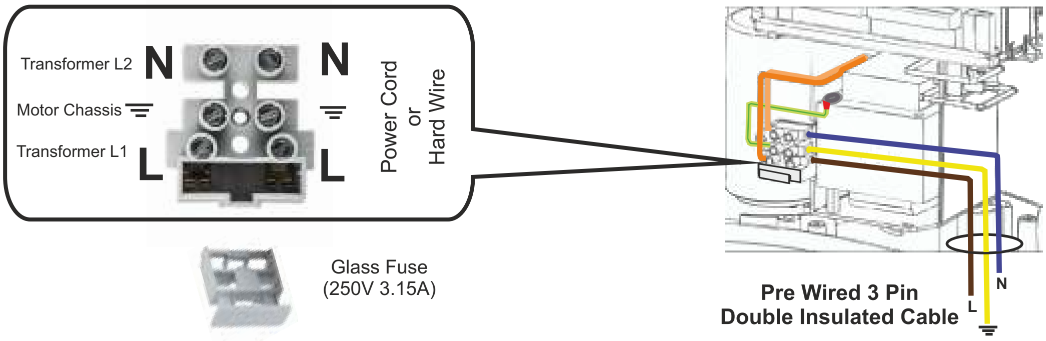
LCD Interface



Internal Transformer, wiring and Fuse

HIGH VOLTAGE

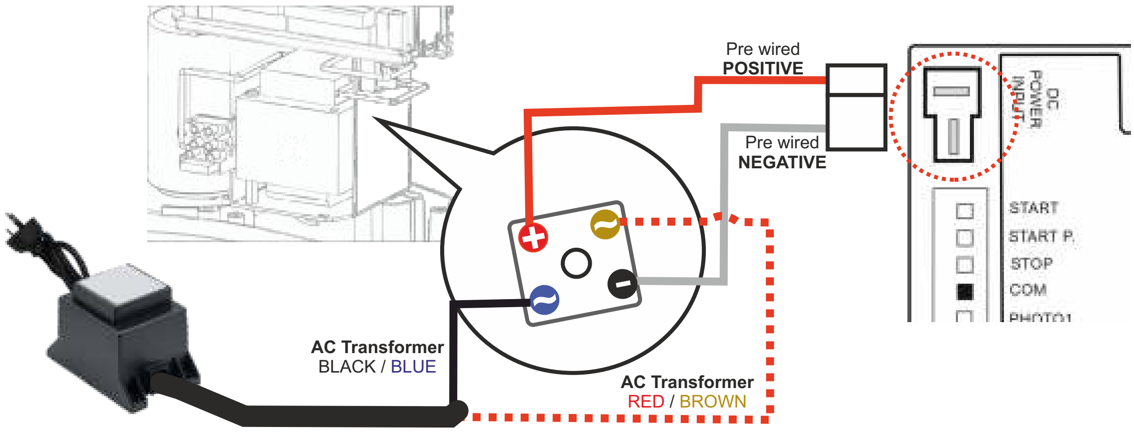
ANY High Voltage Connections MUST be carried out by a QUALIFIED Electrician



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 UNDERNEATH 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.

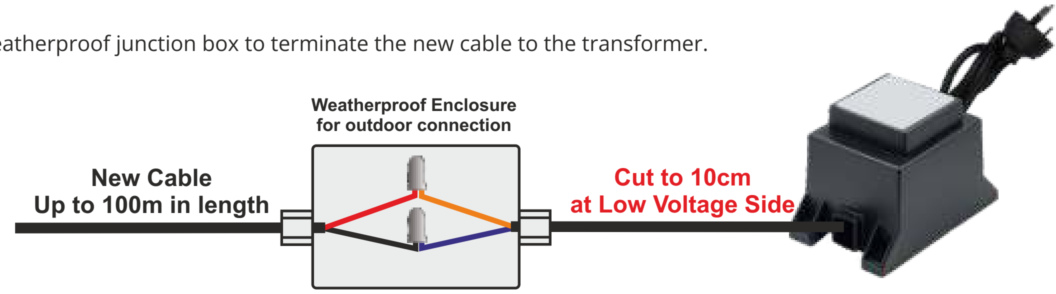


Extending the APC External AC Transformer (low Voltage)

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

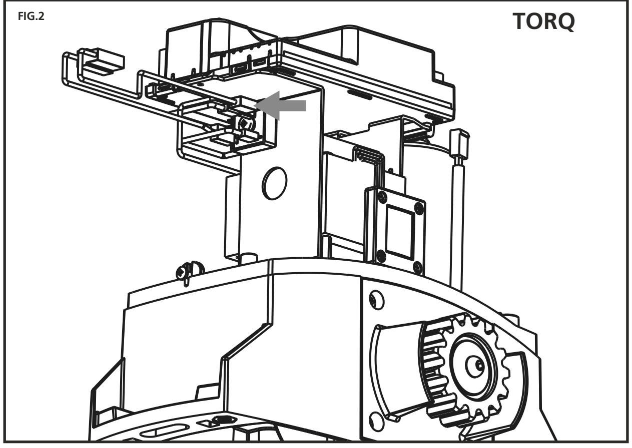
Maximum cable distance: The low voltage transformer can be run up to 100m in cable distance when using a 2mm pair conductor or greater. To run the transformer to maximum capacity the cable must be cut at the LOW VOLTAGE SIDE within 10cm from the output.

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



Powered System Battery Backup

FIG.2



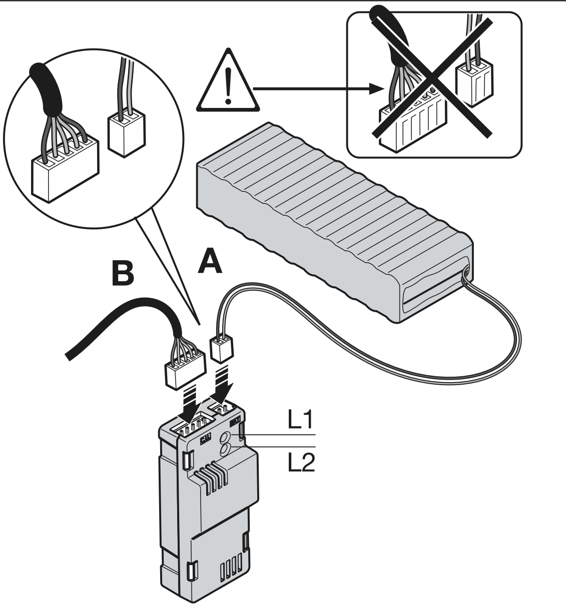


FIG.1

Type	Battery charge card for powering automations for automatic gates and doors in the event of a mains power failure
Technology adopted	Accumulation of electrical energy with sealed NiMH batteries (maintenance free)
Charge-discharge voltage	28 V at maximum charge; 20 V at maximum discharge (the battery is disconnected automatically when totally discharged)
Accumulation capacity	1.3 Ah, corresponding to an autonomy of approx. 12 hours with the automation system in standby or 5 minutes with a 4 A load, corresponding to an average of at least 10 cycles
Current delivered	Rated 4 A; 7.5 A for 2 seconds
Complete recharge time	approx. 24 hours
Battery lifetime	Estimated 4 – 6 years, or more than 500 cycles at 50% discharge / 200 100% charging cycles
Ambient operating temperature	20 - 55°C (the efficiency of the battery drops as the temperature falls, while higher temperatures reduce its service life)
Use in acid, saline or potentially explosive atmospheres	No
Assembly and connections	Insertion in specific compartments in control units or gearmotors. Connection via supplied cable
Protection rating	IP 30 (use only inside control unit, gearmotors or other protected conditions)
Dimensions	155 x 125 x 40 mm
Weight	700 g

TESTING AND COMMISSIONING

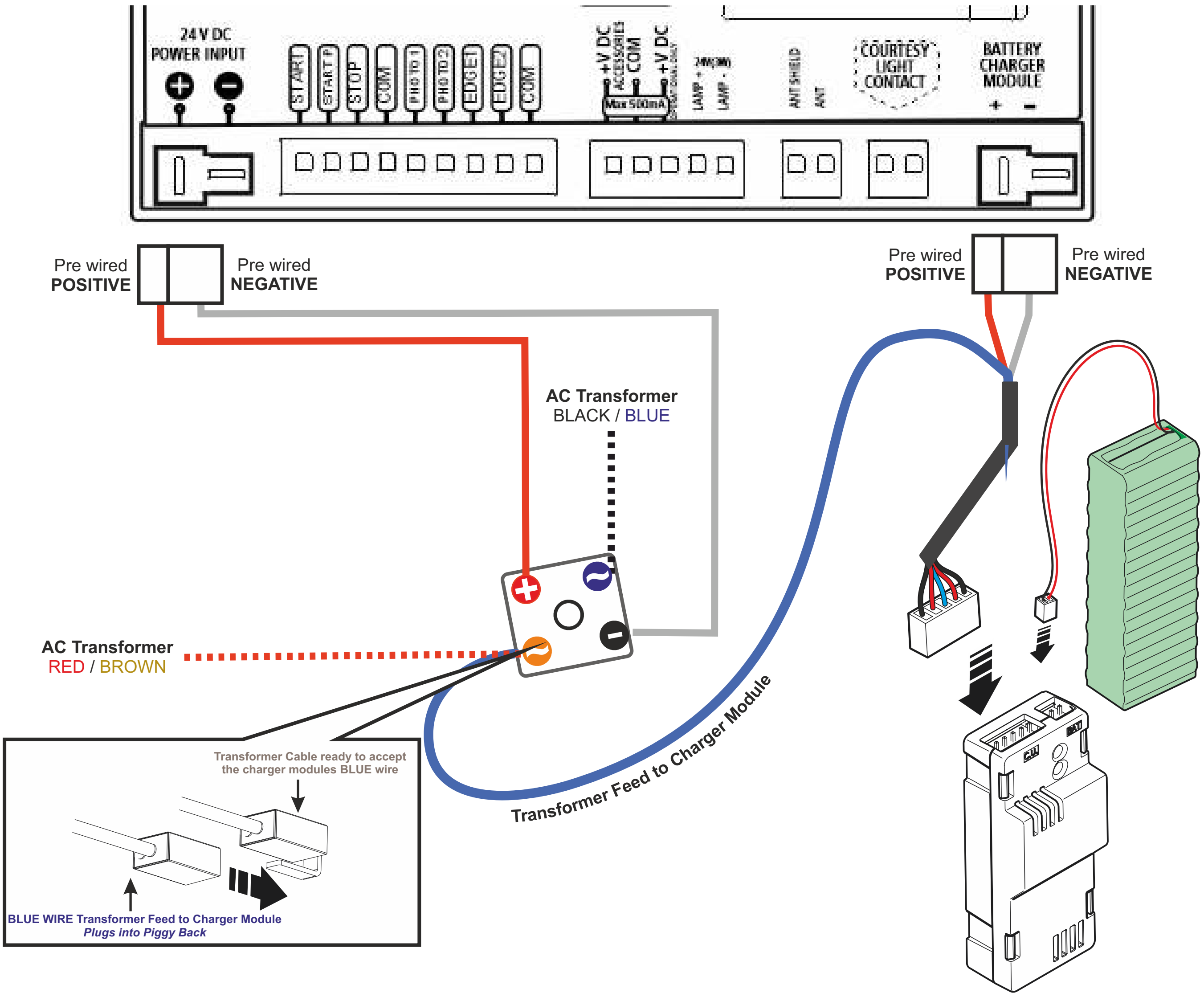
The following tests should be run immediately after connecting the battery to the control unit.

- Make sure that led "L2" (fig. 1) is on to indicate that the battery is supplying power to the system.
- Make sure that the different LEDs on the control unit confirm that it is operating properly.
  Note: If these conditions are not satisfied, it probably means that the battery is completely drained; in this case proceed to the next step and wait a few hours with the automation system powered by the mains before testing the operation of the battery again.
- Connect the automation system to the mains supply and check that led "L1" (fig. 1) turns on to confirm that the battery is recharging properly.
- Run at least one open/close cycle to check that the system operates properly when powered off the mains.
- Disconnect the automation system from the mains, and check that led "L2" (fig. 1) is on; run at least one open/close cycle to check that everything is working as it should even with battery power.
- At the end of the tests, reconnect the automation to the mains.

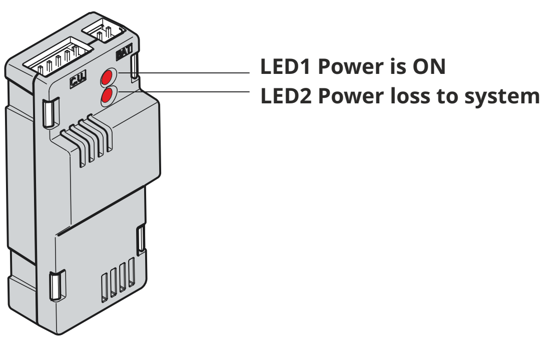
APC Battery Backup (APC-P5-BATT)

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-P5-BATT.



Status LED's

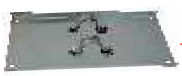


Solar System Installation

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.

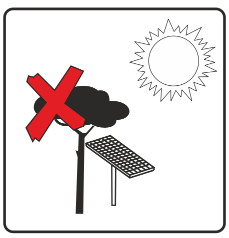
4. Install the solar panel at least 2m above the ground to protect it from dust and small stones.

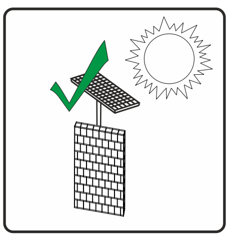
Solar Panel Placment

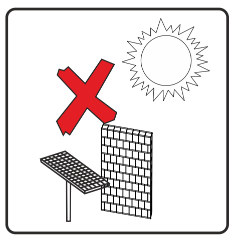
1. A solar panel CANNOT be installed under a tree, it requires sun to charge and maintain the batteries.

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.

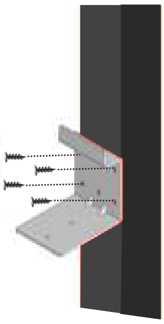




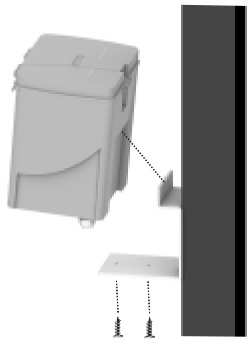


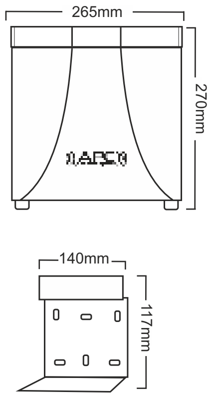
Step 2: Mounting the APC UNO Solar Box

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 6m).



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

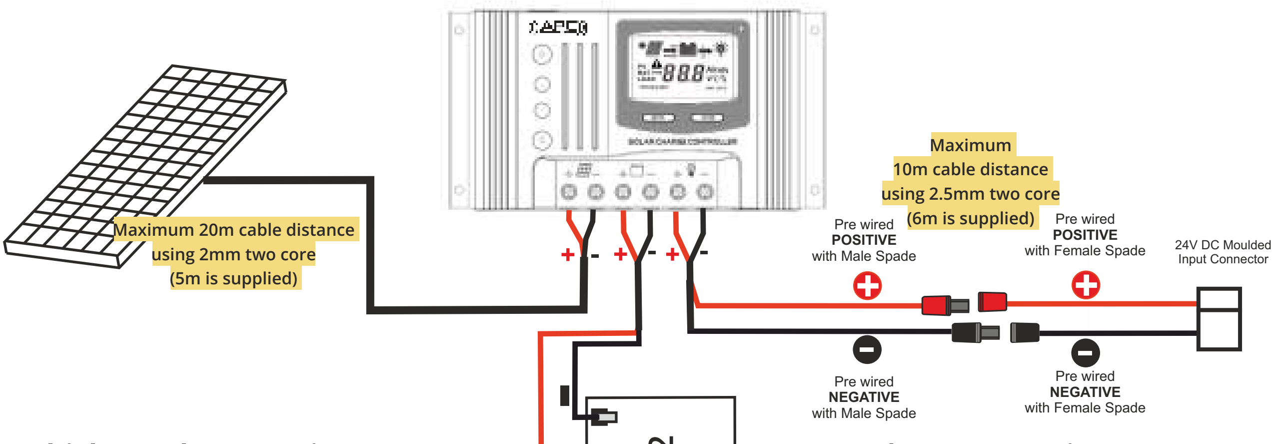
Taking into account that the solar panels maximum cable distance is 20 metres and the maximum distance between the solar box and the gate controller is 10 metres find a suitable location for the mounting of the box accordingly. Both the solar box and the solar panel are completely weatherproof and can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

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

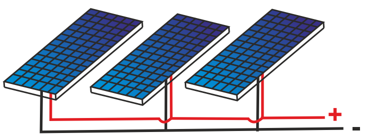
2. Wire the batteries in series to create a 24V arrangement into the system and wire into the corresponding terminals.
Regulator positive direct to battery 1,Regulator negative direct to battery 2,link the remaining terminal of each battery together

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**

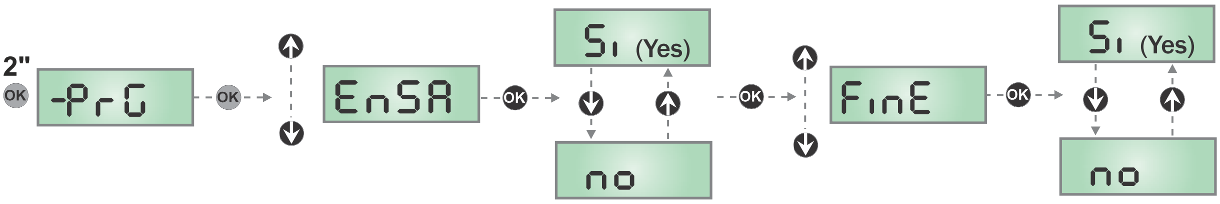
Use the keys to cycle to

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

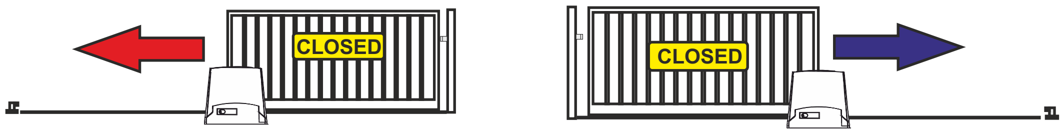


Setting the OPENING direction

Setting the opening direction is a critical step in the installation process allowing the gate system and all its logic system to function correctly.

Opening to the Left (SX)

Opening to the Right (DX)



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 dir then press **OK**

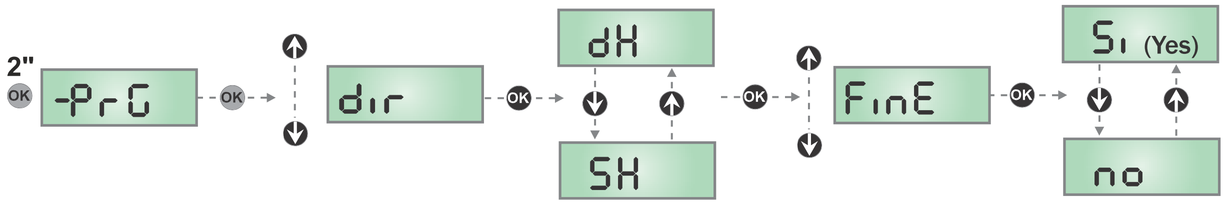
Use the keys to cycle to

dH for gates opening to the right
or
SH for gates opening to the left

Now press **OK**

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

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



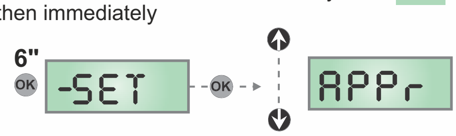
Gate System SETUP Cycle

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.

Ensure gear rack is not binding with ZERO resistance
Ensure gate is free of ALL bowing
Ensure that the motor is firmly fixed
Ensure that the connections are all correct with no loose wire strands
Ensure that Sx and Dx magnets are set correctly
Ensure that the motor operating direction is set correctly

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

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

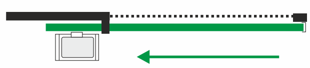


The SETUP cycle will now open and close the gate so that it can learn the travel distance. It will follow the sequence illustrated below.

?

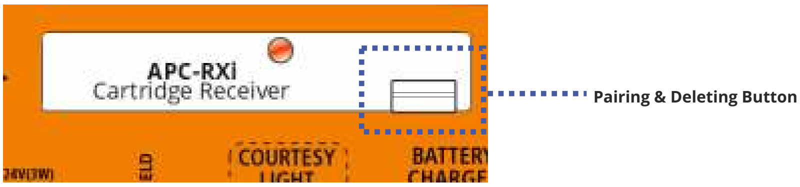
If the gate was not at full close the system will operate it til it reaches the closed position.

2 Gate will open to the full open position.



3 Gate will close to the full close position.

Pairing & Deleting Wireless Items



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.*

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.*

Service Free Pairing (Remote Controls ONLY)

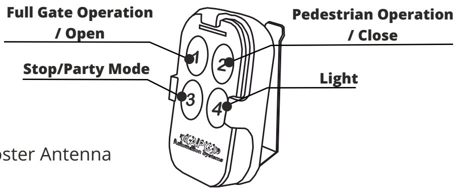
1. Simultaneously press and HOLD button 1 and Button 2 on the remote.

2. A five second window is open to press any button on the new remote you wish to pair.

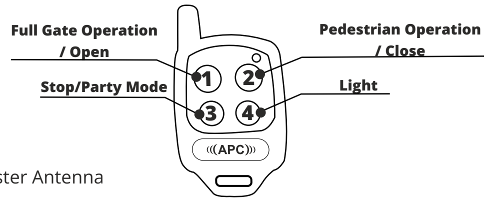
• *Each time an item is paired it restarts the five second window for additional individual items to be paired*
• *After five seconds of no activity the receiver will return to standby.*

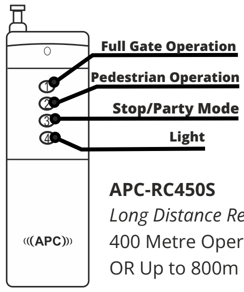
APC Remotes

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



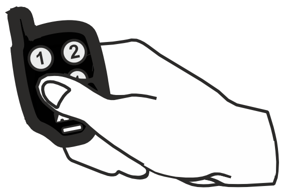


APC-RC450S
Long Distance Remote
400 Metre Operational Range as is
OR Up to 800m using an ANT-1 Booster Antenna

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.



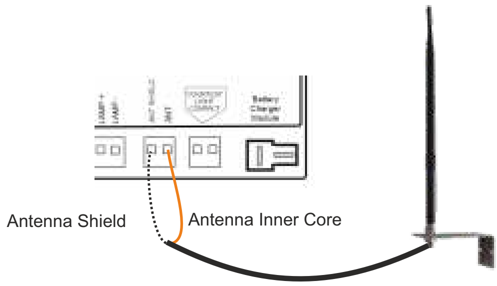
Connecting an APC-ANT1 External Antenna

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.



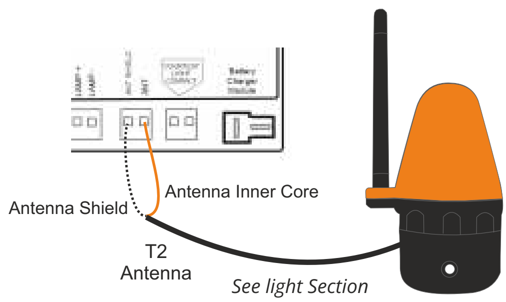
Connecting an APC-ULA Light with External Antenna

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

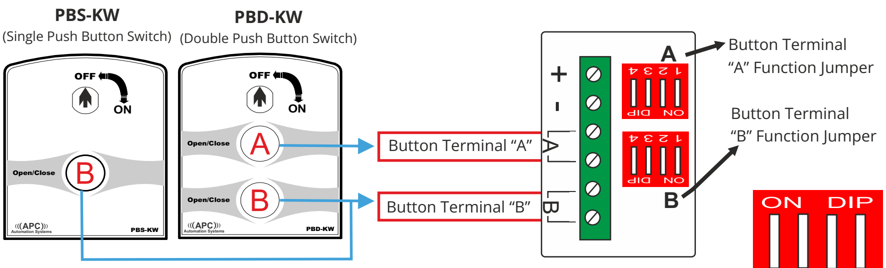
Inner core of the antenna cable to ANT (A2) on the control board.

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

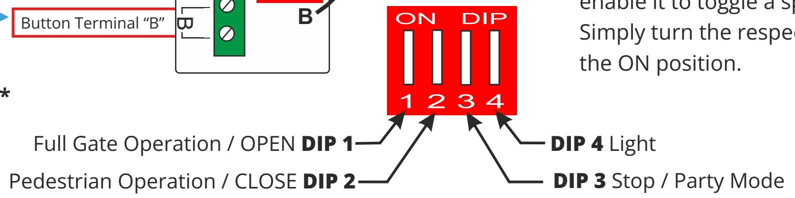


See light Section for light wiring page 23

APC Smart Wireless Button Configuration



Max. 20 Metre Operational Range*

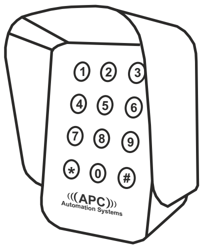


Setting

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.

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 #

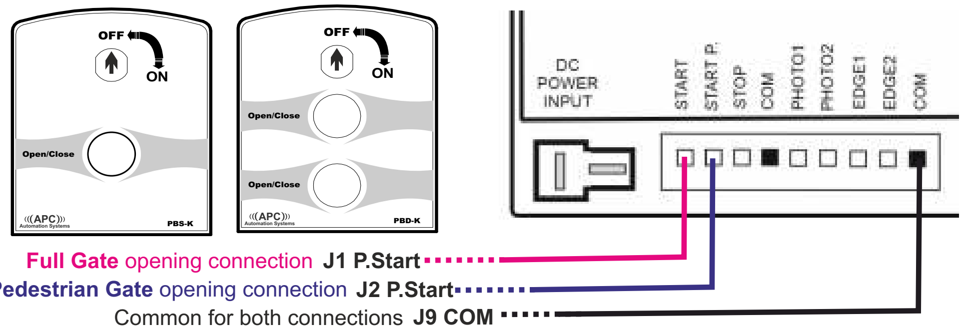
Channel 2
Pedestrian Operation / CLOSE
(Supports 3 Pin Codes)

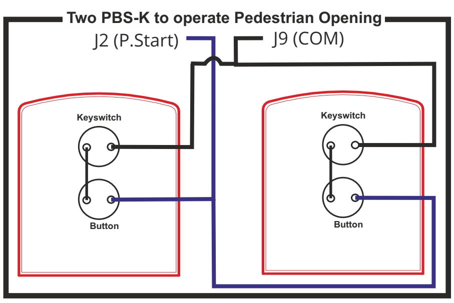
Master Code *
0 2 #
Pin Code #

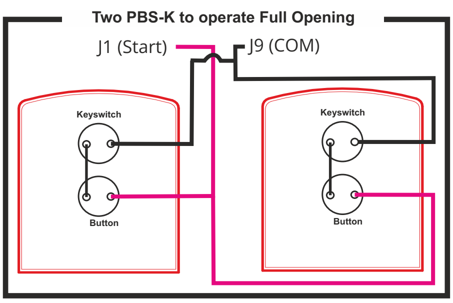
APC Wired Push Button Connection

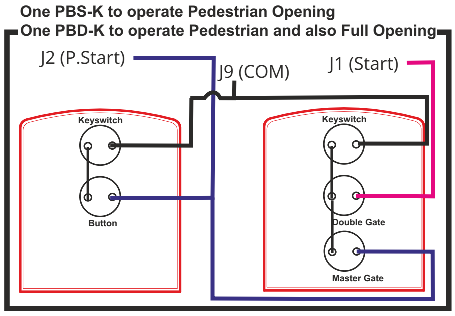
Push buttons are used for opening and closing the gates without using a remote.

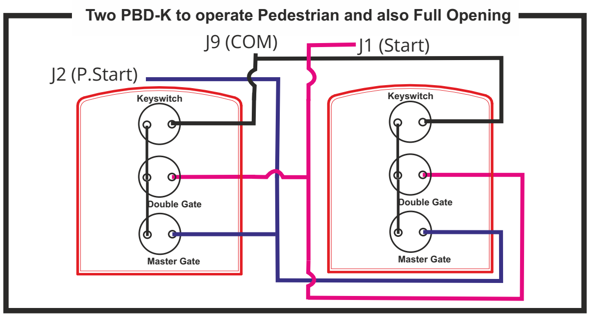
Push buttons can be used for a vast amount of purposes ranging from basic access control for visitors, workers or taking out the bins.

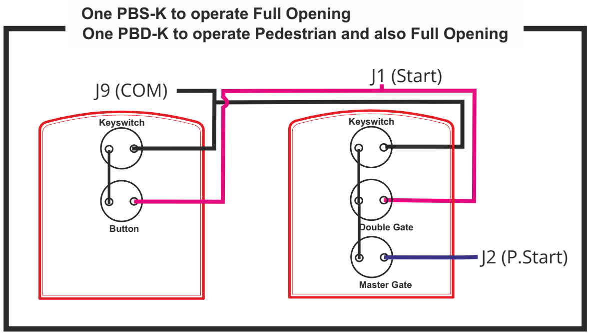








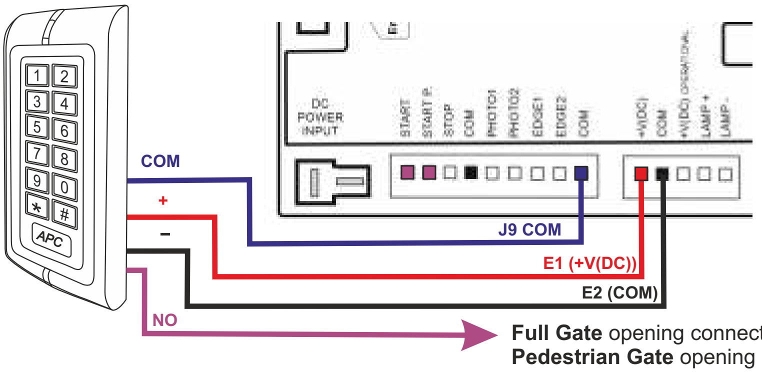




Connecting an APC Keypad (APC-KP1-C)

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.



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

Full Gate opening connect to **J1 (Start)**
Pedestrian Gate opening connect to **J2 (P.Start)**

Quick Programming Pin Code / Swipe Tag

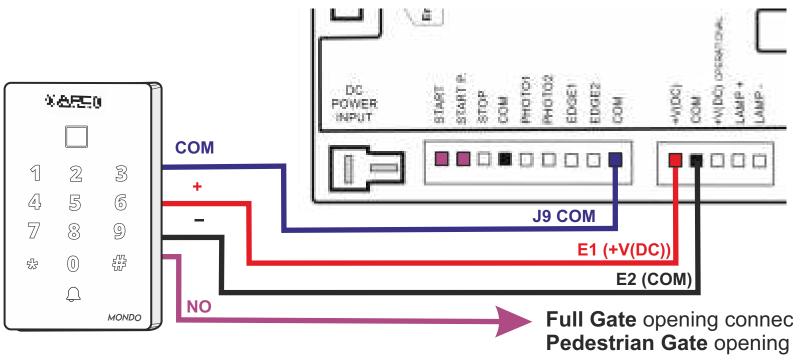
* 8 8 8 8 8 8 #	Master Code used to enter programming only
1	To enter Pin Code/Swipe Card Programming
User ID #	Any number between 1-999, this number is unique to each pin code/swipe tag and cannot be used twice
PIN/SWIPE #	The Pin code you would like to use to open the gate (4-6 Digits) OR Swipe the 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.



Relay time should be set to ONE seconds

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

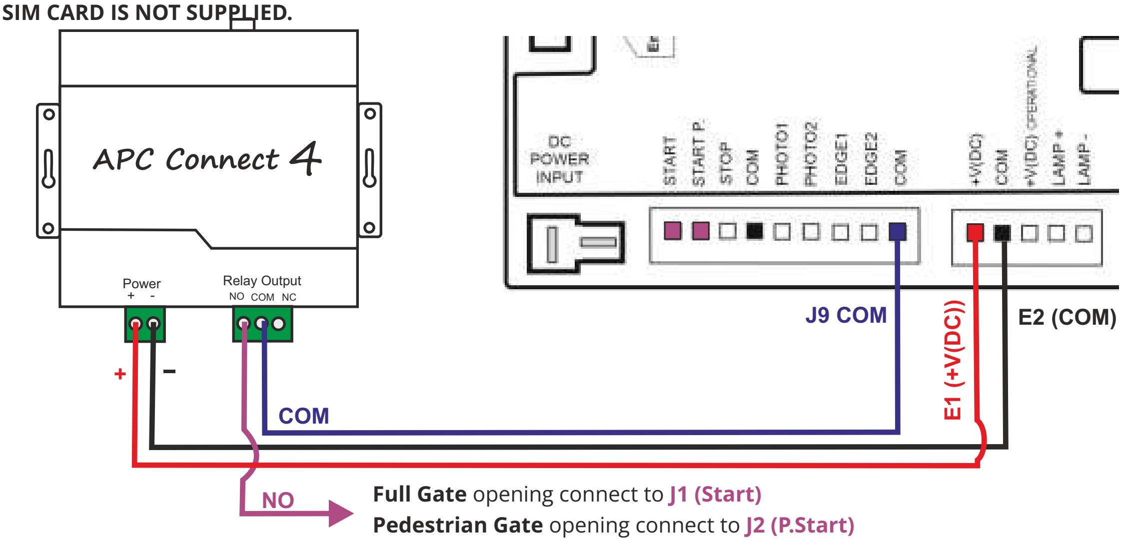
Full Gate opening connect to **J1 (Start)**
Pedestrian Gate opening connect to **J2 (P.Start)**

Quick Programming Pin Code / Swipe Tag

* 9 9 9 9 9 9 #	Master Code used to enter programming only
1	To enter Pin Code/Swipe Card Programming
User ID #	Any number between 1-999, this number is unique to each pin code/swipe tag and cannot be used twice
PIN/SWIPE #	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.



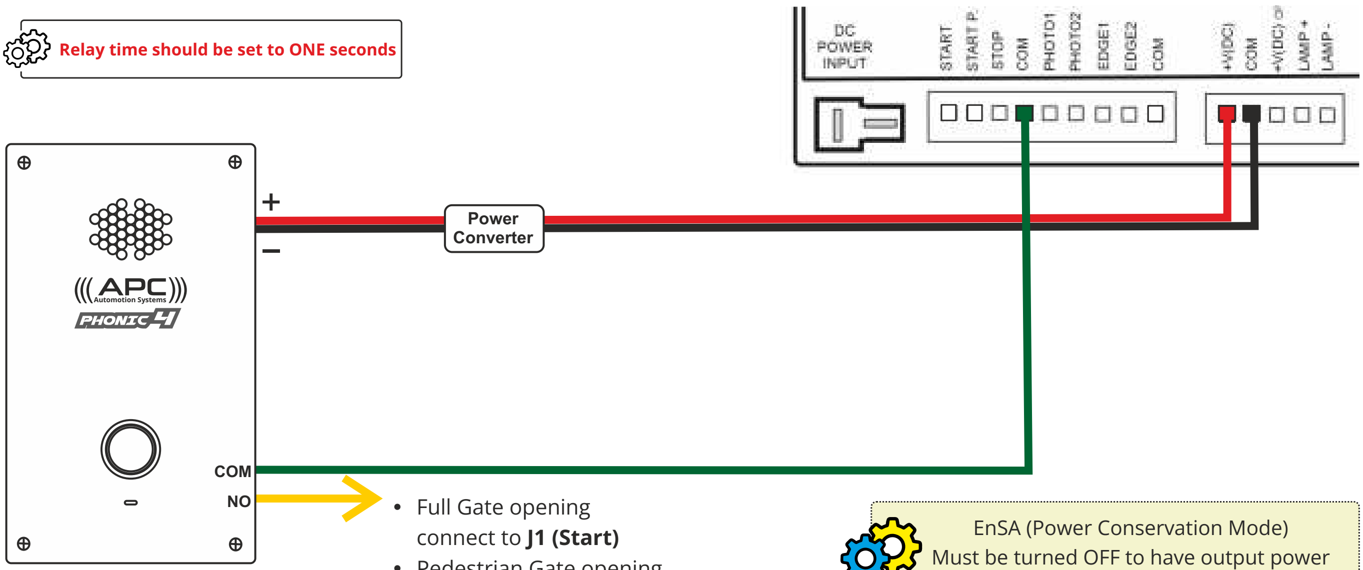
Full Gate opening connect to **J1 (Start)**
Pedestrian Gate opening connect to **J2 (P.Start)**

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

Connecting APC PHONIC4 GSM Audio Intercom

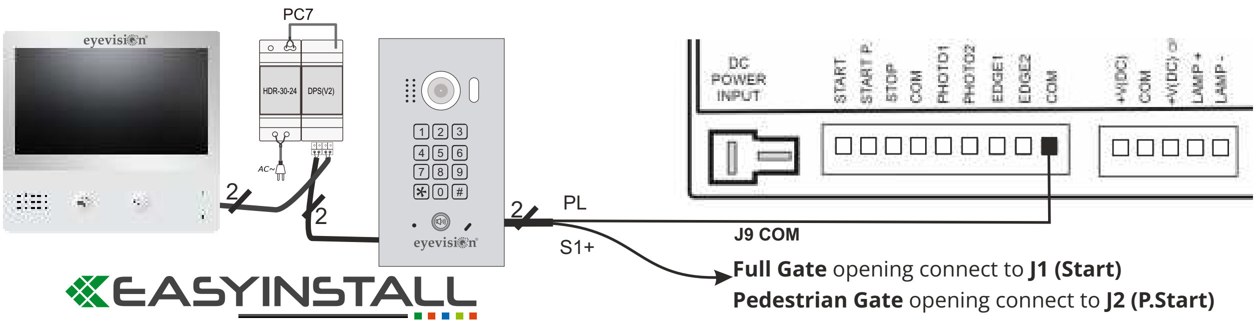
Relay time should be set to ONE seconds



- Full Gate opening connect to **J1 (Start)**
- Pedestrian Gate opening connect to **J2 (P.Start)**

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

Connecting Eyevision® 2 Wire EasyInstall Video Intercom System



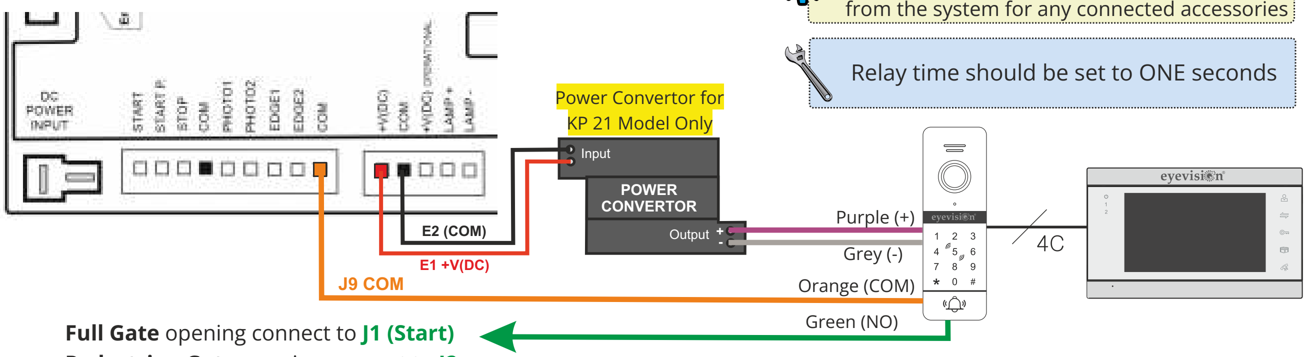
Full Gate opening connect to **J1 (Start)**
Pedestrian Gate opening connect to **J2 (P.Start)**

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

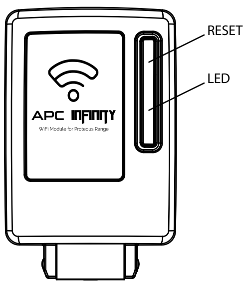


Full Gate opening connect to **J1 (Start)**
Pedestrian Gate opening connect to **J2**

Installing APC Infinity Wi-Fi Module

Download V2 GO APP from App Store or Google Play
Remote gate automation management with Smartphone

APC INFINITY
WiFi Module for Proteous Range



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 V2 GO APP **(APC Infinity User Manual Page 4)**

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

For further details see APC Infinity user manual

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

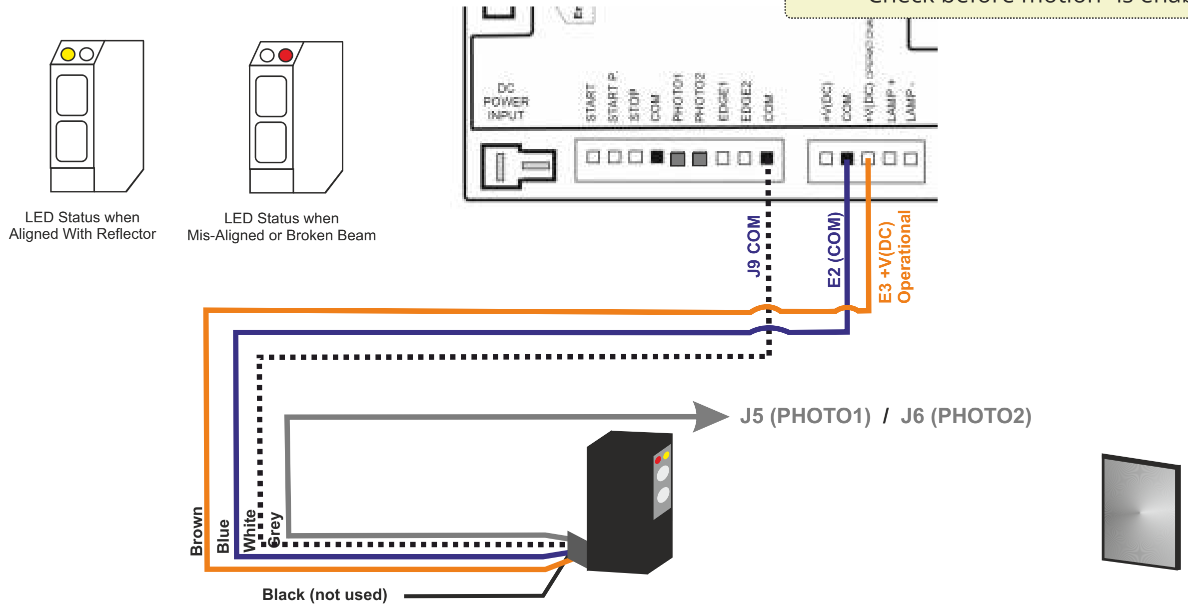
APC Infinity should be installed only after the gate automation is fully operational.

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.

> If Using EnSA energy saving mode
> Ensure the Photocell
> “Check before motion” is enabled

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

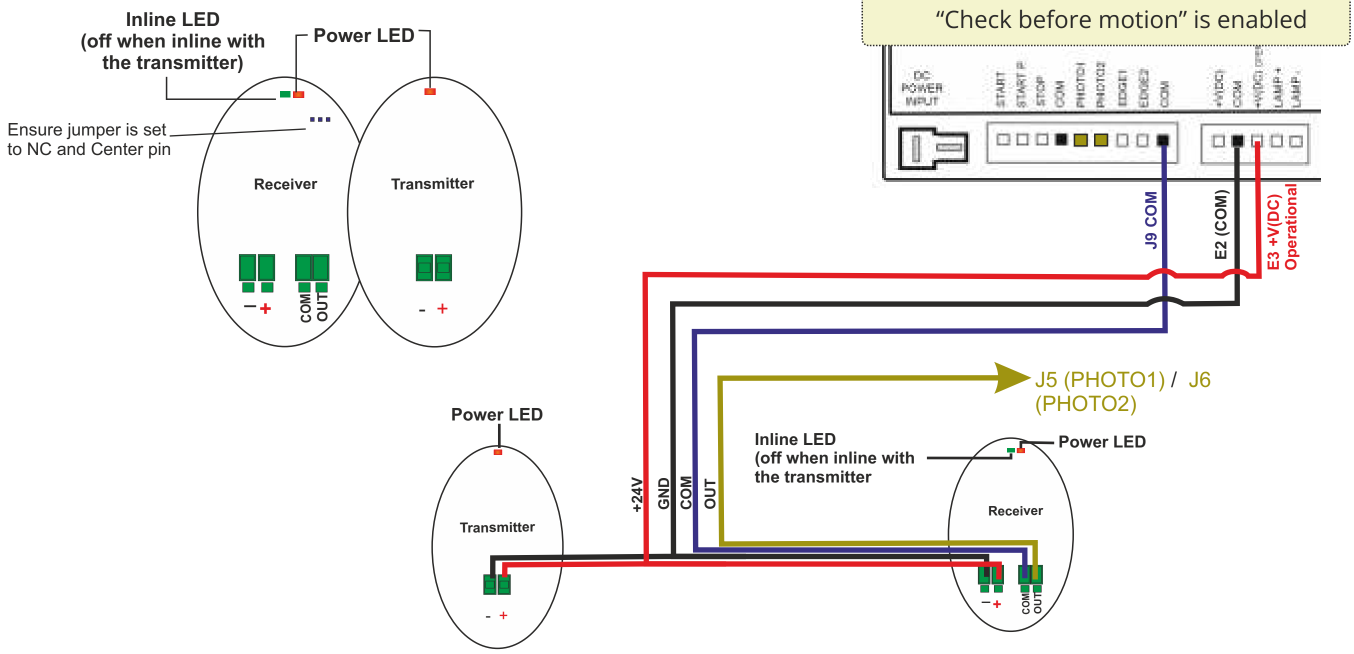


Connecting a PE Sensor (APC-PE2000)

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 can function the photocell for both opening **AND** Closing cycles.

Fot2 Can be set to function the photocell in closing **OR** opening cycles (one or the other)

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**

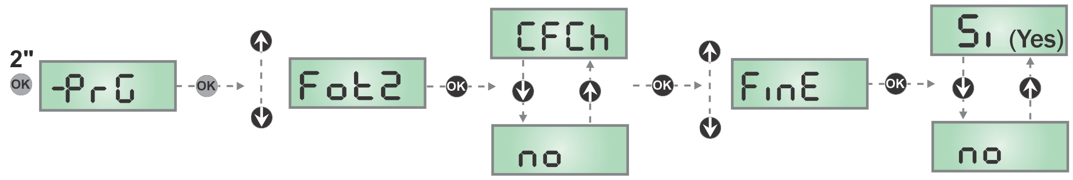
Use the keys to cycle to the required logic based on the above options.

CFCh Closing direction only
Ch Opening direction only
no Disabled

Now press **OK**

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

Cycle to Yes 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.

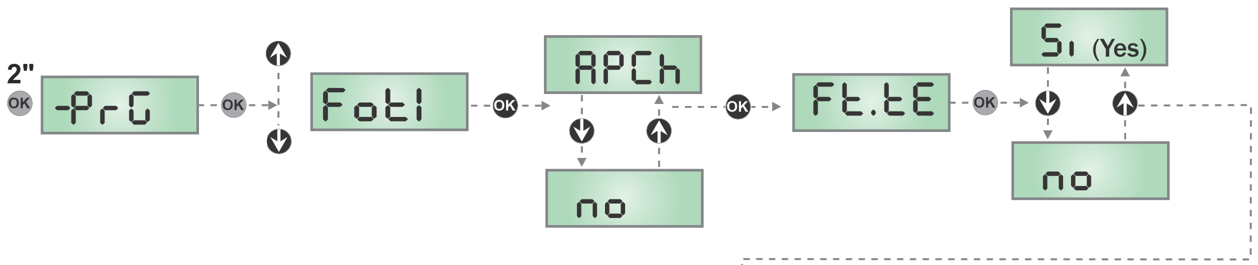
APCh Enabled

no Disabled

Now press **OK**

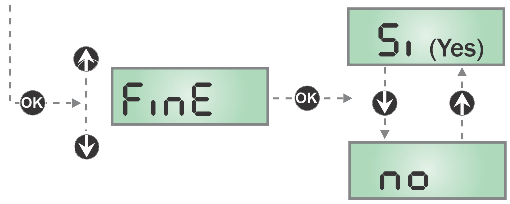
Now the photocell testing before operation needs to be turned on, cycle to Ft.tE then press **OK**

Use the keys to cycle to Yes to enable the check.



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

Cycle to Yes 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**

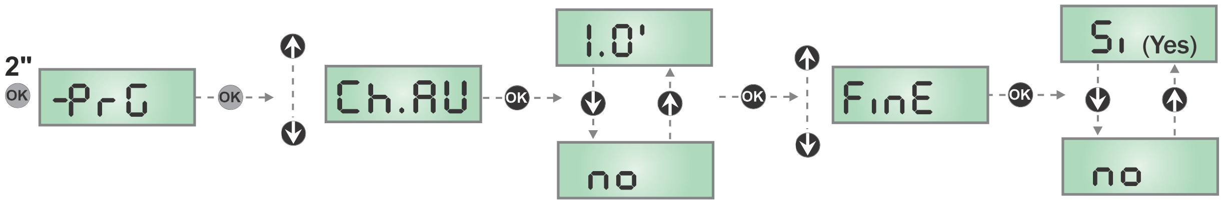
Use the ↑↓ keys to cycle to

no for no automatic close
or
xx.xx based on your desired auto close time.

Now press **OK**

Use the ↑↓ keys to cycle to Fine then press **OK**

Cycle to Yes 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**

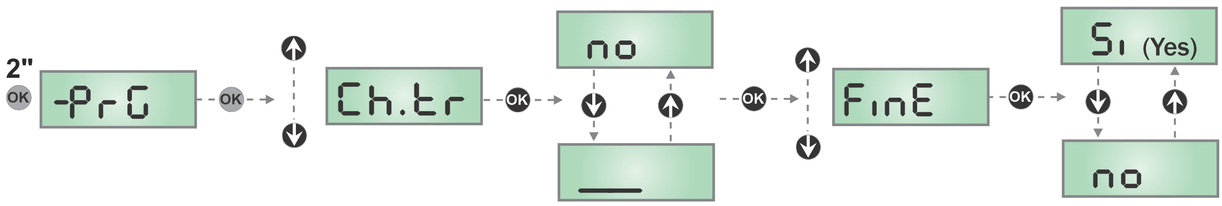
Use the ↑↓ keys to cycle to

no for no automatic close
or
xx based on your desired auto close time.

Now press **OK**

Use the ↑↓ keys to cycle to Fine then press **OK**

Cycle to Yes 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 PR.tr then press **OK**

Use the ↑↓ keys to cycle to

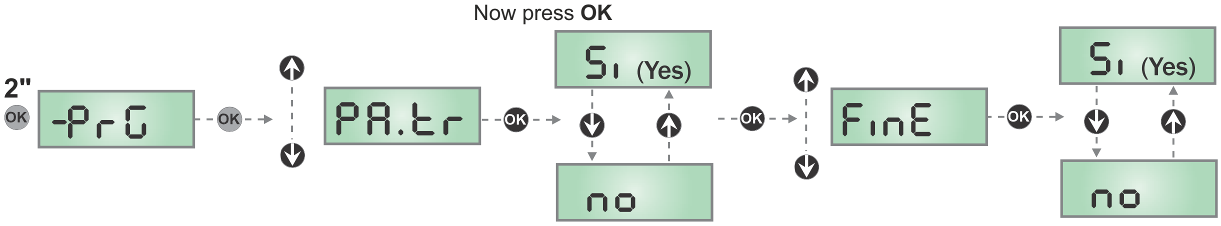
no Requires the user to close the gate the normal by remote or access control

or
Yes Will Automatically close based on pedestrian auto close time

Now press **OK**

Use the ↑↓ keys to cycle to Fine then press **OK**

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



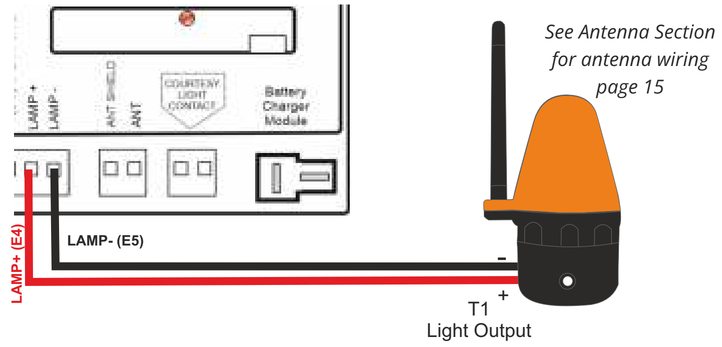
Connecting an APC-ULA Safety Lamp

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



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

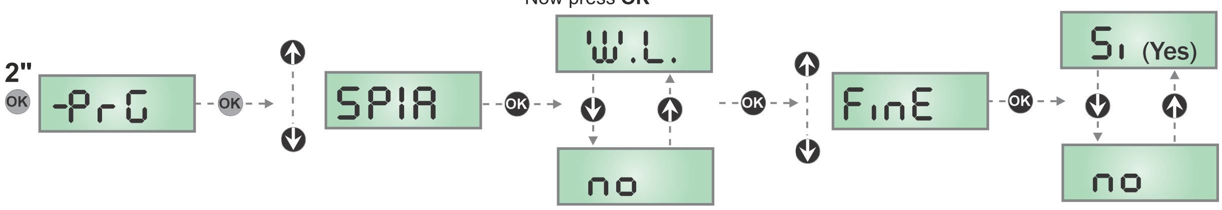
Use the UP/Down keys to cycle to SPIA then press **OK**

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 Yes 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

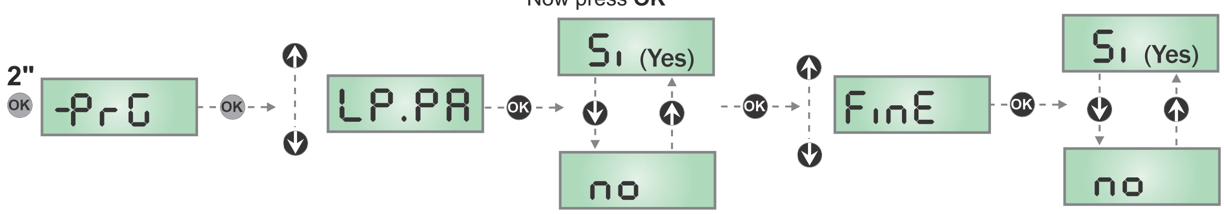
Use the UP/Down keys to cycle to LP.PA then press **OK**

Use the keys to cycle to
no for OFF
Yes for ON

Now press **OK**

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

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



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.

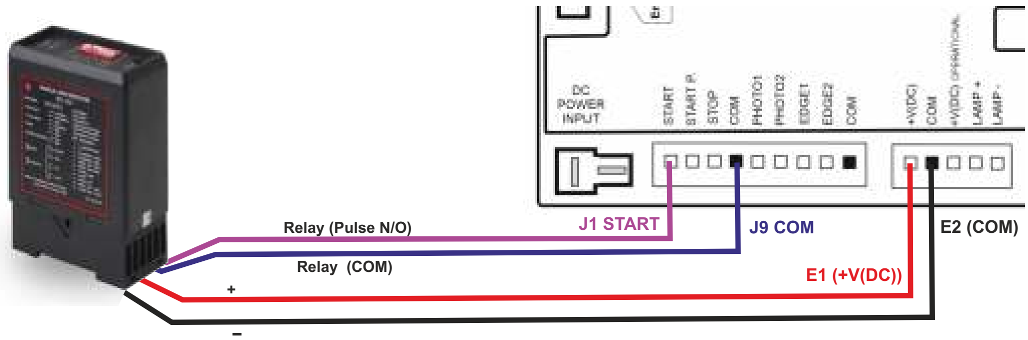
Furthermore at minimum a photocell must be installed and the automatic close timer must be enabled.

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.

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

Ensure the Photocell and Safety Edge "Check before motion" is enabled



The below are the recommended setting when using an induction loop or a timer, these commands will change the logic of the **START J1** 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

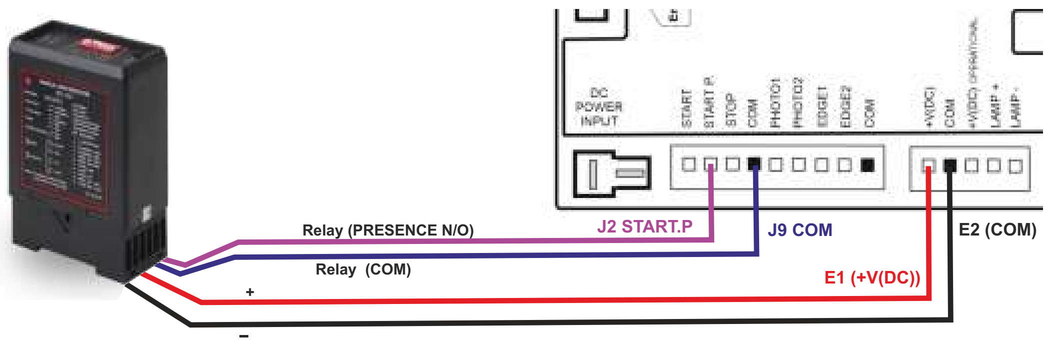
St.PA should be set to PAUS to reset the automatic closing time when a command is given

APC Loop Detector For Inhibition

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

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

Ensure the Photocell and Safety Edge "Check before motion" is enabled



The below are the recommended setting when using an induction loop or a timer, these commands will change the logic of the **START.P J2** 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.

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)

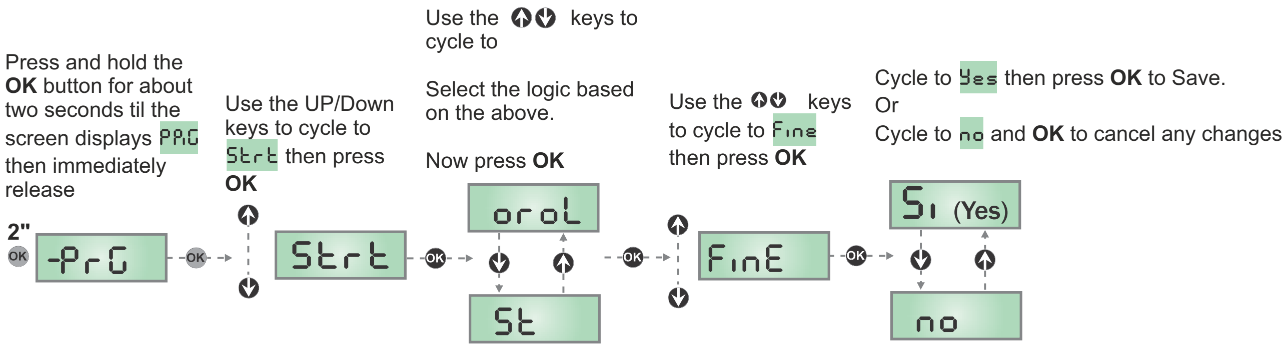
Manned operation PrES
START = OPENING (always controls the gate opening)
START P. = CLOSING (always controls the gate closing) This is a monostable command, that is to say, the gate will be opened or closed as long as the contact is closed and it will immediately stop as the contact is open

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 **J1 (START)** and **J4 (COM)** of the control unit. Connect cables of device controlling the START P. input between terminals **J2 (START P.)** and **J4 (COM)** of the control unit.



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.

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

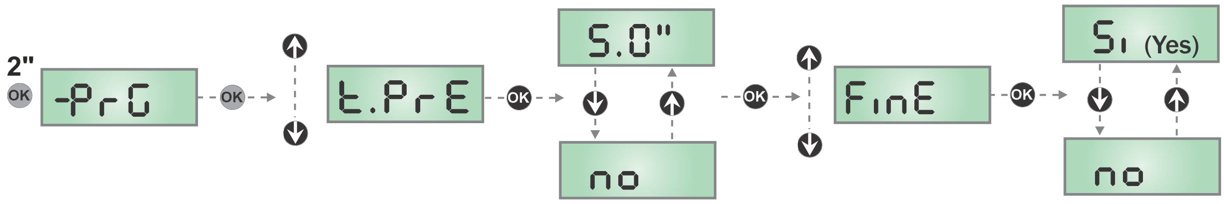
Use the UP/Down keys to cycle to t.PrE then press **OK**

Use the keys to cycle to
no for no pre flashing
xx based on your desired pre flashing time

Now press **OK**

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

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



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.

Adjusting the Closing Pre Flashing Time

Default is Off

Used for situations where it would be ideal to set a longer time to the opening pre flashing as a courtesy to others that the gate will be closing soon.

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

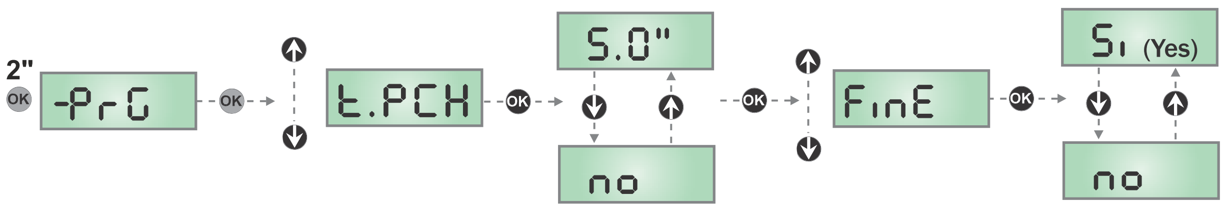
Use the UP/Down keys to cycle to t.PCH then press **OK**

Use the keys to cycle to
no for no pre flashing
xx based on your desired pre flashing time

Now press **OK**

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

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



Note: 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.

Manually adjusting the over current sensing

Default is no

If NO is selected the system will automatically obstacle sense based on encoder settings however if a manual adjustment is required the system can manually be configured for an adjustment from 1.0A up to 18.0A.

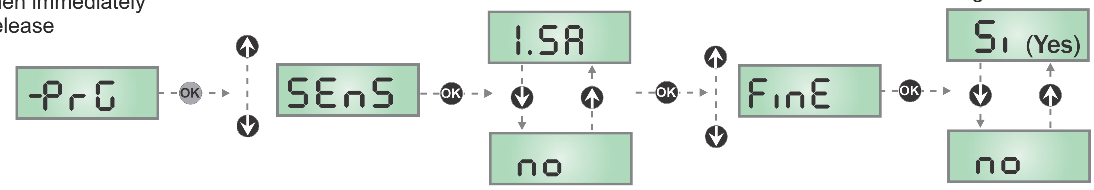
Press and hold the **OK** button for about two seconds til the screen displays PrG then immediately release

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

Use the keys to cycle and adjust over current amps

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

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



Adjusting the encoder sensitivity

Default is 0

Encoder sensitivity can be set from 0 (minimum sensitivity) to a maximum of 7 (most sensitive), it should be considered that 0 sensitivity is a complete physical stop of the gate and any increase will be more sensitive.

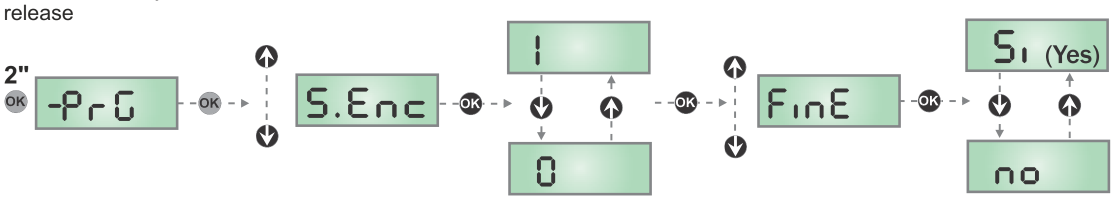
Press and hold the **OK** button for about two seconds til the screen displays PrG then immediately release

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

Use the keys to cycle and adjust the encoder sensitivity.

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

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



Adjusting the motor power for fast operating speed

Default is 60

The displayed value is the current power setting, it is adjustable from 30(%) 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 Pot then press **OK**

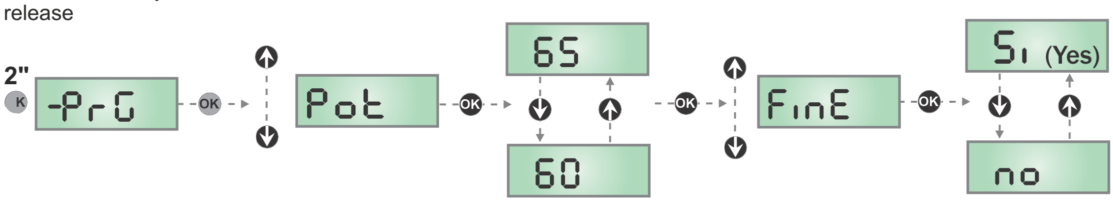
Use the keys to cycle to

Select the power %

Now press **OK**

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

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



Adjusting the motor power for slow operating speed

Default is 20

The displayed value is the current power setting, it is adjustable from 0(%) to 70(%).

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.raL then press **OK**

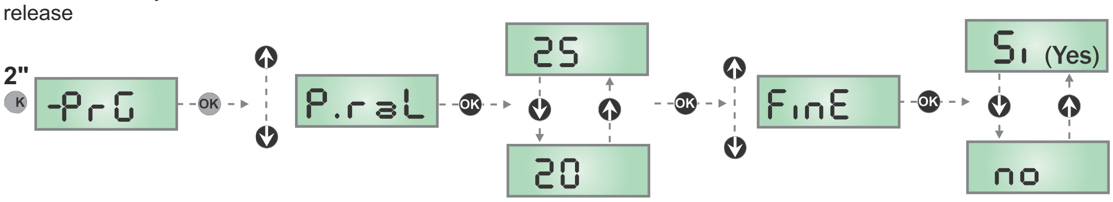
Use the keys to cycle to

Select the power %

Now press **OK**

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

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



Disable the Ramp Up Feature

Default is no

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

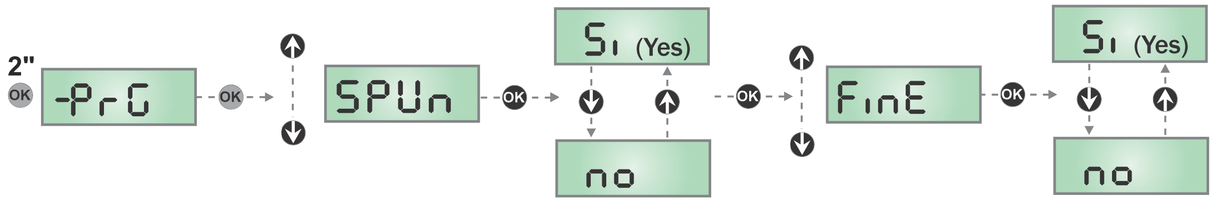
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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

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

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

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



Duration of the Ramp Up feature

Default is 2

If ramp up is enabled the duration (in seconds) 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.

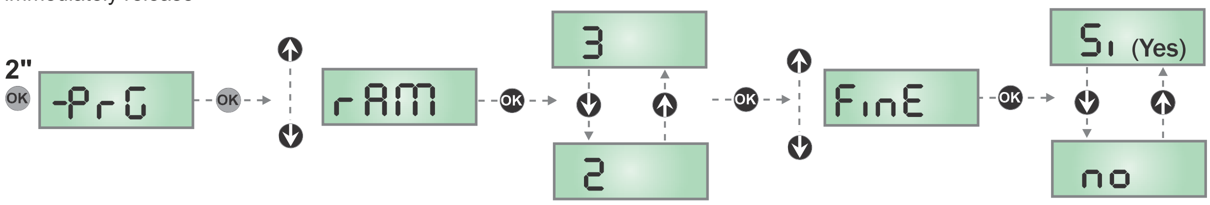
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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 Yes 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%

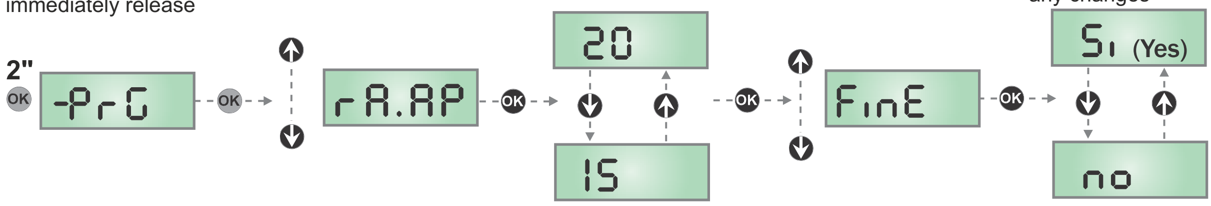
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

Use the UP/Down keys to cycle to rA.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 Yes then press **OK** to Save.
Or
Cycle to no and **OK** to cancel any changes



Manually adjusting the slowdown distance for opening

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%

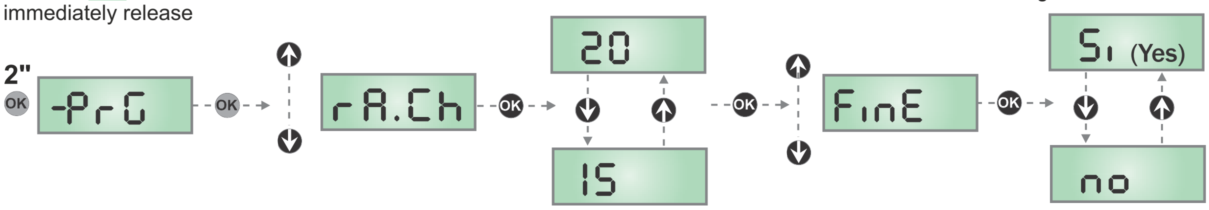
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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

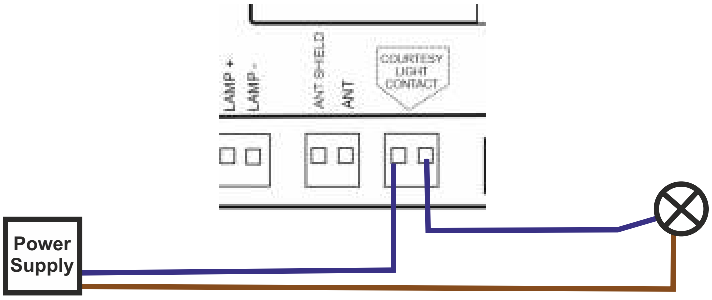
Use the keys to cycle and adjust the position of the slowdown by %

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

Cycle to Yes 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

Default is On for 1 minute

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

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

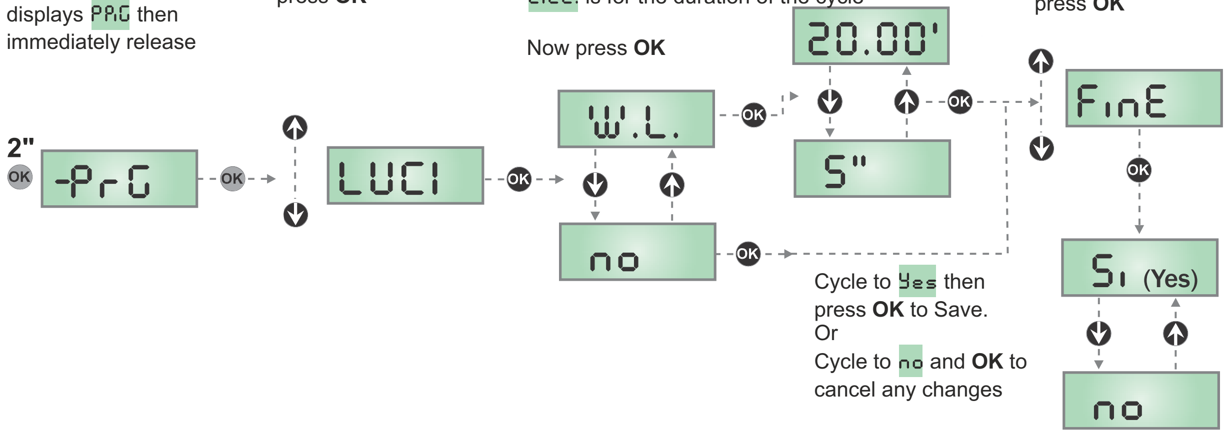
Use the UP/Down keys to cycle to LUCI then press **OK**

Use the keys to cycle to
no for OFF
t.LUC is for adjustable time
C.iCL. is for the duration of the cycle

Now press **OK**

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

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



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.

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

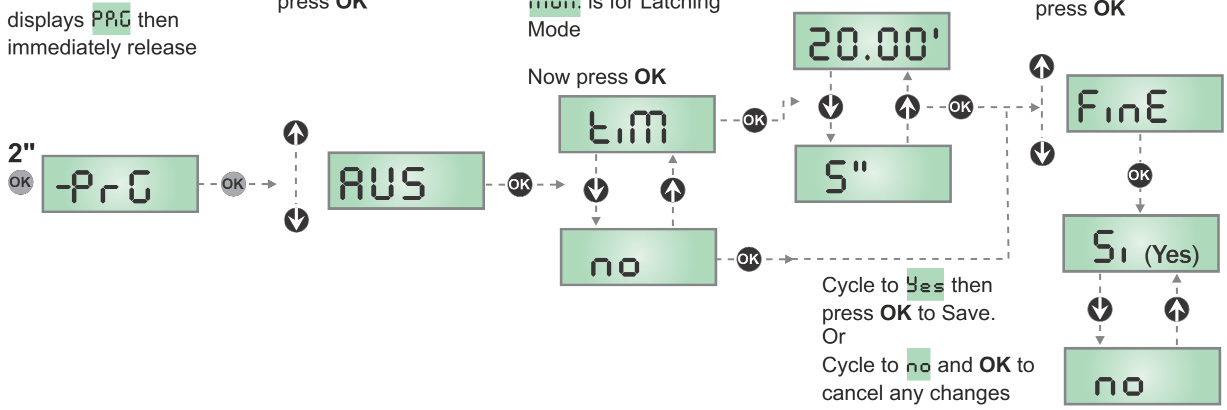
Use the UP/Down keys to cycle to AUS then press **OK**

Use the keys to cycle to
biSt for Momentary Mode
tim is for adjustable time
mon. is for Latching Mode

Now press **OK**

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

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



Adjusting the Pedestrian opening distance

Default is 25%

The pedestrian gate operation can be adjusted to suit the installation requirements based on percentage of the full gate operations learned distance.

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.APP then press **OK**

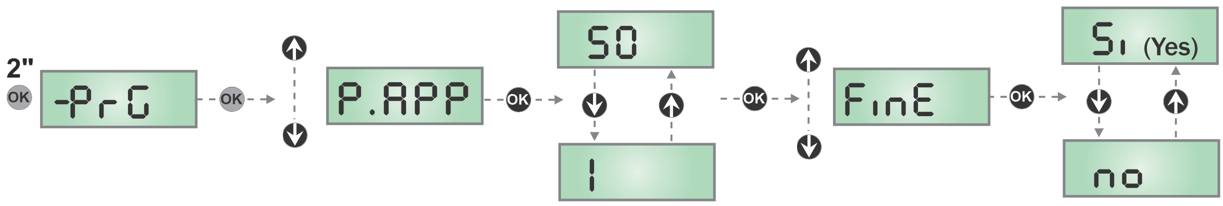
Use the keys to cycle to the required percentage.

25 %for a quarter opening.
50 % is considered half way.

Min. is 1 **Max.** is 100%
Now press **OK**

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

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



Triggering Pedestrian Operation DURING pedestrian cycle

Default is Off

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 stop and 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

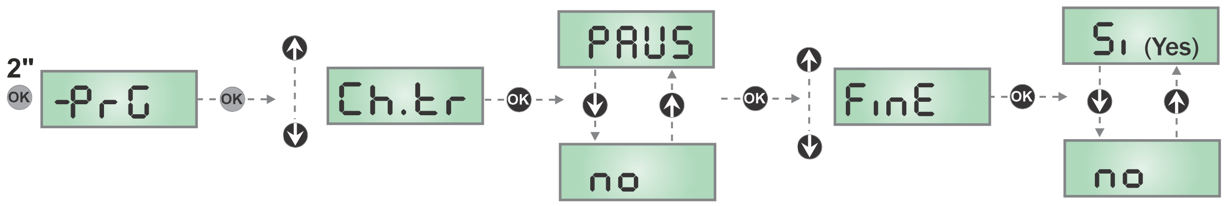
Use the UP/Down keys to cycle to Ch.tr then press **OK**

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 Yes 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.

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.

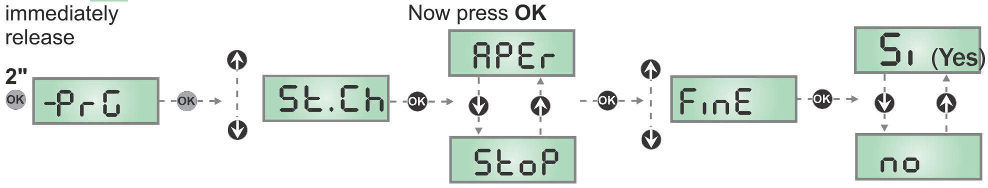
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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. Now press **OK**

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

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



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.

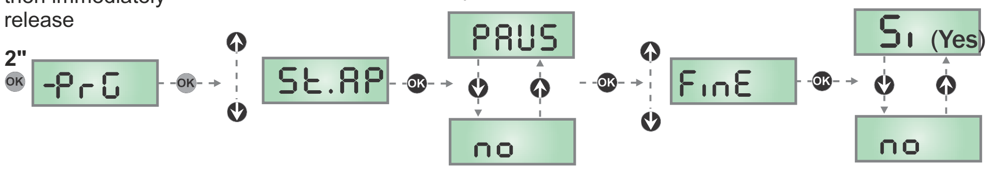
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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. Now press **OK**

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

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



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.

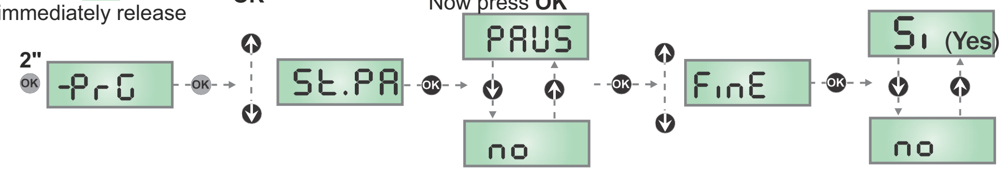
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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. Now press **OK**

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

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



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

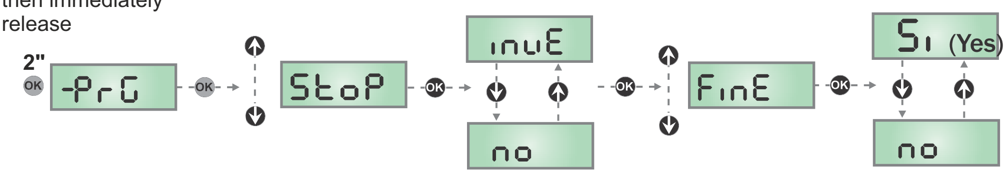
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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. Now press **OK**

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

Cycle to Yes 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.

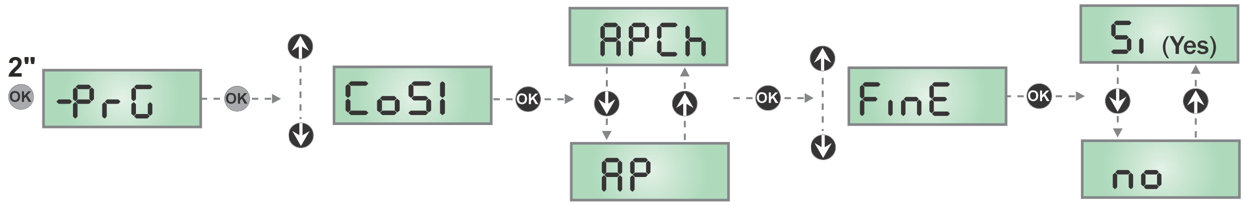
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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 Yes 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.

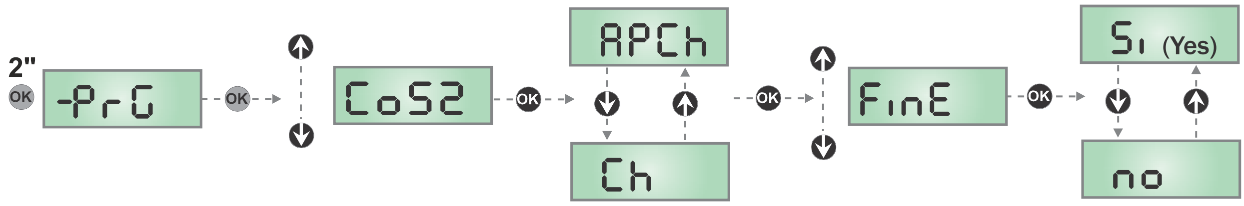
Press and hold the **OK** button for about two seconds til the screen displays PRG then immediately release

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 Yes 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**

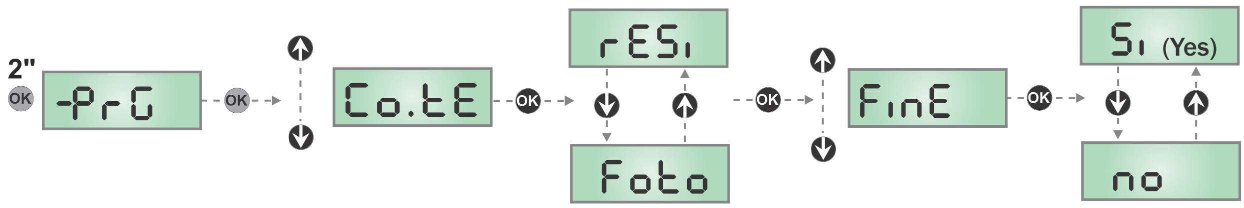
Use the keys to adjust the logic then press **OK**

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

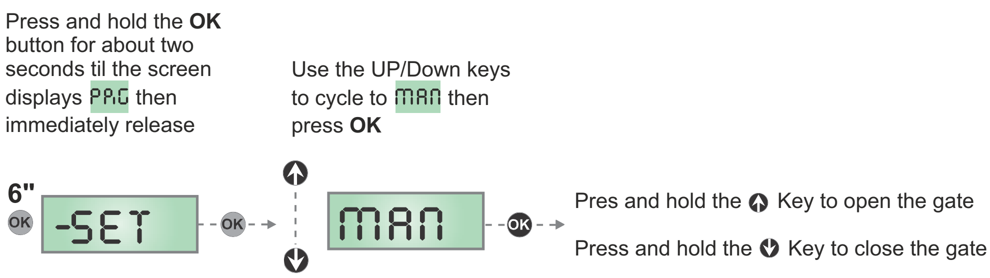


Note: Enabling the test mode prior to operation is a necessity if the system is set to power conservation mode EnSA

System overrides and Manual tests

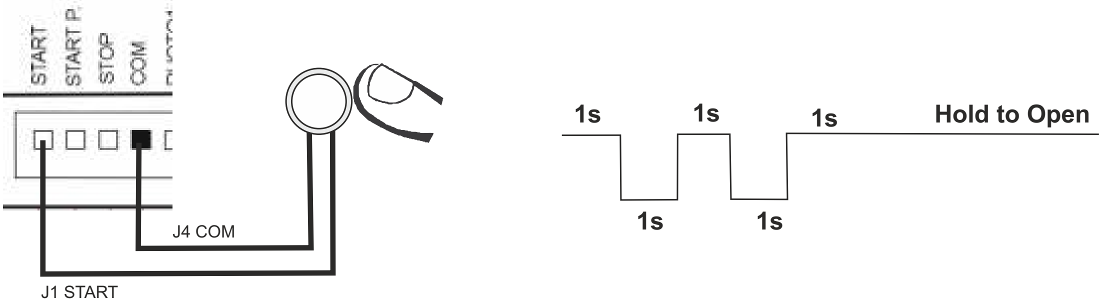
Manually moving the gate using logic control

This method is used for diagnostics and testing of the gate motor itself. It will bypass all safety edges, photocell, limits and encoder.



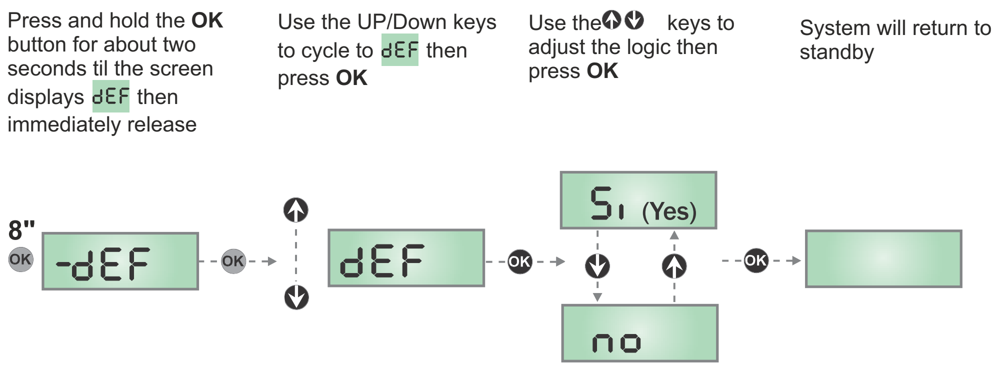
Manually moving the gate using dead man mode

This method is used for emergencies requiring the gate to be immediately be moved towards the open position. This will function the motor itself and bypasses all safety devices such as edge sensors and photocells.
To activate the START input must be triggered three consecutive times by ONE second Presses with a pause in between each press of ONE second. Once more the button will be held down for the fourth press indicating an operator is present. Whilst the button is held the gate will operate towards the open position.
This mode is automatically exited after 10 seconds of inactivity
If the system in the Strt menu is set to StAn then the operator will open/close based on current/previous position.



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.



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

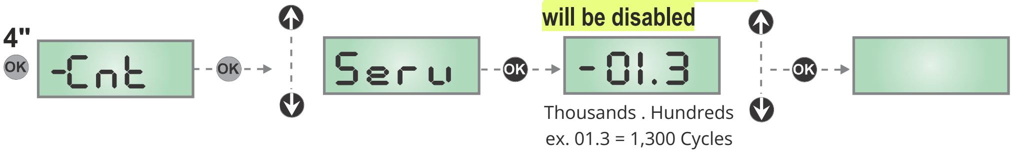
Use the UP/Down keys to cycle to MAN then press **OK**

Pressing ⬆ will go up in thousands

Pressing ⬇ will go down in hundreds

Pressing OK returns to standby.

if set to 0 the counter will be disabled



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.

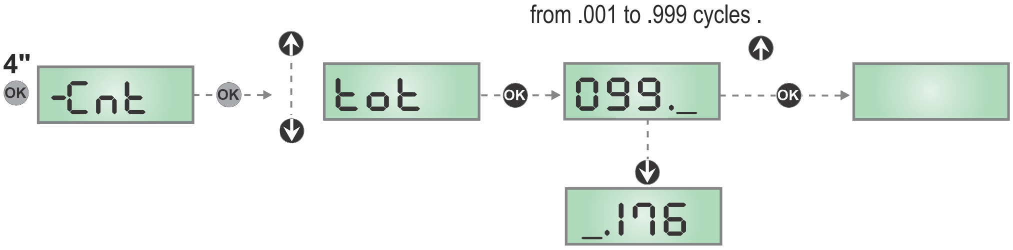
Press and hold the **OK** button for about four seconds til the screen displays Cnt then immediately release

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

Setting a Bi Parting Gate Installation (TWO motors, one set of accessories, operating together)

To set a Master and Slave system TWO syncro modules are required to be connected into the interface port of each motor unit. The syncro modules are connected to one another using a TWISTED pair, the connection is non-polarised.

Each motor unit must be configured for its **own** travel direction and travel time settings independently including all other motor related settings.

All the accessories settings of the systems will be set only on the MASTER motor unit, these will be relayed to the slave automatically.

If pedestrian function is used it will only partially operate the MASTER gate based on its setting.

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

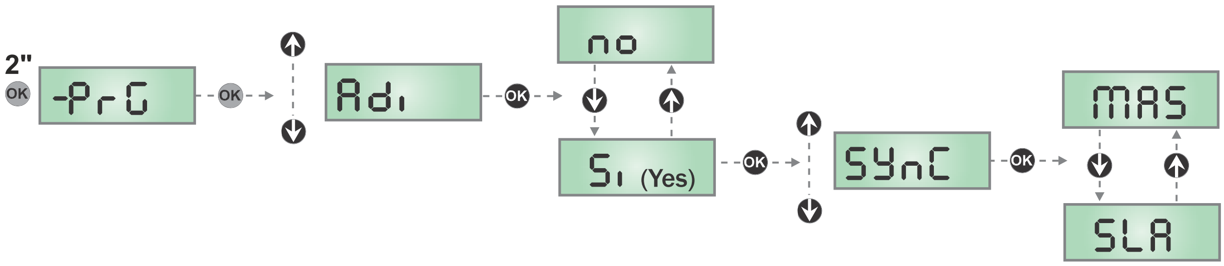
Use the UP/Down keys to cycle to Adi then press **OK**

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

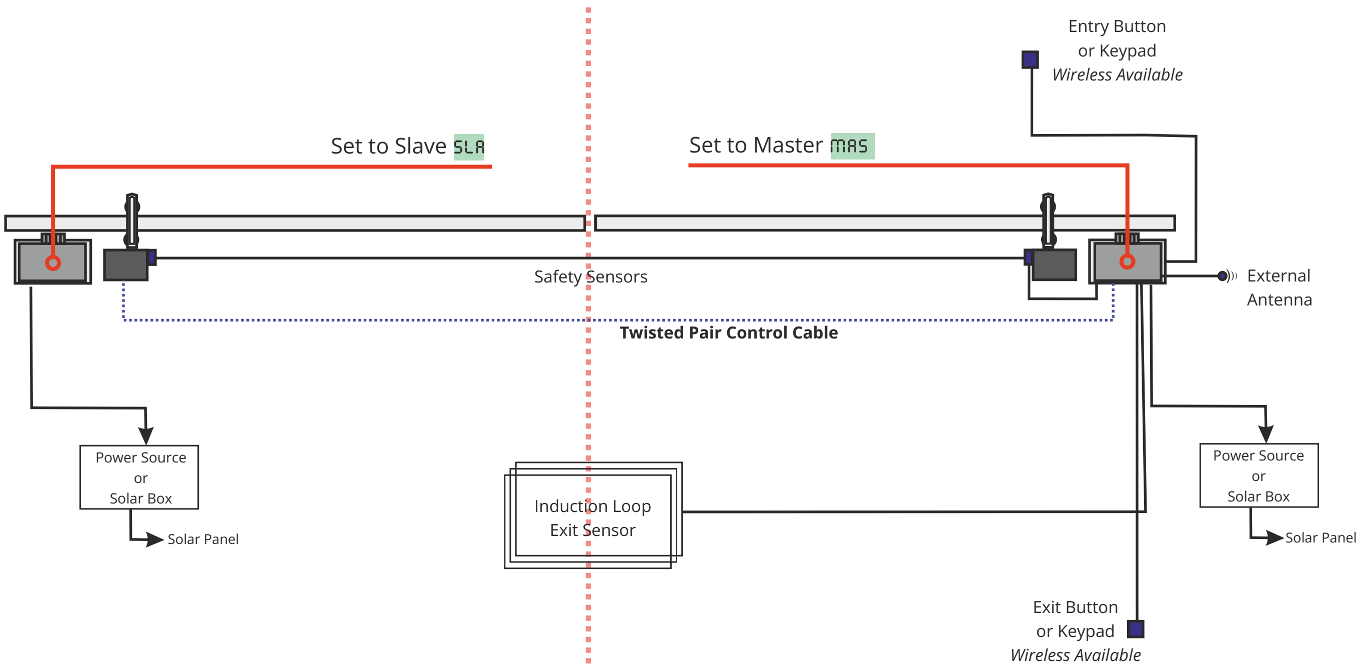
If the module is connected SYnC will automatically be displayed, press **OK**

Choose wether the unit is a Master MAS or a Slave SLA then press **OK.**

Repeat for the other motor



Installation Layout



Slave
Slave has its own power source
Slave has control cable to connect to Master
No other connections

Master
All Accessories Wired to Master
Master has its own power source
Master has control cable to connect to Slave

Troubleshooting

Overload LED On	Unplug the accessories power connector E1-E5 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) - 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 - Low voltage
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	**Receivers**	**Remotes**	**Keypads**	**Solar Equipment**
- APC-PE2000	- APC-Connect 4	- APC-RC4S	- APC-KP1-C	- APC Sun Power
- APC-RR-11	- APC-RX4	- APC-RC4SV	- APC-KP2W	- APC-SP24-20W
- APC-LD1-24V	- APC-WF-CH1	- APC-RC450S	- APC-WF-KP	- APC-SP24-40W
	- APC Link 2			- APC-SP24-60W
Courtesy Light	**Push Buttons**	**External Transformers**		
- APC-ULA	- APC-PBS (K/KW)	- PS-24-10		
	- APC-PBD (K/KW)			

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.