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Instruction Manual **THE MIRACLE-ONE™**

electromechanical linear gate operator



UL 325 AND UL 991 COMPLIANT

installation instructions and manual book
for architects, general contractors and dealers

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⚠ Attention: This handbook is exclusively for qualified installation personal, and assistance and/or maintenance service. - The performances indicated in this handbook are valid only if a correct assembly has been carried out.

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Release 2
5/02

U L L I S T I N G S A N D I N S T R U C T I O N S

Installation Instructions Regarding the Gate Operator

- A)** Install the gate operator only when:
1. The operator is appropriate for the construction and the usage Class of the gate.
 2. All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 4 feet (1.2 m) above the ground to prevent a 2 1/4inch (57.15 mm) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that the gate covers in the open position.
 3. All exposed pinch points are eliminated or guarded, and
 4. Guarding is supplied for exposed rollers.
- B)** The operator is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening.
- C)** The gate must be installed in a location so that enough clearance is supplied between the gate and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates shall not open into public access areas.
- D)** The gate must be properly installed and work freely in both directions prior to the installation of the gate operator.
- E)** Controls must be far enough from the gate so that the user is prevented from coming in contact with the gate while operating the controls. Controls intended to be used to reset an operator after 2 sequential activations of the entrapment protection device or devices must be located in the line of sight of the gate outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.
- F)** All warning signs and placards must be installed where visible in the area of the gate.

U L L I S T I N G S A N D I N S T R U C T I O N S

G) For a gate operator utilizing a non-contact sensor such as a photo beam:

1. See instructions on the placement of non-contact sensor for each Type of application.
2. Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle trips the sensor while the gate still moving.
3. One or more non-contact sensors shall be located where the risk of entrapment or obstruction exists, such as the perimeter reachable by a moving gate or barrier.

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

1. One or more contact sensors shall be located at the leading edge, trailing edge and post mounted both inside and outside of a vehicular horizontal slide gate.
2. One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.
3. One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.
4. A 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.
5. 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.

U L L I S T I N G S A N D I N S T R U C T I O N S

Important Safety Instructions

Warning - To reduce the risk of injury or death:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.**
2. Never let children operate or play with gate controls. Keep the remote control away from children.
3. Always keep people and objects away from the gate while the gate is in operation.

NO ONE SHOULD CROSS THE PATH OF A MOVING GATE!

4. Test the gate operator monthly. The gate **MUST** reverse on contact with a rigid object or stop when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator, Failure to adjust and retest the gate operator properly can increase the risk of injury or death.
5. Use the emergency release only when the gate is not moving. Make sure the power for the gate operator is off.
6. **KEEP GATES PROPERLY MAINTAINED.** Read the manual. Have a qualified service person make repairs to the gate or gate hardware.
7. The entrance is for vehicles only. Pedestrians must use separate entrance.
8. **SAVE THESE INSTRUCTIONS.**

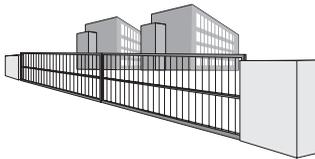
UL LISTINGS AND INSTRUCTIONS

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.

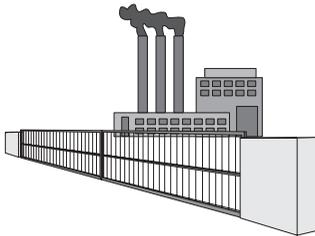
Vehicular horizontal slide-gate operator (or system) – A vehicular gate operator (or system) that controls a gate which slides in a horizontal direction that is intended for use for vehicular entrance or exit to a drive, parking lot, or the like.



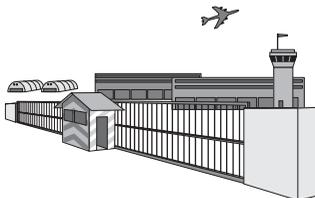
Residential vehicular gate operator – Class I – A vehicular gate operator (or system) intended for use in a home of one-to four single family dwelling, or a garage or parking area associated therewith.



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 multi-family housing unit (five or more single family units) hotel, garages, retail store or other building servicing the general public.



Commercial/General access vehicular gate operator – Class III – 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.

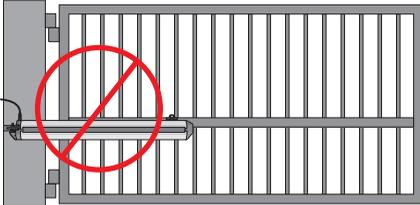


Restricted access vehicular gate operator – Class IV – A vehicular gate operator (or system) intended for use in a guarded industrial location or building such as an airport security area or other restricted access locations not servicing the general public, in which unauthorized access is prevented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

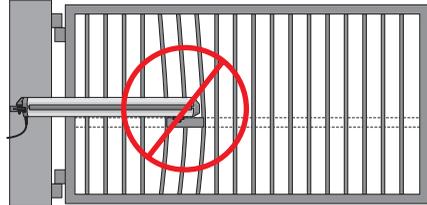
WARNINGS AND PRECAUTIONS

Warning - To reduce the risk of injury to persons,
The Miracle-1 is for **Vehicular Gate** use **ONLY!**

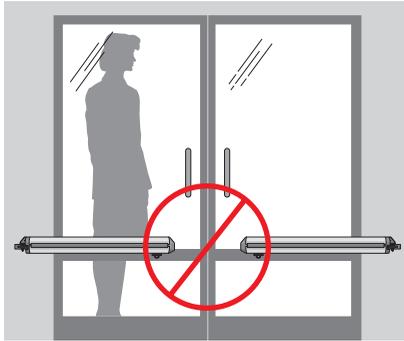
Warning Be sure to read and follow all these important instructions before installation of the gate operator. Elite Access Systems, Inc. is not responsible for improper installation or failure to comply with local building and electrical codes.



DO NOT install upside down.



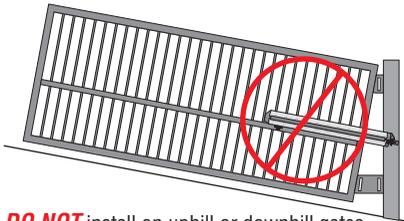
DO NOT install on a few pickets, they will bend. Weld a reinforcement bar across entire gate.



DO NOT install on **ANY** pedestrian passageways or doorways.



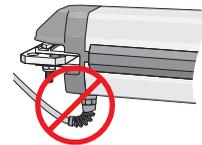
DO NOT install on **ANY** pedestrian gates.



DO NOT install on uphill or downhill gates.



DO NOT install next to sprinklers or any area that may expose bottom of operator to water.



DO NOT over-bend the cord from the operator. Doing this will cause the wires to eventually break.

Caution - If the "Timer" is to be left in the "ON" position, then add a *safety loop* and *center loop*.

IMPORTANT SAFETY INSTRUCTIONS

WARNING - To reduce the risk of severe injury or death:

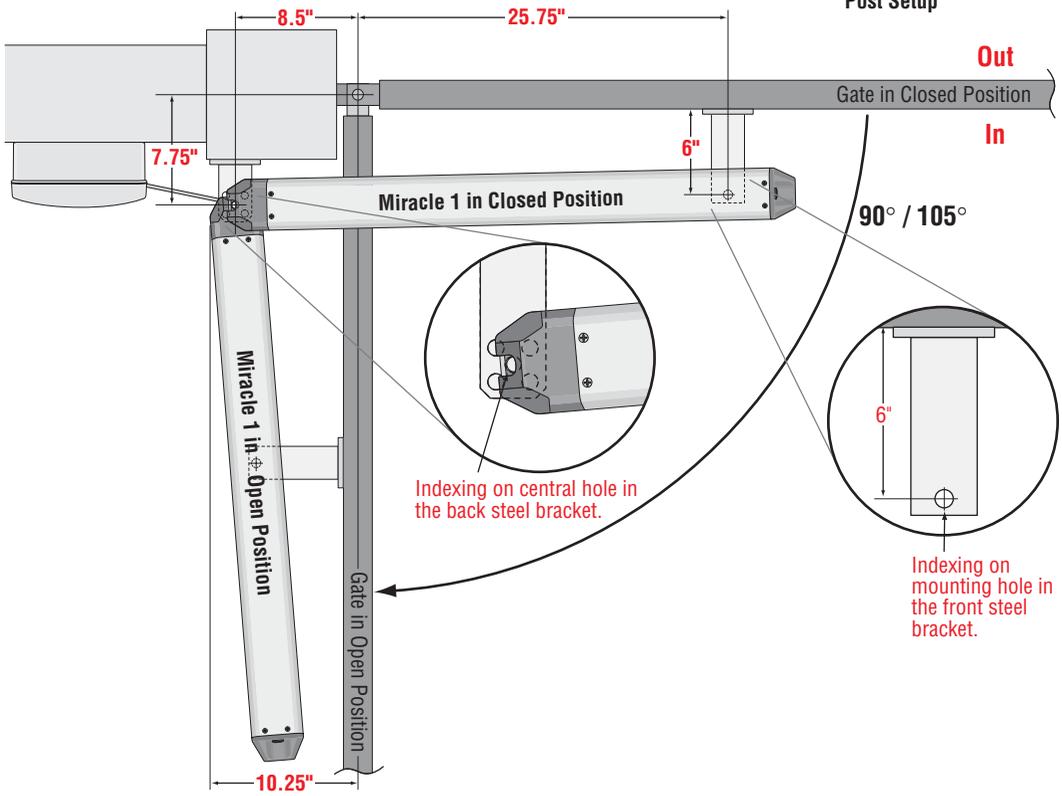
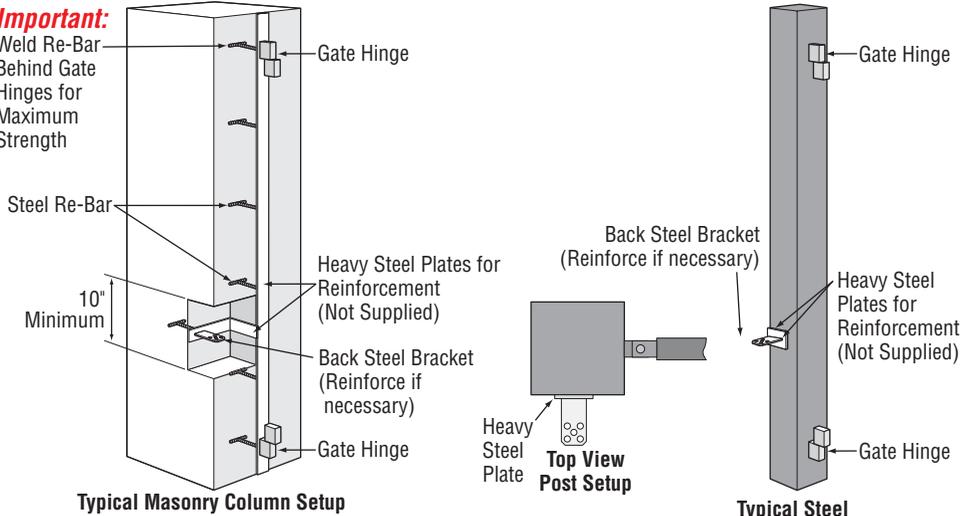
1. READ AND FOLLOW ALL INSTRUCTIONS.
2. Never let children operate or play with gate controls. Keep the remote control away from children.
3. Always keep the moving gate in sight and away from people and objects until it is completely closed.
NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.
4. KEEP GATES PROPERLY MAINTAINED. Read the owner's manual. Have a qualified service person periodically inspect and make repairs to gate hardware.
5. **SAVE THESE INSTRUCTIONS.**

PROCEDURE FOR INSTALLATION

Open To The Inside

Important:

Weld Re-Bar Behind Gate Hinges for Maximum Strength



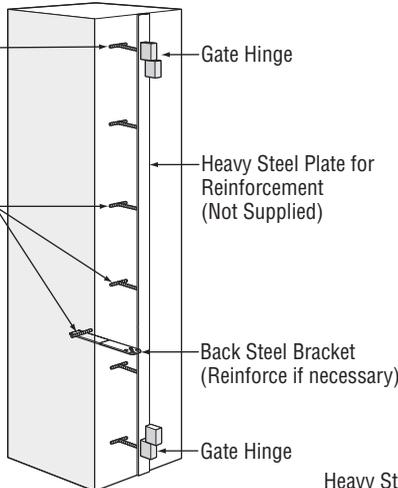
PROCEDURE FOR INSTALLATION

Open To The Outside

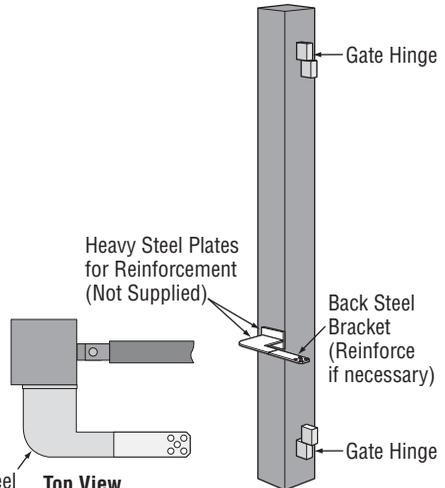
Important:

Weld Re-Bar Behind Gate Hinges for Maximum Strength

Steel Re-Bar



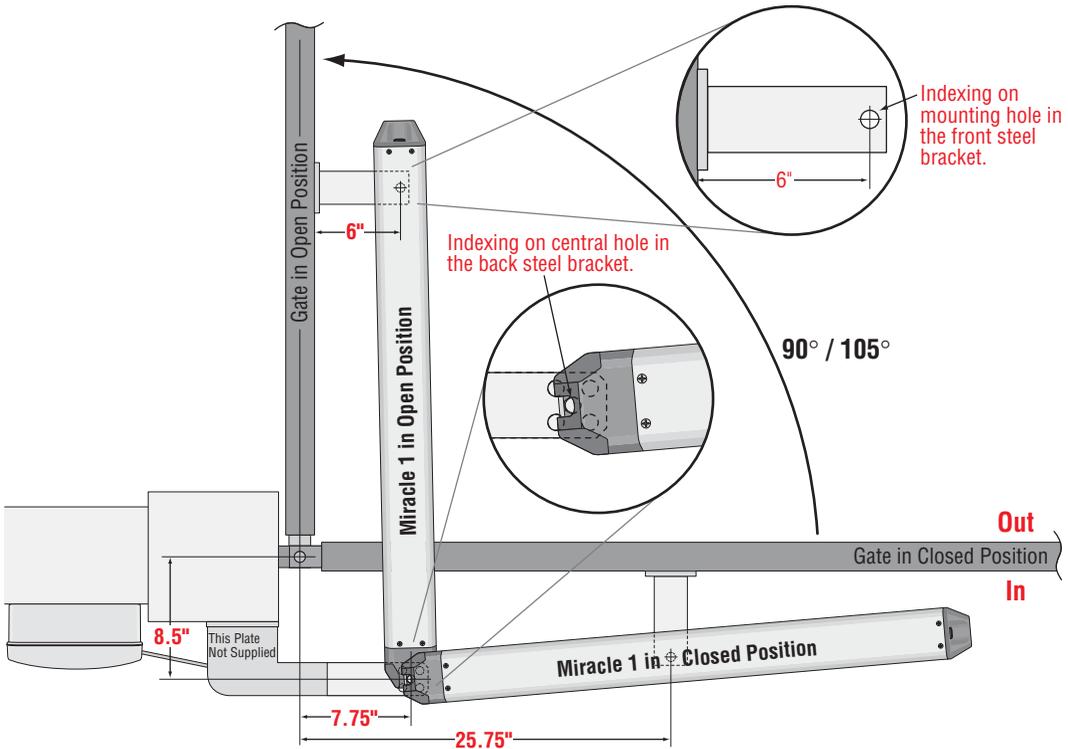
Typical Masonry Column Setup



Heavy Steel Plate

Top View Post Setup

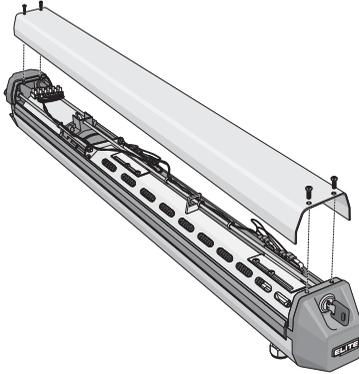
Typical Steel Post Setup



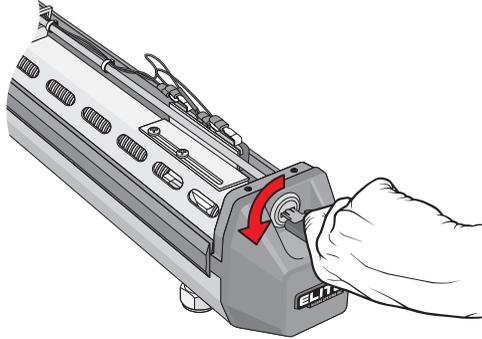
PROCEDURE FOR INSTALLATION

Mounting Instructions

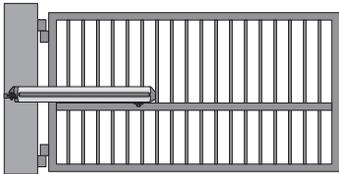
Step 1: Remove the 4 screws and lift the operator cover off.



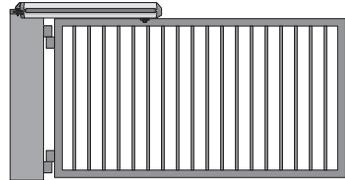
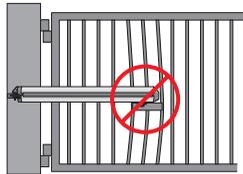
Step 2: Release the mechanical lock by turning the key to the horizontal position.



Step 3: Position the Mirage 1 *horizontally level* on the closed gate, where desired. For strength purposes, the front steel bracket *must* be attached in an area that can withstand *heavy forces*. Additional reinforcement steel plates may be necessary for mounting.

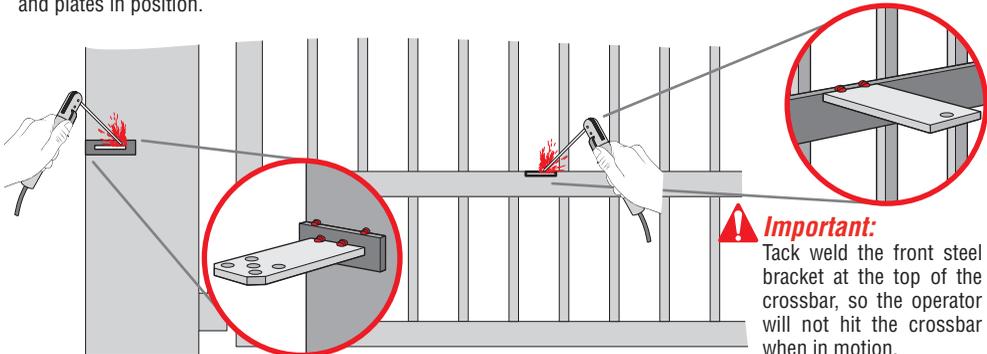


If using a gate crossbar, weld bar across *all* pickets. **Do not** weld the crossbar on a few pickets, or they will bend.



The Mirage 1 can be mounted on top of the gate frame.

Step 4: Position and level the operator brackets and reinforcement plates. (*See next page*). Tack weld brackets and plates in position.

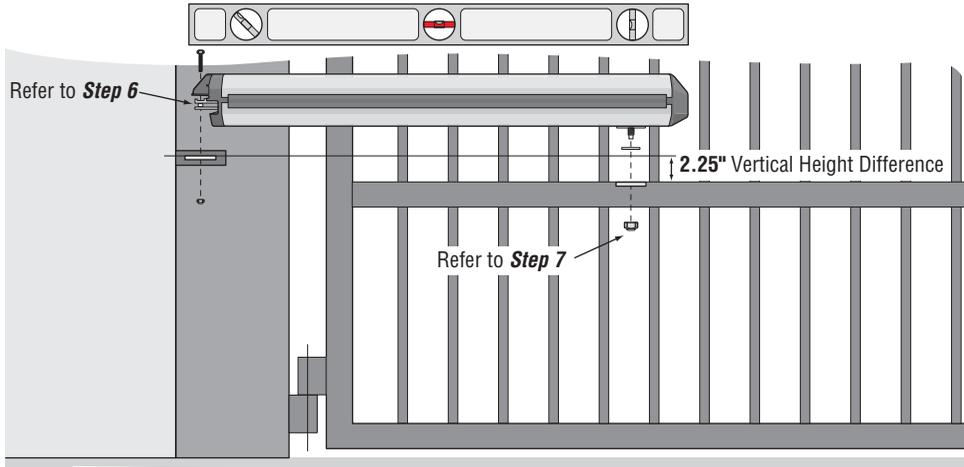


Important: Tack weld the front steel bracket at the top of the crossbar, so the operator will not hit the crossbar when in motion.

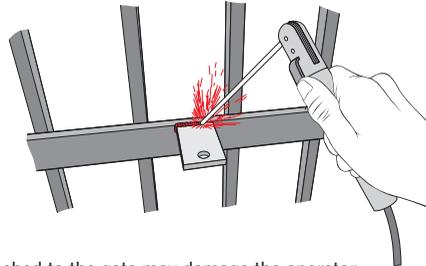
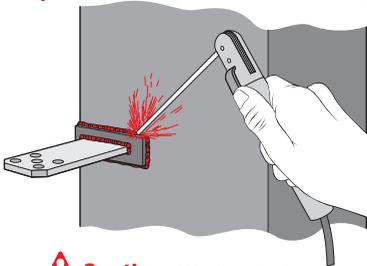
PROCEDURE FOR INSTALLATION

Mounting Instructions

Step 4 (con't): The gate **must** be in the closed position. **Make sure the operator is kept level** while tack welding the front and back steel brackets and reinforcement steel plates in position. After all tack welding is finished, **remove the operator!**

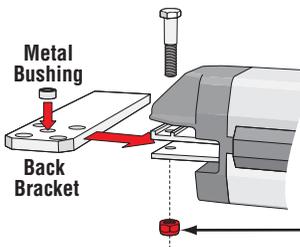


Step 5: With the operator removed, **completely** weld around the brackets and plates on the gate.

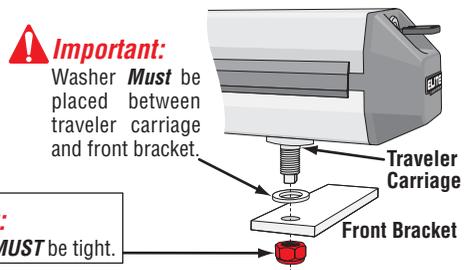


Caution: Welding the brackets with the operator attached to the gate may damage the operator.

Step 6: Remove the nut, bolt and bushing from the **back** operator bracket. Place the metal bushing in the hole of the steel bracket that will be used. Secure operator with the nut and bolt (See Below).



Step 7: Remove the nut from the traveler carriage at the **front** of the operator. Secure operator to the front bracket with the washer and nut (See Below).

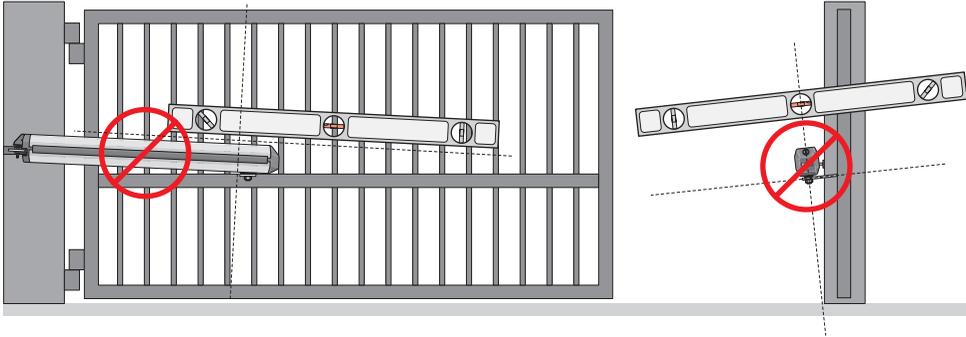


Important:
These nuts **MUST** be tight.

PROCEDURE FOR INSTALLATION

Mounting Instructions

Step 8:  Make sure that the operator is **level** or it will not function properly. An off-level installation may cause the gate or operator to fail prematurely.



Step 9: Lock the operator by turning the key to the vertical position while pushing or pulling on the gate until you hear the key release click into place. The gate should not move after the operator has been locked. Completing this successfully finishes the basic mounting of the operator to the gate. The next steps are to make all electrical connections to the operator and control board.

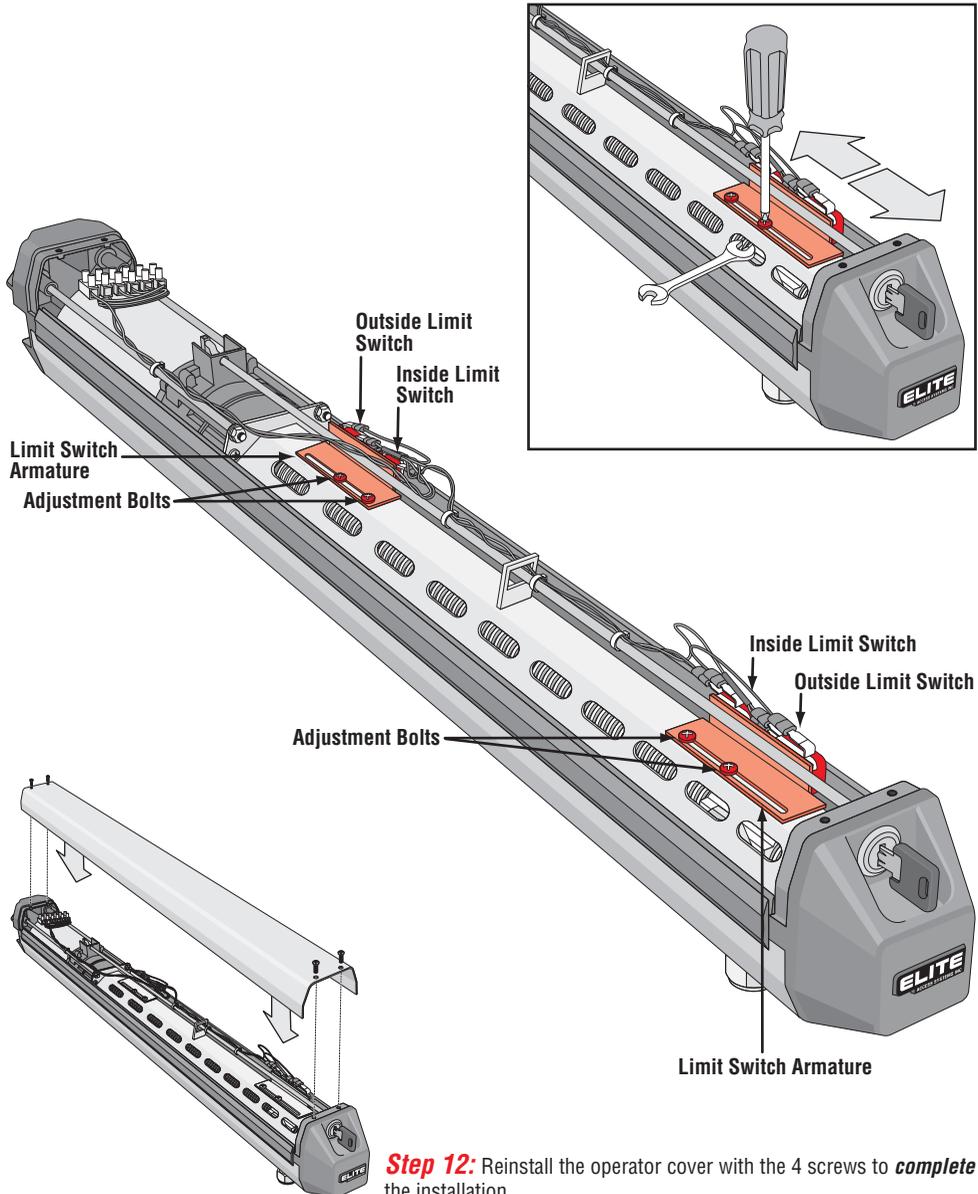


Step 10: The following pages show the correct electrical procedures needed for the operator. **After completing all the electrical connections**, continue to step 11 to complete the final adjustments on the operator.

PROCEDURE FOR INSTALLATION

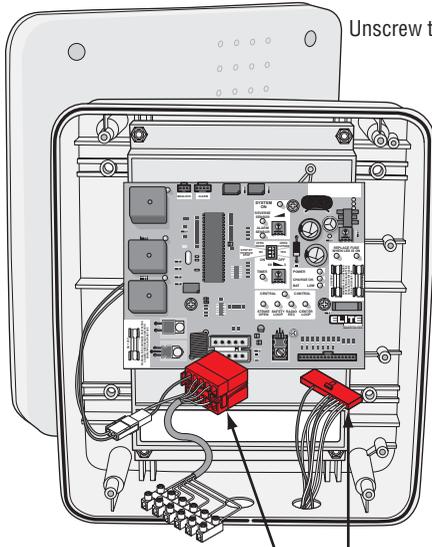
Adjusting the Limit Switches

Step 11: Adjust the travel distance of the gate with the limit switches. Loosen the 2 bolts of each limit switch armature. Slide to adjust. Position the **outside limit switches** of each armature to stop the gate in the “full open” and “full closed” positions. Re-tighten armature bolts when gate positions are correct.



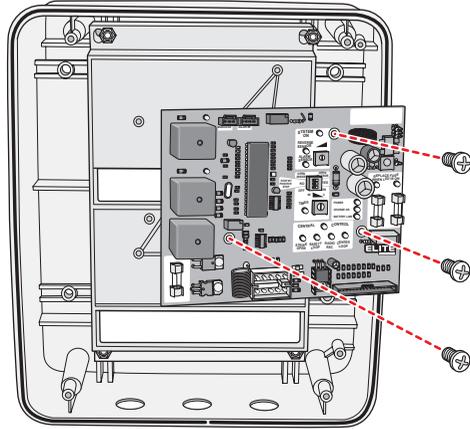
Step 12: Reinstall the operator cover with the 4 screws to **complete** the installation.

REMOVING THE CONTROL BOARD



Detach the **J1** and **J3** plug.

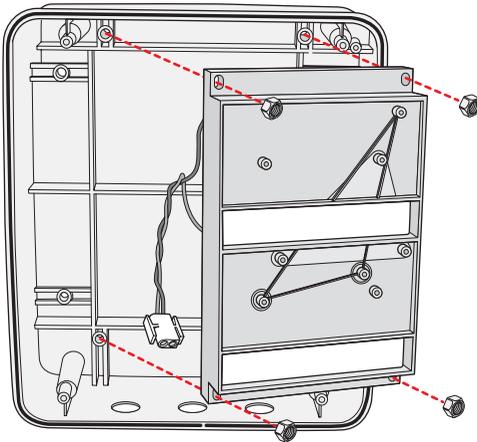
Unscrew the 4 Phillips head screws from the plastic cover and remove.



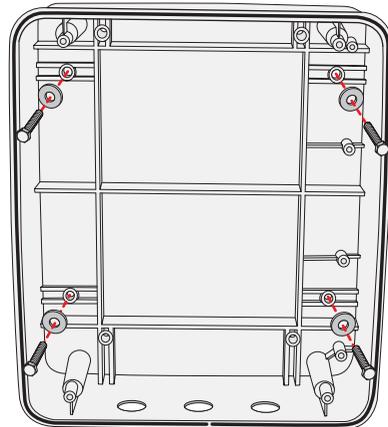
Remove the three Phillips head screws. Remove control board. Reverse this process to reinstall the control board.

MOUNTING THE CONTROL BOX

Caution: *Do Not* make new mounting holes, or enlarge existing holes in control box. Use the four mounting holes provided.

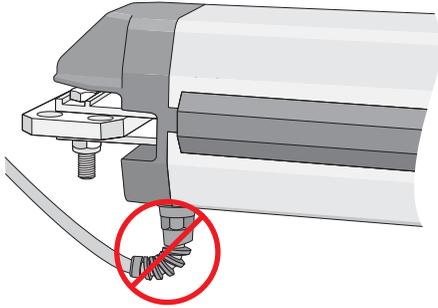


Remove the four nuts and remove battery rack. Reverse this process to reinstall.

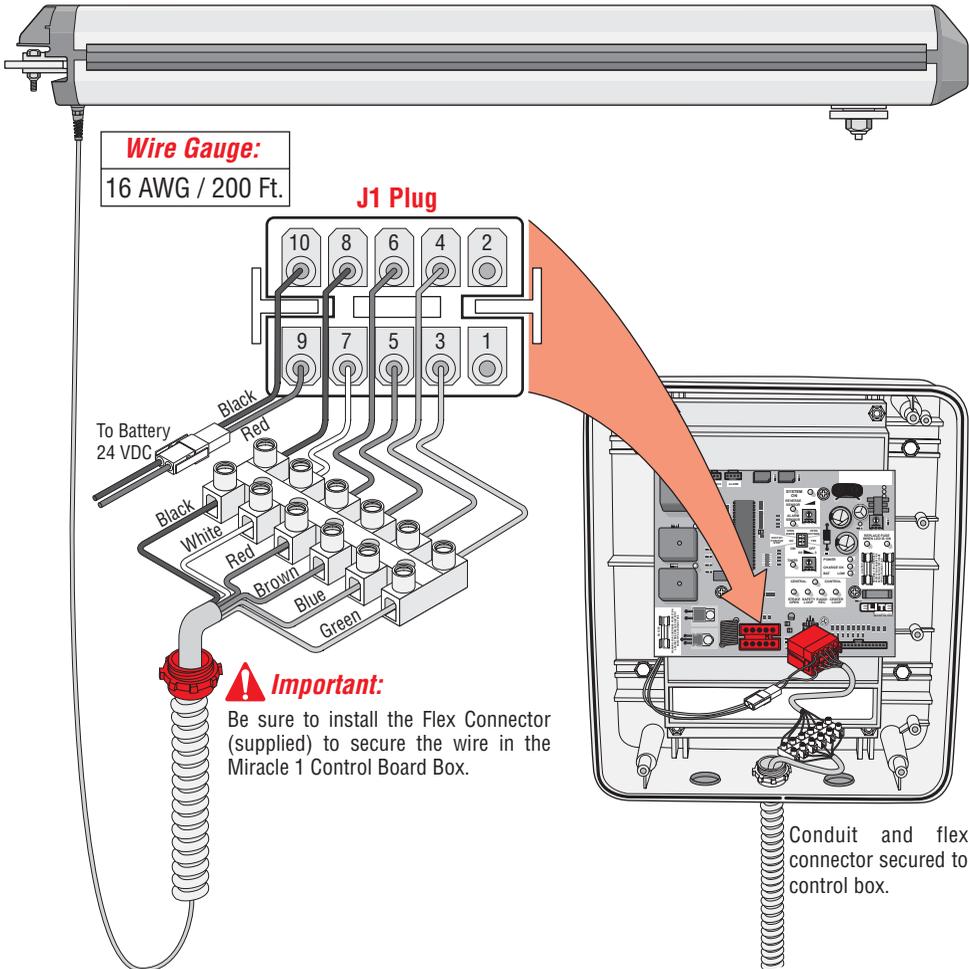


Mount control box with four screws and washers (recommend #10 thru 1/4-20 Bolts or Screws) **Do Not** over tighten.

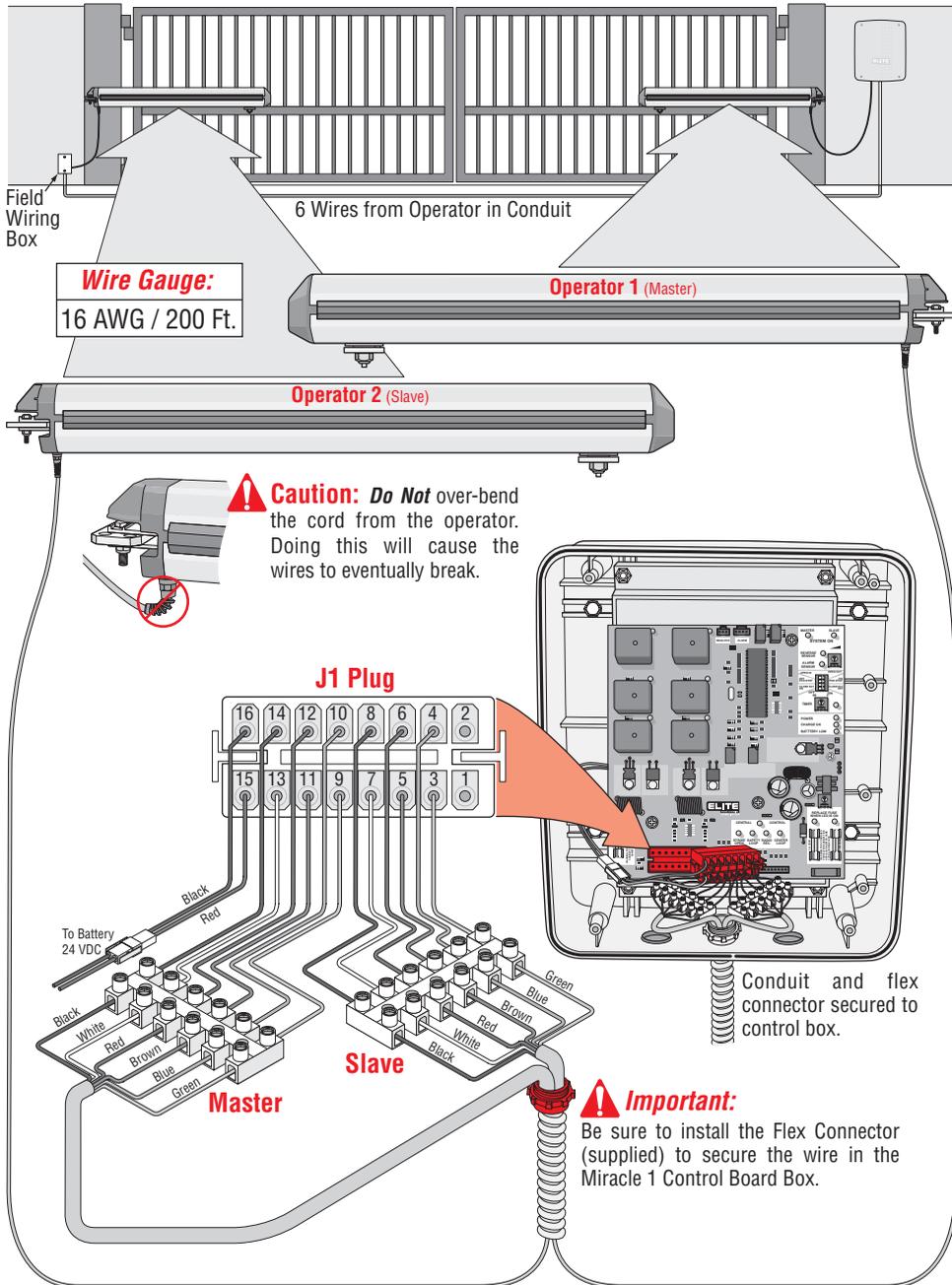
WIRING 1 OPERATOR TO CONTROL BOARD



⚠ Caution: *Do Not* over-bend the cord from the operator. Doing this will cause the wires to eventually break.

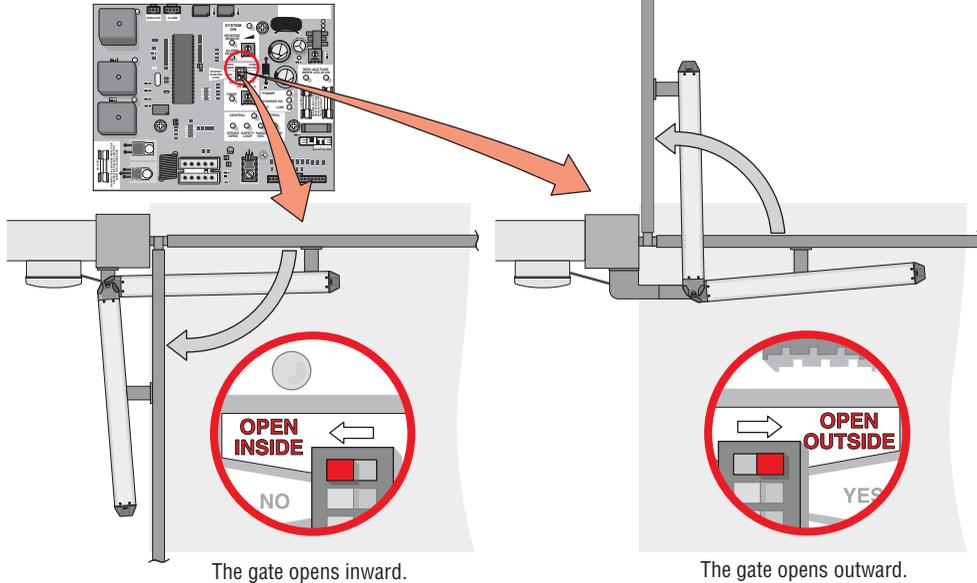


WIRING 2 OPERATORS MASTER / SLAVE



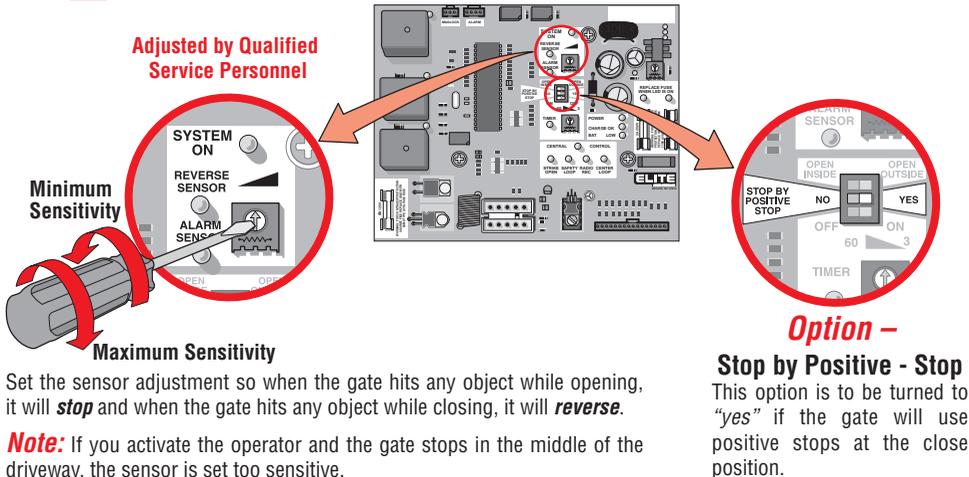
CHOOSING GATE MOVEMENT DIRECTION

Switch the **“Open Inside / Open Outside”** switch on the control board to the corresponding position for the proper direction.



SENSOR ADJUSTMENT

⚠ Caution: The sensors must be adjusted while the gate is in the opening or closing cycle.



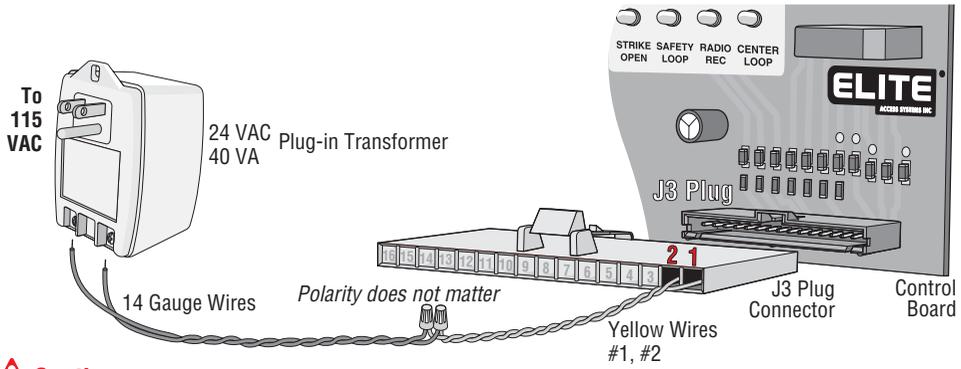
Set the sensor adjustment so when the gate hits any object while opening, it will **stop** and when the gate hits any object while closing, it will **reverse**.

Note: If you activate the operator and the gate stops in the middle of the driveway, the sensor is set too sensitive.

⚠ Important: It is necessary to still adjust your limit switch at the close position. The controller will look for the limit close first and then it will look for the positive stop.

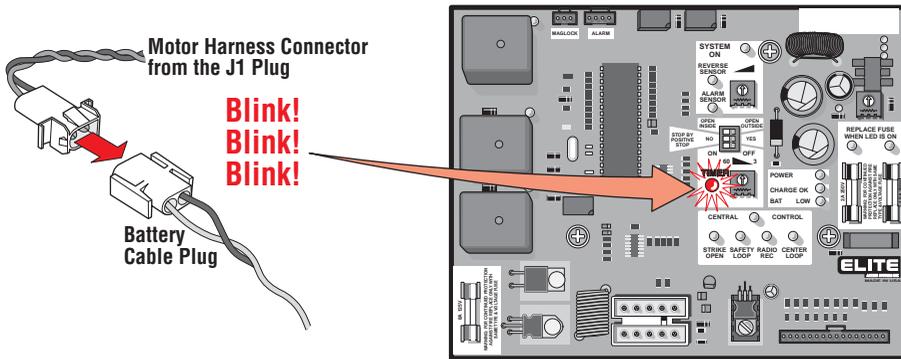
CONNECTING POWER SUPPLY

Connect the **two yellow wires** from the J3 plug connector to low voltage, direct burial landscape lighting cable, 14 gauge/300 watt not exceeding 500 ft, 10 AWG up to 1000 ft. Connect the lighting cables into Elite's plug-in transformer 24 VAC (Included). Polarity does not matter. The transformer needs 115 VAC.



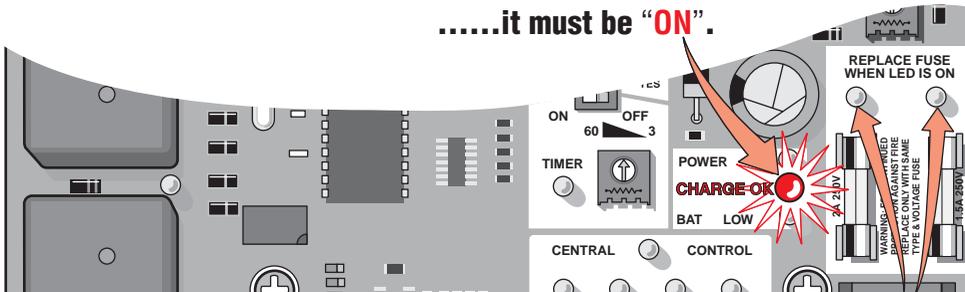
! Caution: The maximum length of wire should not exceed 500 ft. If using more than 500 ft, use 10 AWG wire up to 1000 ft.

After the transformer has been plugged into the power source, connect the battery cable plug into the motor harness connector from the J1 plug. The **“Timer”** LED will flash **“3 times”**.



After that, check the **“Charge OK”** LED.....

.....it must be **“ON”**.



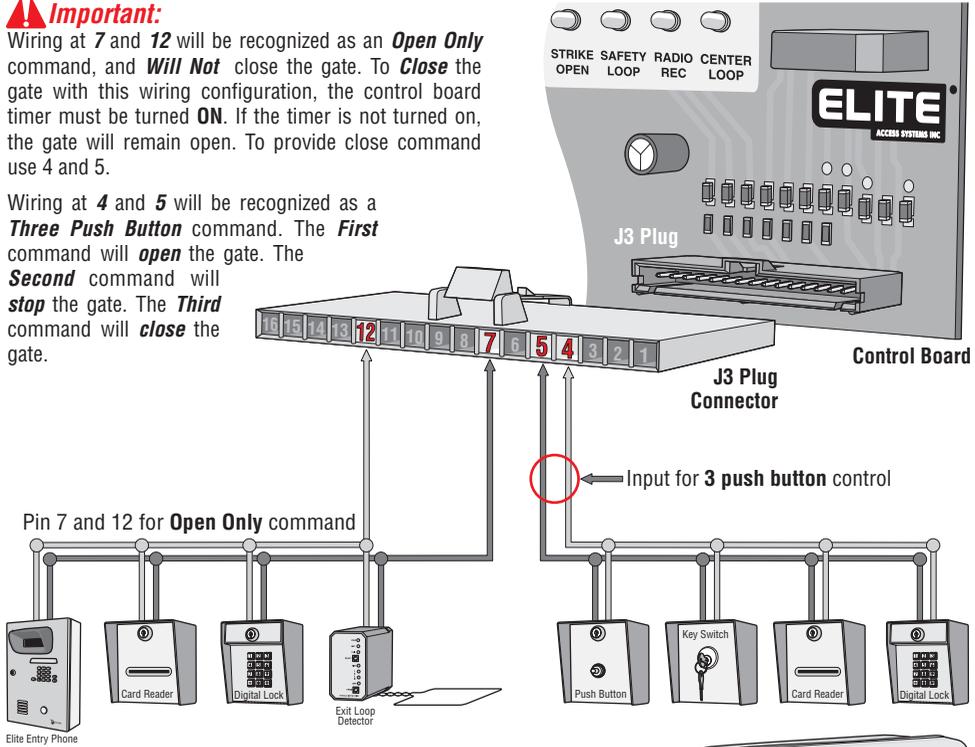
If you see these LED's **“ON”**, replace fuse.

WIRING ADDITIONAL INPUTS

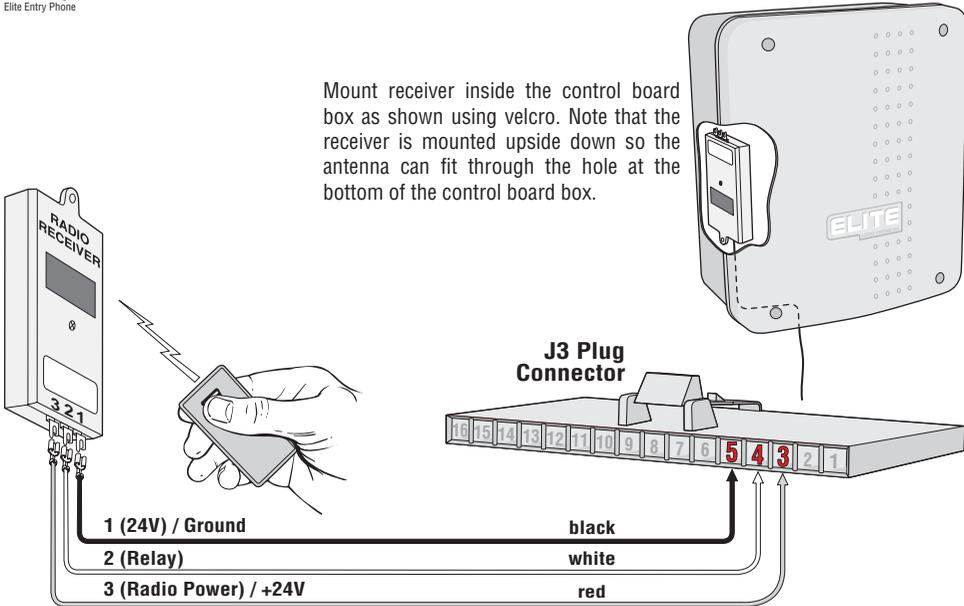
⚠ Important:

Wiring at **7** and **12** will be recognized as an **Open Only** command, and **Will Not** close the gate. To **Close** the gate with this wiring configuration, the control board timer must be turned **ON**. If the timer is not turned on, the gate will remain open. To provide close command use 4 and 5.

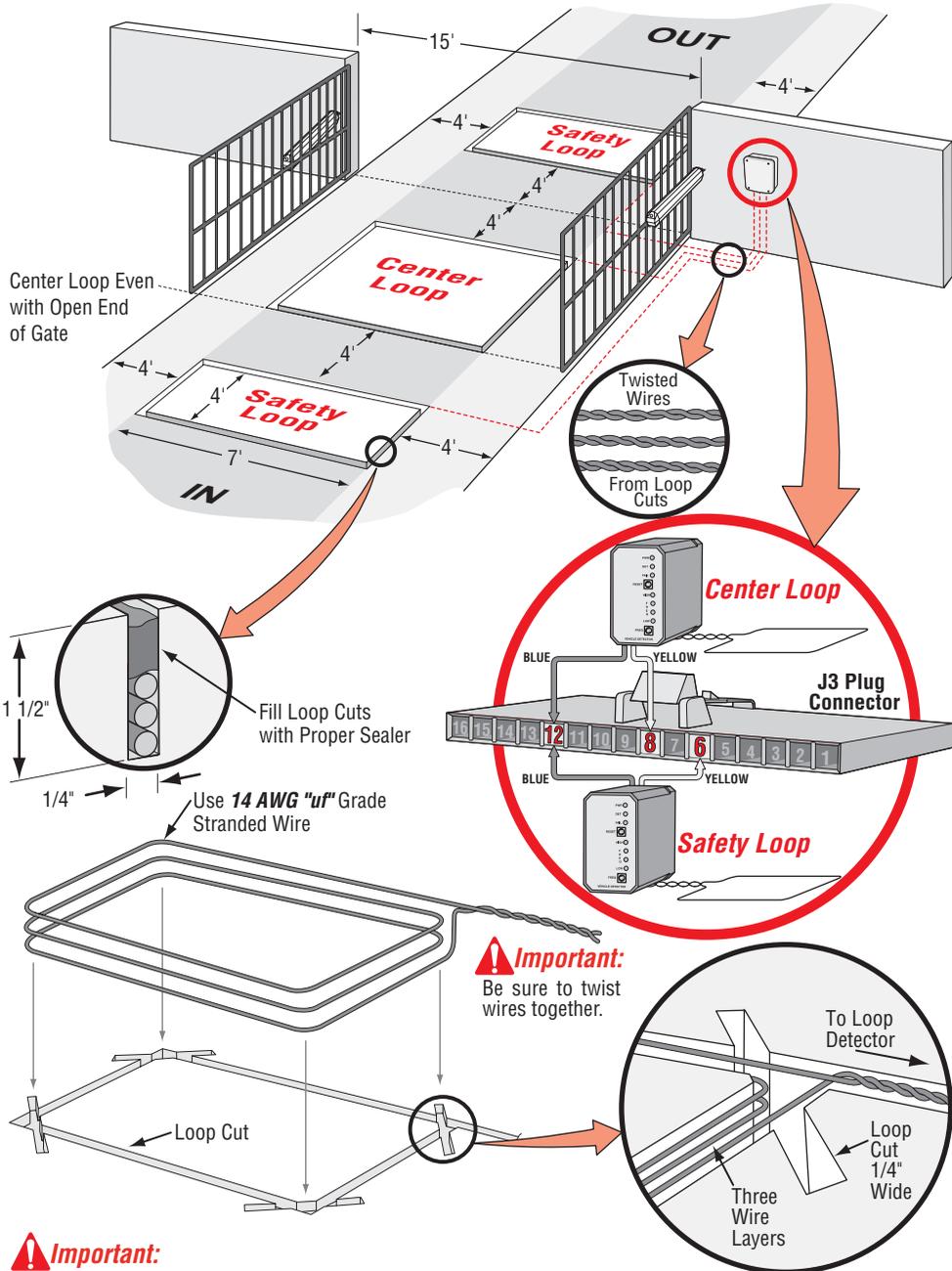
Wiring at **4** and **5** will be recognized as a **Three Push Button** command. The **First** command will **open** the gate. The **Second** command will **stop** the gate. The **Third** command will **close** the gate.



Mount receiver inside the control board box as shown using velcro. Note that the receiver is mounted upside down so the antenna can fit through the hole at the bottom of the control board box.



SAFETY AND CENTER LOOP INSTALLATION

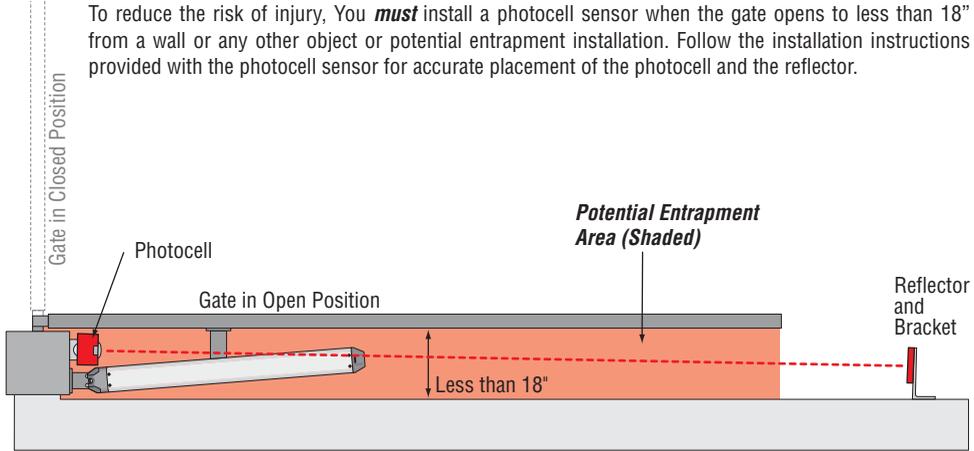


Important:

If the gate is closing and receives a safety loop command, the gate **WILL NOT** reopen. It will stop and resume closing, once the car clears the loop.

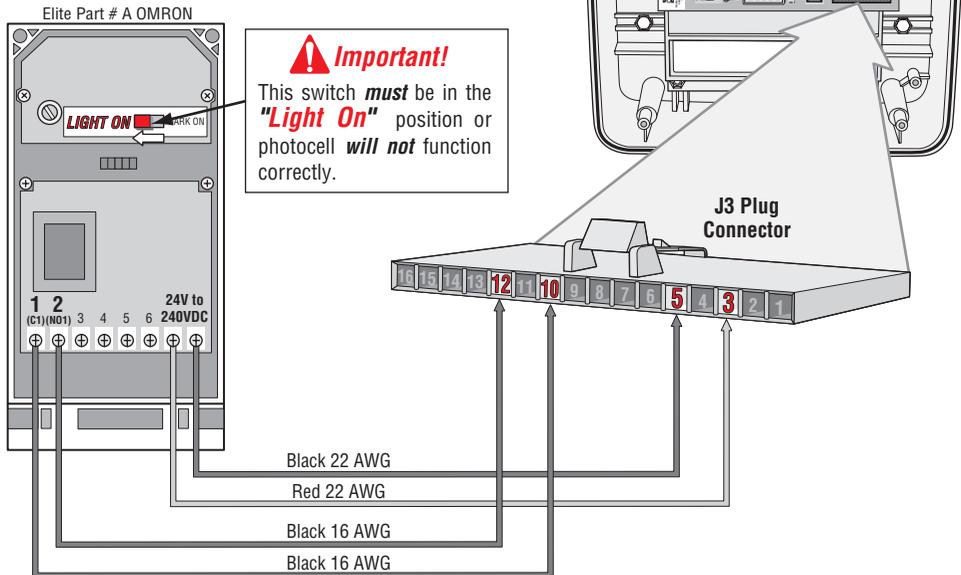
P H O T O C E L L I N S T A L L A T I O N

To reduce the risk of injury, You **must** install a photocell sensor when the gate opens to less than 18" from a wall or any other object or potential entrapment installation. Follow the installation instructions provided with the photocell sensor for accurate placement of the photocell and the reflector.

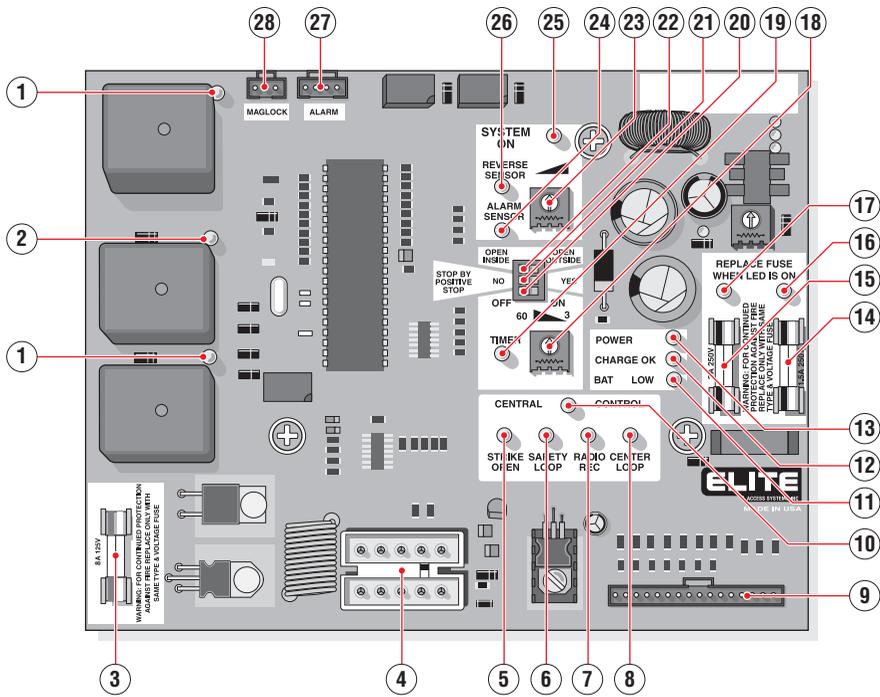


If **multiple sensors** are being used, all of the photo beam sensors are to be **connected in parallel at the sensor input on the control board**.

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 UL 325 intended to be used in class I or class II gate operator, like the following: OMRON Retro-Reflective Photocell, Model: E3K-R10K4-NR

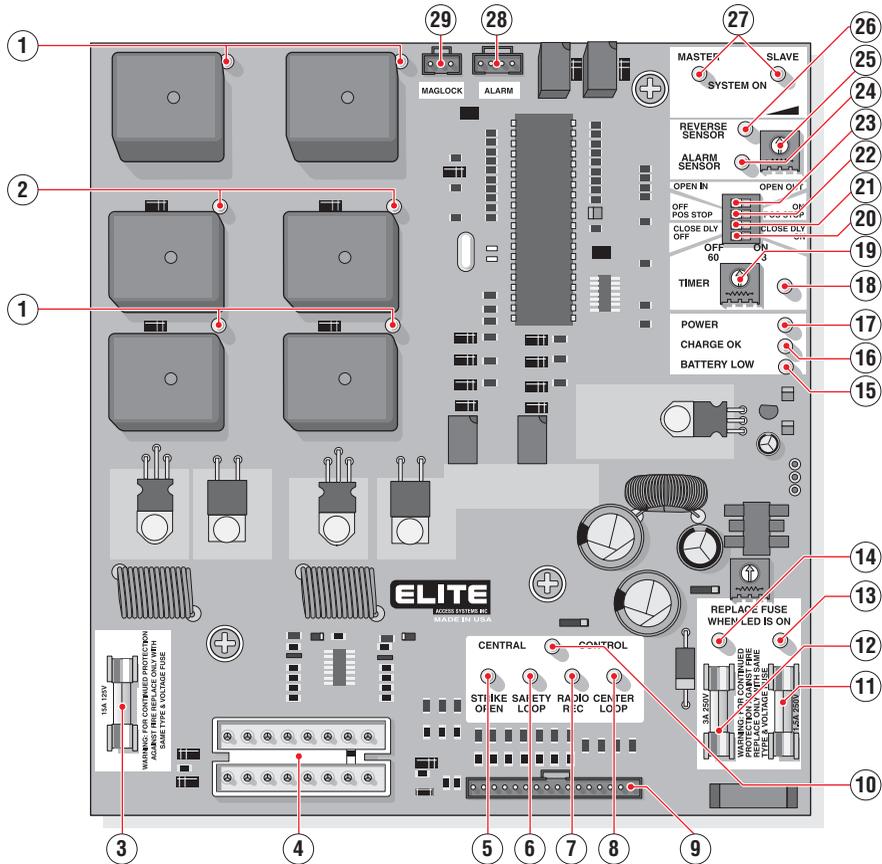


CONTROL BOARD DESCRIPTION



- | | |
|---------------------------------------------|------------------------------------------------|
| ① Open or Close Relay LED | ⑮ Board Fuse |
| ② Control Relay LED | ⑯ Replace Charging Power Fuse LED |
| ③ Motor Fuse | ⑰ Replace Board Power Fuse LED |
| ④ J1-Batteries and Motor Connector | ⑱ Timer Active LED |
| ⑤ Strike Open LED | ⑳ Switch-Timer On / Off |
| ⑥ Safety Loop LED | ㉑ Stop by Positive Stop Option Switch |
| ⑦ Radio Receiver LED | ㉒ Switch-Open Inside / Outside |
| ⑧ Center Loop LED | ㉓ Reverse Sensor Adjustment |
| ⑨ J3 Transformer & Input Commands Connector | ㉔ Alarm Sensor LED |
| ⑩ Central Control LED | ㉕ System On LED |
| ⑪ Batteries Low LED | ㉖ Reverse Sensor LED |
| ⑫ Charger Ok LED | ㉗ Burglar Alarm & Audio Alarm Output Connector |
| ⑬ Power LED | ㉘ Maglock Connector |
| ⑭ Charging Power Fuse | |

CONTROL BOARD DESCRIPTION Master / Slave



- | | |
|---------------------------------------------|------------------------------------------------|
| ① Open or Relay LED | ⑮ Board Fuse |
| ② Control Relay LED | ⑯ Replace Charging Power Fuse LED |
| ③ Motor Fuse | ⑰ Replace Board Power Fuse LED |
| ④ J1-Batteries and Motor Connector | ⑱ Timer Active LED |
| ⑤ Strike Open LED | ⑲ Timer Pot (3 to 60 sec.) |
| ⑥ Safety Loop LED | ⑳ Switch-Timer On / Off |
| ⑦ Radio Receiver LED | ㉑ Overlapping Gate On / Off |
| ⑧ Center Loop LED | ㉒ Stop by Positive Stop Option Switch |
| ⑨ J3 Transformer & Input Commands Connector | ㉓ Switch-Open Inside / Outside |
| ⑩ Central Control LED | ㉔ Alarm Sensor LED |
| ⑪ Batteries Low LED | ㉕ Reverse Sensor Adjustment |
| ⑫ Charger Ok LED | ㉖ Reverse Sensor LED |
| ⑬ Power LED | ㉗ System On LED |
| ⑭ Charging Power Fuse | ㉘ Burglar Alarm & Audio Alarm Output Connector |
| | ㉙ Maglock Connector |

ALARM & MAGLOCK CONNECTIONS

Relay Contact Rating

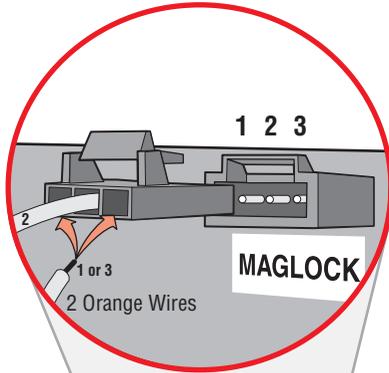
0.5 A - 125 VAC

1 A - 24 VDC

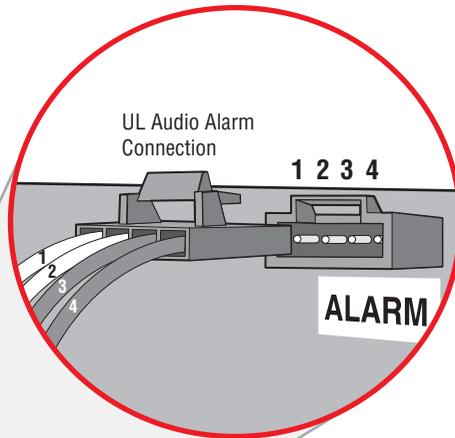


Use the harness provided with the unit to make your connections to these alarm outputs.

Maglock Connection



Alarm Connection



Connect for Open Inside

1. Power - for Open Inside
2. Ground

OR

Connect for Open Outside

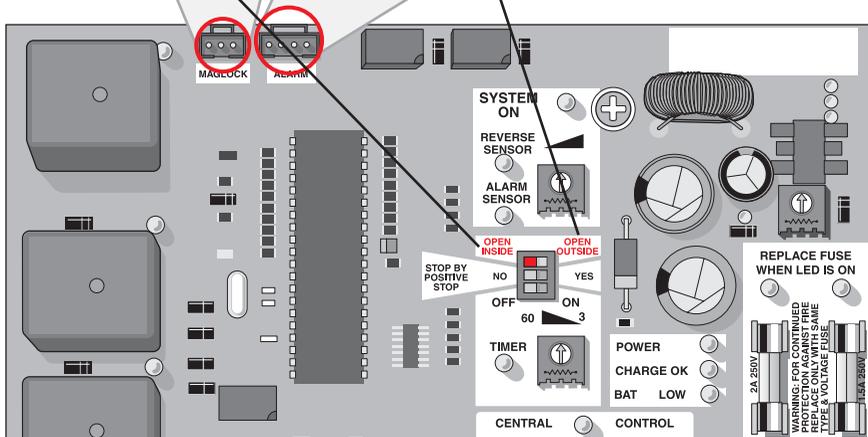
2. Ground
3. Power - for Open Outside

Burglar Alarm Relay Output

1. Common
2. N. O.

UL Audio Alarm Connection

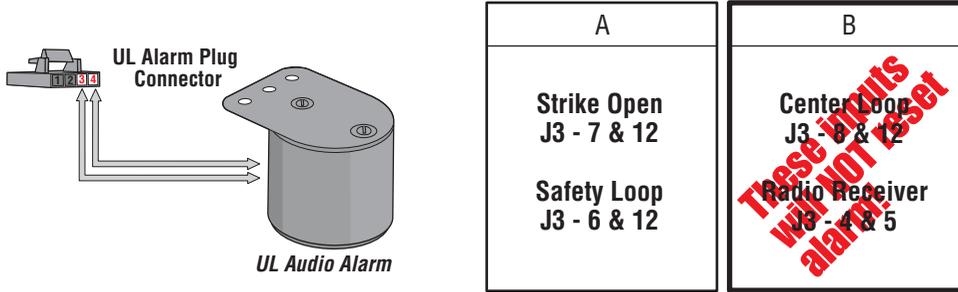
- 3 and 4 UL Audio Alarm



UL AUDIO ALARM

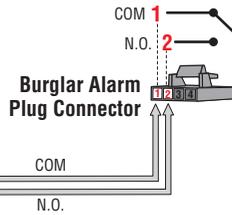
This UL alarm is required per UL-325. It will go off after 2 consecutive events on reverse sensor.

The UL alarm will sound for a period of 5 minutes or until a new command is received by one of the commands in column A but **NOT** column B.



BURGLAR ALARM

The control board provides a relay with a normally open contact to interface with a house alarm.

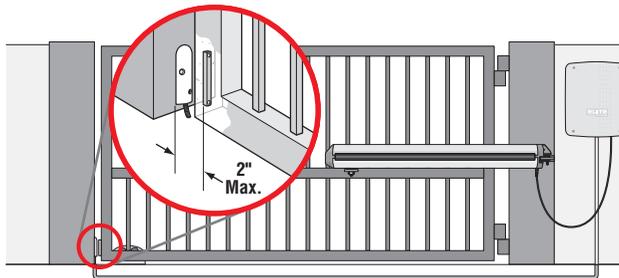


Relay Contact Rating
 0.5 A - 125 VAC
 1 A - 24 VDC

Use the harness provided with the unit to make your connections to these alarm outputs.

! Important:

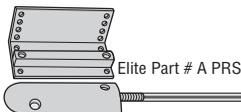
When interfacing with a house burglar alarm you must install **positive stops** at the gate closed position.



Proximity Switch

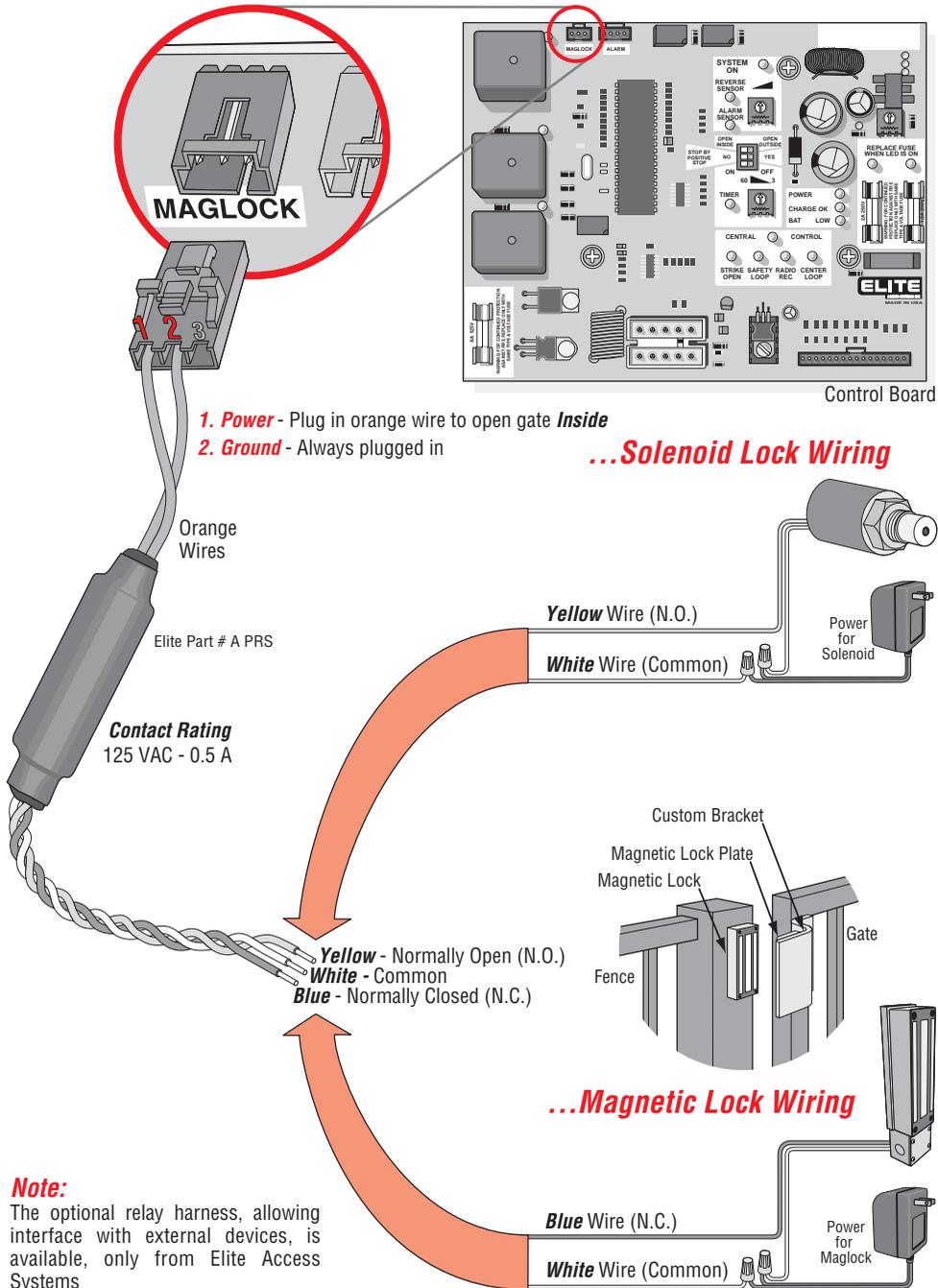
If the gate is forced open without a valid command, the proximity switch will be activated, causing the **house alarm** to activate.

Two Wires (N.O. and COM.)
From Proximity Switch

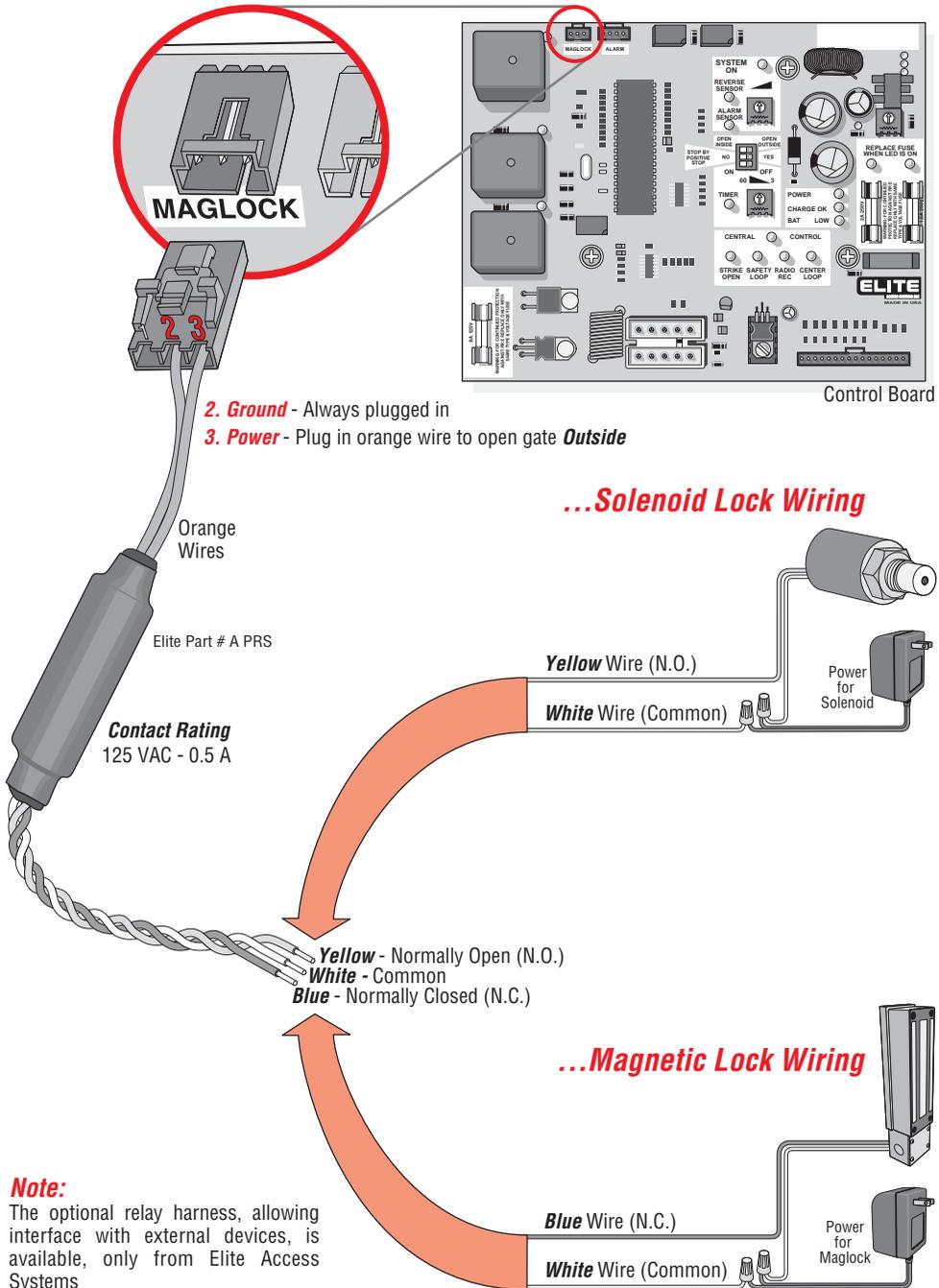


J3 Plug Connector

GATE OPENING "INSIDE" INSTALLATION OF...



GATE OPENING "OUTSIDE" INSTALLATION OF...



EMERGENCY KEY RELEASE

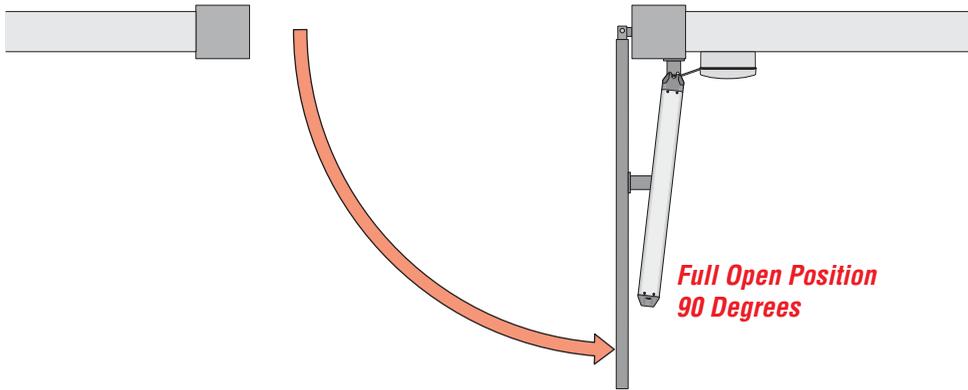
Step 1: To move the gate during an emergency or power failure, insert key and turn counterclockwise to **Unlock** the Miracle 1 from the gate.



Key Provided



Step 2: Move the gate **manually** to the full open position 90°.



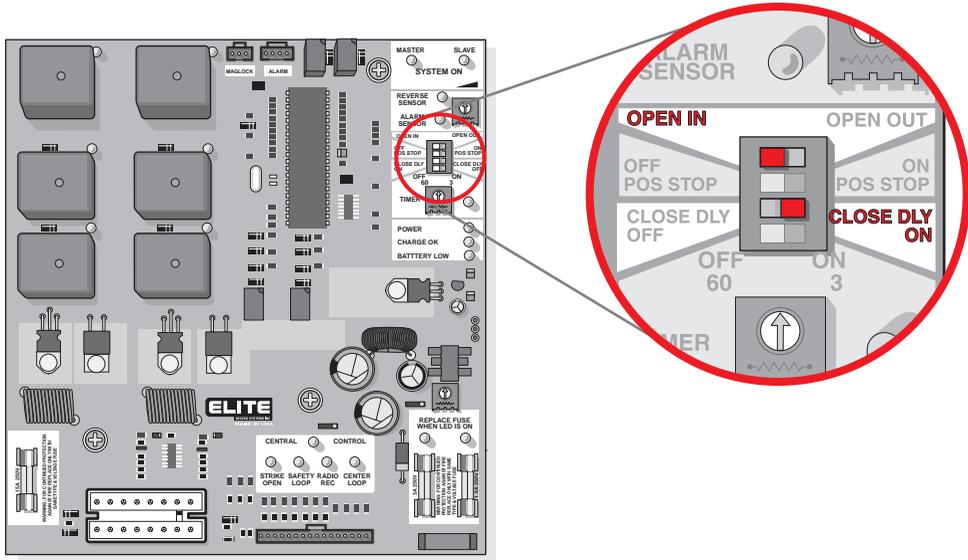
Step 3: **Re-Lock** the operator by turning the key clockwise while pushing or pulling on the gate until you hear the key release click into place. The operator can resume normal operation as soon as power is restored.



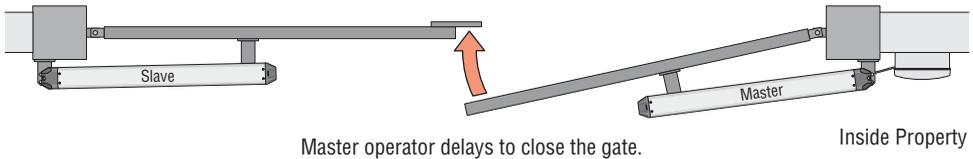
CLOSE DELAY OPTION

Master/Slave Only

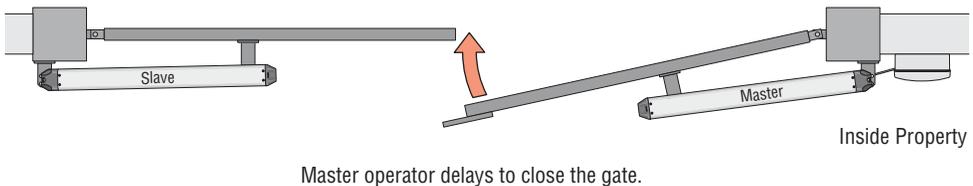
This option is to be used when there is a master/slave installation with overlapping gates.



Opening "Inside" and Overlap to the "Outside"...



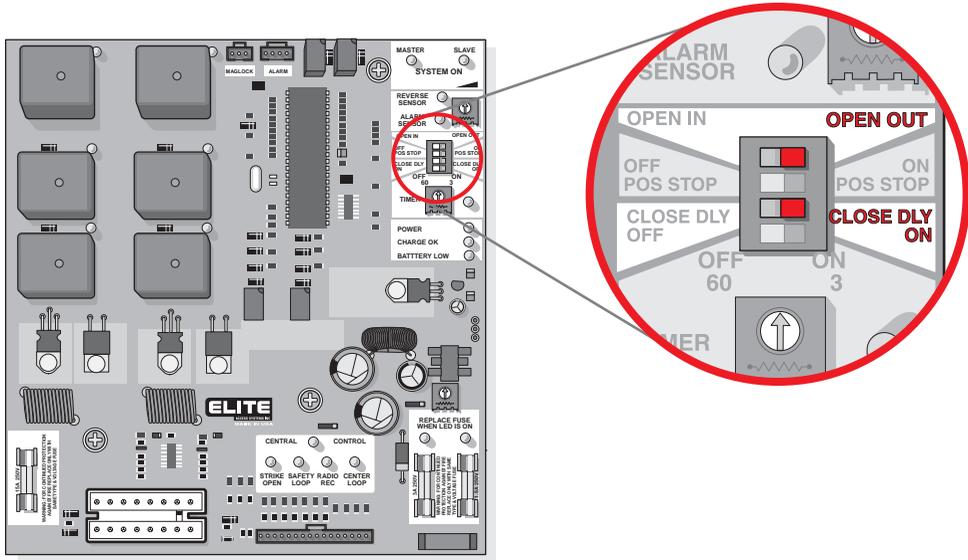
Opening "Inside" and Overlap to the "Inside"...



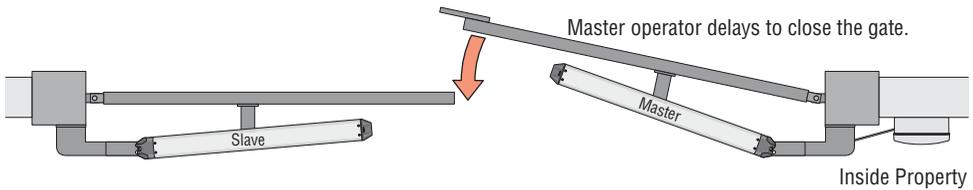
CLOSE DELAY OPTION

Master/Slave Only

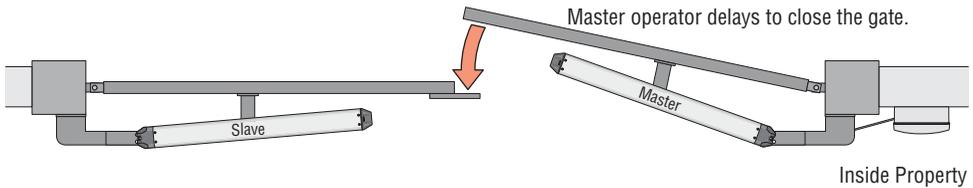
This option is to be used when there is a master/slave installation with overlapping gates.



Opening "Outside" and Overlap to the "Outside"...



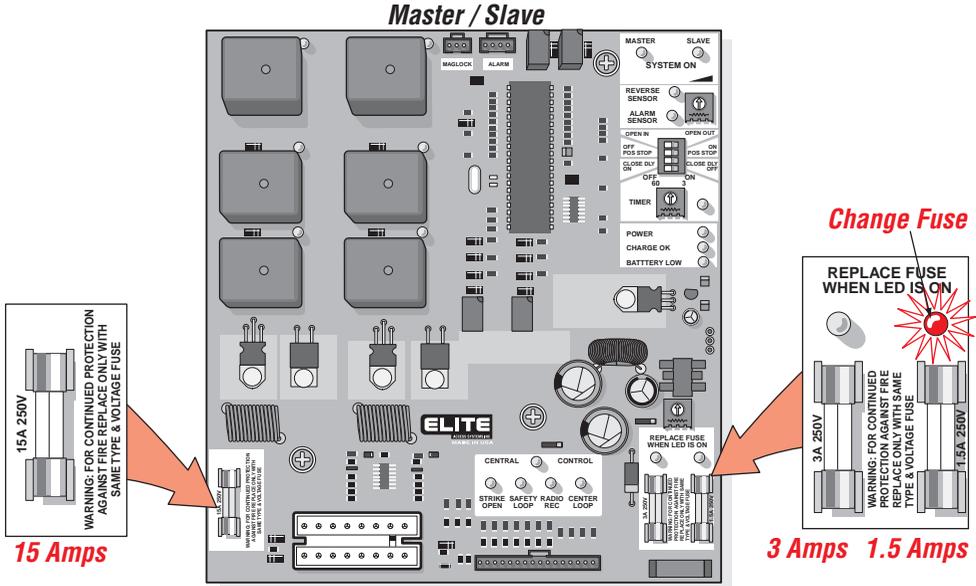
Opening "Outside" and Overlap to the "Inside"...



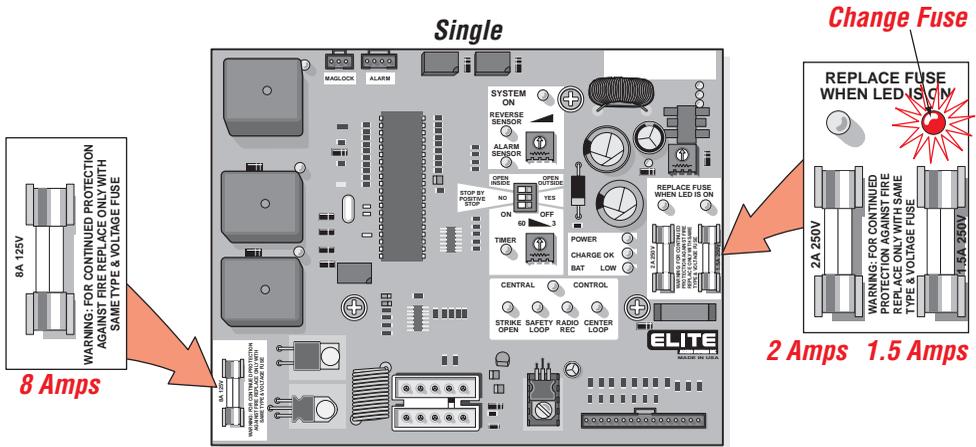
TROUBLESHOOTING

Check the Fuses

If the gate is not moving in any direction be sure to check all of the LED displays on the control board. If the board power or charging power LEDs are on, change the corresponding fuse on the right side of the board. If the motor will not work, and all LED's on the board are ok, check the fuse on the left side of the board and replace if necessary.

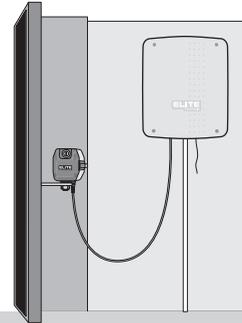
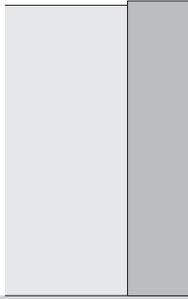


⚠ Caution: Replace the fuses only with specified rating (Supplied by Elite Access).



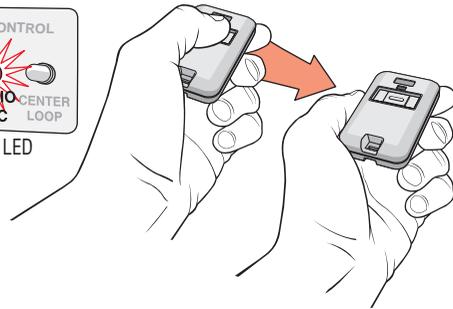
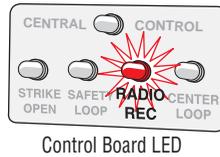
TROUBLESHOOTING

The Gate Will Not Close!

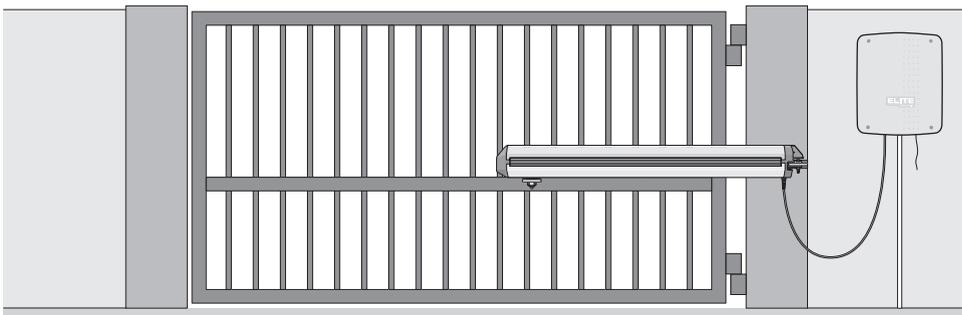


Symptom: The radio receiver LED on the control board remains “ON” when using the remote control.

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

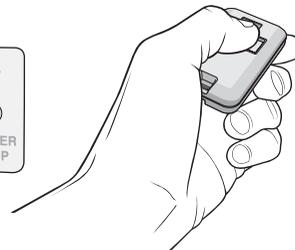


The Gate Will Not Open!



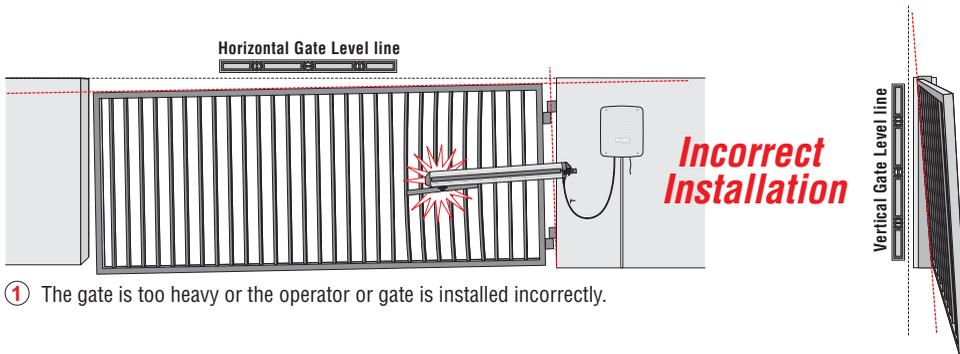
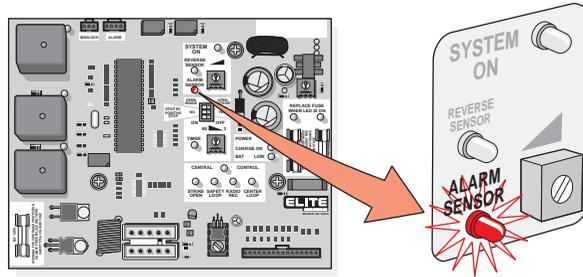
Symptom: The radio receiver LED on the control board remains “OFF” when using the remote control.

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.



TROUBLESHOOTING

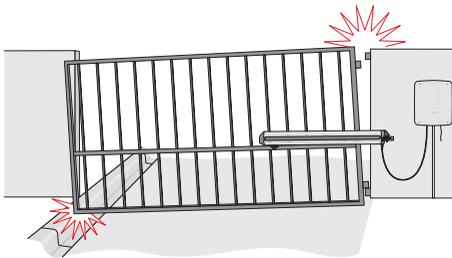
You will **SEE** the alarm LED “**ON**” when...



- ① The gate is too heavy or the operator or gate is installed incorrectly.



- ② A foreign object is on the gate frame while the gate is moving.



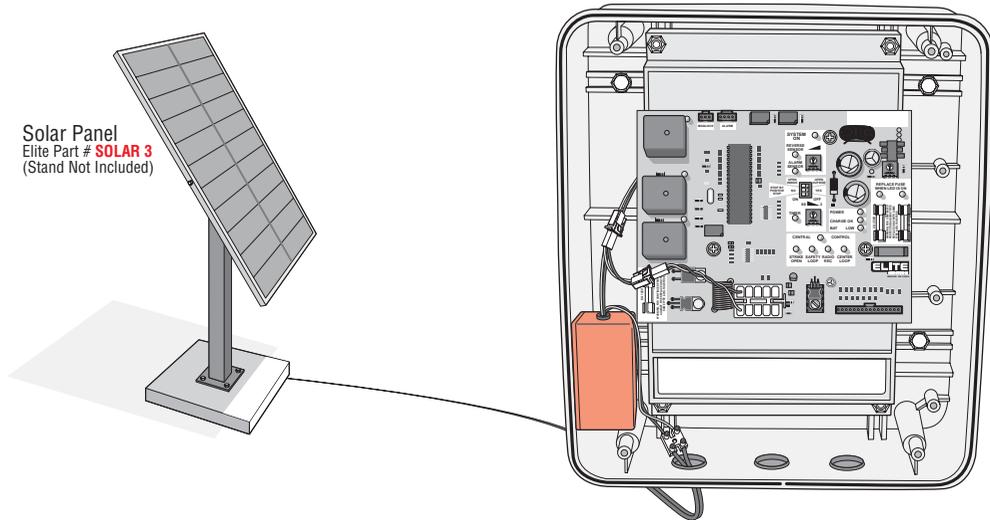
- ③ Gate hinges are too tight or broken and the gate is not moving freely.



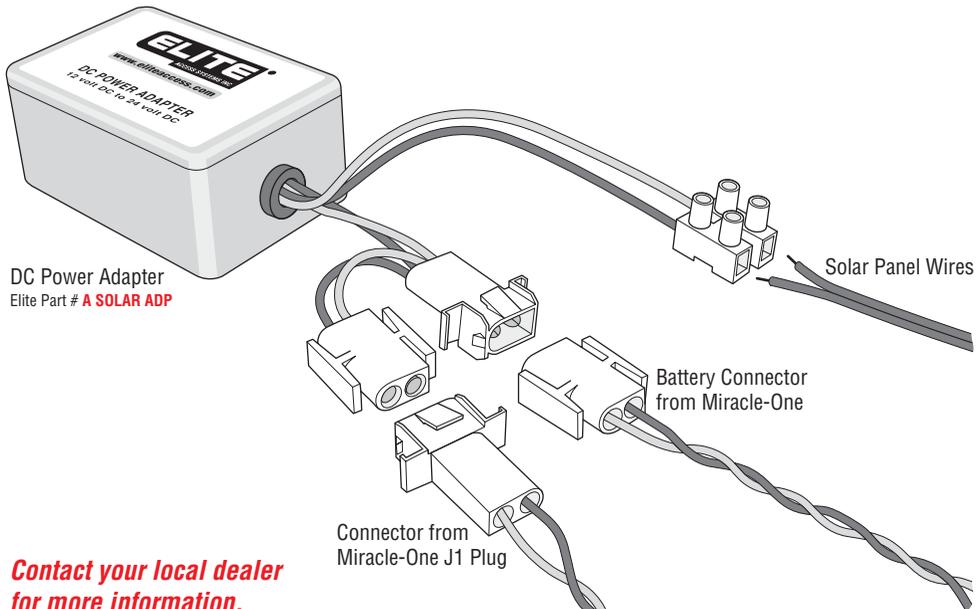
- ④ The gate hits the driveway, curb or other, and gets stuck in an awkward position.

OPTIONAL SOLAR POWER

Elite offers a plug-in solar adapter and solar panel as an option for the Miracle 1. Simply plug in the adapter to the existing electronic control box. No other modifications are necessary. Elite's "SOLAR 3" solar panel provides solar power for the Miracle 1 single arm operator. Contact your local dealer for more information.

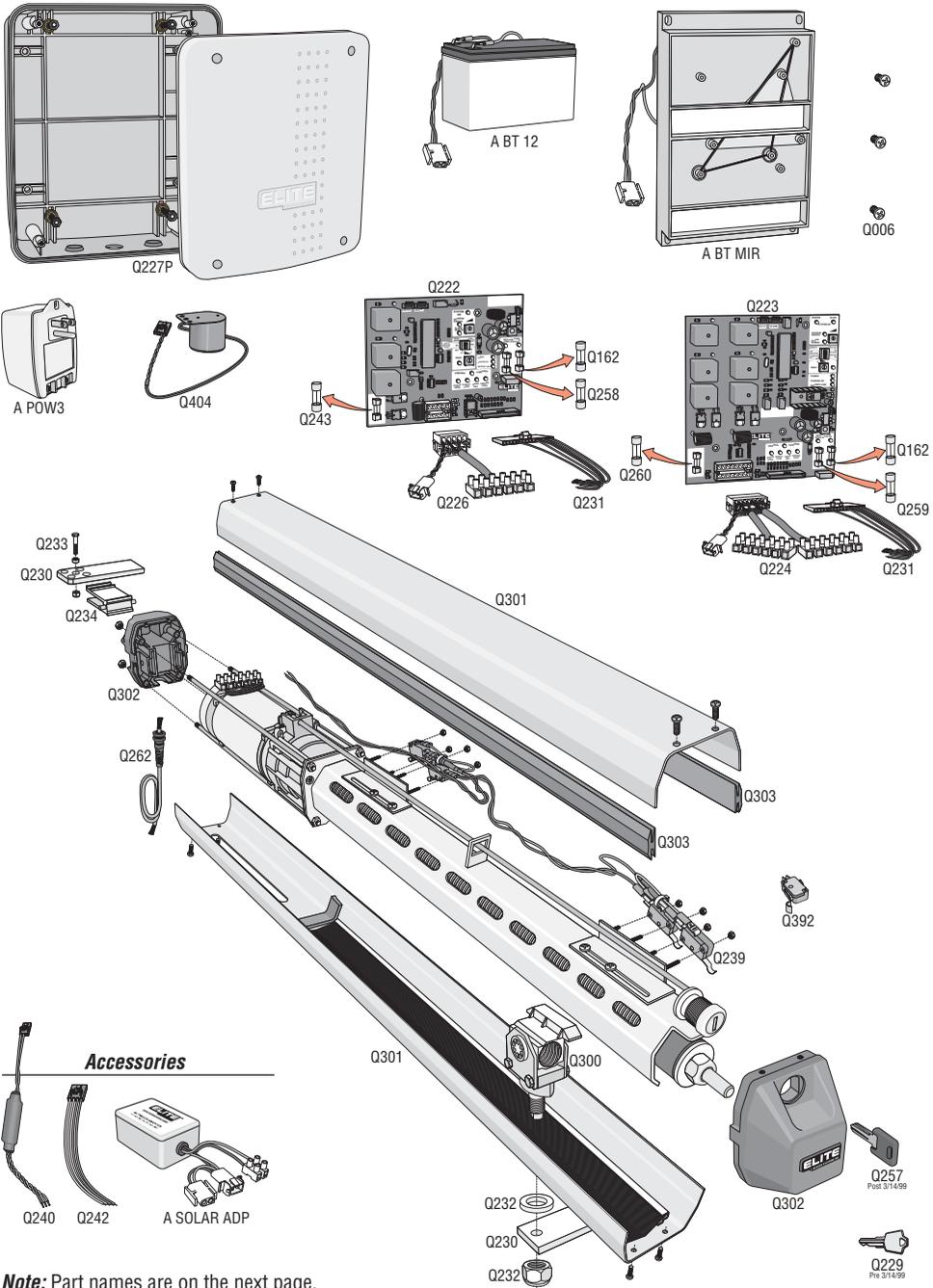


DC Power Adapter fits inside the Miracle-One electronic box



Contact your local dealer for more information.

M I R A C L E 1 P A R T S



Note: Part names are on the next page.

M I R A C L E 1 P A R T S L I S T

- A BT 12** - Backup Battery
- A BT MIR** - Plastic Rack and 2 Batteries
- A POW3** - Transformer (24 VAC)
- A SOLAR ADP** - DC Solar Power Adapter
- O-MIRACLE 1 ARM** - Single Miracle 1 Arm
(Complete)
- Q006** - Control Board Screws (Set of 3)
- Q162** - 1.5 Amp Fuse
- Q222** - Control Board (Single Operator)
- Q223** - Control Board (Master/Slave)
- Q224** - Power Harness (Master/Slave)
- Q226** - Power Harness (Single Operator)
- Q227P** - Plastic Control Board Box (Nuts
and Bolts for Battery Rack)
- Q229** - Replacement Key (Operator made
Pre 3/14/99)
- Q230** - Steel Bracket Mounting Plates (2)
- Q231** - Radio and Accessory Harness
- Q232** - Bottom Washer and Nut (for
Traveler Carriage Bolt)
- Q233** - Bolt, Bushing, Nut (Fits Rear Mount
of Operator)
- Q234** - Bracket/Rod
- Q239** - Limit Switch Harness (Wires and 4
Limit Switches)
- Q240** - Maglock Harness
- Q242** - Alarm Harness
- Q243** - 8 Amp Fuse
- Q257** - Replacement Key (Operator made
Post 3/14/99)
- Q258** - 2 Amp Fuse
- Q259** - 3 Amp Fuse
- Q260** - 15 Amp Fuse (2)
- Q262** - Harness-Motor (Operator Cord)
- Q300** - Traveler Carriage
- Q301** - Arm Cover Set (Top and Bottom,
Aluminum)
- Q302** - Arm End Caps (Set)
- Q303** - Arm Cover Gaskets (Set)
- Q392** - Limit Switch (1)
- Q404** - UL Audio Alarm
- (Go to Parts Illustrations Page)**

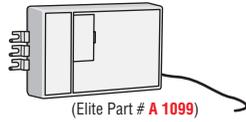
M A I N T E N A N C E

This swing gate operator is designed to be very low in maintenance. For intensive duty installations: *(every six months)* lubricate the operator fitting plates, lubricate the gate hinges, and check that electric connections are in good conditions.

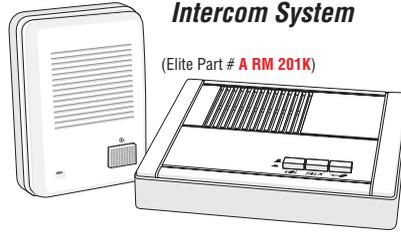
Important: *Any service must be performed by an authorized service technician.*

M I R A C L E 1 A C C E S S O R I E S

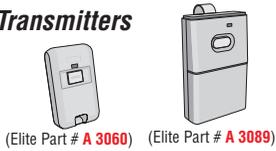
24V DC Radio Receiver



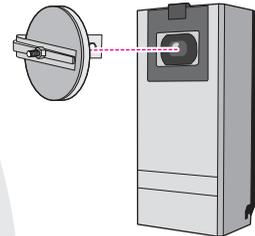
Intercom System



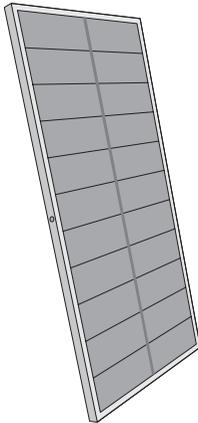
Transmitters



24V Photo Electric Eye



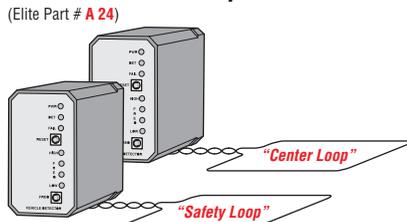
Solar Panel



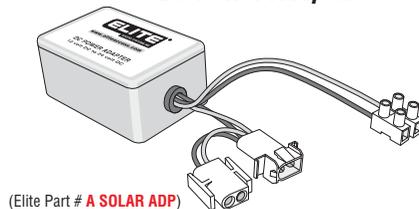
Wireless Programmable Digital Keyless Entry System



24V DC External Loop Detectors



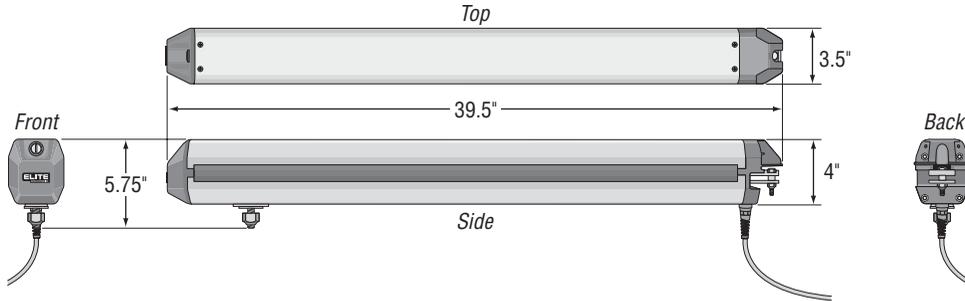
DC Power Adapter



FEATURES AND SPECIFICATIONS

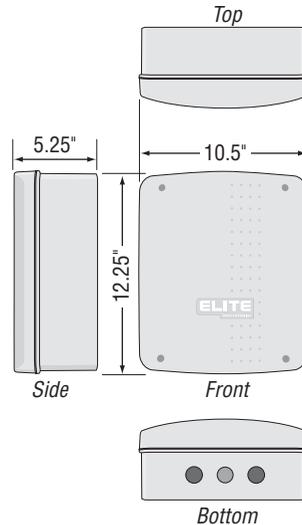
Mechanical Specifications

Motor -	24V DC, 12 Amps.
Cycles -	100 / Day. (Consult factory for solar applications)
Shipping Weight:	Single Unit: 58 lbs. - Master/Slave: 89 lbs
Torque -	600 lbs. of torque.
Finishing -	Aluminum.
Capabilities -	Maximum gate size 15' wide, 600 lbs.
Operator Travel Speed -	14 to 18 seconds 90° opening.



Electrical Specifications

Running System -	Uses a Microcontroller with built-in “watchdog” system.
Modular Board -	Board uses LEDs to indicate all input and output functions.
Sensor -	When the gate makes contact with an object while opening or closing, the gate will reverse for 1 second then go into neutral, so it can be pushed by hand.
Timer -	Can be set from 3 to 60 seconds, or “push-open/stop/close” operation.
Master/Slave -	Dictates synchronized movement between two gate operators.
Safety Loop Input -	Anti-tailgating system uses a “stop only” method of operation. Will not work as a commercial loop system.
Alarm Output -	Can be interfaced with any home alarm system. Alarm will sound if the gate is forced open manually. Optional siren can be installed.
Spike Suppressors -	Protected by spike suppressors.
Alternate Outputs -	Sensor alarm, alarm system, and magnetic locks.
Electronic Inputs -	Any type of radio receiver, full-control system “push-open/stop/close”, safety loop, photocell, telephone entry, and key switch.
Housing Finish -	Weather proof.



All specifications have been written and verified with our best attention. We do not take responsibility for possible errors or omissions. We reserve the right to introduce changes to the technological progress.