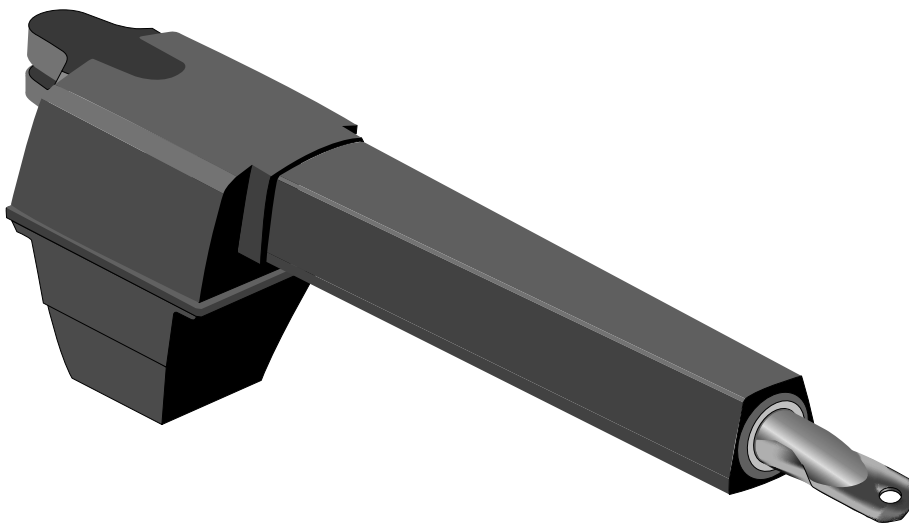


## **RESIDENTIAL GATE OPERATOR**

### **Models GA400D and GA420D**

*For Residential Use Only*



## **Owner's Manual**

- Please read this manual and the enclosed safety materials carefully!
- Periodic checks of the operator are required to ensure safe operation.
- The model number label is located inside the control box of your operator.
- Serial # \_\_\_\_\_
- Installation Date \_\_\_\_\_



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# INTRODUCTION

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## Safety Symbol and Signal Word Review

This gate operator has been designed and tested to offer safe service provided it is installed, operated, maintained and tested in strict accordance with the instructions and warnings contained in this manual.

### **WARNING**

**Mechanical**

### **WARNING**

**Electrical**

### **CAUTION**

When you see these Safety Symbols and Signal Words on the following pages, they will alert you to the possibility of **serious injury or death** if you do not comply with the warnings that accompany them. The hazard may come from something mechanical or from electric shock. Read the warnings carefully.

When you see this Signal Word on the following pages, it will alert you to the possibility of damage to your gate and/or the gate operator if you do not comply with the cautionary statements that accompany it. Read them carefully.

## Operator Specifications

<b>Main Supply (Motor)</b>	12Vdc Battery run. Operational between 11.5Vdc and 14.5Vdc.
<b>Accessory Power</b>	12V nominal Class II battery voltage source is limited to: <ul style="list-style-type: none"><li>• Solar or AC Cable up to 50' - 500 mA</li><li>• AC Cable 50' up to 250' - 250mA</li><li>• AC Cable 250' up to 1000' - 100mA</li></ul> <b>NOTE:</b> Increased accessory power drawn from the operator will shorten the battery life.
<b>Power Consumption</b>	30 Watts max (during battery charging)
<b>Battery Charger Supply</b>	14.5Vac nominal, 30 VA max.
<b>Maximum Gate Length</b>	18 ft. at 350 lbs.
<b>Maximum Gate Weight</b>	850 lbs. at 6 ft.
<b>Travel Time</b>	20 seconds (typical)
<b>Temperature</b>	-20°C to +50°C, -4°F to 122°F Contact Technical Support for applications below -20°C
<b>Protection Fuse Battery 1</b>	ATC 20A
<b>Protection Fuse Battery 2</b>	ATC 20A

## Safety Installation Information

1. READ and FOLLOW all instructions.
2. The gate operator is intended for use with Class I vehicular swing gates.

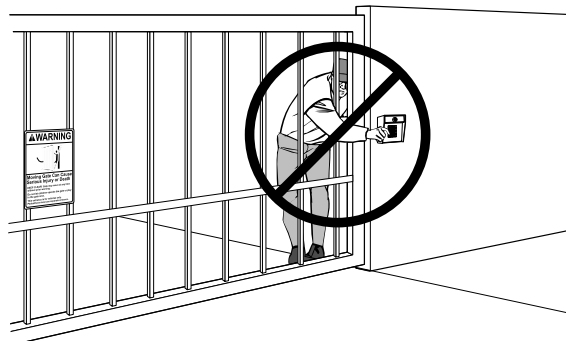
Class I denotes a vehicular gate operator (or system) intended for use in a home of one to four single family dwellings, or a garage or parking area associated therewith.

Install the gate operator only when the operator is appropriate for the construction and the usage class of the gate.
3. Gate operating system designers, installers and users must take into account the possible hazards associated with each individual application. Improperly designed, installed or maintained systems can create risks for the user as well as the bystander. Gate system design and installation must reduce public exposure to potential hazards. All exposed pinch points must be eliminated or guarded.
4. A gate operator can create high levels of force during normal operation. Therefore, safety features must be incorporated into every installation. Specific safety features include safety sensors.
5. The gate must be properly installed and work freely in both directions prior to the installation of the gate operator.
6. The gate must be installed in a location so that enough clearance is provided 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.
7. The operator is intended for use 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. The pedestrian access shall be located such that persons will not come in contact with the moving vehicular gate.

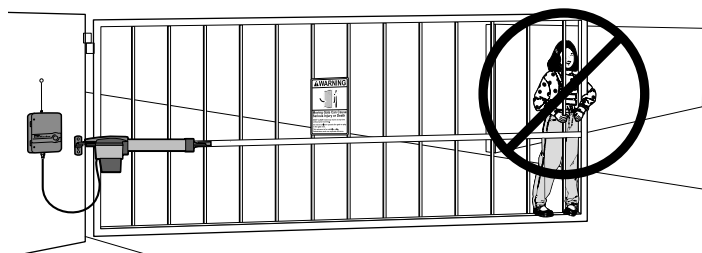


8. Pedestrians should never cross the pathway of a moving gate. The gate operator is not acceptable for use on any pedestrian gate. Pedestrians must be supplied with a separate pedestrian access.


9. For an installation utilizing non-contact sensors (safety sensors), see product manual on the placement of non-contact sensors (safety sensors) for each type of application.
  - a. Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle trips the safety sensor while the gate is still moving.
  - b. One or more non-contact sensors (safety sensors) shall be located where the risk of entrapment or obstruction exists, such as the perimeter reachable by a moving gate or barrier.
10. For a gate operator utilizing a contact sensor such as an edge sensor:
  - a. A hard wired contact sensor shall be located and its wiring arranged so the communication between the sensor and the gate operator is not subject to mechanical damage.
  - b. 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 6" (152 mm) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.

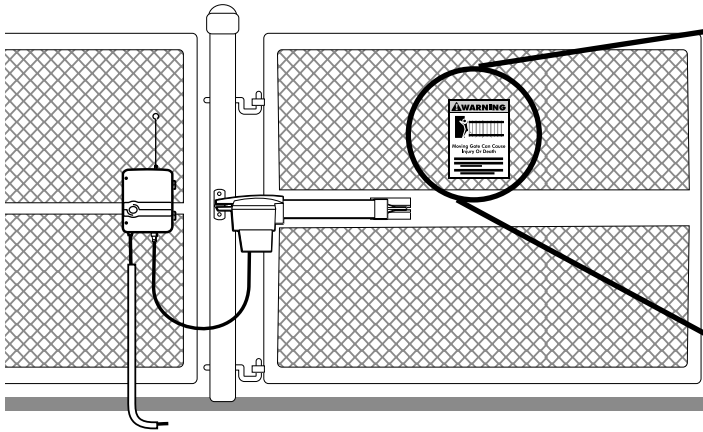


11. Never mount any device that operates the gate operator where the user can reach over, under, around or through the gate to operate the controls. Controls are to be placed at least 6' (1.8 m) from any part of the moving gate:
  - A hard wired control device shall be located and its wiring arranged so that communication between the control device and the gate operator is not subject to mechanical damage.



12. Controls intended to be used to reset an operator after 2 sequential activations of the entrapment protection device or devices must be located in the line of sight of the gate, or easily accessible controls shall have a security feature to prevent unauthorized use. Never allow anyone to hang on or ride the gate during the entire travel of the gate.
13. Each gate operator is provided with two safety warning placards. The placards are to be installed on the front and back of the gate where they are plainly visible. The placards may be mounted using cable ties through the four holes provided on each placard. All warning signs and placards must be installed where visible in the area of the gate.

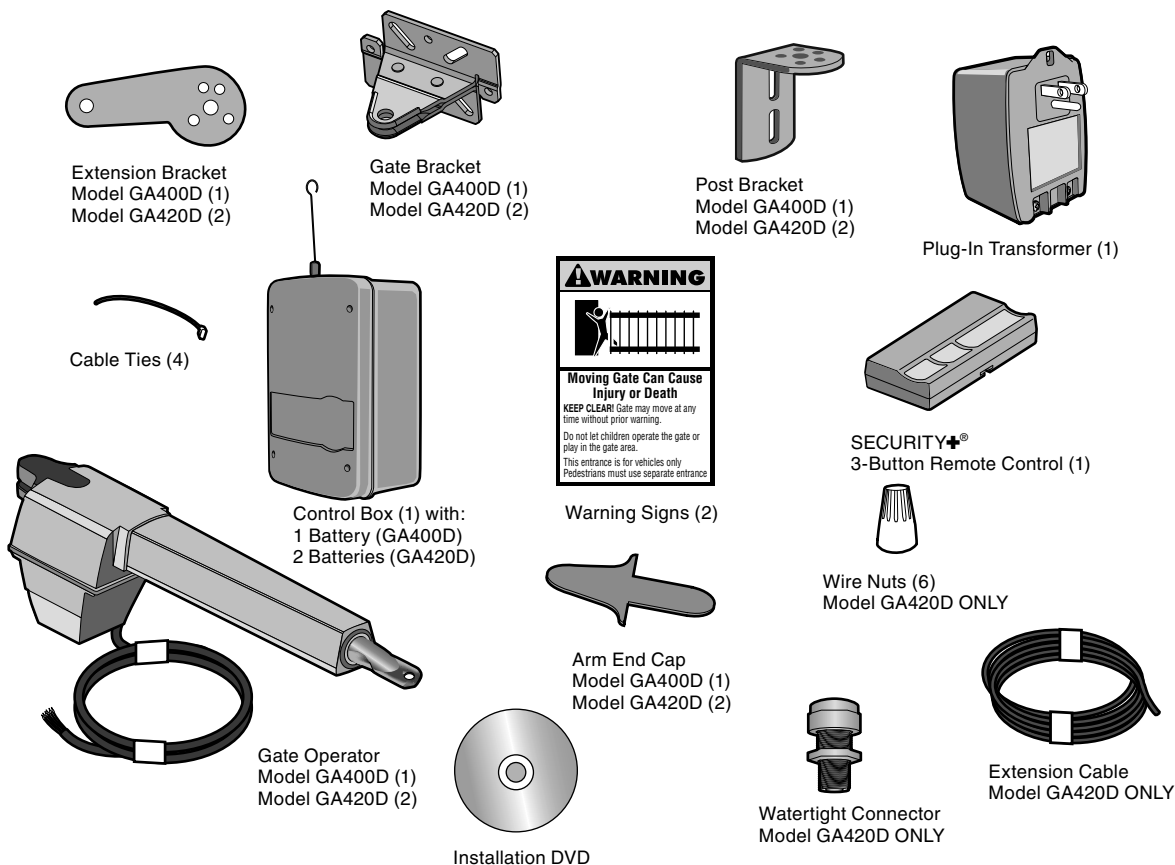
 <b>WARNING</b>
<p>To prevent <b>SERIOUS INJURY</b> or <b>DEATH</b> from a moving gate:</p> <ul style="list-style-type: none"> <li>• Install warning signs on the front and back of the gate in <b>PLAIN VIEW</b>.</li> <li>• Permanently secure each warning sign in a suitable manner using fastening holes.</li> </ul>



14. To **AVOID** damaging gas, power, or other underground utility lines, contact underground utility locating companies **BEFORE** digging.
15. **SAVE INSTRUCTIONS.**

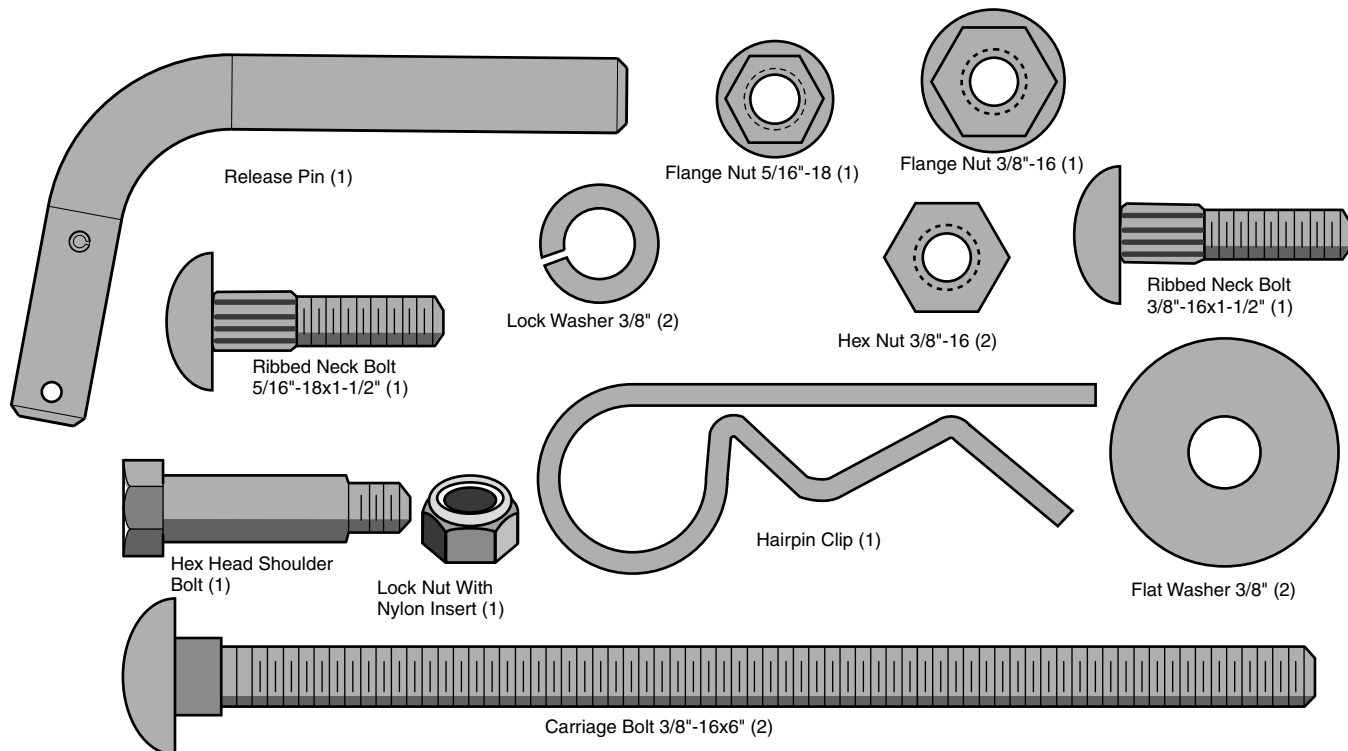
## Carton Inventory

This operator comes with the hardware to install on a gate that ***pulls-to-open***. If your application requires the gate to be ***pushed open***, accessory kit 919GA is required.



## Hardware Inventory

**NOTE:** Hardware quantities shown below are for GA400D. Quantities are doubled for GA420D.





## Additional Items For Purchase

The following items are **REQUIRED** to complete the installation.

### All Models:

#### SAFETY SENSORS

The Safety Sensors, model 916GA, are intended for installation with the operators covered in this manual. To order call: 1-866-826-4943 or visit [www.chamberlain-diy.com](http://www.chamberlain-diy.com).

#### HARDWARE

- 5/16" mounting hardware for gate bracket.
- The following hardware is needed to mount the control box depending on the mounting surface:

**Wood:** Four #8 1-1/4" zinc plated wood screws.

**Metal:** Four #10-32x6" zinc plated machine screws with nut and lock washers.

**Concrete, Brick, etc.:** Four 1/4" x 1-3/4" masonry screws.

#### LOW VOLTAGE WIRE

The low voltage wire is needed to connect the transformer to the control box. The specific length required depends on the distance from the indoor outlet to the control box. Measure carefully, it is not recommended to splice low voltage wire.

UL approved Class 1 or Class 3 direct burial/underground, sunlight/UV resistant 16 gauge 2-conductor/stranded low voltage lighting wire.

The following products are available at most home center hardware stores and meet these specifications:

- Chamberlain Models 917GA or 918GA

#### AUTOMATIC GATE LOCK AND HARD STOPS (OPTIONAL)

In windy areas to ensure the gate stops at the same place each time we recommended the purchase of an automatic gate lock for the closed position and hard stop(s) for the open position.

### GA420D Only:

#### JUNCTION BOX

The Junction Box is needed to connect the second arm to the extension cable (GA420D Installation Only).

- UL Listed outdoor/all-weather junction box with a minimum of two 3/4" NPT threaded port and appropriate all-weather cover.
- Conduit fitting to connect 3/4" PVC Schedule 40 conduit to junction box.

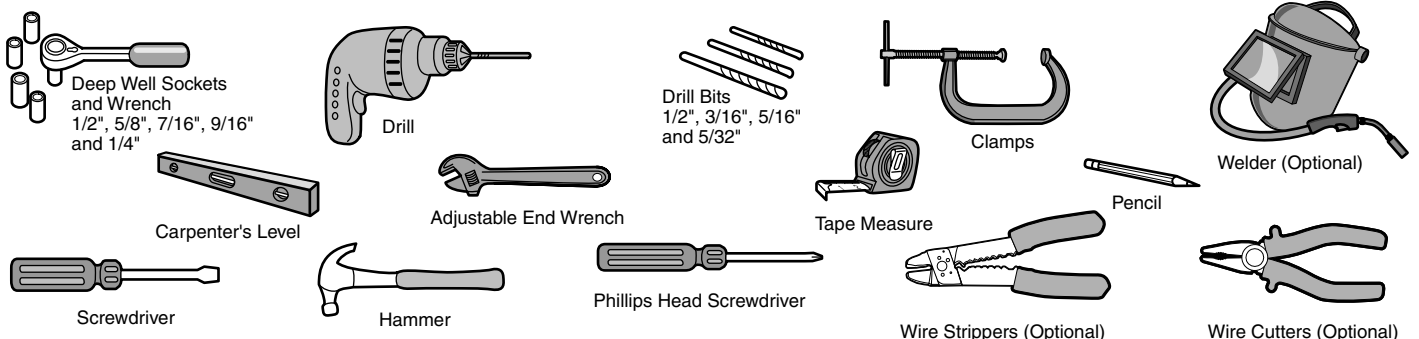
#### CONDUIT

The conduit is needed to hold the interconnecting cable between the Junction and Control Box (GA420D Installation Only).

- 3/4" diameter UL Listed outdoor electrical conduit

## Tools Needed

During assembly, installation and adjustment of the operator, instructions will call for tools as illustrated below.



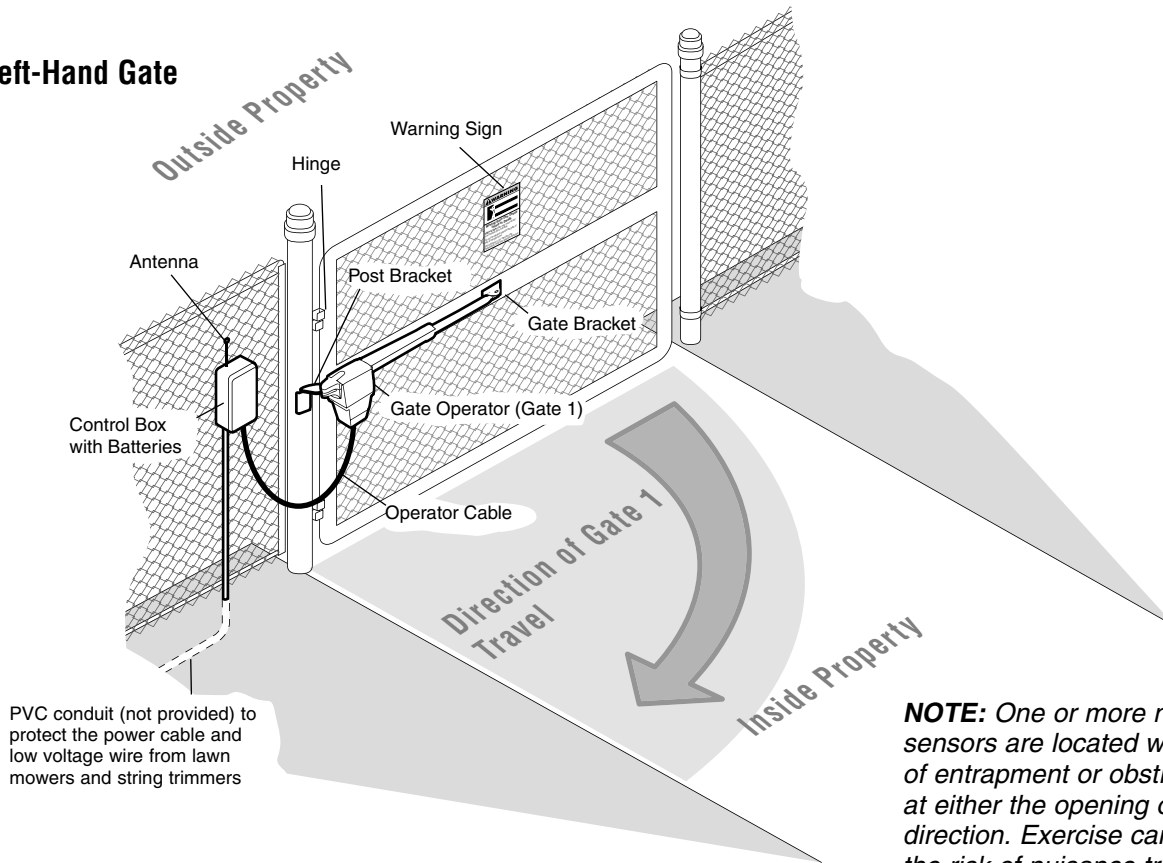
# PREPARATION AND OVERVIEW

## Single Gate Overview

### **WARNING**

To prevent **SERIOUS INJURY** or **DEATH**; one or more non-contact sensors shall be located where the risk of entrapment or obstruction exists.

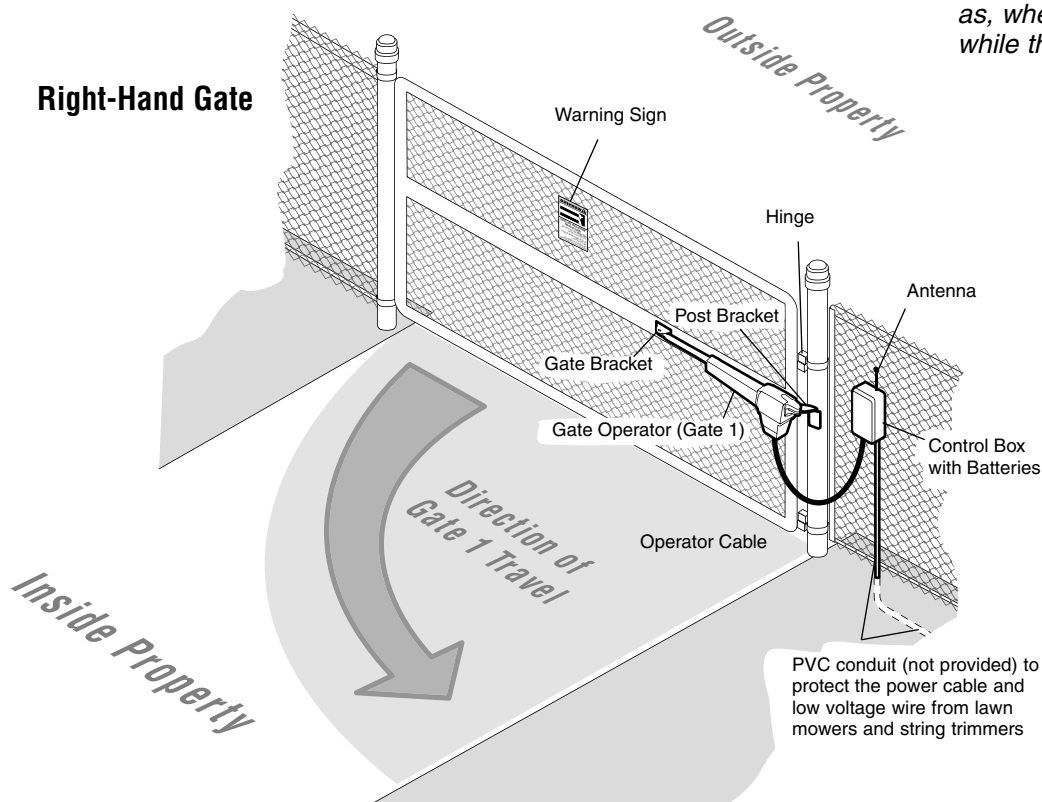
### Left-Hand Gate



PVC conduit (not provided) to protect the power cable and low voltage wire from lawn mowers and string trimmers

**NOTE:** One or more non-contact sensors are located where the risk of entrapment or obstruction exists at either the opening or closing direction. Exercise care to reduce the risk of nuisance tripping, such as, when a vehicle trips the sensor while the gate is still moving.

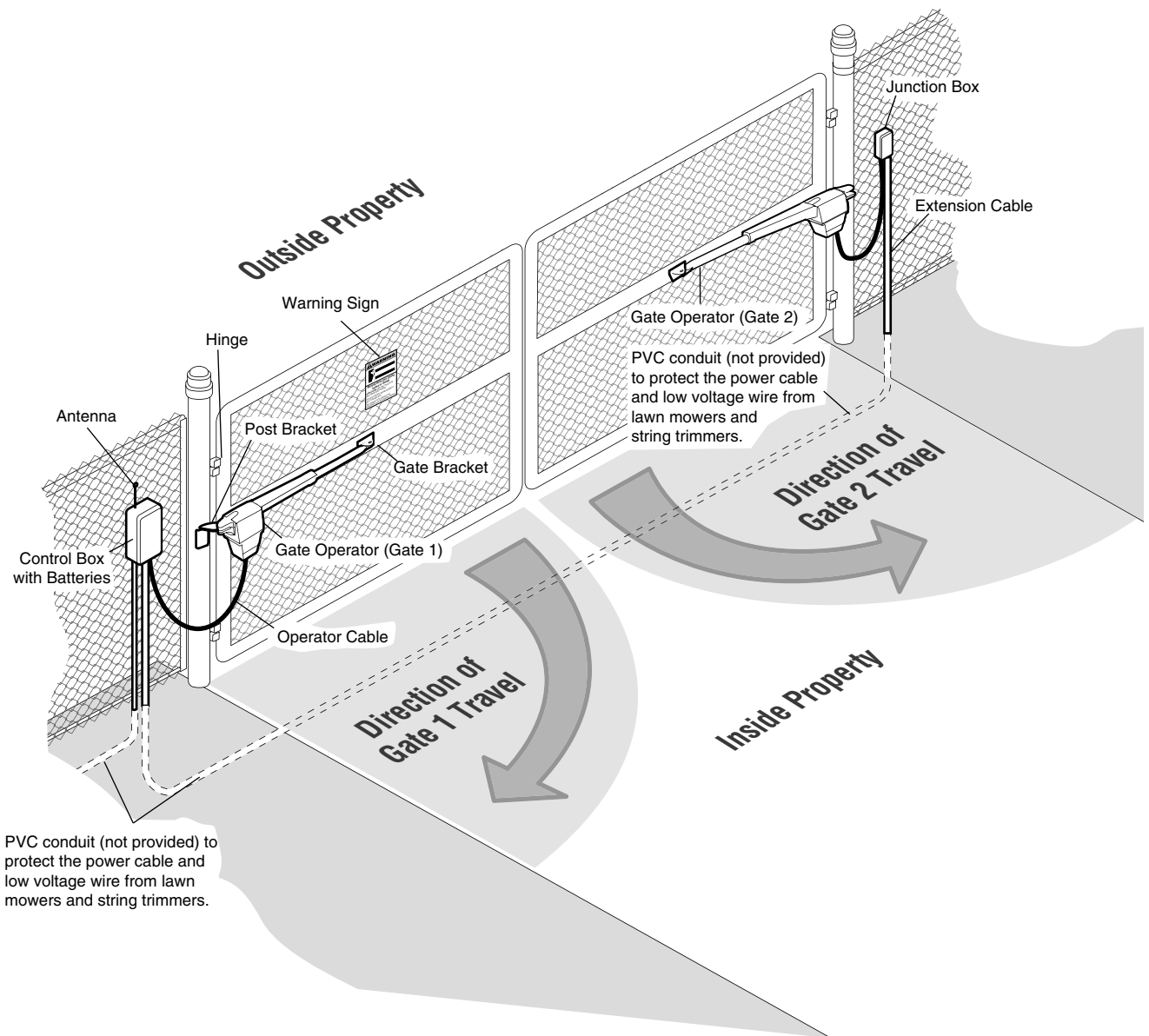
### Right-Hand Gate



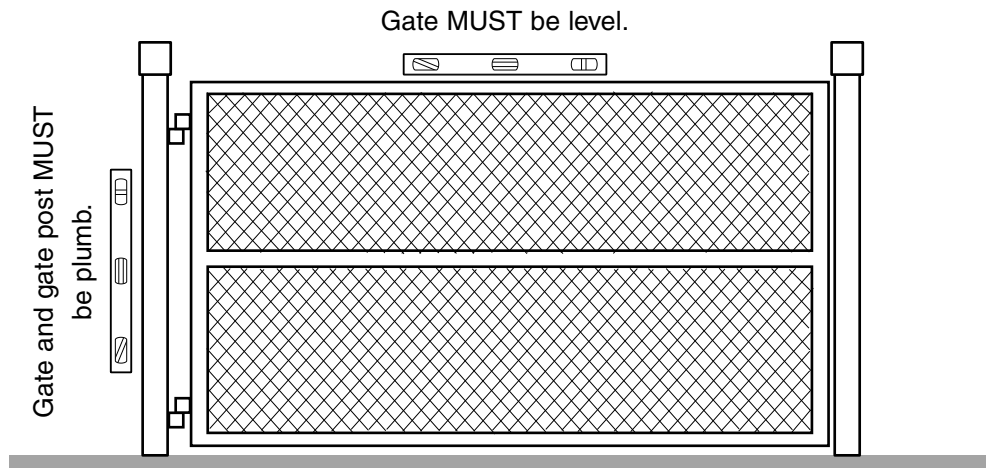
PVC conduit (not provided) to protect the power cable and low voltage wire from lawn mowers and string trimmers



# Dual Gate Overview

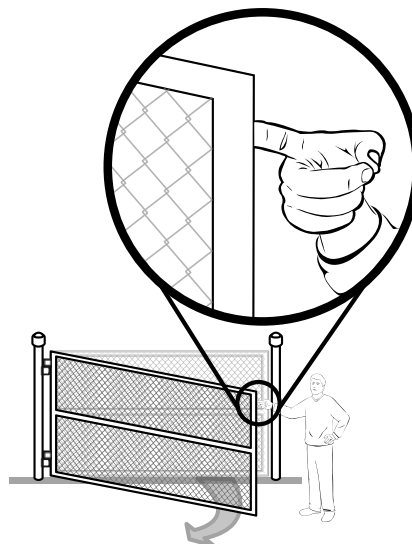
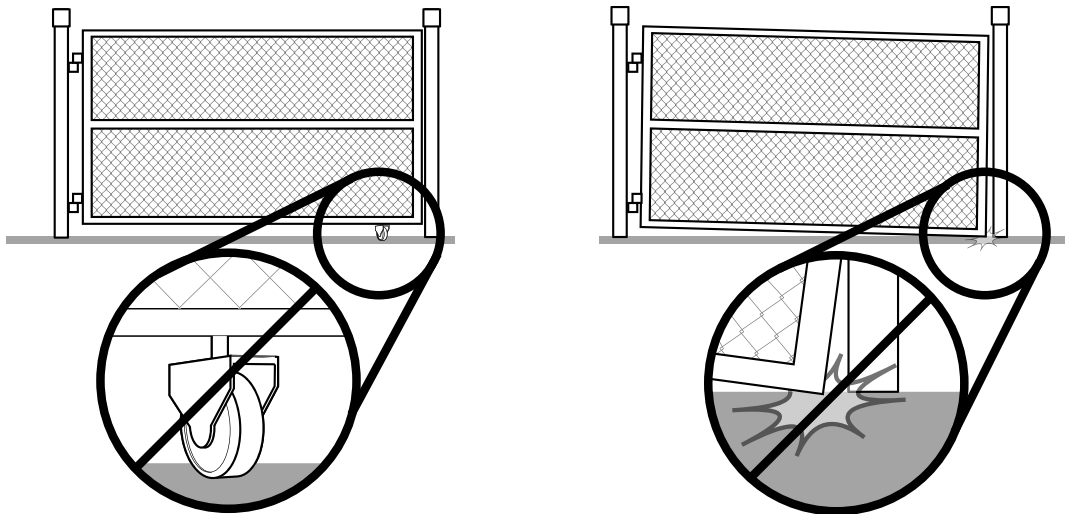


# Check Your Gate



Remove ANY/ALL wheels from the bottom of gate.

Gate MUST NOT hit or drag across ground.



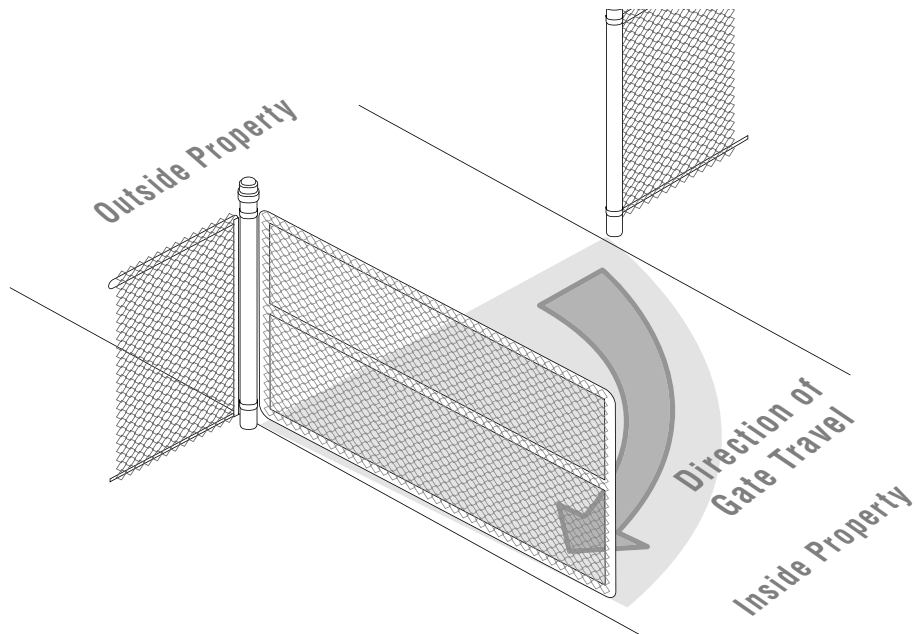
Gate MUST swing freely and be supported entirely by its hinges.

## Gate Travel

Determine how your gate is to be opened.

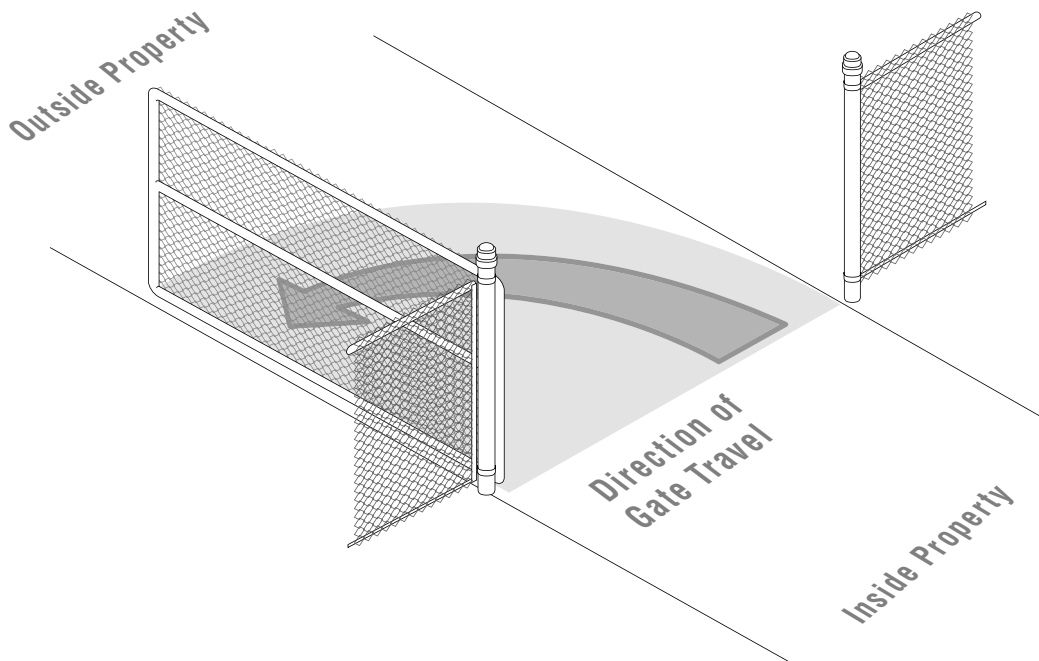
### Pull-to-Open

Gate opens into the property. Bracket for **Pull-To-Open** installation is provided.



### Push-to-Open

Gate opens away from the property and will require the **Push-to-Open** kit 919GA. Refer to the **Push-To-Open** kit for instructions.



## Mounting Options

Mounting locations vary depending on type and style of your gate.

### NOTES:

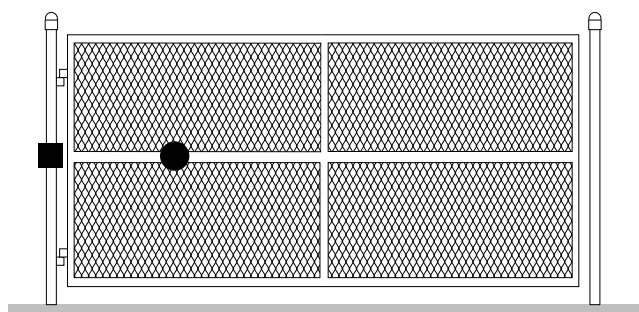
- The top of operator must be mounted at least 10" up from ground. Environmental conditions should be considered at this time. In windy areas to ensure the gate stops at the same place each time we recommended the purchase of an automatic gate lock for the closed position and hard stop(s) for the open position.
- Not recommended for plastic or vinyl gates. Refer to gate manufacturer for recommendation and options.

Recommended:

■ = Gate post bracket mounting locations

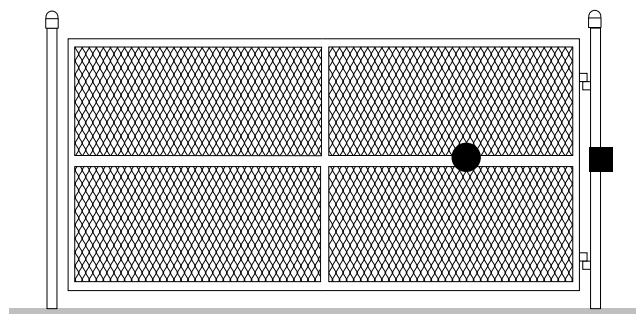
● = Gate bracket mount locations

### Left-Hand Hinge Mounted

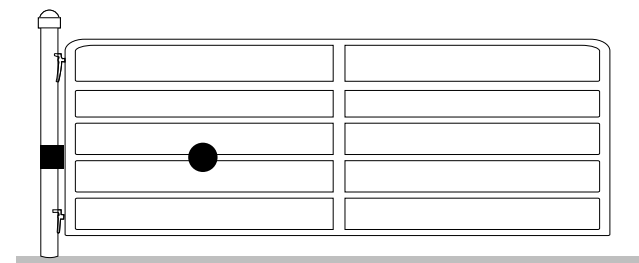


Typical Chain Link Gate

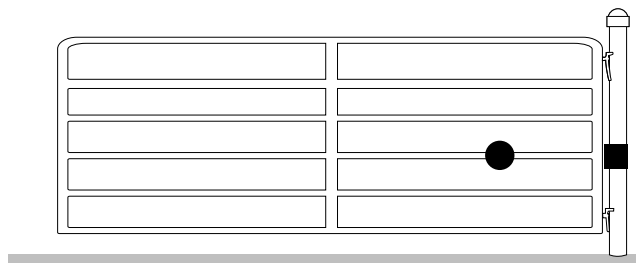
### Right-Hand Hinge Mounted



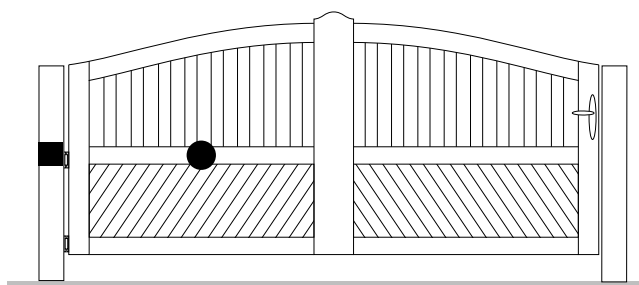
Typical Chain Link Gate



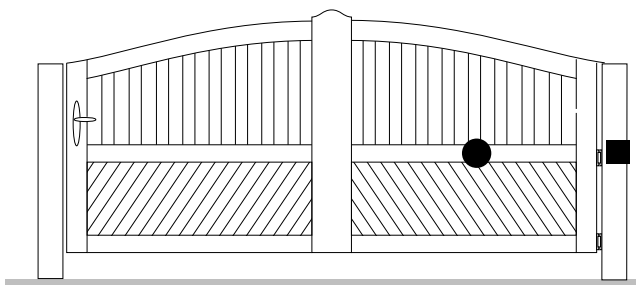
Typical Farm/Ranch Gate



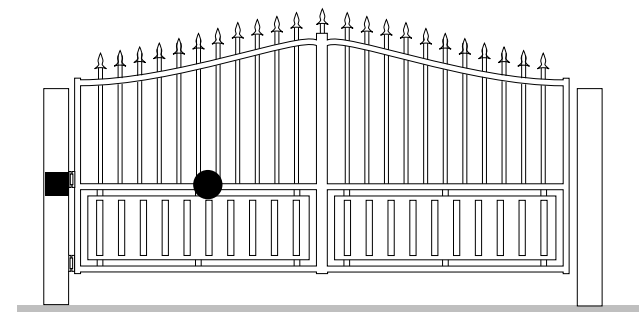
Typical Farm/Ranch Gate



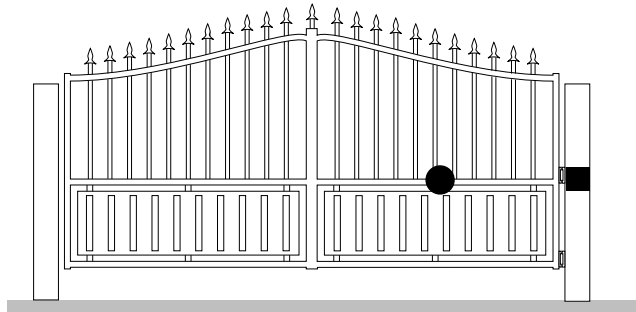
Typical Wood Gate



Typical Wood Gate



Typical Tubular Metal Gate



Typical Tubular Metal Gate

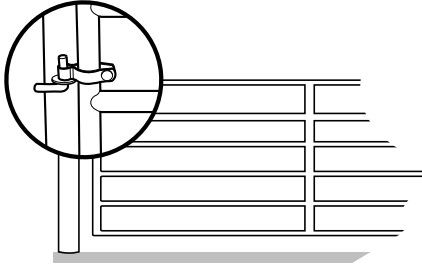
# INSTALLATION

## Attach Operator to Gate

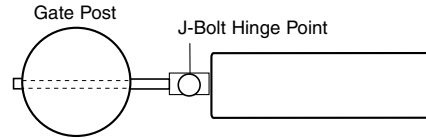
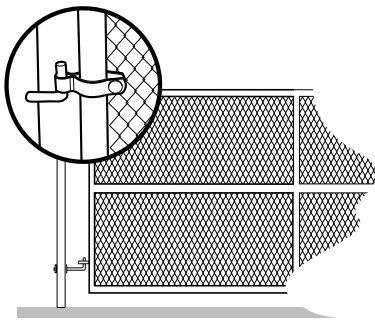
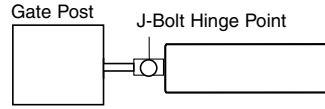
### 1 Identify Hinge Type

The illustrations below show common gate hinges. There are many styles of hinges available.

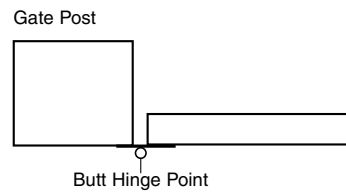
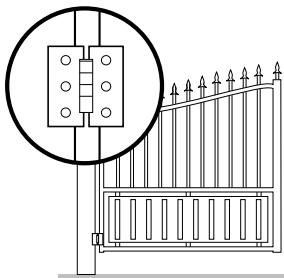
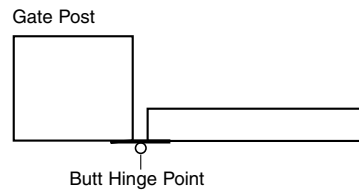
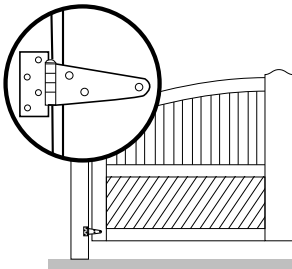
#### J-Bolt Hinge



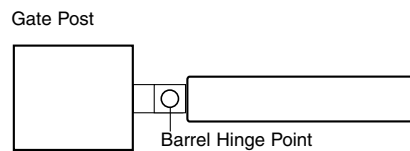
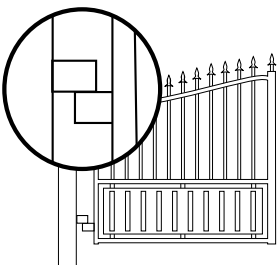
#### Top View



#### Butt Hinge



#### Barrel Hinge



## 2 Measuring and Marking for the Gate Bracket

Before proceeding, begin with the gate in the fully **closed** position. There are two methods described to determine proper location of the post brackets:

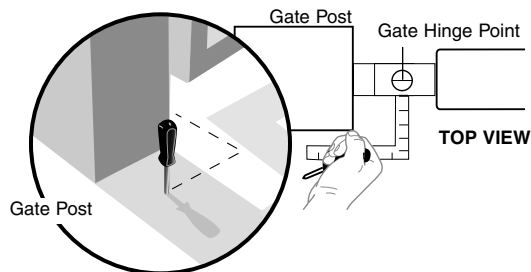
- Paper template (to be cut out) located on the back page of this manual.
- Tape measure.

Either method will work depending on preference. **NOTE:** Be sure gate is in **closed** position before proceeding.

### Template Method

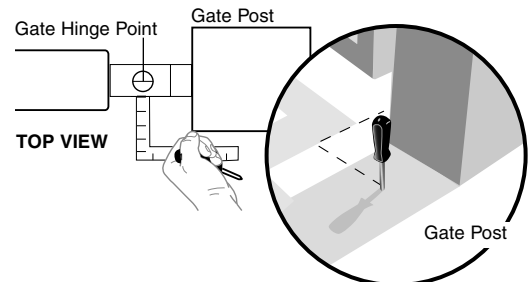
Place the template (provided on the back page) under the gate hinge point. Use a screwdriver or dowel rod to temporarily mark the location in front of the gate post.

#### Left Side Bracket Mounting



Use a screwdriver or dowel rod to temporarily mark measurement.

#### Right Side Bracket Mounting

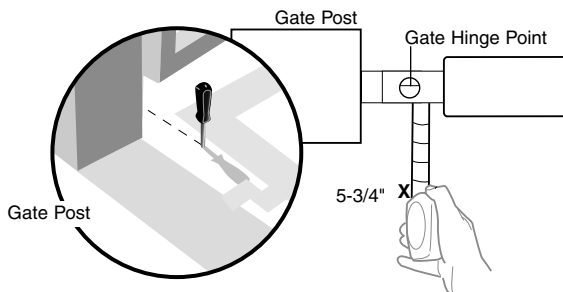


Use a screwdriver or dowel rod to temporarily mark measurement.

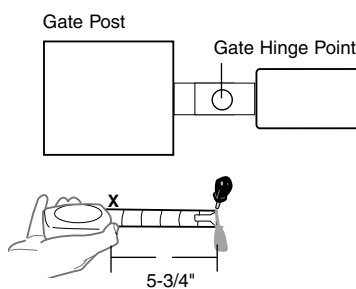
### Tape Measure Method

Place the measuring tape under the gate hinge point and measure 5-3/4". Use a screwdriver or dowel rod to temporarily mark the location of the first measurement.

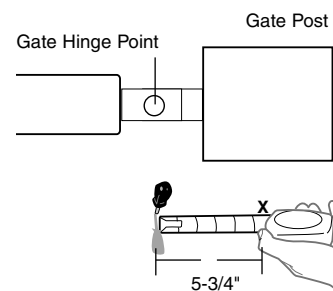
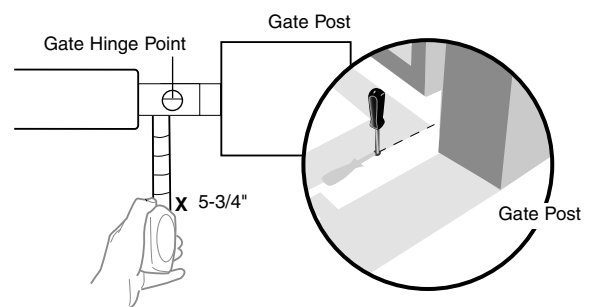
#### Left Side Bracket Mounting



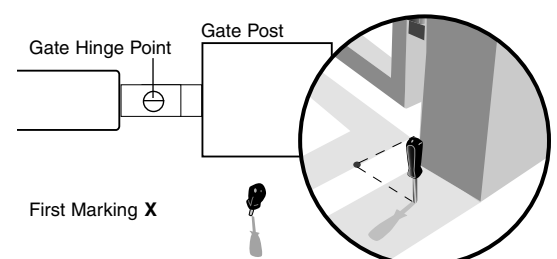
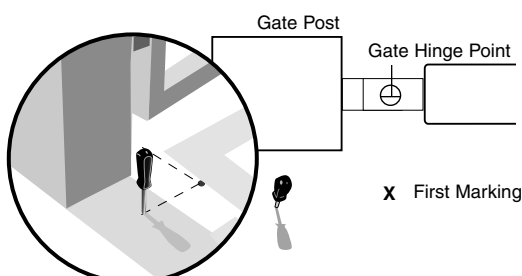
Measure 5-3/4" from the previous mark.



#### Right Side Bracket Mounting



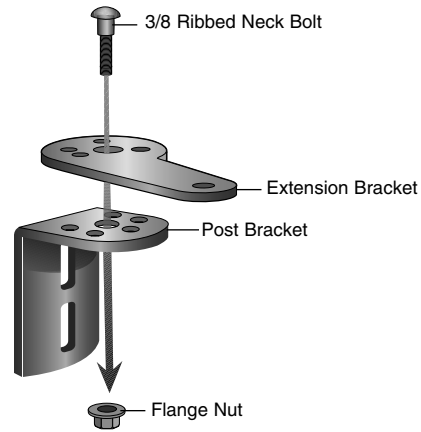
Use the screwdriver or dowel rod to mark the location of the second measurement.



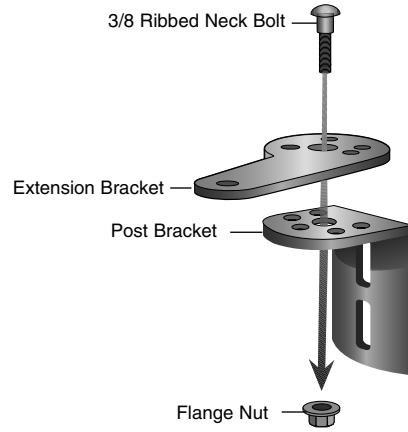
### 3 Position the Extension Bracket to Post Bracket

Assemble post bracket by placing the extension bracket on top of post bracket. Insert bolt through brackets and fasten with flange nut. **DO NOT TIGHTEN AT THIS TIME.**

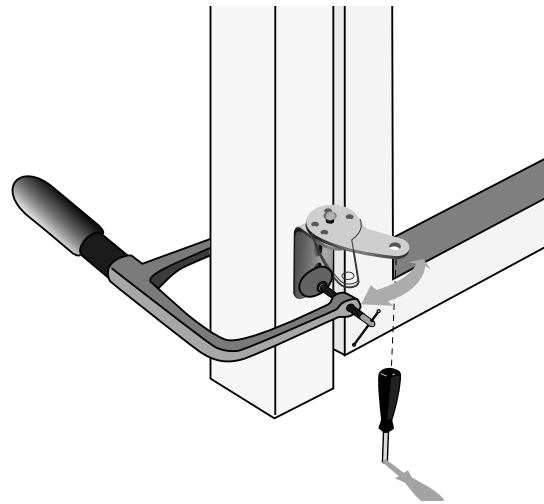
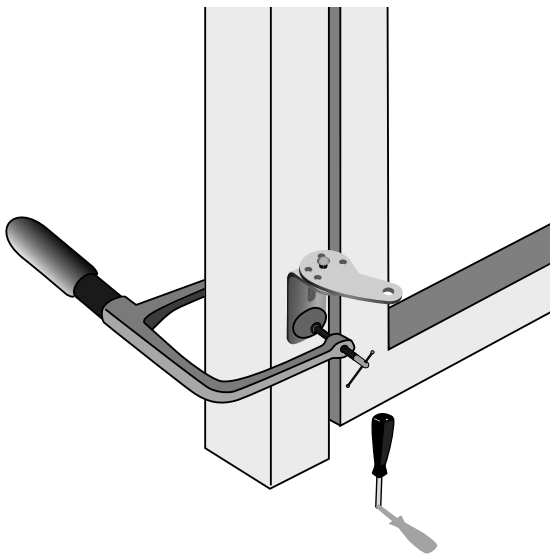
Left-Hand Gate



Right-Hand Gate



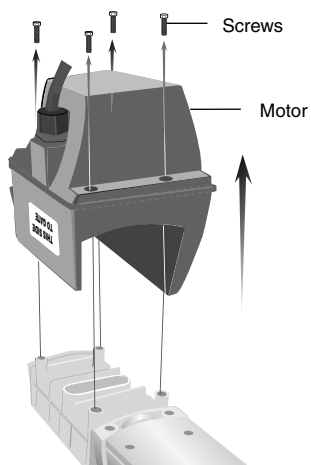
Hold post bracket in desired position. Align extension bracket to a position as **CLOSE AS POSSIBLE** above the marker.



## 4 Remove Motor Assembly

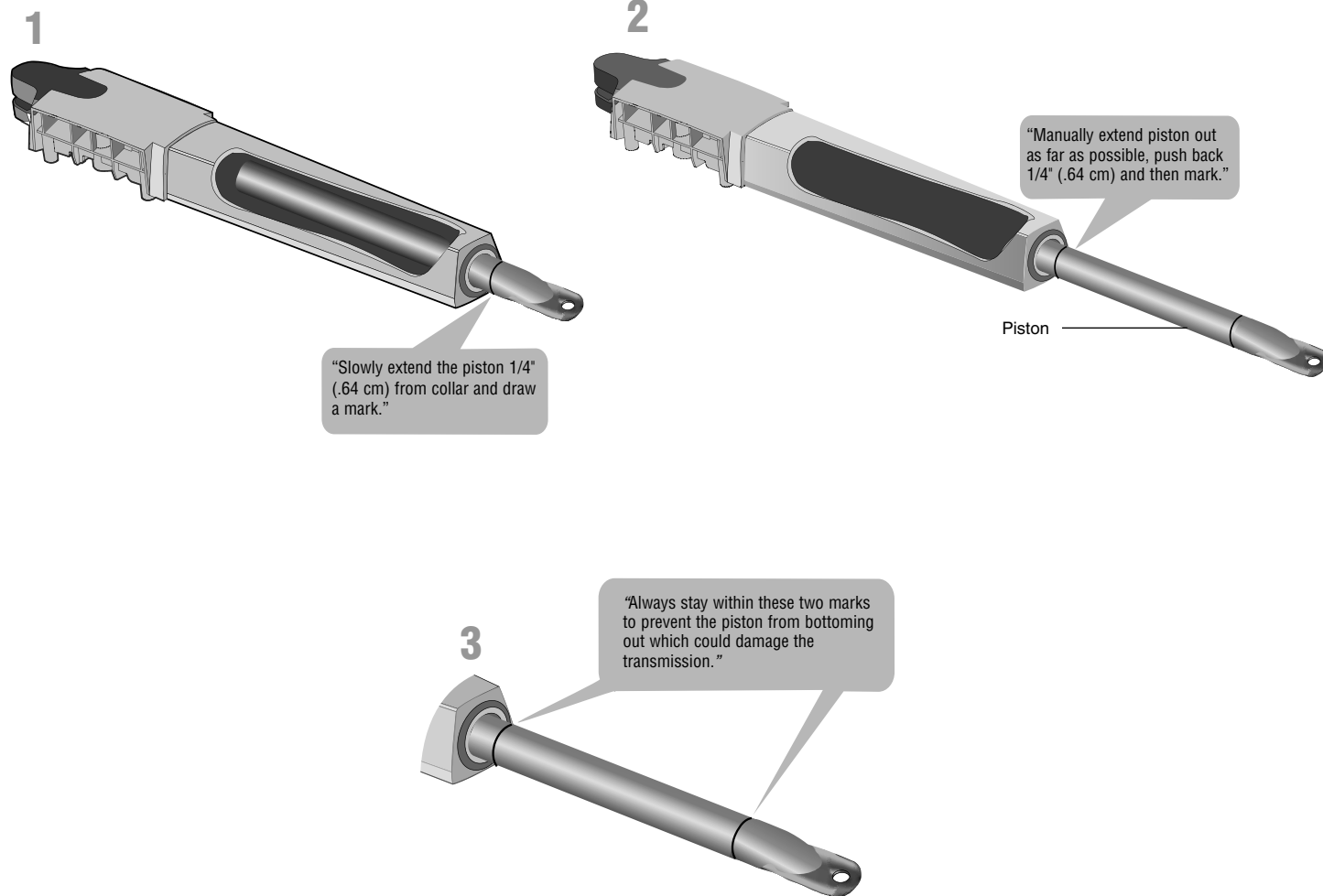
Remove screws (4) and remove motor assembly. Set motor aside and place in clean, dry location.

**NOTE:** Turn operator over to remove screws.



## 5 Determine Maximum Piston Travel

To ensure proper operation, it is essential to keep the piston from extending and retracting completely.





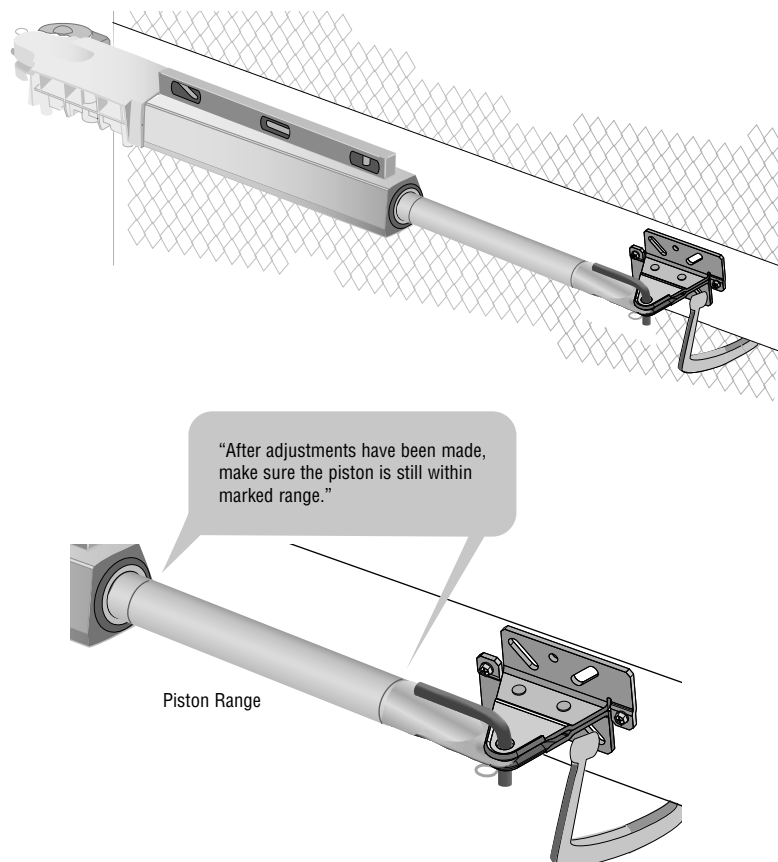
## 6 Attach Brackets to Gate Operator

Attach post bracket to gate operator using hex head shoulder bolt and lock nut with nylon insert. Attach gate bracket to operator using release pin and hairpin clip.



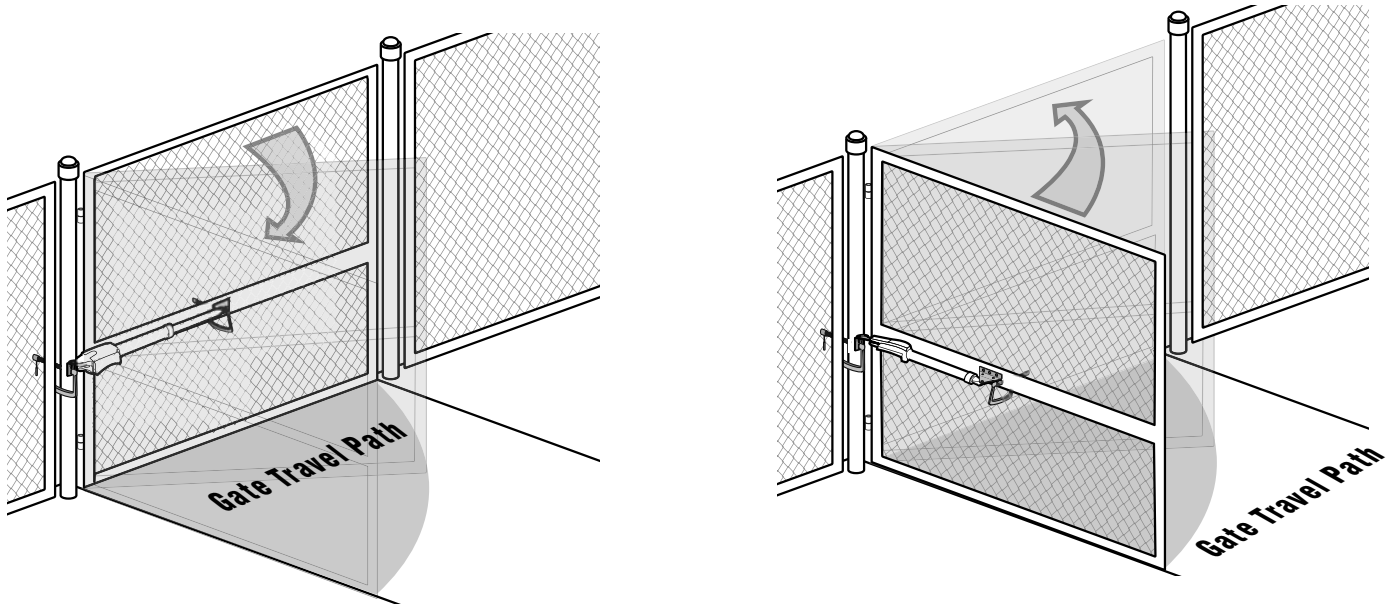
## 7 Position Gate Bracket

Hold the gate operator against the gate. The gate operator (arm) must be level. Clamp bracket to gate. Some installations require a reinforcement be installed on the gate.



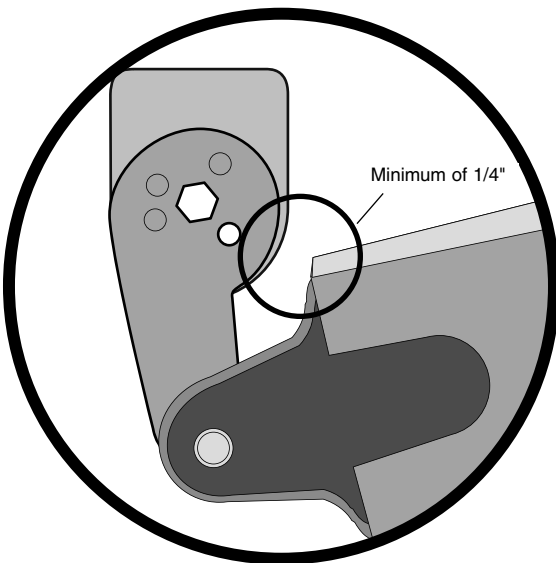
## 8 Check Piston Travel

Visually check the clearance. Holding the gate firmly, slowly walk the gate to the fully open position. Check for pinch points at the post mount area.



Allow a minimum of 1/4" between the post bracket and operator. Adjust gate bracket if the piston marks are not visible in both the open and close direction. Tighten both bolts after final adjustments are made. Bolts should be fully seated into the brackets.

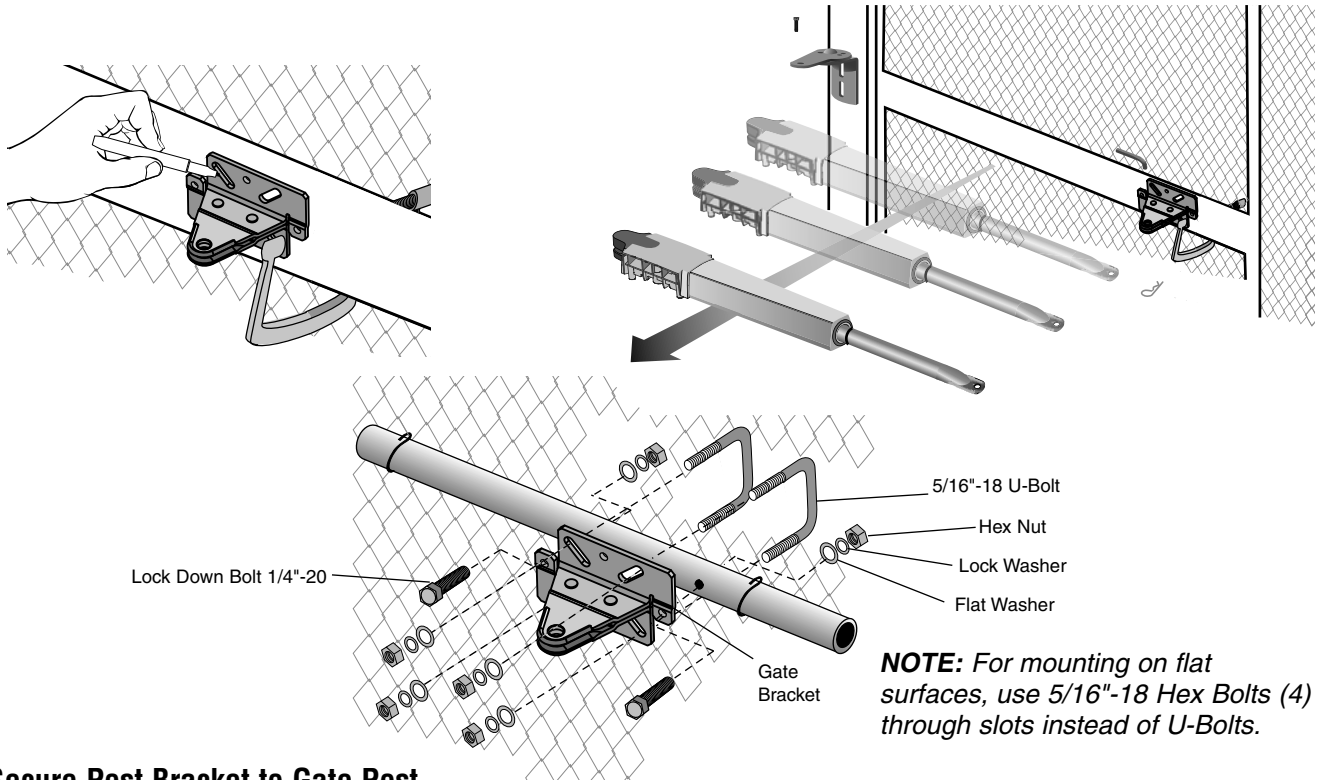
**NOTE:** If gate does not open and close completely, adjust the position of the gate bracket.



## 9 Secure Gate Bracket to Gate

Remove the operator from the brackets. Mark and drill holes in gate or reinforcement (if necessary) according to gate bracket mounting hardware. Secure the gate bracket to gate using hardware (not provided).

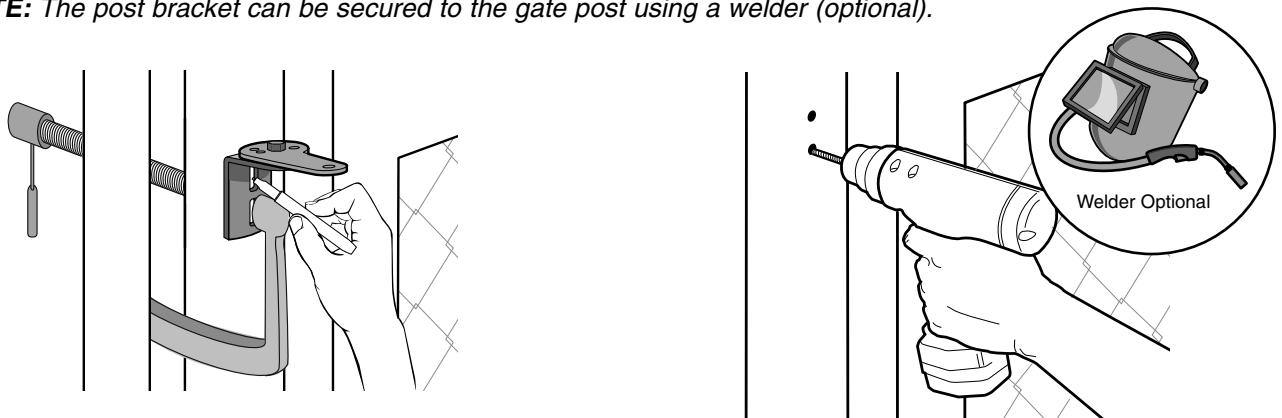
**NOTE:** The gate bracket can be secured to the gate using a welder (optional).



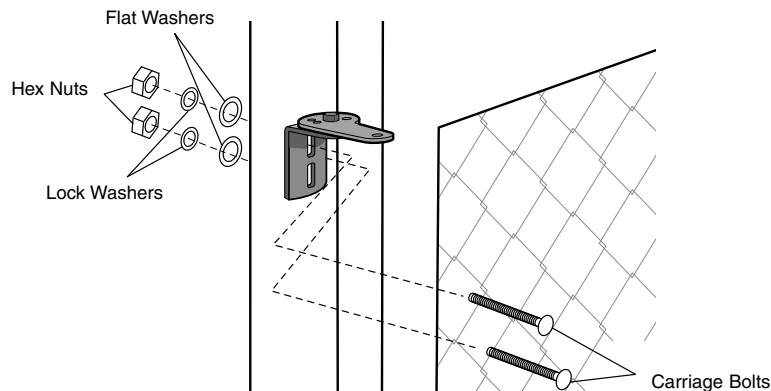
## 10 Secure Post Bracket to Gate Post

Mark holes for the post bracket. Remove the clamp and operator. Drill clearance holes for 3/8"-16 bolt in gate post.

**NOTE:** The post bracket can be secured to the gate post using a welder (optional).



Secure the post bracket to gate post using hardware. The gate operator (arm) must be level.



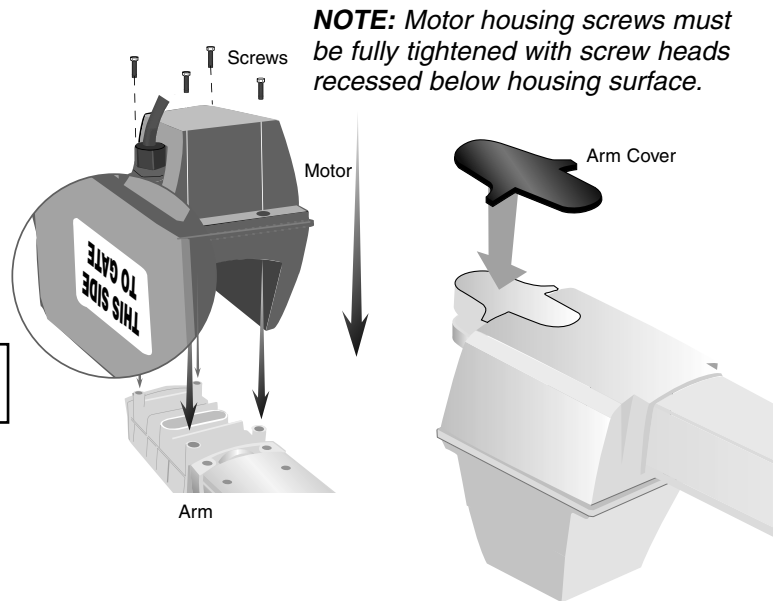
# 11 Reattach Motor Assembly

Slide motor assembly onto arm and secure with screws (4). **NOTE:** Turn operator over to re-install screws. Attach arm cover.

If installing a second gate operator repeat steps 1-12.

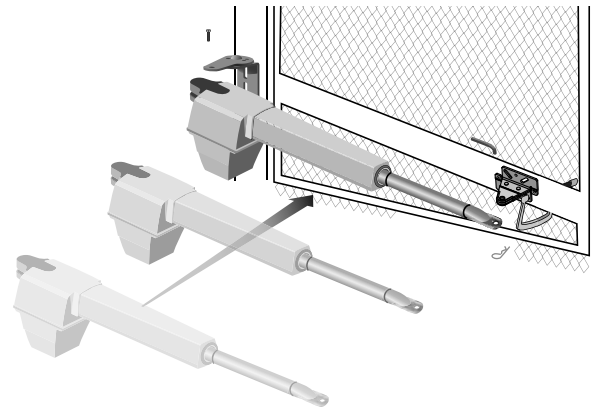
**NOTE:** The arm brackets must be reversed or mirrored on the second operator.

**“THIS SIDE TO GATE”**  
label MUST face the gate.



# 12 Attach Operator to Gate and Bracket

Make sure **“THIS SIDE TO GATE”** label faces the gate when reattaching operator to gate. Tighten all bracket connections.



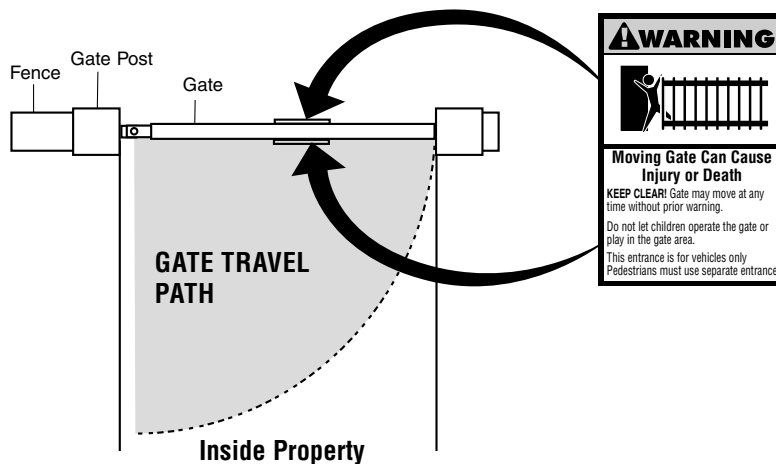
# 13 For Model GA420D Only

Repeat Steps 1-12 for second operator.

# 14 Warning Sign Placement

Warning placards **MUST** be installed on both sides of the gate and in plain view. Fasten to gate with cable ties.

<b>⚠ WARNING</b>
To prevent <b>SERIOUS INJURY</b> or <b>DEATH</b> from a moving gate:
<ul style="list-style-type: none"><li>• Install warning signs on the front and back of the gate in <b>PLAIN VIEW</b>.</li><li>• Permanently secure each warning sign in a suitable manner using fastening holes.</li></ul>

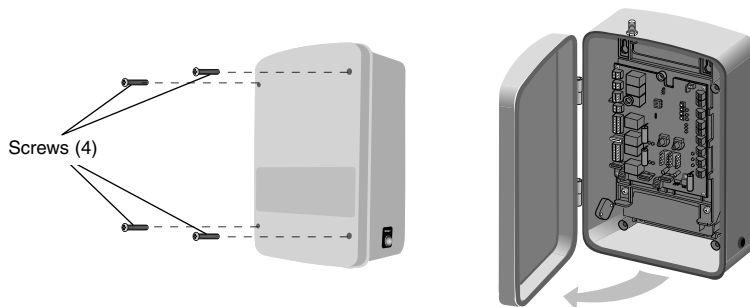


## Mount the Control Box

The control box **MUST** be mounted within 5' of the gate operator. Mount the control box as high as possible for best radio reception.

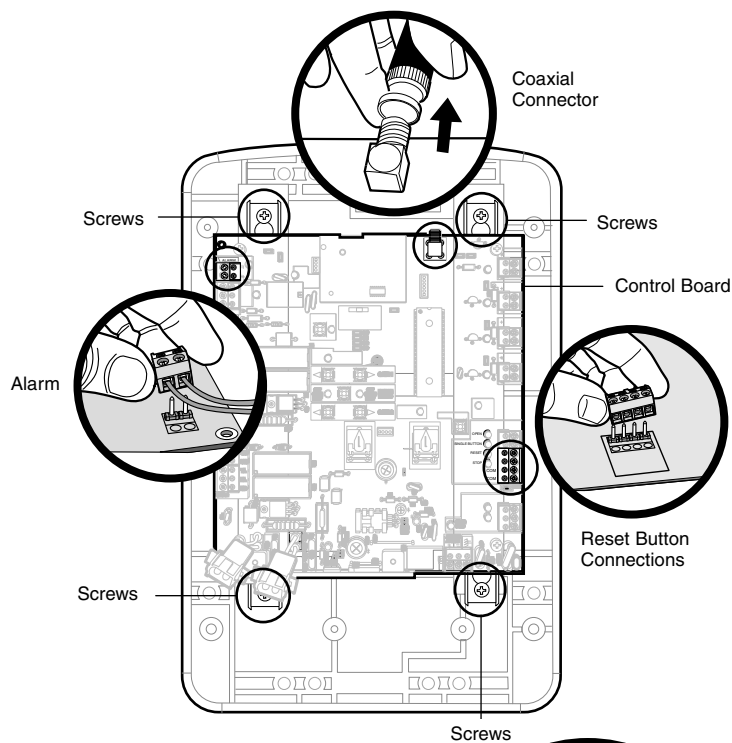
### 1 Open the Control Box

Remove screws and open the control box.



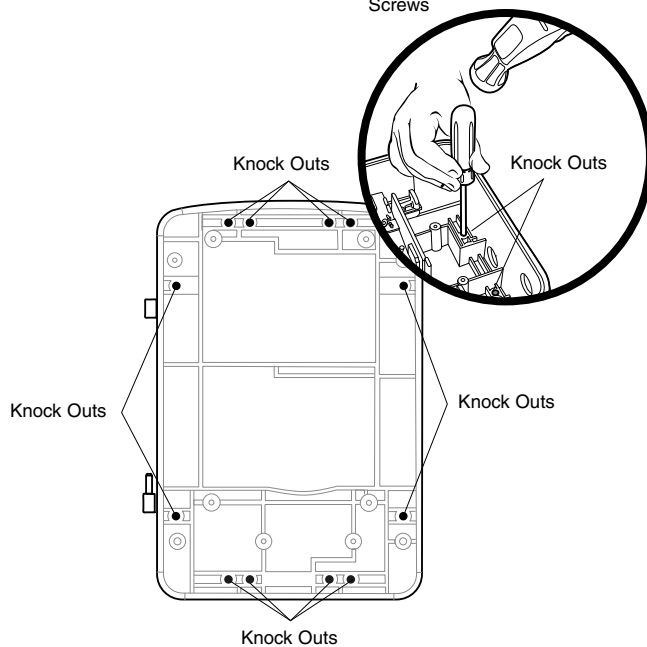
### 2 Remove the Control Board

Disconnect reset button, alarm and coaxial connector. Loosen screws and remove control board and mounting bracket. Remove batteries and set aside.



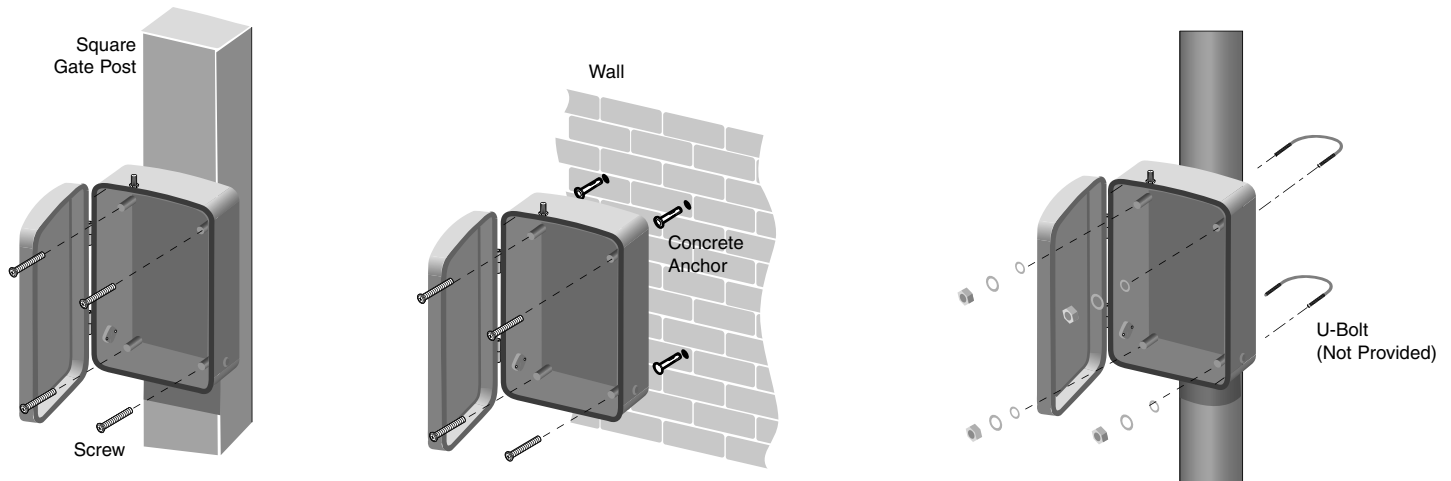
### 3 Select Mounting Holes

Select holes to be used for mounting and knock out using a screwdriver and hammer.



## 4 Mount the Control Box

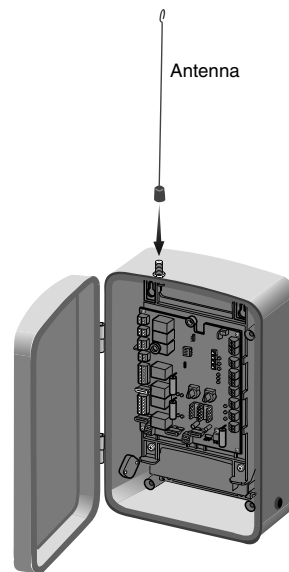
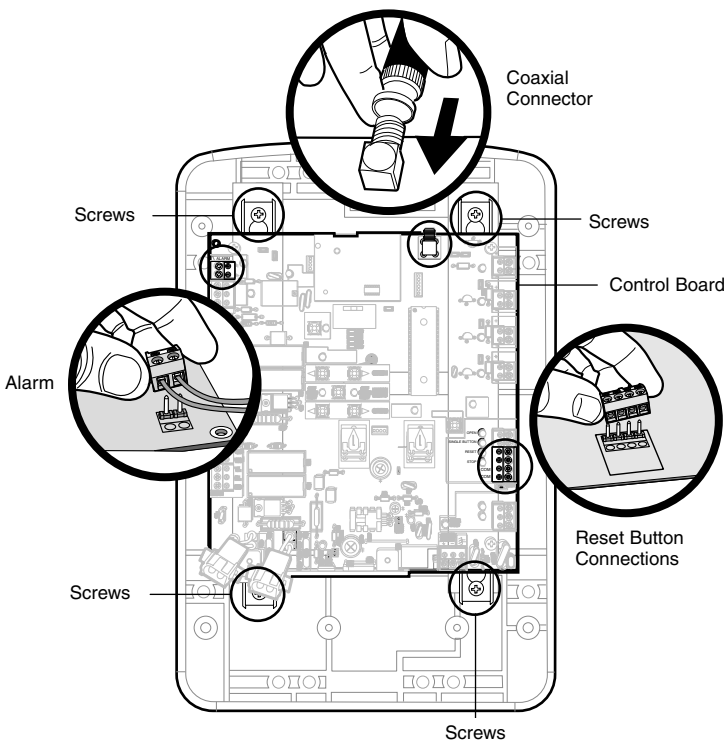
Secure the control box to mounting surface (post, wall, column, etc.) using appropriate hardware (not provided).



## 5 Install the Control Board

Attach antenna. Reinstall batteries, control board, alarm, and reset button. Reconnect coaxial connector.

**NOTE:** Make sure battery leads are on the left side of the control box and not pinched.



# WIRING

## WARNING

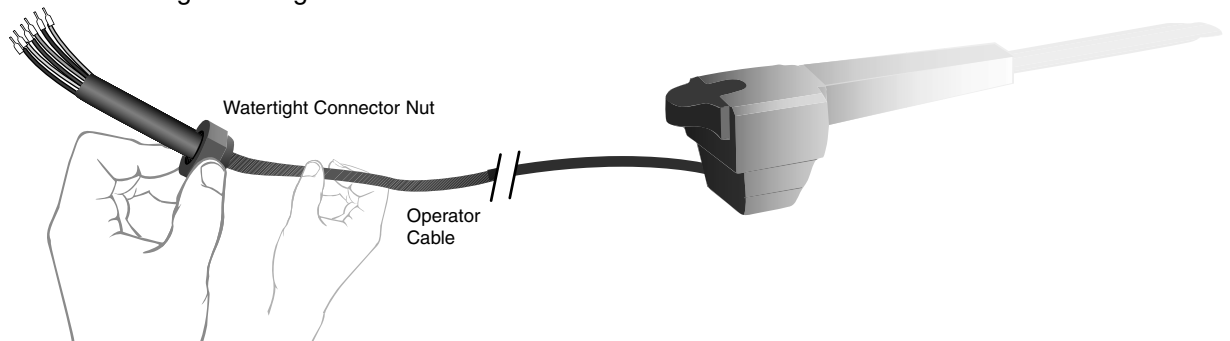
To reduce the risk of SEVERE INJURY or DEATH:

- ANY maintenance to the operator or in the area near the operator MUST not be performed until disconnecting the electrical power and locking-out the power via the operator power switch. Upon completion of maintenance the area MUST be cleared and secured, at that time the unit may be returned to service.
- Disconnect power at the fuse box BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with local electrical codes. **NOTE:** The operator should be on a separate fused line with a 15 amp circuit breaker.
- ALL electrical connections MUST be made by a qualified individual.
- DO NOT install ANY wiring or attempt to run the operator without consulting the wiring diagram. We recommend that you install an optional reversing edge BEFORE proceeding with the control station installation.
- ALL power wiring should be on a dedicated circuit and well protected. The location of the power disconnect should be visible and clearly labeled.
- ALL power and control wiring MUST be run in separate conduit.
- BEFORE installing power wiring or control stations be sure to follow ALL specifications and warnings described below. Failure to do so may result in SEVERE INJURY to persons and/or damage to operator.

## Connect Gate Operator (Gate 1) to Control Box

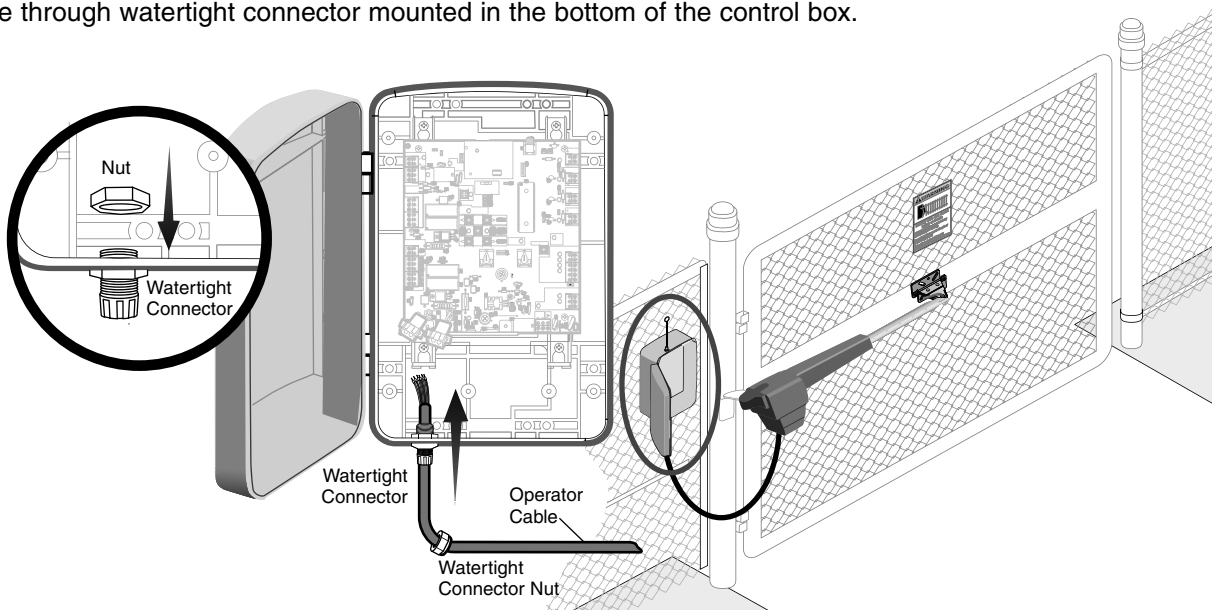
### 1 Watertight Connector Nut

Insert operator cable through watertight connector nut.



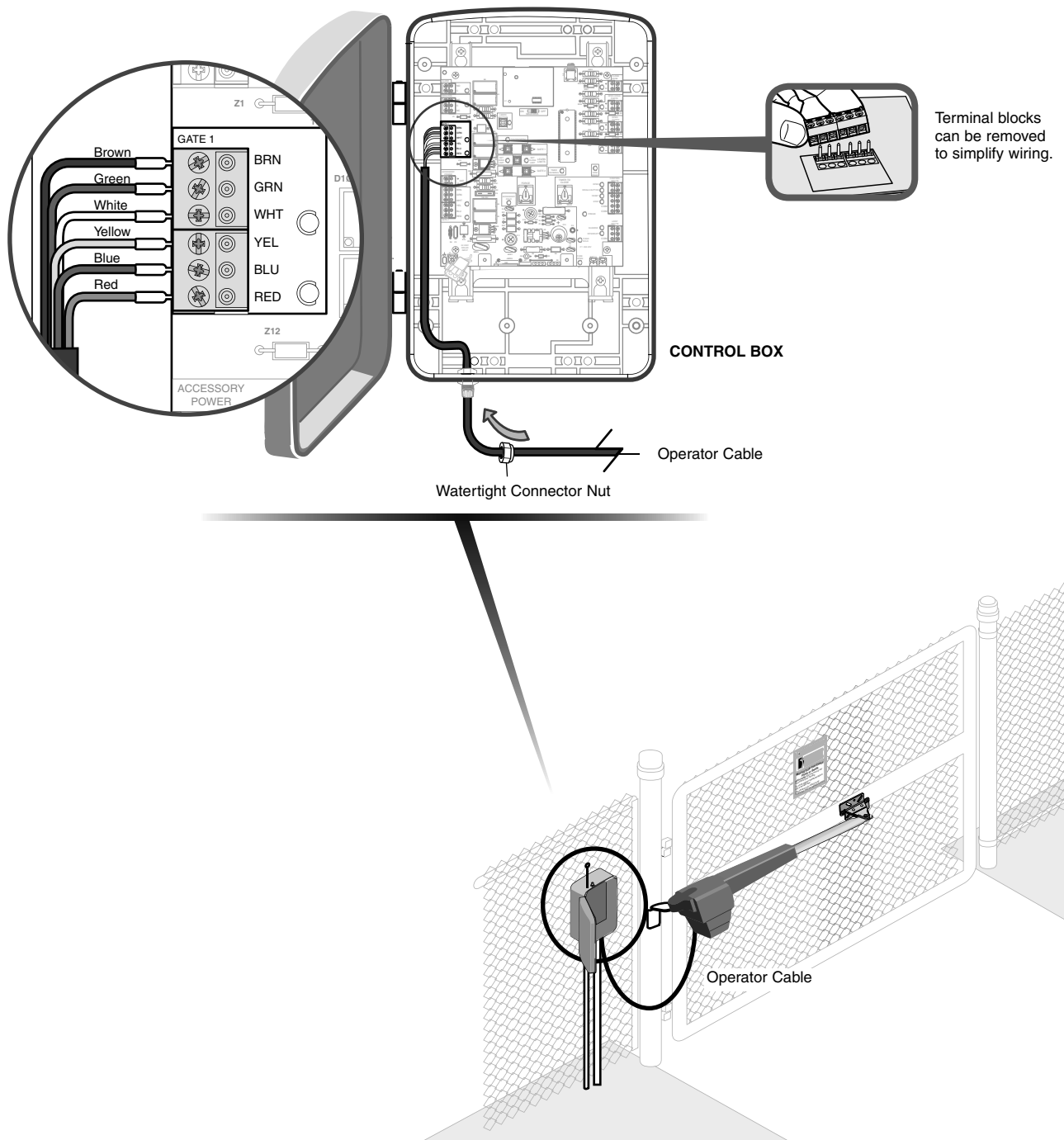
### 2 Insert Operator Cable

Insert watertight connector into the bottom of the control box and tighten with nut. Insert operator cable through watertight connector mounted in the bottom of the control box.



### 3 Connect Operator to Control Board

Extend operator cable and wires to **GATE 1** connector and connect as shown. Tighten watertight connector nut.



If installing one operator, proceed to page 29.

If installing two operators, continue to the next page.



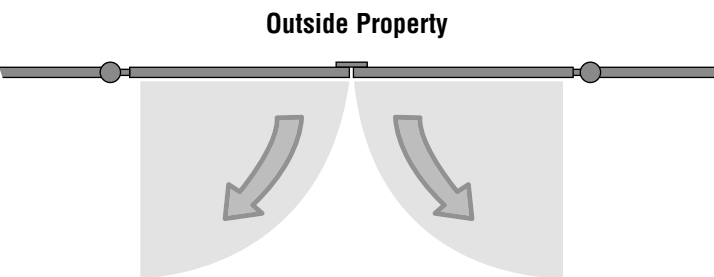
## Connect Gate Operator (Gate 2) to Control Box (Model GA420D Only)

Occasionally in dual gate installations, one gate would need to open first and close second. This would happen if there was an ornamental overhang on one gate or if using a solenoid lock, for example. This gate is called the Primary gate and needs to be connected to Gate 1 connections on the control board. Thus, it is preferred that the control box be installed on the same side as this gate. If there is no appropriate location on that side for the control box, then mount the control box on the opposite side, but connect the operator closest to the control box to the Gate 2 connector and the operator on the opposite side to the Gate 1 connector.

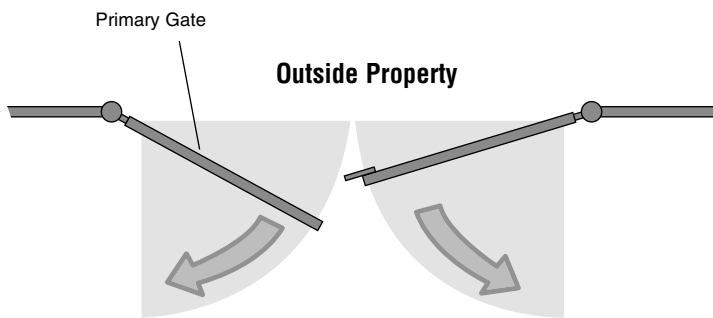
## Set the Lock/Bipart Delay

The **LOCK/BIPART DELAY** switch on the control board needs to be set to the ON position.

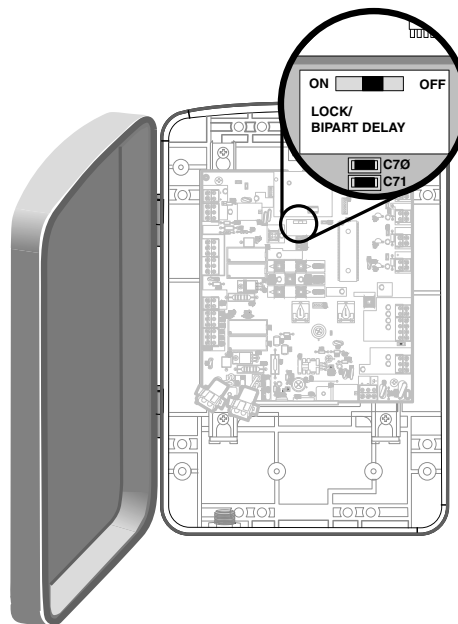
The following illustration shows a dual gate configuration with a decorative overlapping piece on the outside of the gate.



Primary Gate - Connect to Gate 1 Connector on Control Board.



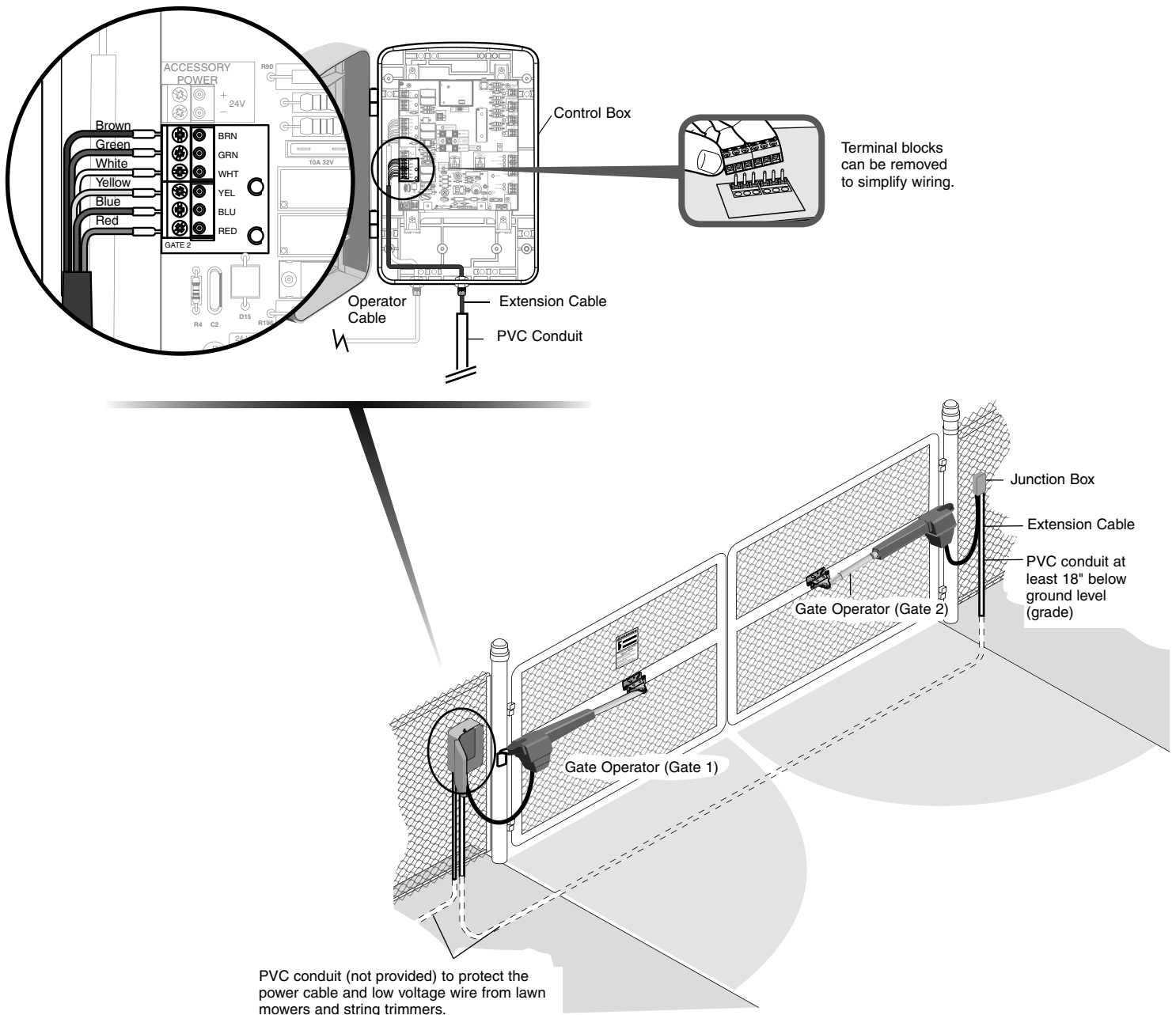
If a solenoid lock is being used on a gate, the gate with the lock attached to it would be the primary gate.



# 1 Connect second Operator to Control Board (Model Ga420D Only)

- Before digging, contact local underground utility locating companies.
- Trench across driveway to bury the extension cable.
- Use PVC conduit to prevent damage to cables.
- Insert extension cable through watertight connector nut and through an available watertight connector mounted in the control box.
- Extend cable and wires to **GATE 2** connector and connect as shown.
- Secure extension cable to control box using watertight connector nut.

**CAUTION**  
To AVOID damaging gas, power or other underground utility lines, contact underground utility locating companies BEFORE digging.



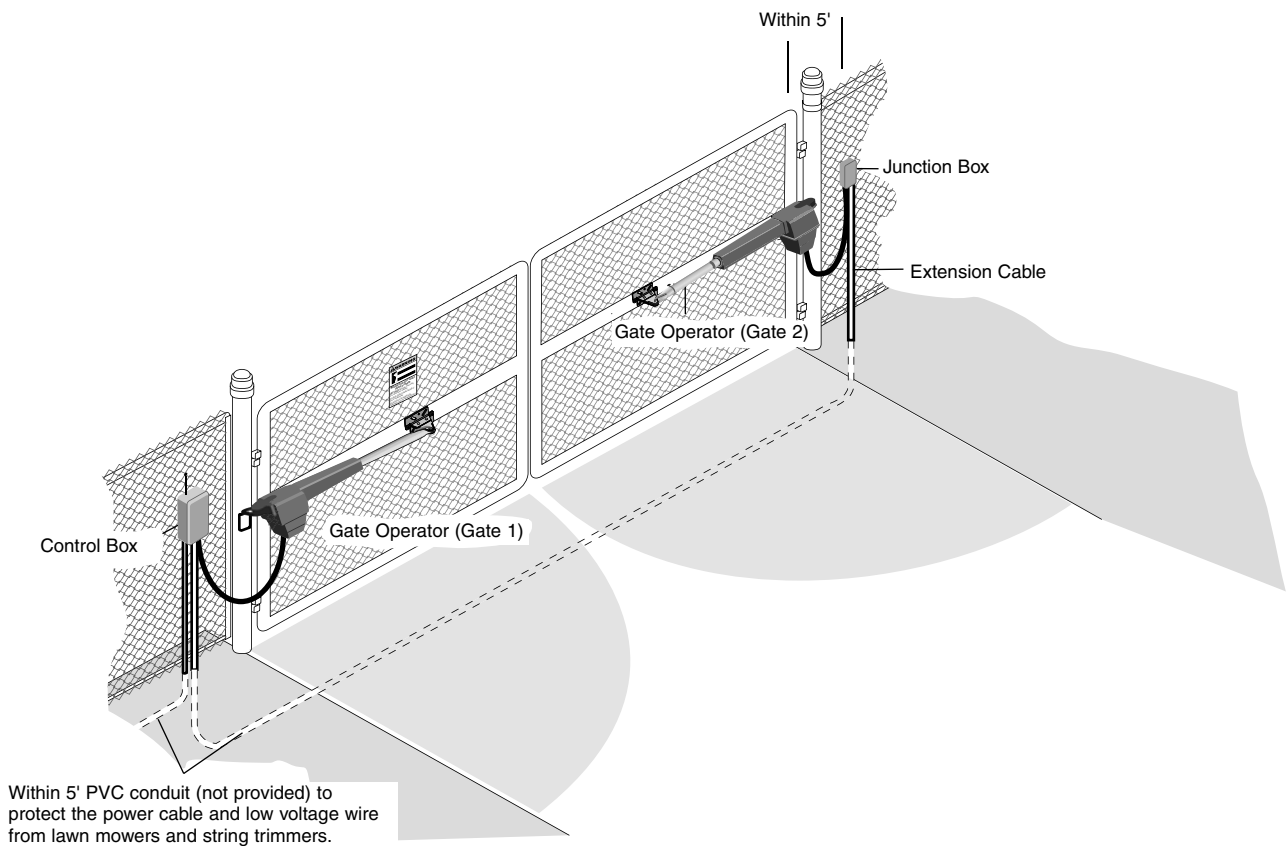
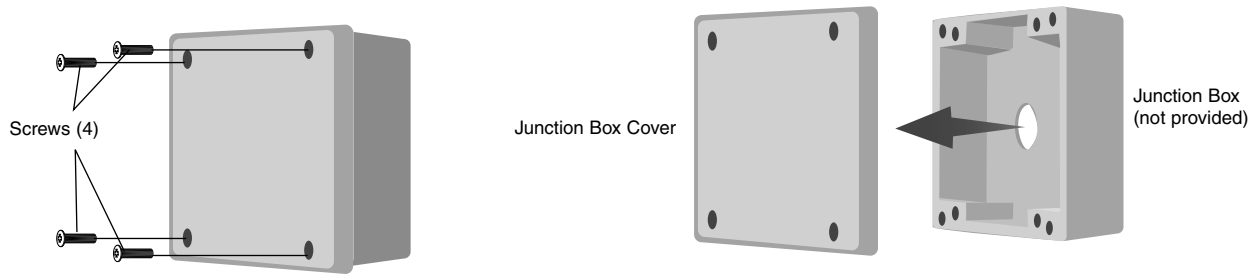
## 2 Junction Box

The following items are required to complete the junction box (not provided) installation:

- 4 x 4 Junction Box with 3/4 NPT threaded port holes
- Screws
- PVC Conduit

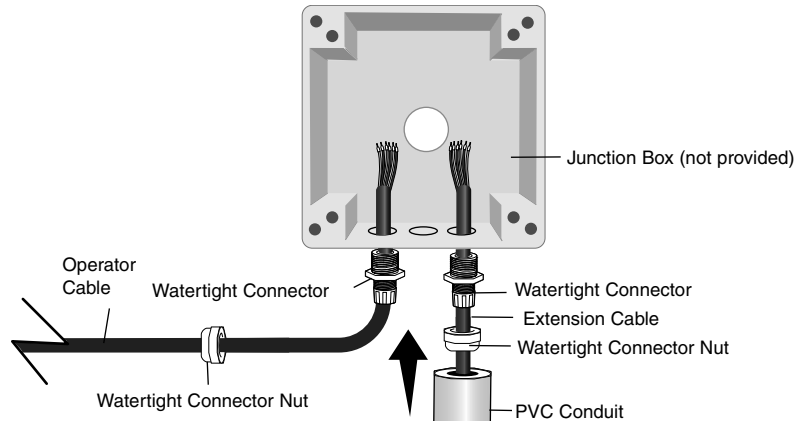
Open the junction box by removing screws (4) and set aside.

Mount the junction box within 5' of second operator.



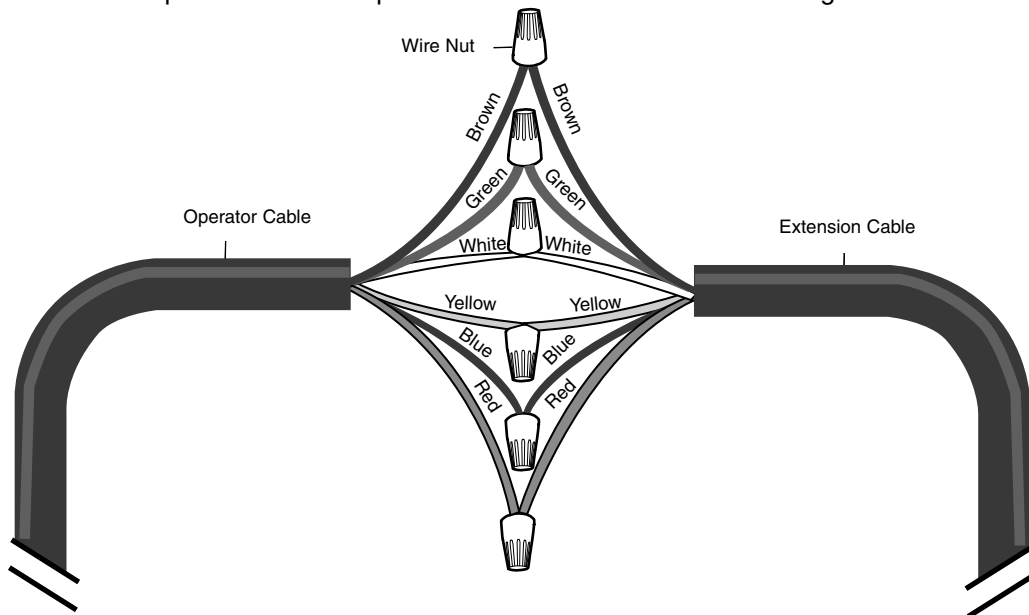
### 3 Connect Watertight Connectors

Route operator cable and extension cable through watertight connector nut and watertight connector. Insert cables and watertight connectors into the holes in the bottom of the junction box (not provided). Feed extension cable through PVC conduit and secure with connector nut.



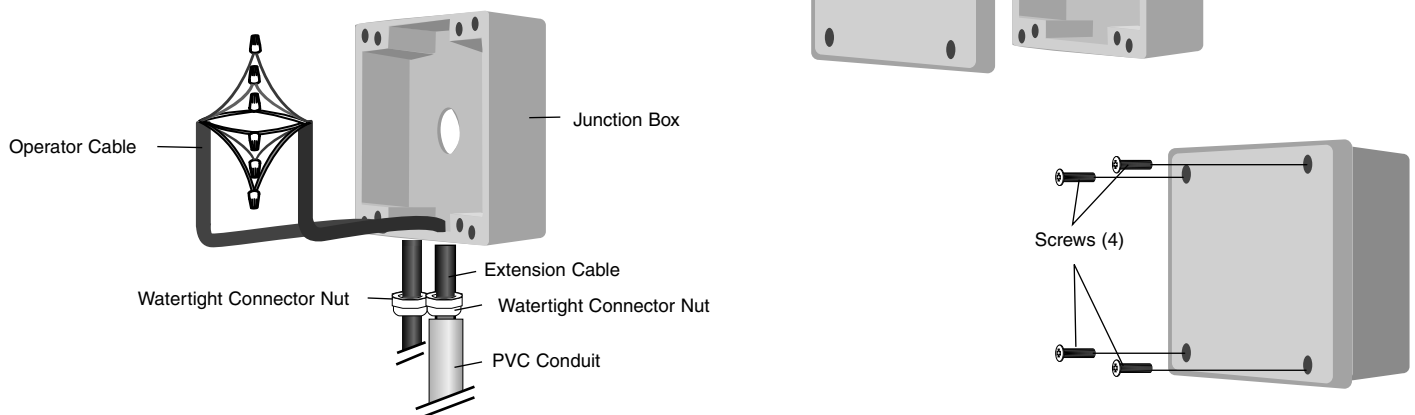
### 4 Connect Wires in Junction Box

Remove terminals from operator cable. Strip wires and twist like colored wires together with wire nuts.



### 5 Secure Junction Box

Put wires inside of junction box. Secure operator and extension cables with watertight nut. Reinstall cover.



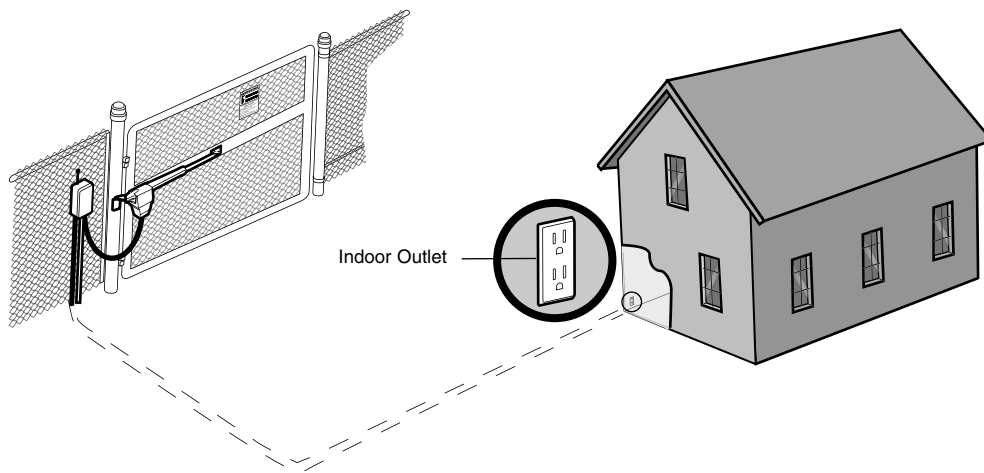
## Connect Indoor Transformer to Low Voltage Wire and Battery

- Before digging, contact local underground utility locating companies.
- Trench and run low voltage (16 AWG) wire for transformer from control box to an outlet inside the home or building.
- Run wires through PVC conduit to protect the power wires from lawn mowers, string trimmers, etc.

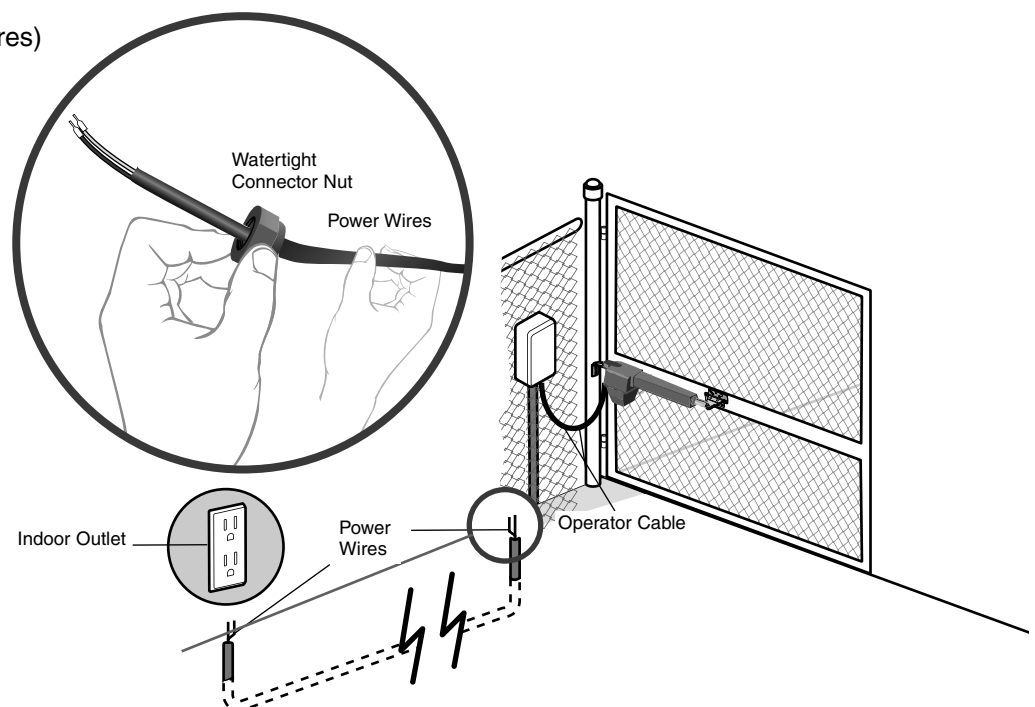
**NOTE:** Calculated using NEC guidelines. Local codes and conditions must be reviewed for suitability of wire installation.

## CAUTION

To AVOID damaging gas, power or other underground utility lines, contact underground utility locating companies BEFORE digging.



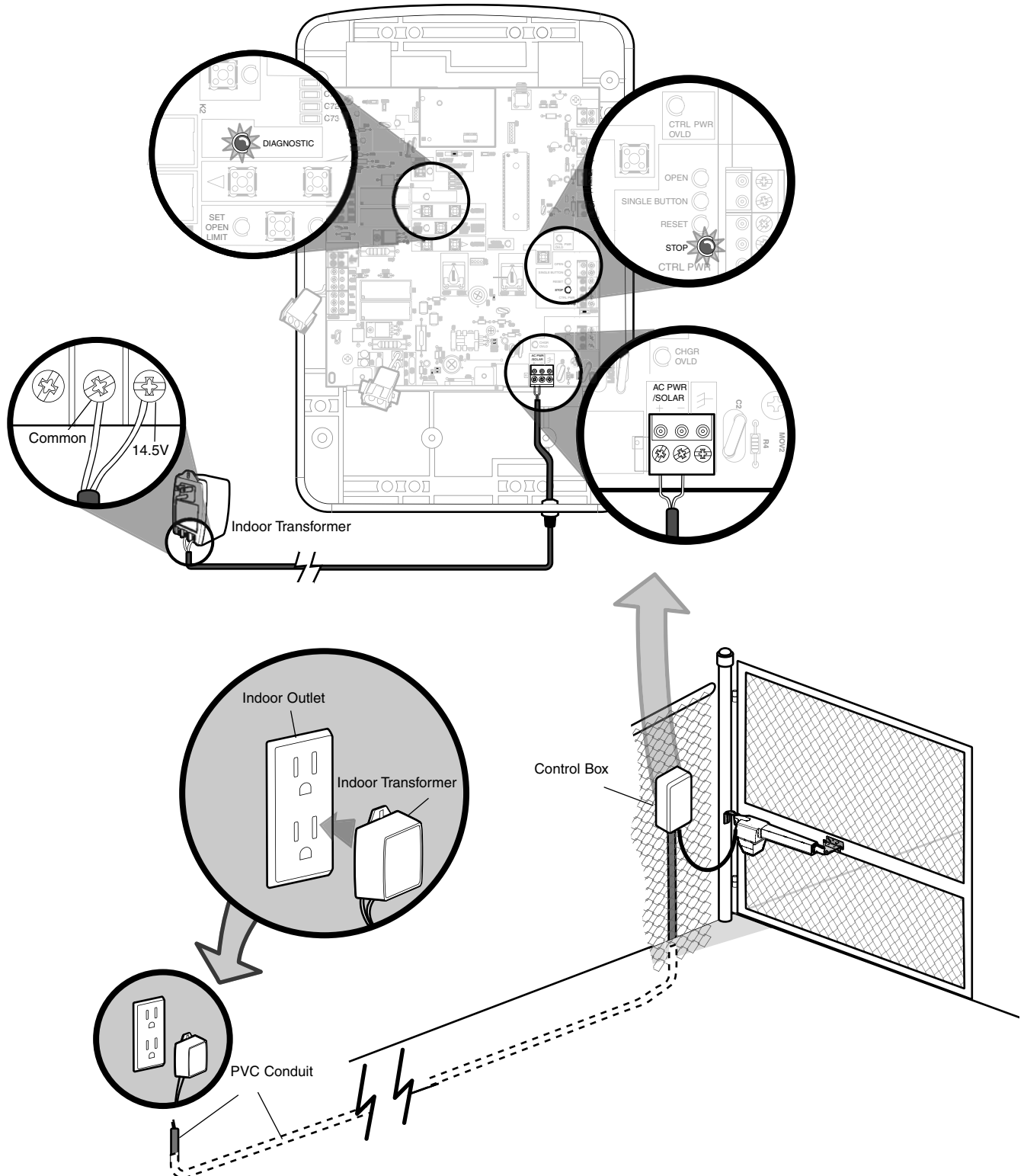
Insert transformer wires (power wires) through watertight connector nut.



# 1 Connect indoor Transformer to Control Board

Insert wires from the indoor transformer through the bottom of the control box. Connect wires from the indoor transformer to **AC PWR/SOLAR** terminal located on the control board as shown. Plug indoor transformer into a dedicated outlet. The **DIAGNOSTIC** LED will blink once every 10 seconds and the **STOP** LED will light up for 10 seconds.

**NOTE:** As an alternative to the supplied transformer, a UL listed 12 Volt, up to 30 Watt solar panel with Class 2 output may be used.



## CAUTION

To reduce the risk of FIRE or INJURY to persons use ONLY Chamberlain part 922GA for replacement batteries.

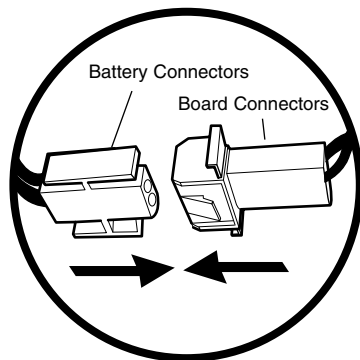
## 2 Connect Batteries

The batteries are charged in circuit by using the transformer (provided).

Locate the two white battery plugs on the left-hand side of the control box. Connect the plug from the battery to connector on the control board.

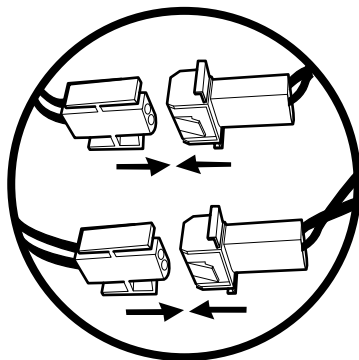
**NOTES:** Batteries will degrade over time depending on temperature and usage. For best performance, the batteries should be changed every 3 years.

Batteries do not perform well in extremely cold temperatures. For locations where the temperatures are below  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) contact technical support.

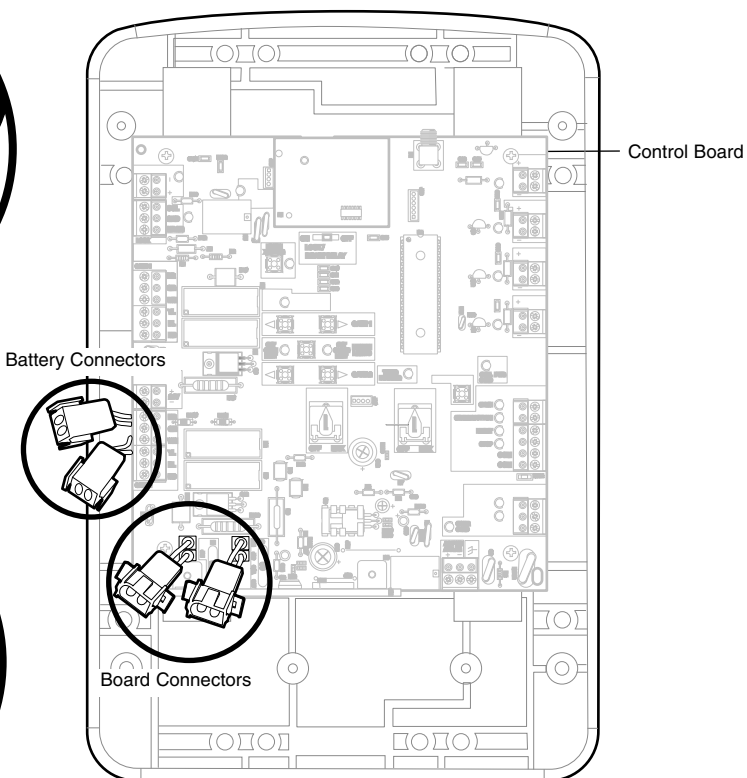


Battery Connection (GA400D Only)

OR



Battery Connection (GA420D Only)



# PROGRAMMING

## Program Limits

The limits are internal settings that indicate when the gates are in the fully open position and the fully closed position. For proper functionality, the limits must be learned during the installation process. The programmed limit process uses a combination of buttons on the control board.

The specific buttons used for programming depends on which side of the gates the control box is mounted on and how many operators the installation includes. Refer to pages 11-12 to determine if the gate is Left- or Right-handed and for explanation of **PULL-TO-OPEN** and **PUSH-TO-OPEN**.

If a mistake is made during the programming process press the **RESET** button on the outside of the control box to start over.

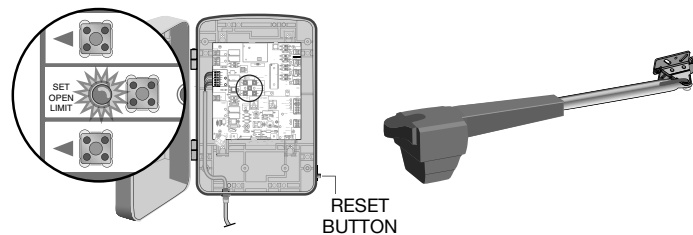
### Single Arm Left-Hand Side

**NOTE:** The "Learn Limits" mode can be exited at any time by pressing the **RESET** button. The mode will time-out automatically after 60 seconds of inactivity.

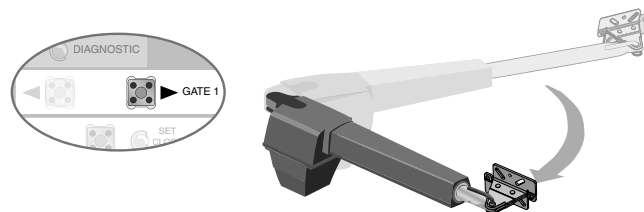
#### Program Open

With the gate in the **closed** position, press the **LEARN LIMITS** button (**SET OPEN LIMIT** LED will blink).

LEARN LIMITS button

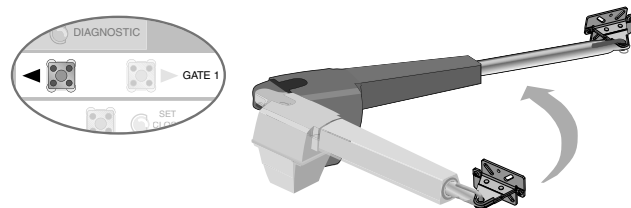


Press the **GATE 1** right button to move gate to the desired OPEN position. When gate is in the desired position, press the **LEARN LIMITS** button again. Control board will beep.



#### Program Close

Press the **GATE 1** left button to move gate to the desired CLOSED position. When gate is in the desired closed position, press the **LEARN LIMITS** button again.



The control board beeps and the **SET OPEN LIMIT** and **SET CLOSE LIMIT** LEDs stop blinking, programming is now complete.

Test the limits by pressing the SBC to open and close the gate.

**NOTE:** If the **SET OPEN LIMIT** LED is still blinking, the limits were not programmed successfully. Repeat the programming making sure the gate is fully opened and closed for each respective limit. If the problem persists, refer to the **Troubleshooting** section.

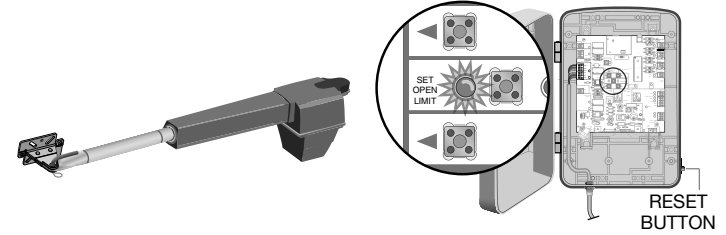
Programming

### Single Arm Right-Hand Side

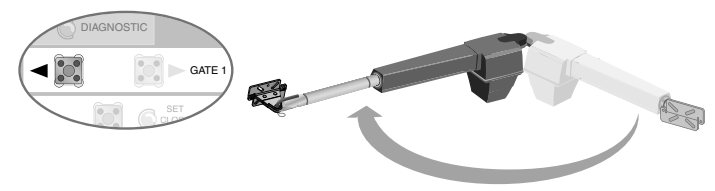
#### Program Open

With the gate in the **closed** position, press the **LEARN LIMITS** button (**SET OPEN LIMIT** LED will blink).

LEARN LIMITS button

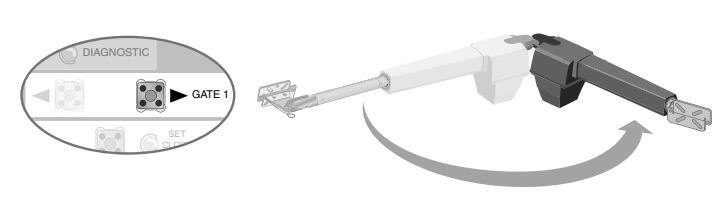


Press the **GATE 1** left button to move gate to the desired OPEN position. When gate is in the desired position, press the **LEARN LIMITS** button again. Control board will beep.



#### Program Close

When the **SET CLOSE LIMIT** LED blinks, press the **GATE 1** right button. When gate is in the desired closed position, press the **LEARN LIMITS** button.





**NOTES:**

- If one gate is overlapping the other, the gate that is overlapping must be connected to GATE 1 so it will start moving before the other gate; gate 2 may need to be closed first if there is overlap or a gate lock is being used.
- The programming can be exited at any time by pressing the RESET button. Programming times-out automatically after 60 seconds of inactivity.

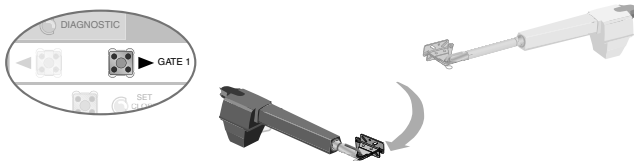
**Dual Gate (Right-Side Primary Operator)**

**Program Open**

With the gate in the **CLOSED** position, press the **LEARN LIMITS** button (**SET OPEN LIMIT** LED will blink).



Press the **GATE 1** right button to open the left side operator.



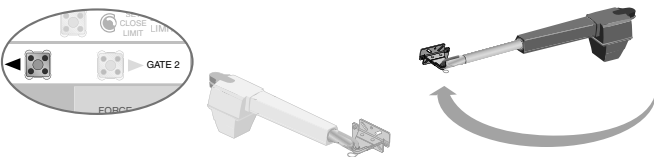
Press the **GATE 2** right button to move the right side operator into the OPEN position.



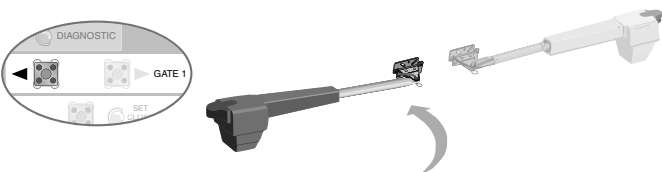
Press the **LEARN LIMITS** button. Control board will beep.

**Program Close**

When the **SET CLOSE LIMITS** LED blinks, press the **GATE 2** left button to close the right operator.



Press the **GATE 1** left button to close the left operator.



Press the **LEARN LIMITS** button.

The control board beeps and the **SET OPEN LIMIT** and **SET CLOSE LIMIT** LEDs stop blinking, programming is now complete.

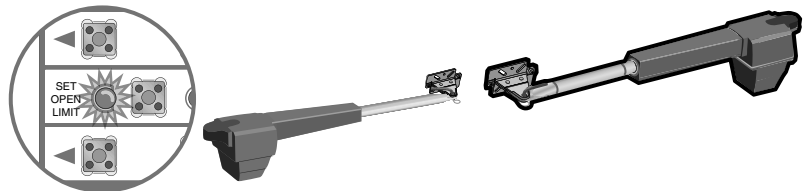
Test the limits by pressing the SBC to open and close the gate.

**NOTE:** If the **SET OPEN LIMIT** LED is still blinking, the limits were not programmed successfully. Repeat the programming making sure the gate is fully opened and closed for each respective limit. If the problem persists, refer to the Troubleshooting section.

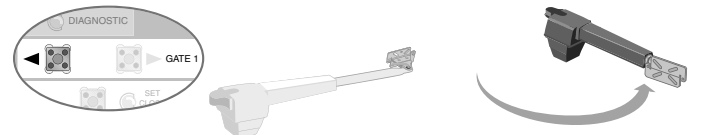
**Dual Gate (Right-Side Primary Operator)**

**Program Open**

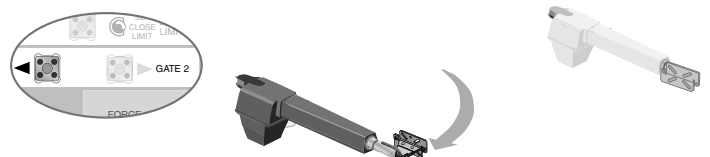
With the gate in the **CLOSED** position, press the **LEARN LIMITS** button (**SET OPEN LIMIT** LED will blink).



Press the **GATE 1** left button to open the right side operator.



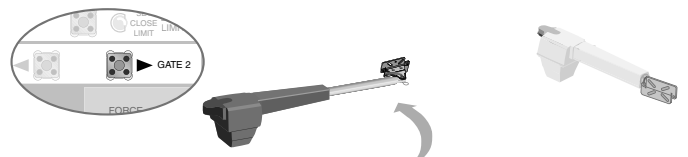
Press the **GATE 2** left button to move the left side operator into the OPEN position.



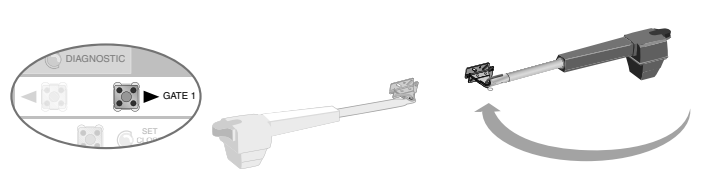
Press the **LEARN LIMITS** button. Control board will beep.

**Program Close**

When the **SET CLOSE LIMITS** LED blinks, press the **GATE 2** right button to close the left operator.



Press the **GATE 1** right button to close the right operator.



Press the **LEARN LIMITS** button.

## Force/Timer to Close/Party Mode Controls

### Force Adjustment

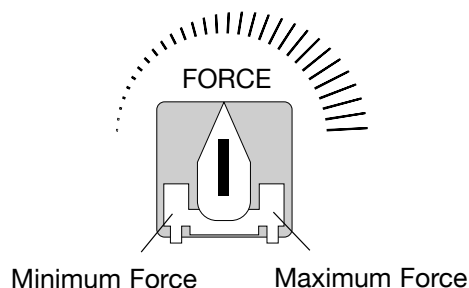
The operator is equipped with an obstruction sensing feature. If the gate encounters an obstruction the operator will automatically reverse direction and stop. Based on the length and weight of the gate it may be necessary to make force adjustments. The force adjustment should be high enough that small objects such as branches or wind will not cause nuisance interruptions but low enough to prevent serious injury to a person or a vehicle.

#### To adjust the force:

Using the 3-button remote or the Single Button Control (SBC) button on the control board, open and then close the gate.

If the gate stops and or reverses before reaching the fully open or closed position increase the force by turning the force control slightly. Run operator through a complete cycle.

**NOTE:** Weather conditions can affect the gate movement, so seasonal adjustment may be required. The force control is factory set to the mid position.



### Timer-to-Close (TTC)

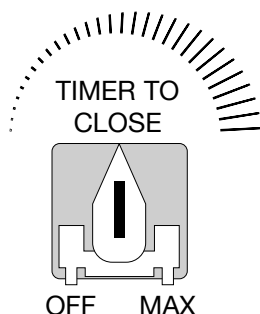
The **TIMER TO CLOSE** feature can be set to automatically close the gate after a specified time period.

If the TTC is set to the OFF position, then the gate will remain open until the operator receives another command from a remote control or SBC.

#### To set the TIMER TO CLOSE:

Rotate the **TIMER TO CLOSE** dial to the desired setting. The range is 0 to 180 seconds, 0 seconds is OFF.

**NOTE:** Any radio command, SBC, or CLOSE command on the control board prior to the TTC expiring will close the gate. The TTC is reset by any signals from the loops, close edges, and close safety sensors (IR's).



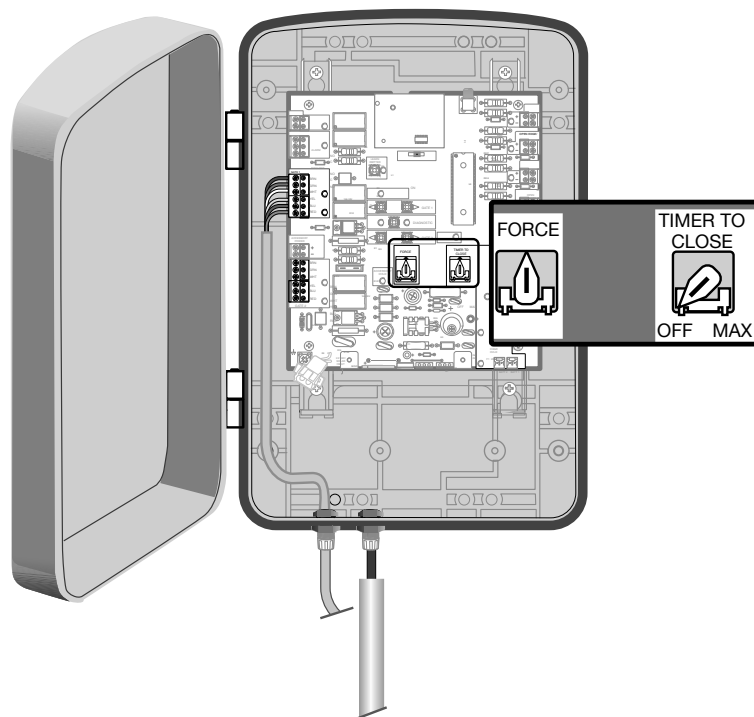
## ⚠ WARNING

Without a properly installed safety reversal system, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing gate.

- Too much force on gate will interfere with proper operation of safety reversal system.
- NEVER increase force beyond minimum amount required to close gate.
- NEVER use force adjustments to compensate for a binding or sticking gate.
- If one control (force or travel limits) is adjusted, the other control may also need adjustment.
- After ANY adjustments are made, the safety reversal system **MUST** be tested. Gate **MUST** reverse on contact with a rigid object.

### Party Mode

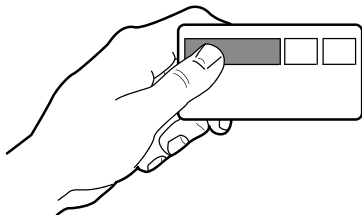
TTC can be temporarily disabled by pressing **RESET** button (located on the outside side of the control box) when the gate is fully open. This will allow the gate to remain open until another command is received. Following this command, TTC is re-enabled at the previously set time period.



## To Add or Reprogram a Remote Control (not provided)

1. Press **LEARN XMITTER** button and release (LED will light up).
2. Press remote button, the LED will flash, alarm output will activate twice.
3. Repeat steps 1 and 2 until all remote controls are programmed (9 remote controls maximum).

**NOTE:** For highest level of security, we recommend the Security+® line of products. Refer to Accessories.



## To Add a Wireless Keyless Entry (not provided)

1. Press **LEARN XMITTER** button and release (LED will light up).
2. Enter a four digit personal identification number (PIN) of your choice on the keypad.
3. Then press ENTER, the LED will flash, alarm output will activate twice.

## To Erase All Codes

To deactivate any unwanted remote controls or keyless entries, first erase all codes:

Press and hold the **LEARN XMITTER** button on control board until the learn indicator light goes out (approximately 6 seconds). All previous codes are now erased.

Reprogram each remote control or keyless entry you wish to use.

Make sure the rubber seal around the cover is intact and close the cover. Secure the control box cover with screws (4). Installation is complete.

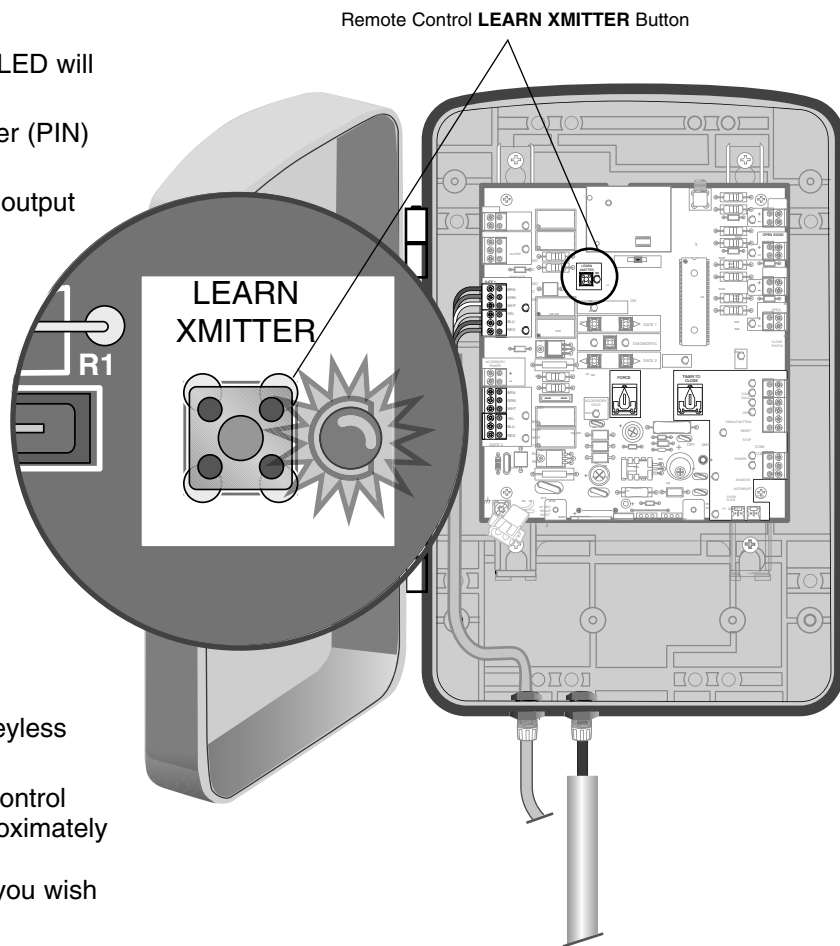
## ⚠ WARNING

To prevent possible **SERIOUS INJURY** or **DEATH** from a moving gate or garage door:

- ALWAYS keep remote controls out of reach of children. NEVER permit children to operate, or play with remote control transmitters.
- Activate gate or door **ONLY** when it can be seen clearly, is properly adjusted, and there are no obstructions to door travel.
- ALWAYS keep gate or garage door in sight until completely closed. NEVER permit anyone to cross path of moving gate or door.

**NOTICE:** To comply with FCC and/or Industry Canada (IC) rules, adjustment or modifications of this receiver and/or transmitter are prohibited, except for changing the code setting or replacing the battery. THERE ARE NO OTHER USER SERVICEABLE PARTS.

Tested to Comply with FCC Standards FOR HOME OR OFFICE USE. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



# OPERATION AND MAINTENANCE

## IMPORTANT SAFETY INSTRUCTIONS

### WARNING

### To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. NEVER let children operate or 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. Test the gate operator monthly. The gate MUST reverse on contact with a rigid object or stop 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. Use the emergency release ONLY when the gate is not moving.
6. KEEP GATES PROPERLY MAINTAINED. Read the owner's manual. Have a qualified service person make repairs to gate hardware.
7. The entrance is for vehicles ONLY. Pedestrians MUST use separate entrance.
8. Disconnect ALL power BEFORE performing ANY maintenance.
9. **SAVE THESE INSTRUCTIONS.**

## Using Your Gate Operator

Your operator will operate with up to nine Security+® remote controls and one Security+® Keyless Entry System. If you purchase a new remote, or if you wish to deactivate any remote, follow the instructions in the Programming section.

**Activate your operator with any of the following:**

**Hand Held Remote Control (See Accessories):** Hold push button down until the gate begins to move. While gate is moving, the next command sent from the remote will stop the gate. Next command will reverse the gate direction.

**Keyless Entry (See Accessories):** If provided with your gate operator, it must be programmed before use. See **Programming**.

**Vehicle Exit Sensor:** See accessory page.

## Entrapment Features

**When the operator is activated (with the safety sensors correctly installed and aligned) and the safety sensors encounter an obstruction, the following will occur:**

**Opening Cycle:** Gate will stop, reverse direction for approximately 2 seconds and then stop. The next command will continue the gate in the close direction.

**Closing Cycle:** Gate will stop, reverse direction for approximately 2 seconds and then stop. The next command will open the gate.

## Alarm Sounds

The operator alarm will sound under the following condition: If gate encounters two consecutive obstructions, the operator will stop, the alarm will sound (up to 5 minutes) and the control board will require resetting. Reset the control board by pressing the "Reset Button" located on the outside of the control box. No commands at this time will operate gate. After the operator is reset, normal functions will be available.

Operation and Maintenance

## Automatic Timer To Close Feature

The Timer-To-Close (TTC) Feature comes from the factory in the OFF setting.

The "TIMER RUNNING LED" will flash once for every second of adjusted time. The gate(s) must fully open for the timer feature to be active and close the gate(s). Any radio command or pressing the single button on the control board prior to the TCC time expiring will close the gate. The TTC is reset by any signals from the loops, close edges, and close safety sensors (IR's).

TIMER TO  
CLOSE

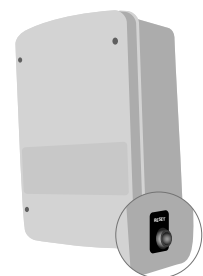


## Party mode

If the Timer-to-Close feature is enabled and you would like the gate to remain open, simply push the reset button (located on the outside of the control box). The next command given to the operator will close the gate and return the operator to normal operation.

## Sleep mode (battery conservation)

**Sleep Mode (Battery Conservation):** The operator enters sleep mode 10 seconds after the last command is given. The diagnostic LED will blink in this mode. The safety sensors (photo eyes) indicator LEDs will not be on. The next operation command will return the operator to normal operation.



## Manual Release

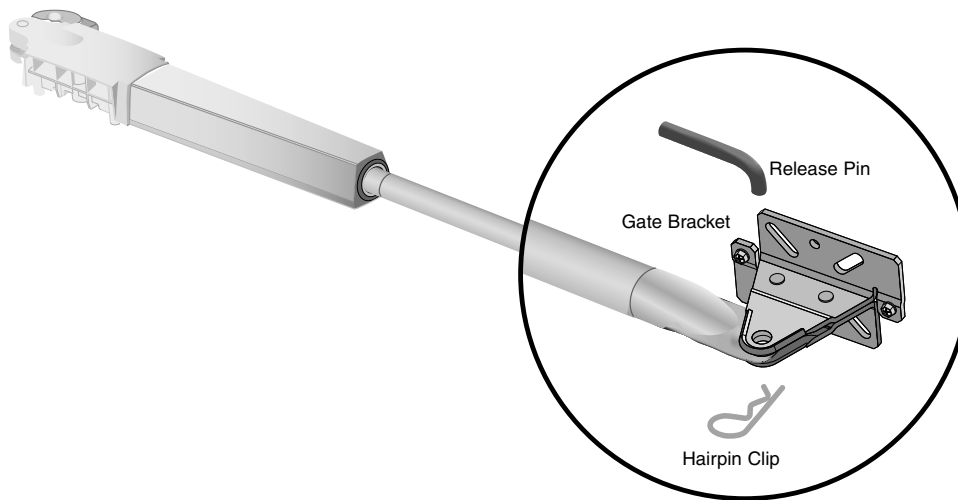
In case of a power failure, the operator can be disengaged from the gate. Follow the directions below to disconnect and reconnect the operator to the gate.

### Release

1. Remove the hairpin clip and release pin that secures the gate bracket to the gate.
  2. Move operator away from gate and out of the way of gate travel.
- If a gate lock (automatic or manual) is used; disengage the lock.

### Engage

1. Align the hole in the arm with the hole in the gate bracket.
2. Insert release pin and secure with hairpin clip.



## Maintenance

### CHECK AT LEAST ONCE EVERY

Description	Task	1 Month	3 Months	6 Months	12 Months	3 Years
Entrapment Protection Systems	Check for proper operation	●	●	●	●	●
Manual Release Gate	Check and operate			●	●	●
Accessories	Inspect for wear or damage			●	●	●
Electrical	Check all for proper operation			●	●	●
Mounting Hardware	Inspect all wire connections			●	●	●
Batteries	Check for tightness			●	●	●
Total Unit	Replace					●
	Inspect for wear or damage			●	●	●

### NOTES:

1. Disconnect power before servicing.
2. Severe or high cycle usage will require more frequent maintenance checks.
3. Inspection and service should always be performed anytime a malfunction is observed or suspected.
4. When servicing, please do some "house cleaning" of the operator and the area around the operator. Pick up any debris in the area. Clean the operator as needed.
5. It is suggested that while at the site voltage readings be taken at the operator. Using a Digital Voltmeter, verify that the incoming voltage to the operator it is within ten percent of the operator's rating.
6. See page 34 for instructions on how to check gate force and sensitivity adjustments.

# Wiring Diagram

## ⚠ WARNING

To protect against fire and electrocution:

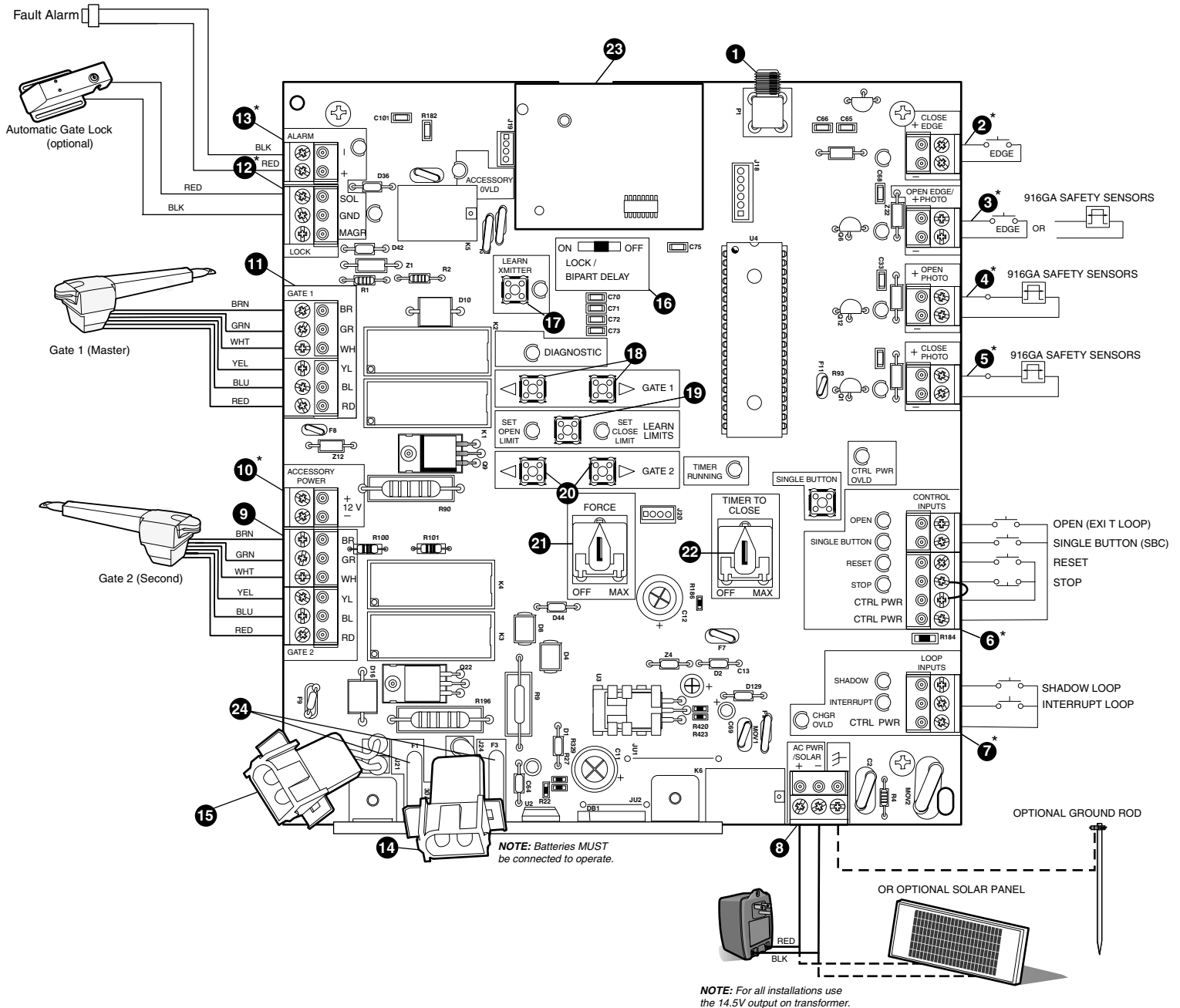
- DISCONNECT power and battery BEFORE installing or servicing operator.

For continued protection against fire:

- Replace ONLY with fuse of same type and rating.

- |                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| 1. Antenna Input    | 9. Gate 2                           | 17. Learn Xmitter      |
| 2. Close Edge*      | 10. Accessory Power*                | 18. Primary Gate Jog   |
| 3. Open Edge/Photo* | 11. Gate 1                          | 19. Learn Limits       |
| 4. Open Photo*      | 12. Lock (Solenoid/Maglock) Output* | 20. Secondary Gate Jog |
| 5. Close Photo*     | 13. Alarm Output*                   | 21. Force              |
| 6. Control Inputs*  | 14. Battery 1 Connector             | 22. Timer To Close     |
| 7. Loop Inputs*     | 15. Battery 2 Connector             | 23. Receiver Module    |
| 8. AC PWR/SOLAR     | 16. Lock/BiPart Delay               | 24. Fuses (20 Amp)     |

\*Class 2 circuit 15 V maximum output



## Diagnostic Chart

Your gate operator is programmed with self-diagnostic capabilities. The diagnostic LED will flash a number of times then pause signifying it has found a potential issue. Consult Diagnostic Chart below.

<b>1 FLASH</b> Power ON	<ul style="list-style-type: none"><li>● Normal Operation</li></ul>
<b>2 FLASHES</b> STOP not connected	<ul style="list-style-type: none"><li>● Stop is not connected.<ul style="list-style-type: none"><li>• Press the RESET button and make sure the STOP LED turns on.</li><li>• Check to make sure the jumper wire is connected between the COM and STOP input on the control board. Stop is a normally closed input.</li></ul></li></ul>
<b>3 FLASHES</b> Low Battery Voltage	<ul style="list-style-type: none"><li>● Battery voltage is below the recommended operating level.<ul style="list-style-type: none"><li>• Battery may not be properly charged. Disconnect all batteries and make sure AC power or solar power is connected. Verify AC power outlet.</li><li>• Verify that the battery fuses are intact and not blown. Replace blown fuses with same type and rating.</li><li>• Batteries are no longer capable of holding a charge due to age or excessive depleting of the battery. Replace the batteries (see accessories page). Dispose of old batteries properly.</li></ul></li></ul>
<b>4 FLASHES</b> Low Battery Capacity	<ul style="list-style-type: none"><li>● Battery voltage is below the recommended operating level.<ul style="list-style-type: none"><li>• Battery may not be properly charged. Disconnect all batteries and make sure AC power or solar power is connected. Verify AC power outlet.</li><li>• Verify that the battery fuses are intact and not blown. Replace blown fuses with same type and rating.</li><li>• Batteries are no longer capable of holding a charge due to age or excessive depleting of the battery. Replace the batteries (see accessories page). Dispose of old batteries properly.</li></ul></li></ul>
<b>5 FLASHES</b> RPM Reversal Gate 1 or Arm Disconnected	<ul style="list-style-type: none"><li>● Gate 1 has encountered an obstruction or the arm is disconnected.<ul style="list-style-type: none"><li>• Make sure the path of the gate is clear and the gate moves freely.</li><li>• Incorrect or poor connection to Gate 1 arm. Check the green and white wires on the motor arm to make sure connections are correct and secure.</li><li>• Bad arm or control board. Press the LEARN LIMITS button and press the GATE 1 buttons to move the arm. If the arm does not move continuously, disconnect arm from Gate 1 and connect the arm to the Gate 2 connector and repeat the attempt to move the arm. If the arm does not move continuously on either Gate 1 or 2, replace the arm.</li></ul></li></ul>
<b>6 FLASHES</b> Force Reversal Gate 1	<ul style="list-style-type: none"><li>● Gate 1 has encountered an obstruction.<ul style="list-style-type: none"><li>• Make sure the path of the gate is clear and the gate moves freely.</li><li>• If there is no obstruction the force adjustment is set too low. Increase the force setting and verify that the gate moves without reversing and will reverse if an obstruction is encountered.</li></ul></li></ul>
<b>7 FLASHES</b> RPM Reversal Gate 2 or Arm Disconnected	<ul style="list-style-type: none"><li>● Gate 2 has encountered an obstruction or the arm is disconnected.<ul style="list-style-type: none"><li>• Make sure the path of the gate is clear and the gate moves freely.</li><li>• Incorrect or poor connection to Gate 2 arm. Check the green and white wires on the motor arm to make sure connections are correct and secure.</li><li>• Bad arm or control board. Press the LEARN LIMITS button and press the GATE 2 buttons to move the arm. If the arm does not move continuously, disconnect arm from Gate 2 and connect the arm to the Gate 1 connector and repeat the attempt to move the arm. If the arm does not move continuously on either Gate 1 or 2, replace the arm.</li></ul></li></ul>
<b>8 FLASHES</b> Force Reversal Gate 2	<ul style="list-style-type: none"><li>● Gate 2 has encountered an obstruction.<ul style="list-style-type: none"><li>• Make sure the path of the gate is clear and the gate moves freely.</li><li>• If there is no obstruction the force adjustment is set too low. Increase the force setting and verify that the gate moves without reversing and will reverse if an obstruction is encountered.</li></ul></li></ul>
<b>9-11 FLASHES</b> Potential chip failure	<ul style="list-style-type: none"><li>● Potential RAM, Flash, or EEPROM failure.<ul style="list-style-type: none"><li>• Turn power off and on.</li><li>• If problem does not resolve itself by turning power off and on, replace the control board.</li></ul></li></ul>

## Troubleshooting

SYMPTOM	POSSIBLE SOLUTION
Operator does not run. Diagnostic LED not on.	<ul style="list-style-type: none"> <li>• Power not connected. Make sure the AC/Solar input is connected and that at least one battery is connected with the corresponding fuse intact.</li> <li>• Low or defective battery. Check the battery to make sure that the red wire goes to the positive terminal of the battery and the black wire goes to the negative terminal of the battery. Replace the battery if the open circuit voltage is below 11.5Vdc.</li> <li>• Bad control board. Call technical support for more options.</li> </ul>
Operator powers up but does not run.	<ul style="list-style-type: none"> <li>• Low or defective battery. At least one charged battery must be connected for the unit to operate. Verify the battery fuse is intact. Check battery connections and battery voltage to be above 11.5V. Replace batteries if necessary.</li> <li>• STOP button connection loose or disconnected. Press the RESET button and verify that the STOP LED lights up and then turns off after 10 seconds. Verify the wire connects between the STOP and CTRL PWR terminals.</li> <li>• Obstruction blocking safety sensors. Press the RESET button and verify that all the safety LEDs (OPEN EDGE/PHOTO, OPEN PHOTO, CLOSE PHOTO) are OFF. If any are ON, clear any obstructions and verify the LED turns off <b>NOTE:</b> The RESET button may need to be hit multiple times since the LEDs turn off after 10 seconds when the unit goes to sleep.</li> <li>• (Optional Accessory) Safety edge is damaged or on an obstruction. Press the RESET button and verify that the Safety LEDs (OPEN EDGE and CLOSE EDGE/PHOTO) are OFF. If either is ON, clear any obstructions and verify the LED turns off. <b>NOTE:</b> The RESET button may need to be hit multiple times since the LEDs turn off after 10 seconds when the unit goes to sleep.</li> <li>• (Optional Accessory) Interrupt loop or Shadow loop is obstructed. Press the RESET button and verify that the INTERRUPT and SHADOW LEDs are OFF. If either is on, check the loop detector and its wiring to insure that it is not incorrectly being triggered.</li> </ul>
Relays “click” when remote control or single button control (SBC) command is given, but the operator does not move.	<ul style="list-style-type: none"> <li>• Bad control board. Call technical support for help with replacement parts.</li> <li>• Battery not connected. At least one charged battery must be connected for the unit to operate. Verify battery fuse is intact. Check battery connections and battery voltage to be above 11.5V. Replace batteries if necessary.</li> <li>• Arm cable loose or disconnected. Verify that all of the wires, especially the red and blue wires, going to the arm are secure and that the connector is properly mated to the header.</li> <li>• Arm is jammed or incorrectly installed. Disconnect the motor housing from the arm and verify that the arm moves freely. With the motor housing still disconnected, enter the Learn Limits mode and verify that the motor spins. Reconnect the motor housing to the arm and make sure that all 4 screws are securely tightened and that the motor seats correctly against the worm drive. Relearn limits for the operator.</li> <li>• Bad control board. Call technical support for help with replacement parts.</li> </ul>

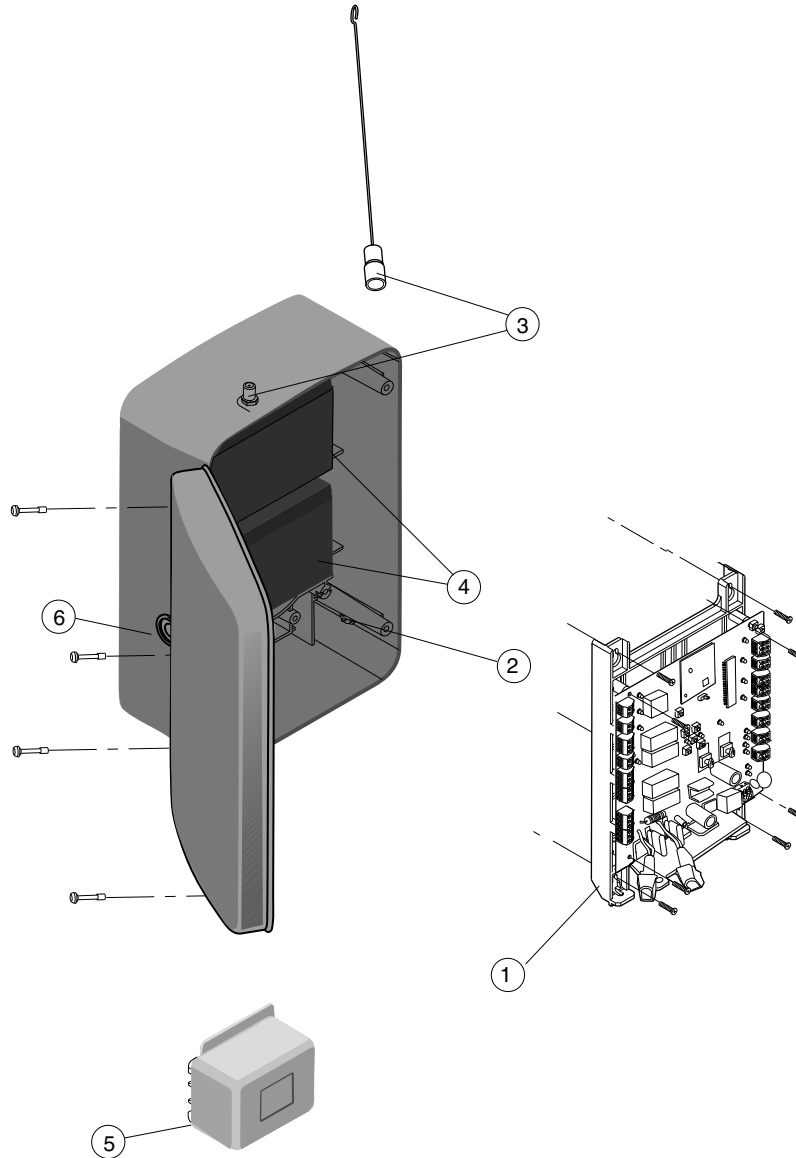


SYMPTOM	POSSIBLE SOLUTION
<p>The arm moves but cannot exit Learn Limits mode. Cannot learn limits.</p>	<ul style="list-style-type: none"> <li>• Arm does not extend or contract enough during travel. The arm piston must extend and contract close to its full length to Learn Limits. Adjust the arm mounting so that this can be achieved.</li> <li>• Motor cable wire not connected. Make sure that all the motor wires are connected properly.</li> <li>• Motor housing is not properly seated. Make sure that the motor housing for the arm(s) is properly seated so there are no gaps between the motor housing and arm assembly. Make sure all 4 screws are tightened.</li> </ul>
<p>Gate does not fully open or close when trying to learn limits.</p>	<ul style="list-style-type: none"> <li>• Over extending or contracting arm. Disconnect the motor housing from the arm and make sure that the arm moves freely throughout the full length of travel. Adjust arm mounting and positioning if necessary.</li> <li>• Arm is interfering with the gate mount bracket. Examine the hinge point where the arm mounts to the gate post. Make sure that the arm housing does not hit or interfere with the gate post or mounting bracket throughout the full length of travel. Adjust the arm mounting and positioning if necessary.</li> <li>• Gate is excessively heavy or hinges are bad. Verify that the gate is within the ratings for this product. Disconnect the arms and verify that both gates swing easily. Lubricate or replace hinges as necessary.</li> </ul>
<p>Unit does not respond to single button control (SBC) command.</p>	<ul style="list-style-type: none"> <li>• Battery not connected. At least one charged battery must be connected for the unit to operate. Verify the battery fuse is intact. Check battery connections and battery voltage to be above 11.5V. Replace batteries if necessary.</li> <li>• STOP button connection loose or disconnected. Press the RESET button and verify that the STOP LED lights up and then turns off after 10 seconds. Verify the wire connects between STOP and CTRL PWR terminals.</li> <li>• Single Button Control (SBC) button connection loose. Check wiring for SBC button. Use the on-board single button to verify operator will respond.</li> <li>• Bad control board. Call technical support for help with replacement parts.</li> </ul>
<p>Unit does not respond to remote control command.</p>	<ul style="list-style-type: none"> <li>• Battery not connected. At least one charged battery must be connected for the unit to operate. Verify battery fuse is intact. Check battery connections and battery voltage to be above 11.5V. Replace batteries if necessary.</li> <li>• STOP button connection loose or disconnected. Press the RESET button and verify that the STOP LED lights up and then turns off after 10 seconds. Verify the wire connects between the STOP and CTRL PWR terminals.</li> <li>• Radio module not plugged in. Verify the green Radio module (located next to the coaxial connector) is properly mated with both 4-pin connectors.</li> <li>• Antenna not connected. Verify the antenna and coaxial cable are properly connected to the control board.</li> <li>• Transmitter not learned. Refer to Programming Remote Control section for steps to program the transmitter.</li> <li>• Bad control board. Call technical support for help with replacement parts.</li> </ul>
<p>Gate stops and reverses immediately after it starts moving.</p>	<ul style="list-style-type: none"> <li>• Obstruction sensed. Check safety devices and gate for obstructions.</li> <li>• A fault has occurred. Check Diagnostic LED for possible error codes.</li> <li>• Force set too low. Adjust FORCE setting until gate completes a full open/close cycle without reversing. The force setting may need to be adjusted in cold weather, as the gate will not move freely.</li> <li>• Loops are reversed. Make sure that the Safety loop and Shadow loop are connected properly. The gate may trigger the Shadow loop as it moves, so it must be connected to the correct input.</li> <li>• Low or defective battery. At least one charged battery must be connected for the units to operate. Verify battery fuse is intact. Check battery connections and battery voltage to be above 11.5V. Replace batteries if necessary.</li> </ul>

SYMPTOM	POSSIBLE SOLUTION
Gate opens but does not close.	<ul style="list-style-type: none"> <li>• An open input is continuously activated. Check the open loop or vehicle probe to make sure they are clear of objects. Verify connections and operation for these devices.</li> <li>• Low battery. Measure the voltage across the battery. Voltage should be above 11.5Vdc. Replace battery if required.</li> <li>• (Optional Accessory) Entry system output is connected to the OPEN input, and is “stuck” opening. Verify entry system connections and operations.</li> <li>• Obstruction blocking close photo eyes, shadow loop, or safety loop. Check eyes for alignment and verify all connections and operation for safety devices.</li> <li>• (Optional Accessory) Close safety edge is damaged or on an obstruction. Verify operation and connection of close edge.</li> </ul>
Gate does not close automatically with Timer to Close enabled.	<ul style="list-style-type: none"> <li>• Verify that the Timer to Close is ON and adjusted to desired delay.</li> <li>• Gate opened by a force obstruction reversal. Check the Diagnostic LED and clear gate path of any obstructions.</li> <li>• The Interrupt loop or Shadow loop is obstructed (optional accessories).</li> <li>• Obstructed close safety sensor or safety edge (optional accessory). Check connections and operations of safety devices.</li> <li>• Low battery. Measure the voltage across the battery. Voltage should be above 11.5Vdc. Replace battery is required.</li> <li>• An open input is continuously activated. Check the open loop or vehicle probe to make sure they are clear of objects. Verify connections and operation for these devices.</li> <li>• (Optional Accessory) Entry system output is connected to the OPEN input, and is “stuck” opening. Verify entry system connections and operation.</li> <li>• Operator in “Party” mode after RESET button pressed while at the OPEN limit. Use a remote or the SBC to close the gate and reopen it. Verify that the TIMER RUNNING LED is flashing.</li> </ul>
Alarm constantly sounds for 5 minutes. Sounds whenever a command is issued.	<ul style="list-style-type: none"> <li>• Double entrapment occurred. Two successive obstructions were encountered while moving the gate. Press the RESET button and ensure that the gate path is clear of all obstructions. Check the FORCE setting to make sure it is properly set.</li> </ul>
Alarm is beeping 3 times on a command.	<ul style="list-style-type: none"> <li>• Low battery. Measure the voltage across the battery. Voltage should be above 11.5Vdc. Replace battery if required.</li> </ul>
Gate runs too slow.	<ul style="list-style-type: none"> <li>• Open and Close Limits are set too close together. If the Open and Close Limits are set within the ramp down distance of each other, the gate will run at slow speed all the time.</li> <li>• The gate is starting within the ramp down distance from the Open or Close Limit. Gate will run slow to limits if motion is started within the ramp-down distance from the limit.</li> </ul>
Gate 2 closes before Gate 1.	<ul style="list-style-type: none"> <li>• Lock/Bipart Delay not set. Slide the Lock/Bipart Delay switch to ON. Verify that Gate 1 starts moving first on open and last on close.</li> <li>• Gate is excessively heavy or hinges are bad. Verify that the gate is within the ratings for this product. Disconnect the arms and verify that both gates swing easily. Lubricate or replace hinges as necessary.</li> <li>• Gate is unbalanced. Disconnect the arms and verify that both gates swing easily in both directions. If the gates are harder to move in one direction verses the other, the gate is not properly balanced and the hinges must be adjusted.</li> <li>• Bad motor connection. Check the motor wires and connections for possible loose or corroded terminals.</li> </ul>
Alarm beeps when running.	<ul style="list-style-type: none"> <li>• Low battery. Measure the voltage across the battery. Voltage should be above 11.5Vdc. Replace battery if required.</li> </ul>
Gate does not open/close at the same place each time.	<ul style="list-style-type: none"> <li>• In windy areas, an automatic gate lock for close and a hard stop for open is recommended to ensure the gate stops in the same place each time.</li> <li>• Periodic limit adjustments may be necessary.</li> </ul>

# Repair Parts

## Control Box

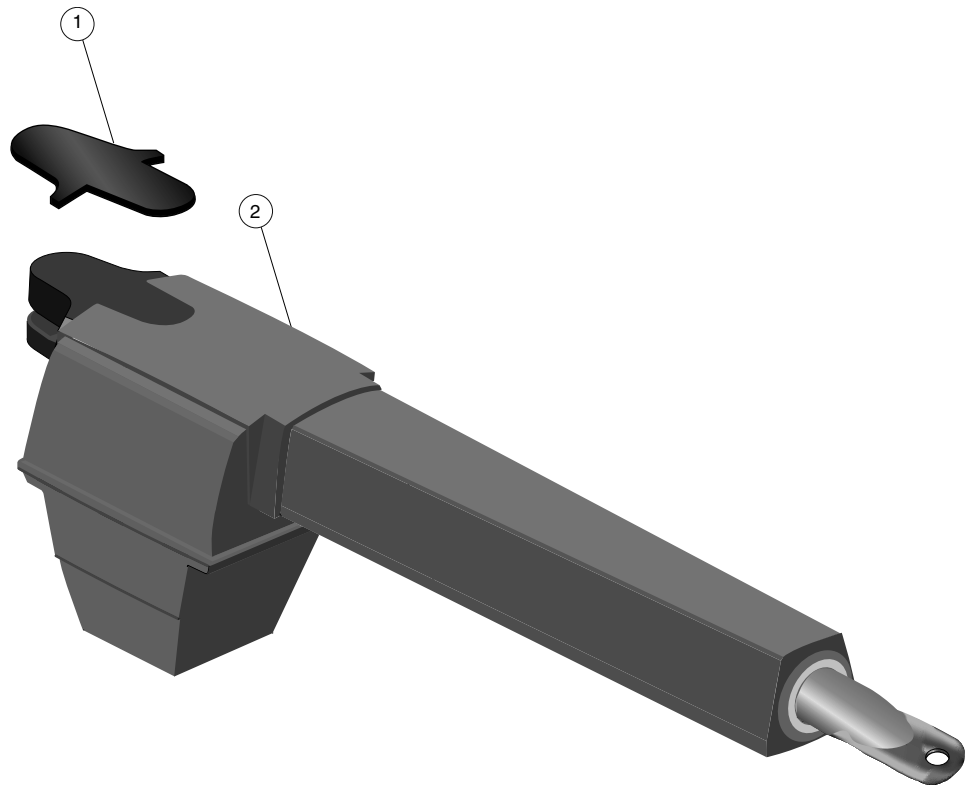


ITEM	PART #	DESCRIPTION	QTY
1	K1A6426	Control Board with Mounting Bracket	1
2	K23-19380	Reset Switch	1
3	K74-34392	Antenna	1
4	922GA	Battery with Harness	1
5	K204B0195	Indoor Transformer	1
6	K29-20095	Alarm	1
		<b>Not Shown</b>	
	K74-33975	Complete Control Box (without battery)	1
	K1A5747	Receiver Module - 315MHz	1
	K1A5747-2	Receiver Module - 390MHz (optional)	1

**NOTE:** The fuse is a standard 20 Amp fuse that is available from your local automotive store.

## Repair Parts

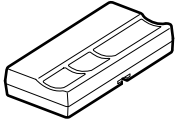
### Gate Operator Arm



ITEM	PART #	DESCRIPTION	QTY
1	K-41ADBL-0004	Arm Cover	1
2	K-LA-6	Complete Arm Assembly <b>Includes:</b> Arm, Motor and Plastic Cover	1
	K-DBL-0095SA	<b>Not Shown</b> Hardware Kit <b>Includes:</b> One Extension Bracket, One Gate Bracket, One Post Bracket and One Hardware Bag)	1
	01-33859	Owner's Manual	1
	01-33859SP	Owner's Manual - Spanish	1
	K-41ADBL-1011SA	Screws for housing (pack of 4)	

## Accessories

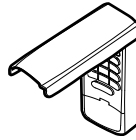
953D



### 3-Button SECURITY+® Remote Control:

Includes visor clip.

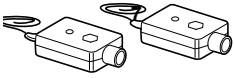
940D



### SECURITY+® Keyless Entry:

Enables homeowner to operate gate operator from outside by entering a four digit code on a specially designed keyboard.

916GA



### Protector System® Safety Sensors:

The Safety Sensors are intended for installation with the operators covered in this manual. To order call: 1-866-826-4943 or visit our website [www.chamberlain-diy.com](http://www.chamberlain-diy.com).

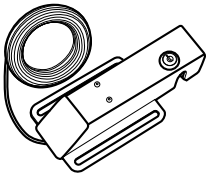
956D



### 3-Button Mini-Remote Control with SECURITY+®:

With key ring and fastening strip.

915GA



### Automatic Gate Lock:

Solenoid-driven lock that automatically unlocks when gate is open and locks when gate is closed. Can be mounted onto gate or post. Can be released in case of emergency.

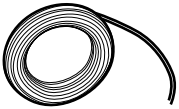
914GA



### Gate Arm Pin Lock:

The pin lock kit is designed to prevent disconnection of the gate operator and the gate while providing a means to open the gate in case of power failure.

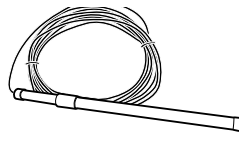
917GA



### Low Voltage Wire (100')

Low voltage wire is required to connect the transformer to the control box. Also can be used to connect optional safety sensors to the control box. UL approved for burial.

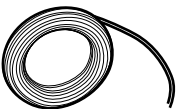
921GA



### Vehicle Exit Sensor:

One piece outdoor buried vehicle motion detector with sensing probe is housed in a small relay type housing so it is easy to integrate with gate, providing for free exit only.

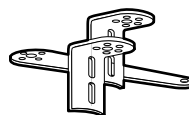
918GA



### Low Voltage Wire (250')

Low voltage wire is required to connect the transformer to the control box. Also can be used to connect optional safety sensors to the control box. UL approved for burial.

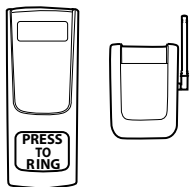
919GA



### Push-To-Open Bracket:

Used to allow the gate operator to push the gate open.

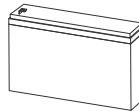
920GA



### Wireless Gate Doorbell

Allows guests to ring a doorbell in the house from the keypad. Homeowner can open gate from inside the home using the included remote control button. No wiring required. Keypad can be programmed to allow access to selected guests using a 4 digit code.

922GA



### Gate Access System Battery

The Gate Access System Battery is designed to add a battery for solar applications or as a replacement battery (includes cable harness).

# WARRANTY POLICY

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## CHAMBERLAIN ONE YEAR LIMITED WARRANTY

The Chamberlain Group, Inc. warrants to the first retail purchaser of this product, for the structure in which this product is originally installed, that it is free from defect in materials and/or workmanship for a period of ONE year from the date of purchase. The proper operation of this product is dependent on your compliance with the instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this limited warranty in its entirety.

If, during the limited warranty period, this product appears to contain a defect covered by this limited warranty, call 1-866-826-4943, toll free, before dismantling this product. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product returned for warranty repair. Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

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OUR LARGE SERVICE ORGANIZATION SPANS AMERICA  
INSTALLATION AND SERVICE INFORMATION  
CALL OUR TOLL FREE NUMBER

**1-866-826-4943**

[www.chamberlain.com](http://www.chamberlain.com)

**WHEN ORDERING REPAIR PARTS  
PLEASE SUPPLY THE FOLLOWING INFORMATION:**

**PART NUMBER DESCRIPTION MODEL NUMBER**

ADDRESS ORDER TO:

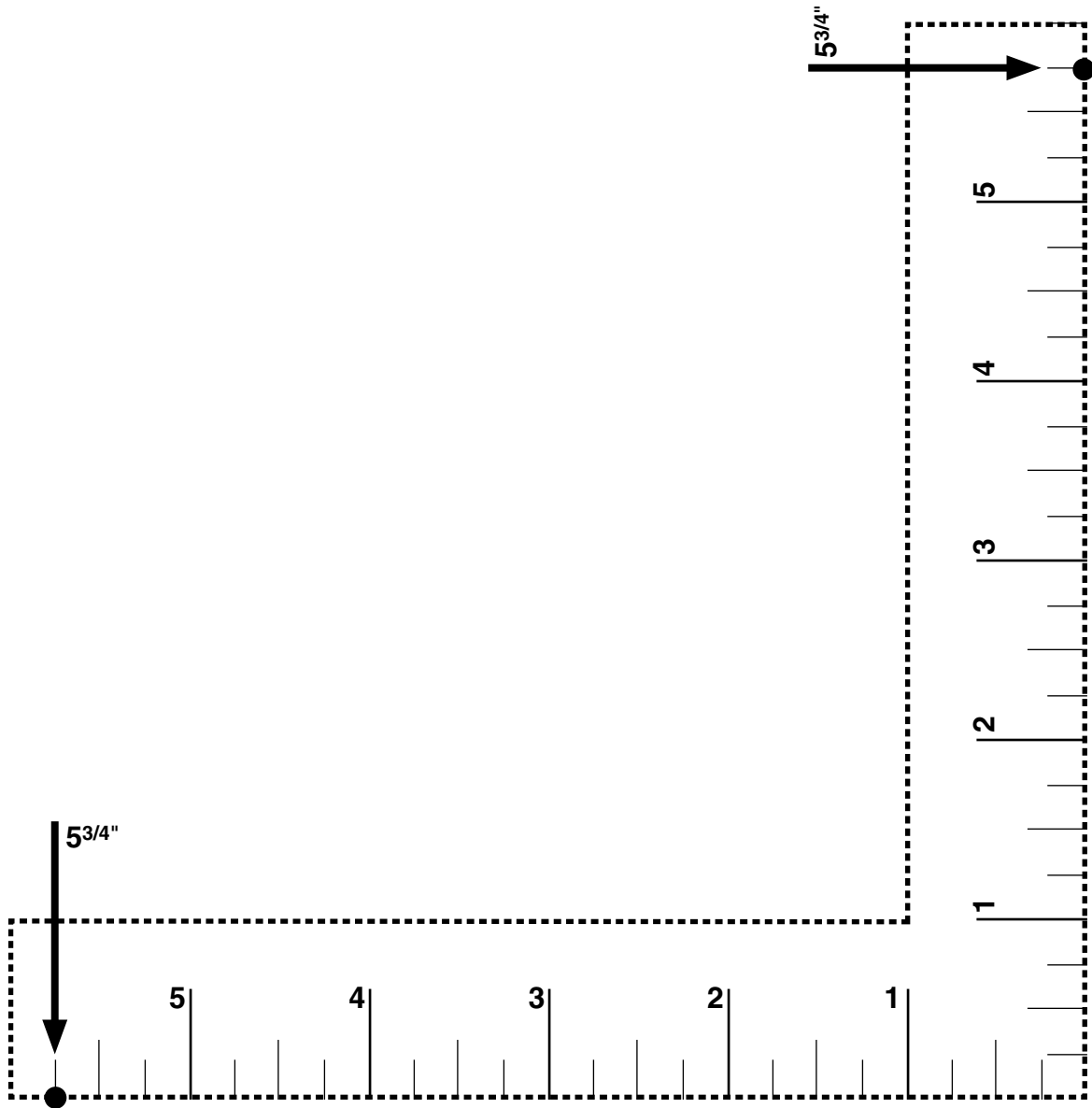
THE CHAMBERLAIN GROUP, INC.  
Technical Support Group  
6050 S. Country Club Road  
Tucson, AZ 85706

# NOTES

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# TEMPLATE FOR POST BRACKET MOUNTING





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