Installation Manual for the

⚠ WARNING! ⚠

This equipment is similar to other gate or door equipment and meets or exceeds Underwriters Laboratory Standard 325 (UL 325). However, gate equipment has hazards associated with its use and therefore by installing this product the installer and user accept full responsibility for following and noting the installation and safety instructions. Failure to follow installation and safety instructions can result in hazards developing due to improper assembly. You agree to properly install this product and that if you fail to do so Gates That Open, LLC shall in no event be liable for direct, indirect, incidental, special or consequential damages or loss of profits whether based in contract tort or any other legal theory during the course of the warranty or at any time thereafter. The installer and/or user agree to assume responsibility for all liability and use of this product releasing Gates That Open, LLC from any and all liability. If you are not in agreement with this disclaimer or do not feel capable of properly following all installation and safety instructions you may return this product for full replacement value.

READ ALL INSTRUCTIONS CAREFULLY AND COMPLETELY before attempting to install and use this automatic gate opener. This gate opener produces a high level of force. Stay clear of the unit while it is operating and exercise caution at all times.

All automatic gate openers are intended for use on vehicular gates only.

This product meets and exceeds the requirements of UL 325, the standard which regulates gate opener safety, as established and made effective March 1, 2000, by Underwriters Laboratories Inc.

GTO® GATES THAT OPEN, LLC

3121 Hartsfield Road • Tallahassee, Florida, USA 32303
Telephone GTO Sales: 1-800-543-GATE (4283) or (850) 575-0176 • Fax (850) 575-8912
or GTO Technical Service: 1-800-543-1236 or (850) 575-4144 • Fax (850)575-8950
www.gtoaccess.com

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U.L. Gate Operator Classifications

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 as a multifamily 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.

Product Usage

This Gate Operator meets all of the safety requirements of a Class I Residential Vehicular Gate Operator and is intended for use solely with **vehicular swing gates in single-family residential applications**.

This Gate Operator is system certified to be in compliance with the following safety standards (current edition as of publication date):

Product in compliance with the latest UL-325 and UL-991 safety standards by ETL. Product in compliance with CAN/CSA-C22.2 No. 247-92.

Product in compliance with IEC 60335-2-103:2003 and IEC 60335-1:2004, including A1:2004.

Converting Metric Units to English Equivalents

When You Know	Multiply By	To Find	Symbol
centimeters	0.3937	inches	in. (or ")
meters	3.2808	feet	ft. (or ')
kilograms	2.2046	pounds	lb. (or #)

Converting English Units to Metric Equivalents

When You Know	Multiply By	To Find	Symbol
inches	2.5400	centimeters	cm
feet	0.3048	meters	m
pounds	0.4535	kilograms	kg

Converting Temperature

deg. Celsius	(°C x 1.8) + 32	deg. Fahrenheit	°F
deg. Fahrenheit	(°F-32) ÷ 1.8	deg. Celsius	°C

FOR YOUR RECORDS

Please record the following information product serial number (located on right side of control box), be sure to **keep all receipts for proof of purchase**. Refer to this information when calling GTO for service or assistance with your automatic gate opener.

Serial Number: _____ Date of Purchase: _____

Place of Purchase: _____

Table of Contents

Please Read This First!

Thank you for purchasing a GTO/ACCESS SYSTEMS gate opener. When correctly installed and properly used, your gate operator will give you many years of reliable service. Please read the following information to ensure you have the correct system for your particular needs. This manual will enable you to properly install your Automatic Gate Operator.

The gate operator is designed for installation on a pull-to-open single leaf gate. By purchasing an accessory bracket [347IH], the gate operator can accommodate a **push-to-open** gate (gate that open out from the property). The gate must not exceed 18 feet in length nor weigh more than 850 pounds* (please see Technical Specifications on page 1). The gate operator can be used on vinyl, aluminum, chain link, farm tube, and wrought iron gates. Use on solid (wood) gates is not recommended. Solid surface gates have a high resistance to the wind. If the wind is strong enough, the operator will obstruct, stop, and blow fuses.

The gate operator accommodates extra transmitters, digital keypads, solar panels, push buttons, automatic gate locks, and other access control products. These optional accessories are sshown in the back of this manual.

The gate operator features adjustable stall force. This safety feature makes the gate stop and reverse direction within two seconds when it comes in contact with an obstruction. The "MIN" setting means the gate will exert the minimum force on an obstruction before it stops and reverses direction.

The gate operator also has an adjustable auto-close feature. It can be set to remain open from 3 to 120 seconds before automatically closing. Pressing the transmitter button at any time after the gate fully opens will cause it to close immediately. "OFF" is the factory setting; meaning the gate will stay open until you press the transmitter button (or keypad, etc.) again.

Please call GTO at (800) 543-GATE [4283] or (850) 575-0176 for more information about our GTO/ACCESS SYSTEMS professional line of gate operators and accessories.

BEFORE YOU BEGIN TO INSTALL YOUR AUTOMATIC GATE OPERATOR:

Read these instructions carefully and completely to become familiar with all parts and installation steps. You must read the installation manual for detailed instructions on gate operator safety and proper use of the gate operator.

24/7 Troubleshooting Wizard: http://support.gtoinc.com

Important Safety Information

Because automatic gate openers produce high levels of force, consumers need to know the potential hazards associated with improperly designed, installed, and maintained automated gate opener systems. ***Keep in mind that the gate opener is just one component of the total gate operating system.*** Each component must work in unison to provide the consumer with convenience, security, and safety.

This manual contains various safety precautions and warnings for the consumer. Because there are many possible applications of the gate opener, the safety precautions and warnings contained in this manual cannot be completely exhaustive in nature. They do, however, provide an overview of the safe design, installation, and use of this product. **CAREFULLY READ AND FOLLOW ALL SAFETY PRECAUTIONS, WARNINGS, AND INSTALLATION INSTRUCTIONS TO ENSURE THE SAFE SYSTEM DESIGN, INSTALLATION, AND USE OF THIS PRODUCT.**

Precautions and warnings in this manual are identified with this warning symbol. The symbol identifies conditions that can result in damage to the opener or its components, serious injury, or death.

Because GTO automatic gate openers are only part of the total gate operating system, it is the responsibility of the consumer to ensure that the total system is safe for its intended use.

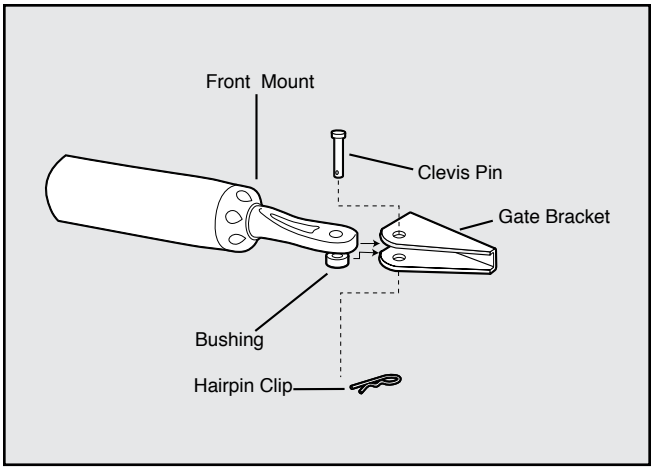
Manually Opening and Closing Gate

CAUTION: The gate will move freely and uncontrolled when the gate opener is removed from the gate. ONLY disconnect the opener when the control box power switch is OFF and the gate is NOT moving.

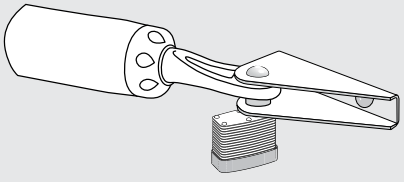
Disconnecting the Opener

1. Turn control box power switch OFF.
2. Remove hairpin clip, clevis pin, and bushing from either the front or rear mounting point.
3. Remove the opener from the mount.

The gate can be opened and closed manually when the opener is disconnected.



NOTE: Substitute the included **Pin Lock** for the clevis pin on the front mount of the gate opener to prevent unauthorized removal of the opener from the gate.



Important Safety Information

For the Consumer

WARNING: To reduce the risk of injury or death:

1. **READ AND FOLLOW ALL INSTRUCTIONS.** Failure to meet the requirements set forth in the instruction manual could cause severe injury or death, for which the manufacturer cannot be held responsible.

2. When designing a system that will be entered from a highway or main thoroughfare, make sure the system is placed far enough from the road to prevent traffic congestion.

3. The gate must be installed in a location that provides adequate clearance between it and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates **must not** open into public access areas.

4. The gate and gate opener installation **must comply with any applicable local codes.**

I. Before Installation

1. Verify this opener is proper for the type and size of gate, its frequency of use and proper class rating.

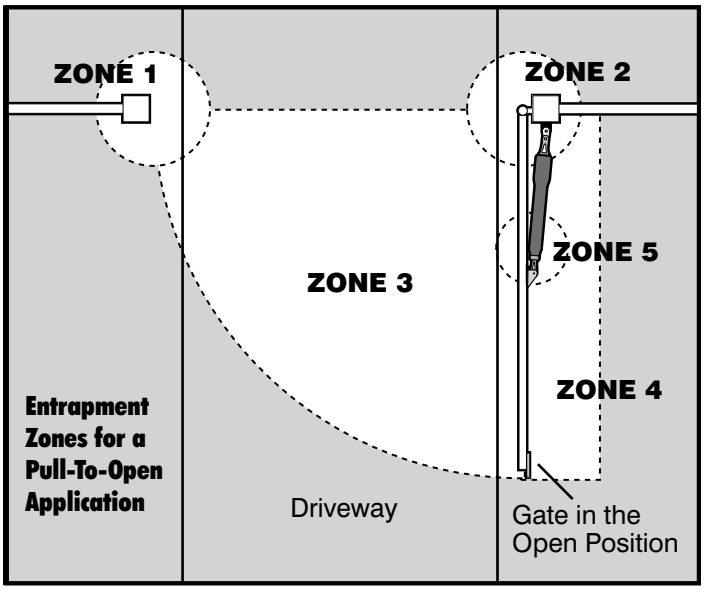
2. Make sure the gate has been properly installed and swings freely in both directions. Repair or replace all worn or damaged gate hardware prior to installation. A freely moving gate will require less force to operate and will enhance the performance of the opener and safety devices used with the system *(see page 9).*

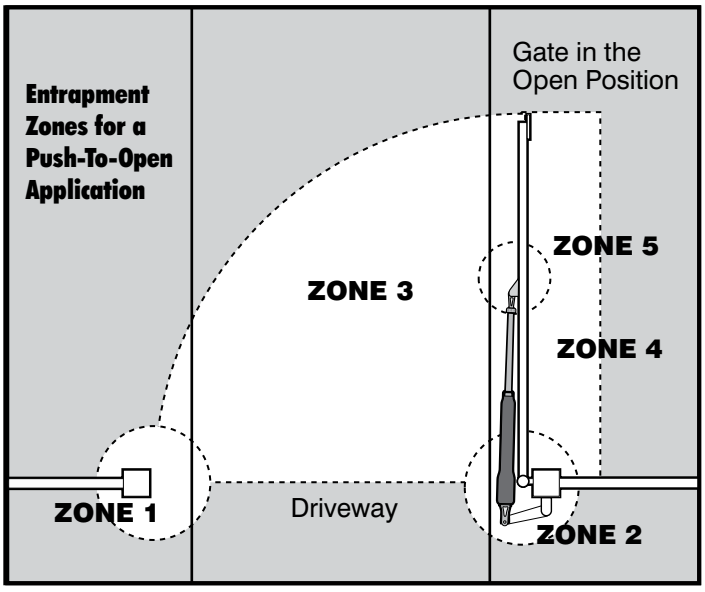
3. Review the operation of the system to become familiar with its safety features. Understand how to disconnect the opener for manual gate operations *(see page 1).*

4. This gate opener is intended for **vehicular gates ONLY.** A separate entrance or gate must be installed for pedestrian use *(see page6).*

5. Always keep people and objects away from the gate and its area of travel. **NO ONE SHOULD CROSS THE PATH OF A MOVING GATE.**

6. Pay close attention to the diagram below and be aware of these areas at all times.





Important Safety Information

For the Consumer

Entrapment Zones for a proper Pull-To-Open installation:

Zone 1 – leading edge of the gate and the fence post.
Zone 2 – between the gate and the gate post.
Zone 3 – the path of the gate.
Zone 4 – the space between the gate in the open position and any object such as a wall, fence, tree, etc.
Zone 5 – pinch points between the opener and gate.

II. During Installation

1. Install the gate opener on the inside of the property and fence line. **DO NOT** install an opener on the outside of the gate where the public has access to it.

2. Be careful with moving parts and avoid close proximity to areas where fingers or hands could be pinched.

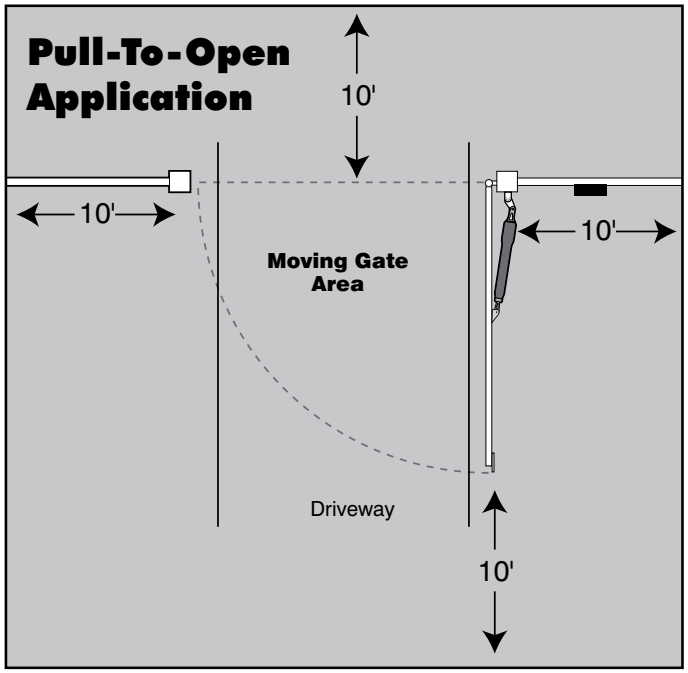
3. Devices such as contact sensors (safety edges) and non contact sensors (photo beams) provide additional protection against entrapment.

4. If push buttons or key switches are installed, they should be within sight of the gate, yet located at least 10 feet from any moving part of the gate (see diagram below). ***Never install any control device where a user will be tempted to reach through the gate to activate the gate opener.***

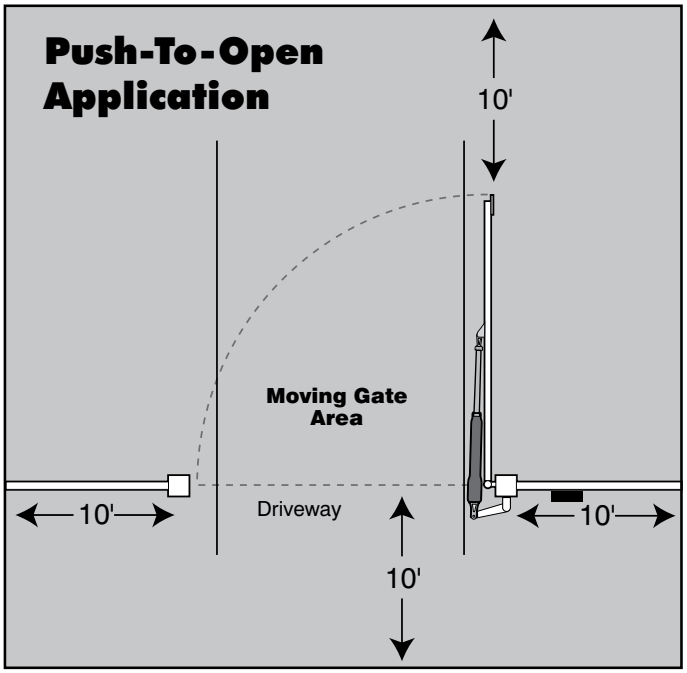
5. Do not activate your gate opener unless you can see it and can determine that its area of travel is clear of people, pets, or other obstructions. Watch the gate through its entire movement.

6. Secure outdoor or easily accessed gate opener controls in order to prohibit unauthorized use of the gate.

NEVER install any control device within gray area



NEVER install any control device within gray area



Important Safety Information

For the Consumer

III. After Installation

1. Attach the **warning signs** (included) to each side of the gate to alert the public of automatic gate operation. It is your responsibility to post warning signs on both sides of your gate. If any of these signs or warning decals becomes damaged, illegible, or missing, replace them immediately. Contact GTO for free replacements.

2. The gate is automatic and could move at any time, posing serious risk of entrapment. No one should be in contact with the gate when it is moving or stationary.

3. Do not attempt to drive into the gate area while the gate is moving; wait until the gate comes to a complete stop.

4. Do not attempt to "beat the gate" (drive through) while the gate is closing. This is extremely dangerous.

5. Do not allow children or pets near your gate. **Never let children operate or play with gate controls.** Keep the remote control away from children and unauthorized users; store controls where children and unauthorized users do not have access to them.

6. **KEEP GATES PROPERLY MAINTAINED.** Always turn power to operator OFF before performing any maintenance. Clean the push-pull tube with a soft, dry cloth and apply silicone spray to it at least once per month.

7. Service the gate and gate operator regularly. Grease hinges, clean the push-pull tube by spraying a soft dry cloth with silicone spray and wipe the tube at least once per month and replace the battery every 2-3 years.

8. To operate this equipment safely, YOU must know how to disconnect the operator for manual gate operation (see page 1). If you have read the instructions and still do not understand how to disconnect the operator, contact the GTO Service Department.

9. Disconnect the operator **ONLY** when the power is **TURNED OFF** and the gate is **NOT** moving.

10. Make arrangements with local fire and law enforcement for emergency access.

11. Distribute and discuss copies of the **IMPORTANT SAFETY INFORMATION** section of this manual with all persons authorized to use your gate.

12. **IMPORTANT: Save these safety instructions. Make sure everyone who is using or will be around the gate and gate operator are aware of the dangers associated with automated gates. In the event you sell the property with the gate operator or sell the gate operator, provide a copy of these safety instructions to the new owner.**

    Should you lose or misplace this manual, a copy can be obtained by downloading one from the GTO Access Systems web site (www.gtoaccess.com), by contacting Gates That Open, LLC., at 3121 Hartsfield Road, Tallahassee, Florida 32303 or by calling 1-800-543-4283 and requesting a duplicate copy. One will be provided to you for a nominal fee.

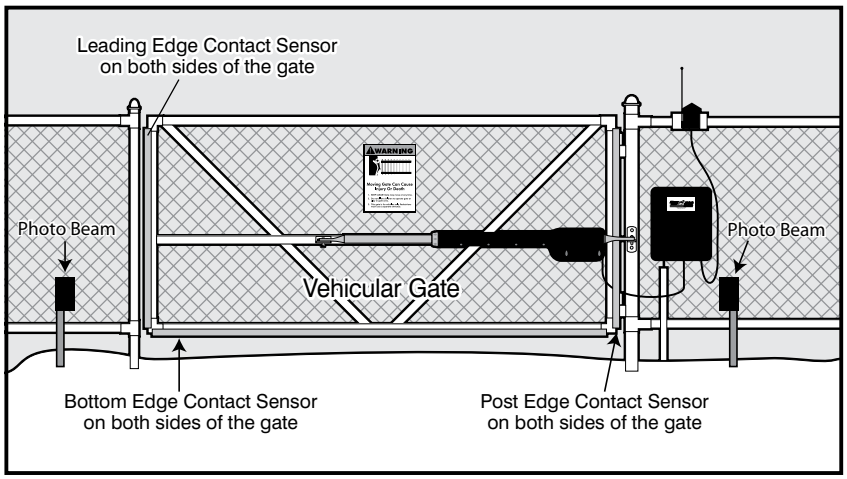
Important Safety Information

Secondary Means of Protection Against Entrapment

As specified by Gate Operator Safety Standard, UL 325 (30A.1.1), automatic gate operators shall have an inherent entrapment sensing system, and shall have provisions for, or be supplied with, at least one independent secondary means to protect against entrapment. GTO gate openers utilizes **Type A**, an inherent (i.e., built-in) entrapment sensing system as the **primary** type of entrapment protection. Also, the gate opener has **provisions for** the connection of **Type B1 or B2** protection to be used as the **secondary** type of entrapment protection, if desired.

1. For gate operators utilizing a non-contact sensor (e.g., photo-electric sensor– Type B1) in accordance with UL 325 (51.8.4 [h]):
   A. Refer to the sensor manufacturer's instructions on the placement of non-contact sensors for each type of application.
   B. 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.
   C. 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.
2. For gate operators utilizing a contact sensor (e.g., safety edge sensor– Type B2) in accordance with UL 325 (51.8.4 [i]):
   A. One or more contact sensors shall be located at the leading edge, bottom edge, and post edge, both inside and outside of a vehicular swing gate system.
   B. A hard wired 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.
   C. A wireless contact sensor such as one that transmits radio frequency (RF) 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.

You may want to consider adding photo beams to your installation. GTO Photo Beams [R4222] provide a "non contact" means of entrapment protection.



ENTRAPMENT ALARM (UL 325; 30A.1.1A)

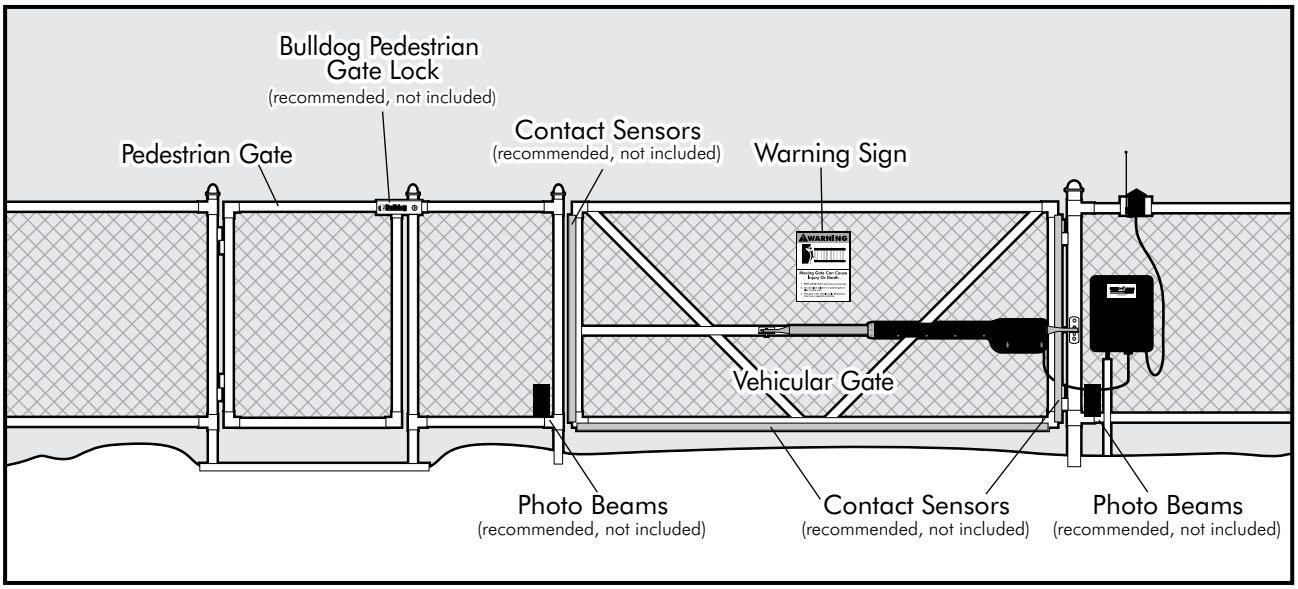
The GTO® Automatic Gate Operator is designed to stop and reverse within 2 seconds when the gate comes in contact with an obstruction. Additionally, these operators are equipped with an **audio entrapment alarm** which will activate if the unit obstructs twice while opening or closing. This alarm will sound for a period of 5 minutes, or until the operator receives an intended signal from a hardwired entry/exit source (e.g. push button control or keypad) and the gate returns to a fully open or fully closed position. Turning the power switch on the control box OFF and back ON will also deactivate the alarm. Wireless controls such as transmitters and wireless keypads will not deactivate the alarm.

Important Safety Information

Required Safety Precautions for Gates

Install Warning Signs

Warning signs alert people of automatic gate operation and are **required** when installing the GTO Automatic Gate Operator. Furthermore, a walk-through gate must be installed if pedestrian traffic is expected near the vehicular gate. We recommend using the **GTO Bulldog Pedestrian Gate Lock** *(Call the GTO Sales Department at 800-543-4283)* for controlled access.



Entrapment Protection

GTO's inherent obstruction settings, even when properly adjusted, ***may not be sensitive enough to prevent bodily injury in some circumstances.*** For this reason, safety devices such as safety edge sensors (or photoelectric sensors), which stop and reverse gate direction upon sensing an obstruction, are suggested for enhanced protection against entrapment.

Warning Signs

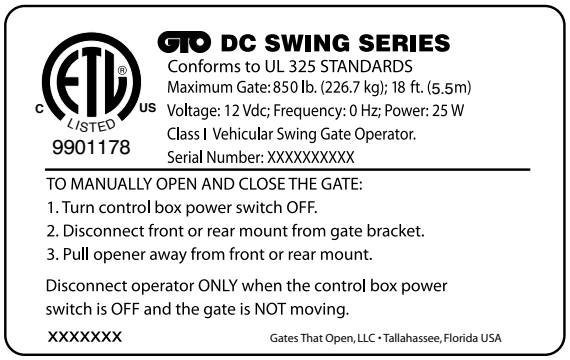
The warning signs (at right) must be installed on both sides of the gate (see next page for details).

Important Safety Information

Required Safety Precautions for Gates

Warning signs (2 enclosed) to be installed on each side of the gate (3–5 feet above the bottom of the gate).

These warning labels should be found at the locations specified below. If any of them are missing, immediately contact GTO for replacements.



Product identification and manual operation instruction label (1) installed on right hand side of control box.

Logo and warning labels (2) installed on each side of opener housing.

Technical Specifications

GTO® Gate Opener

DRIVE

- Low friction screw drive (linear actuator) rated for -5 ºF to +160 ºF (-20 ºC to +71 ºC). Use of heater bands on arm and control box will enhance performance in extreme cold temperatures.
- Powered by a 12 V motor with integral case hardened steel gear reducer. Motor speed reduced to 260 rpm.
- Maximum opening arc of 110º. Approximate opening time (90º): 20 seconds, depending on weight of gate.

POWER

- The system is powered by two 12 Vdc, 7.0 Ah, sealed, rechargeable acid batteries.
- Battery charge is maintained by a 18 Vac output transformer through the GTO control board. Blade-style control board fuse is rated for 15 A.

  NOTE: The transformer should not be directly connected to any battery. Do not replace fuses with higher ampere rated fuses; doing so will void your warranty and may damage your control board.
- OPTIONAL: Battery charge is maintained by GTO Solar Panel Charger kits (5 Watt minimum).

CONTROL

- GTO microprocessor-based control board is set for single leaf, pull-to-open gate installations. DIP switches can be adjusted to accommodate an optional kit for push-to-open gates (see Accessory Catalog).
- A circuit on the control board regulates charging. “Sleep draw” is 25 mA; “active draw” is 2 to 5 A.
- Auto-memorization of digital transmitter code.
- GTO remote-mounted RF receiver tuned to 318 MHz.
- Operator length with push-pull tube fully retracted is 40-1/4” mounting point to mounting point. Max stroke 22”.
- Adjustable auto-close timer (3 to 120 s), and obstruction sensitivity.
- Power terminal block accommodates a transformer or solar panels. **NOTE: Do not use solar panel and transformer at the same time.**
- DIP switches simplify setup of gate operator.
- Accessory terminal block fully compatible with push button controls, digital keypads, safety loops, etc.
- Control board allows connection of safety edge sensors and photoelectric sensors.
- Audio entrapment alarm sounds if unit encounters an obstruction twice while opening or closing.

OPERATIONAL CAPACITY

- The Gate Capacity Chart shows approximate cycles, per day, you can expect from the GTO Automatic Gate Operator when powered with a transformer. Actual cycles may vary slightly depending upon the type and condition of gate and installation.

NOTE: Gray area indicates this size and weight combination is not recommended for the Silver-HD gate opener.

NOTE: Ball bearing hinges should be used on all gates weighing over 250 lb.

Silver-HD Single Gate Capacity /Cycle Chart

Estimated number of daily cycles, based on use with a transformer.

Number of Cycles* Per Day

Gate Weight	5’ - 6’	8’	10’	12’	14’	16’	18’
850 lbs.	135	125					
750 lbs.	145	135	125				
650 lbs.	155	145	135	125			
550 lbs.	165	155	145	135	125		
450 lbs.	175	165	155	145	135	125	
350 lbs.	185	175	165	155	145	135	125
250 lbs.	195	185	175	165	155	145	135
150 lbs.	205	195	185	175	165	155	145
100 lbs.	215	205	195	185	175	165	155
50 lbs.	225	215	205	195	185	175	165

Gate Length

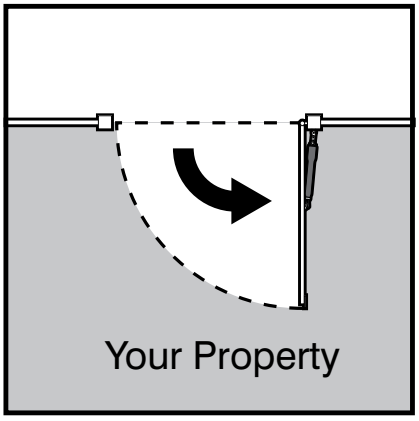
To determine the number of cycles the gate operator will perform using solar panels, please see the specifications listed on page 22.

* An operation cycle is one full opening and closing of the gate.

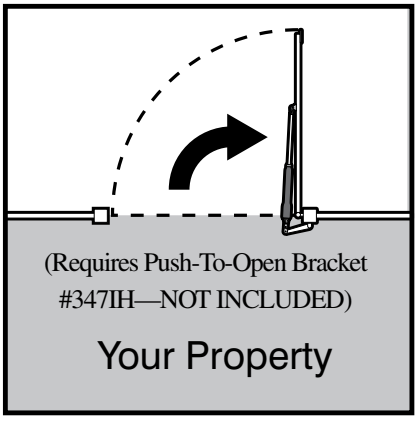
These specifications are subject to change without notice.

Before You Begin

Check Direction of Gate Swing



Pull-to-Open Option
Instructions begin on page 13



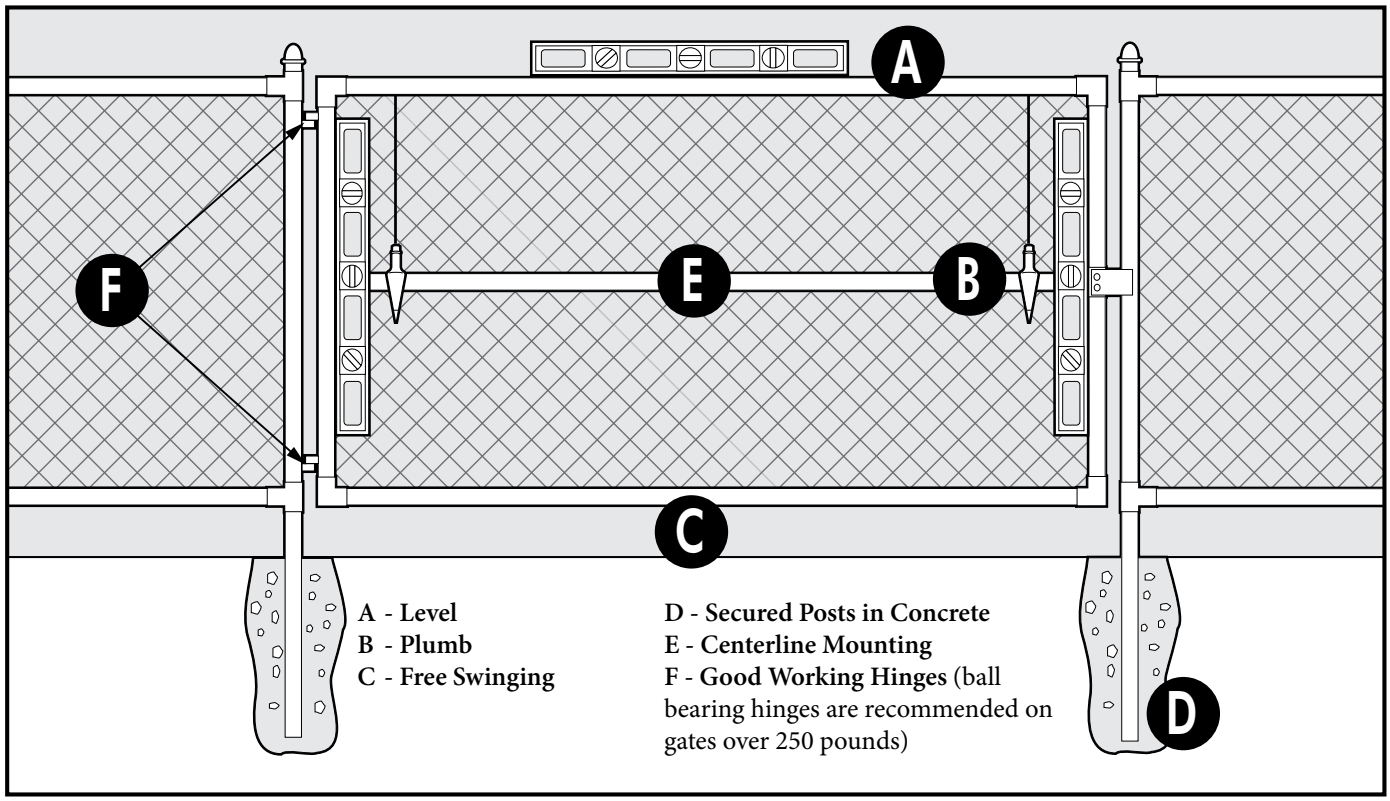
Push-to-Open Option
Instructions begin on page 16

Check Existing Gate Size and Material

- **Gate size:** Up to 18 feet or up to 850 lbs—See chart on page 9.
- **Type of gate material:** Vinyl, aluminum, chain link, farm tube, wrought iron, wood (not recommended for solid surface gates).

IMPORTANT: Check for Proper Gate Installation

For the gate opener to work properly, gate must be plumb, level, set in concrete, swing freely and not touch the ground and have good working hinges.



A - Level
B - Plumb
C - Free Swinging

D - Secured Posts in Concrete
E - Centerline Mounting
F - Good Working Hinges (ball bearing hinges are recommended on gates over 250 pounds)

Before You Begin

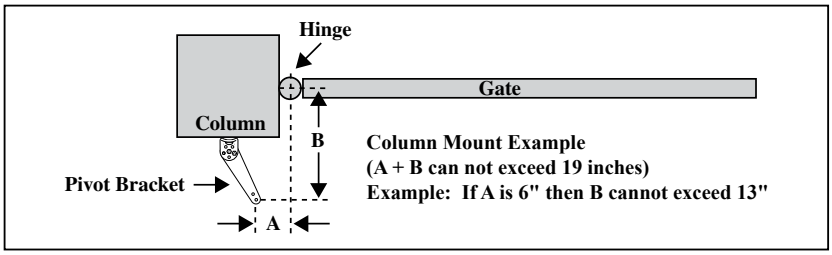
Column Installation Information

IF THIS OPENER WILL BE USED WITH GATES THAT ARE MOUNTED ON MASONRY, BRICK, OR ROCK (etc.) COLUMNS, READ THE FOLLOWING CAREFULLY BEFORE PROCEEDING

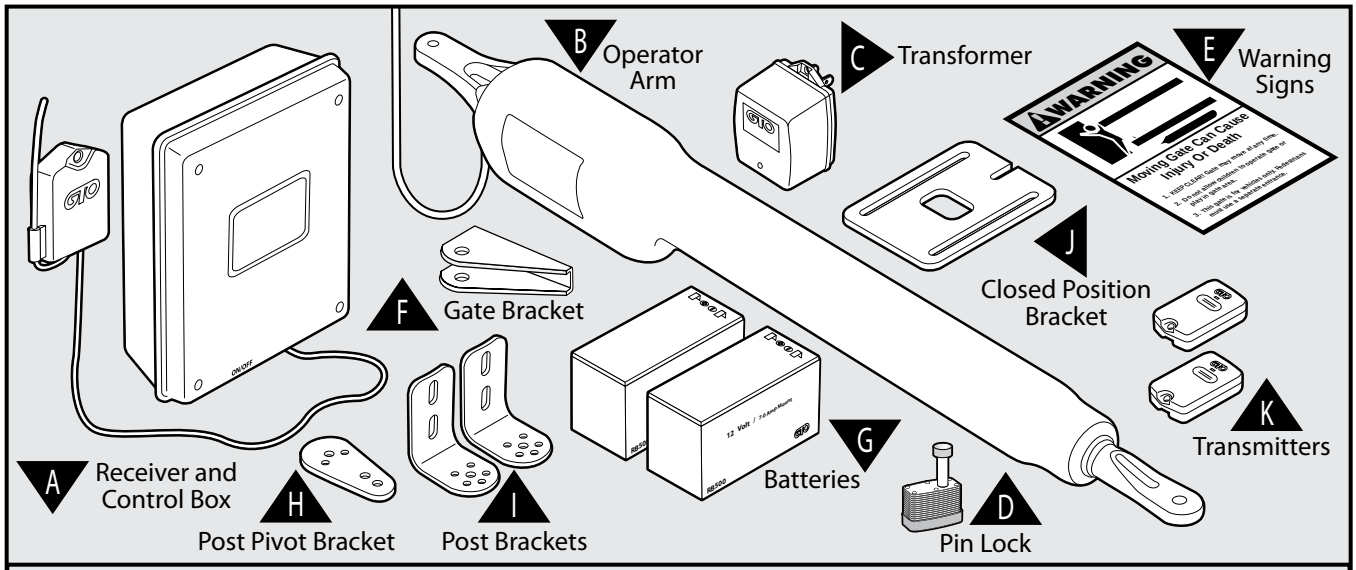
A. The simplest solution is to install the opener in a push-to-open configuration (requires push-to-open bracket, see accessory catalog). The minimum clearance is easier to achieve and clearance is no longer a problem, since the opener will be pushing the gate away from the column instead of pulling it toward the column. It is recommended that you place a steel plate between the opener mounting brackets and masonry surface for additional strength.

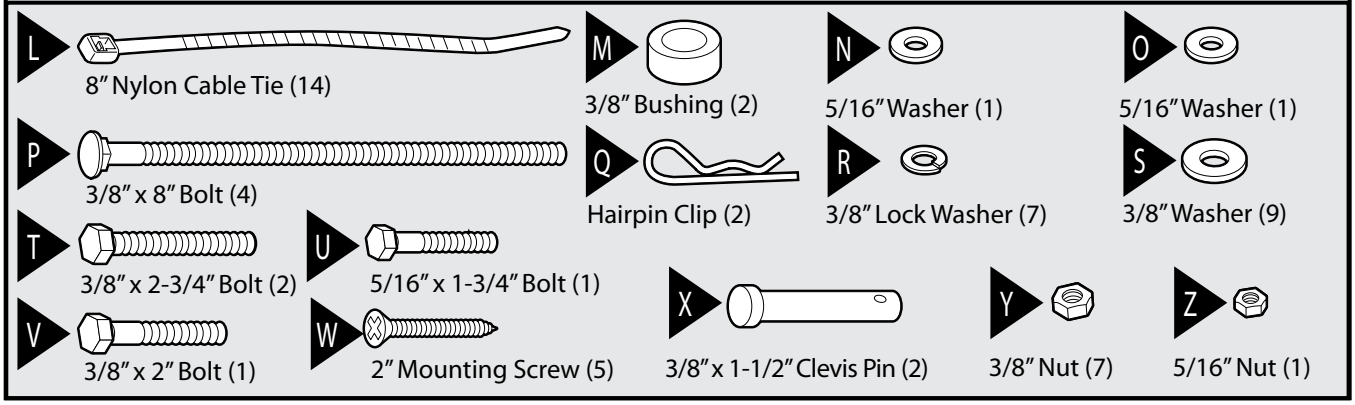
B. If a push-to-open installation is impossible due to traffic hazards, terrain, etc., another option is to re-hang the gate. You may hang it on a post, either in the center of the column or at the back corner, or move the gate to the back corner of the columns.

C. The most difficult solution is to cut a notch in the column to accommodate the opener and power cable. This job is NOT for the inexperienced!



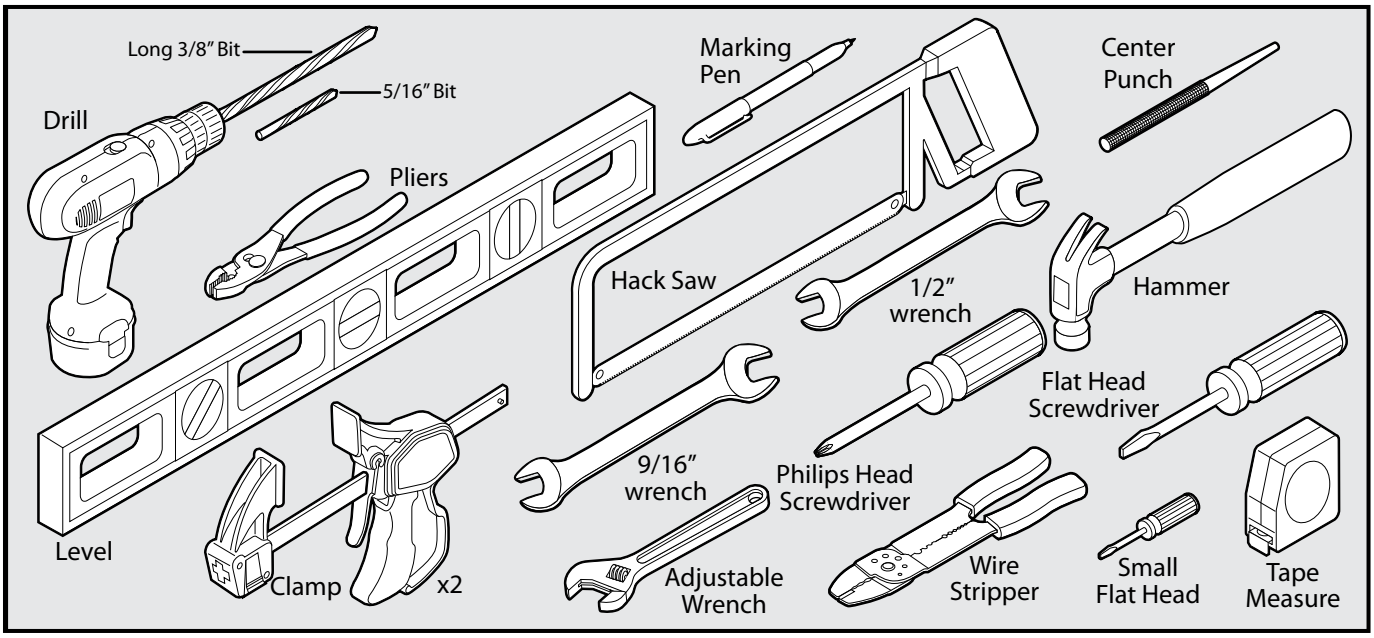
Items Included





Before You Begin

Tools Needed

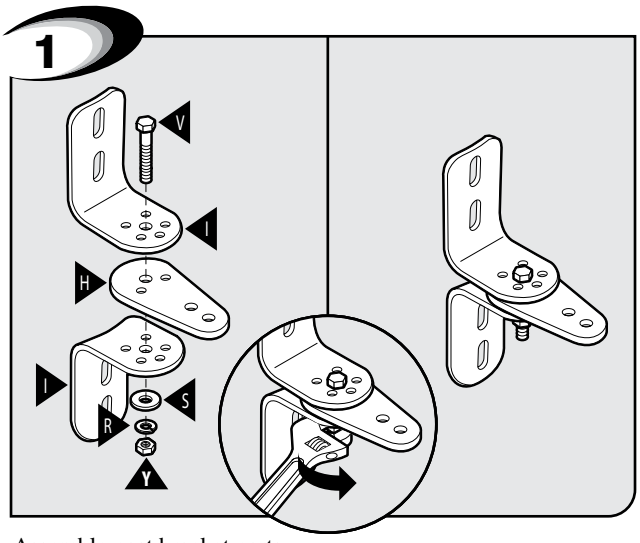


Items Not Included

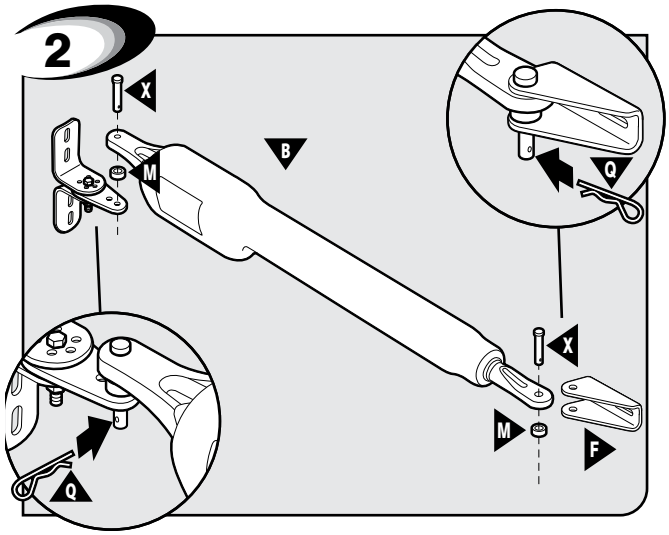
- Low voltage wire will be needed to run from the transformer to the control box; length depends upon the distance between the transformer power supply and the control box. See Transformer Wiring Installation on page 19, and the accessory catalog.
- PVC conduit.
- If your gate is more than 1000' away from an ac power source you will need to use at least one GTO® 5 watt solar panel to trickle charge the battery. See the accessory catalog (Do not use both transformer and solar).
- If you have thin walled tube or panel gates, see Recommended Reinforcement Examples in "Quick Reference Guide" after Step 3 of "Mounting Opener to Gate" section.
- Depending on the type of gate, a horizontal cross member or mounting plate may be needed to mount the front of the opener and gate bracket to the gate. See Gate Bracket Mounting Examples in "Quick Reference Guide" after Step 3 of "Mounting Opener to Gate" section.
- Surge protection for transformer.
- Some types of installations require u-bolts.
- If the gate is a push-to-open refer to page 15 in Installation Manual.
- Additional washers or a metal plate may be needed for wooden post.
- Outlet in weatherproof cover.
- Strain relief nuts for accessory devices.
- If post is more than 6", bolts longer than 8" are needed.

Gate Opener Installation

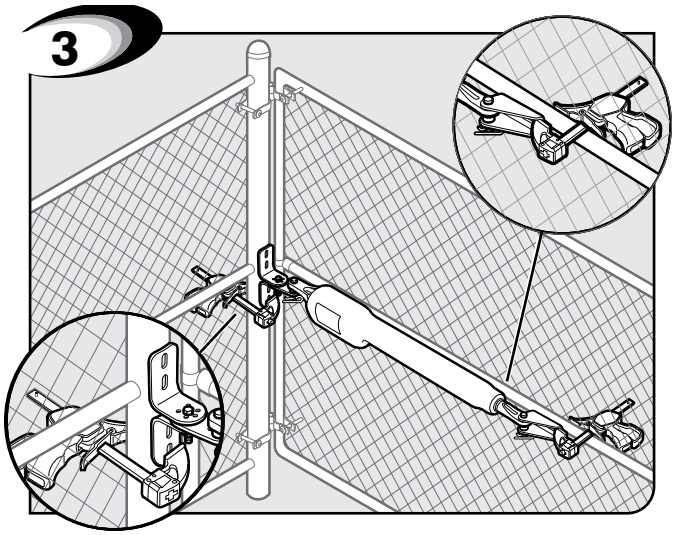
Mounting Pull-to-Open Opener to Gate



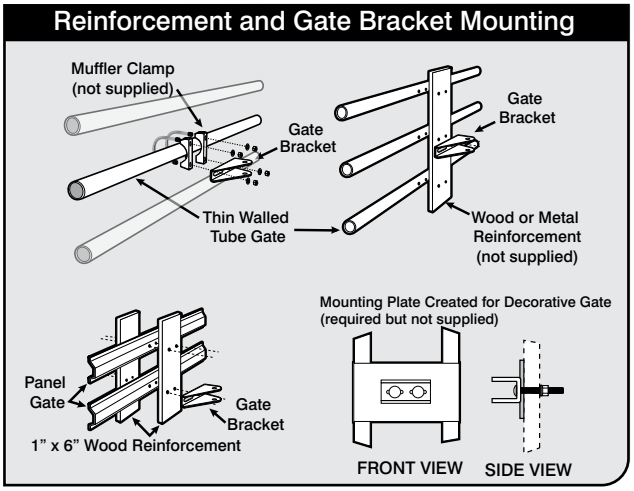
Assemble post bracket parts.



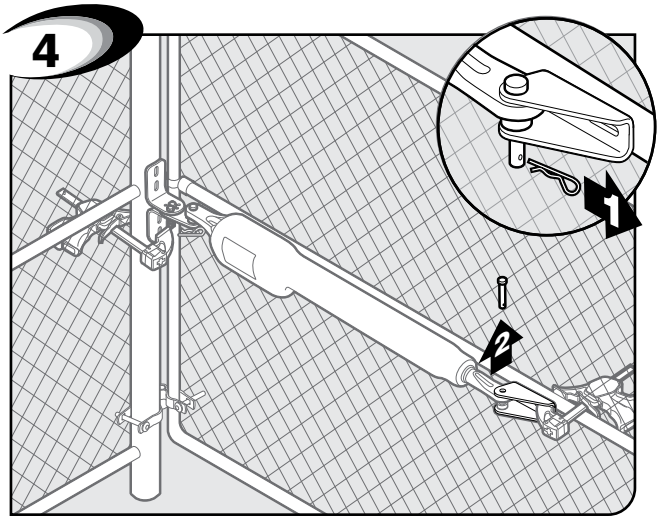
Attach opener to gate bracket and secure with required hardware.



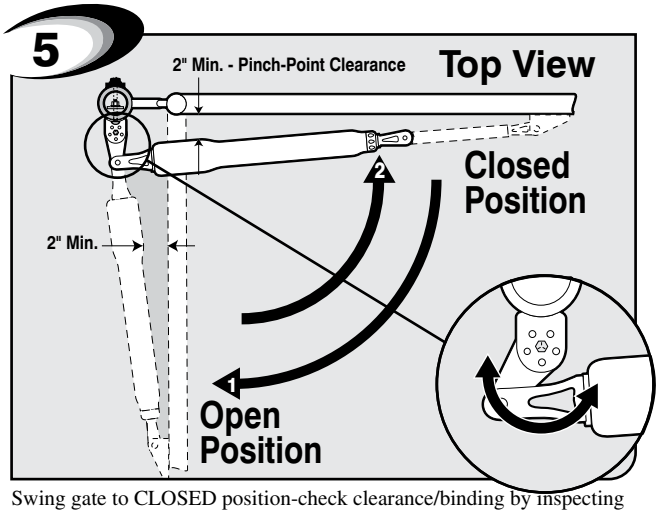
With Gate in **OPEN** position, using clamps, secure opener to gate post and center cross member of gate.



Recommended reinforcement and gate bracket mounting examples.



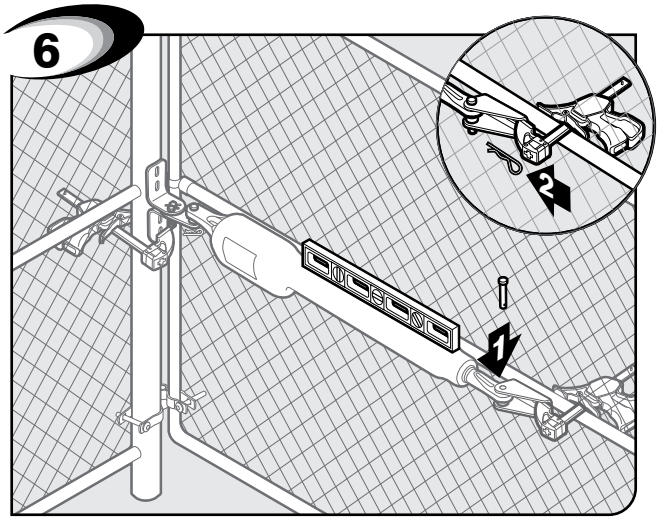
Remove clevis pin from the gate bracket and support loose opener.



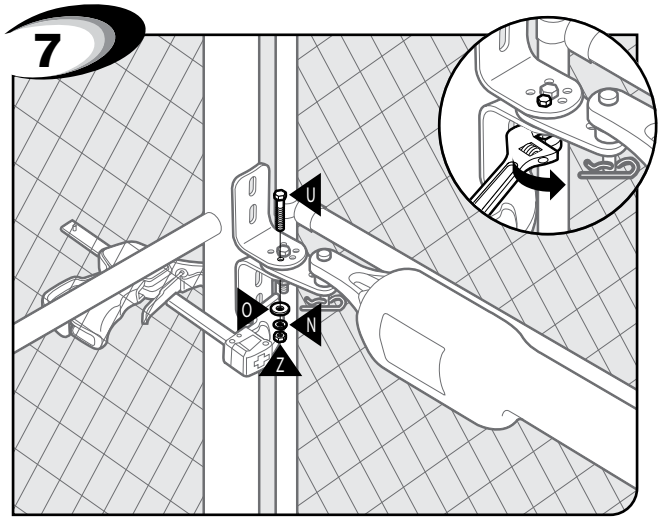
Swing gate to CLOSED position-check clearance/binding by inspecting alignment. *TIP: Turning the pivot bracket over gives more hole alignment options for the post pivot bracket assembly.*

Gate Opener Installation

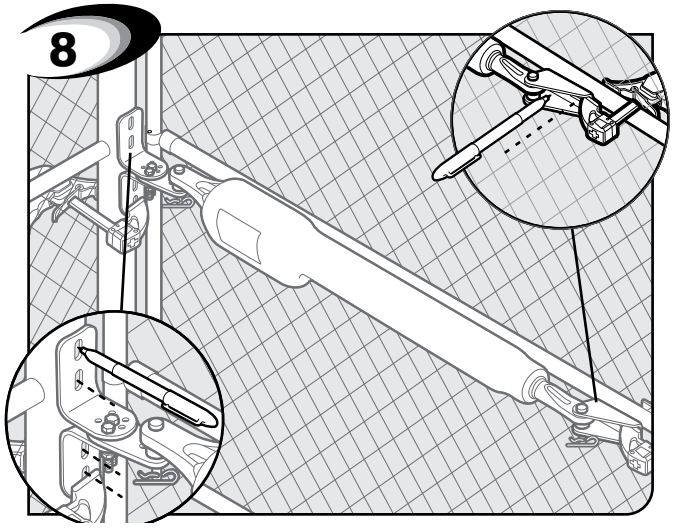
Mounting Pull-to-Open Opener to Gate



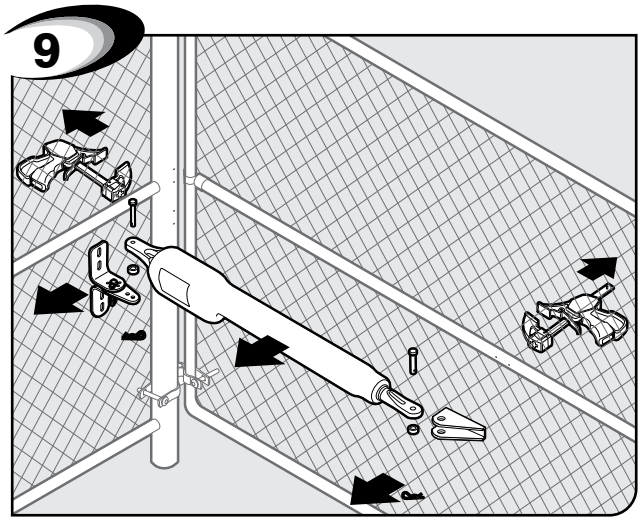
OPEN gate and reattach opener with clevis pin. Check for level. Clamp securely.



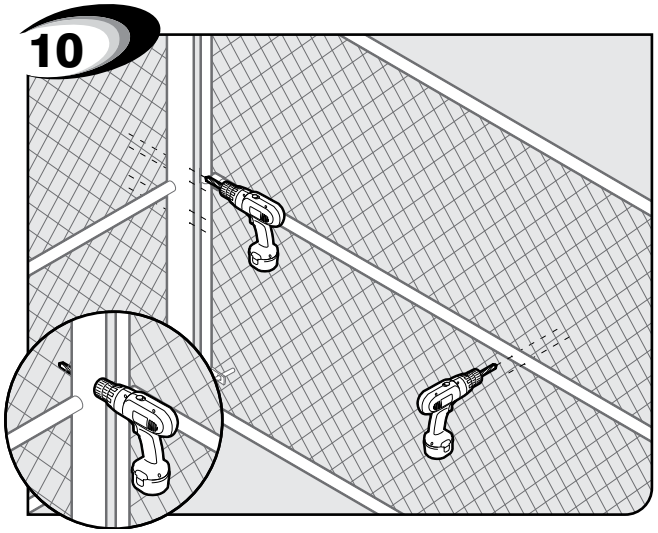
Secure post pivot bracket to post bracket when clearance is OK (Step 5) in both open and closed positions.



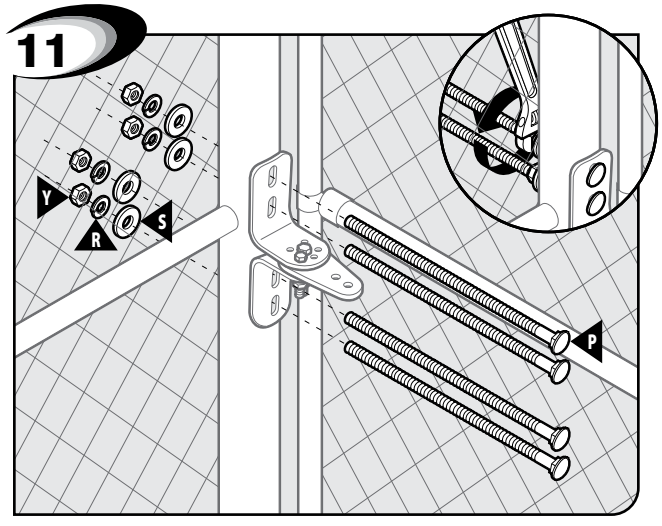
Mark middle of post bracket slots on fence post. Mark middle of gate bracket slots on gate cross support.



Remove clamps, post, gate brackets, and opener. Then use a hammer and center punch to mark hole positions.



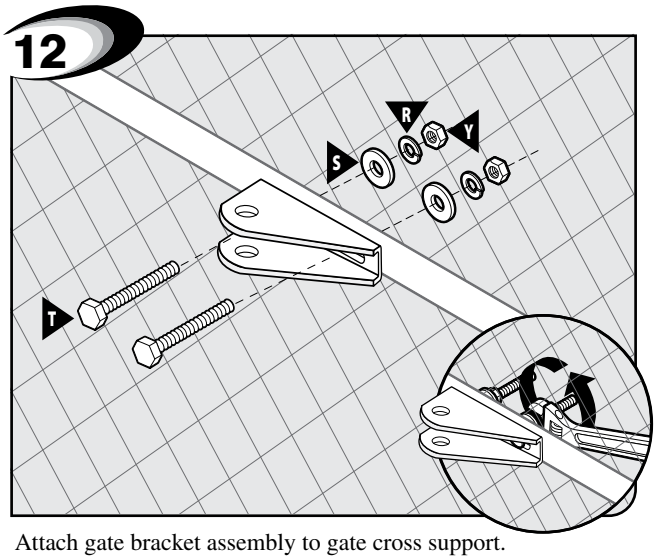
Drill 3/8" holes completely through gate post and gate cross support.



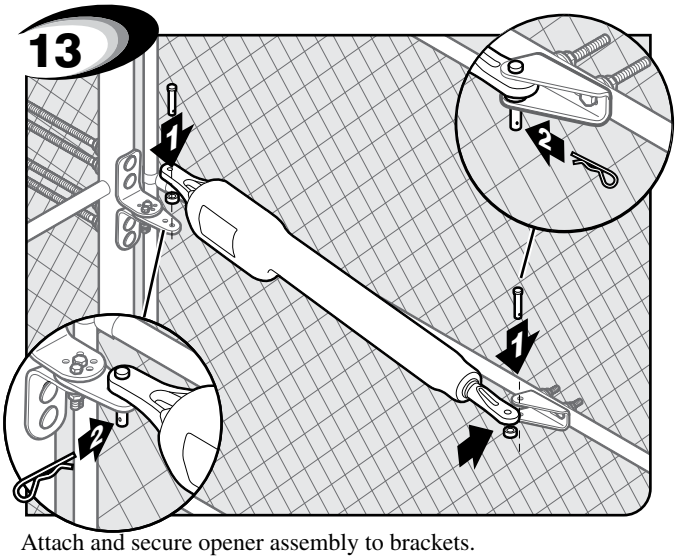
Attach post bracket assembly to fence post. *NOTE: Must be through bolted.*

Gate Opener Installation

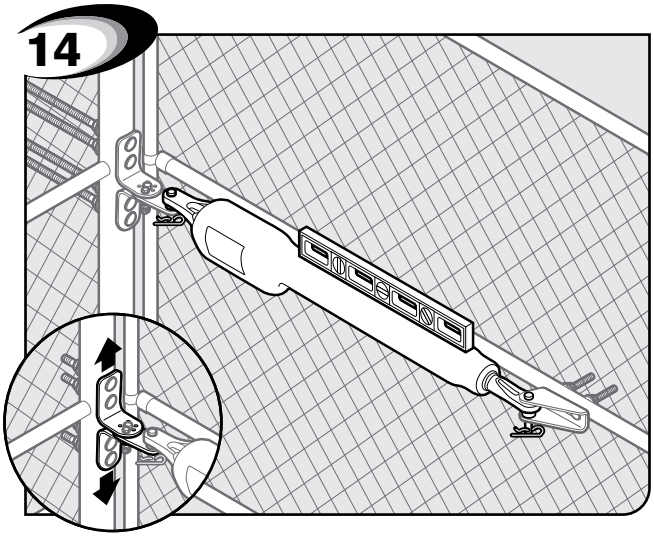
Mounting Pull-to-Open Opener to Gate



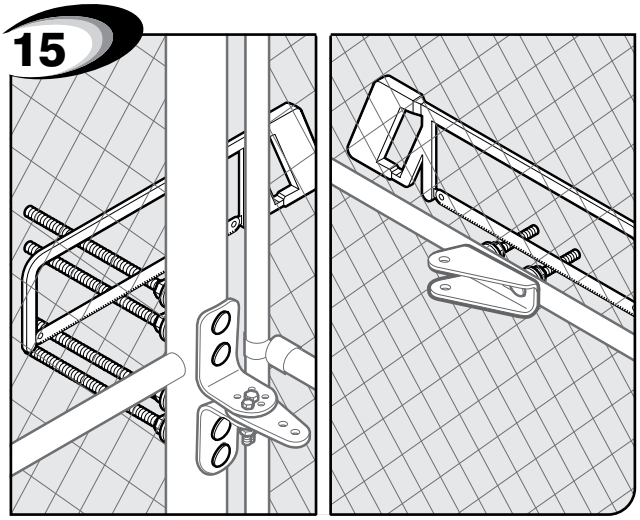
Attach gate bracket assembly to gate cross support.



Attach and secure opener assembly to brackets.

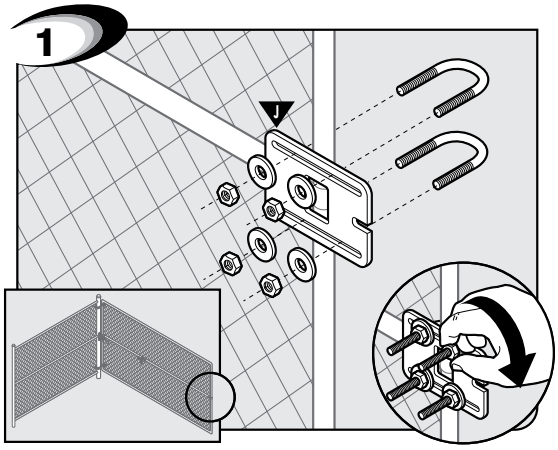


Check for level. Adjust post bracket if necessary.

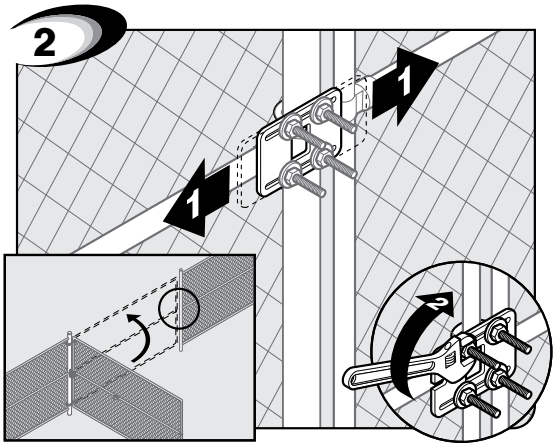


Remove bolt excess length on post and gate bracket with hacksaw.

Closed Position Stop Plate Installation



Fully open gate. Attach gate stop with one of the following:
- U-bolts—tube and chain link gates (Not included)
- Wood/lag screws—flat aluminum/wood supports (Not included). Do not tighten.

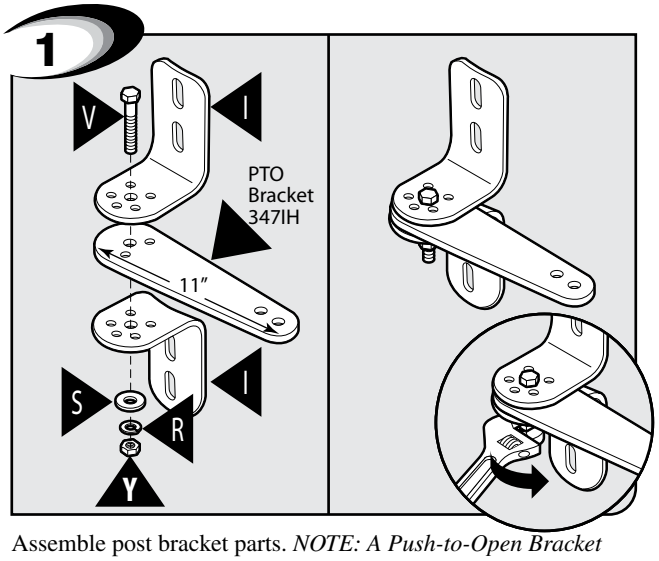


Position gate stop with gate CLOSED to fence post. Tighten fasteners. Cut off excess bolt length.

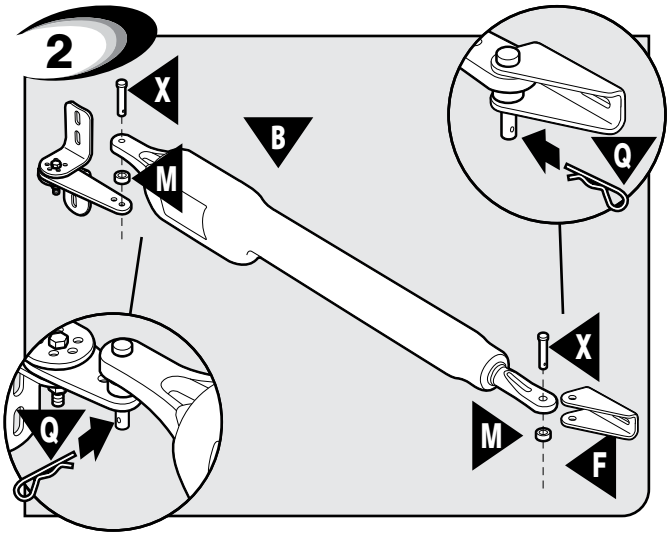
Gate Opener Installation

Your Property

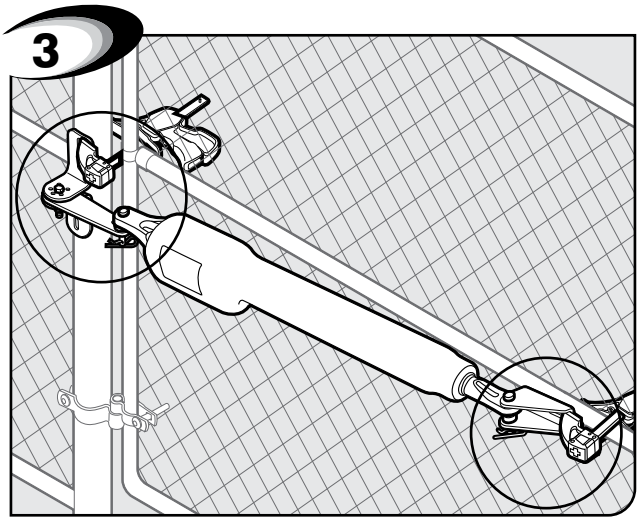
Mounting Push-to-Open Opener to Gate



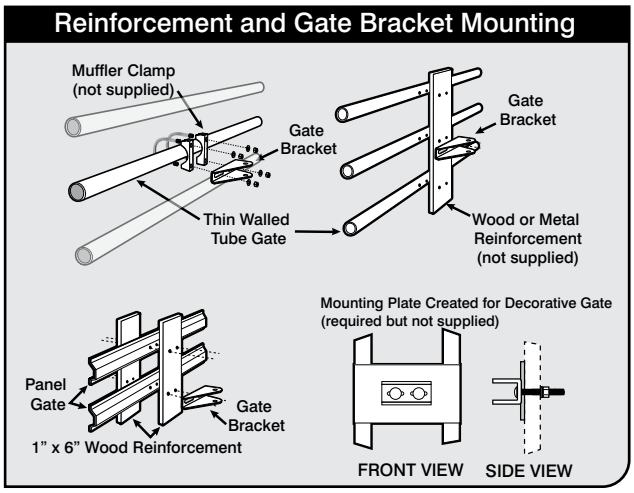
Assemble post bracket parts. *NOTE: A Push-to-Open Bracket 347IH is required for this type of installation (not included).*



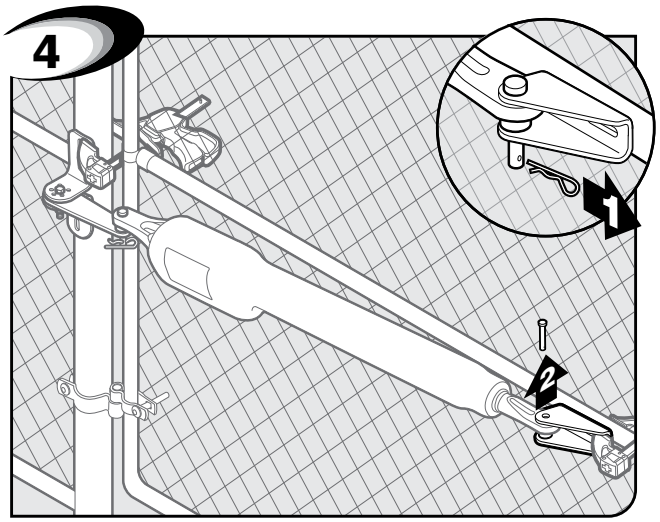
Attach opener to gate bracket and secure with hardware required.



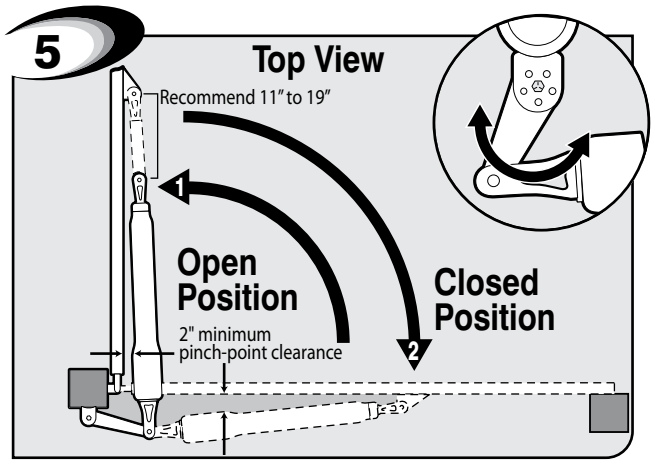
With gate in CLOSED position, using clamps, secure opener to gate post and center cross member of gate.



Recommended reinforcement and gate bracket mounting examples.



Remove clevis pin from the gate bracket and support loose opener.

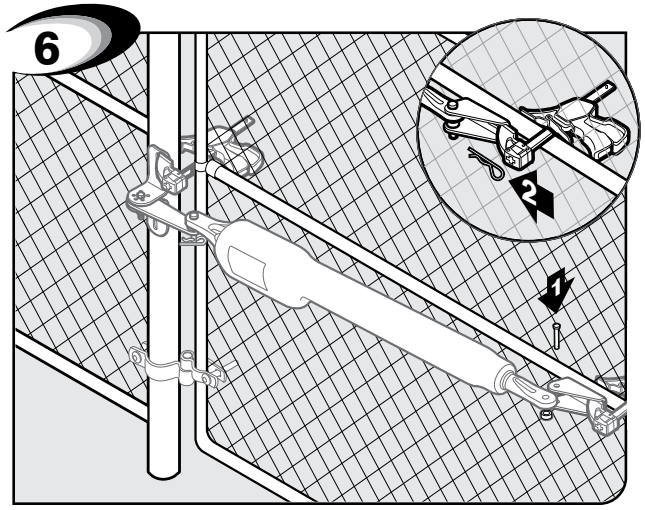


Swing gate to OPEN position. Check clearance/binding by inspecting the alignment. Secure post pivot bracket to post bracket when clearance is OK in both open and closed positions. *TIP: Turning the pivot bracket over gives more hole alignment options for the post pivot bracket assembly.*

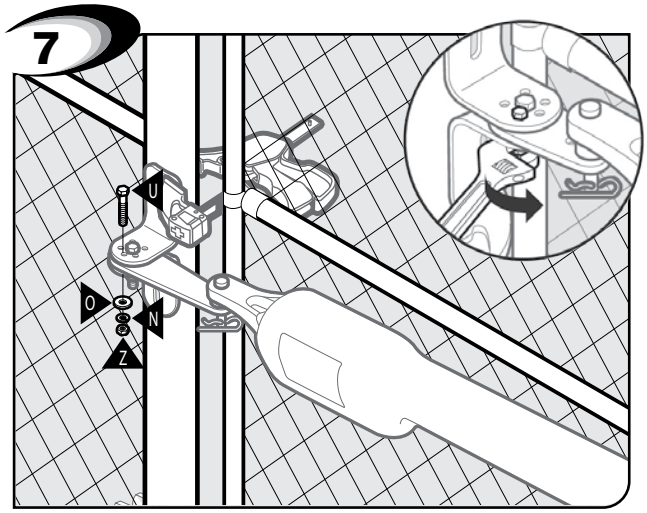
Push-to-Open Installation

Your Property

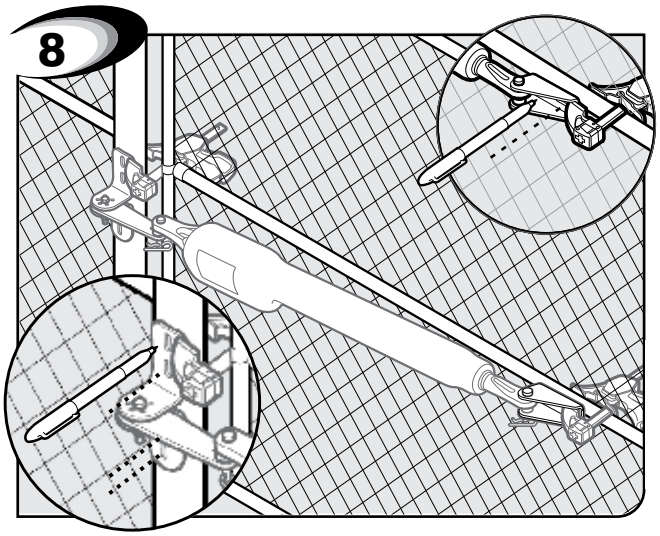
Mounting Push-to-Open Opener to Gate



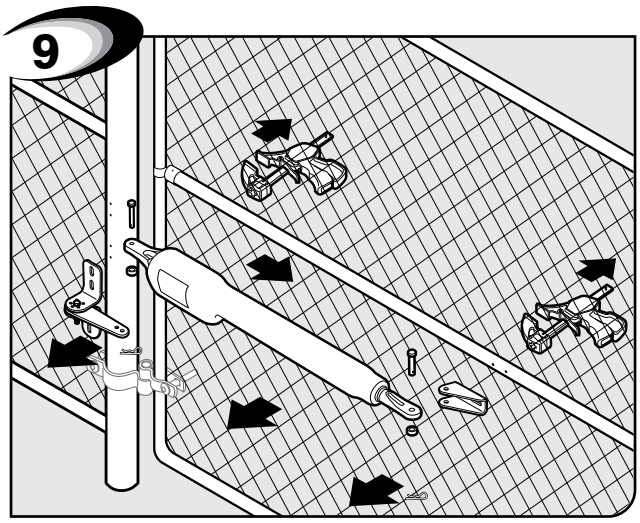
CLOSE gate and reattach opener with clevis pin. Check for level. Clamp securely.



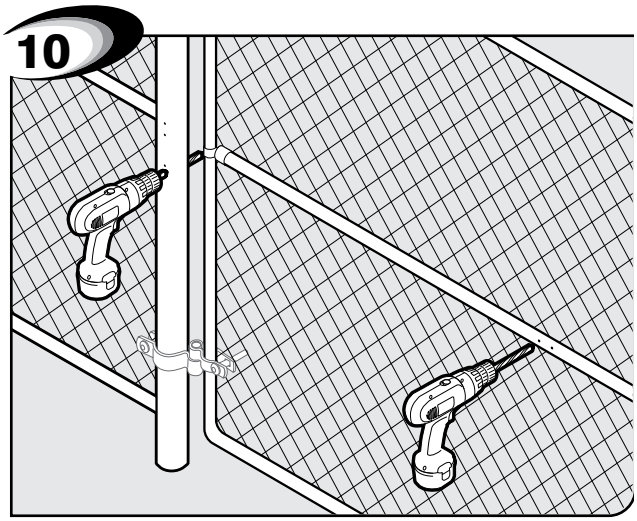
Secure post pivot bracket to post bracket when clearance is OK (Step 5) in both open and closed positions.



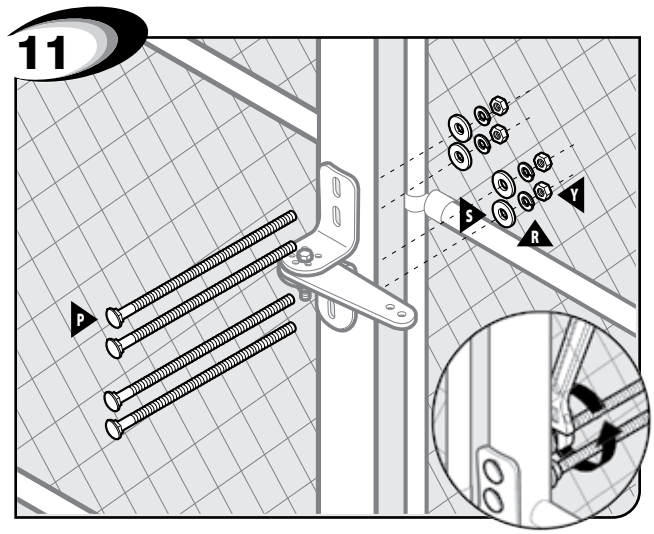
Mark middle of post bracket slots on fence post. Mark middle of gate bracket slots on gate cross support.



Remove clamps, post, gate brackets, and opener. Then use a hammer and center punch to mark hole positions.



Drill holes completely through gate post and gate cross support.

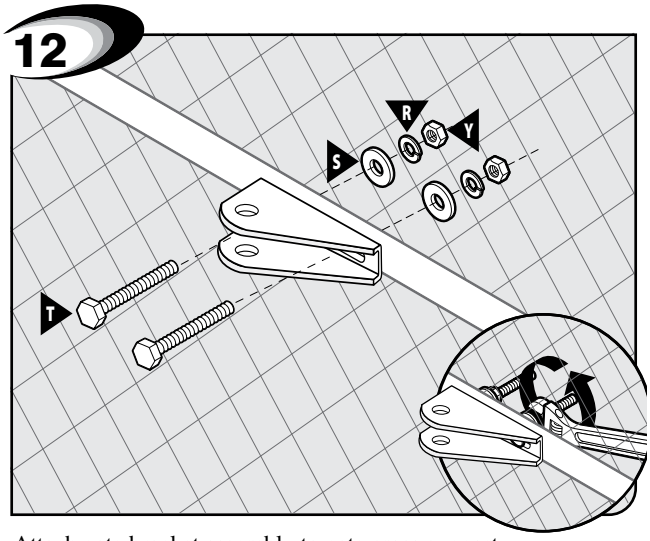


Attach post bracket assembly to fence post. *NOTE: Must be through bolted.*

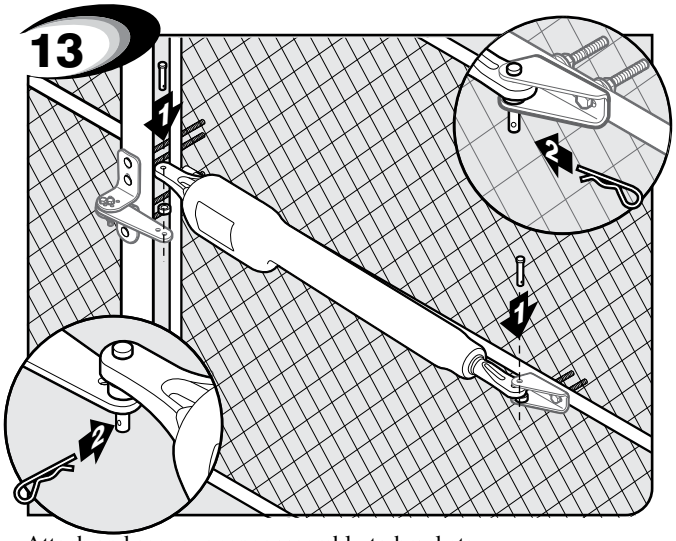
Push-to-Open Installation

Your Property

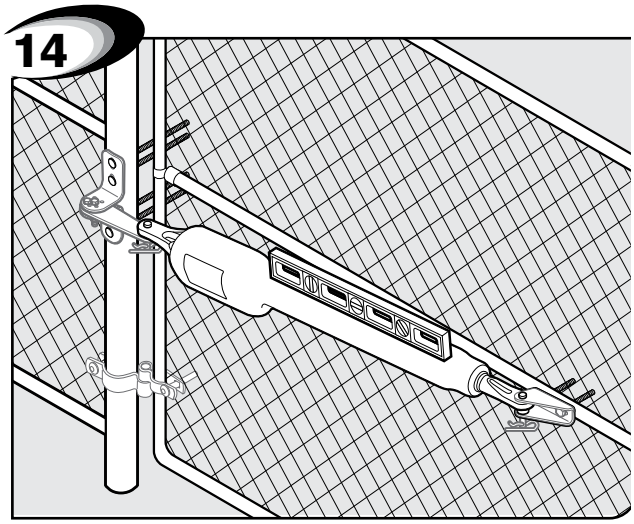
Mounting Push-to-Open Opener to Gate



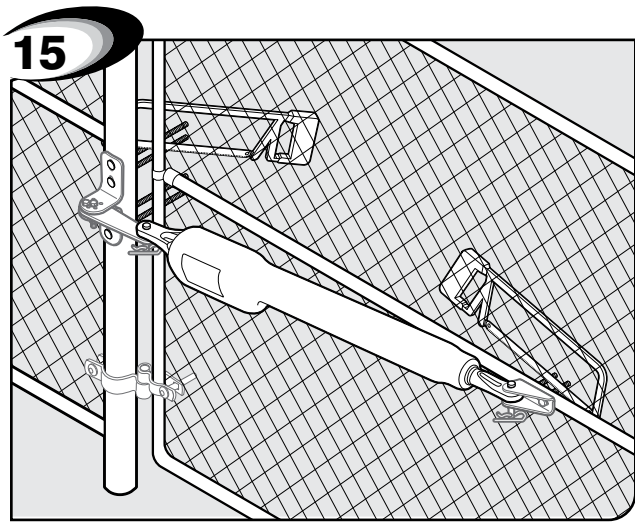
Attach gate bracket assembly to gate cross support.



Attach and secure opener assembly to brackets.

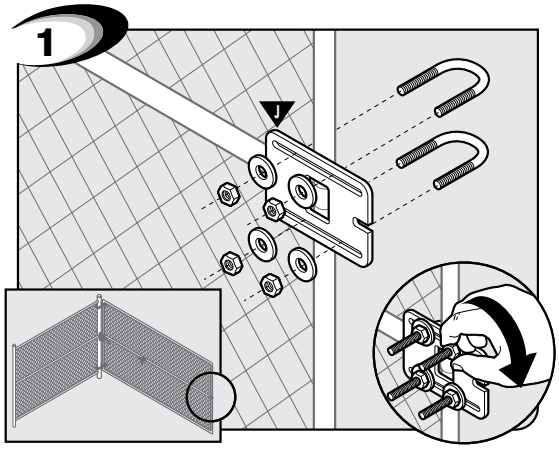


Check for level. Adjust post bracket if necessary.

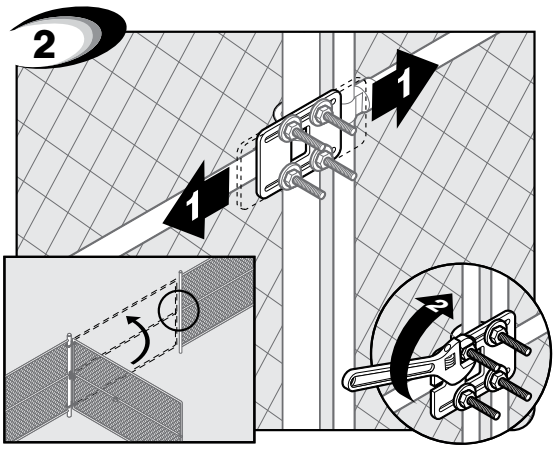


Remove bolt excess length on post and gate bracket with hacksaw.

Closed Position Stop Plate Installation



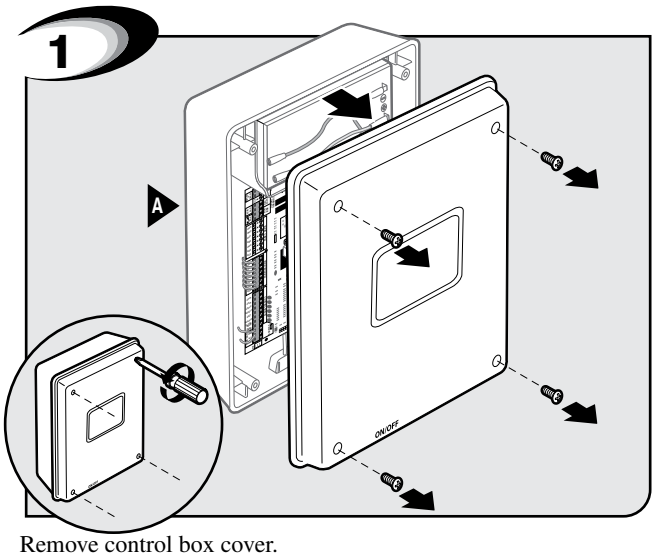
Fully open gate. Attach gate stop with one of the following:
- U-bolts—tube and chain link gates (Not included)
- Wood/lag screws—flat aluminum/wood supports (Not included). Do not tighten.



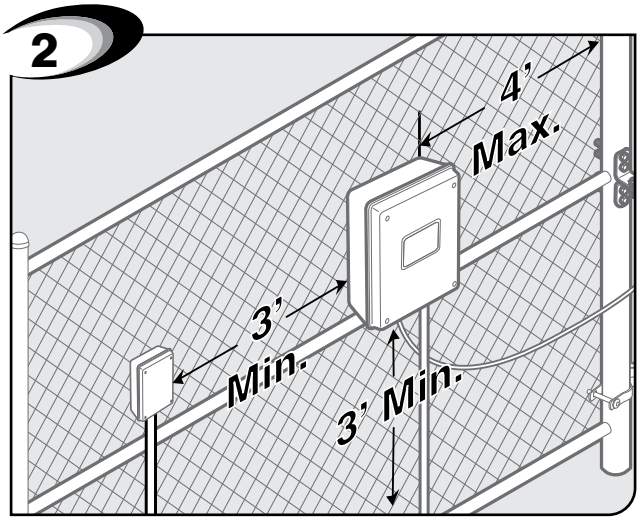
Position gate stop with gate CLOSED to fence post. Tighten fasteners. Cut off excess bolt length.

Control Box Installation

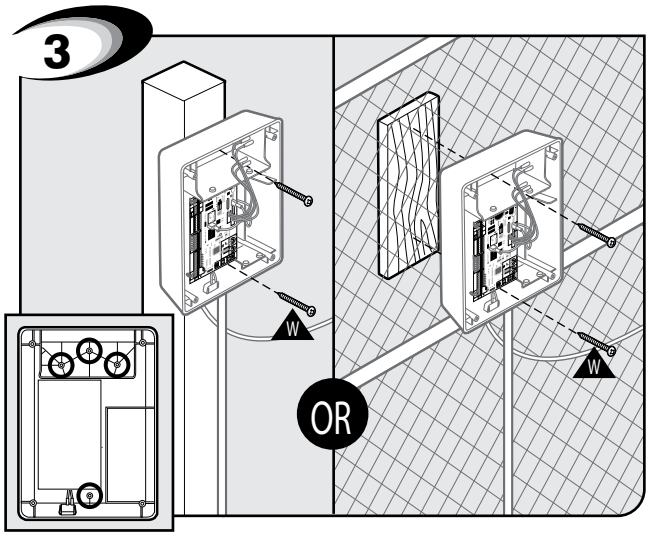
Control Box Installation



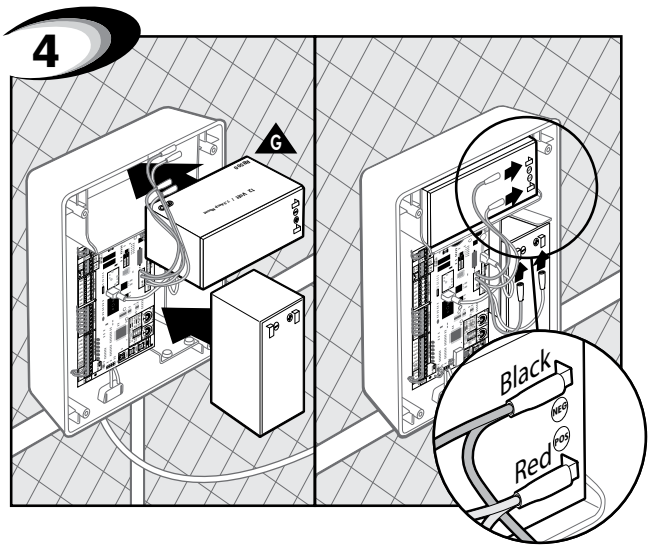
Remove control box cover.



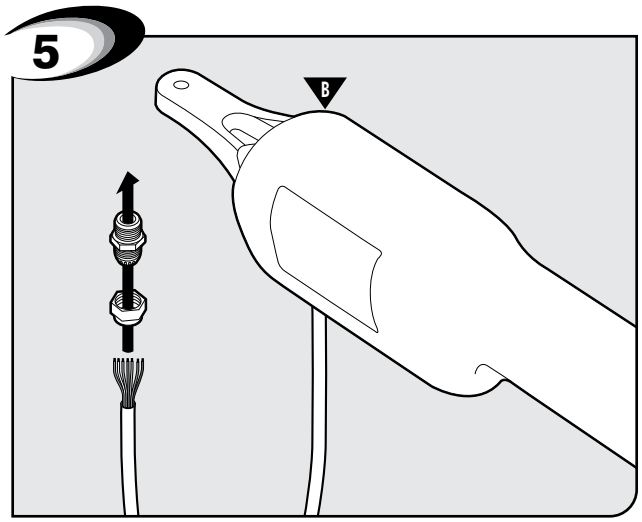
Locate control box mounting area. *IMPORTANT: Be sure to mount box at least 3 feet from AC power and 3 feet off the ground.*



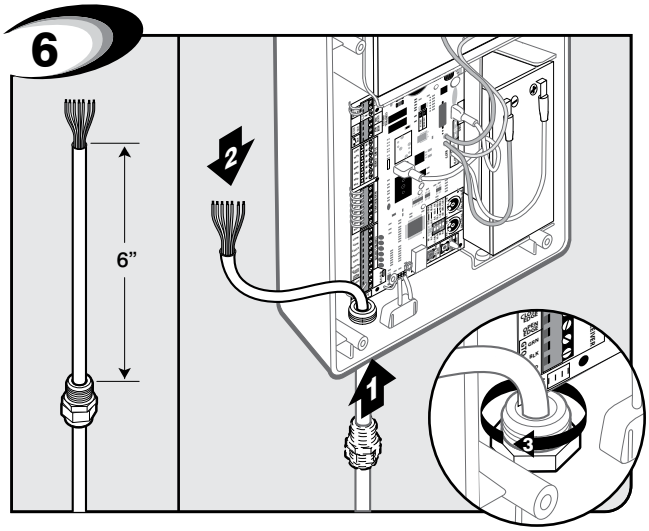
Mount control box to post or fence using screws.



Position batteries in control box as shown. Connect battery leads from control board to batteries. *IMPORTANT: Red wire to (Red Post) positive and black wire to (Black Post) negative.*



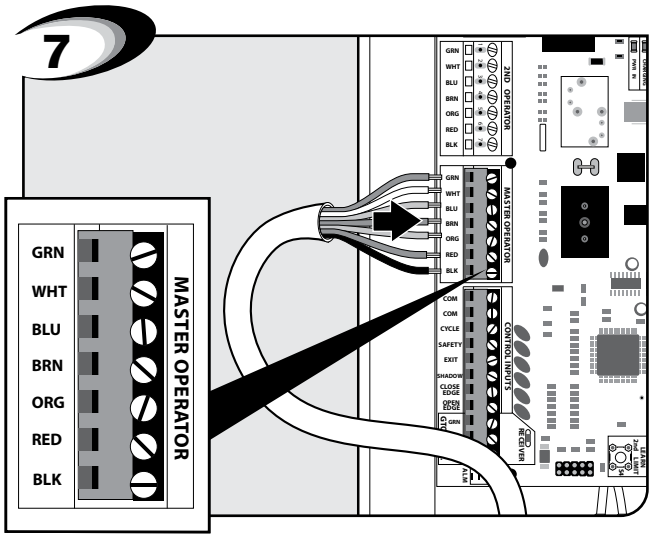
Twist each end of the gate opener power cable's 7 colored wires. Feed cable through strain relief nut.



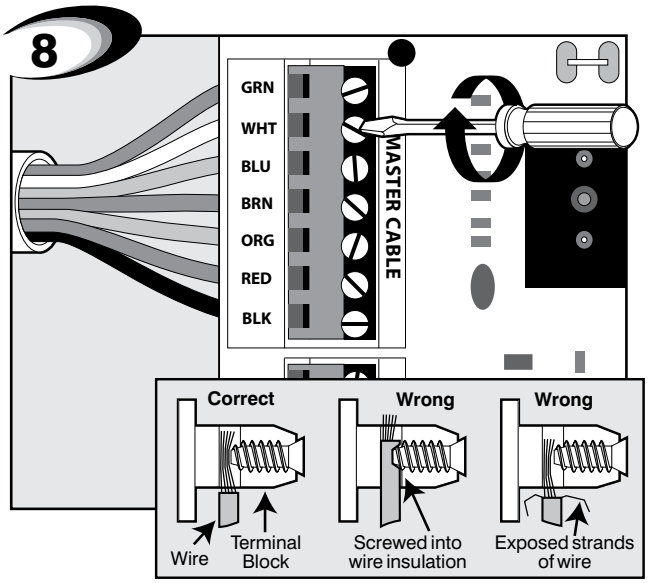
Feed cable 6" into box. Tighten strain relief nut to secure cable.

Control Box Installation

Control Box Installation



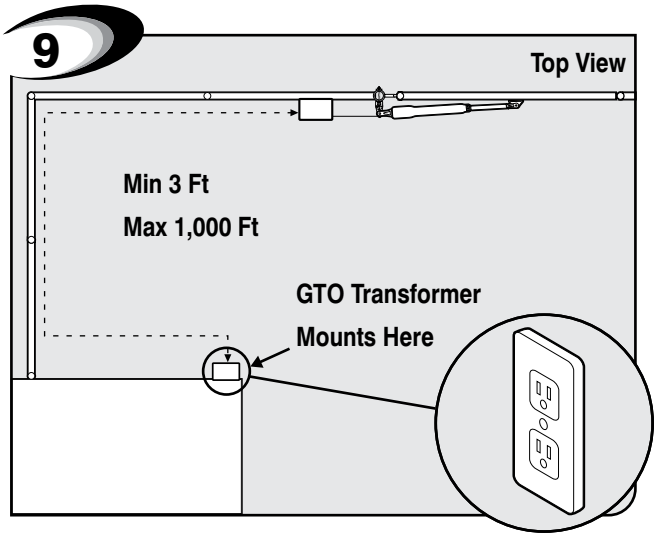
Insert 7 wires into corresponding color terminals.



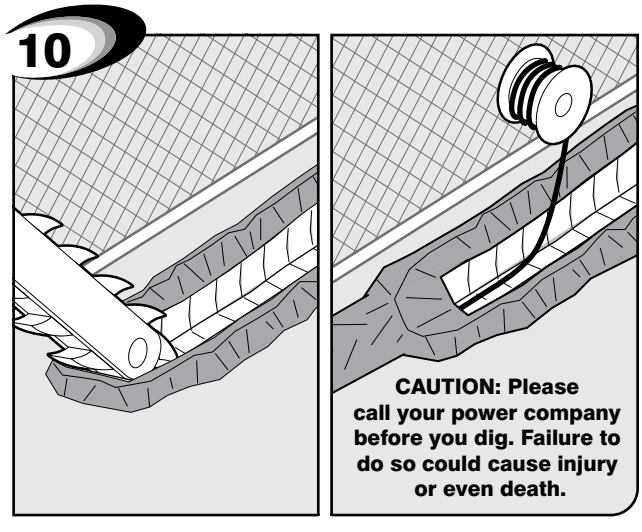
Secure wires in terminals.

If using optional solar panel charger instead of transformer, go to page 22.
IMPORTANT: Do not connect both solar panel and transformer.

Transformer Wiring Installation



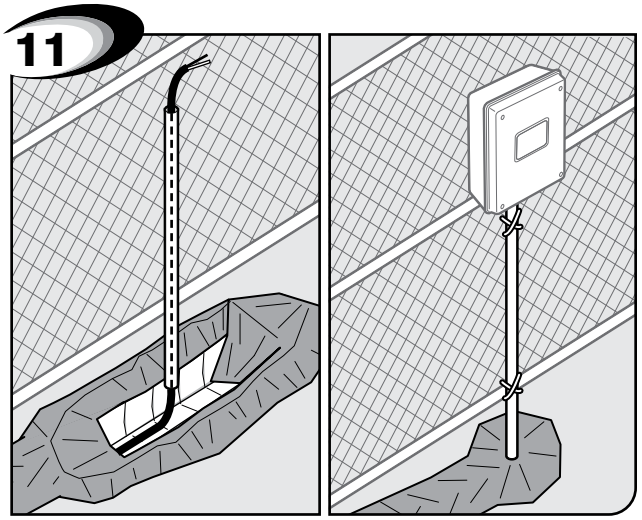
Locate power outlet and identify wire path to control box. *NOTE: If OUTLET is OUTSIDE use weatherproof cover.*



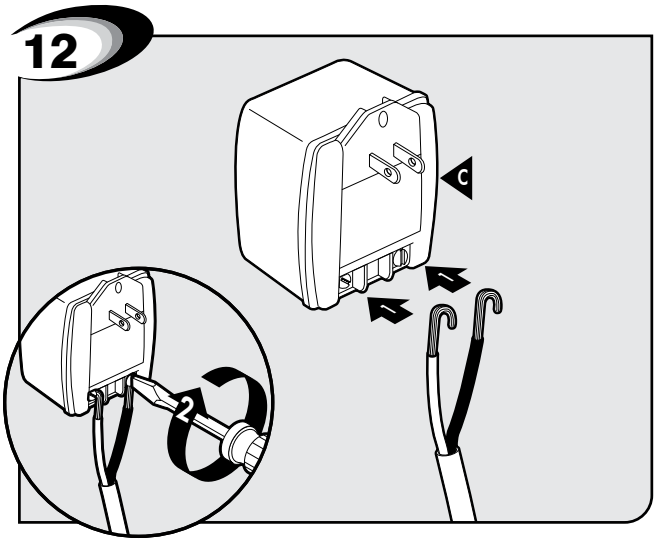
Dig trench and lay wire from AC power source to control box. Use only 16 guage stranded, low voltage, PVC sheathed wire (RB509). *NOTE: DO NOT use telephone wire or solid core wire. NEVER splice wires together.*

Control Box Installation

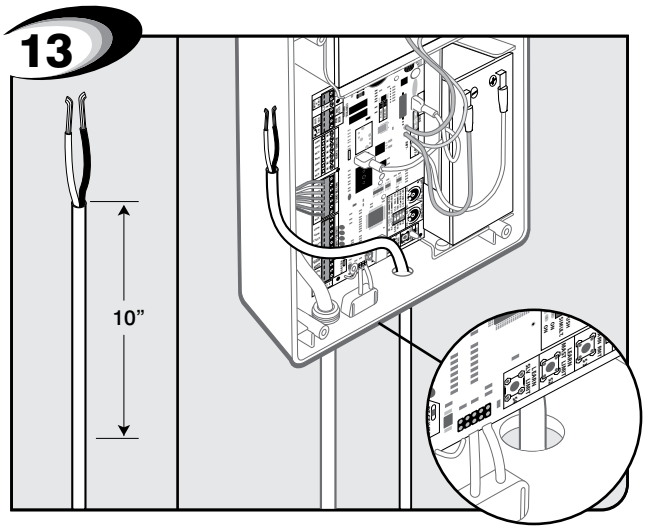
Transformer Wiring Installation



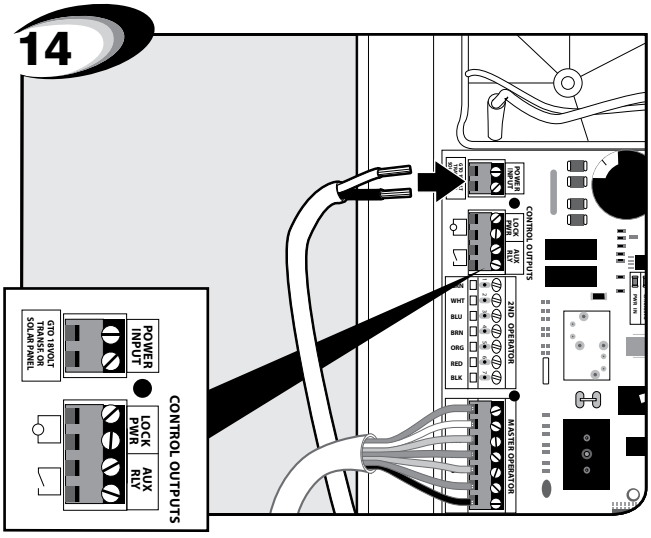
Use PVC conduit from ground up to control box to protect the wire from lawn mowers and grazing animals.



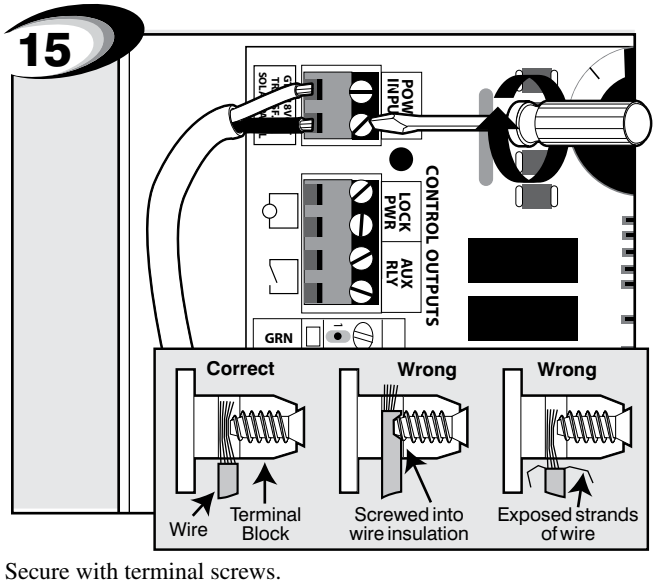
Strip 1/2” off 2 wires and twist ends. Attach wires to transformer screw terminals.



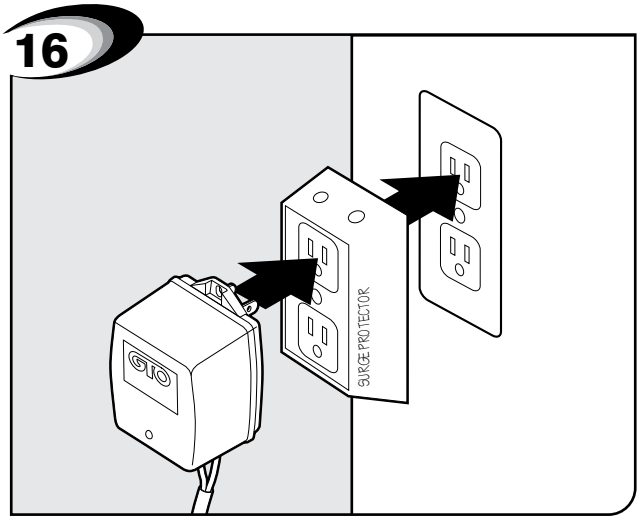
Feed other end of low voltage wire 10” into box through the hole.



Insert one wire into each 18VAC terminal. Colors do not matter.



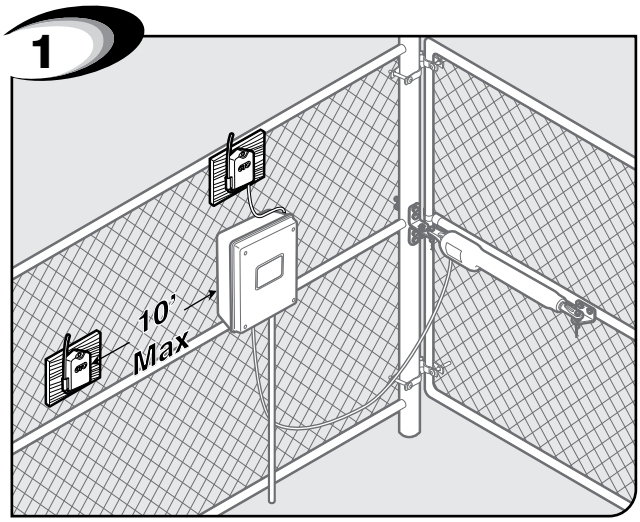
Secure with terminal screws.



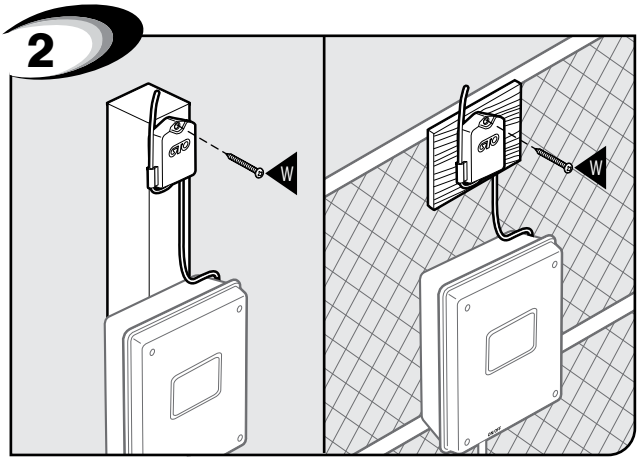
Plug in transformer to power outlet. (Use of a surge protector is highly recommended. **If outdoors use weatherproof box.**)

Control Box Installation

Receiver Installation



Install Receiver within 10 ft of control box (longer lengths available - call us). *NOTE: NEVER splice receiver cable.* DO NOT run cable through conduit containing AC wire. DO NOT place receiver within 3 feet of AC power.



Check Receiver reception before permanently securing to fence or post. *NOTE: If mounting on metal fence, mount receiver on a piece of wood. DO NOT mount upside down.*

Use the transmitter to check the range of the receiver ***before permanently mounting it****.*

Consider the following when mounting the receiver:

- Standard receiver cable length is 10 feet (receivers with a longer cable are available as special order items; *call the GTO Sales Department*). NEVER splice receiver cable!
- **Run the cable through PVC conduit to protect it from damage.**
- DO NOT run cable through conduit containing AC wire.
- DO NOT place receiver within 3 feet of AC power.
- DO NOT coil excess cable or store it in the control box.
- **Do not mount upside down.**
- The receiver range can vary depending upon weather, topography, and external interference.

Tips

1. Mount the receiver high and above any obstructions; fence pickets, column caps, etc.

2. If radio control seems limited try moving the receiver 1-2 feet in each direction to reduce radio noise "dead spots."

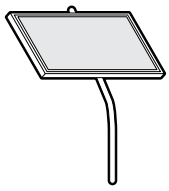
FCC Regulation

This device complies with FCC rules Part 15.
Operation is subject to the following conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference that may cause undesired operation.

Transmitter distance may vary due to circumstances beyond our control. **NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.**

Solar Panel Installation

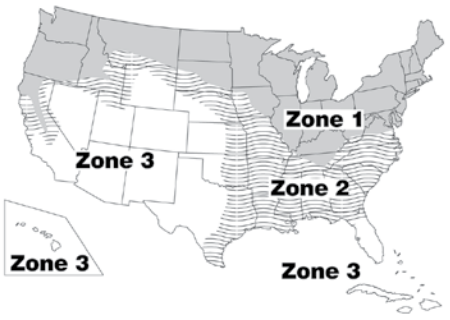
(Optional)

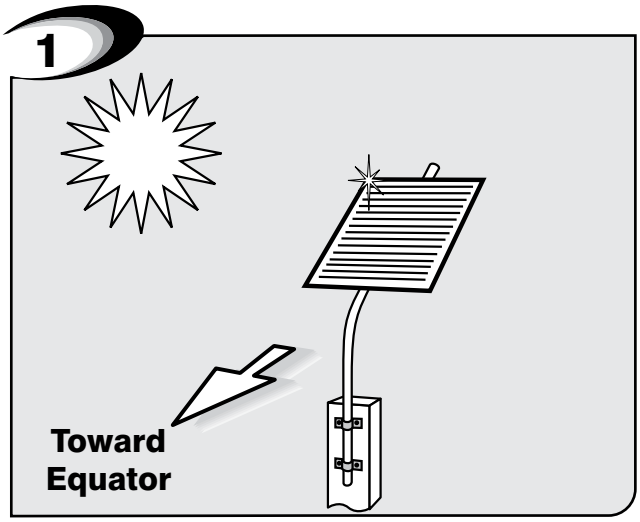


The table and map illustrate the maximum number of gate cycles to expect per day in a particular area when using from 5 to 30 watts of solar charging power. (see accessory pages in back of this book). The figures shown are for winter (minimum sunlight) and do not account for the use of any accessory items. Accessories connected to your system will draw additional power from the battery.

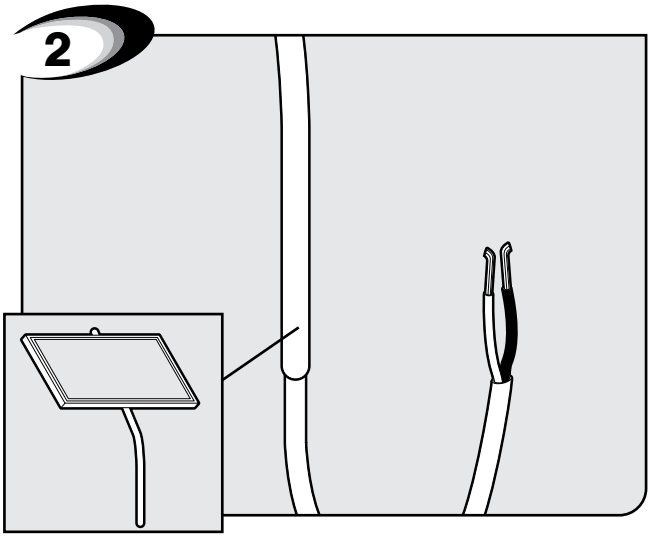
NOTE: A minimum of 5 watts of solar charging power is required for GTO single gate opener systems, with a maximum of 30 watts. Consult Solar Panel Installation Instructions for further information.

Winter Ratings	Zone 1	Zone 2	Zone 3
12 v single gate (5 watts) solar charger	4	8	13
12 v single gate (10 watts) solar charger	8	16	26
12 v single gate (15 watts) solar charger	11	20	30
12 v single gate (20 watts) solar charger	14	28	38
12 v single gate (25 watts) solar charger	17	36	46
12 v single gate (30 watts) solar charger	20	44	54





The solar panel must be positioned facing the path of the sun and in an open area away from shade. It should receive at least 8 hours of direct sunlight for a full charge.

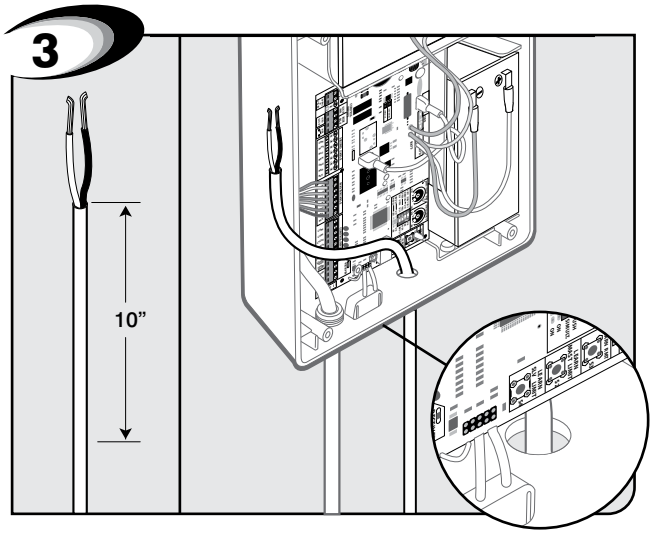


Feed wire from solar panel through hole in knockout in control box.

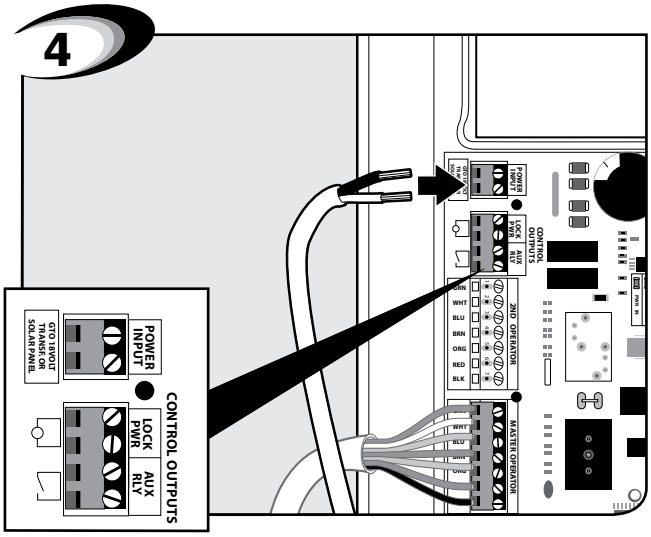
IMPORTANT: Mount the panel using the curved pipe provided to maintain the proper angle to the sun.

IMPORTANT: Requires 8 hours of direct sunlight a day.

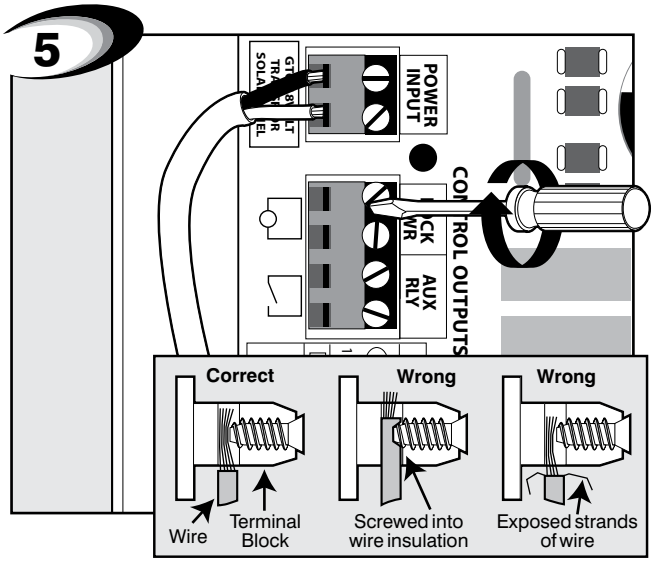
Solar Panel Installation



Feed cable 10” into box.



Insert **RED** and BLACK wires into the power teerminals.
NOTE: colors do not matter in this terminal.

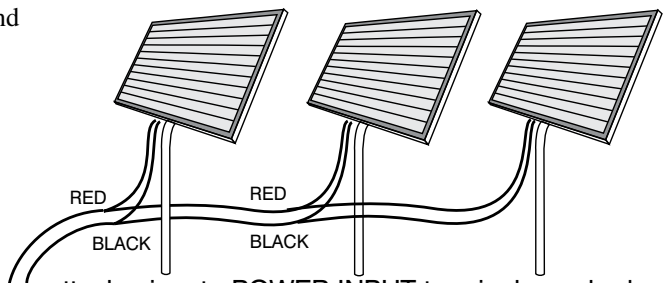


Secure with terminal screws.

Multiple Panel Installations

NOTE: All connections should be weatherproofed using weatherproof splice kits available at hardware and electrical supply stores.

Solar Panels connect in PARALLEL

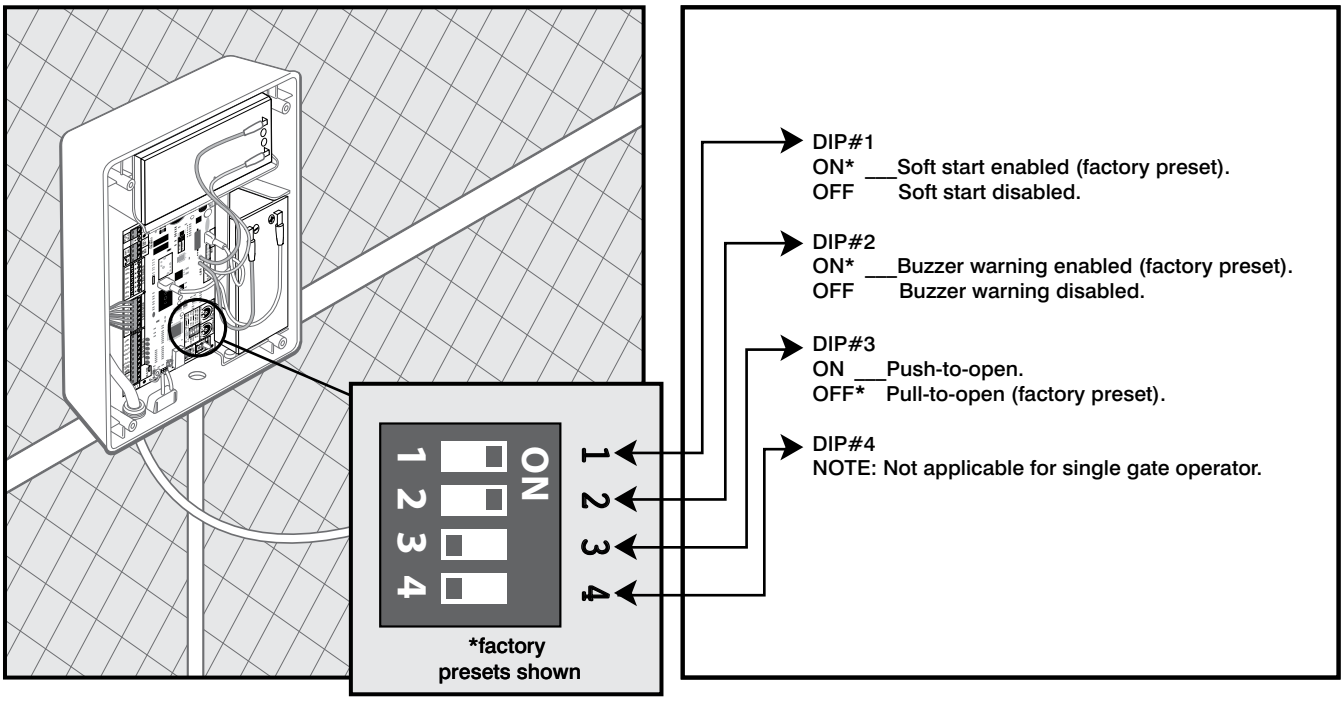


attach wires to POWER INPUT terminals marked
“GTO 18VOLT TRANSF. OR SOLAR PANEL” on the control board.
(wire color does not matter on this terminal connection)

Control Box Settings

DIP Switches

IMPORTANT: Before making any changes to DIP switches turn control box off!



DIP Switch #1 - Soft Start/Stop
The soft start/stop feature slowly starts the gate as it begins to open or close and slows the gate as it comes to the opened or closed position. This saves wear and tear on the gate and gate opener system.

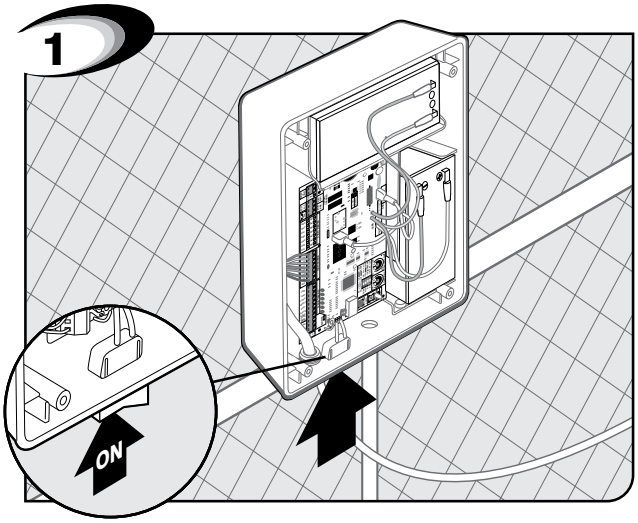
DIP Switch #2 - Warning Buzzer
The warning buzzer alerts you when the gate opener is beginning to either open or close the gate. It sounds for the first 2 seconds in each direction. It also sounds a warning when the gate obstructs two times in one cycle. Switching this to OFF only disables the open and close warning not the obstruction warning.

DIP Switch #3 - Push/Pull-to-Open
If your gate opens into the property the DIP Switch is set to the OFF position (factory setting). If your gate opens out from the property the DIP Switch must be set to the ON position. NOTE: if you have a Push-to-Open gate application you will need a Push-to-Open bracket (see Push-to-Open Instructions on page 16).

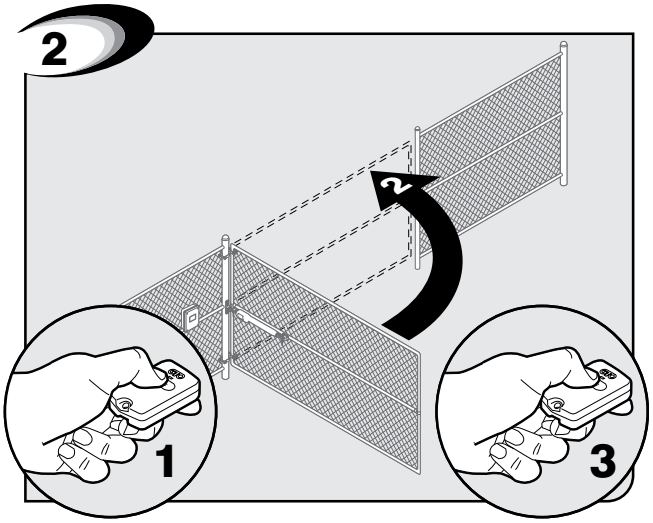
DIP Switch #4 -
Not applicable for single gate operator.

Control Box Settings

Setting Closed Gate Limit (Pull-To-Open) (for push-to-open go to pg. 27)

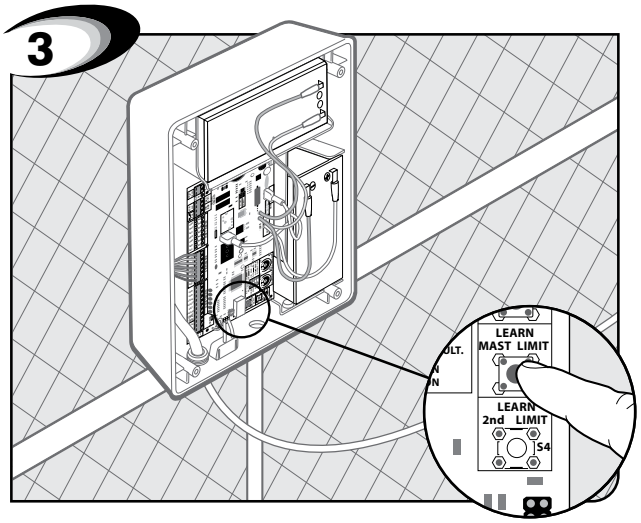


With gate in OPEN position, turn control box power ON.

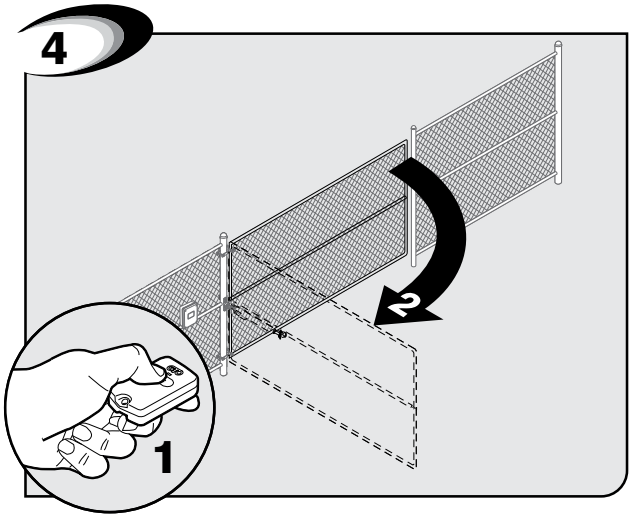


Press button on opener remote; gate should start closing. Press button on opener remote again when gate is in desired CLOSED position.

NOTE: *If your gate obstructs before it fully closes, you may need to increase the stall force. (See page 28)*

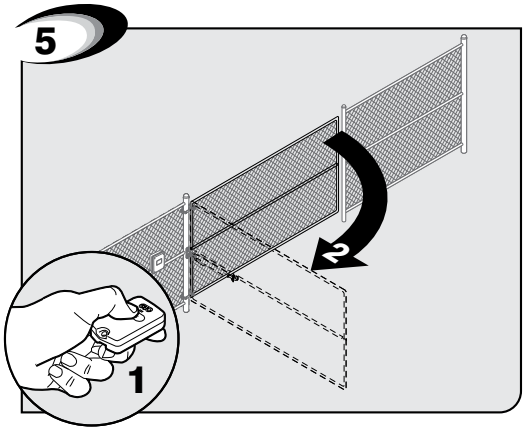


Press and hold the " LEARN MAST LIMIT" button for 5 seconds, or until the alarm sounds.

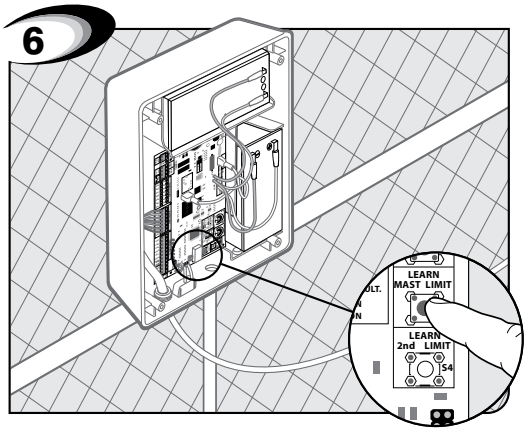


Press button on transmitter to fully open gate. Closed limit is set upon reaching fully open position. Test and, if needed, reset and start over.

Resetting Closed Gate Limit



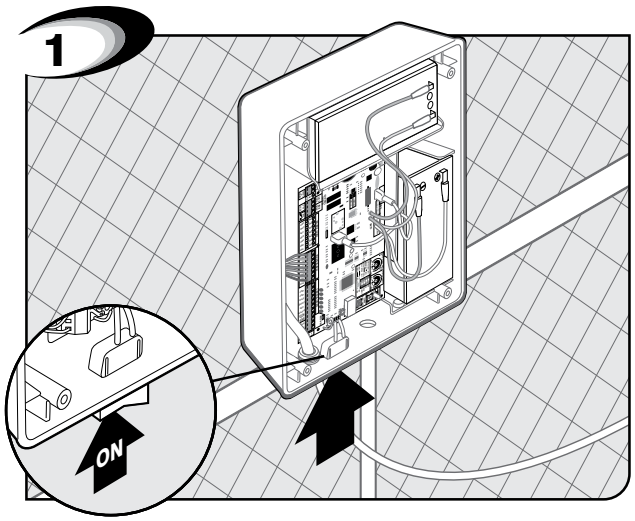
Press button on transmitter to open gate.



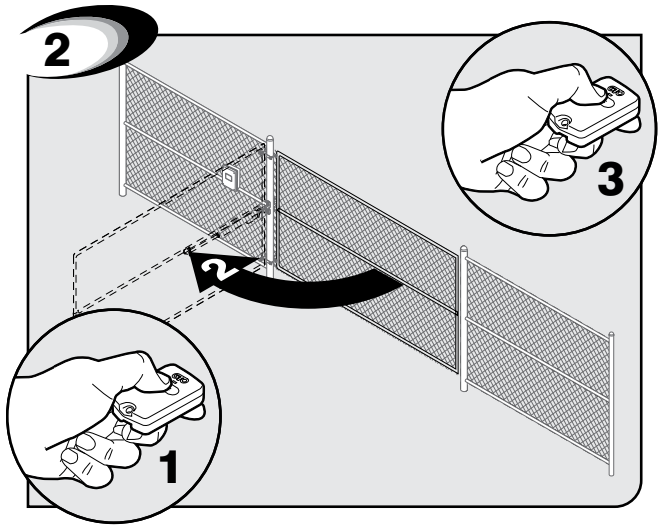
Press and hold the "LEARN MAST LIMIT" button for 10 seconds, or until the alarm sounds to clear. Go back to the setting closed limit steps on the top of this page.

Control Box Settings

Setting Open Gate Limit (Push-To-Open) (for pull-to-open go to pg. 26)

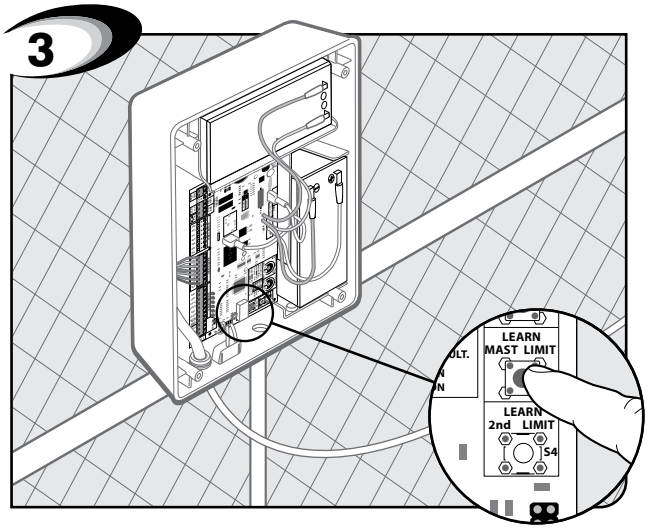


With gate in CLOSED position, turn control box power switch to ON.

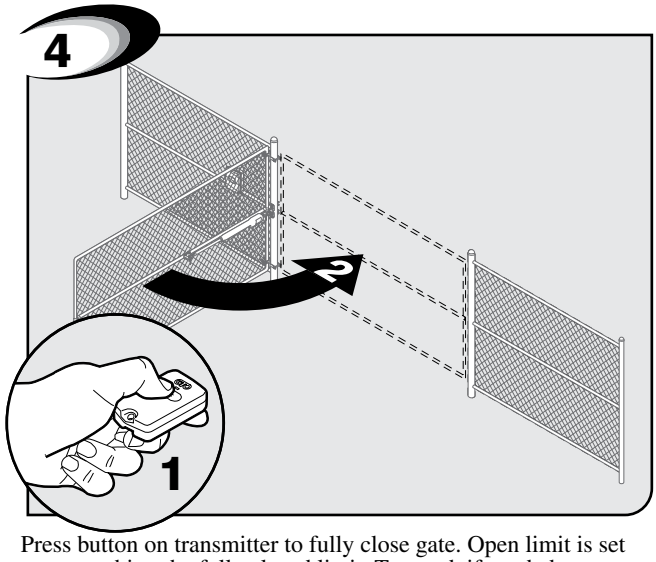


Press button on opener remote; gate should start opening. Press button on opener remote again when gate is in desired OPEN position.

NOTE: *If your gate obstructs before it fully closes, you may need to increase the stall force. (See page 28)*

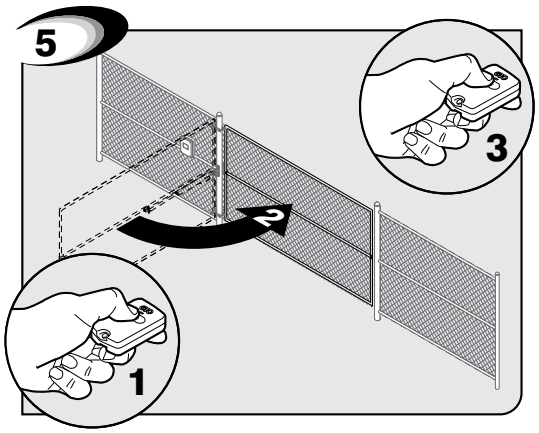


Press and hold the "LEARN MASTER LIMIT" button for 5 seconds, or until the alrm sounds.

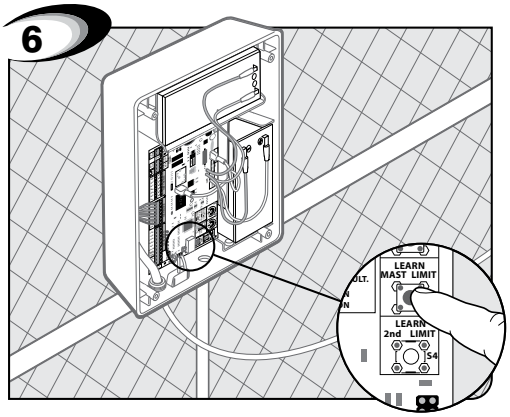


Press button on transmitter to fully close gate. Open limit is set upon reaching the fully closed limit. Test and, if needed reset and start over.

Resetting Open Gate Limit



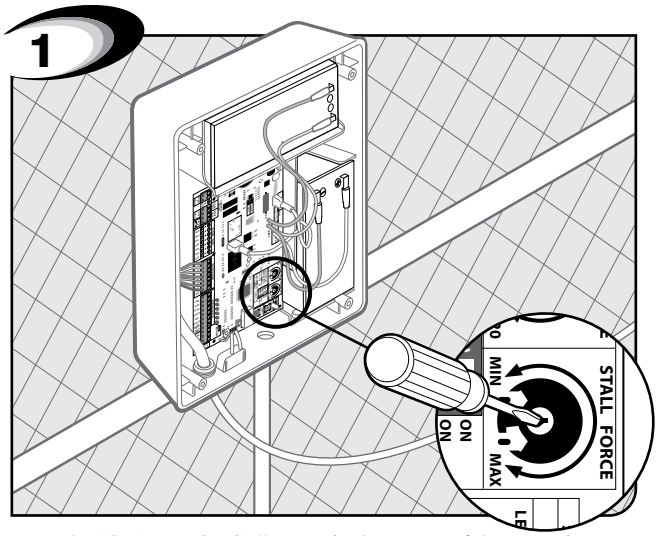
Press button on transmitter to close gate.



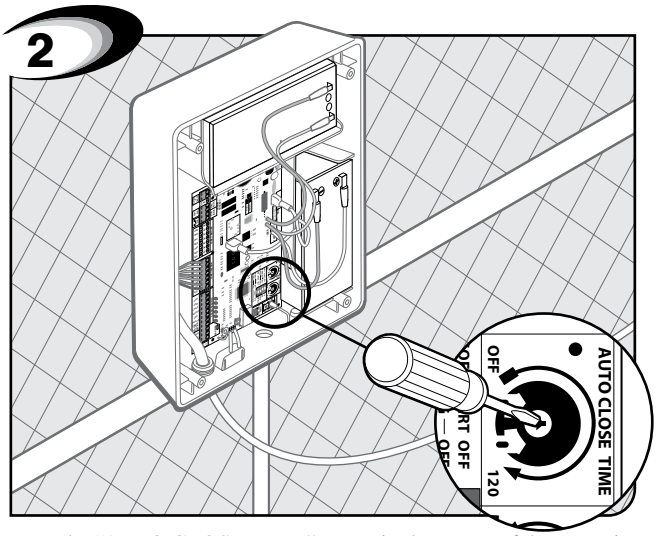
Hold the "LEARN MASTER LIMIT" button for 10 seconds, or until the alarm sounds to clear. Go back to setting open gate limit step 1 at the top of this page.

Control Box Settings

Setting Obstruction Stall Force & Auto Close Time



Turn the "STALL FORCE" arrow in the center of the potentiometer with small flat head screwdriver. Adjust the sensitivity from the MINIMUM position up to the point where the gate operates without obstructing from its own weight or the wind conditions in your area.



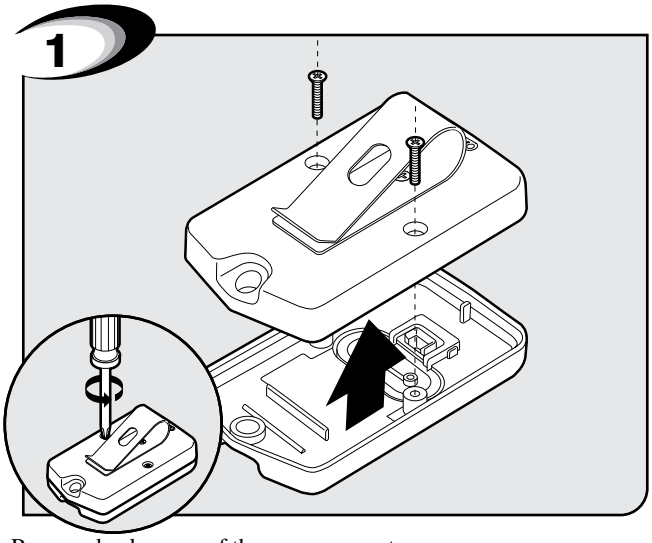
Turn the "AUTO CLOSE TIME" arrow in the center of the potentiometer with small flat head screwdriver. Turning the pot all the way counter-clockwise will turn the auto close feature off. The minimum auto close time is 3 seconds.The maximum (turn the pot all the way clockwise) auto close time is 120 seconds.

IMPORTANT: For safety reasons the obstructions setting or Stall Force on the GTO® gate opener control board comes from the factory set at MIN (minimum). In many installations this setting will need to be adjusted to overcome the weight and size of the gates.

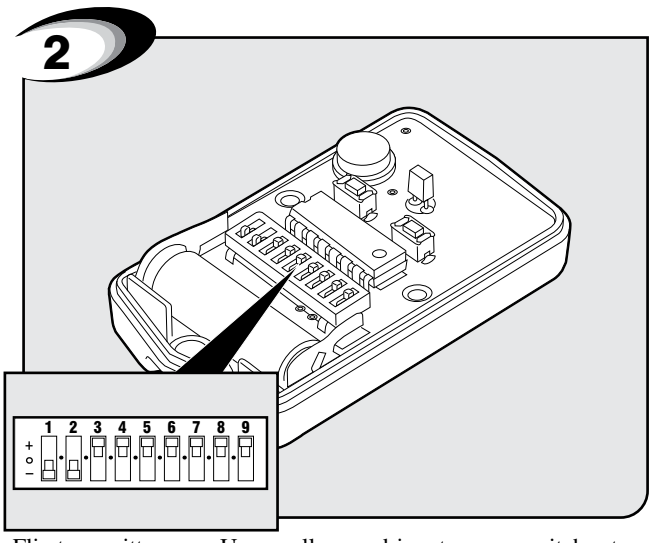
ALWAYS KEEP SAFETY AT THE TOP OF YOUR LIST WHEN ADJUSTING OR SERVICING YOUR AUTOMATIC GATE OPENER

Setting Personal Transmitter Code

All GTO transmitters are set to a standard code at the factory and are ready to operate your GTO® Gate Opener. For your safety and security, however, we ***strongly recommend*** *that you replace the factory setting with your own personal code. Follow the directions below:*



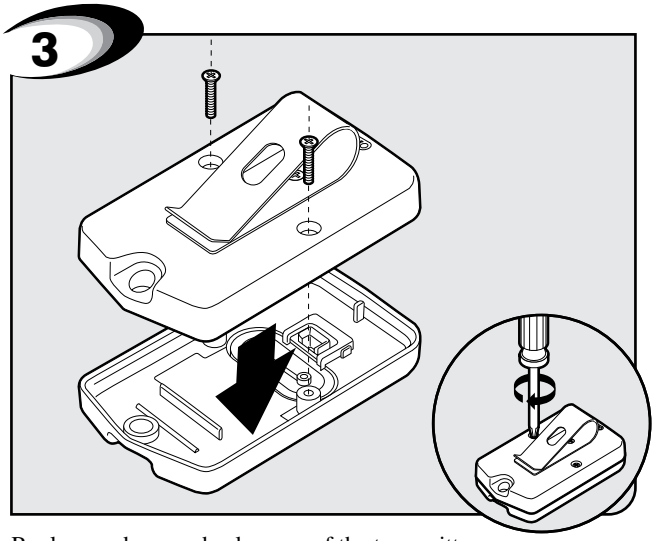
Remove back cover of the opener remote.



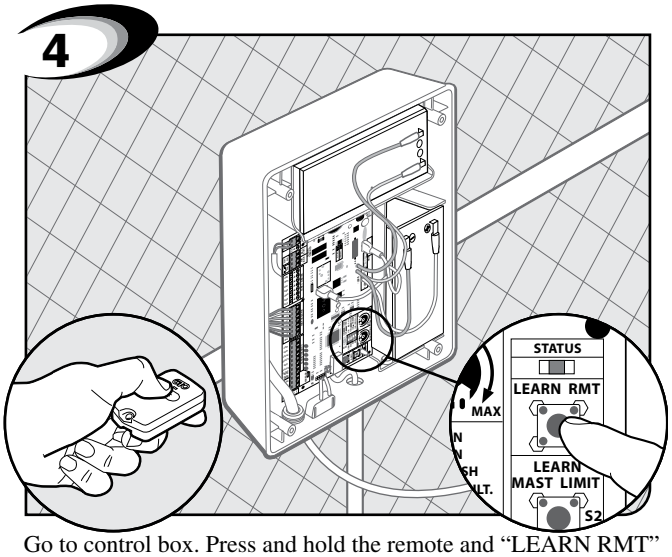
Flip transmitter over. Use small screwdriver to move switches to random positions. If you have more than one transmitter, now is a good time to set them all with the same code.

Control Box Settings

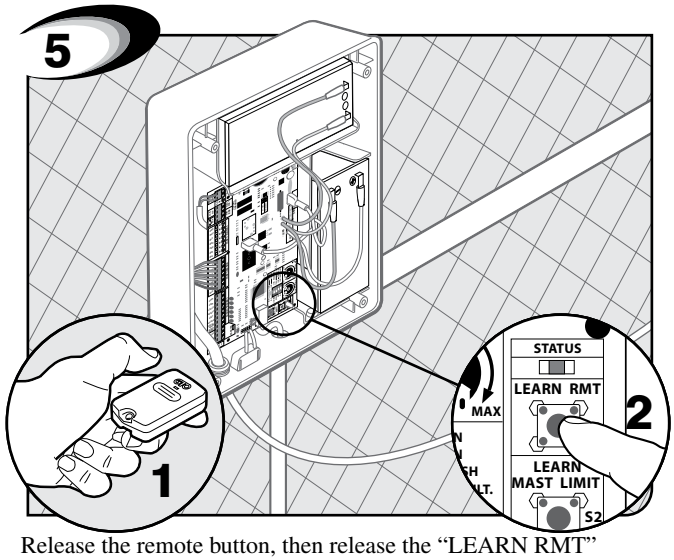
Setting Personal Transmitter Code



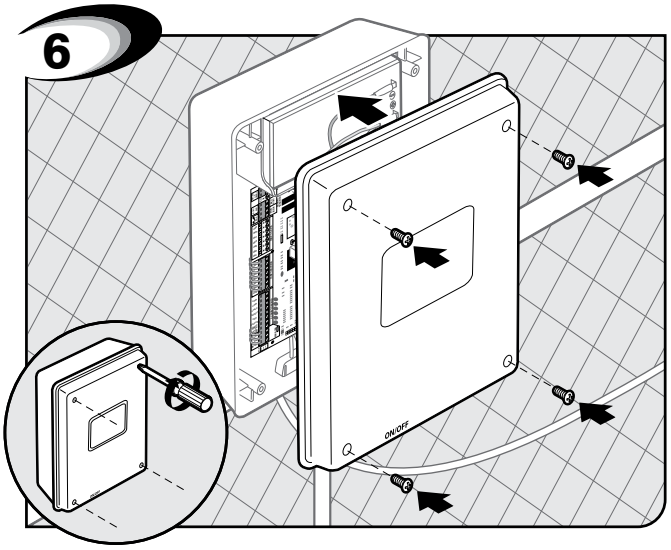
Replace and secure back cover of the transmitter.



Go to control box. Press and hold the remote and "LEARN RMT" buttons simultaneously for 5 seconds or until the alarm sounds.

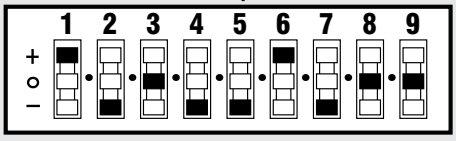


Release the remote button, then release the "LEARN RMT" button. The new code is now programmed. **Fill in boxes below with your transmiter code for your records.**

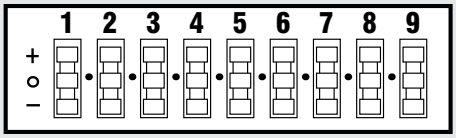


Replace control box cover.

Example



Fill In Code For Your Records



FCC Regulation

This device complies with FCC rules Part 15. Operation is subject to the following conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference that may cause undesired operation.

Transmitter distance may vary due to circumstances beyond our control. **NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.**

Connecting Additional Devices

Before You Begin

Although GTO strongly recommends the use of additional safety devices, we do not endorse any specific brand names. Only use products that are certified and listed to be in compliance with any applicable UL safety standards (Underwriters Laboratories) and national and regional safety codes.

Call GTO Sales at 1-800-543-4283 for information on compatible products for your specific application

PLEASE NOTE: Contact Sensors, Non-Contact Sensors, and Shadow Loops are not included with the GTO gate opener. NOTE: Refer to the sensor manufacturer's instructions for information about installing these devices on a vehicular gate.

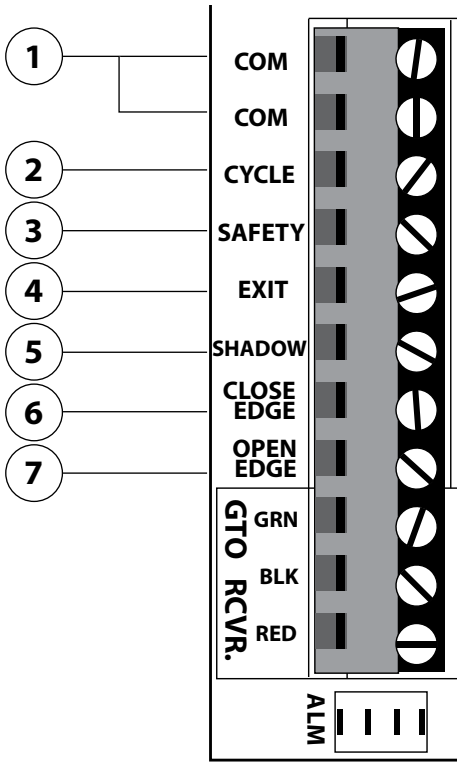
GTO gate openers will ONLY accept accessory devices with normally open dry contact output.

Connecting Additional Devices

Input Connections

NOTE:

- All control inputs are dry-contact, normally open, inputs. DO NOT apply external voltage sources to these inputs.
- All inputs are connected with respect to **COMMON** terminal.
- The status light will blink once when its corresponding input is activated.



1 **COM:** Circuit common (reference for all logic input)

- Two (2) terminals to provide extra common connection point.

2 **CYCLE:** (Typically for use with doorbell button or hardwired keypad)

- Each activation at this input will cycle the operation as follows: …. →OPEN →STOP →CLOSE →STOP →OPEN →…

3 **SAFETY:** (Typically for use with photo beam device, loop detector or other non-contact sensors)

- Activation of this input while the gate is closing will cause the gate to stop and return to the opened position.
- Activation of this input while the gate is opening has no effect (gate will continue to open).
- Activation of this input while gate is idle will prevent gate from closing.

4 **EXIT:** (Typically for use with exit loop or wand)

- Activation of this input will open the gate if it's not already at the open position.
- Activation of this input while at open limit will restart the auto close time (if enabled).

5 **SHADOW:** (Typically for use with loop detector device)

- This input is only monitored when the gate is at the fully open position. At any other position, activation of this input has no effect on gate operation.
- Activation of this input while gate at the fully open position will prevent gate from closing.

6 **CLOSE EDGE:** (Typically for use with safety edge device)

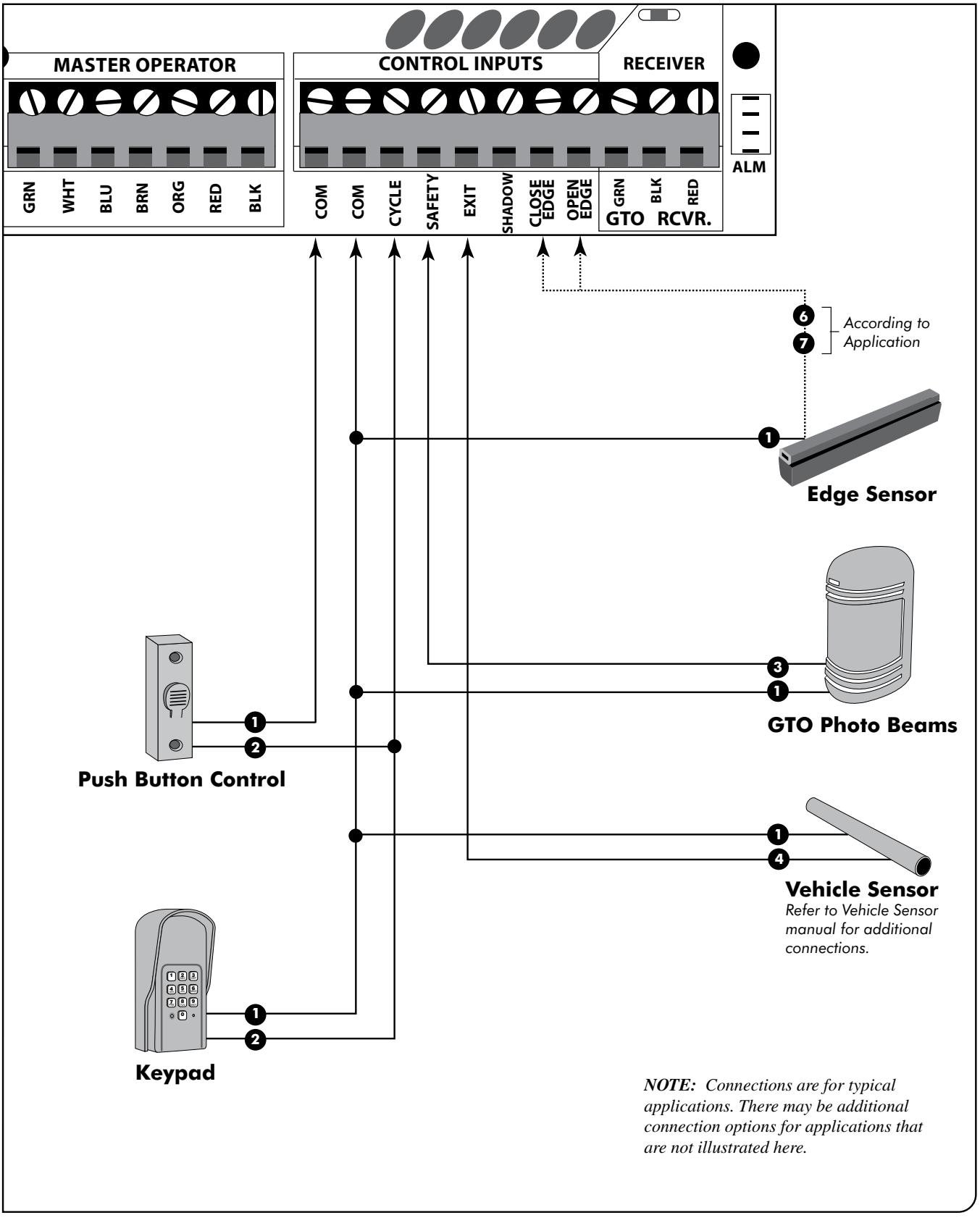
- Activation of this input while the gate is closing will cause the gate to stop and reverse direction for approximately 2 seconds.
- Activation of this input while the gate is opening has no effect (gate will continue to open).
- Activation of this input while gate is idle will prevent gate from closing.

7 **OPEN EDGE:** (Typically for use with safety edge device)

- Activation of this input while the gate is opening will cause the gate to stop and reverse direction for approximately 2 seconds.
- Activation of this input while the gate is closing has no effect (gate will continue to close).
- Activation of this input while gate is idle will prevent gate from opening.

Connecting Additional Devices

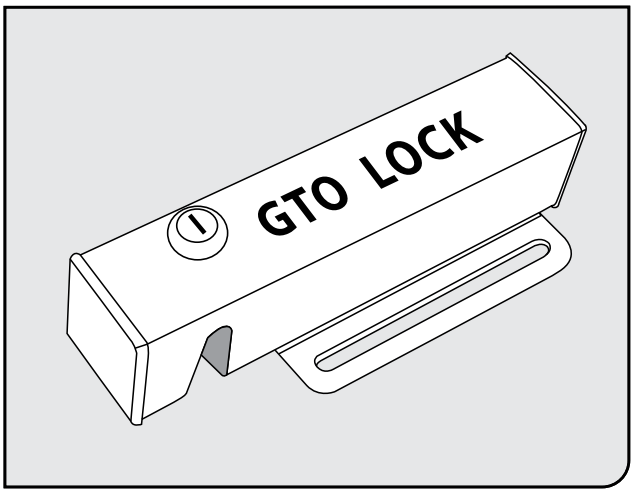
Connecting Accessories



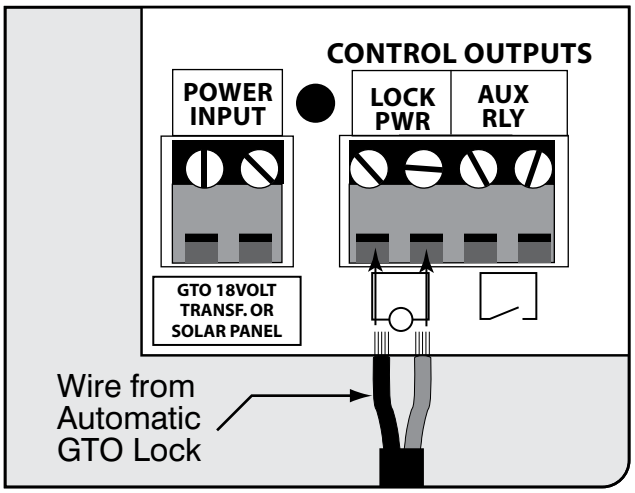
NOTE: *Connections are for typical applications. There may be additional connection options for applications that are not illustrated here.*

Connecting Additional Devices

Connecting GTO Automatic Lock



GTO Lock:
For use exclusively with GTO Lock (FM142 or FM144). Connecting other devices to these terminals may cause incorrect operation and void your warranty. You do not use the lock board with this control board.



GTO Lock Connection:
Connect the red and black leads from the lock to the GTO LOCK terminal on the gate operator control board.

Connecting Other Auxiliary Devices (Mag Locks, Sirens, Lights. . .}

- These 2 terminals are normally open, dry-contact (no voltage) relay ouput.
- These 2 terminals are ON (shorted) whenever the gate is moving and OFF (opened) otherwise.
- These 2 terminals maximum rating is 24Vdc, 1 Amp.

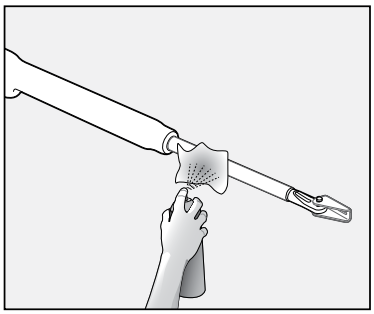
Maintenance & Troubleshooting

Maintenance Tips

- On all gates weighing 250 lb. or more, routinely grease the ball bearing hinges at least 4 times a year; more frequently if the gates are near a coastal area.

- Keeping a few mothballs in the control box will discourage insects from entering it and damaging the control board.

- Clean the push-pull tube with a soft, dry cloth and apply silicone spray to it at least once per month.



Troubleshooting Guide

If your gate opener does not function properly after it is installed, use this guide before calling the GTO Service Department.

VOLTAGE READINGS

18 Vac Transformer ..... 18.0 to 22.0 Vac, 2200 mA
5 W Solar panel (single)..... 18.0 to 22.0 Vdc, 300 mA
** measure voltage at panel and control box.*

Two 12 V, 7 amp hour Batteries..... 12.5 to 13.5 Vdc 7.0 Ah
**measure voltage at battery terminals with battery disconnected from circuit board*

Charging circuit ..... 13.3 to 14.8 Vdc
**measure voltage at battery terminals with battery connected to circuit board and GREEN "POWER IN" LED is ON.*

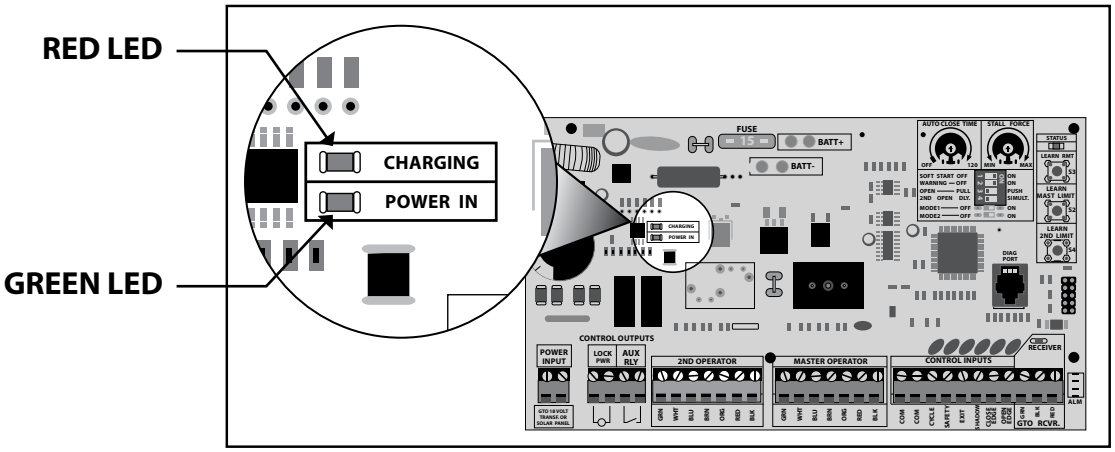
Audible Feedback

Symptom	Diagnosis	Check:
1 short beep upon activation	Blown Fuse Low or Bad Battery Loose Battery Connection	• Fuse • Battery Under Load • Battery Harness Connections
1 short beep upon power up	Circuit Board Powered Up & Ready	• Normal Operation
Continuous Uninterrupted Alarm	Circuit Board Senses an Obstruction	• Path of Gate • Gate for Level and Plumb • Stall Force Adjustment • Disconnect Safety Devices • Rev Counter
1 beep with 10 seconds off	Low Battery Condition	• Fuses • Battery Harness Connections • Battery Under Load
1 beep then 2 beeps	Master Motor Terminals Shorted	• Connections to Master Inputs • Master Arm Power Cable • Motor • Circuit Board
1 beep with 2 seconds off	Master Arm Limit Switch Error	• Connections to Master Inputs • Master Arm Power Cable
3 beeps with 2 seconds off	Master Arm Rev Counter Error	• Connections to Master Inputs • Master Arm Power Cable • Rev Counter

Visual Feedback

Symptom	Diagnosis	Check:
Status (clear) 1 blink	Cycle Terminal Shorted	Disconnect the push button, keypad, intercom keypad, or any other accessory wired to this terminal. Try the remote. If the remote works, then the problem is the accessory.
Status (clear) 2 blinks	Safety Terminal Shorted	Disconnect the loop detector, photo beam, or any other accessory wired to this terminal. Try the remote. If the remote works, the problem is the accessory.
Status (clear) 3 blinks	Exit Terminal Shorted	Disconnect exit wand, loop detector, photo beam, Knox box, or any other accessory wired to this terminal. Try remote. If the remote works, the problem is the accessory.
Status (clear) 4 blinks	Shadow Terminal Shorted	Disconnect the loop detector, photo beam, or any other accessory wired to this terminal. Try remote. If the remote works, the problem is the accessory.
Status (clear) 5 blinks	Close Edge Terminal Shorted	Disconnect the edge sensor, photo beam, or any other accessory wired to this terminal. Try the remote. If the remote works, the problem is the accessory.
Status (clear) 6 blinks	Open Edge Terminal Shorted	Disconnect edge sensor, photo beam, or any other accessory wired to this terminal. Try the remote. If the remote works, the problem is the accessory.
RF (yellow) Flickers	Receiving 318 MHz RF	Normal operation when remote or wireless keypad is used.
RF (yellow) OFF	No 318 MHz RF Received	• Battery in Remote • Program Remote • Antenna Receiver Connections • Antenna Receiver
Power (green) ON	AC or Solar Power Present	Normal Operation
Power (green) OFF	No AC or Solar Power	**Transformer:** • Breaker or GFI • Power at AC outlet. • Output of Transformer. • Voltage on wire at 18 VAC Input **Solar:** • Weather • Solar Panel Placement • Output of Solar Panel • Voltage on wire at Solar Input
Charge (red) ON	Fast Charging Mode	Battery Voltage should be ~14.8 VDC slowly increasing
Charge (red) Fast Blinking 2/second	Soak Charging Mode	Battery Voltage should be ~14.1 VDC
Charge (red) Slow Blinking 1/second	Float Charge	Battery Voltage should be ~13.8 VDC
Charge (red) OFF	Battery Not Being Charged	• AC power • Transformer • Solar Panel • Charging Circuit

Battery/Power Troubleshooting



POWER IN LED	CHARGING LED	
ON	Steady ON	Battery Charging
ON	Blinking	Battery Fully Charged
ON	OFF	Bad Charger
OFF	OFF	No AC/Solar Power
OFF	Blinking	Low Battery
OFF	Steady ON	Bad Charger

Repair Service

If your Gate Operator is not operating properly, please follow the steps below:

1. First use the procedures found in the Troubleshooting Guide (see page 25).
2. Use the 24/7 Troubleshooting Wizard at http://support.gtoinc.com.
3. If you are unable to solve the problem, call the GTO Service Department at (800) 543-1236, or (850) 575-4144. Refer to the serial number (located on the right side of the control box) and date of purchase when calling for assistance.
4. If repair or replacement of your gate operator is necessary, the Service Department will assign a Return Goods Authorization (RGA) number to you.
5. Securely pack the component(s) authorized for return to the factory. Include a copy of your sales reciept for the purchase of the product(s). Write the RGA number issued to you on the outside of the package in LARGE BOLD PRINT.

   Ship the package(s) freight prepaid to: GTO, 3121 Hartsfield Road, Tallahassee, Florida, USA 32303.

   NOTE: Products returned to GTO without a Return Goods Authorization (RGA) number in LARGE BOLD PRINT on the outside of the package WILL NOT be accepted. Also, items returned to GTO freight collect WILL NOT be accepted.

GTO Technical Service and Installation Assistance

8:00am–7:00pm • Monday–Friday (EST)

Toll Free Support: 800-543-1236 • Local Support: 850-575-4144 • Fax: 850-575-8950

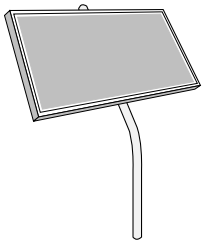
24/7 Troubleshooting Wizard: http://support.gtoinc.com

Accessories

Please visit www.gtoaccess.com for photos and detailed descriptions of GTO Accessories. Or call 1-800-543-GATE (4283).

POWERING ACCESSORIES

Low Voltage Wire [RB509]
The 16 gauge, stranded, dual conductor low voltage Wire is for connecting the AC powered transformer, solar panel or wired accessories to the system's control board. This specially designed wire is UV treated, PVC coated, and ready for direct burial.



Solar Panel Kits [FM122/FM123]
If your gate operator is more than 1000 ft. away from an AC power outlet, you can choose to maintain the battery charge with the GTO Solar Panel Kit.

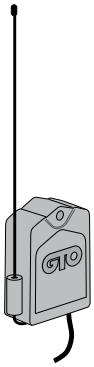
- 10 Watt Solar Panel Charging Kit [FM123]
- 5 Watt Solar Panel Charging Kit [FM122]

Additional/Replacement Battery [RB500]
For additional battery power or replacement.

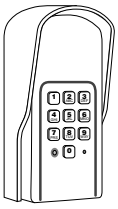
"FROM VEHICLE" ENTRY AND EXIT ACCESSORIES

Transmitters [RB741/RB742/RB743]
Purchase an additional transmitter for each vehicle in your family. The Two-Button Transmitter can be programmed to operate both your gate operator and a garage door opener using the Universal Receiver. Or it can be programmed to open two gate operator systems.

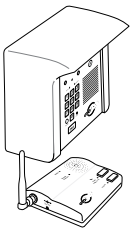
- Single Button Transmitter [RB741]
- Dual Button Transmitter [RB742]
- Three Button Transmitter [RB743]



Universal Receiver [RB709U-NB]
The Universal Antenna Receiver gives you the ability to use one remote to activate your gate operator and your garage door opener. Connects to any brand garage door opener. Up to 100 ft. range.



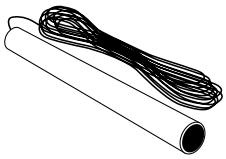
Digital Keypad [F310]
Allow friends access to your property using an identification code that you provide. Program up to 25 entry codes for added security. Powered by three "AA" batteries (not included).



Residential Wireless Entry Intercom [F3100MBC]
Designed for added security to your automated gate with the ability to "speak to" and "screen" visitors safely from inside your home. Ideal for securing gate entrances while providing controlled access.

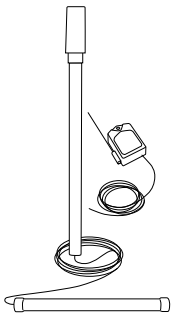
Gooseneck Pedestal [F100/F110]
Designed to mount digital keypads, wireless intercom systems, and other access control devices for your gate automation system.

"HANDS FREE" Entry & Exit Accessories



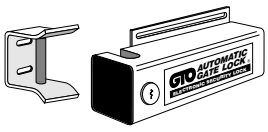
Driveway Vehicle Sensor [FM139]
Automatically activates gate operator "Hands-Free" when a vehicle exits the property. Electromagnetic sensor detects vehicles in motion.

- 50 ft. [FM139]
- 100 ft. [FM140]
- 150 ft. [FM141]

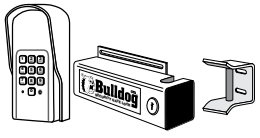


Wireless Vehicle Sensor [R4500]
Automatically activates gate operator "Hands-Free" when a vehicle exits the property. 100 ft. range between transmitter and receiver. Easy installation.

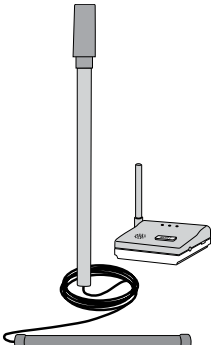
LOCKING & SECURITY Accessories



Automatic Gate Lock [FM144/FM142]
The #1 Accessory For Swing Gate Operators! Designed for added security in conjunction with GTO Automatic Gate Operators. The gate lock unlocks and locks automatically when the gate opens and closes. The perfect solution for high wind conditions.



Bulldog Pedestrian Gate Lock [FM145]
Designed to mount on horizontal swing "walk through" wood, chain link, and metal pedestrian gates opening in or out. Ideal for securing pools, condominiums, schools and any pedestrian gate.



Wireless Driveway Alarm [R4450].
This device alerts you of vehicles entering your driveway (with or without an automated gate). The indoor base station signals you with a door chime when a vehicle passes the driveway sensor.

ADDITIONAL Accessories

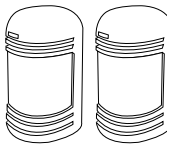
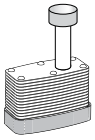


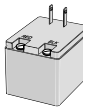
Photo Beams [R4222]
Primary "through beam" photo beam device. Provides "non-contact" entrapment protection.



Pin Lock [FM345]
Use as a substitute for the clevis pin at the front mount of the gate opeator to prevent theft of the operator.

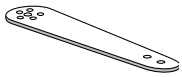
- Pin Lock 10-pack: ten Pin Locks keyed alike [FM345KA].

Push Button Control [RB101]
Wire this unlit push button directly to your gate operator for simple open/close/stop operation from up to 1000 ft. away. Use 16 gauge low-voltage wire.



Replacement Transformer [RB570]
Standard 18 volt, 2200 mA AC transformer included with the gate operator to maintain battery charge.

HARDWARE Accessories



Push To Open Brackets [347IH]
Required when the gate operator must push a gate open (arm extends to open), such as away from a sloping driveway or where space prevents gate from opening into the property (pull to open). Order two brackets for a dual swing gate installation.

Column Mount Lock Receiver [433IH]
For use with the Automatic Gate Lock or Bulldog Pedestrian Gate Lock when mounting on brick columns or applications with limited space.

If you have a question about any special order item, just call 1-800-543-GATE!

3121 Hartsfield Road • Tallahassee, Florida, USA 32303
Telephone GTO Sales: 1-800-543-GATE (4283) or (850) 575-0176 • Fax (850) 575-8912
or GTO Technical Service: 1-800-543-1236 or (850) 575-4144 • Fax (850)575-8950
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