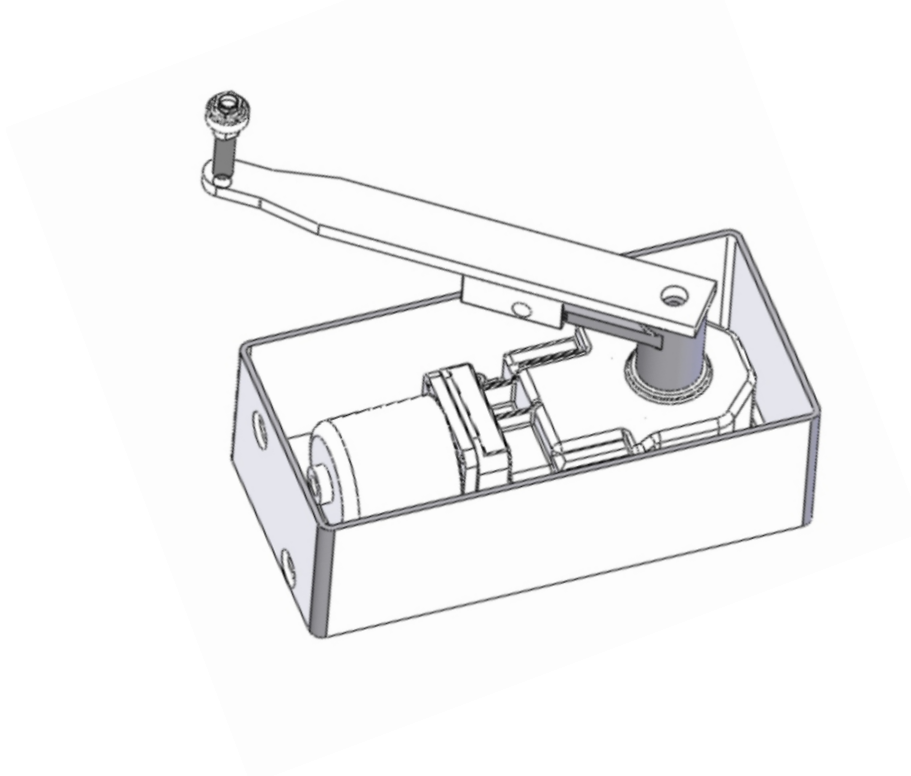


APC-UG1400C/2400C Installation Guide



Attention Installer

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

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 biting, 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.

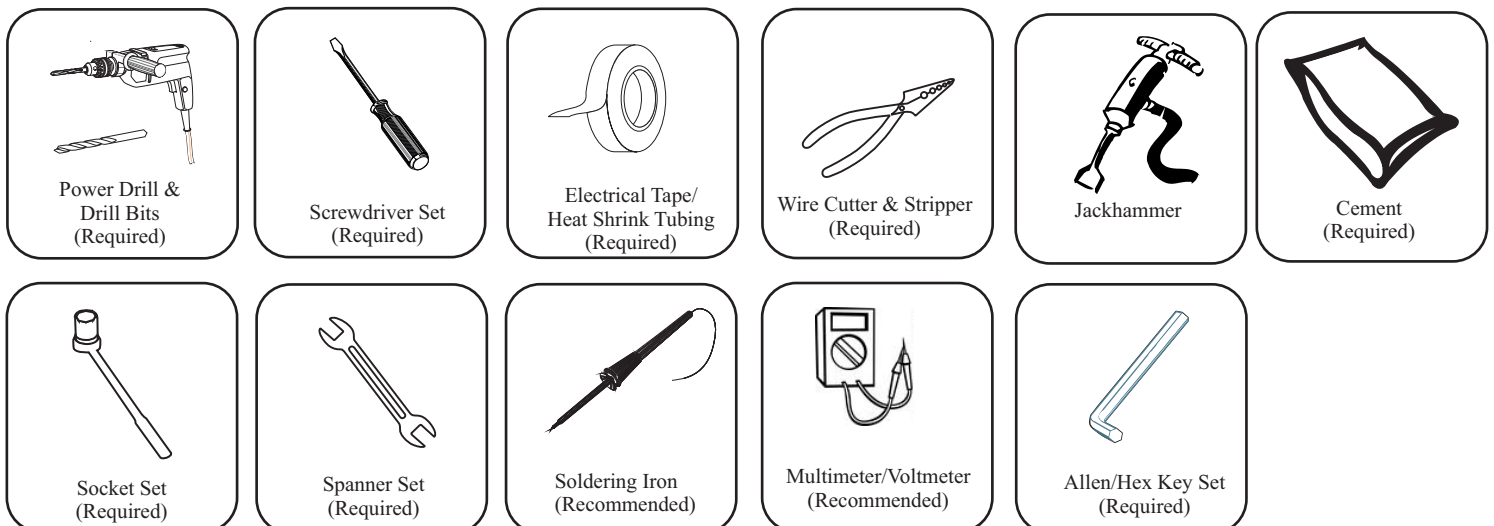
Before beginning installation the manual should be read thoroughly concerning all aspects of the installation including all precautions and safety information.

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

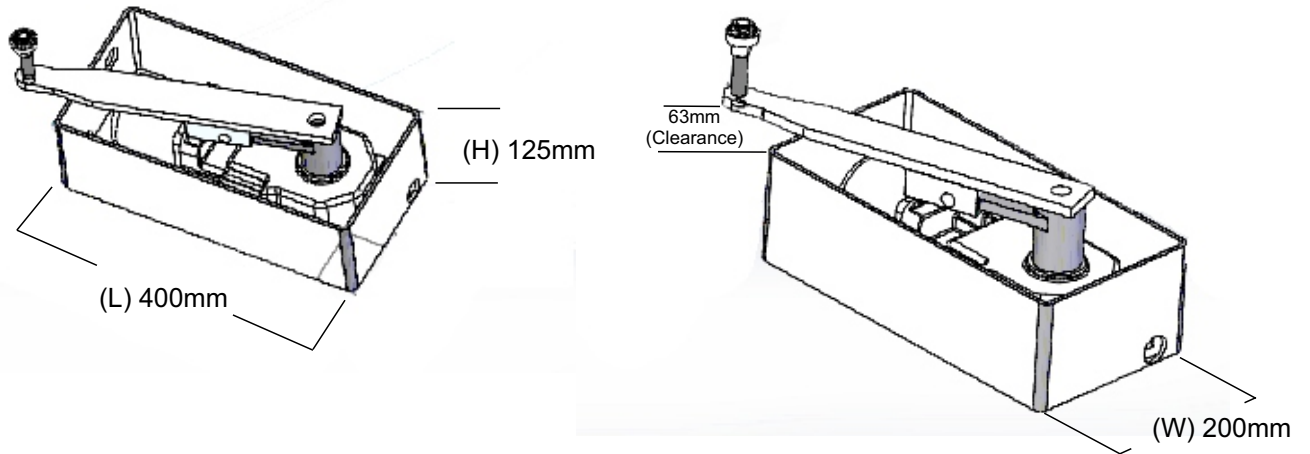
The system is fitted with an over current sensing feature to assist in preventing damages, injuries and death. All precautions must be taken by the installer that adjustments are set correct based on the gates weight, height and length. The system sensitivity should be set to allow consistent operation 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 consequential 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.

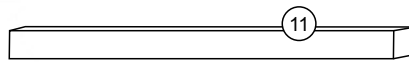
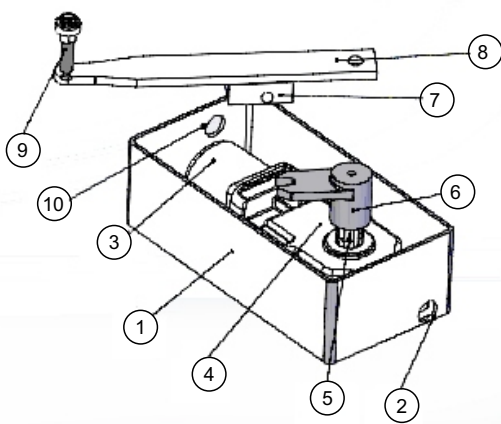
Tools Required



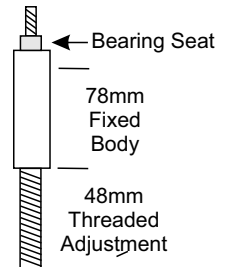
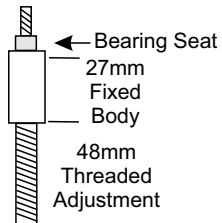
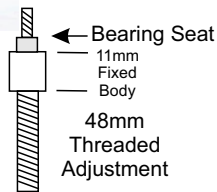
Motor and Box Dimensions



Assembly Overview

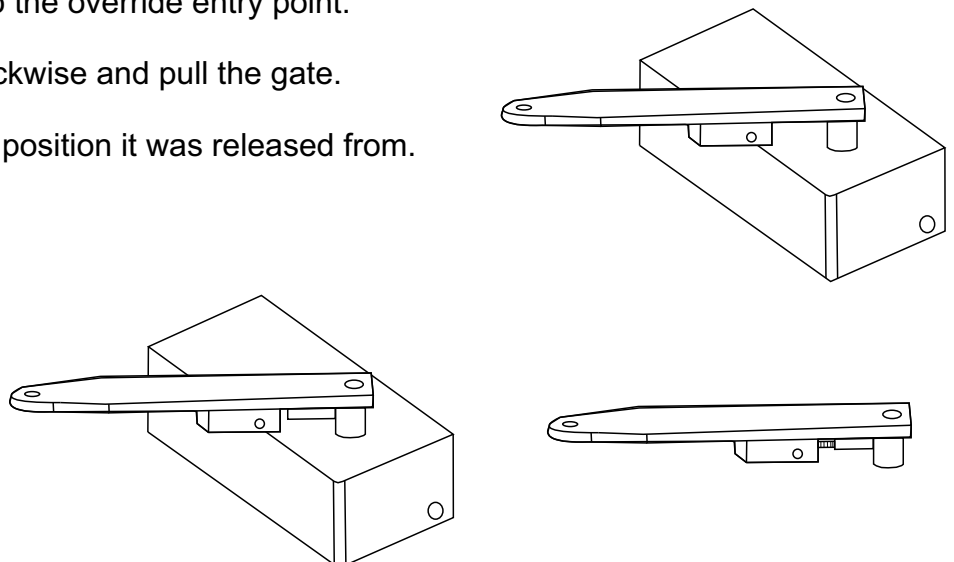


1. Foundation Box
2. Drainage Hole
3. DC Motor
4. Gearbox Cover
5. Output Drive Spline
6. Drive Spline Attachment
7. Manual release assembly
8. Link Arm
9. Bearing height adjuster
10. Power Conduit Input
11. Drive Channel



Manual Override

1. Using a 5mm Allen key insert into the override entry point.
 2. Turn the override screw 180° clockwise and pull the gate.
- To relock push the gate back to the position it was released from.



Before beginning the installation of the gate motors a physical gate stop must be installed at the open and closed positions.

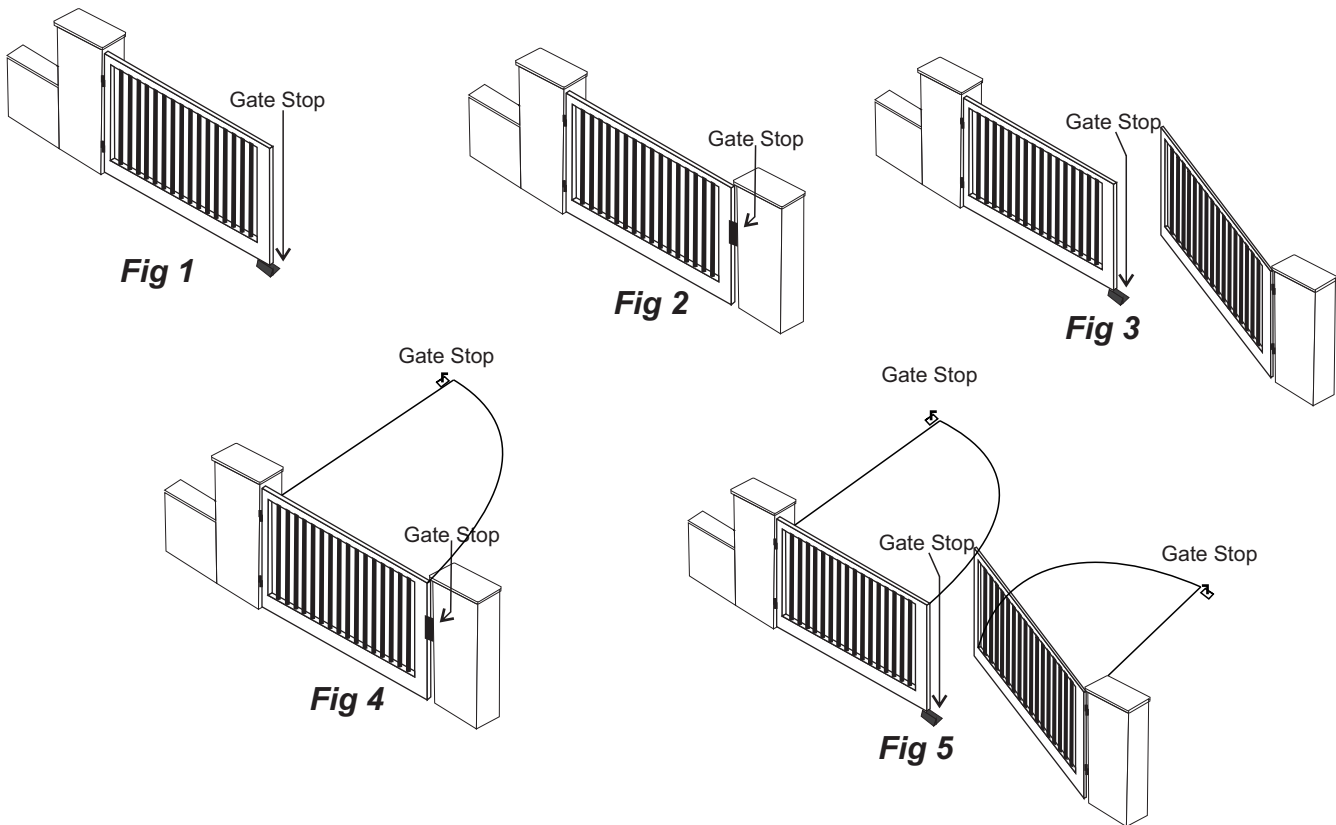
For Single gate systems the closed position gate stop can be installed in two different methods.

1. On the driveway itself at the furthest point from the hinge as illustrated in the diagram below (Fig 1).
2. On the post that the gate will close too (Fig 2).

For Double gate systems the gate stop must be installed in the center of the driveway stopping both gates (Fig 3).

When installing on the driveway itself it is recommended to use a rubber floor stop to prevent damage to vehicle entering and exiting. When installing on the post for single gate installations a 90° angle can be used with a rubber padding to dampen or soften the close and prevent damage to the gate.

For the open position the gate stop must be set at the furthest point of the gate away from the hinge as per Fig 4 and Fig 5. It would be recommended to install the gate stop as close to the ground as possible to prevent the gate from flexing or bowing.

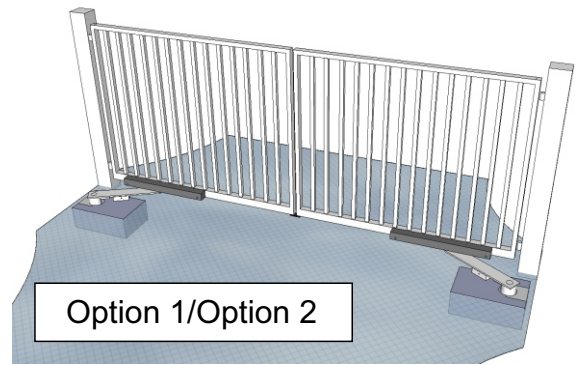
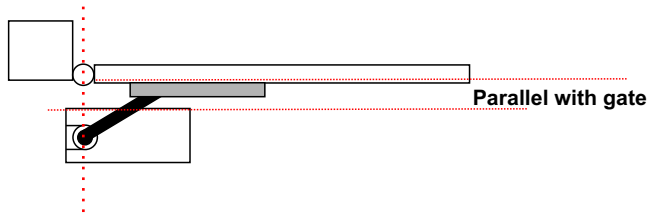


Option 1

Underground unit behind the gate

Center of pivot of gate motor inline with the center of the gate pivot point (hinge)

Arm is at a 45° angle to the channel

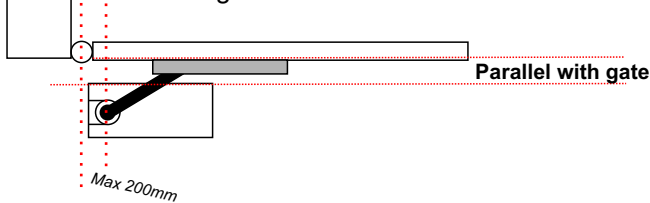


Option 2

Underground unit behind the gate

Center of pivot of gate motor offset from the center of the gate pivot point (hinge) by up to 200mm

Arm is at a 45° angle to the channel

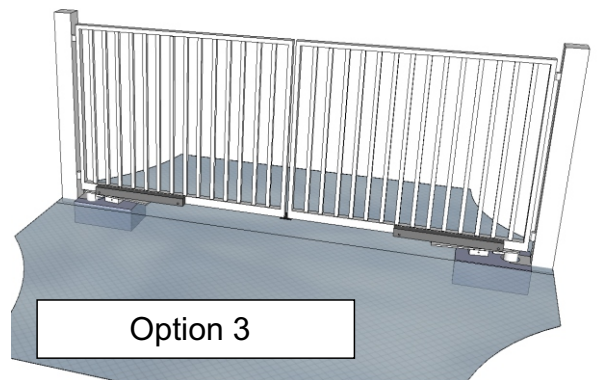


Option 3

Underground partially below the gate

Center of pivot of gate motor offset from the center of the gate pivot point (hinge) by up to 200mm

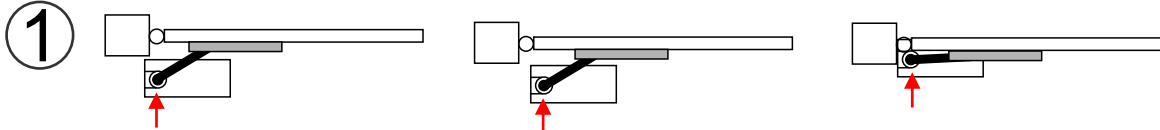
Arm is at a 20° angle to the channel



Installation

All dimensions and angles stated in this manual are approximates only to be used as a guideline, it is up to you the installer to check all dimensions before and during the installation.

1 Select your installation method based on the best suited layout for your installation (Page 4: Option 1,2 or 3)



Spline side of the foundation box is ALWAYS closest to the hinge side

2 Mark the area to be dug (if dirt) or cut (if concrete) also taking into account the trenching for the drain pipe and the conduit for the input DC power.

The depth of the foundation hole should be approximately 175mm (125mm for the unit and a further 50mm of concrete below the unit).

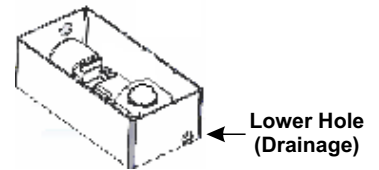
The foundation hole size should be approximately 500mmx300mm, this allows for 50mm of concrete around the foundation boxes perimeter.

Remove the dirt or cut and remove the concrete.

- 3
- Compress and level out the dirt at the bottom of the foundation hole.
 - Cut the concrete rebar to the size of the hole.
 - Use a 40mm plastic bar chair to set the appropriate height for the rebar.

4 Connect a flexible drain pipe according to your local drainage laws and ensure sure the pipe slopes down and away from the foundation box, seal this pipe accordingly.

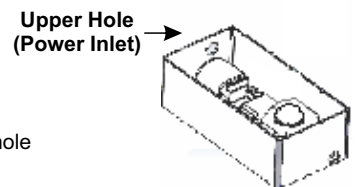
Re-test the main foundation box and make sure that the foundation box is sitting level on the rebar.



5 Install a conduit in the power input hole and seal using pipe glue the conduit should be leading to an above ground junction box (not supplied).

Note: Make sure you feed in the supply cable or a draw wire to pull in the power cable later.

Check again to make sure the foundation box is level in all directions whilst centered in the foundation hole (50mm spacing all directions).

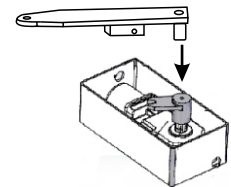


- 6
- Pour concrete below the rebar.
 - Ensure the foundation box is centered (approximately 50mm spacing) then pour concrete around the foundation box.
 - Ensure the concrete is flush with the foundation box stainless plate.

Allow the concrete to set for at least 24 hours.

- 7
- Fit the motor assembly to the foundation box and fix in place using the four lock nuts
 - Fit the main drive arm to the spline of the motor.
 - Fit the linking arm to the main drive arm.

Important: Due to powder coating the parts in this step may be a tight fit.



8 Use the override to set the linking arm to the appropriate angle to the gate based on your installation method (Linking Arm at approximately 45° or 20°).

See Page 2 for using the override system.

9 Select the appropriate length bearing height adjuster to match the gates lower rail height, thread into the linking arm and use the supplied washer and nut to lock into place at the appropriate height.

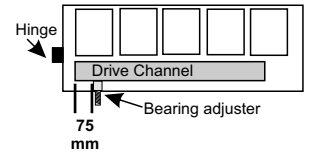
Ensure the threaded part below the linking arm does not fowl with driveway.

10

- a) Use a level to make sure that gate is vertically level, adjust if necessary.
- b) Reset the linking arm to the fully closed position as per step 9 if necessary.

11

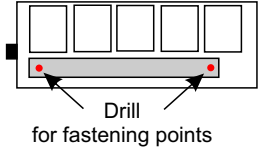
Slide the drive channel onto the linking arm towards the center of the gate leaving approximately 75mm of channel remaining from the end of channel (hinge side) to the bearing height adjuster.



12

Drill a 12mm hole at each end of the drive channel and use the appropriate fastening method for your gate type.

Timber frames and steel frames should use M10 bolts and the appropriate nuts and washers. Steel frames also have the option of using self drilling tek screws or welding the channel to the gate.

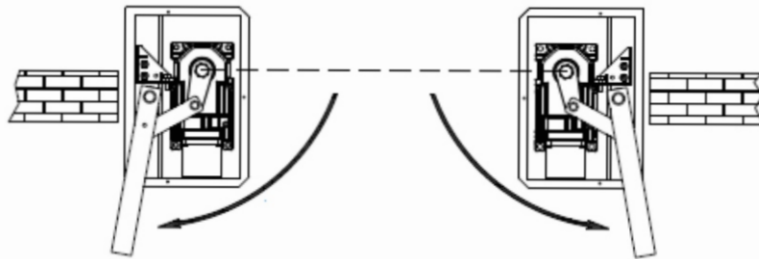


13

- a) Close the gate by hand.
- b) Switch the system to override (page 2) and adjust the linking arm to the closed position.
- c) Connect the bearing height system to the hole at the end of the linking arm using the supplied hardware.

Wiring

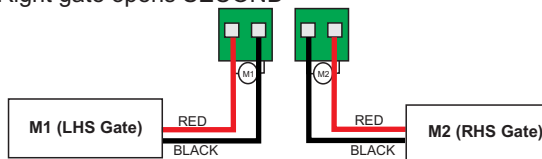
Pull To Open



Pull-To-Open

Configuration 1

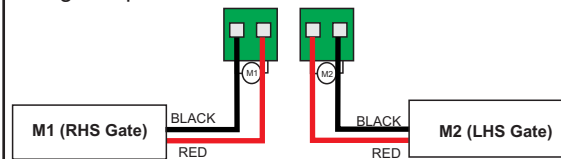
Left gate opens FIRST
Right gate opens SECOND



Pull-To-Open

Configuration 2

Right gate opens FIRST
Left gate opens SECOND



(((APC))) Automation Systems

APC WARRANTY

APC 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 parts 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.