

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

SL3000ULTM Vehicular slide gate operator



OWNER'S MANUAL

THE SL3000UL[™] IS FOR USE ON VEHICULAR PASSAGE GATES ONLY AND NOT INTENDED FOR USE ON PEDESTRIAN PASSAGE GATES. INTENDED FOR PROFESSIONAL INSTALLATION ONLY.



TABLE OF CONTENTS

Mechanical

WARNING

Electrical

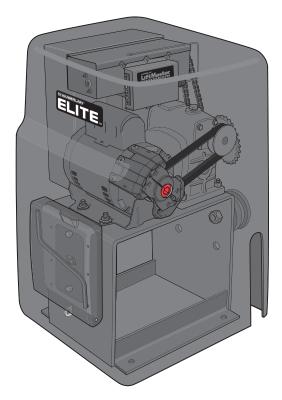
CAUTION

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

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

IMPORTANT NOTE:

- BEFORE attempting to install, operate or maintain the operator, you must read and fully understand this manual and follow all safety instructions.
- DO NOT attempt repair or service of your gate operator unless you are an Authorized Service Technician.



SPECIFICATIONS AND WARNINGS

Overview and Specifications	2
Model Classification	3
Safety Installation Information	4
Gate Construction Information	5
Safety Precautions	6
Suggested Safety Protection Device Locations7-	8

INSTALLATION

	_
Installation Setups	. 9
Safety Catch Rollers and Gate Rail Stops	10
Mounting Operator	11
Chain Installation Types	12
Control Board Description	13
Surge Suppressor Terminal Connections	14

WIRING

Earth Ground Rod Installation 15
120Vac Power Connection 16
Heater Power Connection 16
Linking Master/Second Operators 17
Solenoid/Maglock Connection 18
Factory Installed DC2000 [™] Connection
Plug-In Loop Detector Wiring 21
120Vac External Loop Detector Wiring 22
Entrapment Protection Devices (Contact Sensors) 23
Entrapment Protection Devices (Non-Contact Sensors) 24
Omni Option Board Connections (Optional) 25

ADJUSTMENTS

Set Gate Opening Direction	26
Limit Switch Adjustments	26
315 MHz 24Vdc Radio Receiver Programming	-28
Setting the Timer (On, Off)	29
Adjusting Reversing Sensor(s)	30

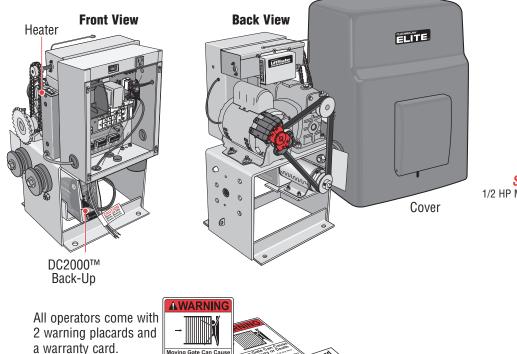
MAINTENANCE AND OPERATION

Maintenance	31
OPERATION	
Built-In Reset Switch	32
Audio Alarm	32
EMERGENCY MANUAL RELEASE	33
ACCESSORIES	34
WIRING DIAGRAMS	5-42
TROUBLESHOOTING	3-44
REPAIR PARTS	
Repair Part Illustrations	45
How to Order Repair Parts	46
Part Names and Numbers	46
INSTALLATION CHECKLIST	47
WARRANTY POLICY	10

Specifications and Warnings

SL3000UL[™] MODELS OVERVIEW

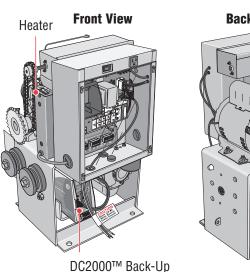
Single Motor Models



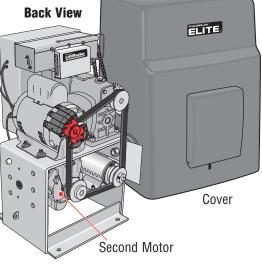
Gate Can Caus Injury or Death SL3000UL[™] (Single Motor) 1/2 HP Motor, 120Vac, 4 Amp. Maximum Gate Length – 37 ft. Maximum Gate Weight – 1000 lbs. Maximum Pull – 105 lbs. SL3000ULDC[™] (Single Motor) 1/2 HP Motor, DC2000[™], 120Vac, 4 Amp. Maximum Gate Length – 37 ft. Maximum Gate Weight – 1000 lbs. Maximum Pull – 105 lbs. SL3000ULH[™] (Single Motor) 1/2 HP Motor, 120Vac, 4 Amp., Heater 3 Amp Maximum Gate Weight – 1000 lbs. Maximum Pull – 105 lbs. SL3000ULDCH[™] (Single Motor) 1/2 HP Motor, DC2000[™], 120Vac, 4 Amp., Heater 3 Amp Maximum Conter Hearth = 27 ft. Maximum Conter

1/2 HP Motor, DC2000™, 120Vac, 4 Amp., Heater 3 Amp Maximum Gate Length – 37 ft. Maximum Gate Weight – 1000 lbs. Maximum Pull – 105 lbs.

Dual Motor and 1 HP Models



DC2000™ Back-Up Dual Motor Only.



NOTE: The 1 HP models cannot have the DC2000[™] Battery Backup system.

SL3000ULDM™ (Dual Motor)

Two-1/2 HP Motors, 120Vac, 4.7 Amp. Maximum Gate Length – 37 ft. Maximum Gate Weight – 800 lbs. Maximum Pull – 100 lbs. SL3000ULDMDCTM (Dual Motor) Two-1/2 HP Motors, DC2000™, 120Vac, 4.7 Amp. Maximum Gate Length – 37 ft. Maximum Gate Weight – 800 lbs. Maximum Pull – 100 lbs. SL3000ULDMHTM (Dual Motor) Two-1/2 HP Motors, 120Vac, 4.7 Amp., Heater 3 Amp Maximum Gate Length – 37 ft. Maximum Gate Length – 37 ft. Maximum Gate Weight – 800 lbs. Maximum Pull – 100 lbs. SL3000ULDMDCHTM (Dual Motor) Two-1/2 HP Motors, DC2000TM, 120Vac, 4.7 Amp., Heater 3 Amp Maximum Gate Length – 37 ft. Maximum Gate Weight – 800 lbs. Maximum Gate Weight – 800 lbs.

SL3000UL1HP™ (1 Horse Power) Two-1/2 HP Motors, 120Vac, 8.4 Amp.

Two-1/2 HP Motors, 120Vac, 8.4 Amp. Maximum Gate Length – 37 ft. Maximum Gate Weight – 2000 lbs. Maximum Pull – 180 lbs. SL3000UL1HPH™ (1 Horse Power) Two-1/2 HP Motors, 120Vac, 8.7 Amp., Heater 3 Amp Maximum Gate Length – 37 ft. Maximum Gate Weight – 2000 lbs.

Maximum Pull - 180 lbs.

2

UL325 MODEL CLASSIFICATIONS

The SL3000UL[™] is intended for use in vehicular slide gate applications:

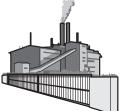


Class I – Residential vehicular gate operator

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

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, garage, 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 location 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.

			•	
GATE	OPERATOR	ENTRAPM	ENT PROTI	ECTION
UL325 Installation	Slide Gate	e Operator		ate Barrier Operator
Classification	Primary Type	Secondary Type	Primary Type	Secondary Type
Class I Class II	A	B1 , B2 or D	A or C	A, B1, C, or D, B2
Class III	A , B1 , B2 or B2	A, B1, D or E	A, B1, C or C	D or E
Class IV	A , B1 , B2 or D	A, B1, B2, D or E	A, B1, C or D	A, B1, C, D or E

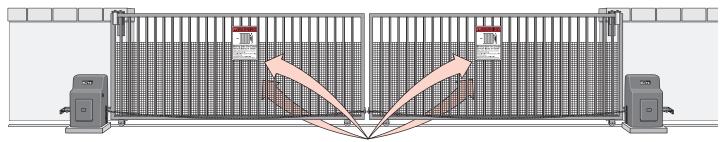
UL325 ENTRAPMENT PROTECTION REQUIREMENTS

This chart illustrates the entrapment protection requirements for each of the four UL325 classes.

In order to complete a proper installation you must satisfy the entrapment protection chart shown. That means that the installation must have one *primary* means of entrapment protection and one independent secondary means of entrapment protection. Both primary and secondary entrapment protection methods must be designed. arranged or configured to protect against entrapments in both the open and close directions of gate travel.

For Example: For a gate system that is installed on a single-family residence (UL325 Class I) you must provide the following: As your primary type of entrapment protection you must provide

- Type A Inherent (built into the operator) entrapment sensing and at least one of the following as your secondary entrapment protection:
- Type B1 Non-contact sensors such as photo-eyes,
- Type B2 Contact sensors such as gate edges or
- Type D Constant pressure control.
- Type E Built-in audio alarm.



NOTE: UL requires that all installations must have warning signs placed in plain view on both sides of the gate to warn pedestrians of the dangers of motorized gate systems.



SAFETY INSTALLATION INFORMATION

- 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 user as well as the bystander. 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
 Vartical Posts
- 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 six feet (6') away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.
- 9. The Stop and/or Reset (if provided separately) 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. 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.
 - b. One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.
 - c. 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.
 - d. 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.
 - e. 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.
 - f. One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

GATE CONSTRUCTION INFORMATION

Vehicular gates should be installed in accordance with ASTM F2200: Standard Specification for Automated Vehicular Gate Construction. For a copy, contact ASTM directly at 610-832-9585 or www.astm.org.

1. General Requirements

- 1.1 Gates shall be constructed in accordance with the provisions given for the appropriate gate type listed, refer to ASTM F2200 for additional gate types.
- 1.2 Gates shall be designed, constructed and installed to not fall over more than 45 degrees from the vertical plane, when a gate is detached from the supporting hardware.
- 1.3 Gates shall have smooth bottom edges, with vertical bottom edged protrusions not exceeding 0.50 inches (12.7 mm) when other than the exceptions listed in ASTM F2200.
- 1.4 The minimum height for barbed tape shall not be less than 8 feet (2.44 m) above grade and for barbed wire shall not be less than 6 feet (1.83 m) above grade.
- 1.5 An existing gate latch shall be disabled when a manually operated gate is retrofitted with a powered gate operator.
- 1.6 A gate latch shall not be installed on an automatically operated gate.
- 1.7 Protrusions shall not be permitted on any gate, refer to ASTM F2200 for Exceptions.
- 1.8 Gates shall be designed, constructed and installed such that their movement shall not be initiated by gravity when an automatic operator is disconnected.
- 1.9 A pedestrian gate shall not be incorporated into a vehicular gate panel or that portion of the adjacent fence that the gate covers in the open position.

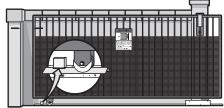
2. Specific Applications

- 2.1 Any non-automated gate that is to be automated shall be upgraded to conform to the provisions of this specification.
- 2.2 This specification shall not apply to gates generally used for pedestrian access and to vehicular gates not to be automated.
- 2.3 Any existing automated gate, when the operator requires replacement, shall be upgraded to conform to the provisions of this specification in effect at that time.

3. Vehicular Horizontal Slide Gates

- 3.1 The following provisions shall apply to Class I, Class II and Class III vehicular horizontal slide gates:
- 3.1.1 All weight bearing exposed rollers 8 feet (2.44 m), or less, above grade shall be guarded or covered.
- 3.1.2 All openings located between 48 inches (1.22 m) and 72 inches (1.83 m) above grade shall be designed, guarded or screened to prevent a 4 inch (102 mm) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that covers in the open position.

- 3.1.3 A gap, measured in the horizontal plane parallel to the roadway, between a fixed stationary object nearest the roadway, (such as a gate support post) and the gate frame when the gate is in either the fully open position or the fully closed position, shall not exceed 2-1/4 inches (57 mm), refer to ASTM F2200 for Exception.
- 3.1.4 Positive stops shall be required to limit travel to the designed fully open and fully closed positions. These stops shall be installed at either the top of the gate, or at the bottom of the gate where such stops shall horizontally or vertically project no more than is required to perform their intended function.
- 3.1.5 All gates shall be designed with sufficient lateral stability to assure that the gate will enter a receiver guide, refer to ASTM F2200 for panel types.
- 3.2 The following provisions shall apply to Class IV vehicular horizontal slide gates:
- 3.2.1 All weight bearing exposed rollers 8 feet (2.44 m), or less, above grade shall be guarded or covered.
- 3.2.2 Positive stops shall be required to limit travel to the designed fully open and fully closed positions. These stops shall be installed at either the top of the gate, or at the bottom of the gate where such stops shall horizontally or vertically project no more than is required to perform their intended function.



4. Vehicular Horizontal Swing Gates

- 4.1 The following provisions shall apply to Class 1, Class II and Class III vehicular horizontal swing gates:
- 4.1.1 Gates shall be designed, constructed and installed so as not to create an entrapment area between the gate and the supporting structure or other fixed object when the gate moves toward the fully open position, subject to the provisions in the 4.1.1.1 and 4.1.1.2.
- 4.1.1.1 The width of an object (such as a wall, pillar or column) covered by a swing gate when in the open position shall not exceed 4 inches (102 mm), measured from the centerline of the pivot point of the gate, refer to ASTM F2200 for exception.
- 4.1.1.2 Except for the zone specified in Section 4.1.1.1, the distance between a fixed object such as a wall, pillar or column, and a swing gate when in the open position shall not be less than 16 inches (406 mm), refer to ASTM F2200 for exception.
- 4.2 Class IV vehicular horizontal swing gates shall be designed, constructed and installed in accordance with security related parameters specific to the application in question.

SAFETY PRECAUTIONS

THE SL3000UL[™] IS FOR USE ON VEHICULAR PASSAGE GATES ONLY AND NOT INTENDED FOR USE ON PEDESTRIAN PASSAGE GATES.

AWARNING

To prevent SERIOUS INJURY or DEATH from a moving gate:

- Entrapment protection devices MUST be installed to protect anyone who may come near a moving gate.
- Locate entrapment protection devices to protect in BOTH the open and close gate cycles.
- Locate entrapment protection devices to protect between moving gate and RIGID objects, such as posts or walls.



Property owners MUST never mount any gate operating device near the gate's path!

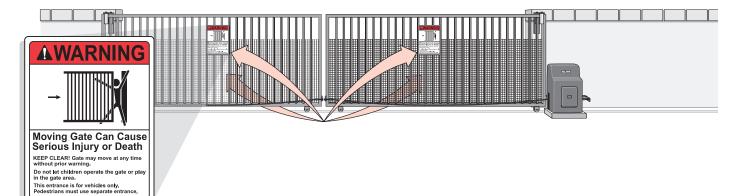


Property owners MUST never allow anyone to hang or ride on the gate!

Property owners MUST never let pedestrians cross the path of a moving gate!

WARNING SIGN PLACEMENT

To prevent SERIOUS INJURY or DEATH from a moving gate: Install Warning signs on BOTH sides of EACH gate, in PLAIN VIEW.

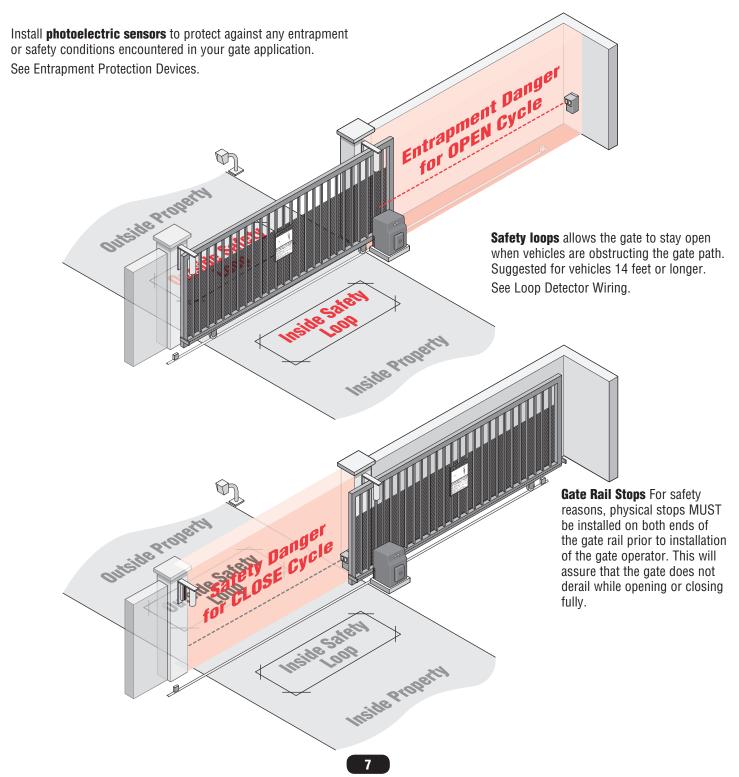


SUGGESTED SAFETY PROTECTION DEVICE LOCATIONS

To prevent SERIOUS INJURY or DEATH from a moving gate:

- Entrapment protection devices MUST be installed to protect anyone who may come near a moving gate.
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Non-Contact Sensors (Photoelectric Sensors)

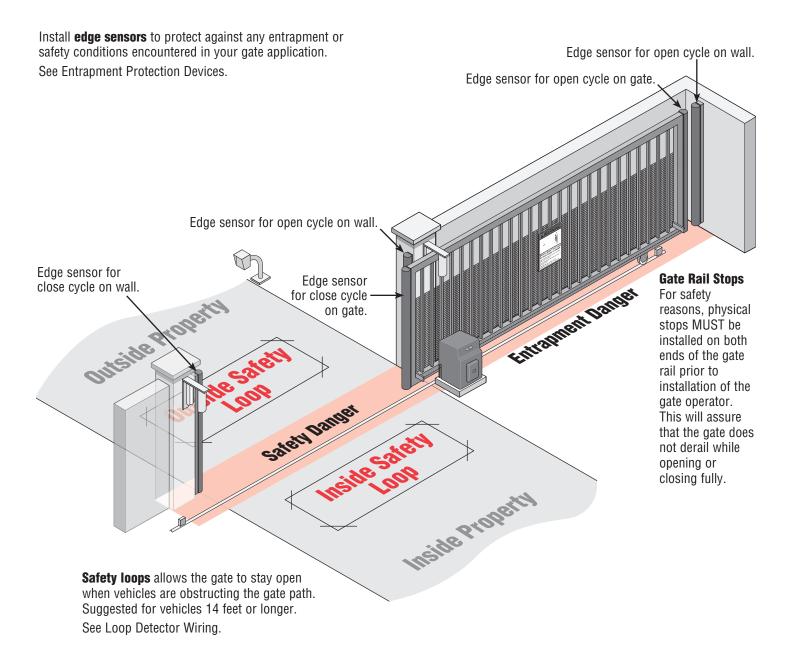


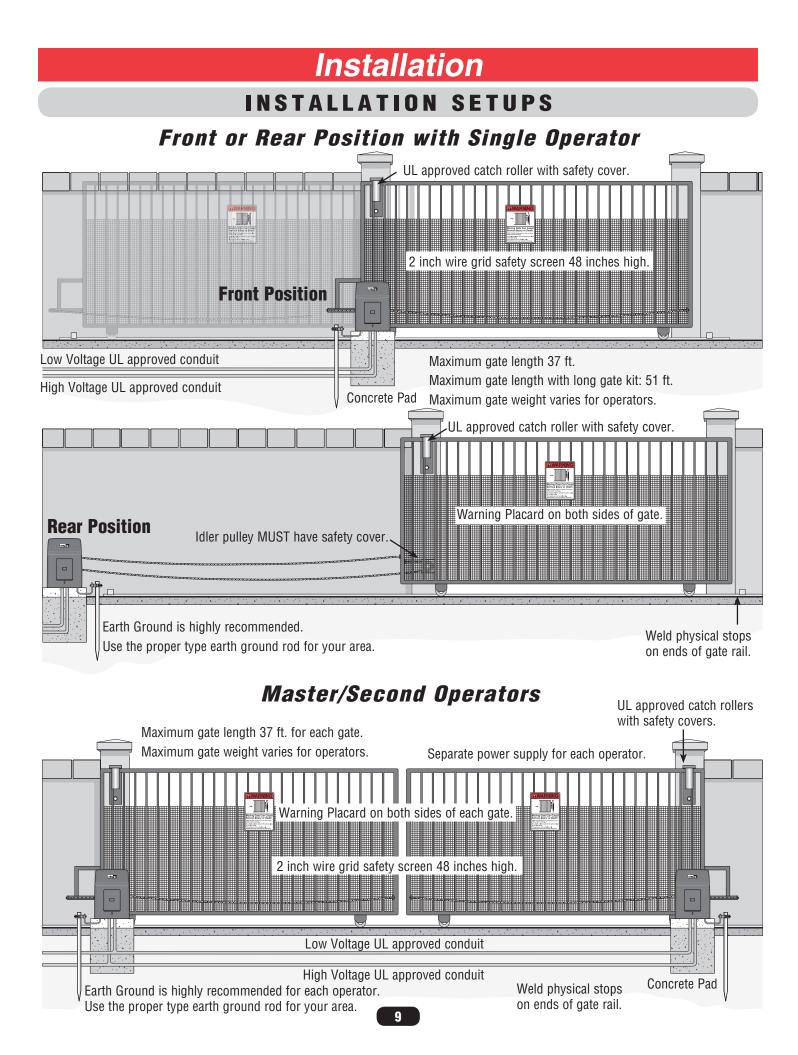
SUGGESTED SAFETY PROTECTION DEVICE LOCATIONS

To prevent SERIOUS INJURY or DEATH from a moving gate:

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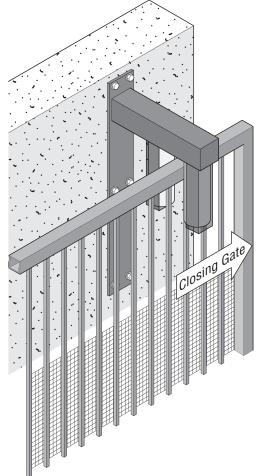
Contact Sensors (Edge Sensors)



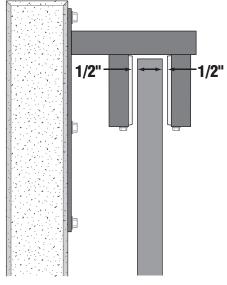


SAFETY CATCH ROLLERS AND GATE RAIL STOPS

Safety Catch Rollers



It is only recommended installing **catch** rollers with safety covers on the side of a post or wall with a minimal distance of **half** an inch between the rollers and gate.

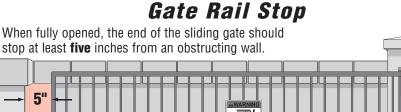


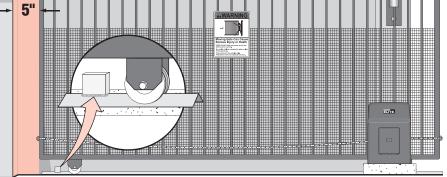
End View of Gate and Wall

DO NOT use a Gate Catch Post.

Because the coasting distance may vary due to changes in temperature, it is **NOT** recommended to install a stop or catch post in **front** of the gates path. To do so will cause the gate to hit the post in certain instances.

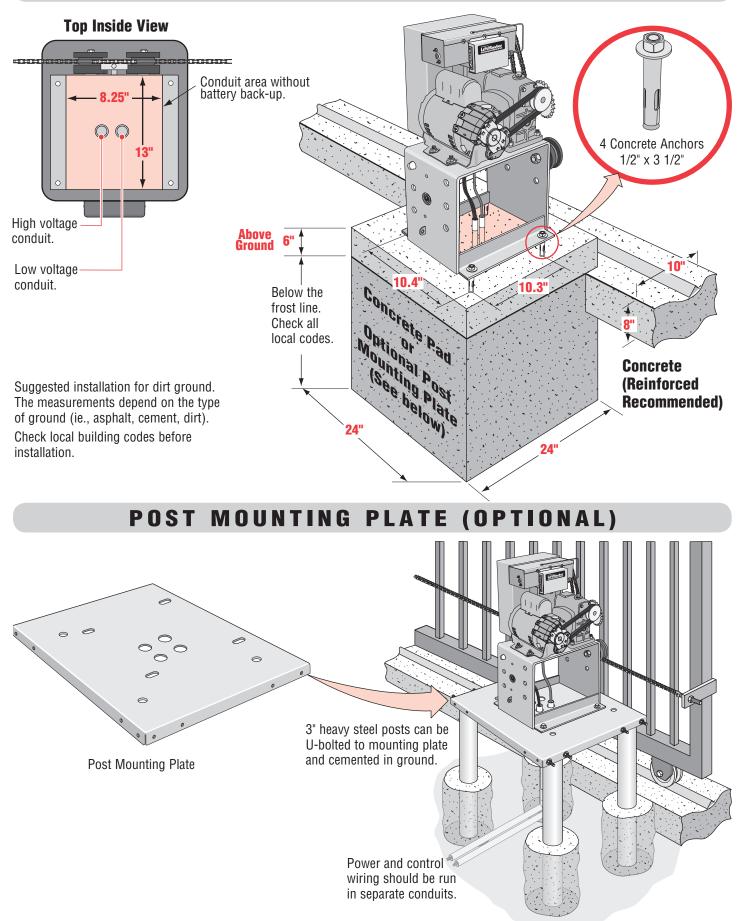
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NOTE: For safety reasons, physical stops MUST be installed on both ends of the gate rail prior to installation of the gate operator. This will assure that the gate does not derail while opening or closing fully.

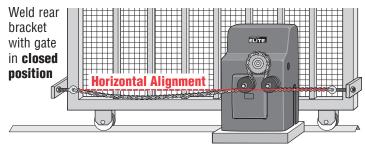
MOUNTING OPERATOR



CHAIN INSTALLATION TYPES

Drawings not to scale

Front Operator Position

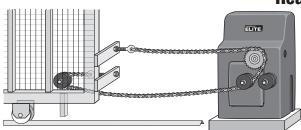


Weld front bracket with gate in open position.

To reduce the risk of SERIOUS INJURY or DEATH, make sure exposed idler pulleys have safety covers on them.

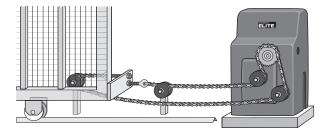


Rear Operator Position

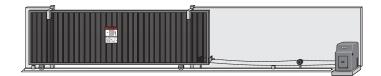


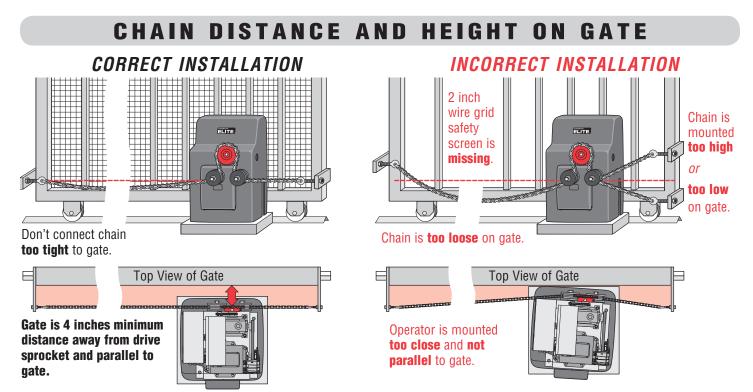
Cut the chain slot 17 1/2" high on cover.





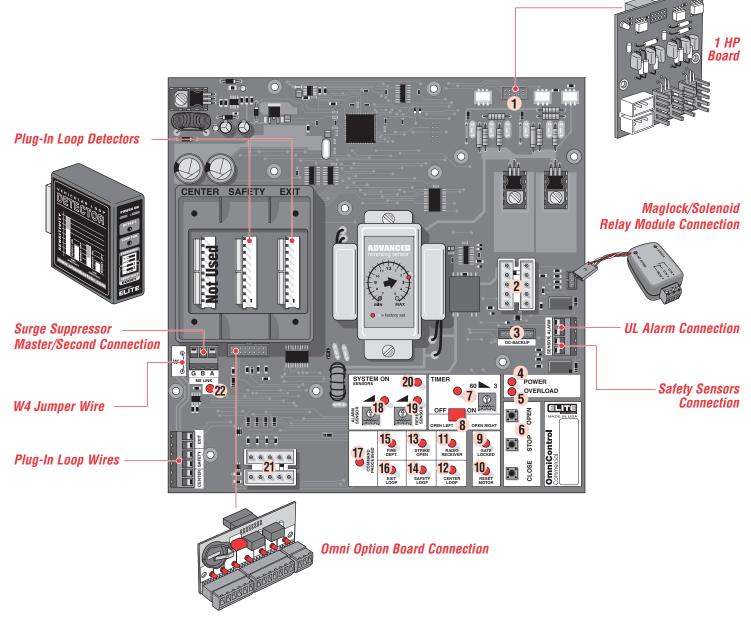
Low idler pulley position.





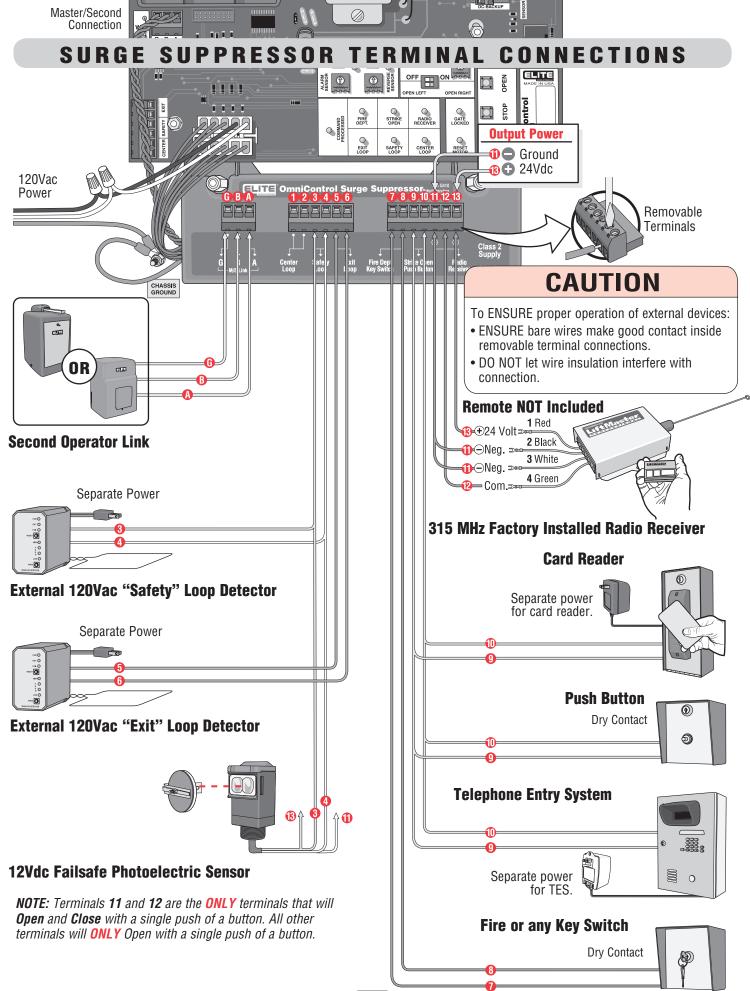
Over time, the gate's chain will stretch out and need to have links removed from it. The links can be removed during normal periodic maintenance of the operator.

CONTROL BOARD DESCRIPTION



- **1 1HP Connection -** Factory installed SL3000UL1HP[™] Models.
- 2 J3 Motor, Limit Switch, Maglock/Solenoid Connection
- **3** DC2000TM Back-Up Power or Reset Switch/Interlock Connection
- 4 Circuit Board Power LED Operator power OK when ON.
- 5 Overload LED Operator power has overloaded when ON.
- 6 On-Board 3 Button Station Close, Stop, Open commands.
- **7 Timer -** Timed close, see page 29.
- 8 Gate Opening Direction Selector Open Left, Open Right.
- 9 Gate Locked LED Maglock/Solenoid is activated when on.
- 10 Reset Motor LED Cycle operator power when ON.
- **11 Radio Receiver LED-** Radio transmitter is activated when ON.

- 12 Center Loop LED Center loop detector activated when ON.
- 13 Strike Open LED Strike connected device activated when ON.
- 14 Safety Loop LED Safety loop detector activated when ON.
- 15 Fire Dept LED Key Switch activated when ON.
- **16 Exit Loop LED -** Exit loop detector activated when ON.
- 17 Command Processed LED Successful command executed.
- **18 Alarm Sensor -** Limited Adjustment, page 30.
- **19 Reverse Sensor -** Gate hit obstruction when ON. See page 30.
- **20 System On LED -** Operator is successfully performing a command.
- 21 J1 Surge Suppressor Data Connection
- 22 M/S Link LED Data being transferred between master and second operators when ON.



To reduce the risk of SEVERE INJURY or DEATH:

- ANY maintenance to the operator or in the area near the operator MUST NOT be performed until disconnecting the electrical power and locking-out the power. Upon completion of maintenance the area MUST be cleared and secured, at that time the unit may be returned to service.
- Disconnect power at the fuse box BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with local electrical codes. **NOTE:** The operator should be on a separate fused line 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.

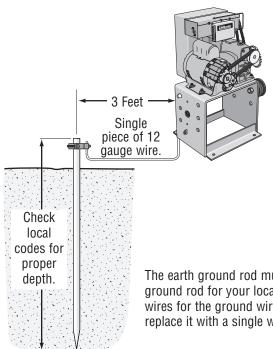
All power wiring should be on a dedicated circuit and well protected.

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

120Vac Power Wire	16 Gauge	14 Gauge	12 Gauge	10 Gauge	8 Gauge	4 Gauge
1/2 HP and Dual Motor	up to 150 FT	250 FT	400 FT	650 FT	1000 FT	2200 FT
1 HP	up to 75 FT	125 FT	200 FT	325 FT	500 FT	1100 FT

To prevent SERIOUS INJURY or DEATH from a moving gate: DO NOT disconnect the built-in audio alarm or reset switch.

EARTH GROUND ROD INSTALLATION



CAUTION

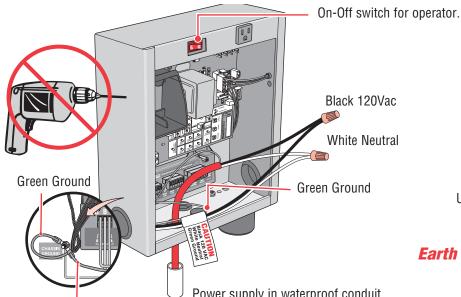
To AVOID damaging gas, power, or other underground utility lines, contact underground utility locating companies BEFORE digging.

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 gate operator. Although nothing can absorb the tremendous power of a direct lightning strike, proper grounding can protect the gate operator in most cases.

The earth ground rod must be located within 3 feet from the gate operator. Use the proper type earth ground rod for your local area. The ground wire must be a single, whole piece of wire. Never splice two wires for the ground wire. If you should cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length.

120VAC POWER CONNECTION





Use a 20 amp dedicated circuit for each operator. Input power 120Vac, 60 Hz.

Earth Ground Rod Highly Recommended!

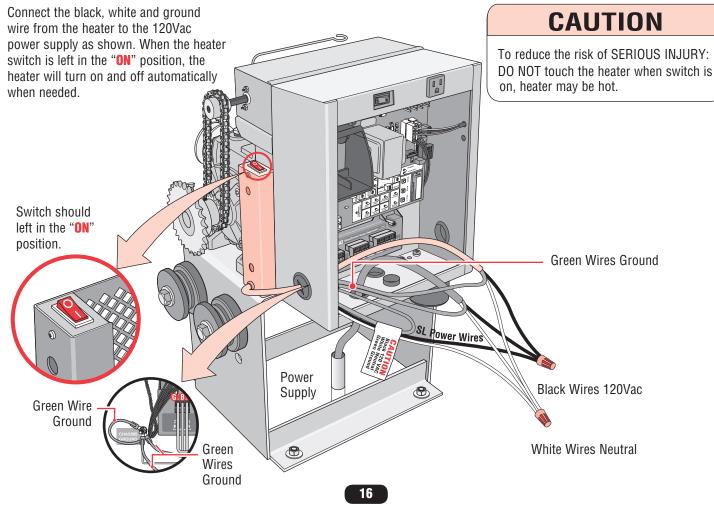
See previous page.

Green Ground

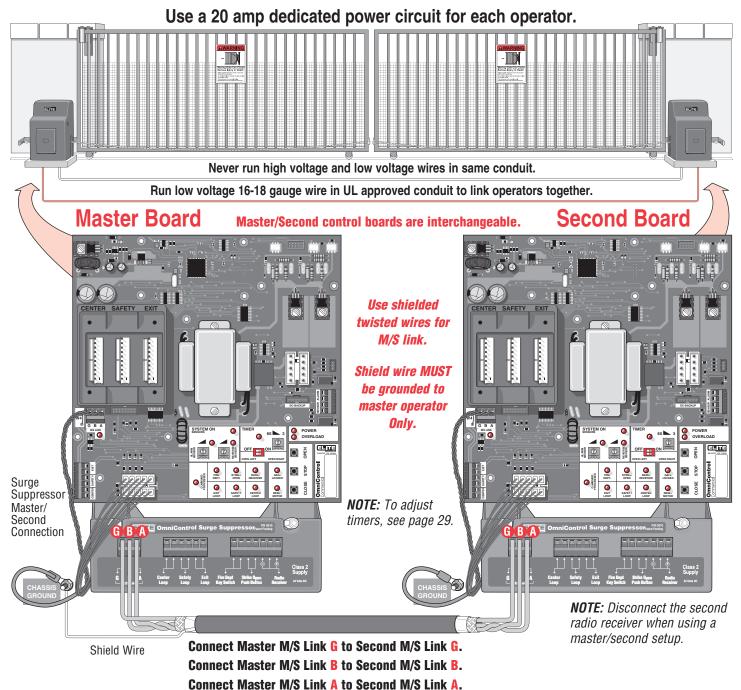
Power supply in waterproof conduit.

120Vac Power Wire	16 Gauge	14 Gauge	12 Gauge	10 Gauge	8 Gauge	4 Gauge
1/2 HP and Dual Motor	up to 150 FT	250 FT	400 FT	650 FT	1000 FT	2200 FT
1 HP	up to 75 FT	125 FT	200 FT	325 FT	500 FT	1100 FT

HEATER POWER CONNECTION



LINKING MASTER/SECOND OPERATORS



Partial Master/Individual Control

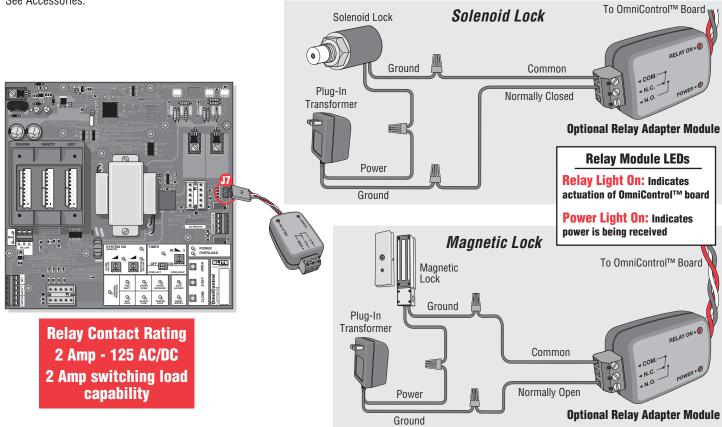
In order for the following operation to occur, follow the instructions.

EXAMPLE: There is a double gate, the entry gate is to be opened with a radio transmitter and the exit gate with a free exit loop. Only one safety loop system is to open both gates, and a fire department switch should open both gates at the same time.

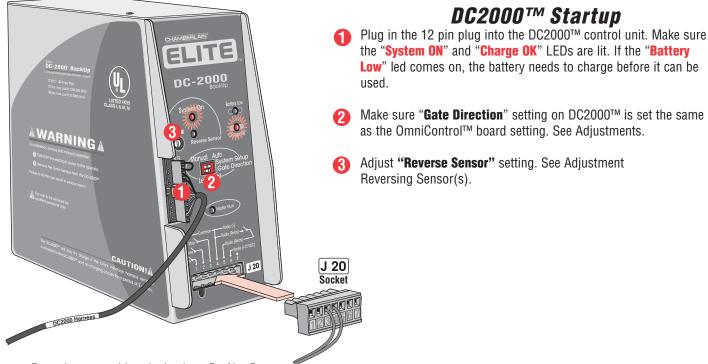
- 1. Connect the radio receiver to entry gate only.
- 2. Connect the exit loop to exit gate only.
- 3. Connect the safety loop to both entry and exit gates. Plug-in loop detectors not applicable (Observe polarity of voltage).
- 4. Connect the fire department switch to both entry and exit gates (Observe polarity of both operators).

SOLENOID/MAGLOCK RELAY CONNECTION

Connection of a solenoid or magnetic lock can be made using the J7 board connector and "Optional" Relay Adapter Module. See Accessories.



FACTORY INSTALLED DC2000[™] CONNECTION



Reset button and interlock wires, Do Not Remove.

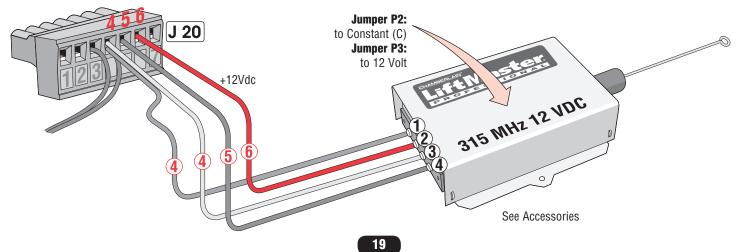
	120Vac Power Failure	120Vac Power On, OmniControl™ Board Malfunction
Manual Mode	Push and Hold to operate gate.	Turn the 120Vac power off then push and Hold to operate gate.
Auto Mode	Gate automatically opens.	Turn the 120Vac power off then gate opens automatically.

NOTE: All devices wired to the DC2000[™] MUST be dedicated to it alone. Normal operation will be controlled by separate devices wired to the OmniControl[™] board and surge suppressor.

Typical Auto Mode Example: If the DC2000 is "automatically opening" the gate due to a power failure (auto mode), any manual command such as "**One-Button**", "**Three Push Button**", "**Key Switch**", "**Photoelectric Sensor**" or "**Edge Sensor**" will cancel the automatic mode of the DC2000[™]. After such cancellation, the DC2000[™] will continue to operate in "manual mode" until 120Vac power is restored.

DC2000™ 12Vdc Radio Receiver (Not Provided)

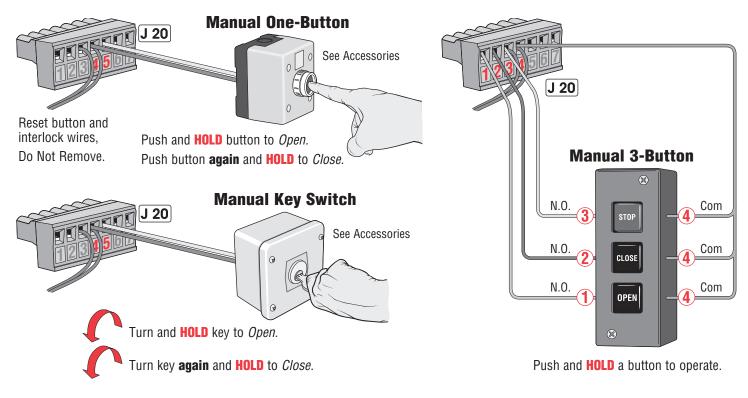
The DC2000[™] needs a separate 12Vdc radio receiver to give remote commands to the operator during a power failure.



Manually Operated DC2000™ Devices

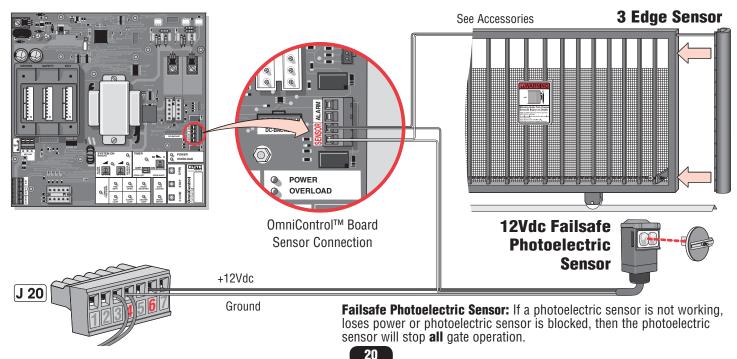
Manual external devices should be dry-contact which do not consume any current like push buttons or a key switch.

Key switch is for property owner's emergency access ONLY. DO NOT FOR USE FOR A EMERGENCY FIRE/POLICE KEY ACCESS. Contact your local Fire/Police municipalities for more information on correct Fire/Police emergency key access.

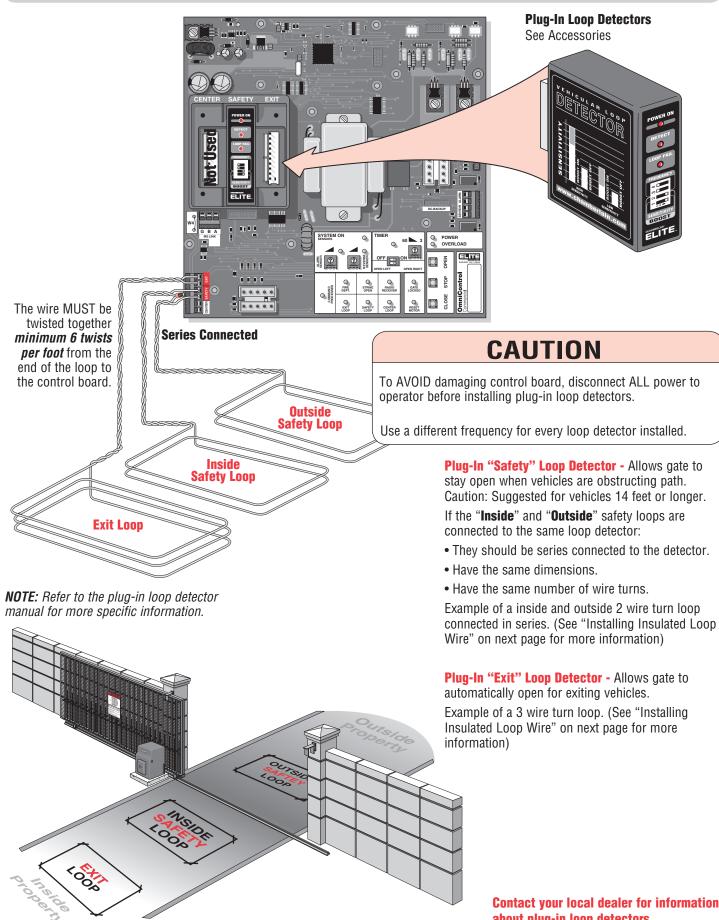


DC2000™ Entrapment Protection Devices

It is recommended using separate entrapment protection devices to maintain gate safety when the DC2000[™] is needed for any reason. The entrapment protection devices connected to the OmniControl[™] board and surge suppressor **WILL NOT** protect the gate when there is a AC power failure and the DC2000[™] is used.



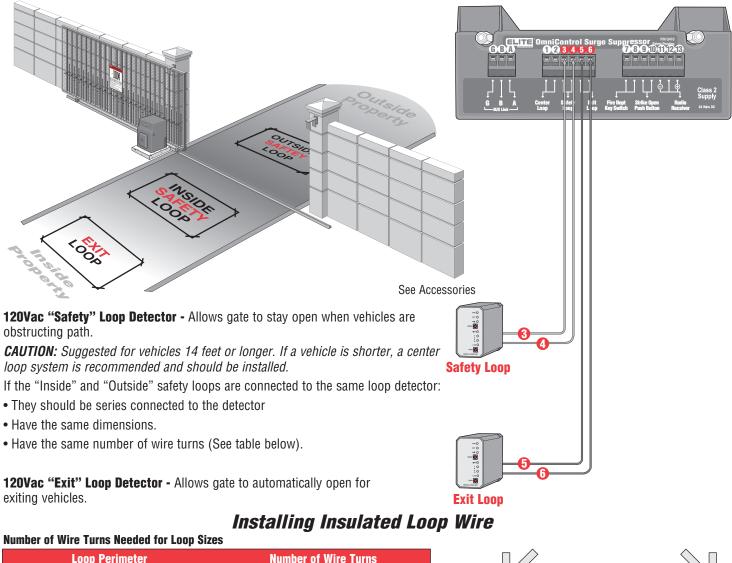
PLUG-IN LOOP DETECTOR WIRING



Contact your local dealer for information about plug-in loop detectors.

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120VAC EXTERNAL LOOP DETECTOR WIRING



Loop Perimeter	Number of Wire Turns
10 feet to 13 feet	4
14 feet to 26 feet	3
27 feet to 80 feet	2
80 feet and up	1
The	e wire MUST be twisted together minimu

loop detector.

1/8" to 1/4" Width Saw Cut

Road Surface

Sealant

Backer Rod

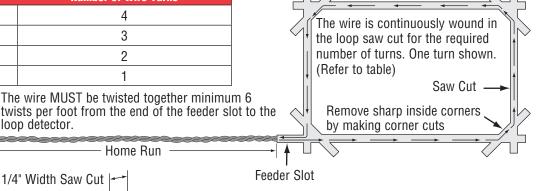
Insulated loop wire

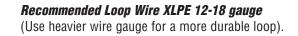
Refer to table.

3 turns shown, amount varies.

Contact your local dealer

for more information about loop detectors.





NOTE: Wire mesh or reinforcement embedded in the road surface should be cut away a minimum of 6 inches from the perimeter of the loop.

77

Min 1'

2" to 2.5" Depth

Saw Cut

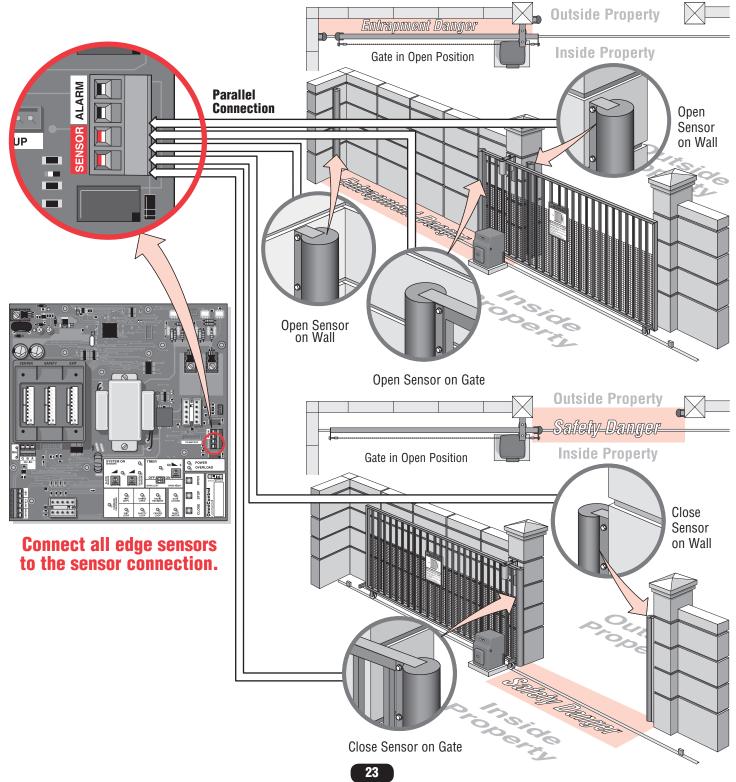
Home Run

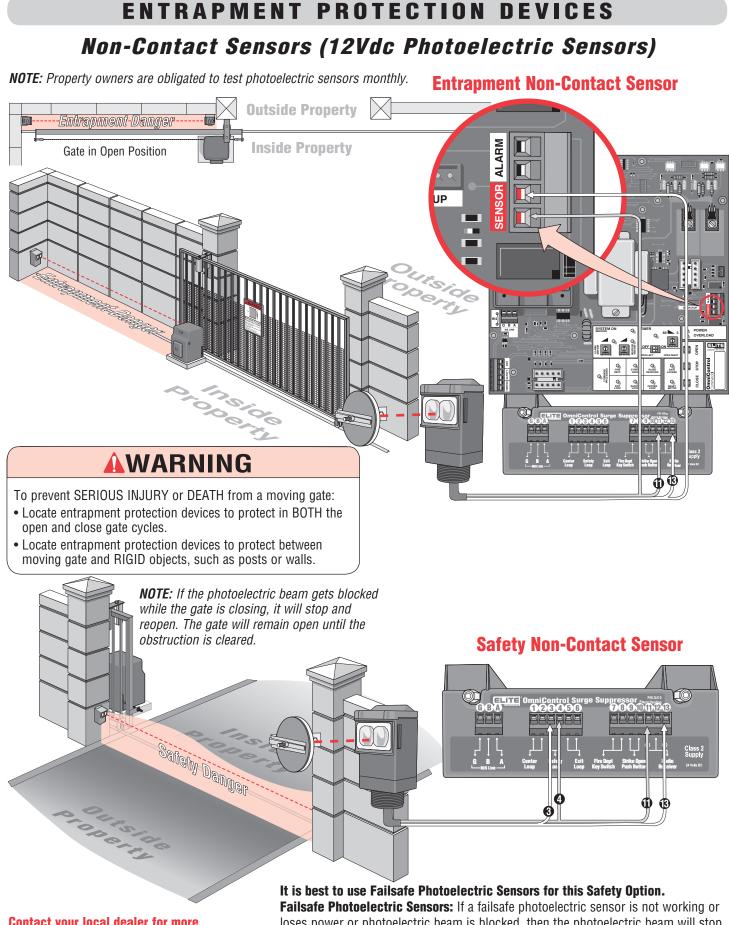
ENTRAPMENT PROTECTION DEVICES Contact Sensors (Edge Sensor)

To prevent SERIOUS INJURY or DEATH from a moving gate:

- Locate entrapment protection devices to protect in BOTH the open and close gate cycles.
- Locate entrapment protection devices to protect between moving gate and RIGID objects, such as posts or walls.

NOTE: When touched, these electrically activated edge sensors immediately signal the gate operator to stop and reverse. Property owners are obligated to test edges monthly. See Accessories.

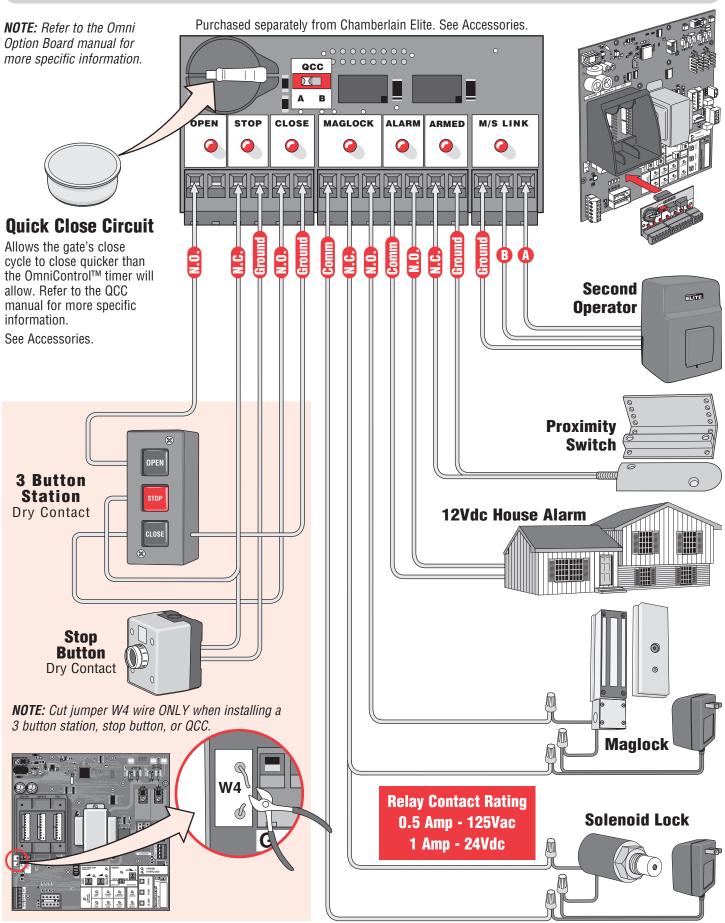




Contact your local dealer for more information about photoelectric sensors. loses power or photoelectric beam is blocked, then the photoelectric beam will stop ALL gate operation.

24

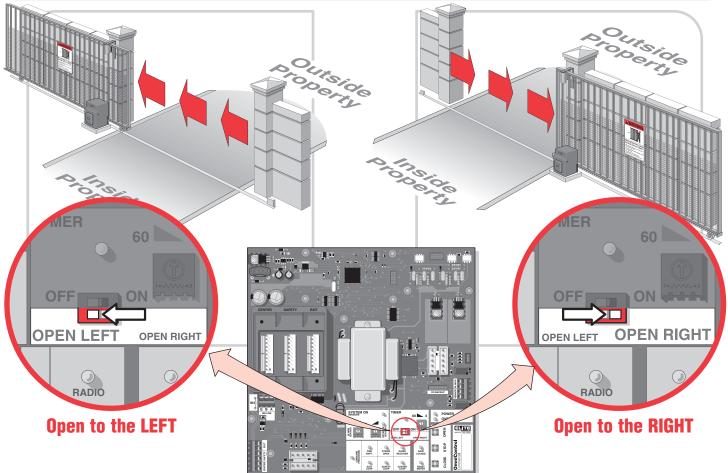
OMNI OPTION BOARD CONNECTIONS



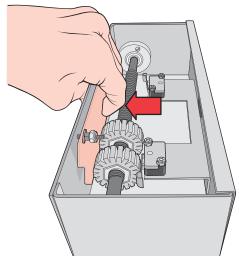
Adjustments

To reduce the risk of SERIOUS INJURY or DEATH: Disconnect electric power BEFORE performing ANY adjustments.

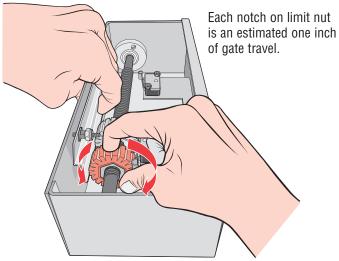
SET GATE OPENING DIRECTION



LIMIT SWITCH ADJUSTMENTS



Push and **hold** lock plate to release limit nuts.



Roll limit nuts to adjust the open and close limit switches.

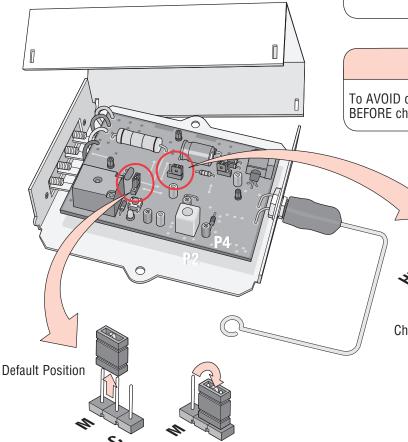
315 MHZ 24VDC RADIO RECEIVER PROGRAMMING

Setting Security Mode (High) or (Normal):

The receiver is factory set at **HIGH** security mode. To verify, refer to the label next to jumper P4 (See illustration below).

The Receiver can be used with up to **15** rolling code remotes or pins 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.

When changing from **NORMAL** to **HIGH** security mode, *all previous remote control codes must be erased.* See next page to erase and reprogram remote controls that are being used.



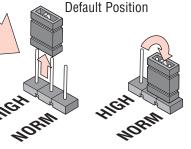
WARNING

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

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

CAUTION

To AVOID damaging receiver, disconnect receiver's power BEFORE changing jumpers.



Changing security from High to Normal.

Changing output duration from Momentary to Constant.

Setting Output Duration (M) or (C):

The receiver is factory set at (\mathbf{M}) Momentary. To verify, refer to the label next to jumper P2. (See illustration above)

For commercial applications, the receiver can be set to either (C) constant or (\mathbf{M}) momentary closure.

With the jumper in the (\mathbf{M}) momentary position, the *contacts will* close for 1/4 second regardless of the length of remote control transmission.

With the jumper in (**C**) constant position, the *contacts will stay closed as long as the remote control continues transmitting.* Push and **HOLD** remote button to open or close gate.

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

315 MHZ 24VDC RADIO RECEIVER PROGRAMMING

IMPORTANT: Hand-held remote NOT included.

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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.

NOTE: Receiver wiring on Surge Suppressor Terminal Connections page. Disconnect the second receiver when using a master/second setup.

Programming Radio Receiver:

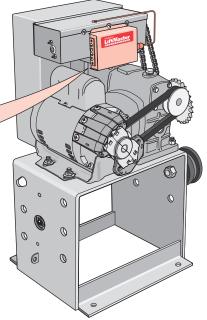
1. Press and release the "**Learn**" button on the receiver. The learn indicator light will glow steadily for 30 seconds.

2. Within 30 seconds, press and hold the button on the hand-held remote. The operator will now operate when the push button on the remote control is pressed. Repeat Steps **1** and **2** for each remote control that will be used.

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 previous codes are now erased. Reprogram each remote you wish to use.

Optional 315 MHz Hand Held Remotes - See Accessories

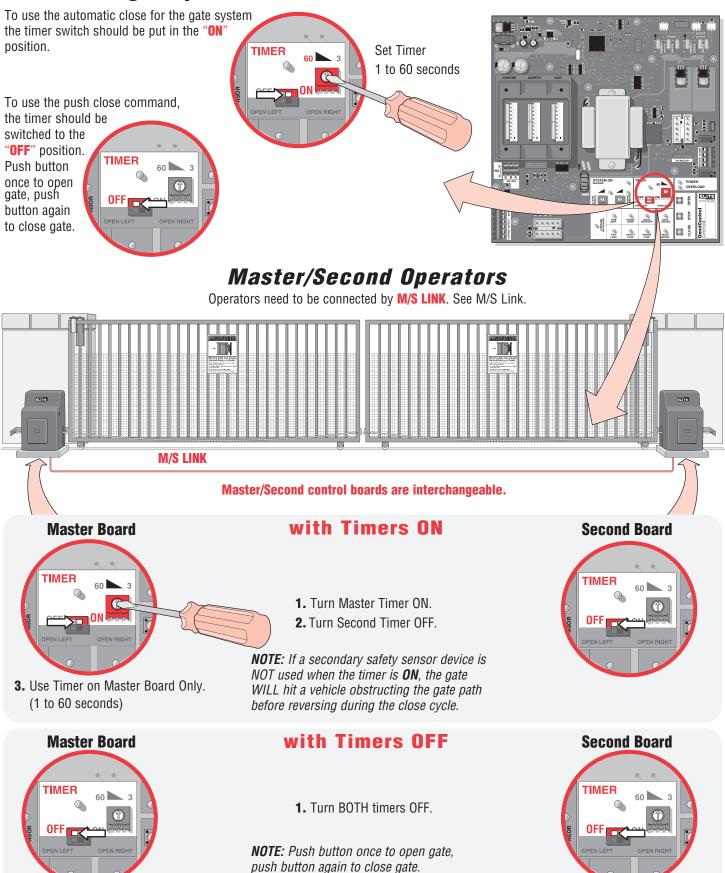




C

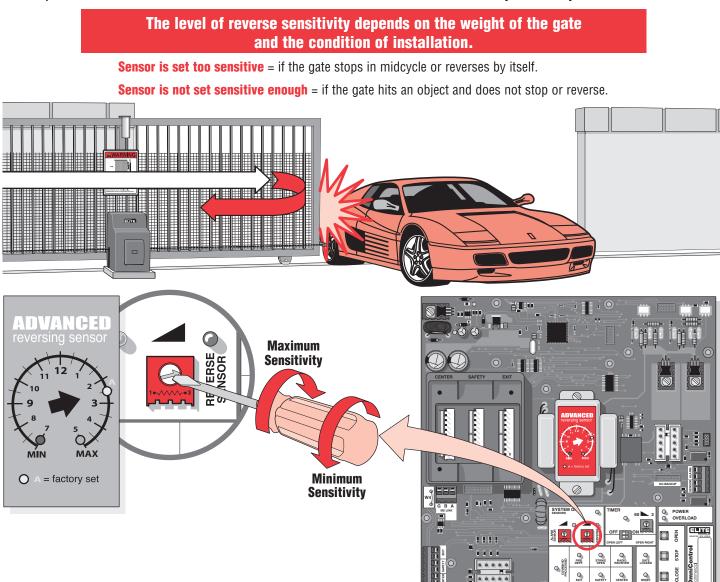
SETTING TIMER (ON, OFF)

Single Operator



ADJUSTING REVERSING SENSOR(S)

Adjust the "Reverse Sensor" on the control board. Alarm Sensor does not need to be adjusted except where noted below.



DC2000™ Reverse Sensor

The DC2000TM has a separate reverse sensor that will need to be adjusted. The 120Vac operator power needs to be turned off and the DC2000TM should have the "**Charge OK**" LED **ON** to make the adjustment.



Maintenance and Operation

IMPORTANT SAFETY INSTRUCTIONS

🖄 🛦 WARNING

To reduce the risk of SEVERE INJURY or DEATH:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- **2.** NEVER let children operate or play with gate controls. Keep the remote control away from children.
- **3.** ALWAYS keep people and objects away from the gate. NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.
- **4.** Test the gate operator monthly. The gate MUST reverse on contact with a rigid object or stop when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator. Failure to adjust and retest the gate operator properly can increase the risk of INJURY or DEATH.
- **5.** Use the emergency release ONLY when the gate is NOT moving.
- **6.** KEEP GATES PROPERLY MAINTAINED. Read the owner's manual. Have a qualified service person make repairs to gate hardware.
- **7.** The entrance is for vehicles ONLY. Pedestrians MUST use separate entrance.
- **8.** Disconnect ALL power BEFORE performing ANY maintenance.
- **9.** ALL maintenance MUST be performed by a Chamberlain Elite professional.
- **10. SAVE THESE INSTRUCTIONS.**

MAINTENANCE:

- 1. Disconnect power before servicing.
- 2. The gate area should be kept clean to insure proper operation.
- 3. Check for belt tightness.
- 4. Check chain for tightness. Refer to chain distance and height page.
- 5. Make sure the reversing sensor is functioning properly. Check it monthly (Page 30).
- 6. Make sure the gate track is clear of dirt, rocks or other substances.
- 7. Make sure the wheels are operating smoothly on the track.
- 8. Oil the chain regularly with a chain lubrication oil available at most motorcycle stores.
- 9. Check for proper synthetic oil level in the gear box (10W-30 weight synthetic oil).
- 10. Severe or high cycle usage will require more frequent maintenance checks.
- 11. Inspection and service should always be performed anytime a malfunction is observed or suspected.
- **12.** When servicing, please do some "house cleaning" of the operator and the area around the operator. Pick up any debris in the area. Clean the operator as needed.
- **13.** It is suggested that while at the site voltage readings be taken at the operator. Using a Digital Voltmeter, verify that the incoming voltage to the operator it is within ten percent of the operators rating.
- 14. Verify all safety and entrapment devices are functioning.

BUILT-IN RESET SWITCH

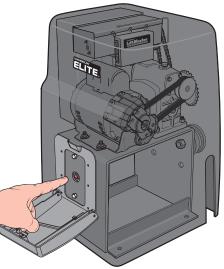
When the gate operator's audio alarm has been tripped (see below), the reset switch must be pushed for the operator to function again.

The reset switch will shut off an activated audio alarm and reset the operator to function again.

If the audio alarm goes off, always check the gate area for:

- Obstructions in the gate path.
- Damage to the gate and/or gate operator.

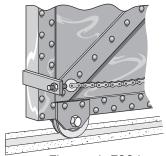
Pressing the reset switch will stop a moving gate during a normal open/close cycle, like a stop button. The operator does NOT need to be reset after doing this.



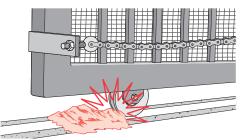
AUDIO ALARM

The alarm could be tripped when one of the following happens *twice consecutively,* then the alarm will sound for **5 minutes or until the reset switch is pressed!**

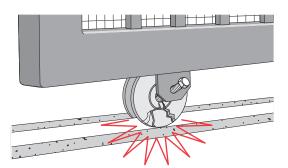
Press the built-in reset switch to shut off alarm and reset operator (see above).



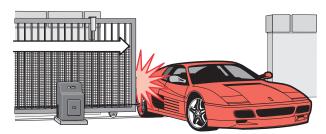
The gate is TOO heavy.



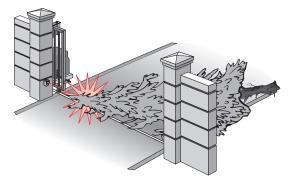
Debris is on the gate's track such as mud, rocks, dirt, etc.



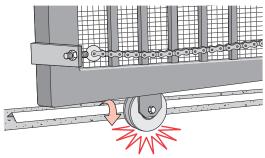
The gate has one or more broken axles or wheels.



The gate is hitting a wall or vehicle.



An externally wired entrapment protection device has been triggered twice (Photoelectric sensor blocked).

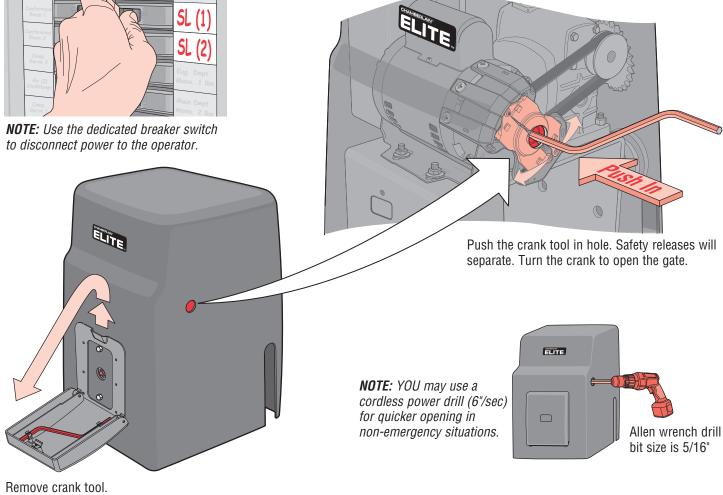


The gate wheel is off the gate rail.

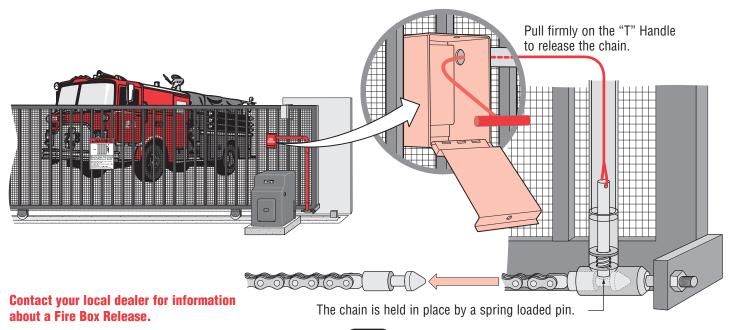
EMERGENCY MANUAL RELEASE



Turn the power OFF!

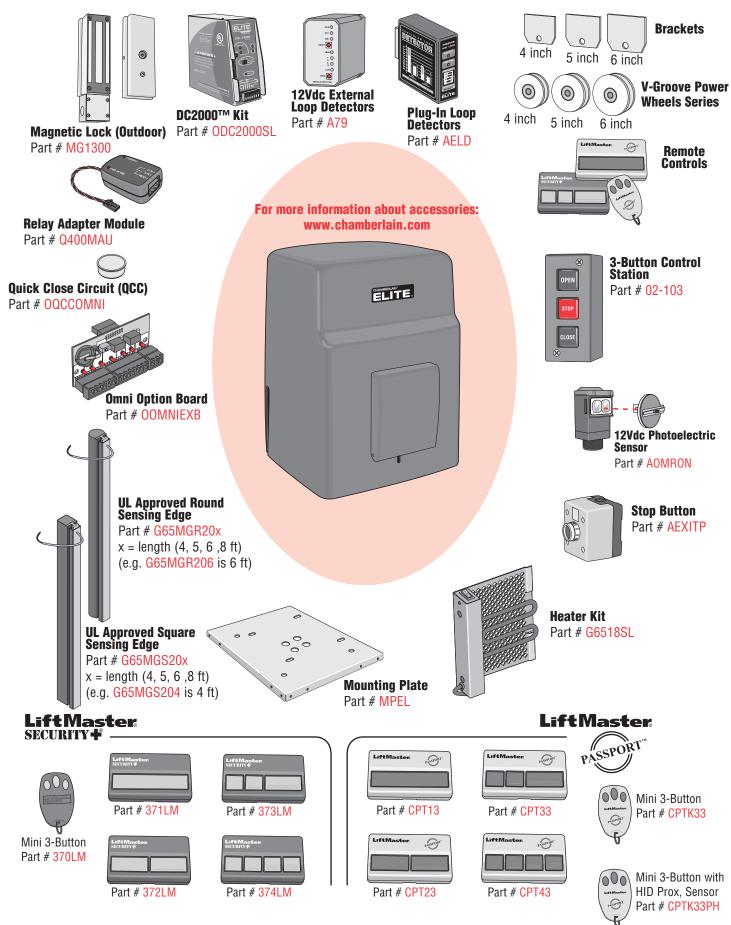


OPTIONAL MANUAL RELEASE

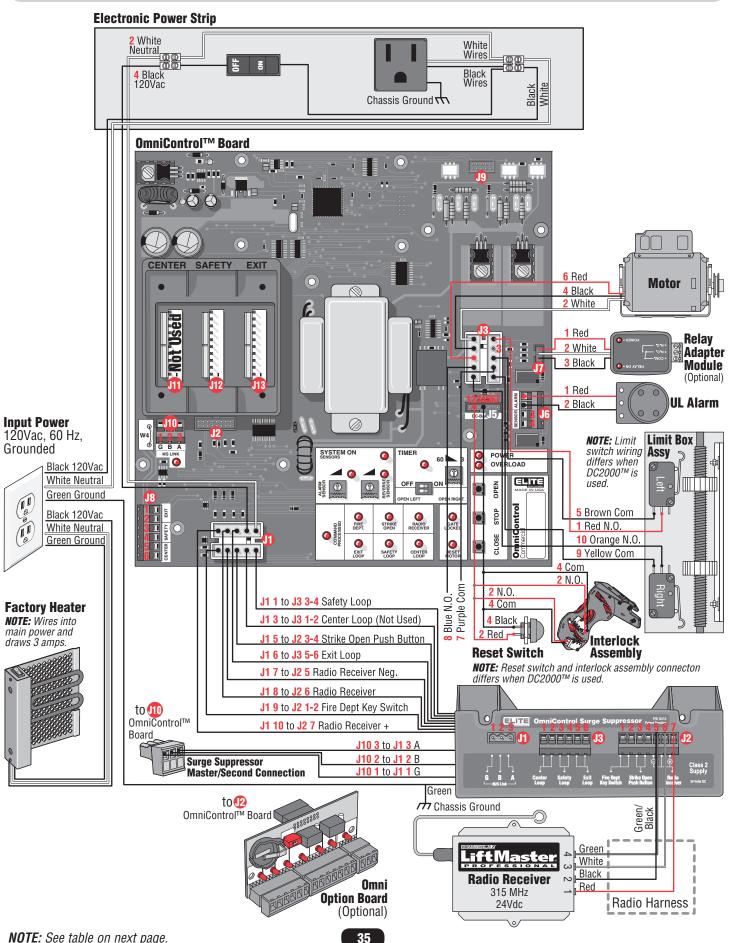


33

Accessories



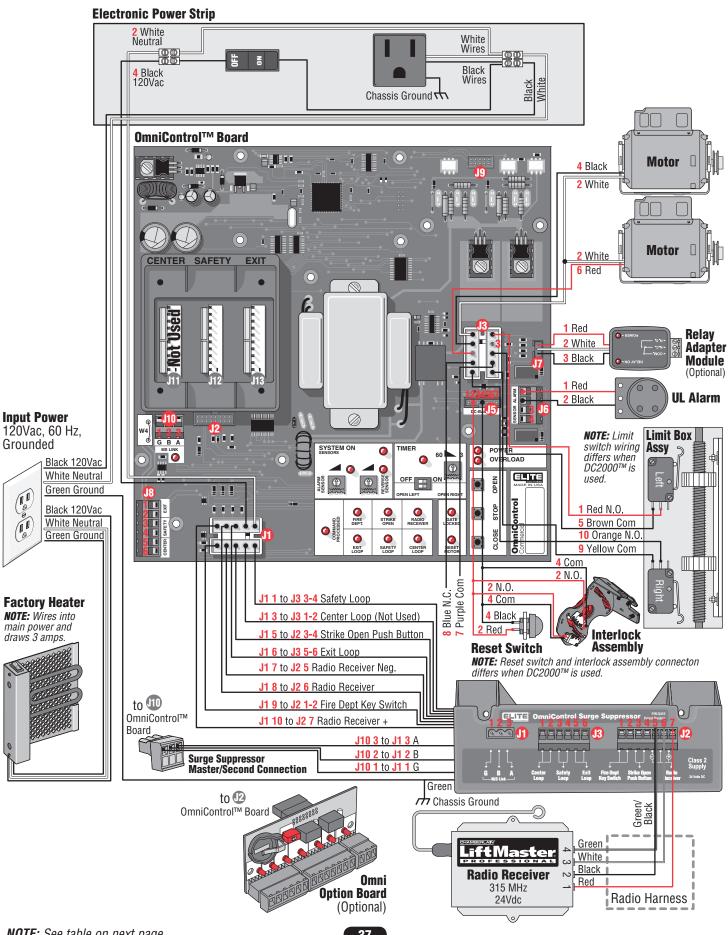
WIRING DIAGRAM • SL3000UL™



WIRING TABLE • SL3000UL™

OmniControl™ Board					
J #	J Pin #	Signal Type	Direction	Level (+/- 10%)	Input Connection
J1 J1	1 2	Safety Loop Input Power Neutral	In In	5 or OVdc OV	External Loop Detector
J1	3	Not Used	-	_	Wires,
J1	4	Input Power 120Vac	In	120Vac	120Vac Power,
J1 J1	5 6	Strike Open Exit Loop	ln In	5 or OVdc 5 or OVdc	Radio Receiver,
J1	7	Radio Receiver –	In	OV	Strike Open,
J1	8	Radio Receiver	In	OV	Key Switch
J1 J1	9 10	Fire Dept Key Switch Radio Receiver +	In Out	Dry 24Vdc	Harness
J2	10 Pins	Omni Option Board	Out	24Vdc	Omni Option Board Input
J3	1	Limit Switch Red N.O.	Out	0V	
J3	2	Motor White	Out		
J3 J3	3 4	Normally Closed (No Wire) Motor Black	In Out	5 or 0Vdc 120Vac	Motor(s),
J3	5	Limit Switch Brown Com	In	OV	Limit Switches,
J3	6	Motor Red	In	5 or OVdc	Maglock/Solenoid
J3 J3	7 8	Purple Com Blue N.O.	In	0V 5 or 0Vdc	Harness
J3 J3	8 9	Limit Switch Yellow Com	ln In	5 or Uvac OV	
J3	10	Limit Switch Orange N.O.	In	5 or 0Vdc	
J5	1	_	In	— D:::::	
J5 J5	2 3	Reset Switch, Interlock Red	ln In	Dry	Reset Switch and
J5	4	Reset Switch, Interlock Black	In	Dry	Interlock Assembly
J5	5	<i>`</i> _	In		Input
J5 J5	6 7	-	ln In	_	
J6	1	UL Alarm Red	Out		
J6	2	UL Alarm Black	Out	0Vdc	UL Alarm and
J6	3 4	Safety Sensor	In	5 or OVdc	Safety Sensors
J6 J7	4	Safety Sensor Relay Adapter Red	ln In	OV 5 or OVdc	
J7	2	Relay Adapter White	In	OVdc	Relay Adapter
J7	3	Relay Adapter Black	In	0Vdc	Module Input
3L J8	1 2	Plug-In Exit Loop Wire Plug-In Exit Loop Wire	In In	2 to 10Vdc 2 to 10Vdc	
J8	3	Plug-In Safety Loop Wire	In	2 to 10Vdc	Plug-In Loop
J8	4	Plug-In Safety Loop Wire	In	2 to 10Vdc	Detector Loop Wire Inputs
8L 8L	5 6	Not Used Not Used	-	_	Loop wire inputs
J9	16 Pins	1 HP Board		_	Not Used
J10	1	G M/S Link	In/Out	0Vdc	
J10	2 3	B M/S Link	In/Out	5 or OVdc	Master/Second Link
J10 J11	3 10 Pins	A M/S Link Not Used	In/Out	5 or 0Vdc	Plug-In Loop
J12	10 Pins	Safety Loop Detector	In	5 or OVdc	Detector Inputs
J13	10 Pins	Exit Loop Detector	In	5 or OVdc	· · · · · · · · · · · · · · · · · · ·
	OmniControl ™ Surge Suppressor				
J1	1	G M/S Link (G)	In/Out	0V	Master/Second Link
J1	2	B M/S Link (B)	In/Out	5 or OVdc	Input
J1 J2	<u>3</u>	A M/S Link (A) Fire Dept. Key Switch (7)	In/Out In	<u> </u>	
J2	2	Fire Dept. Key Switch (8)	In	Dry	Radio Receiver,
J2	3	Strike Open Push Button (9)	In	5 or ÓVdc	Strike Open Push Button,
J2 J2	4 5	Strike Open Push Button (10) Radio Receiver – (11)	In In	OV OV	Fire Dept Key Switch
J2	6	Radio Receiver (12)	In	5 or 0Vdc	Inputs
J2	7	Radio Receiver + (13)	Out	24Vdc	
J3	1	Not Used	_	-	External Loop
J3 J3	2 3	Not Used Safety External Loop Detector (3)	– In	2 to 10Vdc	Detector Center,
J3	4	Safety External Loop Detector (4)	In	2 to 10Vdc	Safety, Exit Wires
J3	5	Exit External Loop Detector (5)	In	2 to 10Vdc	Input
J3	6	Exit External Loop Detector (6)	In	2 to 10Vdc	Coo diagram on provious page

WIRING DIAGRAM ● SL3000ULDM™

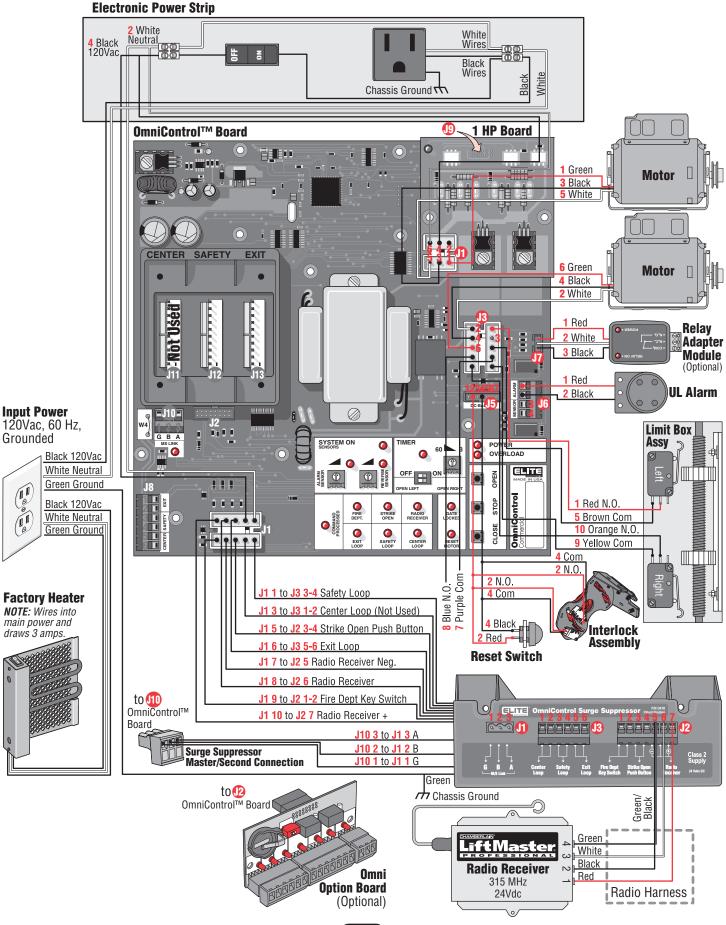


37

WIRING TABLE • SL3000ULDMTM

OmniControl™ Board					
J #	J Pin #	Signal Type	Direction	Level (+/- 10%)	Input Connection
J1	1	Safety Loop	In	5 or OVdc	External Loop Detector
J1 J1	2 3	Input Power Neutral	In _	0V	External Loop Detector Wires,
J1	3 4	Not Used Input Power 120Vac	ln –		120Vac Power,
J1	5	Strike Open	In	5 or 0Vdc	Radio Receiver,
J1	6	Exit Loop	In	5 or 0Vdc	Strike Open,
J1	7	Radio Receiver –	In	0V	Key Switch
J1 J1	8 9	Radio Receiver Fire Dept Key Switch	ln In	0V Dry	Harness
J1	10	Radio Receiver +	Out	24Vdc	Trainess
J2	10 Pins	Omni Option Board	Out	24Vdc	Omni Option Board Input
J3	1	Limit Switch Red N.O.	Out	0V	
J3 J3	2 3	Motor White	Out In	0V 5 or 0Vdc	
J3	4	Normally Closed (No Wire) Motor Black	Out	120Vac	Motor(s),
J3	5	Limit Switch Brown Com	In	OV	Limit Switches,
J3	6	Motor Red	In	5 or OVdc	Maglock/Solenoid
J3	7	Purple Com	In	OV E an OV/da	Harness
J3 J3	8 9	Blue N.O. Limit Switch Yellow Com	ln In	5 or 0Vdc 0V	
J3	10	Limit Switch Orange N.O.	In	5 or 0Vdc	
J5	1	_	In	_	
J5	2	Reset Switch, Interlock Red	In	Dry	Reset Switch and
J5 J5	3 4	– Reset Switch, Interlock Black	ln In	_ Dry	Interlock Assembly
J5	5		In		Input
J5	6	_	In	_	
	7		In	-	
J6 J6	1 2	UL Alarm Red	Out Out	24Vdc 0Vdc	UL Alarm and
J6	3	UL Alarm Black Safety Sensor	In	5 or OVdc	Safety Sensors
J 6	4	Safety Sensor	In	0V	
J7	1	Relay Adapter Red	In	5 or 0Vdc	Relay Adapter
J7 J7	2 3	Relay Adapter White	In	0Vdc 0Vdc	Module Input
 	3 1	Relay Adapter Black Plug-In Exit Loop Wire	ln In	2 to 10Vdc	•
J8		Plug-In Exit Loop Wire	In	2 to 10Vdc	Plug-In Loop
J8	2 3 4	Plug-In Safety Loop Wire	In	2 to 10Vdc	Detector
۶L J8	4	Plug-In Safety Loop Wire	In	2 to 10Vdc	Loop Wire Inputs
J8	5 6	Not Used Not Used	_	_	
J9	16 Pins	1 HP Board	_	_	Not Used
J10	1	G M/S Link	In/Out	OVdc	
J10 J10	2 3	B M/S Link A M/S Link	In/Out In/Out	5 or OVdc 5 or OVdc	Master/Second Link
J11	10 Pins	Not Used			
J12	10 Pins	Safety Loop Detector	In	5 or 0Vdc	Plug-In Loop Detector Inputs
J13	10 Pins	Exit Loop Detector	In	5 or OVdc	Detector inputs
		OmniContr	ol™ Surge Sup	pressor	
J1	1	G M/S Link (G)	In/Out	OV	Master/Second Link
J1	2	B M/S Link (B)	In/Out	5 or OVdc	Input
J1	3	<u>A M/S Link (A)</u>	In/Out	5 or OVdc	input
J2 J2	1 2	Fire Dept. Key Switch (7) Fire Dept. Key Switch (8)	l In In	Dry Dry	Radio Receiver,
J2	3	Strike Open Push Button (9)	In	5 or OVdc	Strike Open Push Button,
J2	4	Strike Open Push Button (10)	In	0V	Fire Dept Key Switch
J2	5	Radio Receiver – (11)	In	OV For OVdo	Inputs
J2 J2	6 7	Radio Receiver (12) Radio Receiver + (13)	In Out	5 or 0Vdc 24Vdc	
J3	1	Not Used	-	<u> </u>	
J3	2	Not Used	-		External Loop
J3	3	Safety External Loop Detector (3)	In	2 to 10Vdc	Detector Center,
J3 J3	4	Safety External Loop Detector (4) Exit External Loop Detector (5)	ln In	2 to 10Vdc 2 to 10Vdc	Safety, Exit Wires
J3	5 6	Exit External Loop Detector (5)	In	2 to 10Vdc 2 to 10Vdc	Input
			38		See diagram on previous page.
				NUTE. C	ing angrann on previous paye.

WIRING DIAGRAM ● SL3000UL1HP™

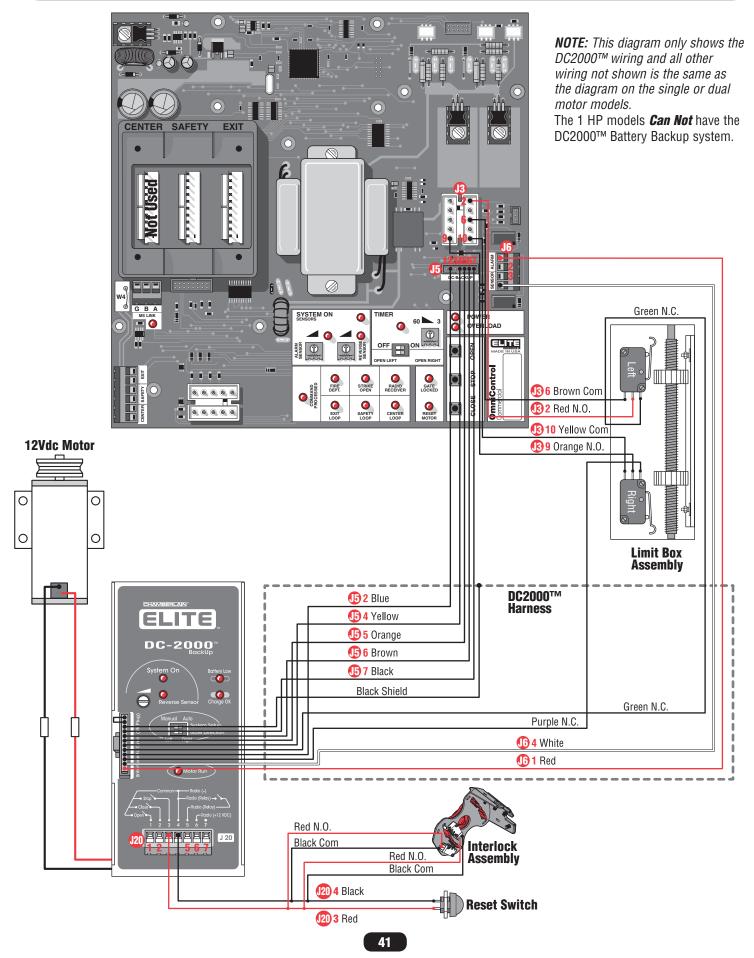


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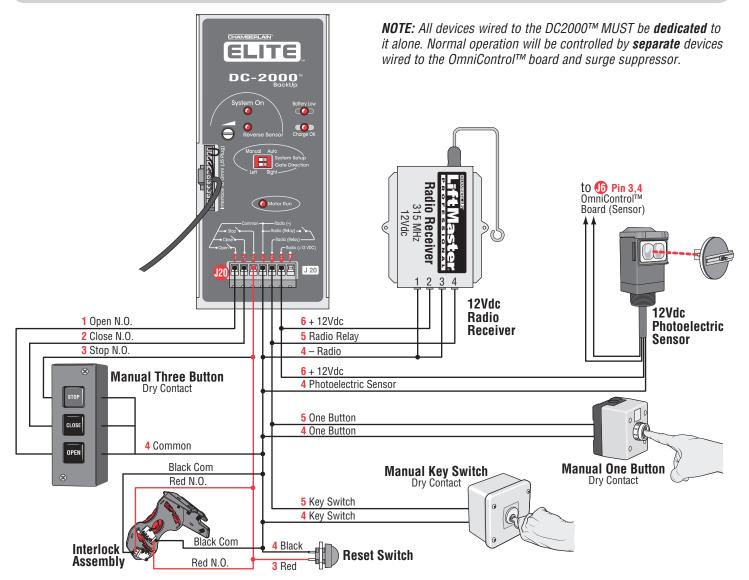
WIRING TABLE • SL3000UL1HPTM

OmniControl™ Board					
J #	J Pin #	Signal Type	Direction	Level (+/- 10%)	Input Connection
J1	1	Safety Loop	In	5 or 0Vdc 0V	External Loop Detector
J1 J1	2 3	Input Power Neutral Not Used	In —		Wires,
J1	4	Input Power 120Vac	In	120Vac	120Vac Power,
J1	5	Strike Open	In	5 or 0Vdc	Radio Receiver,
J1	6	Exit Loop	In	5 or 0Vdc	Strike Open,
J1 J1	7 8	Radio Receiver – Radio Receiver	ln In	OV OV	Key Switch
J1	9	Fire Dept Key Switch	In	Dry	Harness
J1	10	Radio Receiver +	Out	24Vdc	
J2 J3	10 Pins 1	Omni Option Board Limit Switch Red N.O.	Out In	24Vdc 5 or 0Vdc	Omni Option Board Input
J3	2		_	5 01 0 0 0 0	
J3	3	Normally Closed (No Wire)	In	5 or 0Vdc	
J3	4		— In		Limit Switches,
J3 J3	5 6	Limit Switch Brown Com	In —	0V	Maglock/Solenoid
J3	7	Purple Com	In	0V	Harness
J3	8	Blue N.O.	In	5 or 0Vdc	
J3	9	Limit Switch Yellow Com	In	OV E an OV	
J3 J5	<u>10</u>	Limit Switch Orange N.O.	ln In	5 or 0Vdc	
J5	2	Reset Switch, Interlock Red	In	Dry	Deart Outlink
J5	3	_	In		Reset Switch and
J5 J5	4 5	Reset Switch, Interlock Black	ln In	Dry	Interlock Assembly Input
J5 J5	5 6	_	In	_	
J5	7	_	In	_	
J6	1	UL Alarm Red	Out	24Vdc	LLL Alarm and
J6 J6	2 3	UL Alarm Black Safety Sensor	Out In	0Vdc	UL Alarm and Safety Sensors
J6	4	Safety Sensor	İn	5 or 0Vdc	Dalety Delisers
J7	1	Relay Adapter Red	In	5 or 0Vdc	Relay Adapter Module
J7 J7	2 3	Relay Adapter White	ln In	0Vdc	Input
J8	3 1	Relay Adapter Black Plug-In Exit Loop Wire	In	0Vdc 2 to 10Vdc	
J8	2	Plug-In Exit Loop Wire	In	2 to 10Vdc	Plug-In Loop Detector
J8	3	Plug-In Safety Loop Wire	ln	2 to 10Vdc	Loop Wire Inputs
3L J8	4 5	Plug-In Safety Loop Wire Plug-In Center Loop Wire	ln In	2 to 10Vdc	
J8	6	Plug-In Center Loop Wire	In	2 to 10Vdc 2 to 10Vdc	
J9	16 Pins	1 HP Board	<u>ln</u>	120Vac	1 HP Board Input
J10 J10	1	G M/S Link	In/Out	0Vdc	Master/Second Link
J10	2 3	B M/S Link A M/S Link	In/Out In/Out	5 or 0Vdc	
J11	10 Pins	Not Used		5 or 0Vdc	Plug-In Loop Detector
J12	10 Pins	Safety Loop Detector	In	5 or 0Vdc	Inputs
J13	10 Pins	Exit Loop Detector	In	5 or OVdc	
			1 HP Board	Γ	
J1 J1	1	Motor Red Motor Black	Out Out	0V 120Vac	
J1	2 3	Motor White Neutral	Out	OV	2 Motors Input
J1	4	_	-	_	
J1	5	Motor Black	Out	120Vac	
J1	6	Motor White Neutral	Out	0V	
			ol™ Surge Sup	pressor	
J1 J1	1 2	G M/S Link (G) B M/S Link (B)	In/Out In/Out	0V 5 or 0Vdc	Master/Second Link
J1	3	A M/S Link (A)	In/Out	5 or 0Vdc	Input
J2	1	Fire Dept. Key Switch (7)	In	Dry	
J2	2	Fire Dept. Key Switch (8)	In	Dry 5 or 0Vdc	Radio Receiver,
J2 J2	3 4	Strike Open Push Button (9) Strike Open Push Button (10)	ln In		Strike Open Push Button,
J2	5	Radio Receiver – (11)	In	0V	Fire Dept Key Switch
J2	6	Radio Receiver (12)	In	5 or 0Vdc	Inputs
J2 J3	7	Radio Receiver + (13) Not Used	Out	24Vdc	
J3	2	Not Used	_	_	External Loop
J3	3	Safety External Loop Detector (3)	In	2 to 10Vdc	Detector Center, Safety,
J3	4	Safety External Loop Detector (4)	In	2 to 10Vdc	Exit Wires
J3 J3	5 6	Exit External Loop Detector (5) Exit External Loop Detector (6)	In	2 to 10Vdc	Input
	, v		In	2 to 10Vdc	

WIRING DIAGRAM ● DC2000[™] FOR SINGLE AND DM



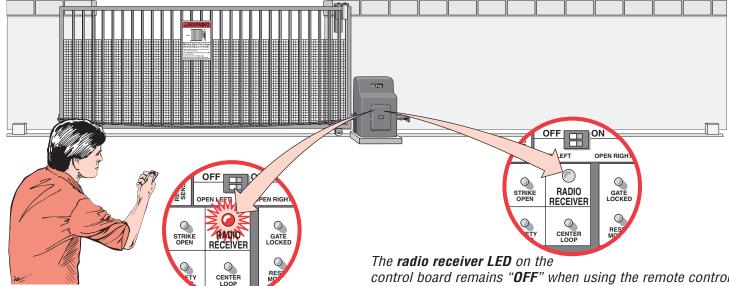
WIRING TABLE ● DC2000™



J #	J Pin #	Signal Type	Direction	Level (+/- 10%)	Input Connection
J20	1	Open N.O.	Out	5 or 0Vdc	
J20	2	Close N.O.	Out	5 or 0Vdc	• Manual Three Button (Dry)
J20	3	Stop N.O. Reset Switch	Out	5 or OVdc	Reset Switch
J20	4	Common Radio – Radio Relay Reset Switch/Interlock Assembly	Out	OV	 Manual One Button (Dry) Key Switch (Dry) Radio Receiver Reset Switch/Interlock Assy
J20	5	One Button Key Switch Radio Relay	Out	0V	Manual One Button (Dry) Key Switch (Dry) Radio Receiver
J20	6	Radio + 12Vdc Photoelectric Sensor + 12Vdc	Out	12 or 0Vdc	Radio Receiver 12Vdc Photoelectric Sensor 12Vdc
J20	7	_	_	_	-

Troubleshooting

The Gate Will Not Operate with Remote:



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

- 1. Probable Cause: Stuck remote control button. Solution: Unstick remote control button.
- 2. Probable Cause: The radio receiver has malfunctioned in the "ON" position.

Solution: Cycle the power to the radio receiver.

Resetting Motor(s)

NOTE: Press firmly to reset thermal breaker button(s). A long slotted screwdriver may be needed to reach button on upper motor.

control board remains "OFF" when using the remote control.

- 1. Probable Cause: Remote control battery is dead. Solution: Replace remote control battery.
- 2. Probable Cause: The radio receiver has malfunctioned in the "OFF" position.

Solution: Cycle the power to the radio receiver.

3. Probable Cause: Radio receiver's signal is not getting to gate operator.

Solution: Check wiring between receiver and surge suppressor.

- 4. Probable Cause: Remote is not programmed correctly. **Solution:** Reprogram remote control, see page 28.
- 5. Probable Cause: Remote is not on the same frequency as the radio receiver.

Solution: Verify that remote control frequency is 315 MHz.

6. Probable Cause: Blown surge suppressor.

Solution: Measure the resistance between pin 12 and 13 on the surge suppressor (see page 14), if the circuit "closes" when the radio receiver is transmitting, replace the surge suppressor.

a 0 00 POWER OVERLOAD 0 O Q Q 0

Motor(s) need resetting when:

Reset Motor LED light flashes once. THEN

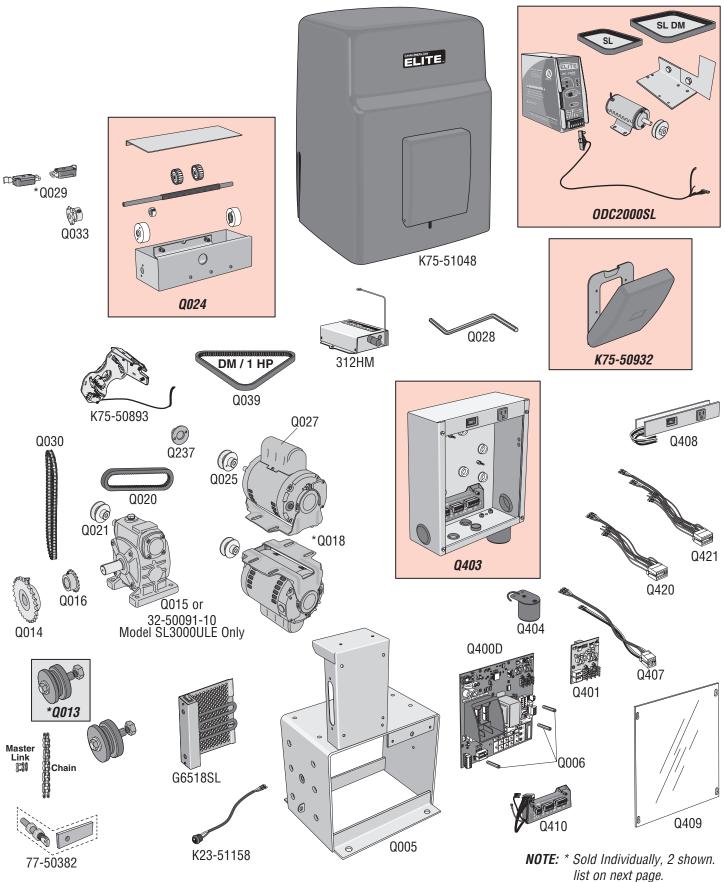
System ON LED will flash rapidly

TROUBLESHOOTING CONTINUED

Condition	Probable Causes	Solution
Overload LED ON and Power LED OFF	 Short circuit at terminals 11 and 13. Short circuit at any of the loop detectors in the board. Short circuit in the control board. 	 Remove the short circuit condition at the terminals. Remove the defective loop detector. Send the board to repair.
Overload LED ON and Power LED ON	 Excessive current draw at terminal 13. Over-voltage at the 120Vac line input. 	 Reduce the accessories load from surge suppressor terminal 13. Verify your electrical power.
System On LED Flashing	 Motor thermal fuse has popped-out (Rapid Flashing). One limit switch is faulty (Rapid Flashing). 	 Reset the motor. Test the limit switches and wire connections, fix the fault.
Reverse Sensor LED ON	 Gate has encountered an obstruction during traveling. Reverse sensor is extra sensitive 	 Remove the obstruction. Turn the reverse sensor switch counter-clockwise a little more and try again.
Alarm Sensor LED ON	 Gate encountered an obstruction during traveling. Alarm sensor is extra sensitive. 	 Remove the obstruction. Turn the alarm sensor switch counter clockwise a little more and try again.
Command Processed LED ON	1. There is a command hold active.	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	 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.	 Any re-new command will resume normal operation but not a radio command. Check for obstructions. You can stop the alarm by using the built-in reset button. You can stop the alarm by using an optional stop button.
Any Loop LED ON and No vehicle on the sensing area	 The loop detector needs to be reset. The wire loop has been disrupted. The loop detector needs to work in a different frequency. The loop detector is too sensitive. 	 Reset the loop detector (If you use Elite Plug-in Loop detectors, change the setting for sensitivity and come back to your original setting). Verify and correct connections. Set a different working frequency. Decrease the sensitivity of the loop detector.

Repair Parts

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Technical Support Group

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Tucson, Arizona 85706

REPAIR PART NAMES AND NUMBERS

Crank Housing Kit - K75-50932 - Manual Crank not Included

Power Back-Up Unit - ODC2000SL

- Drive Belt DC SL
- Drive Belt DC SL (DM)
- Back-Up Motor DC 12V
- Chassis DC Back-Up
- Hardware Kit for DC Back-Up
- Wire Harness DC2000
- Pulley DC2000 1/2 ID

Idler Pulley Assembly - Q013

- Bushing, 7/8" OD, .120" Wall x 1.950"
- Pulley, Idler, Molded Plastic, SL
- Screw, Hex, 5/8-11 x 2 3/4", Grade 5
- Nut, Hex, Jam, 5/8 -, S/Z
- Washer, Flat, 5/8", SAE, S/Z

Limit Switch Assembly - Q024

- Limit Switch Bolt
- Limit Switch Adjustment Nuts
- Limit Switch Sprocket
- Limit Switch Bearing Holder
- Collar 3/8"

Control Box Assembly - Q403

- Electronic Metal Box
- Surge Suppressor
- Audio Alarm

Hardware Kit - 77-50382

- Chain Bolt
- Chain Bracket

1941240D - Chain no. 41 (10 ft) 1940240D - Chain no. 40 (10 ft) 1941240DNP - Chain no. 41 (Nickel Plated) 1950307 - Master Link no. 41 1950310 - Master Link no. 40 K23-51158 - Reset Switch Assembly K75-50893 - Safety and Interlock Assembly G6518SL - Heater Q005 - SL-3000 Chassis Q006 - PC Board Nuts (1 Set) Q014 - Drive Sprocket Q015 - Gear Reducer 32-50091-10 - Gear Reducer (Model SL3000ULE only) Q016 - Limit Switch Drive Sprocket Q018 - 1/2 HP Electric Motor Q020 - Drive Belt Q021 - Gear Pulley Q025 - Motor Pulley Q027 - Motor Capacitor Q028 - Manual Crank Q029 - Limit Switch Q030 - Limit Switch/Chain Q039 - Drive Belt, DM and 1 HP Q237 - Crank Input K75-51048 - Cover HD Polyethylene SL Q400D - Omni Main PCB (OmniControl™) Q401 - Omni 1 HP Board Q404 - Omni Siren Q407 - Omni Motor Harness 1 HP Q408 - Omni Switch Channel Q409 - Control Box Cover Q410 - Surge Suppressor Terminal Block Q420 - Omni Motor Harness Single Motor Q421 - Omni Motor Harness DM 312HM - Radio Receiver

NOTE: Assembly Parts Number

Installation Checklist

- 1. Owner and Installer **must** read all warnings and safety precautions.
- 2. Make sure concrete mounting pad is big enough and deep enough for operator.
- 3. Operator must be securely fastened to concrete pad.
- 4. Operator chain must be 4 inch minimum from gate. Chain must not be too tight or too loose.
- 5. Gate operator should be grounded to an earth ground within 3 feet.
- 6. Verify that power is connected properly. Know where the main power disconnect is for operator(s).
- 7. Verify that the gate opens and closes as needed.
- 8. When gate hits object during operation, it **must** stop or reverse, depending on the direction gate is traveling.
- 9. Make sure that any pinch point or potential entrapment are guarded by means of safety devices or like.
- 10. Warning placards need to be permanently mounted on **both** sides of gate(s).
- **11.** Test all additional equipment connected to operator.
- 12. Make sure all wire connections are **securely** fastened.
- 13. Review typical maintenance on operator.
- 14. Schedule periodic maintenance on operator by qualified service technician.
- 15. Inquire about manufacturer's "operator warranty". (Warranty card included with operator.)
- 16. Inquire about separate "installation warranty" with installer.

Installer Company Name, Address and Phone Number

Date of installation:

Warranty Policy

7 YEAR RESIDENTIAL / 5 YEAR COMMERCIAL SL3000UL™ LIMITED WARRANTY

The Chamberlain Group, Inc. ("Seller") warrants to the first purchaser of this product, for the structure in which this product is originally installed, that it is free from defect in materials and/or workmanship for a period of 7 year residential/ 5 year commercial from the date of purchase [and that the SL3000UL[™] is free from defect in materials and/or workmanship for a period of 7 year residential/ 5 year commercial from the date of purchase]. The proper operation of this product is dependent on your compliance with the instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this limited warranty in its entirety.

If, during the limited warranty period, this product appears to contain a defect covered by this limited warranty, call **1-800-528-2806**, toll free, before dismantling this product. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product returned for warranty repair. Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

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