LiftMaster
ELITE SERIES™

The Chamberlain Group, Inc.
845 Larch Avenue
Elmhurst, Illinois 60126-1196
www.liftmaster.com

MODEL HCT 501103

COMMERCIAL HIGH-TRAFFIC OVERHEAD GATE OPERATOR

OWNER'S MANUAL

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Important: ***DO NOT*** attempt repair or service of your commercial gate operator unless you are an Authorized Service Technician.

For Toll Free Technical Support: **1-800-528-2806**
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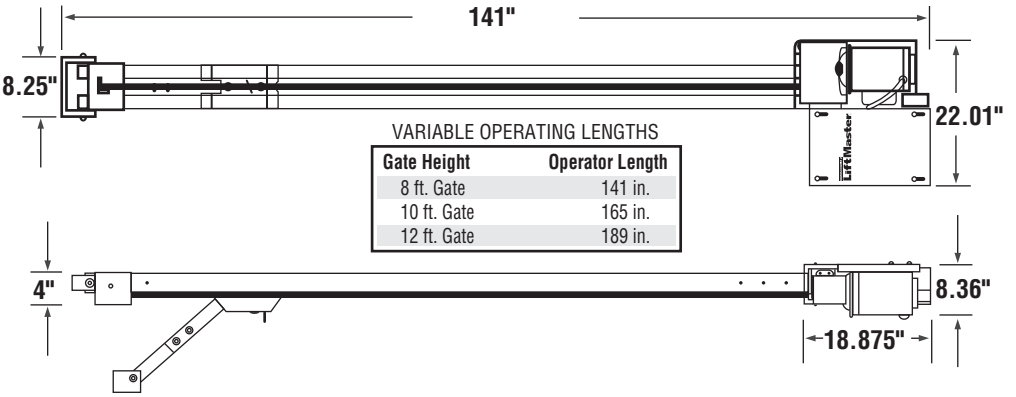
FEATURES AND SPECIFICATIONS



VARIABLE OPERATING LENGTHS

Gate Height	Operator Length
8 ft. Gate	141 in.
10 ft. Gate	165 in.
12 ft. Gate	189 in.

CONTINUOUS CYCLE
240 LBS. MAX. PULL
COMMERCIAL GATE OPERATOR, CLASS II, III, IV

1/2 HP – 120 Vac
1PH – 60HZ – 4.8 AMPS
WEIGHT 123 LBS

MOTOR - 120 Vac 4.8 Amp 1/2 HP instant reversing parking gate Leeson Motor

GEAR BOX - 40 to 1 ratio, lubrication by oil bath gives smooth, quiet operation and features positive gate locking.

NOISE ISOLATOR - Heavy duty rubber attachments isolate vibration, absorb shock and eliminate noise.

TWO WAY REVERSING SENSOR - Can be set for close/open cycles. While closing, if the gate hits an object it reverses; while opening, if it hits an object it stops.

ENTRAPMENT ALARM SYSTEM - Alarm activates anytime the moving gate is physically stopped by an unwanted object.

Use warning sign on front of gate to prevent injury to children.

MODULAR ELECTRONIC CONTROL BOARD - All electronic parts are on a single board.

BALL BEARING SUPPORTS - All wear points run on full ball bearing supports for a long, quiet life.

TROLLEY ASSEMBLY - Chain drive trolley assembly operates on 6 UHMW wheels to eliminate noise, shock and vibration.

FINISHING - Metal parts are gold-zinc plated and/or powder coated for rust-proof purposes.

MANUAL RELEASE - In case of power failure, it can be easily disconnected by a security key.

ROLE OF SPECIFIERS AND DESIGNERS

Specifiers and designers should design an automatic vehicular gate system to:

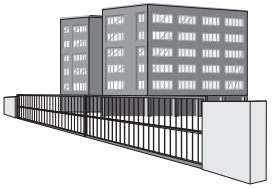
- Incorporate UL325 compliant equipment.
- Utilize an operator suited for system type, size, frequency of use, location and user population. (For gates refer to UL325 for usage class definitions.)
- Separate pedestrian access from vehicle access.
- Reduce or eliminate pinch points.
- Reduce risk of entrapment injuries by minimizing all gaps in the gate and enclosing the area of the travel of the gate.
- Secure controls from unauthorized use.
- Locate all controls out of reach from the gate.
- Allow the user full view of the gate when operating.
- Consider special populations, such as children or the elderly.
- Prominently display all warnings and instructions.
- Be consistent with DASMA's Automatic Gate Opener System Safety Guide.

ROLE OF DEALERS, INSTALLERS AND TRAINED SYSTEM TECHNICIANS

Installers, during the course of the installation steps for each job, should:

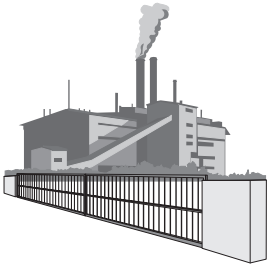
- Read and fully understand the manual.
- Confirm that the operator being installed is appropriate for the application.
- Confirm that the gate is designed and built according to current published industry standards.
- Confirm that all appropriate features and accessory devices are being incorporated, including both primary and secondary entrapment protection devices.
- Make sure that the gate works freely before installing the operator.
- Repair or service worn or damaged hardware before installing the operator.
- Adjust the operator clutch or load-sensing device to the minimum force setting that allows reliable operation.
- Install operator inside fence line. (DO NOT install operator on public side of fence line.)
- Install a proper electrical ground to the operator.
- Install keypad controls where users cannot touch, or reach through gate while operating controls.
- Install controls where user has full view of operation.
- Install all warning signs (in accordance with UL325) on both sides of the gate to warn persons in the area of potential hazards associated with automatic vehicular gate operation.
- Test all features for proper functions before placing the automatic vehicular system into service.
- Demonstrate the basic functions and safety features of the system to owners/end users/general contractors, including how to turn off power and how to operate the manual disconnect feature.
- Leave safety instructions, product literature, installation manual and maintenance manual with end user.
- Explain to the owners the importance of a service/maintenance contract that includes a routine re-testing of the entire system including the entrapment protection devices, and explain the need for the owners to insure that this testing is performed routinely.
- Offer the owner/end user a maintenance contract, or contact them regularly to offer maintenance.

UL GATE CLASSIFICATIONS



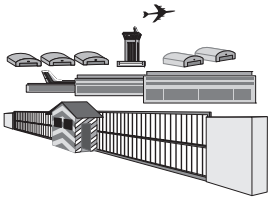
Class II – Commercial/General access vehicular gate operator

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



Class III – Industrial/Limited access vehicular gate operator

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



Class IV – Restricted access vehicular gate operator

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.

ROLE OF END USERS

End users should be made aware that they must:

- Read and fully understand the manual.
- Contact a trained system technician to maintain and repair the system. (End users should never attempt to repair the system.)
- Retain and utilize the installation/maintenance manual and safety instructions.
- Routinely check of all operator functions and gate movement.
- Discontinue use if safety systems operate improperly, the gate is damaged, or the gate is difficult to move.
- Prominently display and maintain warning signs on both sides of the gate.
- Keep all obstructions clear of the vicinity of the path of the system.
- Actively discourage pedestrian use of the vehicular operating system.
- Prevent anyone from playing near any part of the system.
- Never allow anyone to climb under, over or through a gate or the adjacent fence area.
- Never allow children to operate system.
- Keep portable controls out of reach of children.
- Never allow anyone to install an operating control within reach of the gate.
- Always be certain that the area is clear of pedestrians before operating the system.

OVERHEAD GATE SYSTEMS

WARNING: To reduce the risk of SERIOUS INJURY or DEATH:

- READ AND FOLLOW ALL INSTRUCTIONS.

- Gate - A moving barrier such as a swinging, sliding, raising lowering, rolling, or like, barrier, that is a stand-alone passage barrier or is that portion of a wall or fence system that controls entrance and/or egress by persons or vehicles and completes the perimeter of a defined area.

- Vehicular Vertical Pivot-Gate Operator (or System) - A vehicular gate operator (or system) that controls a gate that moves in an arc in a vertical plane that is intended for use for vehicular entrances or exits to a drive, parking lot, or the like.

- Entrapment Zone Hazard - Body parts may become entrapped between a gate and a stationary object when the gate begins to move, which can result in serious injury or death. Pedestrians must stay clear of the gate path, and any area where gate motion is close to stationary objects.

- Pinch Points Hazard - The opening mechanism may have arms that can overlap with a scissoring effect, which can result in serious injury. Pedestrians must stay clear of the opening mechanism at all times, particularly when gate is opening.

- Be sure that warning signs are prominently displayed on both sides of the gate and any other place where danger exists.

SAFETY INSTALLATION INSTRUCTIONS

1) Vehicular gate systems provide convenience and security. Gate systems are comprised of many component parts. The gate operator is only one component. Each gate system is specifically designed for an individual application.

2) 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 users as well as bystanders. Gate systems design and installation must reduce public exposure to potential hazards.

3) A gate operator can create high levels of force in its function as a component part of a gate system. Therefore, safety features must be incorporated into every design. Specific safety features include:

- Gate edges
- Guards for Exposed Rollers
- Photoelectric Sensors
- Screen Mesh
- Vertical Posts
- Instructional and Precautionary Signage

4) Install the gate operator only when:

A) The operator is appropriate for the construction and the usage class of the gate.

B) All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 4' (1.2 m) above the ground to prevent a 2 1/4" (6 cm) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that the gate covers in the open position.

C) All exposed pinch points are eliminated or guarded, and guarding is supplied for exposed rollers.

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

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

7) The gate must be properly installed and work freely in both directions prior to the installation of the gate operator.

8) Controls intended for user activation must be located at least 6' (1.8 m) away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.

9) The Reset Button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.

10) A minimum of two (2) WARNING SIGNS shall be installed, one on each side of the gate where easily visible.

11) For a gate operator utilizing a non-contact sensor:

A) Reference owner's manual regarding placement of non-contact sensor 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.

12) For a gate operator utilizing a contact sensor such as an edge sensor:

A) Reference owner's manual regarding placement of non-contact sensor for each type of application.

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

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

D) 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.

E) A wireless contact sensor such as the 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.

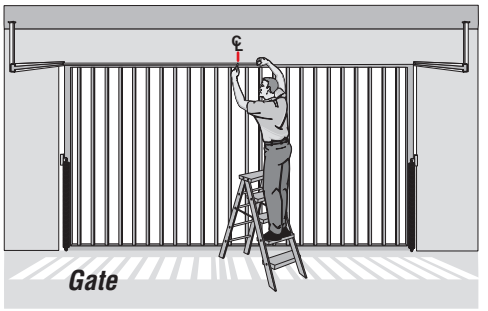
F) One or more contact sensors shall be located on the inside and outside leading edge of a swing gate. Additionally, if the bottom edge of a swing gate is greater than 6" (152 mm) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.

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

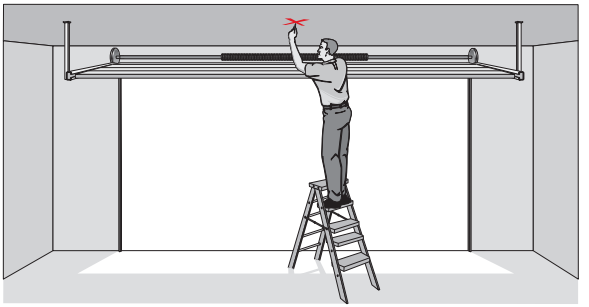
INSTALLATION OF OPERATOR

Make sure the gate opens and closes smoothly.
Gate should stay in the open position when springs are properly balanced.

STEP 1 With the gate closed, mark the center of the gate.

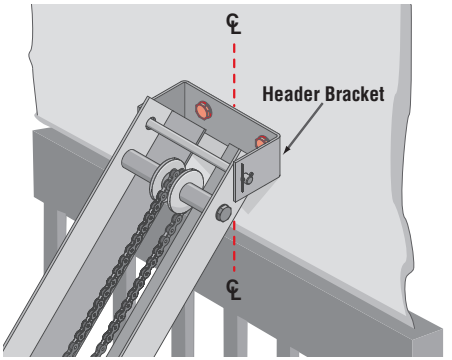


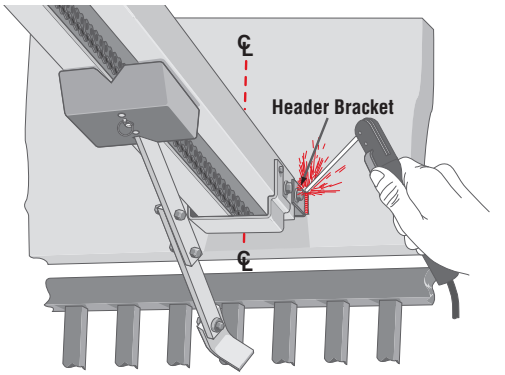
STEP 2 Open the gate and mark the center point of the gate on the ceiling.



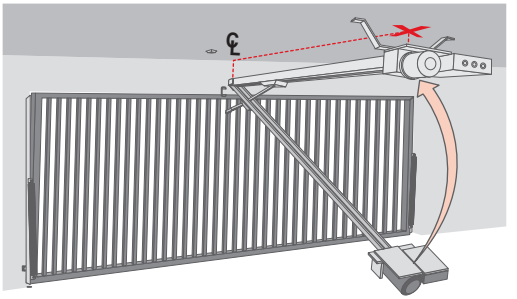
MOUNTING THE OPERATOR

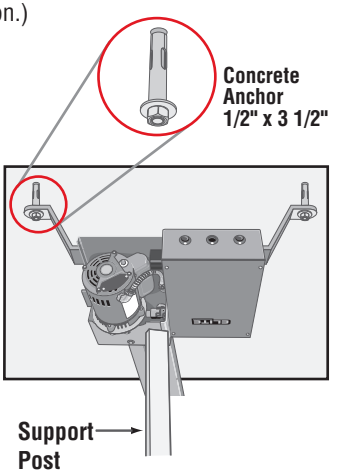
STEP 3 Make sure the header bracket is in the center of the opening. Bolt or weld the end of the track (header bracket) to wall.



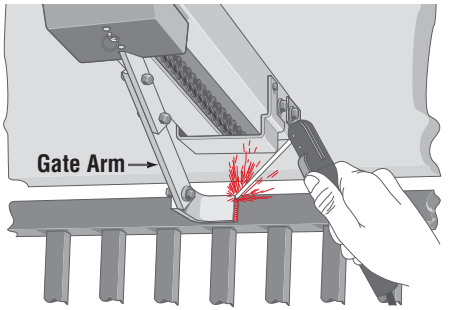


STEP 4 Lift the operator and align with center mark on ceiling. Have someone hold the operator in place or use something as a support post, and bolt to ceiling. (A support post is not part of the operator. Use only for installation.)





STEP 5 Bolt or weld arm to gate.



HOW TO CONNECT POWER (120VAC)

STEP 6

WARNING: To reduce the risk of SERIOUS INJURY or DEATH:

- 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 of adequate capacity.*
- 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.
- Entrapment protection devices MUST be installed to protect anyone who may come near a moving gate.

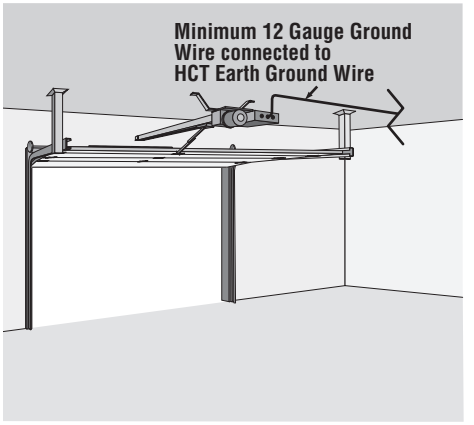
Proper grounding gives an electrical charge, such as from an electrical static discharge or a near lightning strike, a path from which to dissipate its energy safely into the earth.

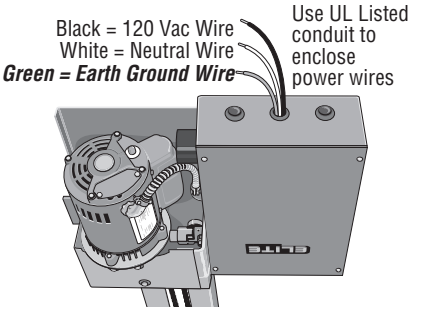
Without this path, the intense energy generated by lightning could be directed towards the operator. Although nothing can absorb the tremendous power of a direct lightning strike, proper grounding can protect the operator in most cases.

The ground wire ***must*** be a single, whole piece of wire. ***Never*** splice two wires for the ground wire. If you should cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length.

Use the proper type earth ground rod for your local area. In certain circumstances, metal water pipes may be allowed for grounding the operator. Check and follow all local codes for proper grounding procedures.

CAUTION: To avoid damaging gas, power, or other underground utility lines, contact local underground utility locating companies before digging.





Chamberlain Professional Products is not responsible for improper installation or failure to comply with all necessary local building codes.

MOUNTING AND WIRING OF RESET SWITCH

STEP 7

The reset switch allows the operator to be reset upon the event of a double entrapment alarm. When such an event occurs the alarm will continuously sound and the operator will not have any functionality until the board is reset.

⚠⚠ WARNING

To prevent possible SERIOUS INJURY or DEATH from electrocution, disconnect electric power to operator BEFORE installing.

ALL electrical connections MUST be made by a qualified individual.

1. **Disconnect power to the operator.**
2. Mount reset switch at a minimum of 6' away from the gate jambs (Figure 1).
3. Plug the interface cable (Figure 2) into the J5 receptacle on the Omni control board (Figure 3).
4. Connect like wires from the reset switch to the interface cable. Twist together with wire nuts. ***NOTE:*** *The wire connecting the interface cable to the reset switch is not provided.*

Figure 1

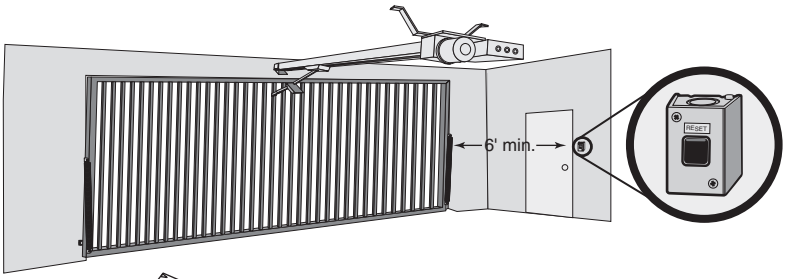


Figure 2

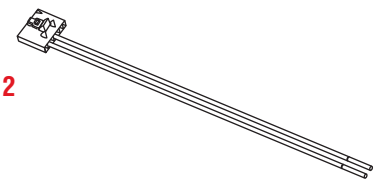
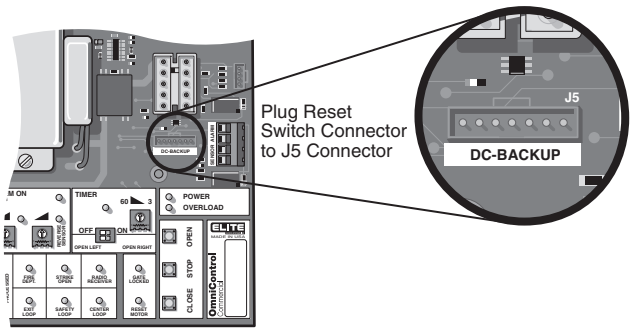


Figure 3

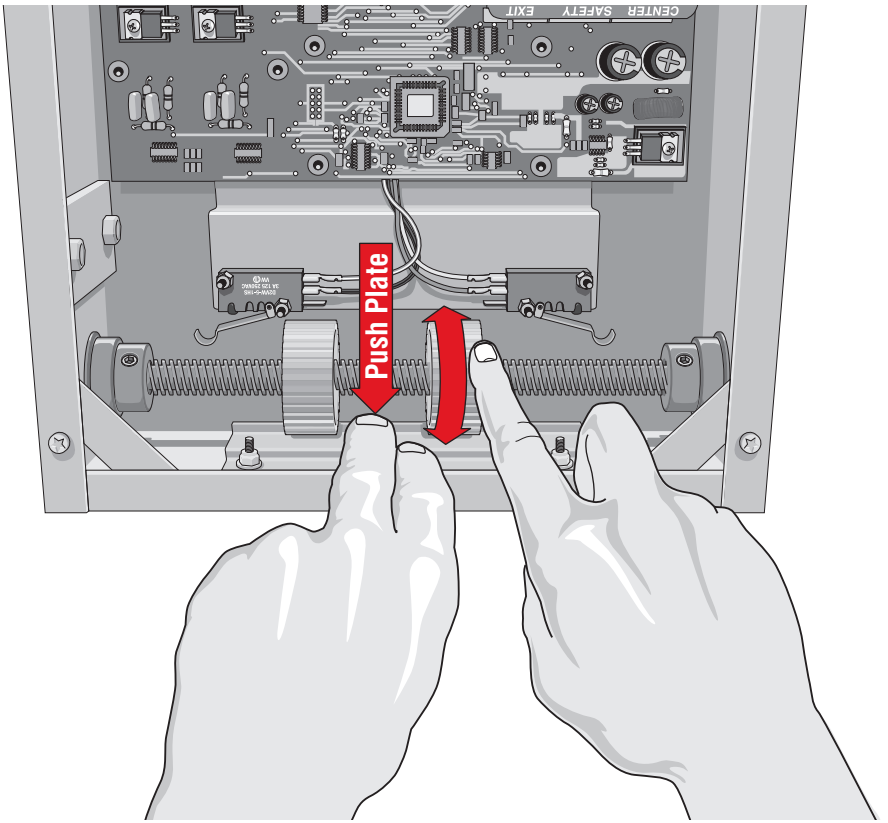


ADJUSTING TRAVELING DISTANCE

STEP 8

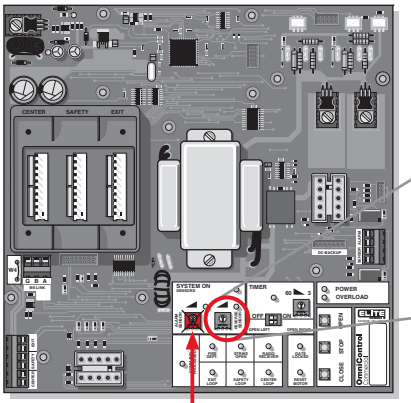
Before Adjusting, Do the Following:

1. **Disconnect power to the operator.**
2. Push the limit nut lock plate inward. Roll the nut to the direction desired.
3. Place the plate back in the notch.
4. Reapply power to operator.
5. If further adjustment is needed, repeat the process.

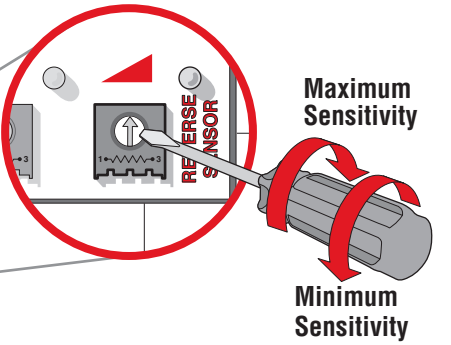


2-WAY ADJUSTABLE REVERSING SENSOR

STEP 9



Adjusted by Qualified Service Personnel



DO NOT TOUCH ALARM SENSOR

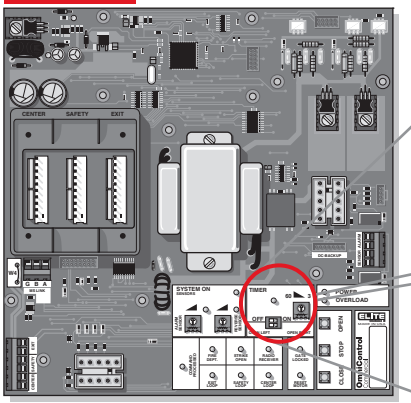
The level of reverse sensitivity has to do with the weight of the gate and the condition of installation.

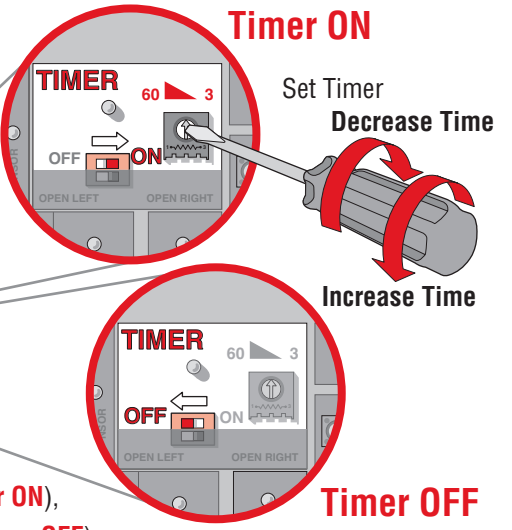
Too sensitive = If the gate stops or reverses by itself.

Not sensitive enough = If the gate hits an obstruction or vehicle and does not stop or reverse.

ADJUSTABLE TIMER

STEP 10

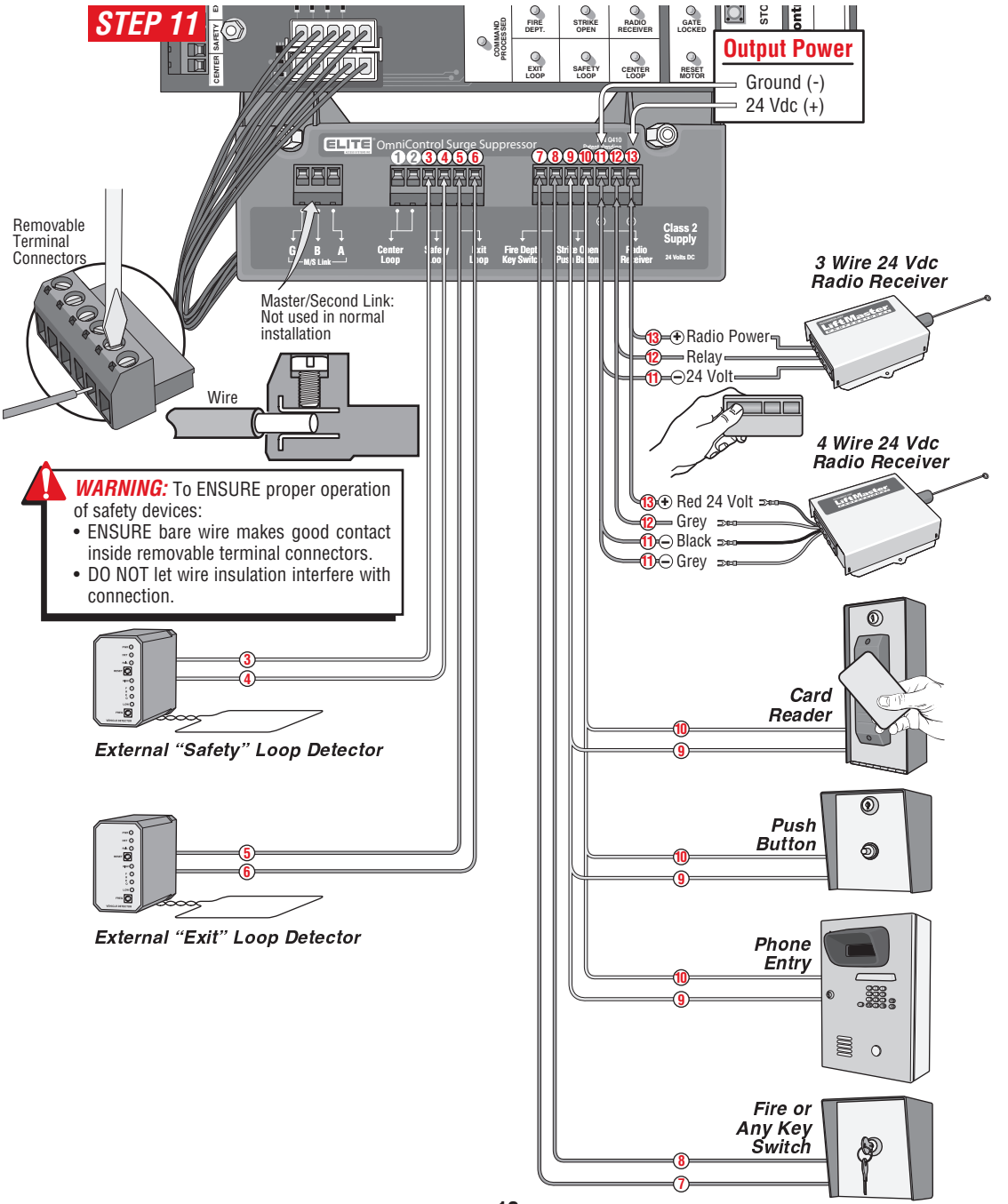




Timer can be set from 1 to 60 seconds (**Timer ON**),
For push open/push close type operation (**Timer OFF**).

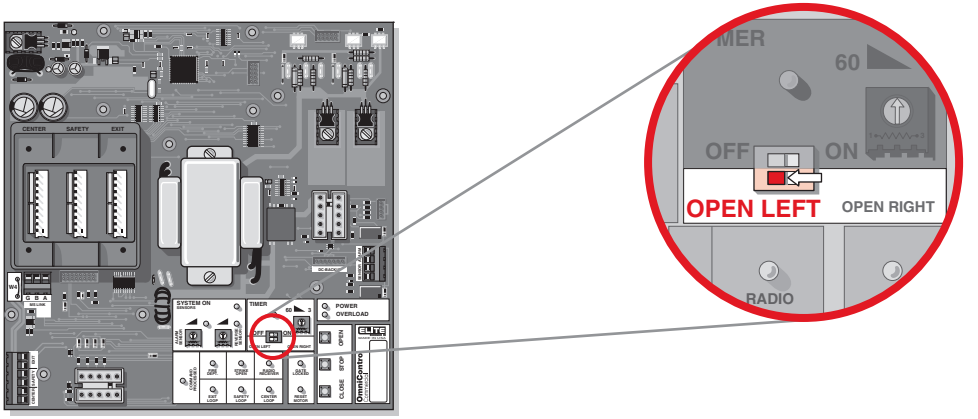
TERMINAL INPUT CONNECTIONS

Important: Terminals 11 and 12 are the only terminals that will both Open and/or Close with a single push of a button. All other terminals will only open with a single push of a button.



IMPORTANT INFORMATION

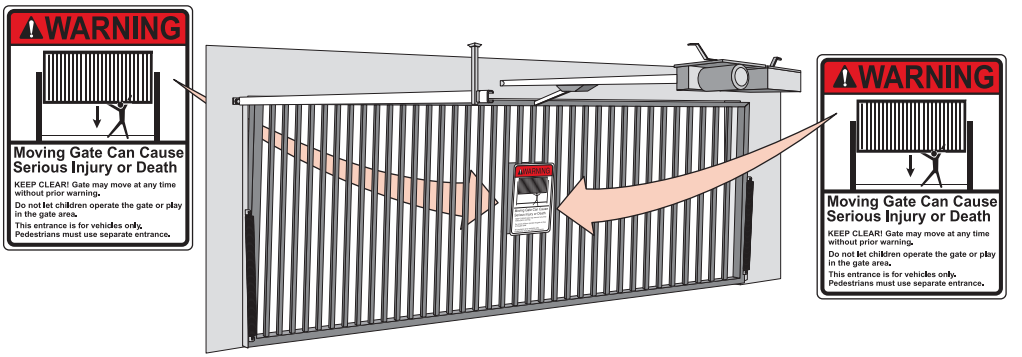
STEP 12



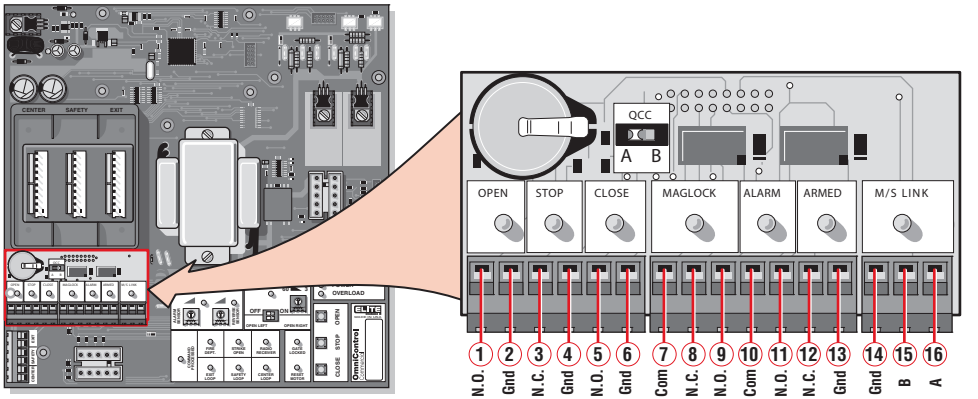
Make sure the system is "OPEN TO LEFT"

STEP 13

Installers are required to adhere to this procedure: The UL required Warning Signs must be installed in plain view and on ***both sides*** of each commercial gate installed. Each sign is made with fastening holes in each corner and should be permanently secured in a suitable manner.



INSTRUCTIONS FOR OPTIONAL SYSTEMS



QCC is designed for slide gate operators only!

Omni Option Board
see Accessories page

① & ② – Open Command
③ & ④ – Stop Command
⑤ & ⑥ – Close Command
⑦ – Common
⑧ – Normally Closed
⑨ – Normally Open

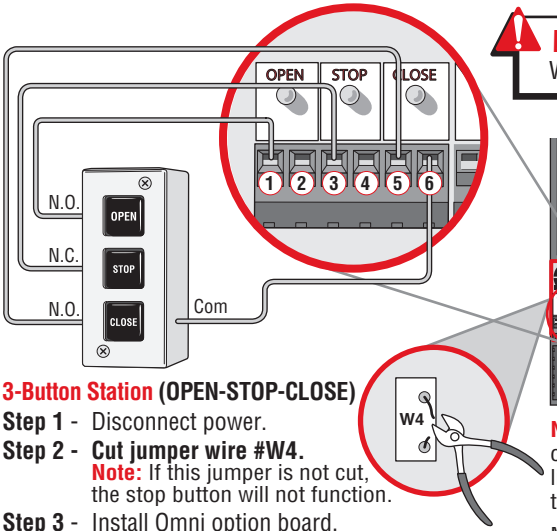
Relay Contact Rating
0.5 Amp - 125 Vac
1 Amp - 24 Vdc

⑩ & ⑪ – Burglar Alarm Output
⑫ & ⑬ – Burglar Alarm Input
⑭ – Ground
⑮ – B
⑯ – A

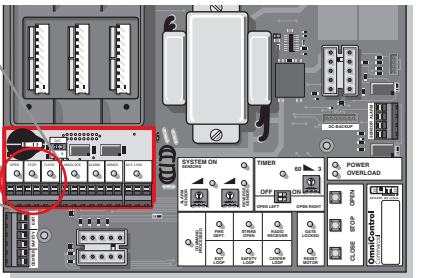
Master/Second RS485

3-BUTTON STATION

Omni "Option Board" Needed to Perform This Function



WARNING: For proper operation, cut W4 BEFORE installing option board.



3-Button Station (OPEN-STOP-CLOSE)

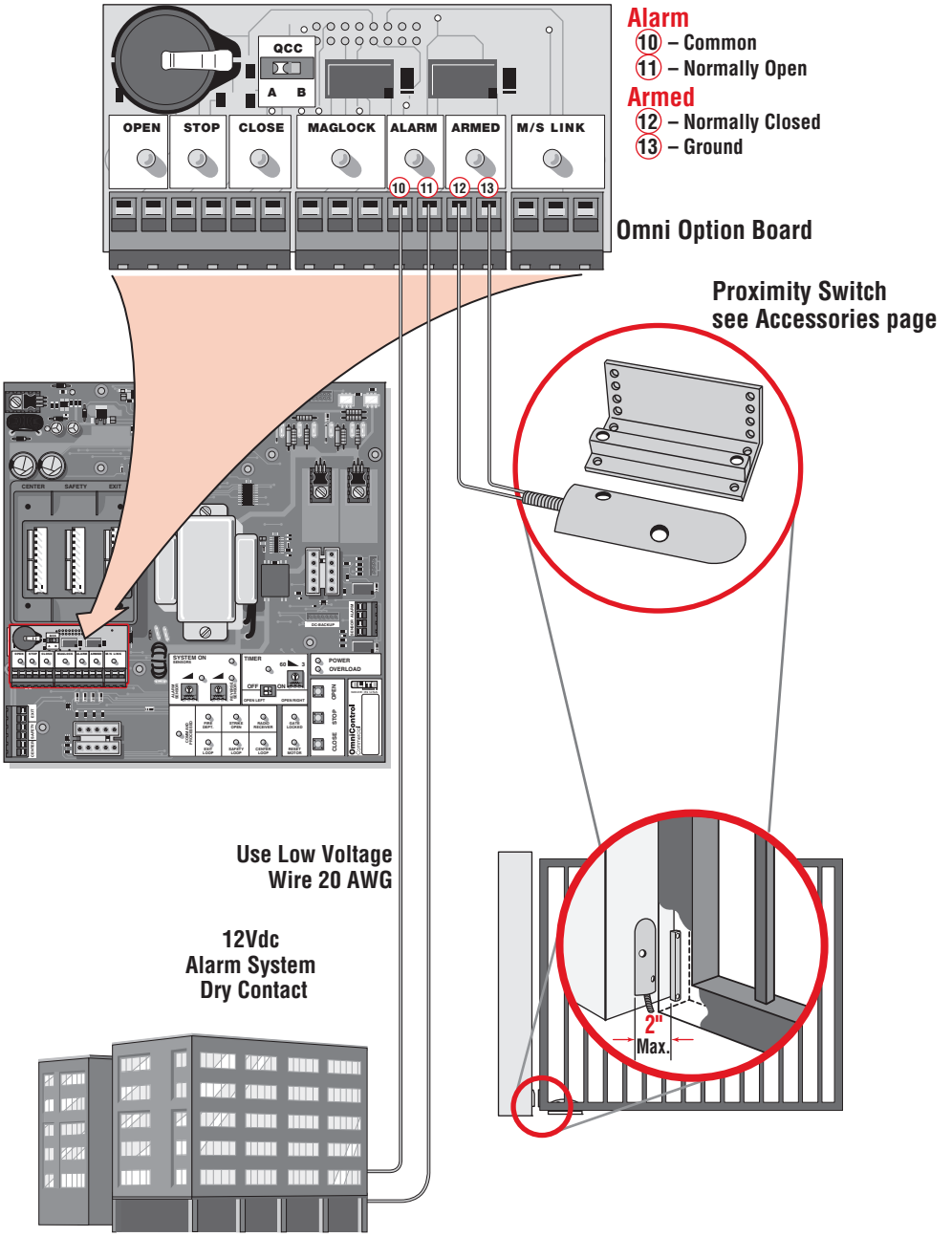
Step 1 - Disconnect power.
Step 2 - **Cut jumper wire #W4.**
Note: If this jumper is not cut, the stop button will not function.
Step 3 - Install Omni option board.
Step 4 - Connect **OPEN** push button to #①.
Step 5 - Connect **STOP** push button to #③.
Step 6 - Connect **CLOSE** push button to #⑤.
Step 7 - Connect **COMMON** to #⑥.

Note: If using the Master/Second board configuration, unplug the Master/Second link plug on main board and connect it into the Omni option board M/S link socket.

Make sure each push button is dry contact and there are no jumper wires between them.

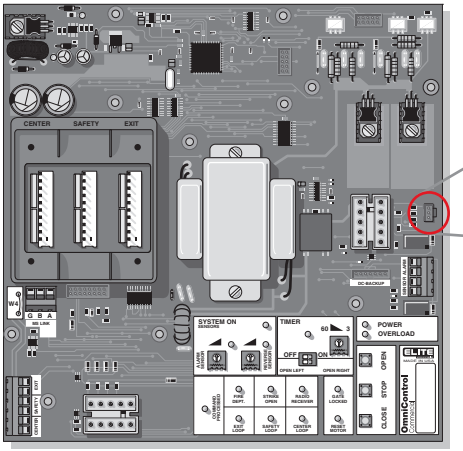
ALARM/PROXIMITY SWITCH CONNECTIONS

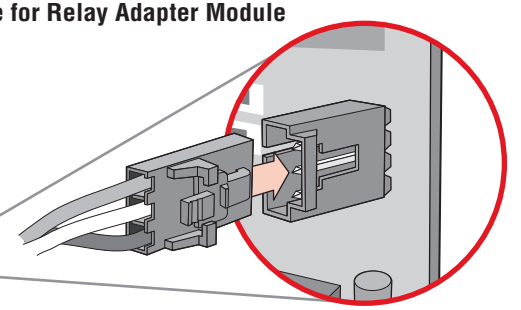
Omni "Option Board" needed to perform this function. See Accessories page.



OPTIONAL RELAY ADAPTER CONNECTION

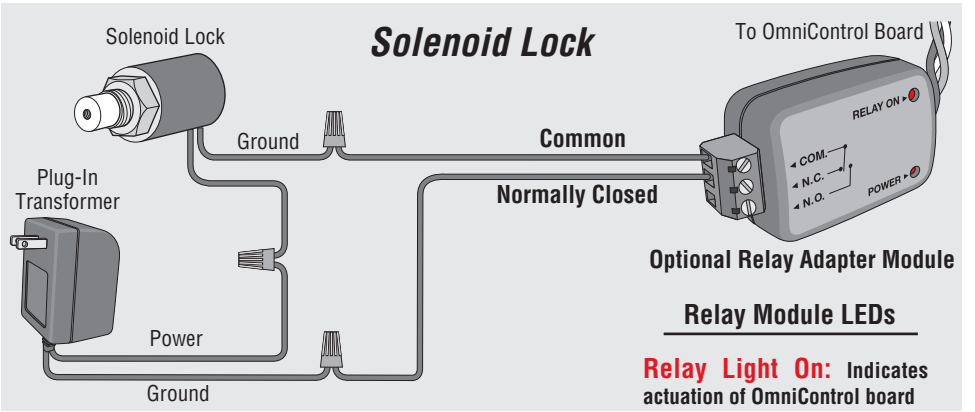
See Accessories page for Relay Adapter Module

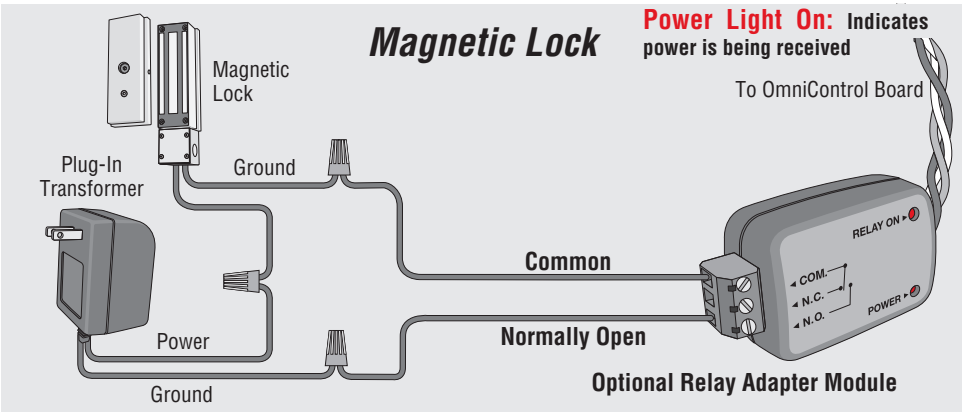




Connection of a Solenoid or Magnetic Lock can be made using the “Optional” Relay Adapter Module.

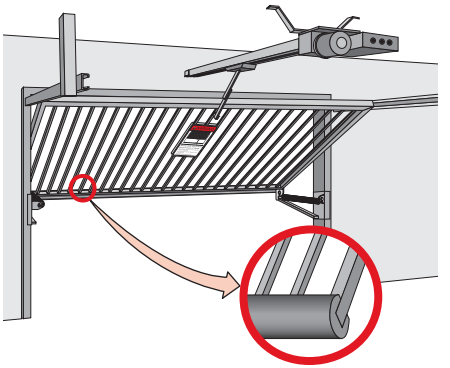
Relay Contact Rating
2 Amp - 125 AC/DC
2 Amp switching load capability





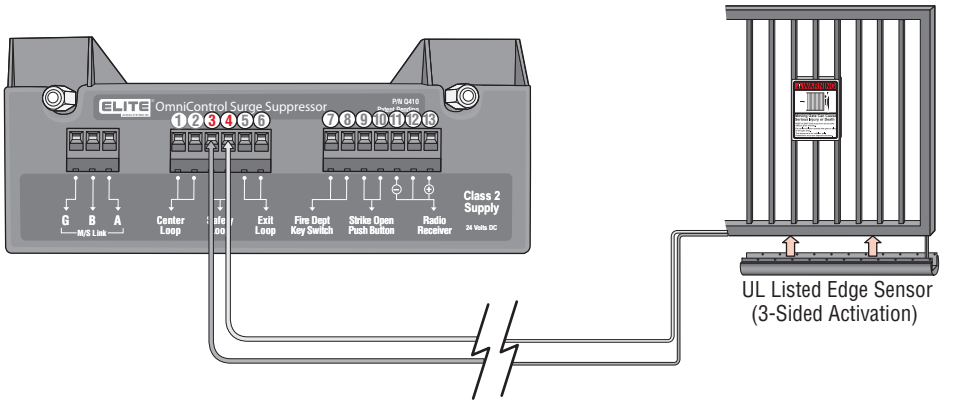
SECONDARY ENTRAPMENT PROTECTION

Secondary Entrapment Protection (Contact Sensor)



When touched, the electrically activated edge sensors immediately signal the gate operator to stop and reverse. Property owners are obligated to test edges regularly.

Edge Sensor Wiring

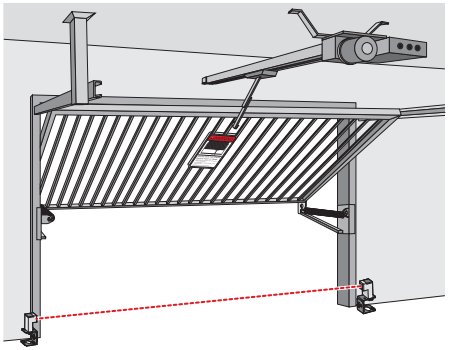


Note: If multiple sensors are being used, all of the edge sensors are to be connected in parallel at the sensor input on the OmniControl board.

If you are going to use a contact sensor as a secondary entrapment protection, you should use a recognized component to comply with the revised UL325 intended to be used in class I or class II gate operator.

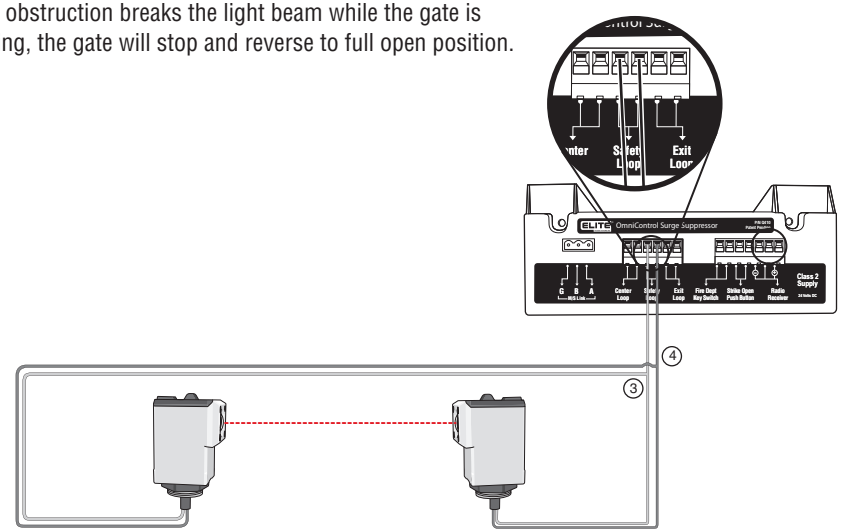
SECONDARY ENTRAPMENT PROTECTION

Secondary Entrapment Protection (Non-Contact Sensor)



Mount Photo Beam Sensor at Recommended Height and Align Properly

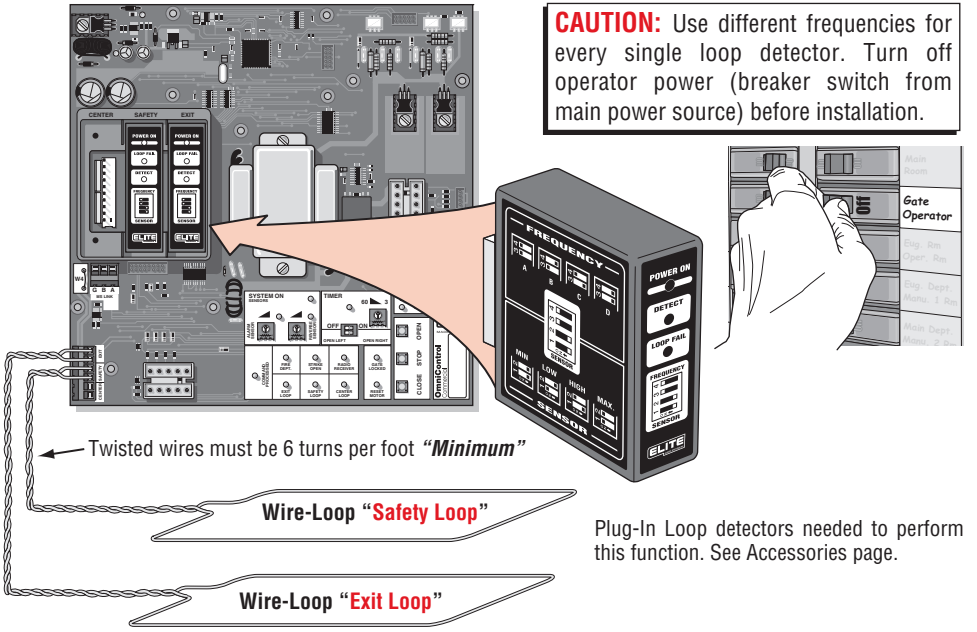
If an obstruction breaks the light beam while the gate is closing, the gate will stop and reverse to full open position.



If you are going to use a non-contact sensor as a secondary entrapment protection, you should use a recognized component to comply with the revised UL325 intended to be used in class I or class II gate operator.

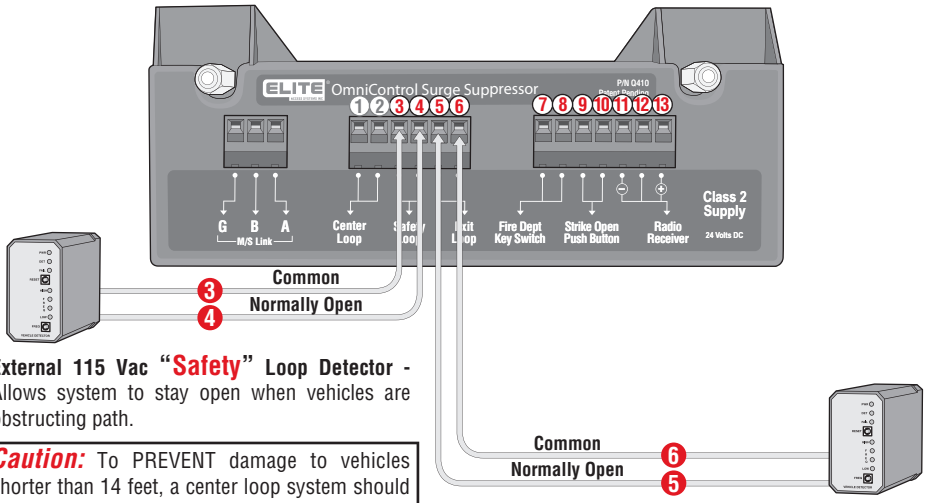
OPTIONAL PLUG-IN LOOP DETECTORS

CAUTION: Use different frequencies for every single loop detector. Turn off operator power (breaker switch from main power source) before installation.



Plug-In Loop detectors needed to perform this function. See Accessories page.

WIRING EXTERNAL LOOP DETECTORS



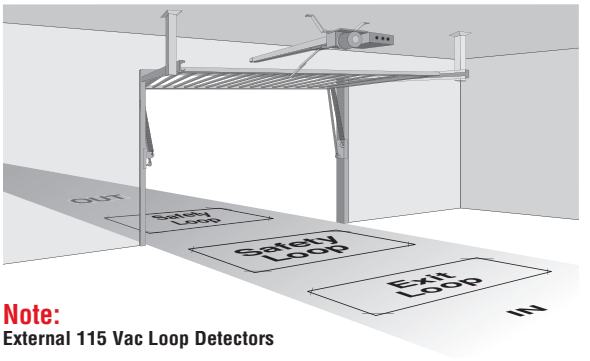
External 115 Vac "Safety" Loop Detector - Allows system to stay open when vehicles are obstructing path.

Caution: To PREVENT damage to vehicles shorter than 14 feet, a center loop system should be installed.

If the ***"Inside"*** and ***"Outside"*** safety loops are connected to the ***same*** loop detector:

- They should be series connected to the detector
- Have the same dimensions.
- Have the same number of wire turns.

External 115 Vac "Exit" Loop Detector - Allows operator to automatically open for exiting vehicles.



Note:
External 115 Vac Loop Detectors

PROGRAMMING THE RADIO RECEIVER

SET SECURITY MODE

The Universal Receiver can be used with up to 15 rolling code remotes or passwords in HIGH security mode. Alternately, it can be used with up to 31 of any type remote in NORMAL security mode, including any combination of rolling code, billion code, or dip switch remotes.

The jumper must be set at the HIGH position for the receiver to operate in HIGH security mode. It must be set at NORMAL position to operate at the NORMAL mode.

When changing from NORMAL to HIGH security mode, any previous remote codes must be erased. Repeat Steps 2 and 3 in the Programming Section on the next page to reprogram the receiver for each remote control in use.

The receiver is factory set at HIGH. To verify frequency, please refer to the label on the unit.

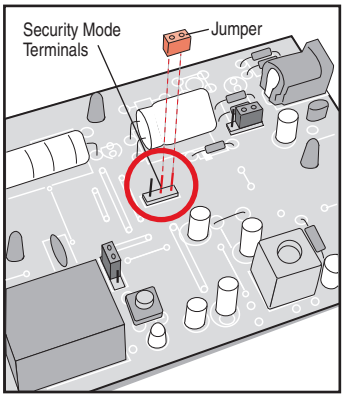
WARNING: To reduce the risk of SERIOUS INJURY or DEATH from electrocution:

- Be sure power is not connected BEFORE installing the receiver.

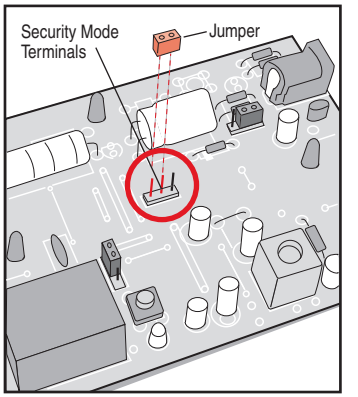
To reduce the risk of SERIOUS INJURY or DEATH from a moving gate:

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

HIGH SECURITY MODE



NORMAL SECURITY MODE



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.

PROGRAMMING THE RADIO RECEIVER

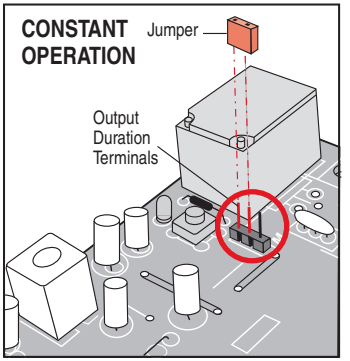
SET OUTPUT DURATION

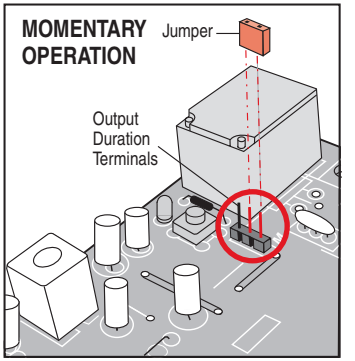
For commercial applications, the receiver can be set for either constant or momentary closure on the output contacts. Use of constant closure is prohibited on residential garage door openers because it overrides the safety reversal devices.

With the jumper in the "M" (Momentary) position, the contacts will close for 1/4 second regardless of the length of radio transmission. With the jumper in "C" (Constant) position, the contacts will stay closed as long as the radio continues transmitting.

The receiver is factory set at M.

WARNING: To reduce the risk of SERIOUS INJURY or DEATH, the use of CONSTANT OPERATION on residential openers is PROHIBITED.



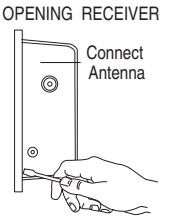


PROGRAMMING THE REMOTE TO THE RECEIVER

1. Pry open the front panel of receiver case with a coin or a screwdriver. Re-connect power to opener.
2. Press and release the "learn" button on the receiver. The learn indicator light will glow steadily for 30 seconds.
3. Within 30 seconds, press and hold the button on the hand-held remote that you wish to operate your operator.

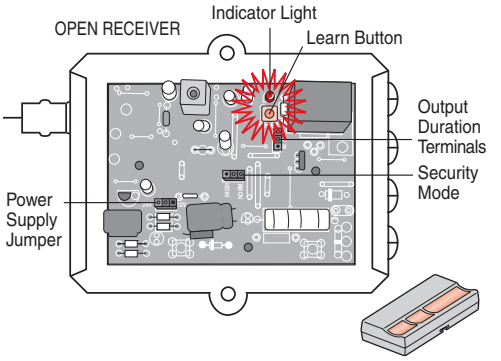
   The opener will now operate when the push button on either the receiver or the remote control is pressed.

   Repeat Steps 2 and 3 for each remote control that will be used to operate the opener.



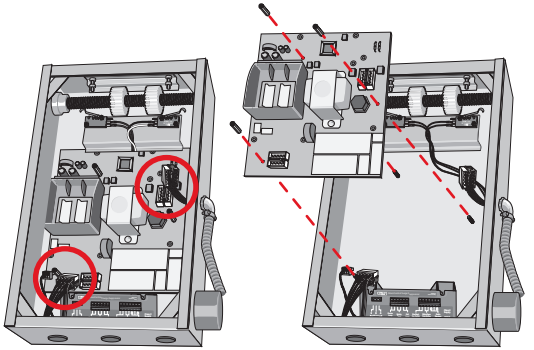
TO ERASE ALL REMOTE CONTROL CODES

Press and hold the "learn" button on the receiver panel until the indicator light turns off (about 6 seconds). All remote codes are now erased. Then follow the programming steps to reprogram each remote control.



HOW TO REPLACE THE CONTROL BOARD

1. Disconnect power.
2. Disconnect wire harnesses from OmniControl board. Unscrew 3 nuts and remove board.



⚠ WARNING

To prevent possible SERIOUS INJURY or DEATH from electrocution, disconnect electric power to operator BEFORE installing.

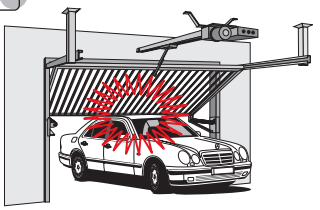
ALL electrical connections MUST be made by a qualified individual.

AUDIO ALARM

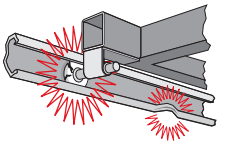
WARNING: To reduce the risk of SERIOUS INJURY or DEATH, the alarm MUST NOT be disabled.

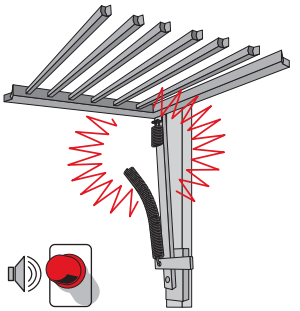
When one of the following events happens ***Twice Consecutively, an Alarm will Sound!***
Check for one or more of the following:

Gate hits obstruction.



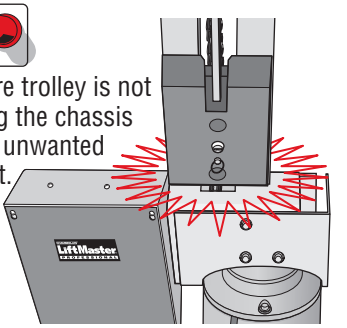
Check for broken wheel or damaged track.





Check for broken spring or hardware.

Ensure trolley is not hitting the chassis or an unwanted object.



IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of SERIOUS 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) *Personnel should keep away from a gate in motion and keep the moving gate in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING GATE.*

4) Test the safety features 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 operator. Failure to adjust and retest the operator properly may cause SERIOUS INJURY or DEATH.

5) Use the emergency release ONLY when the gate is not moving. Weak or broken springs may cause the gate to fall rapidly causing SERIOUS INJURY or DEATH.

6) *Keep gates properly maintained.* Read the manual. An improperly operating or balance gate could cause SERIOUS INJURY or DEATH. Have a qualified service technician make repairs to the gate or gate hardware.

7) *The entrance is for vehicles ONLY. Pedestrians MUST use separate entrance.*

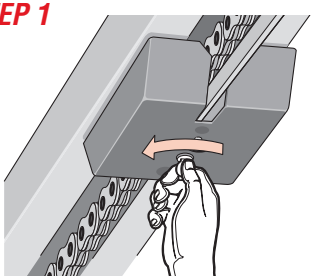
8) SAVE THESE INSTRUCTIONS.

MANUAL RELEASE

WARNING: To reduce the risk of SERIOUS INJURY or DEATH from a falling gate:

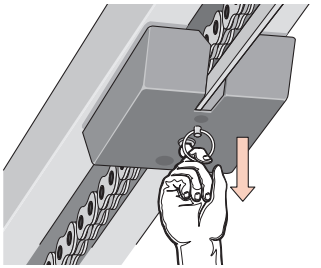
- If possible, use manual release to disengage trolley ONLY when gate is CLOSED. Weak or broken springs or unbalanced gate could result in an open gate falling rapidly and/or unexpectedly.
- NEVER use emergency release unless gateway is clear of persons and obstructions.

STEP 1



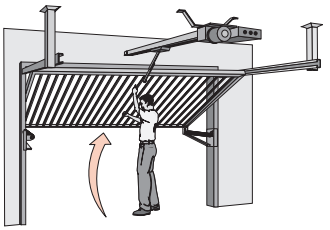
Insert key and turn to unlock position.

STEP 2



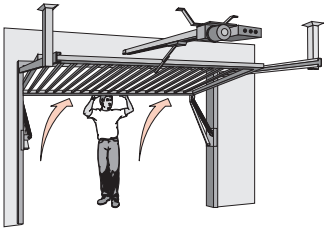
Pull down the release ring.

STEP 3



Lift the gate up.

STEP 4



Lift the gate up until fully open.

Trolley will automatically re-engage when power is restored and run command is given. When the cylinder lock is in the locked position, the release ring will not disengage. If the cylinder lock is in the unlocked position, the release ring will always be accessible to disengage.

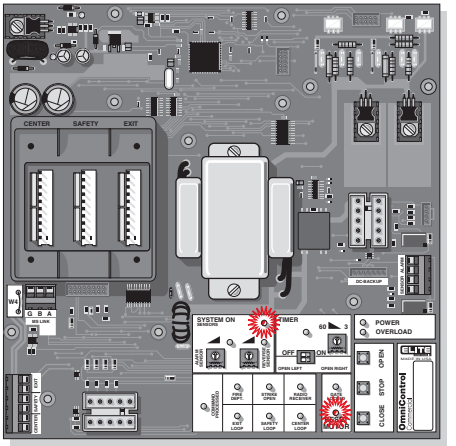
TROUBLESHOOTING TABLE

Condition	Possible Causes	Solution
Overload LED ON and Power LED ON	*1.* Short circuit at terminals 11 and 13. *2.* Short circuit at any of the loop detector in the board. *3.* Short circuit in the control board. *4.* Voltage is over 138 Vac.	*1.* Remove the short circuit condition at the terminals. *2.* Remove the defective loop detector. *3.* Reduce the accessories load from surge suppressor terminal 13. *4.* Verify your electrical power.
Overload LED On and Power LED On	*1.* Excessive current draw at terminal 13. *2.* Over-voltage at the 120 Vac line input.	*1.* Remove the short circuit condition at the terminals. *2.* Remove the defective loop detector. *3.* Reduce the accessories load from surge suppressor terminal 13. *4.* Verify your electrical power.
System On LED Flashing	*1.* Motor thermal fuse has popped-out (Rapid Flashing). ***OR*** *2.* One limit switch is faulty (Rapid Flashing).	*1.* Reset the motor. ***OR*** *2.* Test the limit switches and wire connections, fix the fault.
Reverse Sensor LED On	*1.* Gate has encountered an obstruction during traveling. *2.* Reverse sensor is extra sensitive.	*1.* Remove the obstruction. *2.* Turn the reverse sensor switch counter clockwise a little more and try again.
Alarm Sensor LED On	*1.* Gate encountered an obstruction during traveling. *2.* Alarm sensor is extra sensitive.	*1.* Remove the obstruction. *2.* Turn the alarm sensor switch counter clockwise a little more and try again.
Command Processed LED On Continuously	*1.* There is a continuous command present.	*1.* This is a normal response of the gate operator. It does not represent necessarily that there is a problem.
Timer LED Blinking and Command Processed LED Blinking	*1.* There is a command holding the gate open.	*1.* This is a normal response of the gate operator. It does not represent necessarily that there is a problem. Check inputs for command.
Timer LED Blinking, Command Processed LED Blinking and Reverse Sensor LED On	*1.* Gate has reopened because it encountered an obstruction while closing.	*1.* Any re-new command will resume normal operation. Check for obstructions.
Audio Alarm On	*1.* Gate has encountered two consecutive obstructions while trying to close or open.	*1.* Any re-new command will resume normal operation but not a radio command. Check for obstructions. *2.* You can stop the alarm by using the stop button.
Any "Loop LED" On and No Vehicle on the Sensing Area	*1.* The loop detector needs to be reset. *2.* The wire loop has been disrupted. *3.* The loop detector needs to work in a different frequency. *4.* The loop detector is too sensitive.	*1.* Reset the loop detector (If you use Plug-in Loop detectors, change the setting for sensitivity and come back to your original setting). *2.* Verify and correct connections. *3.* Set a different working frequency. *4.* Decrease the sensitivity of the loop detector.

For Toll Free Technical Support: **1-800-528-2806**

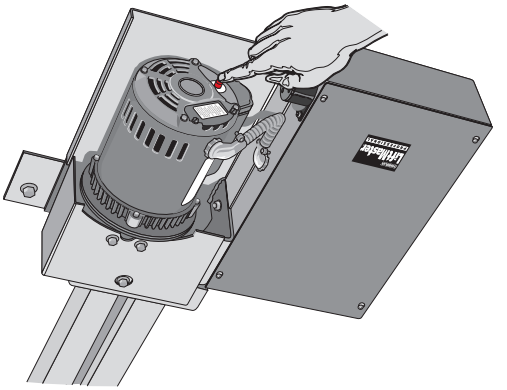
TROUBLESHOOTING LED INFORMATION

Resetting Motor

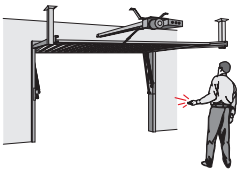


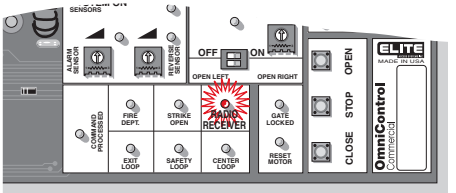
"Reset Motor" LED Light flashes once
then
"System On" LED flashes rapidly

Press firmly to reset thermal breaker on the motor.



Gate Will Not Close!

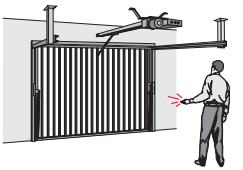


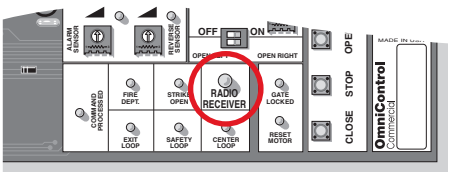


Symptom: The radio receiver LED on the control board remains **"ON"** when using the remote control.

Possible Solutions: Stuck remote control button. The radio receiver has malfunctioned in the **"ON"** position.

Gate Will Not Open!

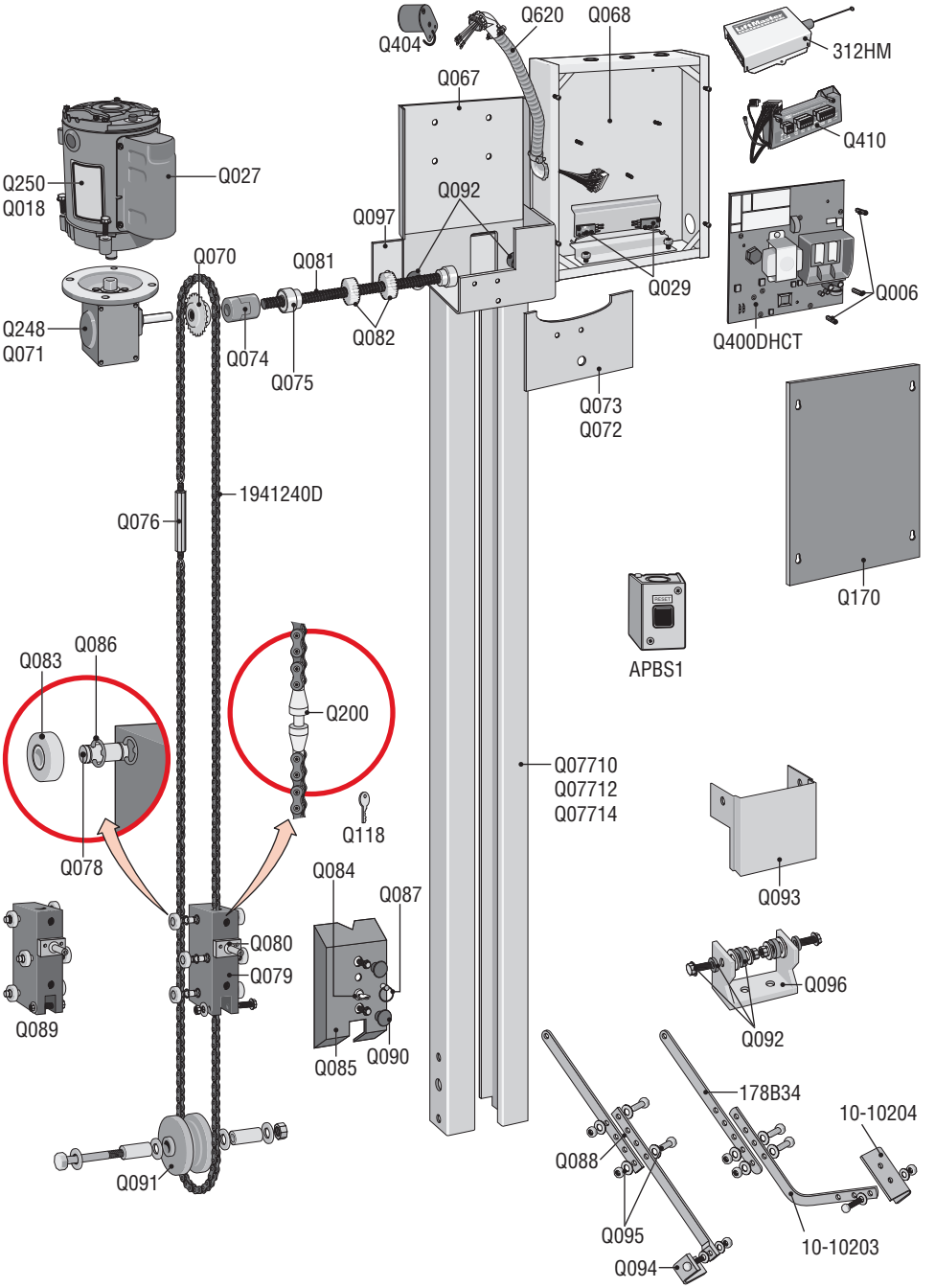




Symptom: The radio receiver LED on the control board remains **"OFF"** when using the remote control.

Possible Solutions: Dead battery in the remote control. Remote control code switches are different from radio receiver code switches. The radio receiver has malfunctioned in the **"OFF"** position.

PARTS ILLUSTRATIONS



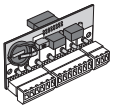
PARTS LIST

312HM - Single Channel Radio Receiver
1941240D - Chain #41 (per 10' box)
Q006 - PC Board Nuts (Set)
Q027 - Motor Capacitor
Q029 - Limit Switch (Sold Individually)
Q067 - Chassis
Q068 - Electronic Box
Q070 - Drive Sprocket
Q073 - Gear Box Cover Post 1/99
Q074 - Coupling (3/4 x 5/8) 3 pcs
Q075 - Limit Switch Ball Bearing
Q076 - Turn Buckle
Q07710 - 10' Track, One Pair
Q07712 - 12' Track, One Pair
Q07714 - 14' Track, One Pair
Q078 - Trolley Wheel Shaft
Q079 - Trolley Body
Q080 - Trolley Latch
Q081 - Limit Switch Bolt
Q082 - Limit Switch Nuts
Q083 - Trolley Wheels
Q084 - Emergency Key Release
Q085 - Trolley Cover
Q086 - Retaining Spring Clip
Q087 - Emergency Pulling Ring
Q088 - Gate Arm
Q089 - Trolley Body Assembly
Q090 - Plastic Plug
Q091 - Idler Sprocket
Q092 - Rubber Isolator
Q093 - Idler Sprocket Cover
Q094 - Arm Bracket
Q095 - Arm Bushing
Q096 - Header Bracket
10-10203 - Curved Arm Assembly
10-10204 - Alternate Mounting Bracket
178B34 - Straight Arm Assembly
Q097 - Mounting Plate
Q118 - Manual Release Key
Q170 - Electronic Box Cover (Black)
Q200 - Chain Coupling/Release
Q248 - Gear Reducer (40:1) Post 2/99
Q250 - 1/2 HP Electric Motor Post 2/99
Q400E-1 - OmniControl Board
Q404 - Omni Alarm
Q410 - Surge Suppressor Terminal Block
Q620 - Motor Harness Omni
APBS1 - Reset Button
40-3505 - U.L. Warning Sign (not shown)

MAINTENANCE

1. Make sure the gate operates smoothly without the operator.
2. Make sure the gate track runs smoothly.
3. For chain maintenance, you can adjust the turn buckle.
4. Check external entrapment protection systems monthly for proper operation.

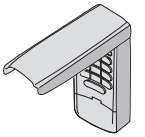
ACCESSORIES



OMNIEXB
Omni Option Board

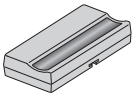
AELD
Plug-In Loop Detector

Q400MAU
Omni Relay Adapter Module

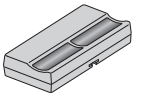


377LM
Wireless Keyless Entry

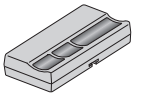
370LM
3-Button Mini Remote



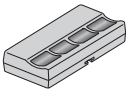
371LM
1-Button Remote



372LM
2-Button Remote



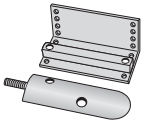
373LM
3-Button Remote



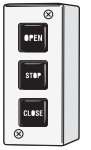
374LM
4-Button Remote

CPTK33PH
Passport 3-Button Remote
with HID Proximity

STAR 450
Access Control Receiver



APRS
Proximity Switch

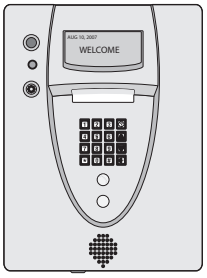


02-103
3-Button Station
Indoor Surface Mount

AEXITP
Stop Button

MG1300
Magnetic Lock

EL 25
Access Control System
Single/Multi-Tenant



EL 2000
Access Control System
Commercial Applications and Gated Communities

OPERATOR NOTES

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