

# UGP-712

## Vehicular swing gate operator

INSTALLATION INSTRUCTION MANUAL



**PLATINUM ACCESS SYSTEMS™**



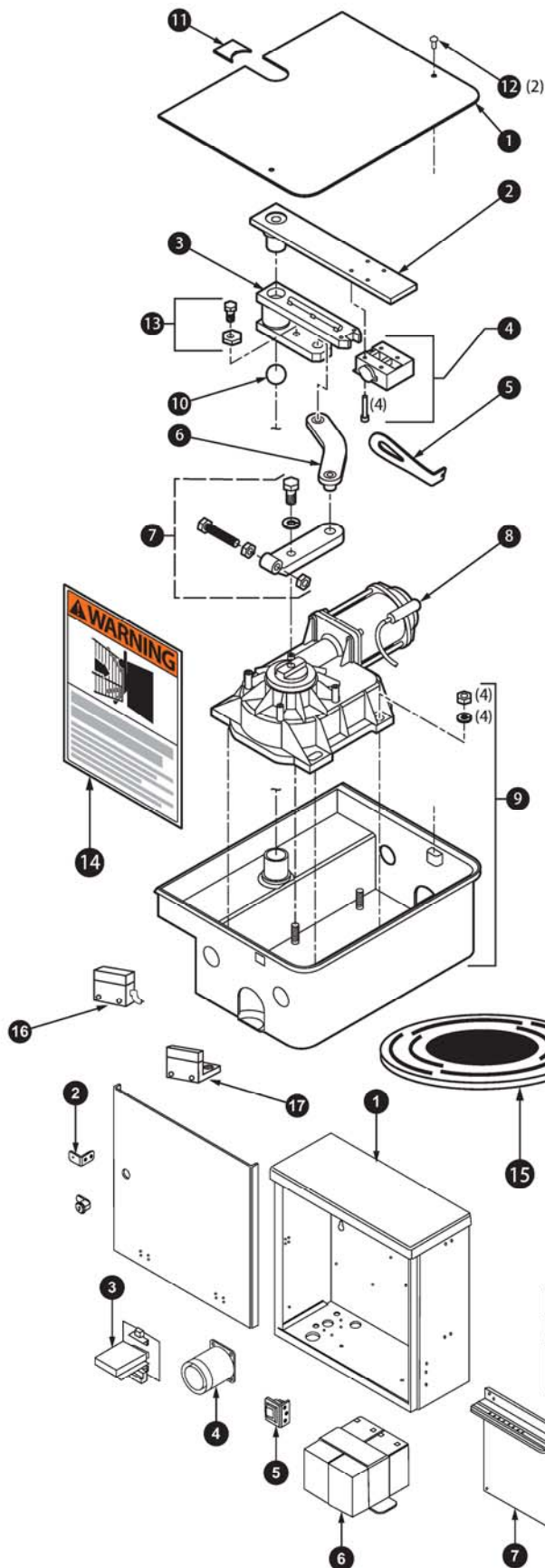
# UGP-712

## Vehicular Swing Gate Operator

### Class I, Class II, Class III, and Class IV

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- 1. Cover
- 2. Gate Attachment
- 3. Intermediate Drive Arm
- 4. Manual Release Mechanism
- 5. Manual Release Key
- 6. Secondary Drive Arm
- 7. Primary Drive Arm with Hardware
- 8. Gearmotor Assembly
- 9. Casing with Hardware
- 10. Ball Bearing
- 11. Plastic Gap Filler
- 12. Cover Holder Hardware
- 13. Positive Stop Hardware Open
- 14. Warning Placard
- 15. Limit Disk
- 16. Magnetic Limit Switch
- 17. Limit Switch Bracket

- 1. ECU Box (Industrial)
- 2. ECU Cylinder & Access
- 3. Loop Detector Board
- 4. Alarm
- 5. Reset Switch
- 6. Battery
- 7. Control Board GOC-4200
- 8. Control Board Bracket
- 9. 7-Conductor Cable, 16 ga.
- 10. Switching Power Supply
- 11. Power Harness



**WARNING:** to reduce the risk of injury or death:

1. READ AND FOLLOW ALL INSTRUCTIONS MANUAL BEFORE ATTEMPTING ANY INSTALLATION.
2. Should never let children play with gate controls. Keep the remote control away from children.
3. Always keep people and objects away from the gate. "NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE".
4. Check and test the gate operator monthly. The gate MUST reverse on contact with a rigid object or when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator. Failure to adjust and retest the gate operator properly can increase the risk of injury or death.
5. The gate system MUST be maintained properly. Have a qualified service person inspect, repair or adjust your system if any unusual behavior is observed or suspected.
6. Some companies offer a scheduled preventive maintenance service.
7. DO NOT EXCEED the equipment specifications.
8. Insure a safe and proper installation.
9. Install this equipment in accordance with the UL 325 specifications.
10. All installation MUST have secondary protection devices against entrapment, such as edge sensors and photo beams especially in places where the risk of entrapment is more likely to occur.
11. Gate is for vehicles only, a separate entrance for pedestrians is required.
12. Install only on a properly operating and balanced door. A door that is operating improperly could cause severe injury. Have qualified service personnel make repairs to cables and other hardware before installing the operator.

**SAFETY DEVICES:**

1. Remove the Power Harness for the control board.
2. Check that all mounting hardware of the gate operator is properly tightened.
3. Ensure that the gate moves freely.
4. Check the battery for the following:
  - Battery connections must be free of corrosion.
  - Battery voltage must be 26.5 VDC minimum (fully charged battery).
5. Reconnect the Power Harness for the control board.
6. Make sure every installation has a minimum of two safety device (such as photo beams or loop detector). one monitors open cycle, other monitors closed cycle.
7. Check for Reverse Sensitivity.
8. Make sure that all areas around the gate are safe and secure.
9. Use the emergency release only when the gate is not moving

**SPECIFICATIONS**

Maximum Gate Weight:	700 lbs.
Maximum Gate Length:	12 feet
Opening Time:	90° opening in 16-21 seconds
Maximum Opening Angle:	110°
Power Requirements:	120 VAC Single Phase at 2 Amps or 220 VAC Single Phase at 1 Amp
Main Power:	Power Input: 100-240 VAC Select 115 /230 VAC Single Phase Built-in 24VDC battery backup (7AmpHr 12VDC x 2)
Operating Temperature:	-20°C (-4°F) to 70°C (158°F)
Water Resistant Rating:	IP67. Unit immersed in water up to 3.3ft for 30 minutes

Usage Class	Gate Operator Category			
	Horizontal Slide, Vertical Lift, and Vertical Pivot		Swing and Vertical Barrier (Arm)	
	Primary type*	Secondary Type*	Primary Type*	Secondary Type*
Vehicular I and II	A	B1, B2, or D	A, or C	B1, B2, C, or D
Vehicular III	A, B1, or B2	A, B1, B2, D, or E	A, B1, B2, or C	A, B1, B2, C, D, or E
Vehicular IV	A, B1, B2, or D	A, B1, B2, D, or E	A, B1, B2, C, or D	A, B1, B2, C, D, or D

Note - The same type of device shall not be utilized for both the primary and the secondary entrapment protection means. Use of a single device to cover both the opening and closing directions is in accordance with the requirement; however, a single device is not required to cover both directions. A combination of one Type B1 for one direction and one Type B2 for the other direction is the equivalent of one device for the purpose of complying with the requirements of either the primary or secondary entrapment protection areas.

**<sup>a</sup>Entrapment Protection Types:**

**Type A:** Inherent entrapment protection system.

**Type B1:** Provision for connection of, supplied with, a non-contact sensor (photoelectric sensor or the equivalent).

**Type B2:** Provision for connection of, or supplied with, a contact sensor (edge device or the equivalent)

**Type C:** Inherent adjustable clutch or pressure relief device.

**Type D:** Provision for connection of, or supplied with, an actuating device requiring continuous pressure to maintain opening or closing motion of the gate.

**Type E:** An audio alarm.



**WARNING:** To reduce the risk of severe injury or death to person, please to follow these instructions:

### IMPORTANT INSTALLATION INSTRUCTIONS BY UL STANDARDS:

a) Install the gate operator only when:

1. The operator is appropriate for the construction of the gate and the usage Class of the gate,
2. All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 1.83 m (6 ft) above the ground to prevent a 57.2mm (2-1/4 inch) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that the gate covers in the open position,
3. All areas of the moving vertical pivot gate panel from the bottom of the gate to the top of the gate or a minimum of 1.83 m (72 in) above grade, whichever is less, that pass by a fixed stationary object, and in the area of the adjacent fence that the gate covers during the travel of the gate, shall be designed, guarded or screened to prevent a 57mm (2-1/4 in) diameter sphere from passing through such areas.
4. All exposed pinch points are eliminated or guarded, and
5. Guarding is supplied for exposed rollers.
6. The operator instructions shall list the maximum number of open and close entrapment protection devices capable of being connected to the operator.

b) The operator is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening. The pedestrian access opening shall be designed to promote pedestrian usage. Locate the gate such that persons will not come in contact with the vehicular gate during the entire path of travel of the vehicular gate.

c) The gate must be installed in a location so that enough clearance is supplied between the gate and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates shall not open into public access areas.

d) The gate must be properly installed and work freely in both directions prior to the installation of the gate operator, Do not over-tighten the operator clutch or pressure relief valve to compensate for an improperly installed, improperly functioning, or damaged gate.

e) For gate operators utilizing Type D protection:

1. The gate operator controls must be placed so that the user has full view of the gate area when the gate is moving,
2. The placard as required by 62.1.6 shall be placed adjacent to the controls,
3. An automatic closing device (such as a timer, loop sensor, or similar device) shall not be employed, and
4. No other activation device shall be connected.

f) Permanently mounted controls intended for user activation must be located at least 1.83 m (6ft) away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Exception: Emergency access controls only accessible by authorized personnel (e.g. fire, police, EMS) may be placed at any location in the line-of-sight of the gate.

g) The Stop and/or Reset button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.



**WARNING:** To reduce the risk of severe injury or death to person, please to follow these instructions:

g) The stop and/or reset button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start

h) A minimum of two (2) WARNING SIGNS shall be installed, in the area of the gate. Each placard is to be visible by persons located on the side of the gate on which the placard is installed. Also see 62.1.1.

i) For gate operators utilizing a non-contact sensor in accordance with 32.1.1:

1 See instructions on the placement of non-contact sensors for each Type of application,

2 Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle. trips the sensor while the gate is still moving, and

3. One or more non-contact sensors shall be located where the risk of entrapment or obstruction exists, such as the perimeter reachable by a moving gate or barrier.

j) For a gate operator utilizing a contact sensor in accordance with 32.1.1:

1. One or more contact sensors shall be located where the risk of entrapment or obstruction exists. such as at the leading edge, trailing edge, and postmounted both inside and outside of a vehicular horizontal slide gate.

2 One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.

3. One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.

4 A hardwired contact sensor shall be located and its wiring arranged so that the communication between the sensor and the gate operator is not subjected to mechanical damage.

5. A wireless device such as one that transmits radio frequency (RE) signals to the gate operator for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structures, natural landscaping or similar obstruction. A wireless device shall function under the intended end-use conditions.

6. One or more contact sensors shall be located on the inside and outside leading edge of a swing gate. Additionally, if the bottom edge of a swing gate is greater than 152 mm (6 in) but less than 406 mm (16 in) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.

7. One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

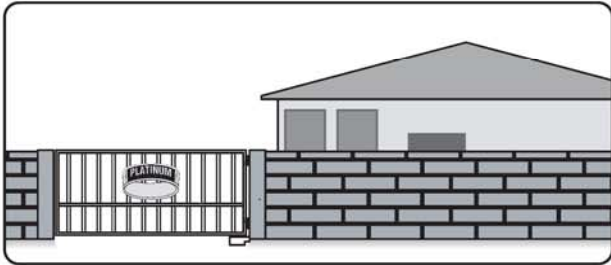
*If the operator must be installed less than 8ft (2.44M) above the floor, then exposed moving parts must be protected by covers or guarding provided by the operator manufacturer. Locate the control station: (a) within sight of the door, and (b) at a minimum height of 5ft so small children cannot reach it, Controls intended for user activation must be located at least six feet (6') away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls.*



**READ AND FOLLOW ALL INSTRUCTIONS MANUAL BEFORE ATTEMPTING ANY INSTALLATION**

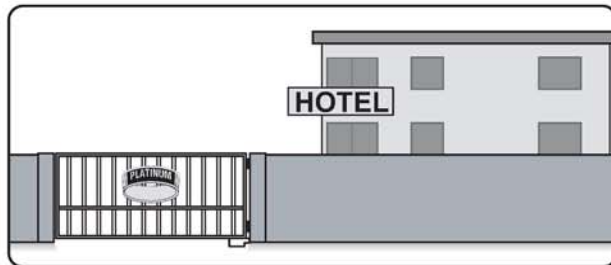
**RESIDENTIAL VEHICULAR GATE OPERATOR CLASS I**

A vehicular gate operator (or system) intended for use in a home of one-to four single family dwelling, or a garage or parking area associated therewith.



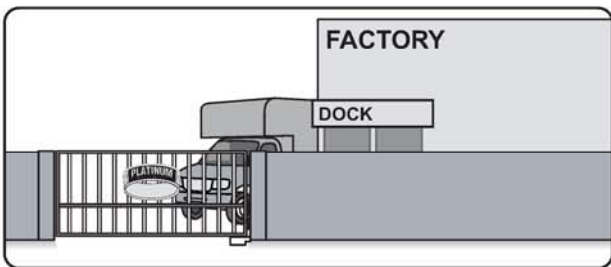
**COMMERCIAL/GENERAL ACCESS VEHICULAR GATE OPERATOR CLASS II**

A vehicular gate operator (or system) intended for use in a commercial location or building such a multi-family housing unit (five or more single family units), hotel, garages, retail store, or other building servicing the general public.



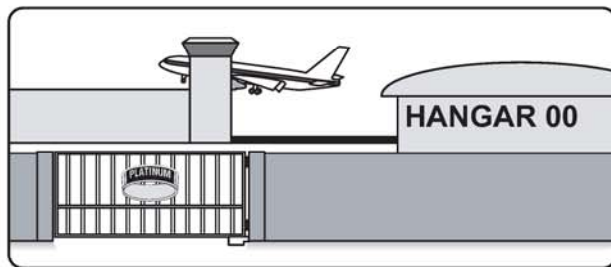
**INDUSTRIAL/LIMITED ACCESS VEHICULAR GATE OPERATOR CLASS III**

A vehicular gate operator (or system) intended for use in an industrial location or building such as a factory or loading dock area or other locations not intended to service the general public.



**RESTRICTED ACCESS VEHICULAR GATE OPERATOR CLASS IV**

A vehicular gate operator (or system) intended for use in a guarded industrial location or building such as an airport security area or other restricted access locations not servicing the general public, in which unauthorized access is prevented via supervision by security personnel.



**MAINTENANCE INSTRUCTIONS OF UGP-712 PERFORMED BY A QUALIFIED GATE OPERATOR TECHNICIAN INSTALLATION, ALL CONNECTIONS, PROGRAMMING, REPAIR AND MODIFICATIONS MUST BE DONE BY A QUALIFIED PROFESSIONAL GATE OPERATOR INSTALLER.**

**The following services need to be periodically performed:**

- Check that the fixing screws of the gearmotor are firmly tightened.
- Check and adjust the gate operator for force, speed, and sensitivity.
- Make sure all power (AC/DC ) connections are corrosion free.
- Check all batteries for proper voltage of the intended use. A fully charged battery must be 26 VDC minimum.
- Check the incoming line voltage and confirm it is within 10% of its rating (115 or 230 volts).
- Verify battery backup functionally by turning off the power source (115 VAC and 230 VAC). Don't forget to restore power after testing.
- Check gate hinges and operator/arm mounting brackets and lubricate them with heavy-duty, high-performance lubricant and avoid spillage.
- Test (use caution) all contact and non-contact sensors, all vehicle detectors, keypad, telephone entry system or other control devices applicable.
- Test the manual release feature on the operator/arm.
- Check the inside of the case and make sure that the drain is not clogged.

**MAINTENANCE INSTRUCTIONS OF UGP-712 PERFORMED BY THE END USER/HOME OWNER**

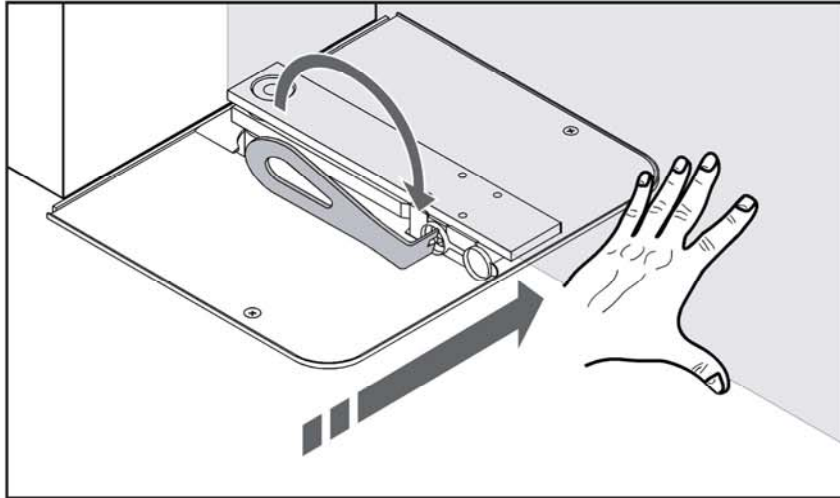
Installation, all connections, programming, repair and modifications must be done by a qualified professional gate operator installer. End users/home owners must call a qualified professional gate operator installer for programming changes, repairs and modifications.

Although all Platinum Access Systems' gate operators are virtually maintenance free to an end user/home owner, minimal maintenance is recommended to ensure a smooth operation of this unit.

**End users/home owners:**

- Perform maintenance every six months, or when strenuous noise from gate hinges and/or operator/arm mounting brackets is detected. Lubricate them with heavy-duty, high-performance lubricant and avoid spillage.
- DO NOT take the cover off the operator/arm and/or the electrical control box to perform maintenance.
- Make sure there are no cars in the path of the gate while performing maintenance.
- Make sure the person performing maintenance is the only person in control of all control devices in order to avoid possible involuntary activation of the gate operator.
- Keep spraying water hoses and sprinkler systems away from the gate, gate operator/arm and the electrical control box at all times. Keep that general area as clean as humanly possible.
- Test (use caution) all non-contact sensors, all vehicle detectors, keypad, telephone entry system or other control devices applicable.

**MANUAL RELEASE INSTRUCTIONS**



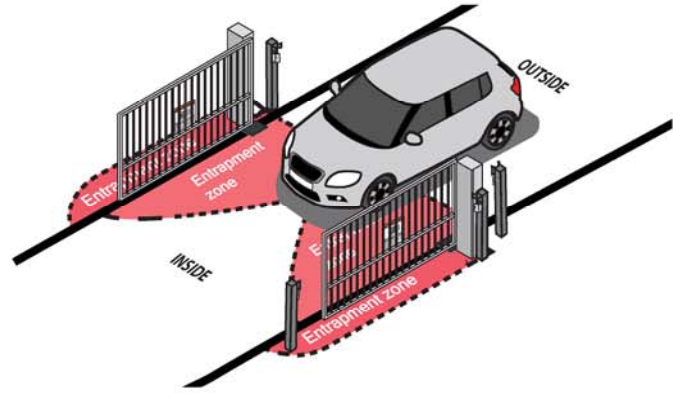
**In the event of failure or if there is no voltage, then Manual operation is required:**

UGP-712: Insert the lock release key in the lock and rotate by 180°. Release any electric lock. Manually open the gate.

To lock the geared motor again by rotating the release key 180° in the opposite direction.

**ATTENTION: Lock and release operations must be performed with motor NOT RUNNING.**

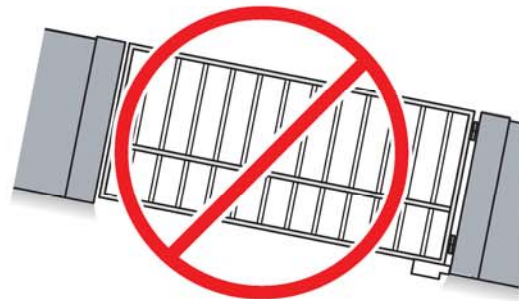
The operator is intended for installation on a vehicular swing gate only.



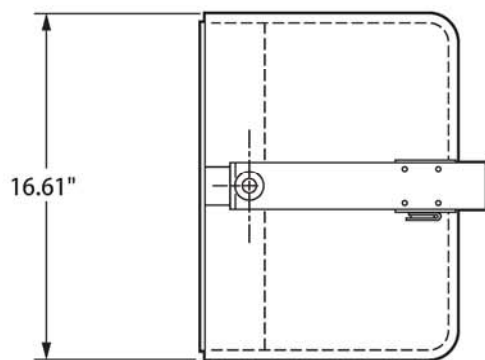
The operator IS NOT intended to be used for any pedestrian gate.



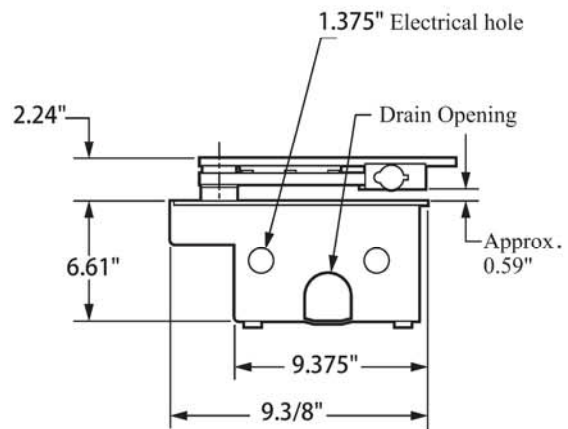
The operator IS NOT intended to be used for any uphill gate.



**OVERALL DIMENSIONS**

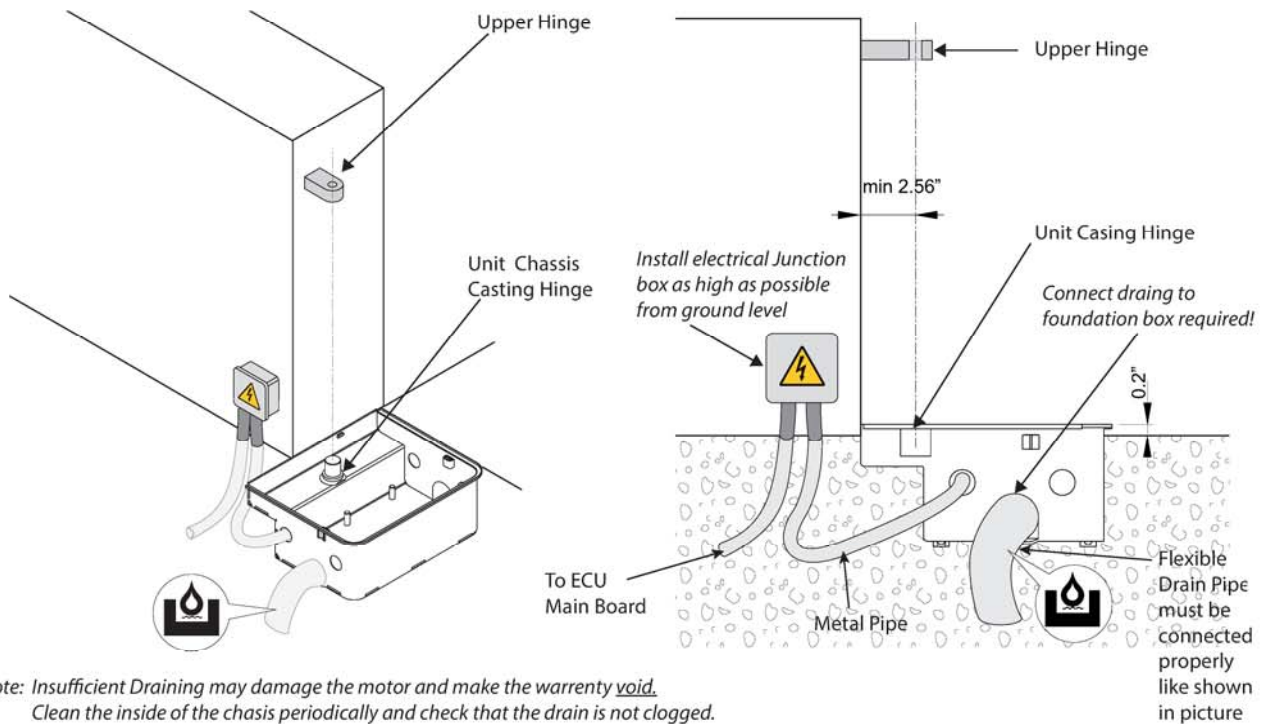
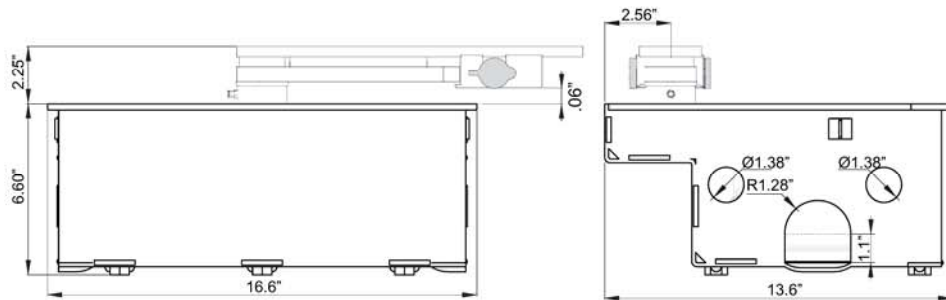


**Top View**



**Side View**

Step 1, 2, 3, 4, 5, 6, 7, 8

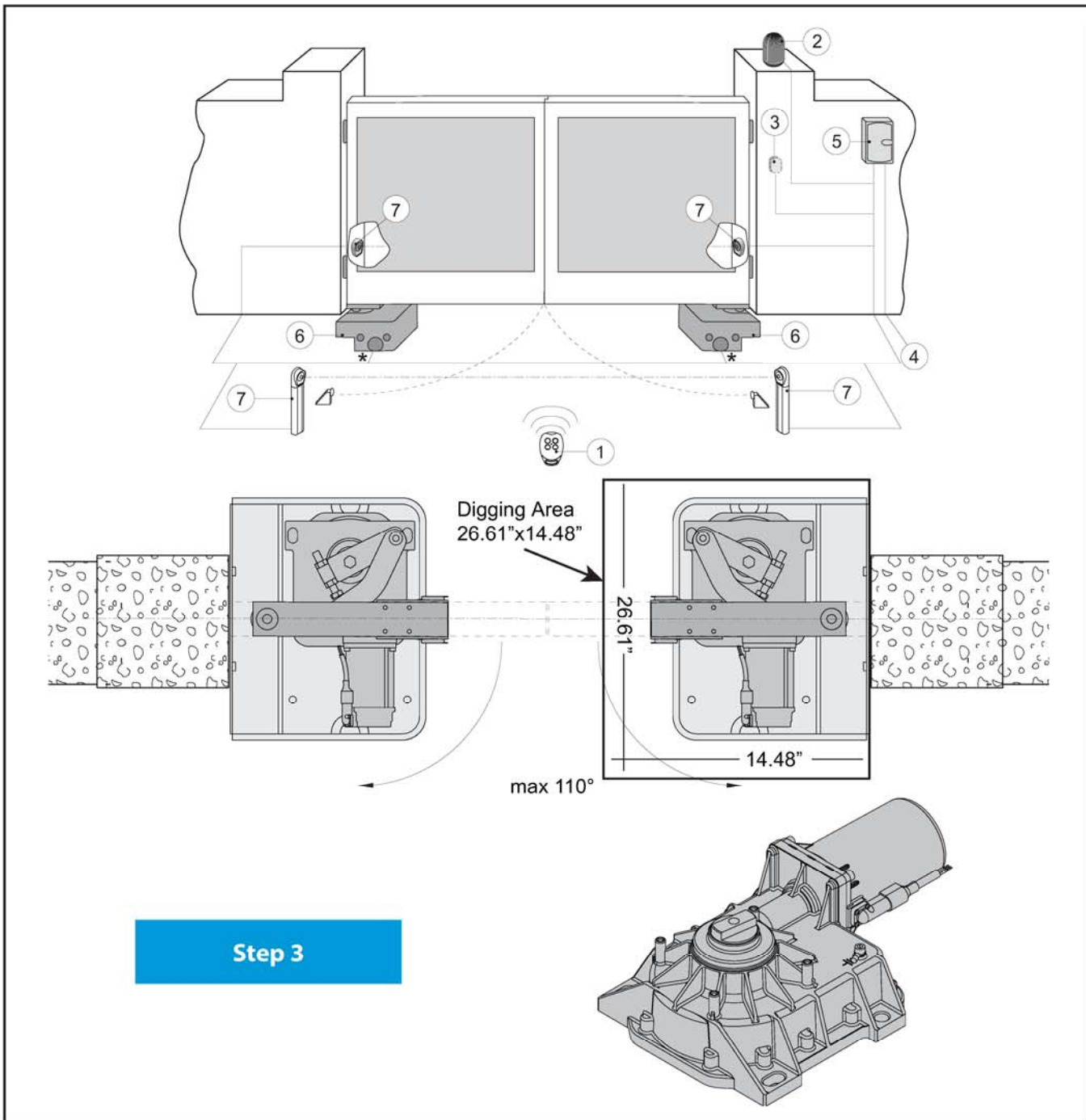


Note: Insufficient Draining may damage the motor and make the warrenty void.  
Clean the inside of the chasis periodically and check that the drain is not clogged.

Note: NON-COMPLIANCE WITH THESE RULES WILL MAKE THE WARRENTY VOID

**STEP 1.** Make sure the center of the upper hinge is 2.56" from the surface of the mounting pole. Weld it and secured it in place.

**STEP 2.** Mark the center line for the unit that you are going to install. The line should be from the center surface of the mounting pole. This line should be perpendicular to the mounting pole surface and the center of the upper hinge should point directly perpendicular to this line.



**STEP 3.** Drawing the area that you need to put the unit. The Area should be at least 26.61" X 14.46" that measure from the mounting surface of the mounting pole.

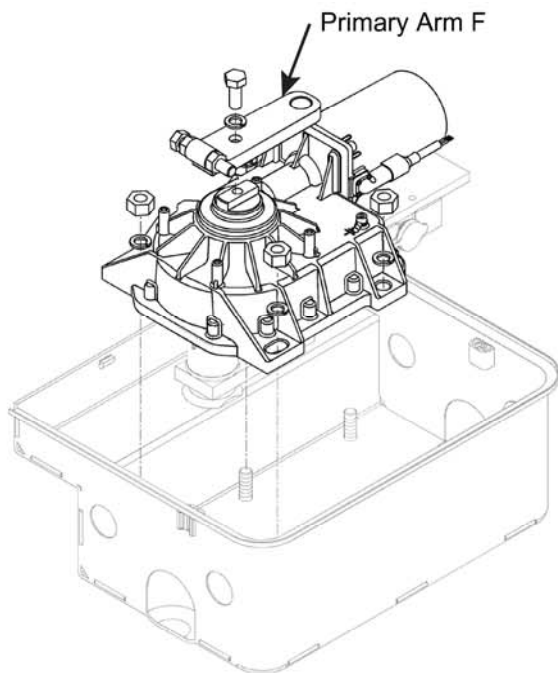
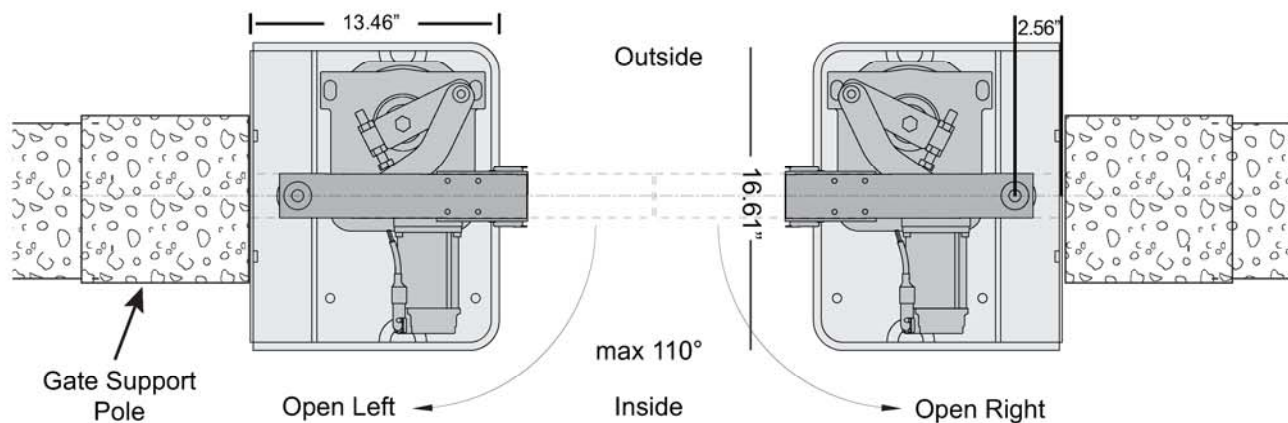
**STEP 4.** Starting to remove the concrete, or dirt to place the unit. Make sure the unit sits level and the lower hinge center point is aligned with the upper hinge center point.

**STEP 5.** Connect a metal pipe from the unit chassis to the junction box that can put on the mounting pole. It is a good practice to put the junction box high enough to prevent water get into inside the box in a storm season.

**STEP 6.** Put on a flexible drain pipe from the unit chassis to where it can drain the water. Make sure the pipe has the proper angle to let water flow out from the chassis to outside of the chassis to prevent water accumulating inside of the chassis.

**STEP 7.** Double check the chassis is level in all direction. Check it with the I-Beam Level to make sure the chassis is level. Double check the upper hinge center point is aligned with the hinge point on the chassis.

**STEP 8.** Start putting the concrete to fill the area around the chassis. The top surface of the concrete should be 0.2" below the top edge of the chassis. Double check the chassis to make sure it is still level and the hinges are still aligned to each other (If you want to add one more lower hinge to the gate. Please make sure all three hinges are aligned to each other).

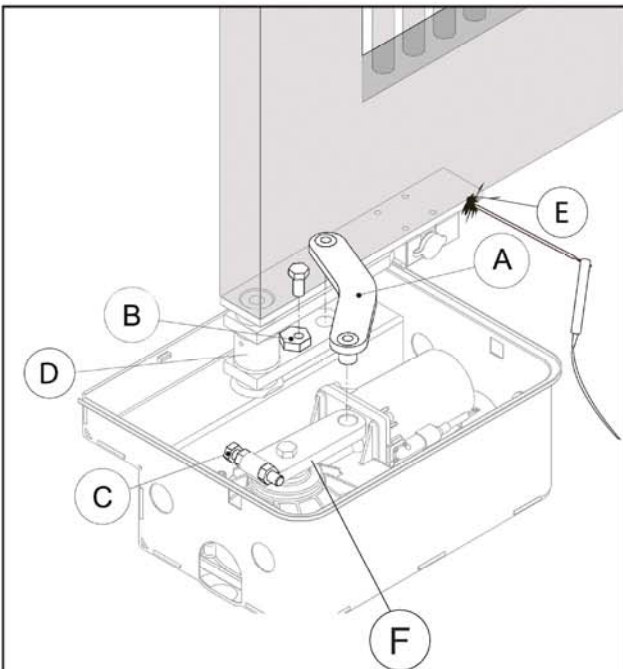
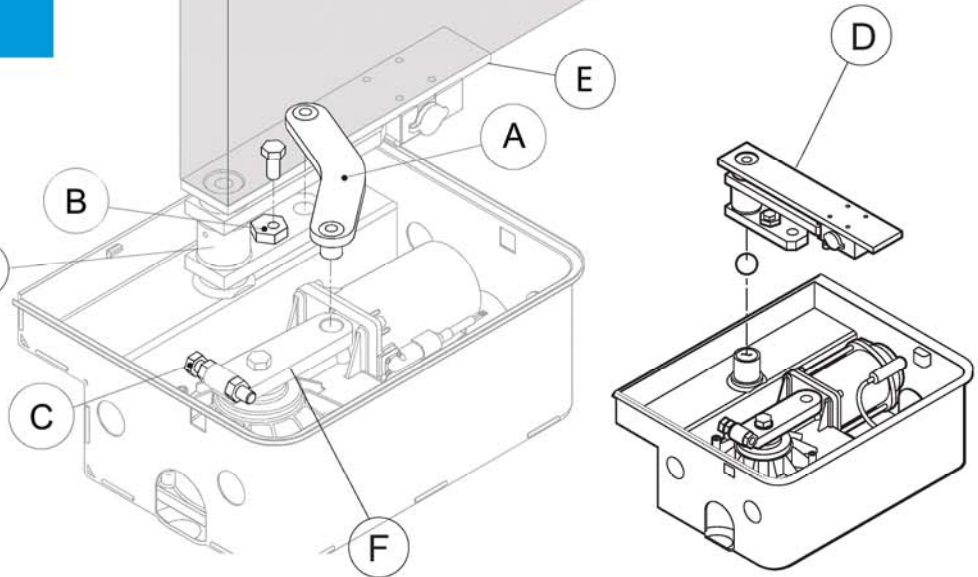


## Step 9

**STEP 9.** Mount the gear motor to the chassis correctly for open left and open right correctly. Gate always opens from the chassis center position toward the motor.

Step 10, 11

- A- Secondary Drive Arm
- B- Open Positive Stop
- C- Close Positive Stop
- D- Intermediate Drive Arm
- E- Attachment Bracket
- F- Primary Drive Arm



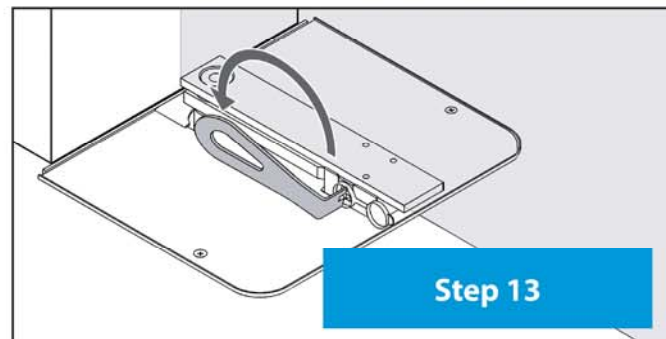
Step 12, 13

**STEP 10.** Put some lubrication inside the Intermediate Drive Arm D. Then put the ball bearing into this Arm D. Next put the arm D onto the hinge of the Chassis.

**STEP 11.** Put the Secondary Arm A onto the Primary Drive Arm C.

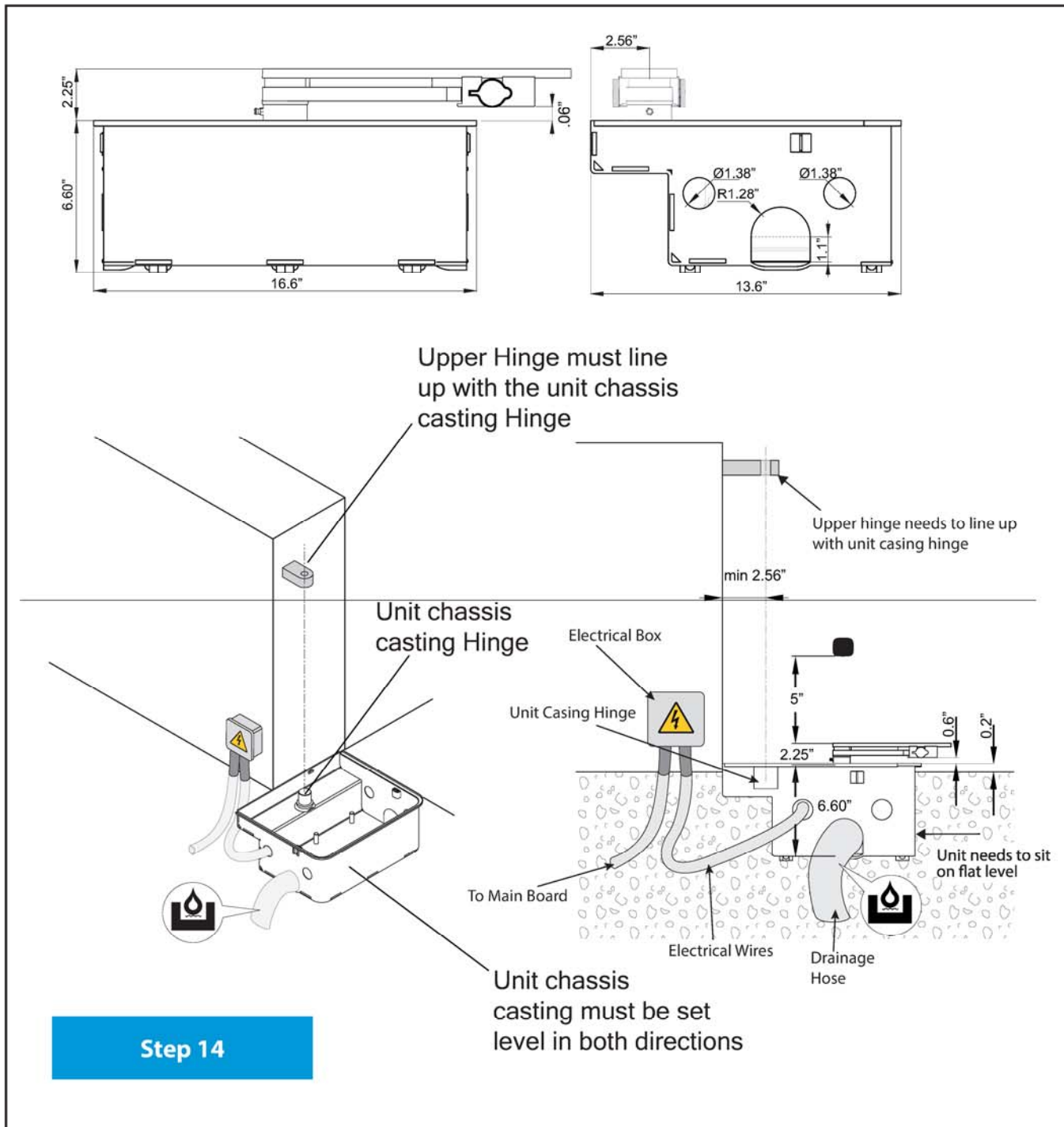
**STEP 12.** Put the gate attachment bracket E to the Intermediate Drive Arm D. Next Mount the gate on the hinges and check the alignment with the hinges to make sure everything is correct. Then weld the gate attachment to the gate.

**STEP 13.** Lock the gate with the unit by rotating the manual release handle to the ...

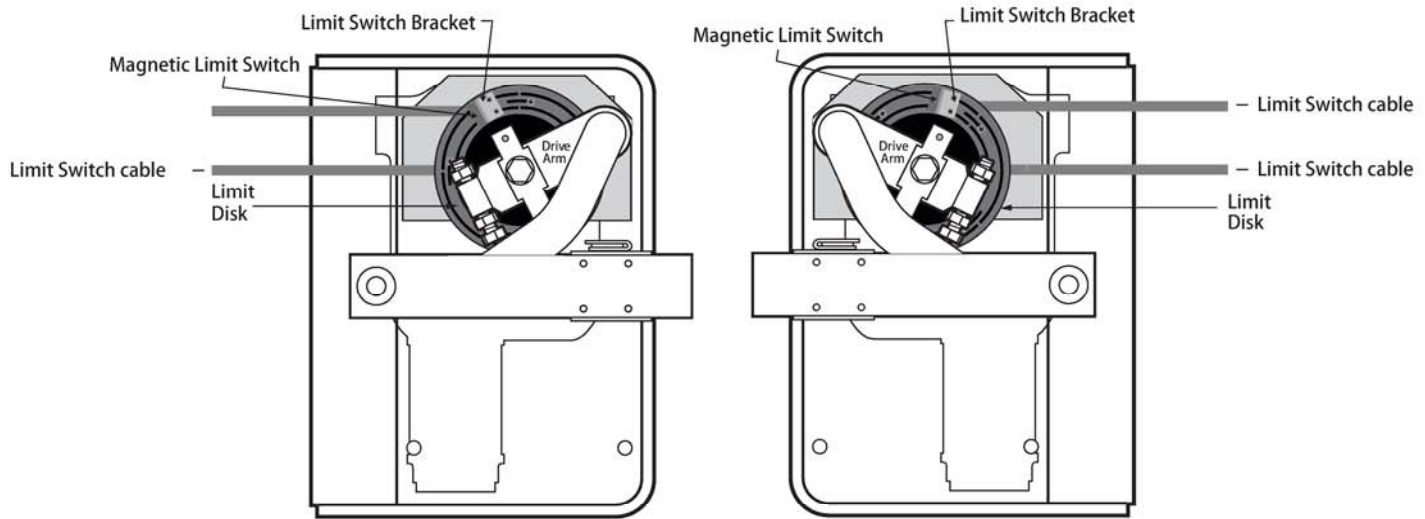


Step 13





**STEP 14.** Rout the two wires from the gearmotor through the pipe to the conjunction box, then to the main board in the controller. black to black, blue to blue.



**STEP 15.** Adjusting the limit switches in the chassis to set the open limit and close limit.

**Step 15**

- A. Loosen the screws on the Limit Switch Cams.
- B. Lock the Manual Release Mechanism. That means the gate attachment Bracket-E is locked with the gate.
- C. Using the close & stop buttons on the control board to move the gate to the close position.
- D. Move the Limit Switch Bracket on the limit disk to actuate each limit switch.
- E. Slightly tighten the screw on the Limit Switch Bracket.
- F. Using open & stop buttons on the control board to move the gate to open position. Repeat step D and E to setup open limit switch bracket.
- G. Run the unit 2 full cycles without interruption (from limit to limit) to execute a "Learn Cycle."

GATE OPENS TO RIGHT	
Left Limit Switch	Open limit
Right Limit Switch	Close limit

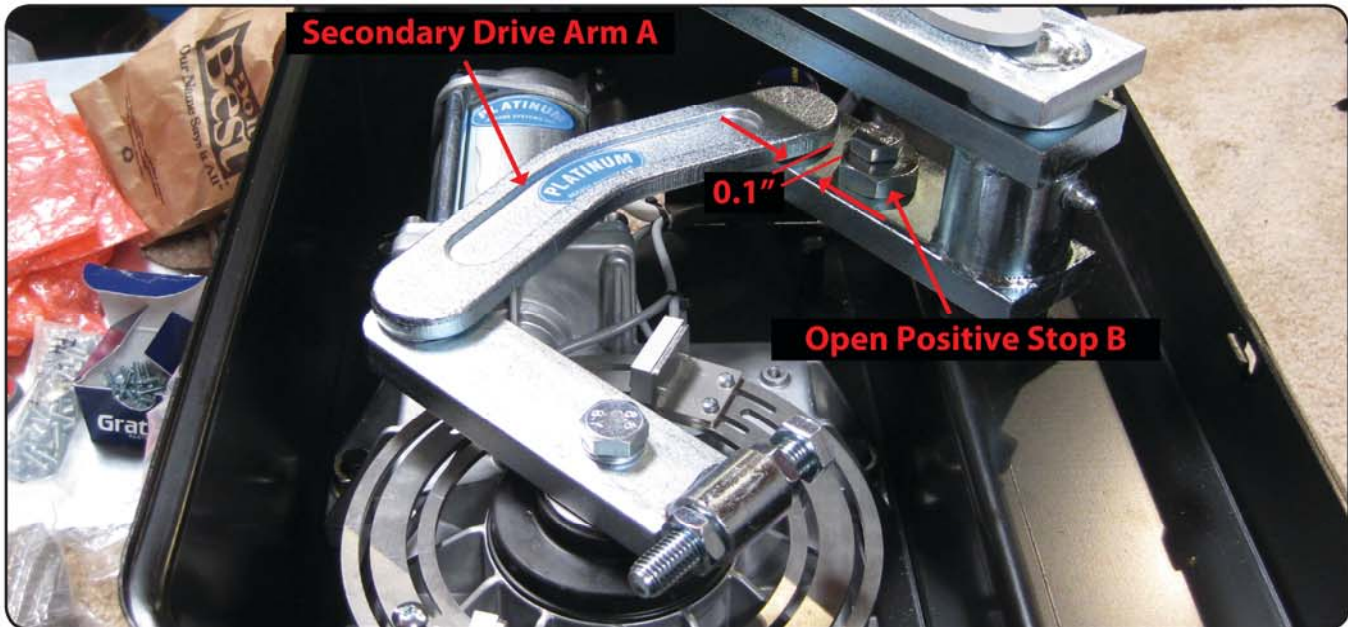
GATE OPENS TO LEFT	
Left Limit Switch	Open limit
Right Limit Switch	Close limit

**STEP 16.** Adjust the mechanical open positive stop B and close positive stop C correctly. limit switches must activated first before using mechanical positive stops to stop the gate.

**STEP 17.** Verify the limit switches are set correctly. Reset the unit. Then press the open button to open the gate(s) all the ways. Then Press the close button to close the gate all the way. Repeat this process for three times. Verify the gate work correctly according to the Timer setting, Gate SNS setting, and Gate SYNC setting .

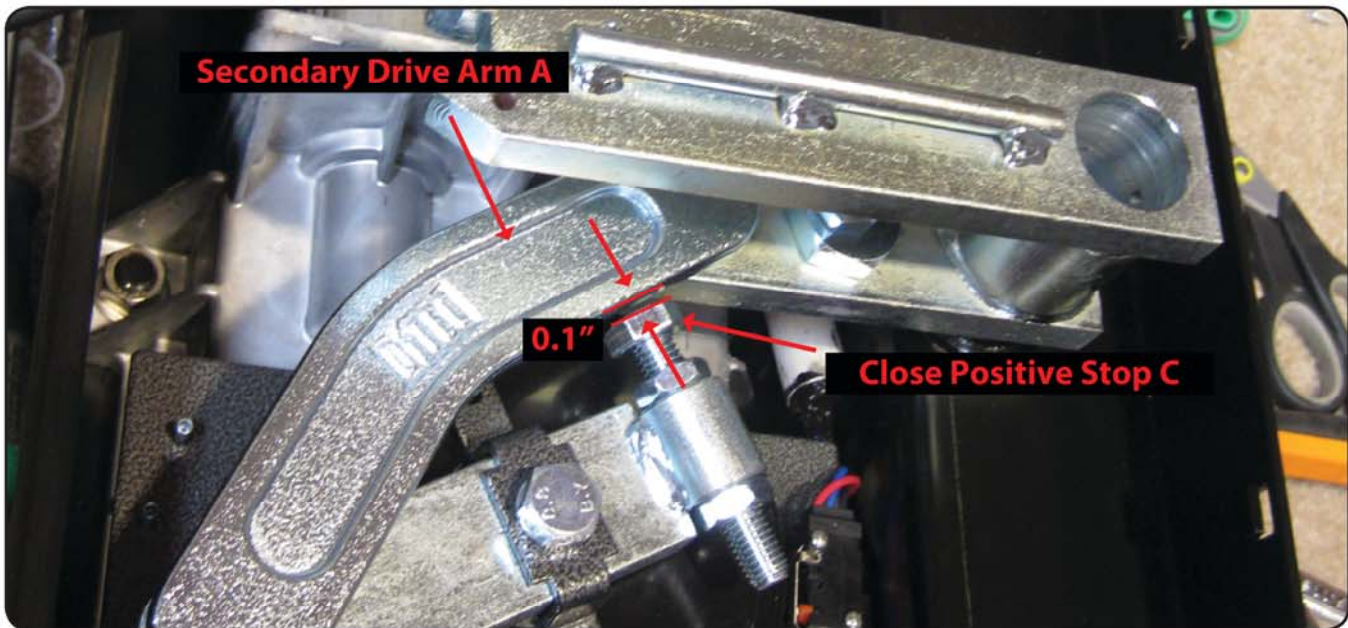
**STEP 19.** After you have verified the gate(s) working properly, then you can put the top cover in place and secure it with two screws.

Open Positive Stop B



Please set the Open Positive Stop C at about 0.1" away from the Secondary Drive Arm A when the gate is at fully open

Close Positive Stop C



Please set the Close Positive Stop C at about 0.1" away from the Secondary Drive Arm A when the gate is at fully closed

# Contact Safety Sensor and Non-Contact Safety Sensor Installation

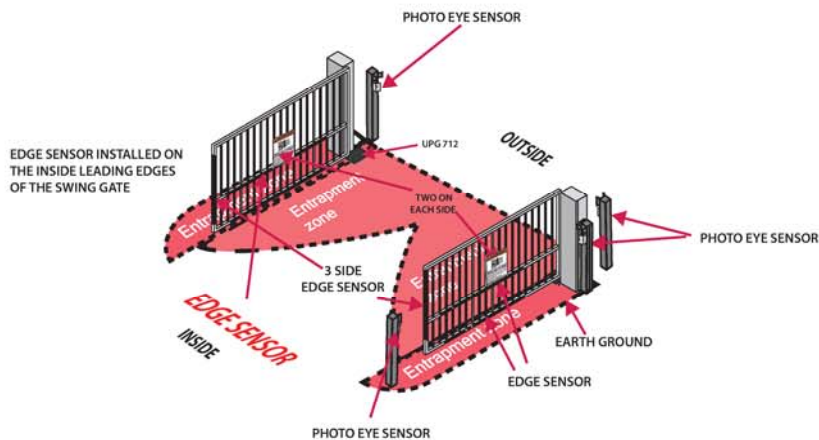


**WARNING:** To reduce the risk of severe injury or death to person, please to follow these instructions:

**NOTE:** Edge Sensor installation DOES NOT reverse the gate all the way back to its limits when the edge sensor is contacted. This installation is only to protect against entrapment and to comply with UL325.

**NOTE:** If the bottom edge of a swing gate is more than 6" (152mm) above the ground at any point in its travel on or more sensors shall be located to protect from the bottom edge.

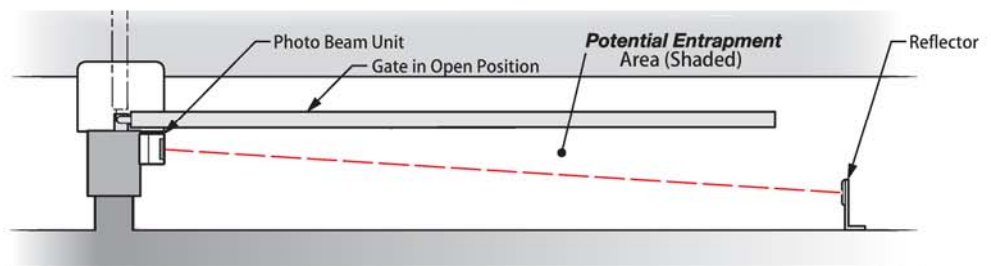
- A wireless contact sensor such as one that transmits radio frequency signals to the gate operator for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structures, natural landscaping or similar obstruction. A wireless contact sensor shall function under the intended end-use conditions.
- A hardwired contact sensor shall be located and its wiring arranged so that the communication between the sensor and the gate operator is not subjected to mechanical damage.



**Note:** One or more Contact Sensors and Non-Contact Sensors Shall be located on the inside and outside leading edges of a swing gate, or where the risk of entrapment, or obstruction exists' such as the perimeter reachable by a moving gate, or barrier.

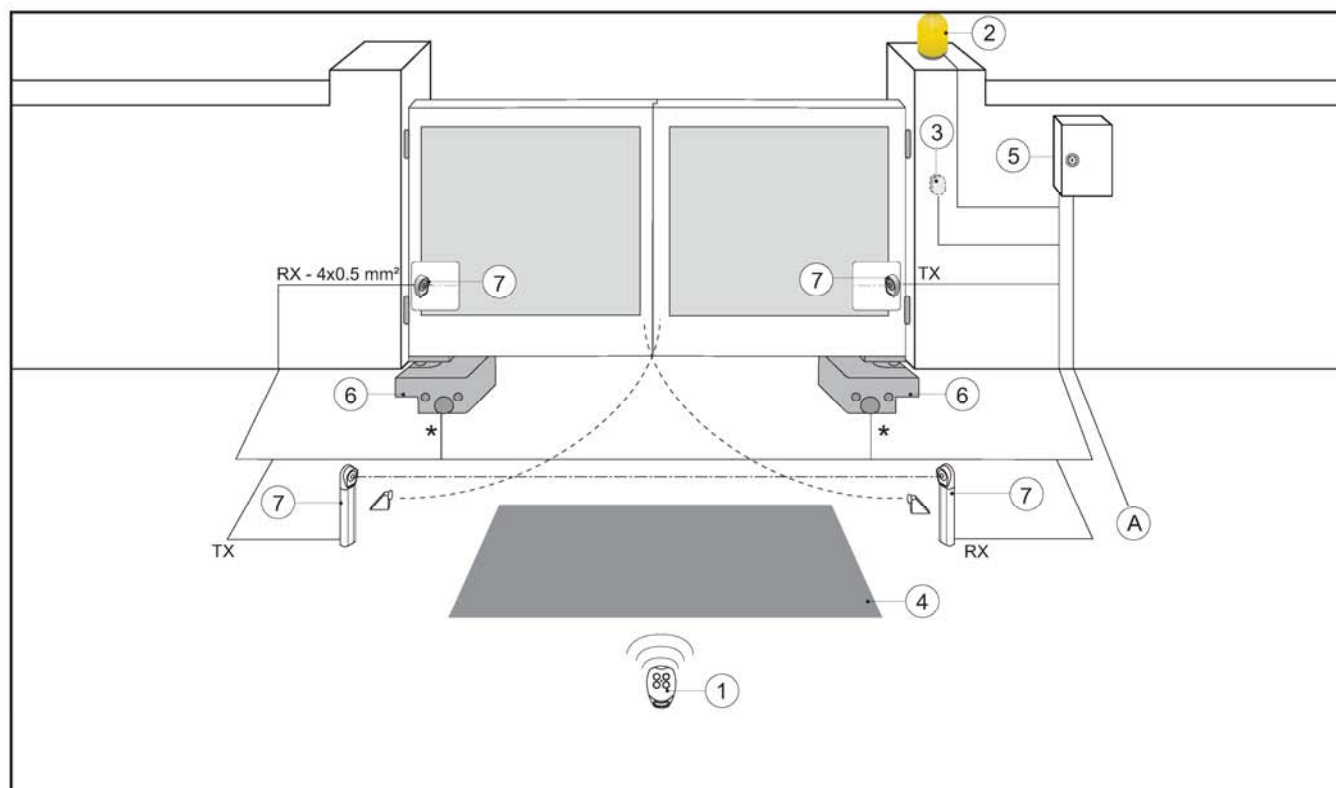
Install photo beam sensors and edge sensors to protect against any entrapment or safety conditions encountered in your gate installation.

We recommend to install photo beam sensors for protection at the potential entrapment area like the one shown at the bottom picture.



**The new 2018 UL 325 standard requires minimum two external safety devices for an operator. One monitors the close cycle, and the other one monitors the open cycle. Most typical installation is to connect one photo eye sensor to CL-EYE terminal and connect an Edge sensor MGL-RX20 to terminal J6 @ UL-OP.**

## STANDARD INSTALLATION

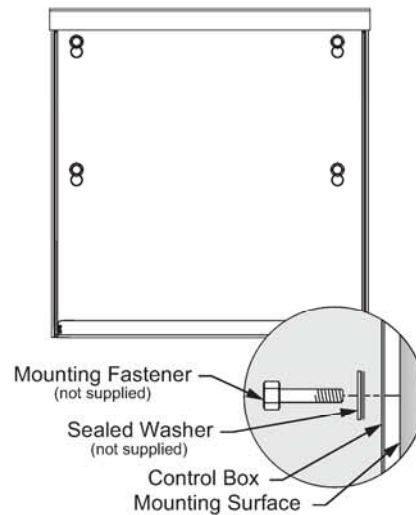
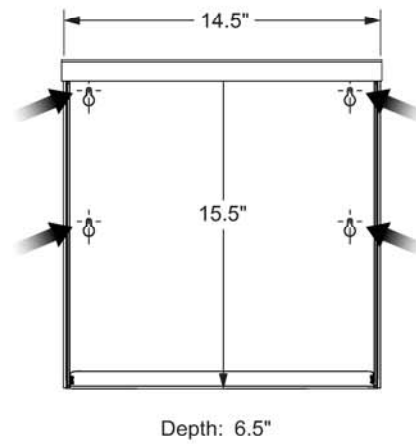
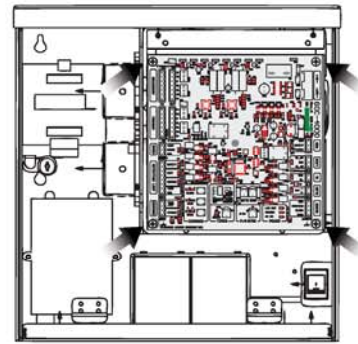


Ref	Description
1	Transmitter
2	Flashing light 24 V= Flashing light 115 V=
3	Key selector Codified via radio control keyboard
4	Magnetic loop detection device for traffic monitoring
5	Control panel
6	Foundation casing Level mechanism kit Lever-operated release kit
7	Photocells
A	Connect the power supply to an approved omnipolar switch with an opening distance of the contacts of at least 3mm (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices.

**NOTE:** The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

The control box MUST be mounted within 5 feet of the gate operator. Mount the control box as high as possible for best radio reception. Make sure the control box is level. The control unit weight is approximately 28 lbs. with supplied batteries.

- 1** Remove the screws and open the control box.
- 2** Disconnect the connector from the Main Board.
- 3** Position the control box into the desired place and mark the mounting holes.
- 4** Select the mounting holes and remove the knockouts using a screwdriver and hammer.
- 5** Secure the control box to mounting surface.



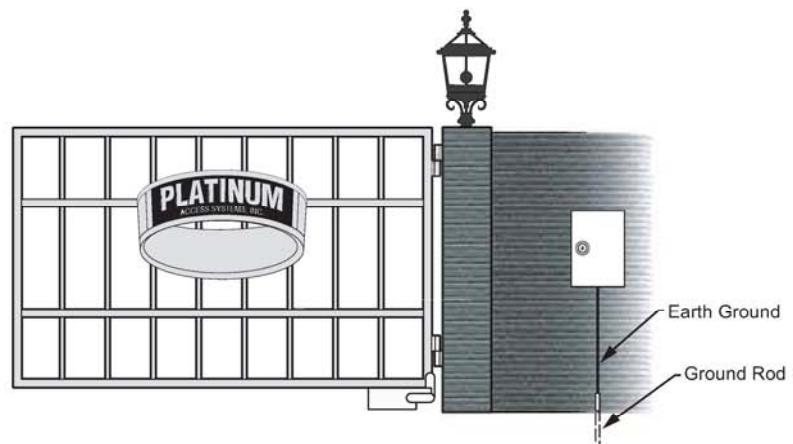
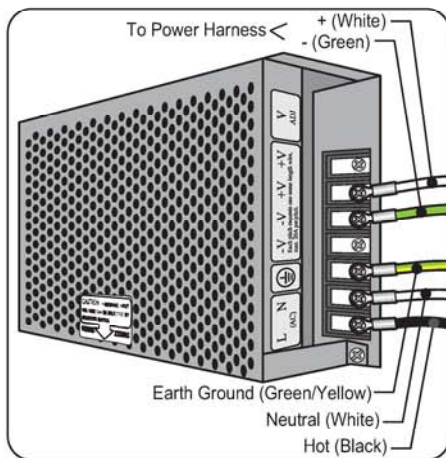
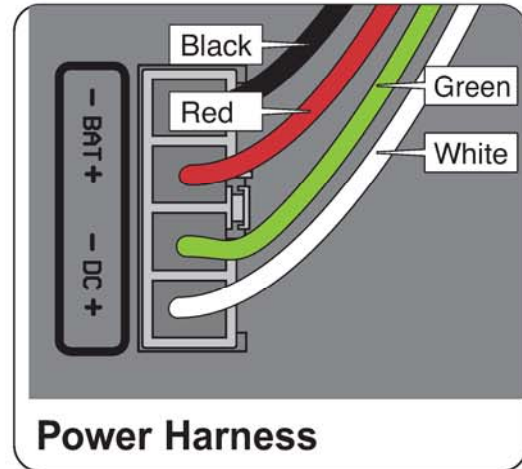


**WARNING:** Verify the installation first to make sure everything is correct before connecting the power cable to the board. USE MIN . 14 AWG WIRE. FOLLOW ALL LOCAL ELECTRICAL CODES.

To help protect the equipment from lightning and power surges and to protect persons from shock hazard the Operator must be grounded. The earth ground rod must be located within 3 feet from the gate operator. Use the proper type earth ground rod for your local area. The ground wire must be a single, whole piece of wire. Never splice two wires for the ground wire. If you cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length. Prevent unnecessary turns or loops in ground wires.

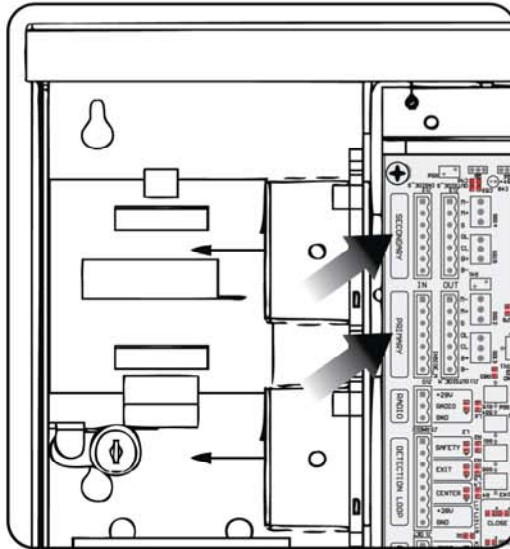
The gate operator and the battery charger require a single phase AC line to operate.

1. Turn off the breaker for the circuit you are using.
2. Select the proper voltage on the power board.
3. Connect the incoming power wires to the proper terminals.
4. Turn on the breaker and check that AC ON and CHARGE LED are lit.

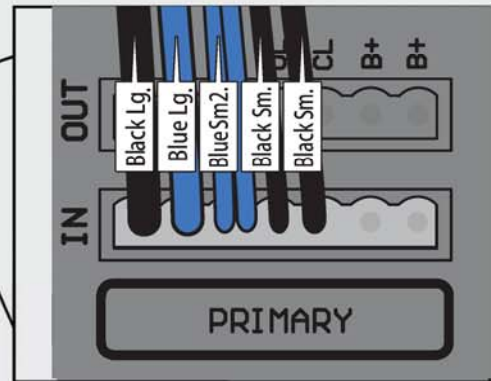
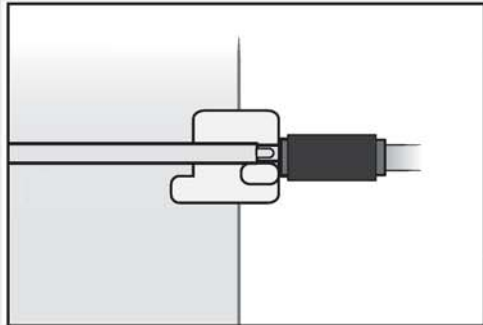


The power receptacle has been left unconnected till the installer decides what voltage to use. Connect to 120VAC only

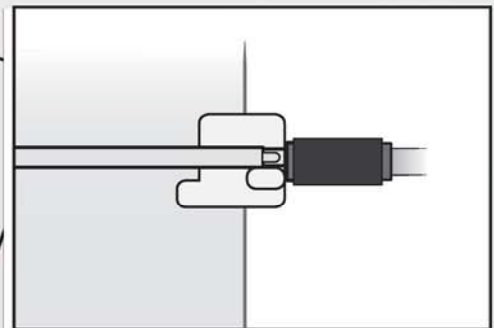
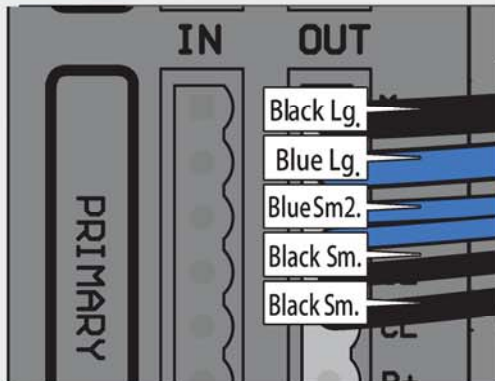
SINGLE UNIT CONNECTION:



Connect the wire harness to the PRIMARY "IN" connector if the gate opens inside.

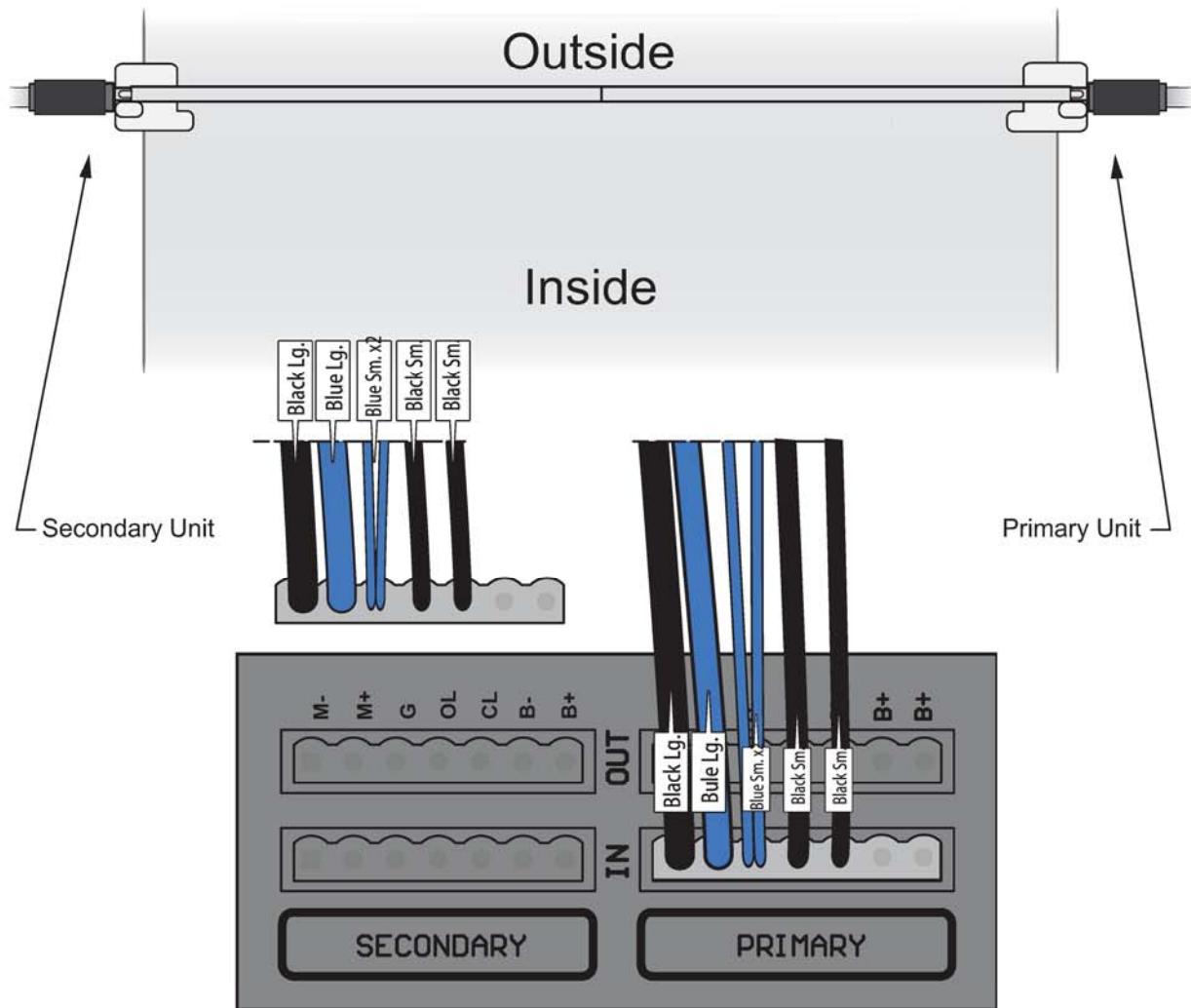


Connect the wire harness to the PRIMARY "OUT" connector if the gate opens outside.





The control board provides a connector for the secondary actuator unit and automatically synchronizes the secondary unit with the primary unit.



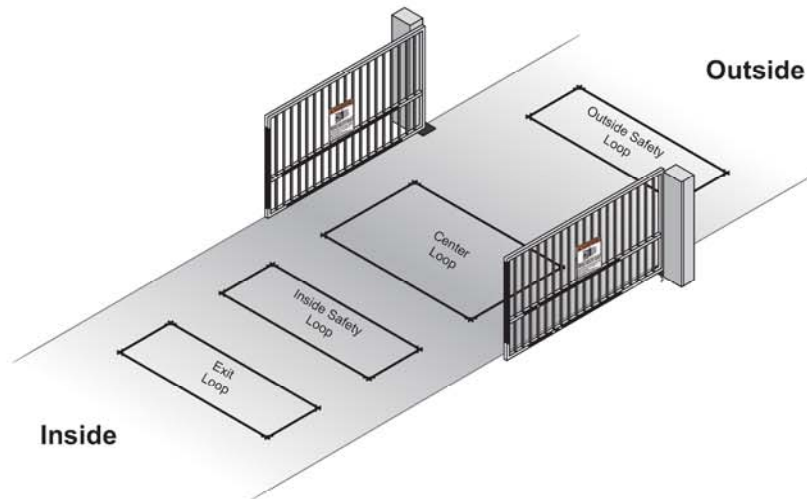
Simply connect the Secondary arm to its applicable position, IN for open inside or OUT for open outside.

# Installation: Inductive Loop

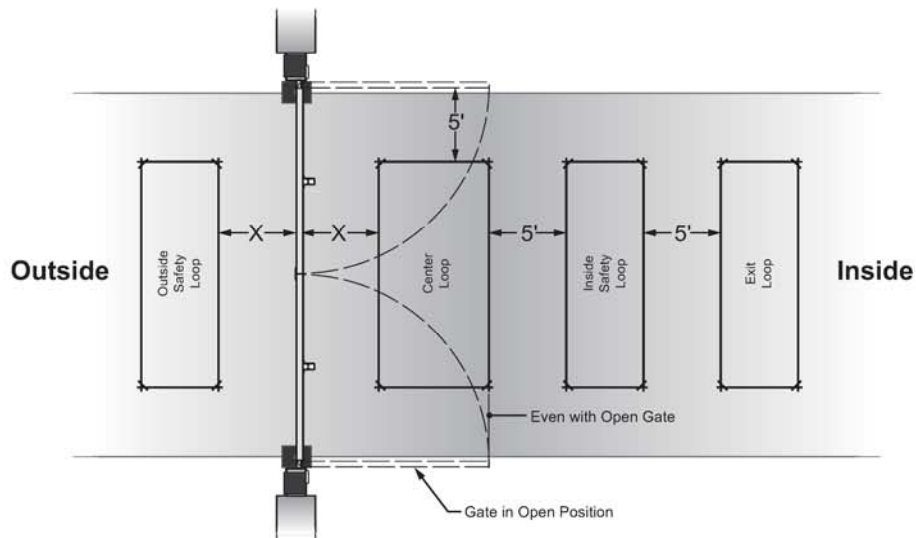


**WARNING – Consult the installation instructions from the loop detector manufacturer. The following statements are provided as a guide but different requirements may be required by the vehicular loop detector manufacturer.**

Safety loops allow the gate to stay open when vehicles are on the gate path. If the gate is longer than the vehicles that pass through it a center loop is recommended and should be installed. A center loop prevents the gate from closing when a vehicle is between the safety loops. Safety loops are required when using a center loop. See Loop Wiring.



Check with local regulations and accepted best practice requirements for every installation.

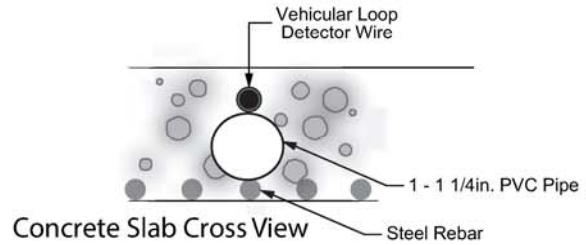




**WARNING** – Always read and follow the manufacturer’s instructions for the products used before connecting them. Comply with all applicable codes and safety regulations. Failure to do so may result in damage, injury or death.

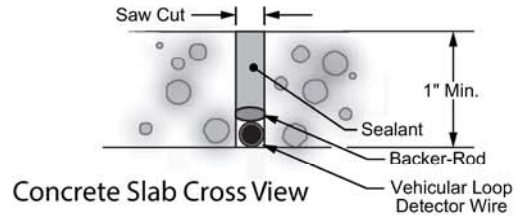
### New Slab Pour

Ty-wrap 1 1/4" PVC Pipe to the top of the rebar in the size and configuration of the loop (i.e. 4ft x 8ft). Then ty-wrap the loop to the top of the PVC frame. This stabilizes the loop during the pour and separates it from the rebar.



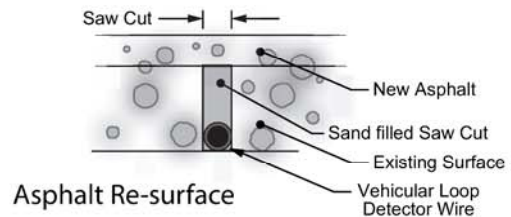
### Saw Cut Existing Surface

Cut " deep into the existing surface, place a 45° cut at the corners to prevent sharp edges from damaging the loop wire. Notch out for the "T" connection where the lead wire connects to the loop. Remove all debris from the finished cut with compressed air. Place the loop into the saw cut. Place backer material into the saw cut over the loop wire and pack tightly. Place a high quality sealer over the saw cut to seal the surface.

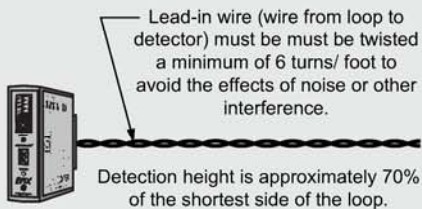


### Resurface Asphalt

Saw cut the existing surface 3/4" deep and place a 45° cut at the corners to prevent sharp edges from damaging the loop wire. Remove all debris from the finished cut with compressed air. Place sand over the loop wire to the surface and pack tightly. Lay new asphalt.



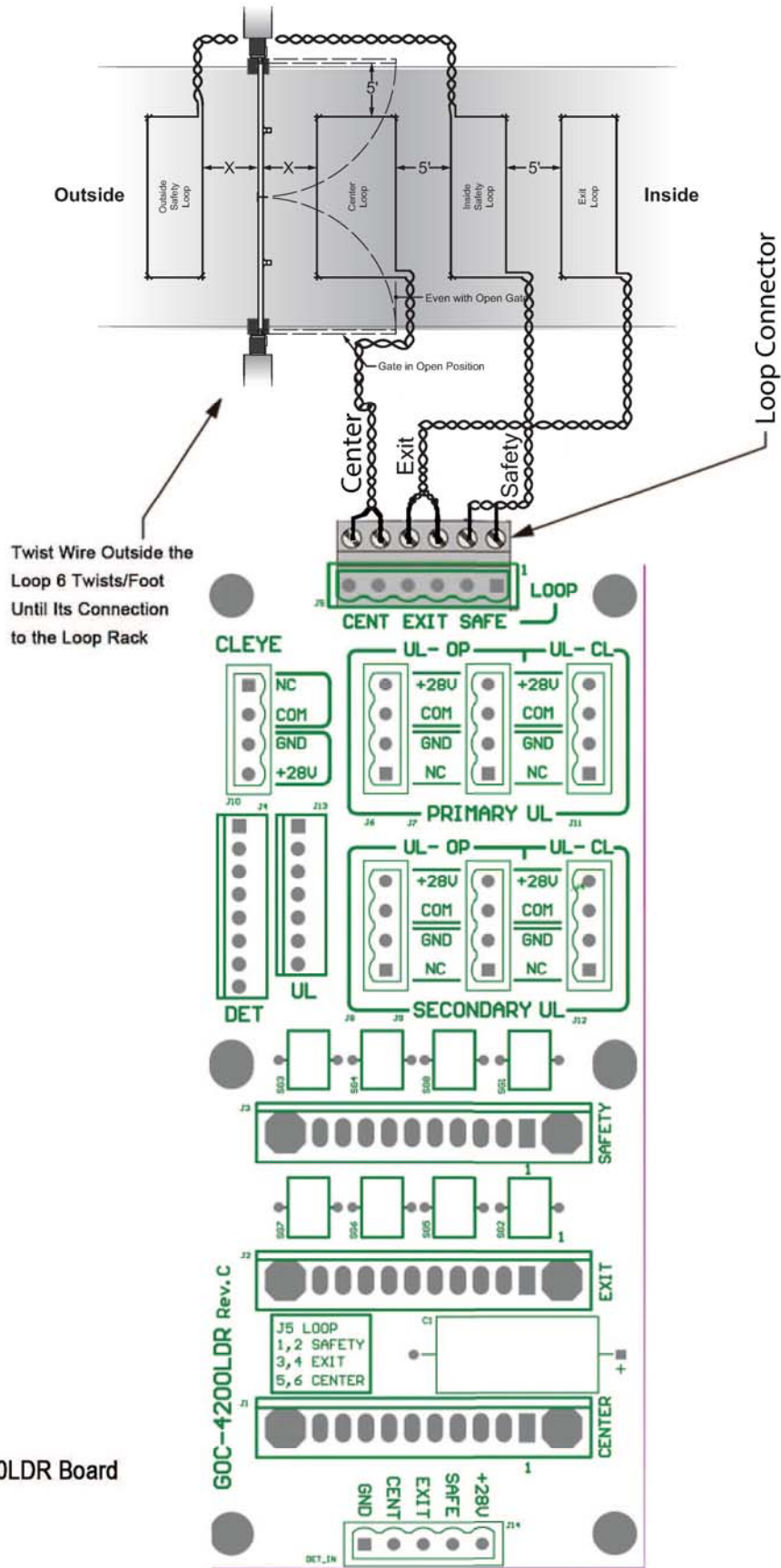
### General Installation Guidelines



### Recommended # of Turns

Perimeter in Feet	# of Turns
10	5
20	4
30-40	3
50-100	2

## Loop Rack Installation





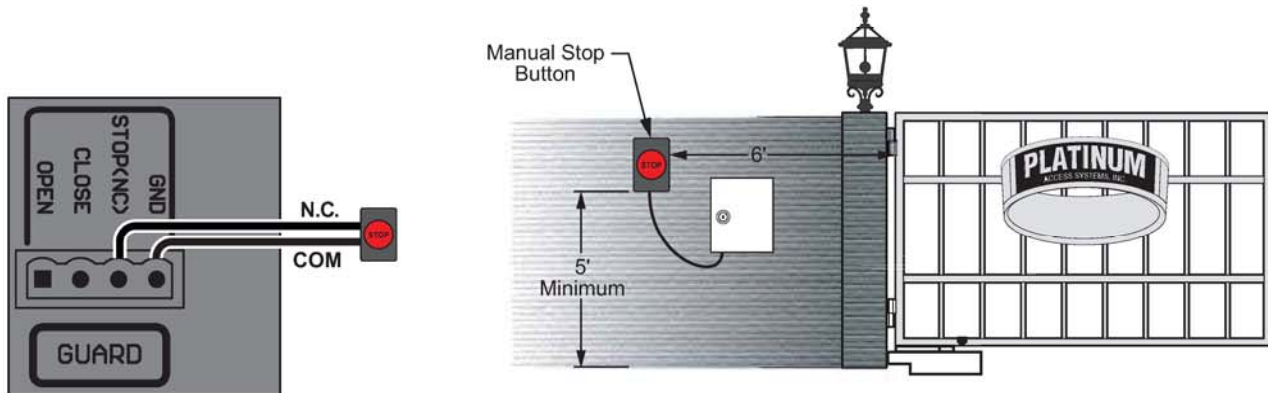
**WARNING – To reduce the risk of severe injury or death to person, please follow these instructions:**

## ALARM RESET SWITCH INSTALLATION: (UL 325 standard requirement)

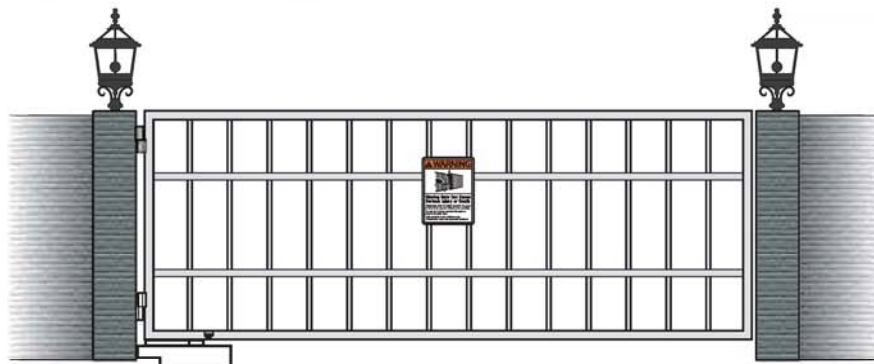
An alarm shall signal upon two sequential activations of an entrapment protection device, where the first activation is either a Type A or B2 device and the second activation is a Type A device. The alarm shall signal for a minimum of 5 min or until a renewed manual input from an integral control or a permanently mounted control (such as a Stop button) located in the line-of-sight of the gate has been entered. An audio alarm is not required for Classes III and IV.

To reset the alarm the Stop command can be given in two different ways.

- 1- The Built in Stop switch on the control board.
- 2- The External Stop button in the line-of-sight of the gate, away from moving parts of the gate and out of reach of children.



## WARNING PLACARDS INSTALLATION:



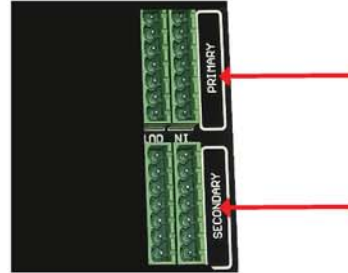
**All Warning Signs and Placards must be mounted where visible in the area of the gate.**  
A minimum of two (2) Warning Placards shall be mounted. (One on each side of the gate).

## PRIMARY/SECONDARY OPERATOR SELECT:

### Primary/Secondary

To set the Operator to Secondary: Select the Secondary Terminal on the 4200 Board.  
Recycle power to make the new setting Effective

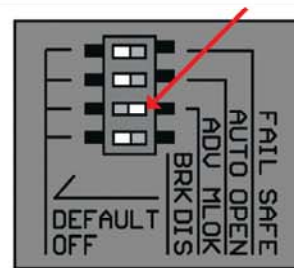
To set the Operator to Primary: Select the Primary Terminal on the 4200 Board.  
Recycle power to make the new setting Effective



## ADVANCING LOCK SELECT:

### ADV MLOK

To set the maglock to be engaged before the gate reaches the close or open position:  
Select the DIP switch to ADV MLOK position.



## OPEN ON POWER FAIL:

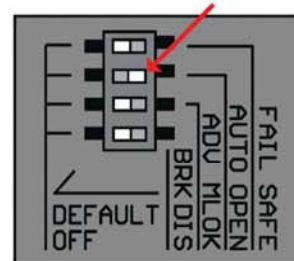
The Auto-Open feature in Platinum Access Systems Gate Operators enables the following functionality in the event of power failure:

- Open the gate in case of power failure (120 or 220 VAC).
- Keep the gate at the open position as long as there is no power.
- Resume to normal operation when the power has been restored.

All accessories and safety devices are functional. The only function disabled is the close command.

### Auto-Open

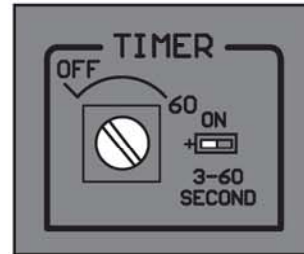
To enable the Auto-Open feature: Select the DIP switch to AUTO OP position.



**CLOSE TIMER:**

**Close Timer**

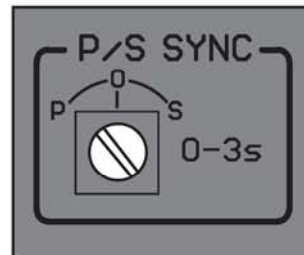
The Close Timer will close the gate a set time after the vehicle clears the gate area. This is adjustable from 3 to 60 seconds.



**LEAF DELAY:**

**Leaf Delay**

An Overlap Delay has been provided for biparting gates that have an emblem or maglock for example. It will provide up to a 3 second delay on primary or secondary operator.



**INSTANT REVERSING SENSOR:**

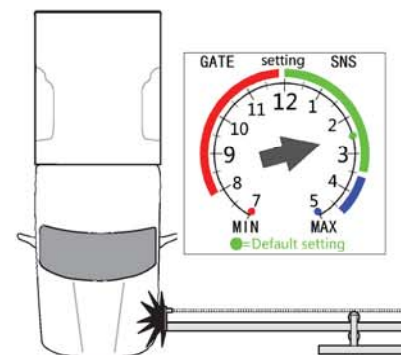
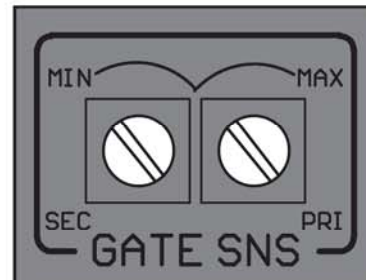
**Instant Reversing Sensor**

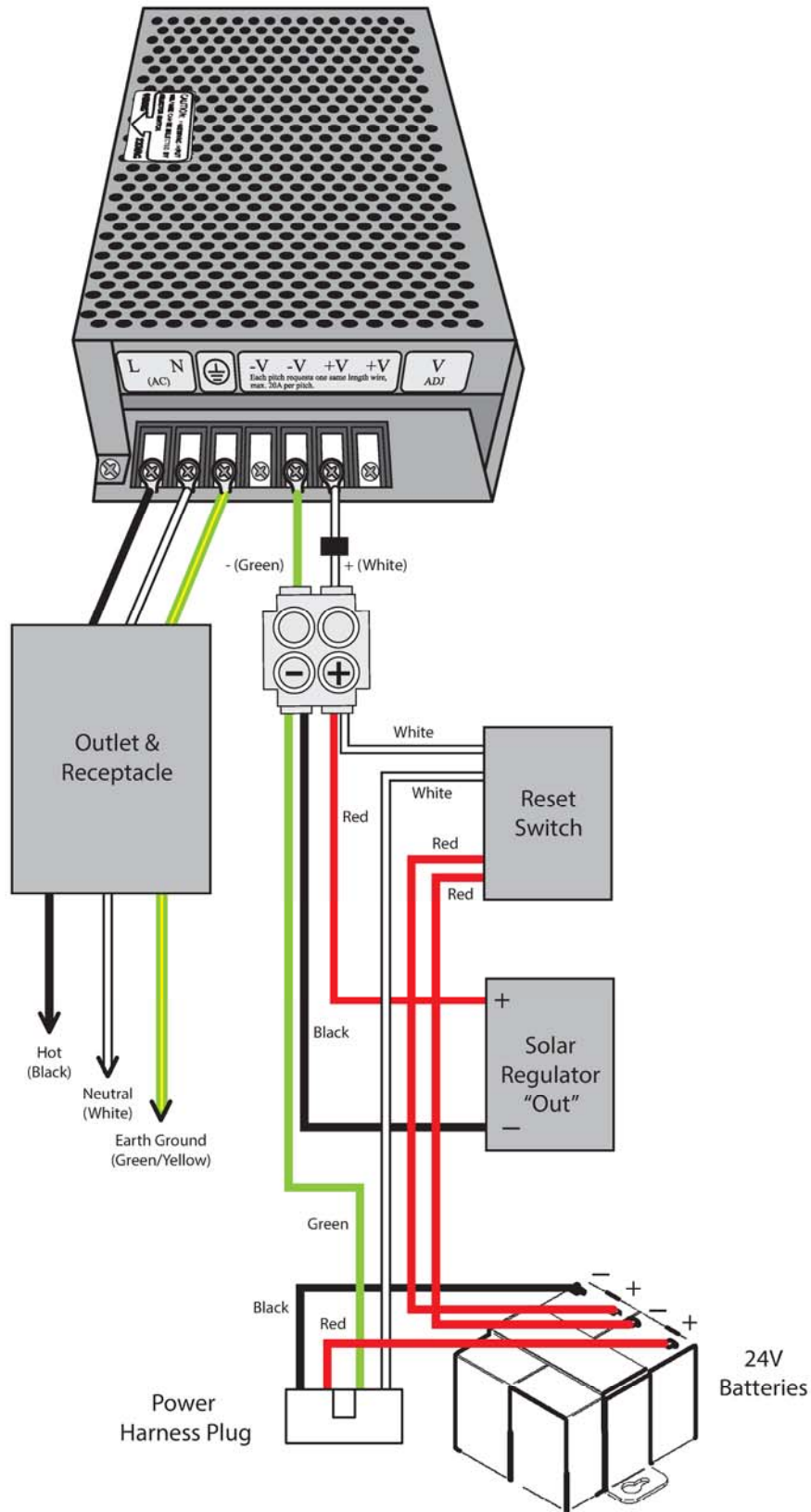
The Obstruction Sensor needs to be adjusted to compensate for the installation and gate weight. The overload adjustment is provided to set the gate sensitivity.

- a) If the gate reverses by itself or stops in midcycle, it is too sensitive.
- b) If the gate hits an object and does not reverse or stop, it is not sensitive enough.
- c) Clockwise increases sensitivity, counter-clockwise decreases sensitivity.

**Test and adjust for proper reversing pressure**

*(Note: When unit alarms, push "STOP" or "RESET" button will clear the alarm)*







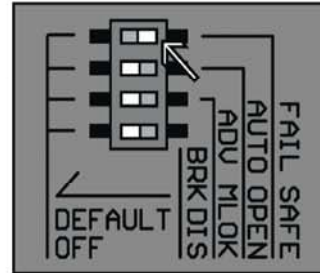
## FAIL SAFE/SECURE:

### Fail Safe/Secure

On = Fail Safe  
Off = Fail Secure

Fail/Safety (Input)	Battery Detection	AC Detection	Output
ON	Normal	Normal	Secure
ON	Normal	OFF	Fail Safe
ON	Low/OFF	Normal	Fail Safe
ON	Low/OFF	OFF	Fail Safe
OFF	Normal	Normal	Secure
OFF	Normal	OFF	Fail Secure
OFF	Low/OFF	Normal	Fail Secure
OFF	Low/OFF	OFF	Fail Secure

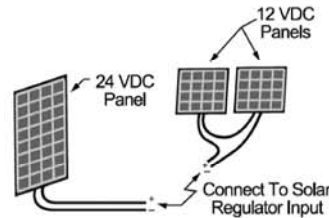
Note: When the output is "Fail Safe", there is less resistance to push the gate open manually.



## SOLAR INSTALLATION:

### Step 1

A 24V solar panel or two 12V solar panels with minimum 80 watts capacity, Maximum Power Voltage (VPM) > 31V and Open Circuit Voltage (VOC) > 38V is required.



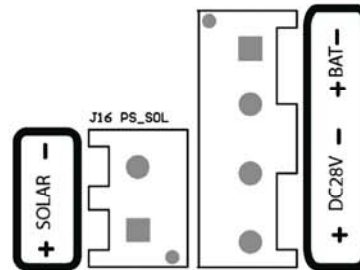
### Step 2

Connect the solar panel cables to the Solar socket on the board.

Note: Please charged the operator batteries fully before installing the operator. If you use solar panel as the main power source.

Suggestion: You may need greater capacity for a jobsite. It depends on the following conditions:

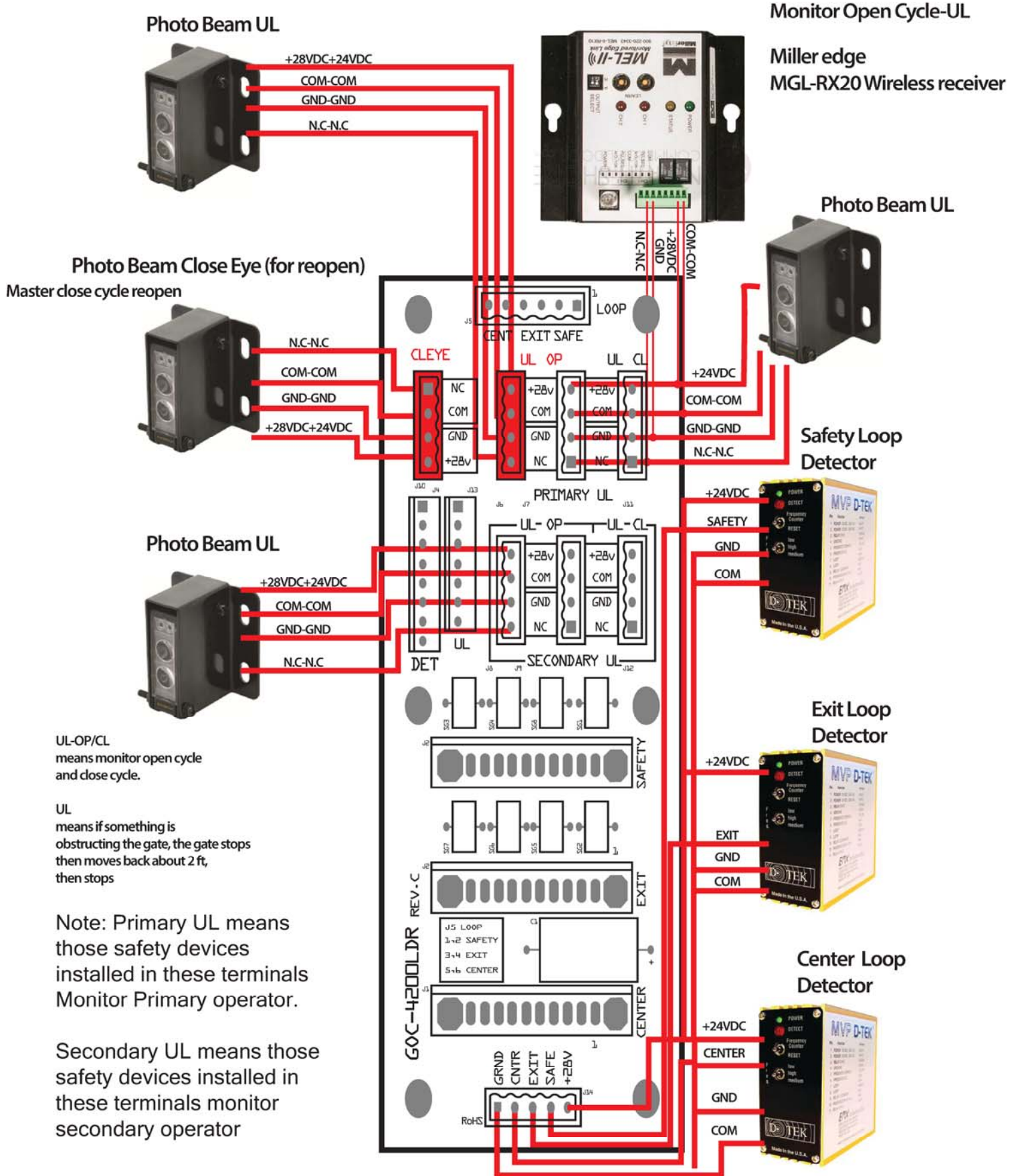
1. The weight of the gate you may need batteries 14AH, 12V or greater capacity batteries if the gate is heavier than 400 lb.
2. The weather condition such a jobsite may has longer cloudy days.
3. The position of the gate such it's uphill/downhill gate.



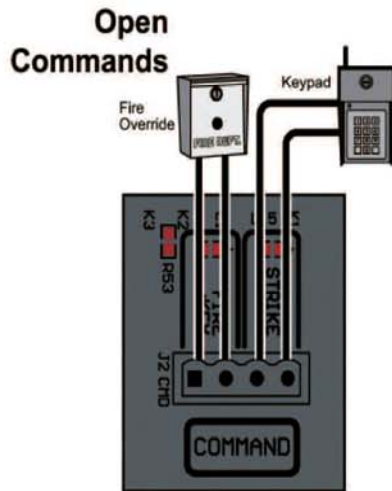
**Optional Solar Installation:** For Solar Panel controller installation, please call Technical Support.

# Installation: Safety & Accessory Connections

## ACCESSORY CONNECTIONS



## ACCESSORY CONNECTIONS (continued):



### Fire Box & Keypad Installation

## Radio Receiver

Need to verify the proper connections before connecting the Radio Receiver. The maximum voltage that the control board / battery can provide is about 28V for external accessories. If there is an electrical short in the power to the accessories, the control board will protect itself by shutting down and will remain shut down until the short is fixed.

Two modes of operation that a radio receiver can control the gate:

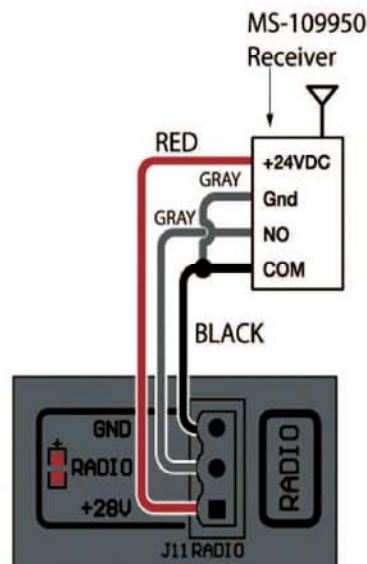
### Open-Close

By having the radio receiver connected as illustrated and with the Timer OFF:  
 Every command of the radio transmitter will control the gate as follow:  
 A. First command opens the gate  
 B. Second command CLOSE the gate if at open position  
 C. Third command OPEN the gate  
 D. Any subsequent commands will continue in the same order to control the gate.

*This type of configuration is not recommended for a commercial installations.*

### Open Only

By having the radio receiver connected as illustrated and with the Timer ON:  
 Each command of the radio transmitter is ALWAYS AN OPEN COMMAND to the gate.

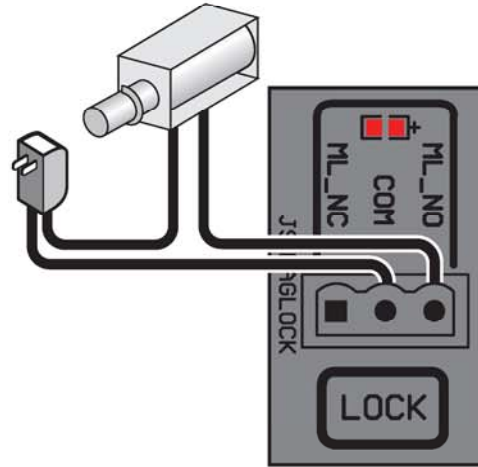


Linear MS-109950  
Installation Diagram

ACCESSORY CONNECTIONS (Continued):

**Solenoid Connection**

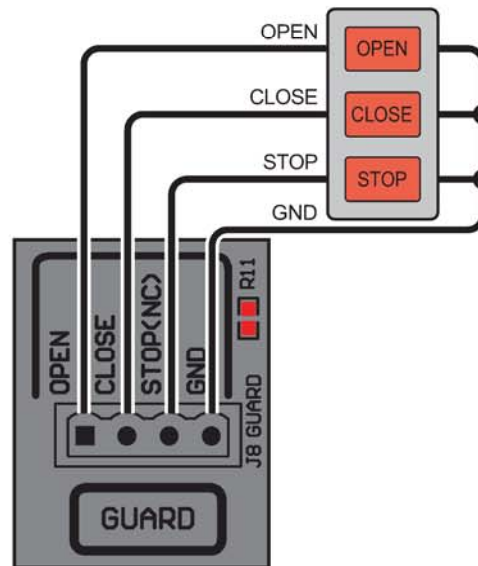
The solenoid power connection must be provided an external power source. This will prevent damage to the battery in the event of a line power failure.



**Guard Station**

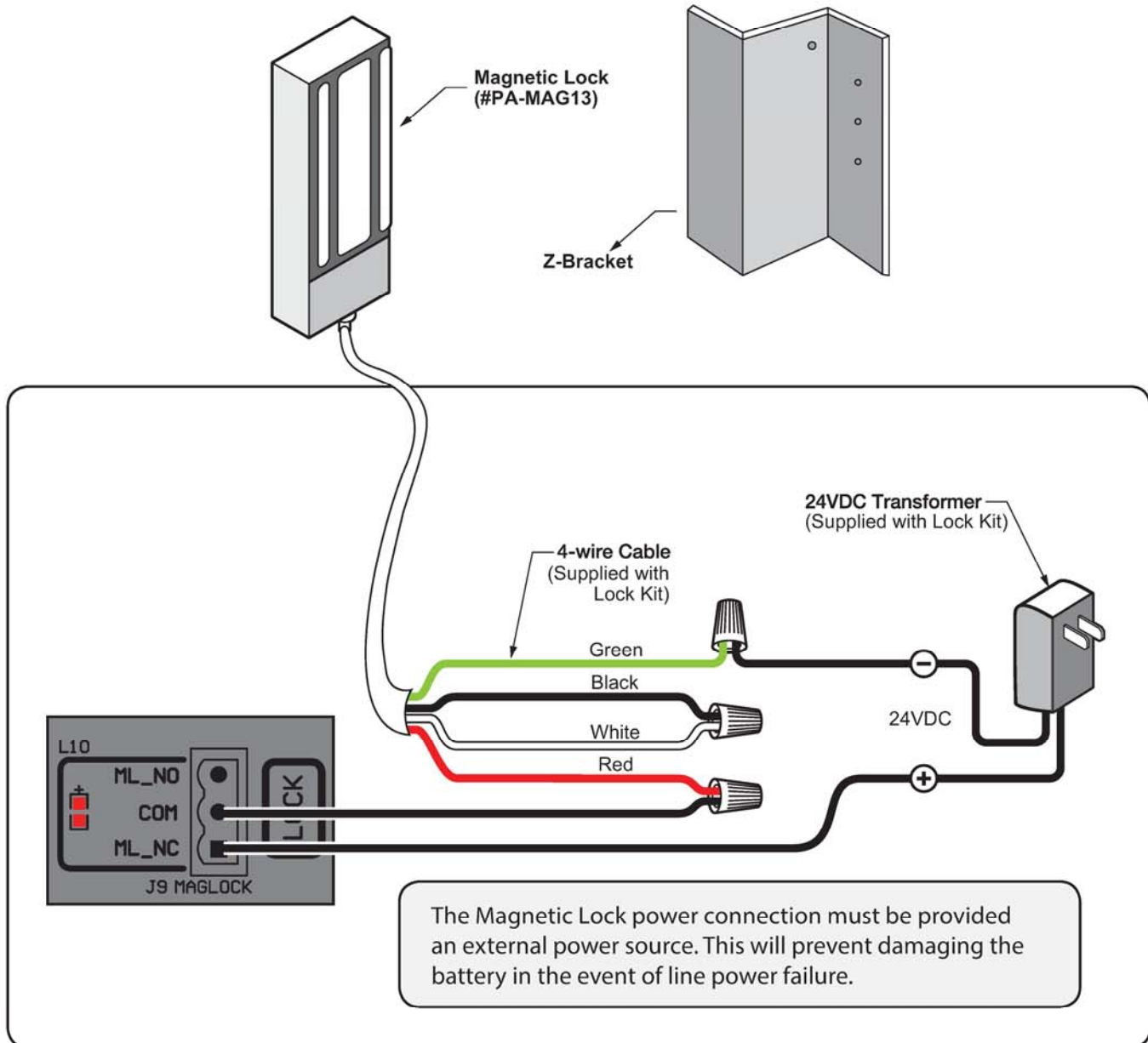
This will control the gate operator to Open, Stop, and Close the gate. The switches for Open and Close must be normally open type. The switch for Stop must be normally close type. They all can be using the same common ground. The control switch box should be within sight of the gate, out of reach of children, and away from moving parts of the gate.

If no guard station or STOP switch is installed, a jumper must be inserted between "STOP(NC)" and "GND" pins.



ACCESSORY CONNECTIONS (Continued):

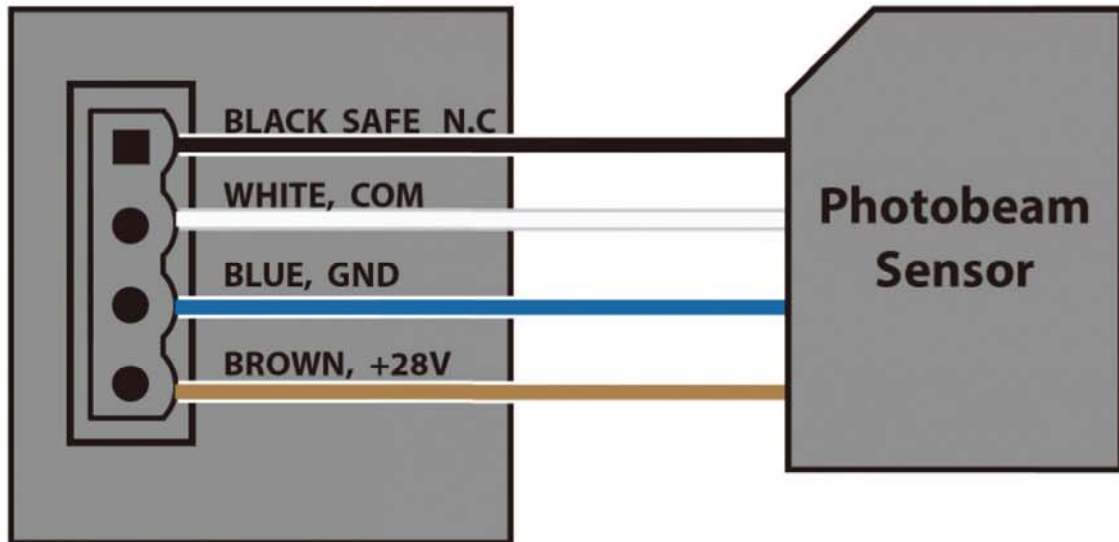
Locks



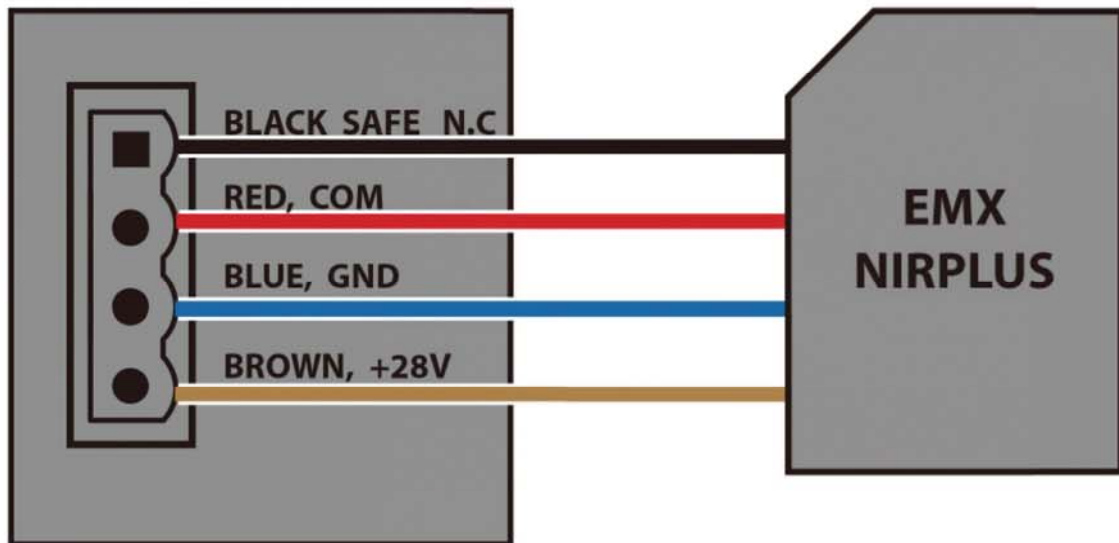
OPTIONAL ACCESSORY- part # (PA-MAG13).

# GOC-4200LDR SAFETY PHOTOEYE CONNECTION

## MON CLEYE



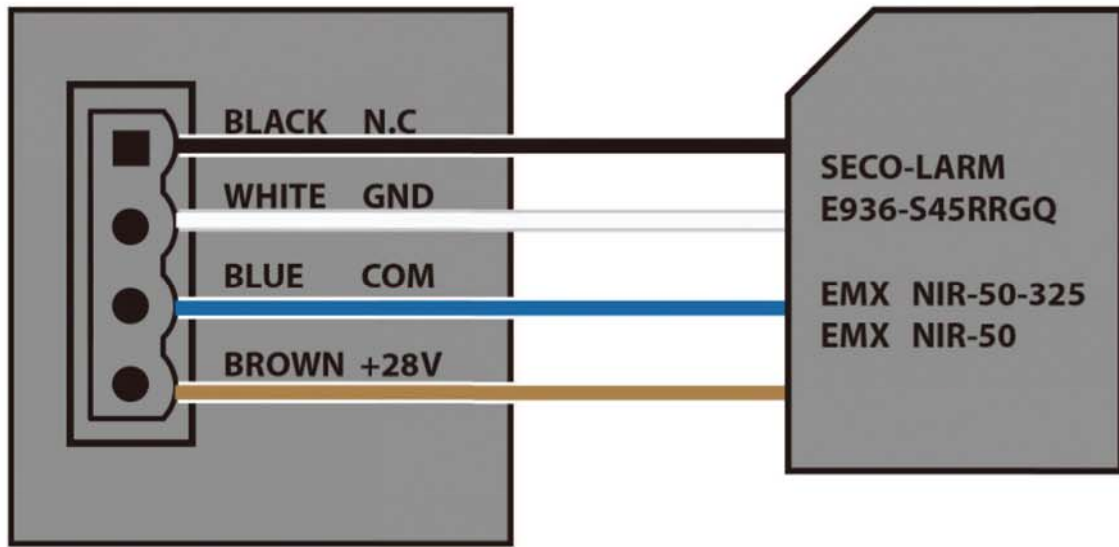
SECO-LARM	E936-S45RRGQ
EMX	NIR-50-325
EMX	NIR-50



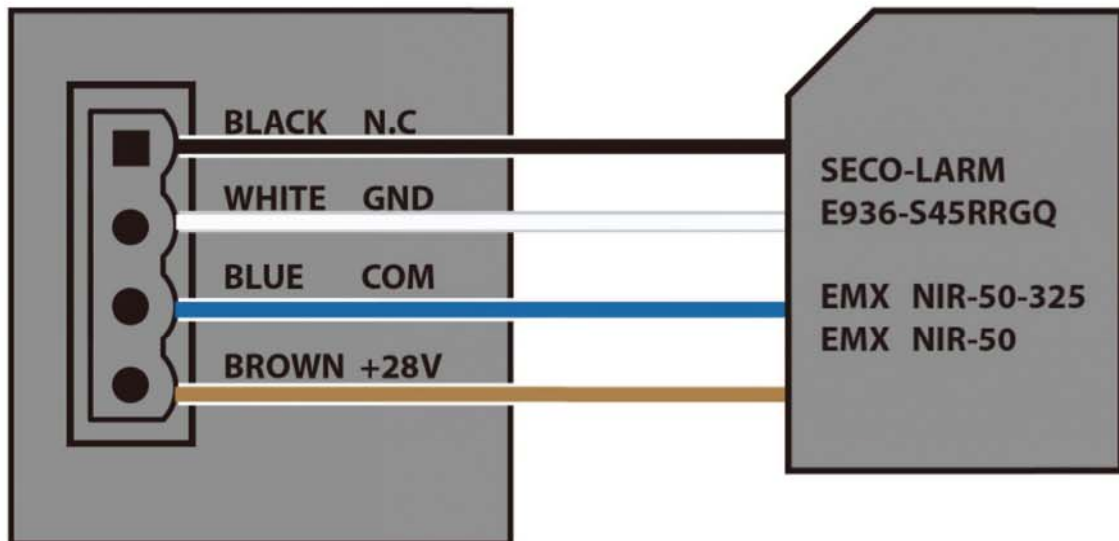
TECHNICAL SUPPORT: (909)259-6001

# GOC-4200LDR UL PHOTOEYE CONNECTION FOR PRIMARY AND SECONDARY GATES

## MONITOR OPEN

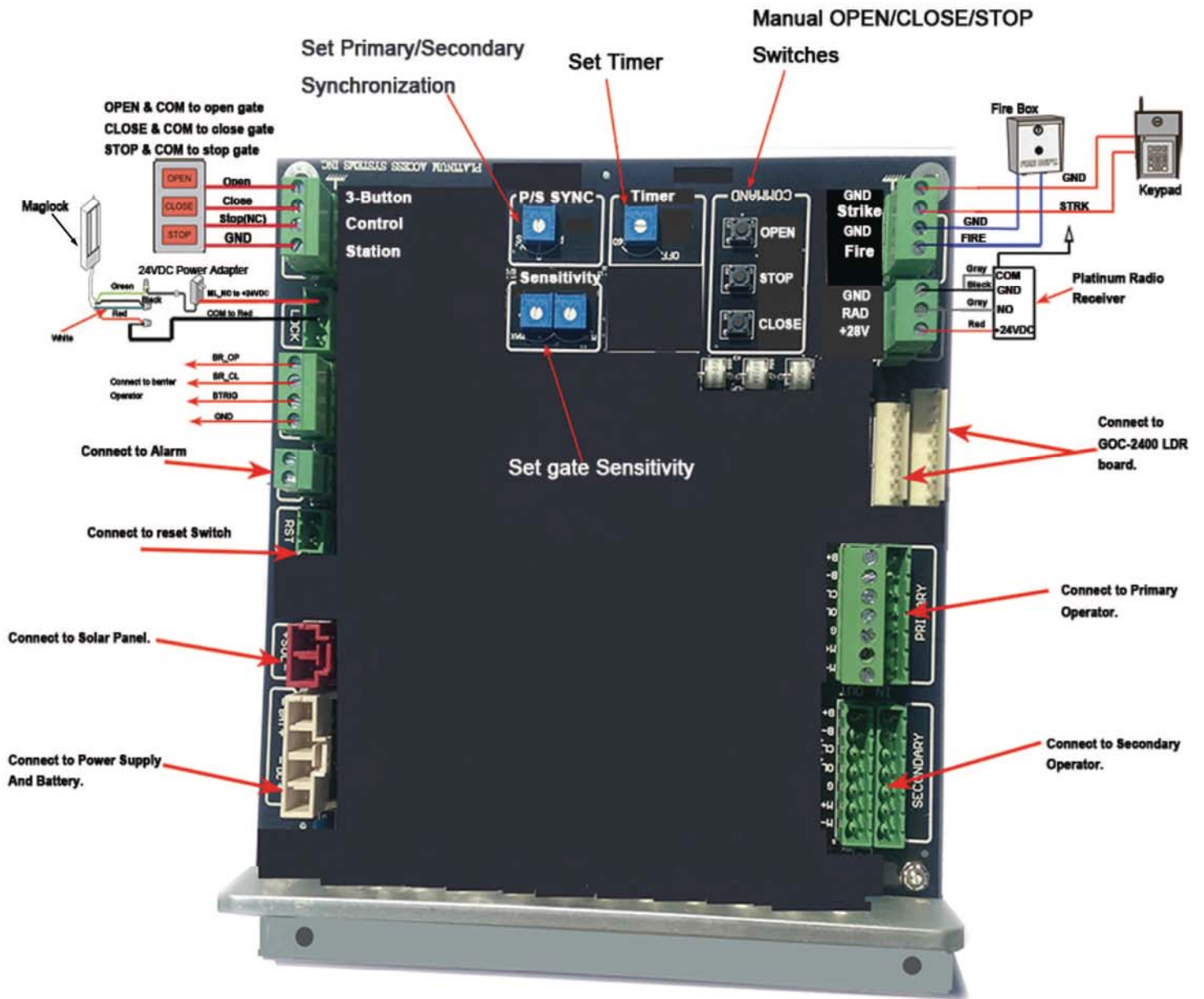


## MONITOR CLOSE



TECHNICAL SUPPORT: (909)259-6001

# Field Wiring





## Platinum ETL Approved Non-Contact External Sensors:

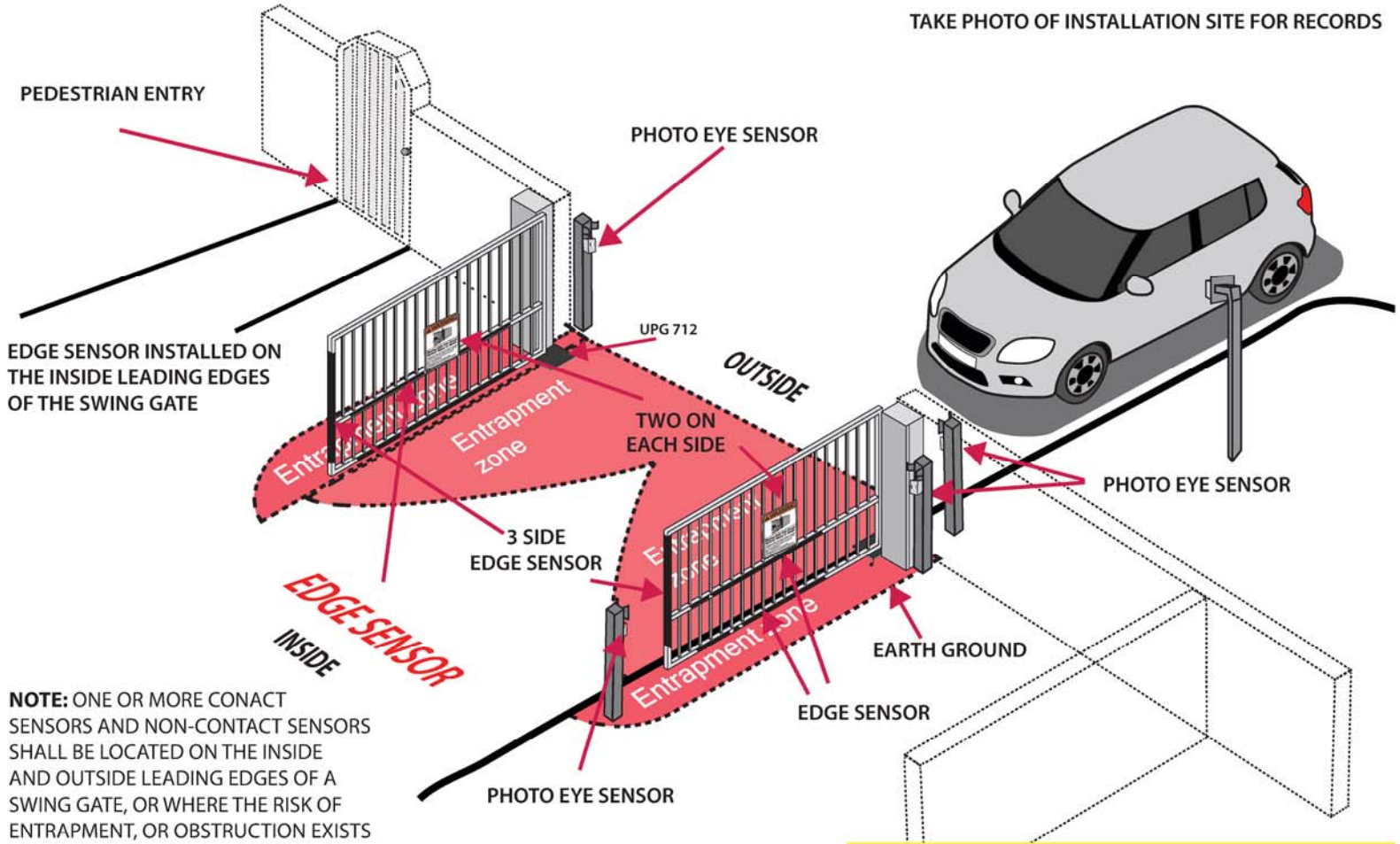
Device Type	Mfg. Part#	Mfg. Name	Max Effective Range	Recognized	Note
Reflector Photo Eye	NIR-50-325	EMX	MAX RANGE 50FT	Yes	
Reflector Photo Eye	NIR-50	EMX	MAX RANGE 50FT	yes	
Reflector Photo Eye	IRB-RET	EMX	MAX RANGE 60FT	Yes	
Reflector Photo Eye	E-931-S50RRGQ	Seco Larm	MAX RANGE 50FT	Yes	
Reflector Photo Eye	E-936-S45RRGQ	Seco Larm	MAX RANGE 45FT	Yes	
Thru-Beam Photo Eye Kit	E-960-D90GQ	Seco Larm	MAX RANGE 90FT	Yes	
Thru-Beam Photo Eye Kit	IRB-MON	EMX	MAX RANGE 100FT	Yes	
Thru-Beam Photo Eye Kit	IRB-325	EMX	MAX RANGE 65FT	Yes	
Thru-Beam Photo Eye Kit	IR55	Albano Elettronica	MAX RANGE 55FT	Yes	
Thru-Beam Photo Eye Kit	42GRU-9001	Allen Bradley	MAX RANGE 30FT	Yes	

## Platinum ETL Approved Contact External Sensors:

Device Type	Mfg. Part#	Mfg. Name	Description	ETL/UL325 Recognized
Wireless Edge Link	MGL-K20	Miller Edge	Come with Transmitter & Receiver	Yes
Wireless Edge Link	MGL-RX20	Miller Edge	Receiver	Yes
Wireless Edge Link	MGL-TX20	Miller Edge	Transmitter	Yes

N.O means N.C For  
Platinum Boards

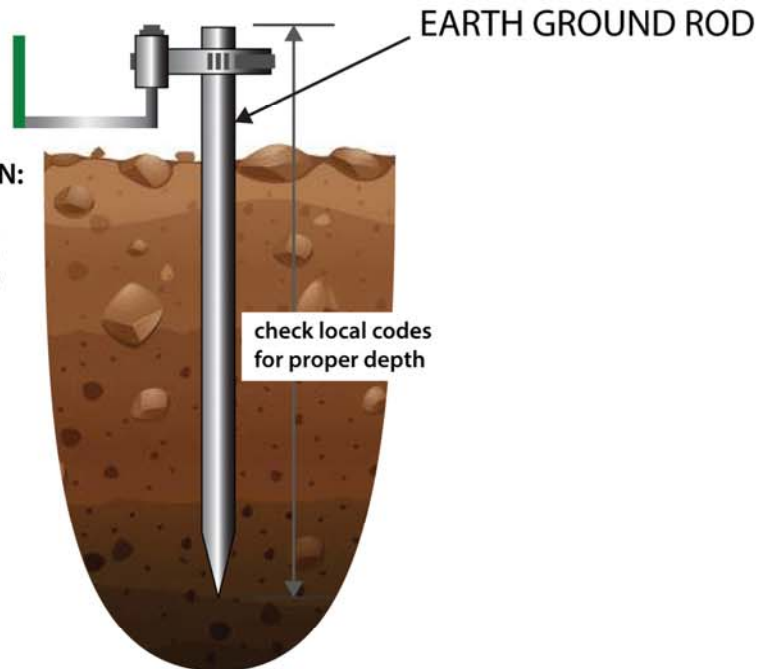
TAKE PHOTO OF INSTALLATION SITE FOR RECORDS



**NOTE:** ONE OR MORE CONTACT SENSORS AND NON-CONTACT SENSORS SHALL BE LOCATED ON THE INSIDE AND OUTSIDE LEADING EDGES OF A SWING GATE, OR WHERE THE RISK OF ENTRAPMENT, OR OBSTRUCTION EXISTS SUCH AS THE PERIMETER REACHABLE BY A MOVING GATE, OR BARRIER

THIS IS FOR EXAMPLE ONLY. YOUR SITE MAY NEED TO INSTALL MORE SAFETY DEVICES TO PROTECT EVERY ENTRAPMENT ZONE

**EARTH GROUND ROD INSTALLATION:** INSTALL THE EARTH GROUND ROD WITHIN 3FT OF THE OPENER, MAKE SURE USE PROPER EARTH GROUND ROD IN YOUR AREA.



**Gate does not open or close**

Check all motor connections to be fully engaged.

Check that the stop command is not active.

Check that the UL command (photo beam and/or edge sensor) is not active.

Check that the vehicular loop detectors are working properly.

Check that the radio command is not active.

Ensure that you external accessories are working properly

**Automatic close does not function**

Check that the trim pot of the hold open timer is set to the proper time delay.

Note: Hold open timer closes the gate automatically once the gate reaches the limit open. The time delay to close is set by the trim pot. To turn this system off turn the trim pot all the way clockwise

**Gate opens in the opposite desired direction**

Verify your motor cable is connected to the proper connector.

Check that all motor cable connections, junctions and extensions are properly connected and color-coded.

**Gate does not open but after few seconds**

Set the overlap delay trim pot to 0.

Note: Overlap trim pot is normally recommended to use in overlapping gates.

**Gate opens. Closes or stops on its own**

Check that your external devices are working properly

Check that your wires from your accessories are:  
 a) Not shorting together  
 b) Not shorting a power line  
 c) Not shorting to metal or earth ground.

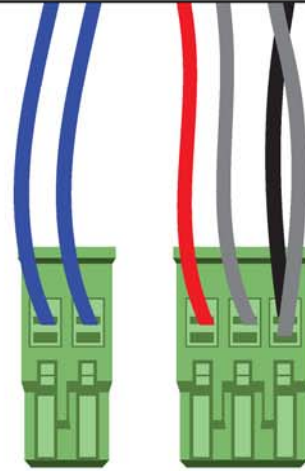
**Green 'Charger' LED not illuminated**

Check power supply

Check that there is AC power.  
 Check Fuse on EMI board.  
 Check for proper power selection (120/220 VAC) on EMI board.  
 Check power harness plug on control board.

## PLATINUM RECEIVER PL-JS-181 INSTALLATION:

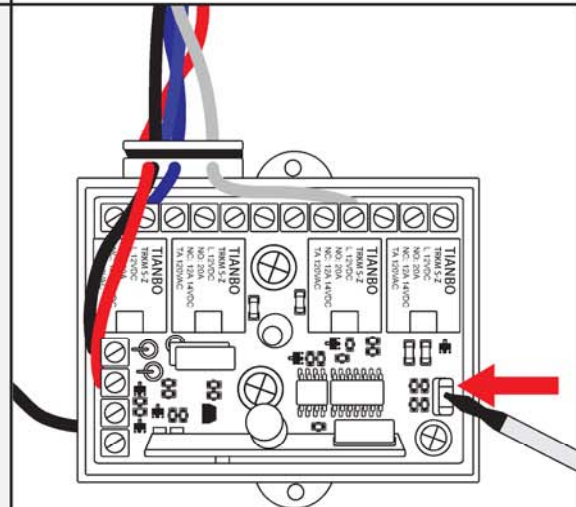
1. Connect two blue wires to the RESET, J15, 2-Pin green connector on the board if apply.
2. Connect Red , Black, and two Grey wires to RADIO J11 in the following way:
  - Connect Red wire to +28V
  - Connect one Grey wire to RAD
  - Connect Black wire and the other Grey wire to GND.



Receiver Wire Connection Picture 1

## PROGRAMMING THE PL-JS-181 RECEIVER TO WORK WITH THE PL-RC-C1 TRANSMITTER:

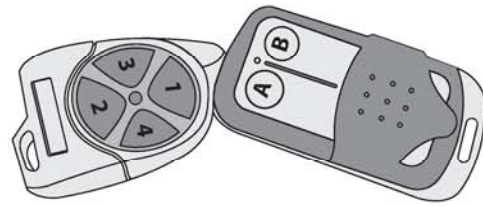
1. Open the Receiver by taking off the screw on the bottom side of the receiver.
2. Press down and then release the K1 tactile switch which located at the corner that near the silver crystal in the receiver. The LED will turn in green. Then press down and hold button #1 on the Platinum Transmitter PL-RC-C1 for 3 seconds.
3. The Receiver LED will be flashing once it has learned the Transmitter code successfully.
4. Wait for about 5 seconds. Then press button #1 on the Transmitter to confirm the transmitter works with the receiver. If not, then repeat step 2 to step 4 to make it works.
5. Repeat step 2 to step 3 to program the other three transmitter buttons if need.



Location of the Tactile Switch in the PL-JS-181 Receiver

### PROCEDURE TO MAKE THE TRANSMITTER PL-CRC-I11 TO COPY THE TRANSMITTER PL-RC-C1 CODE:

1. Press down both buttons in the same time on the PL-CRC-I11 transmitter and hold it till the blue LED flashing for 3 seconds (It takes about 13 seconds totally).
2. Next bring both transmitters PL-RC-C1 and PL-CRC-I11 close to each other. Make sure the transmitter PL-RC-C1 antenna is touching the transmitter PL-CRC-I11 top surface.
3. Press down PL-CRC-I11 transmitter "A" button and hold it. Then press down the PL-RC-C1 #1 button. The PL-CRC-I11 blue LED will flash a few times once it has learned the code successfully.
4. Repeat step 2 to Step 3 to make the PL-CRC-I11 button "B" to learn the #2,#3, or #4 button code from the PL-RC-C1 transmitter.



PL-RC-C1  
Transmitter

PL-CRC-I11  
Transmitter

Picture shown the position of the transmitters when using transmitter PL-CRC-I11 to copy the code from transmitter PL-RC-C1

### PROCEDURE TO ERASE THE TRANSMITTER PL-CRC-I11 CODE :

1. Press and hold both button A & button B down until the blue LED flashing for 3 seconds. Normally it takes about 10 seconds.

## Photoeye Sensor Alignment Installation Instruction



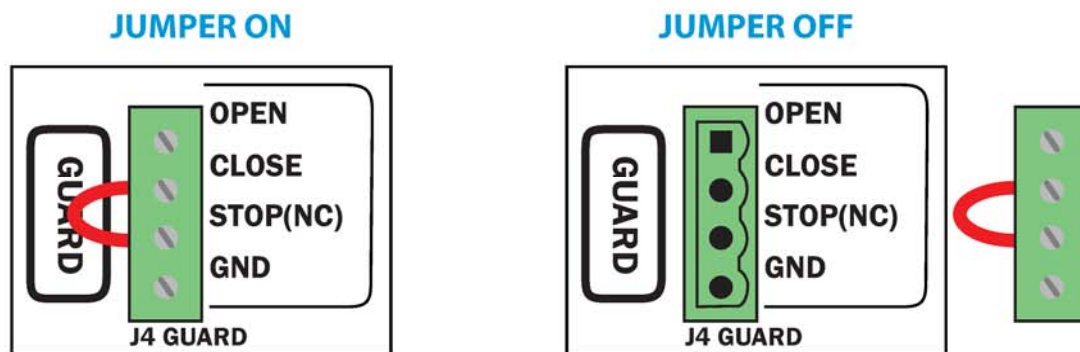
**WARNING:** to reduce the risk of injury or death:

### Photoeye Sensor Alignment Installation Instruction For Revision-36, Or Later Firmware For GOC-4200 Main Board

1. Turn off AC and Battery power.
2. Take out the 4-pin terminal jumper from the GUARD terminal.
3. Connect the first photo eye sensor to the MON CLEYE terminal on the GOC-4200LDR Loop board.
4. Look for a good location to secure the photoeye sensor receiver.
5. Turn battery power ON.
6. Now you hear one alarm sound every 5 seconds.
7. Next try to align the lens to the photo eye sensor receiver. If the lens is aligned to the receiver, then you hear the alarm sound rapidly (6 alarm sounds per second).
8. Once you approximately have located the area to put the lens. Next you need to move the lens left and right, up and down to center the lens.
9. Once you have centered the lens. You can secure the lens.
10. Disconnect the photo eye sensor receiver from MON CL EYE terminal. Use the same method start from step 1 to align the photo eye sensor lens for MON OP for the PRIMARY UL terminals.
11. If you only install two photo eye sensors(One monitors the gate close cycle, and the other one monitors the gate open cycle). Then you can go to step 14. Otherwise go to step 12.
12. Use the same method to align the other photo eye sensors for MON CL for the PRIMARY UL terminals.
13. Use the same method to align the other photo eye sensors for MON OP, and MON CL for the SECONDARY UL terminals if need.
14. Once you have completely aligned all the photo eye sensors. Put the 4-Pin terminal jumper back to Guard terminal. And plus in all the photo eye sensors receivers (One must connect to the MON CL EYE, terminal, and other one connect to one of the MON OP terminal at the PRIMARY UL terminals). Then reset the operator.

Note: To check the lens to see if lens is at the center position to the receiver, or not, you can make a 1.5" in diameter circle from a piece of cardboard. And use this cardboard to cover the lens with the center of the circle aligns to the center of the lens. Then use a transmitter to open/close the gate to see if the gate still work. If gate is still working, that mean the lens is at the center position to the receiver, if not, go back to step 1 to align the lens correctly.

**FIGURE 2**







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