

High Traffic Commercial Swing Gate Operator

#### 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) -
- F) 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.
- G) All warning signs and placards must be installed where visible in the area of the gate.

- H) 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,
  - Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle trips the sensor while the gate still moving, and
  - 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.
- I) For a gate operator utilizing a contact sensor such as an edge sensor:
  - One or more contact sensors shall be located at the leading edge, trailing edge and postmounted 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 hardwired 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.

#### 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.
- 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.

**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.



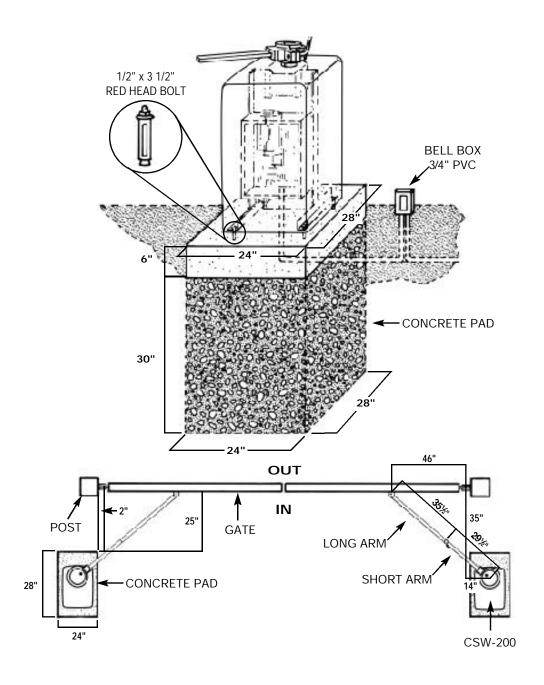


Commercial/General access vehicular gate operator – Class III – A vehicular gate operator (or system) intended for use in a industrial location or building such as a factory or loading dock area or other locations not intended to service the general public.

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.



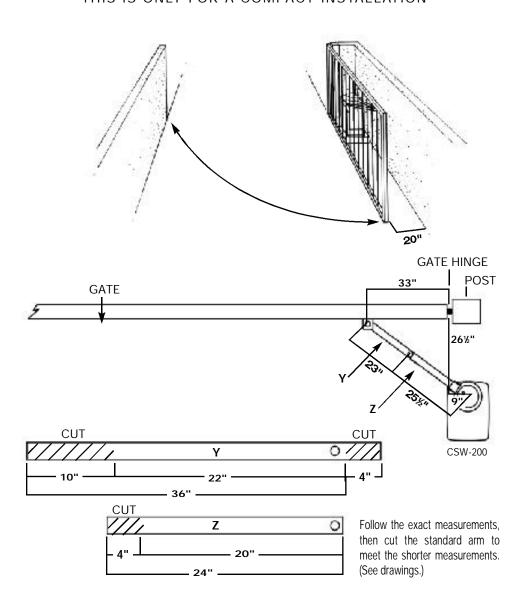
#### CONCRETE PAD AND GATE ATTACHMENT



### COMPACT INSTALLATION

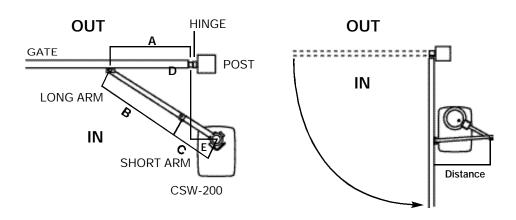
#### COMPACT INSTALLATION ONLY:

DO NOT USE THESE MEASUREMENTS FOR A STANDARD INSTALLATION. THIS IS ONLY FOR A COMPACT INSTALLATION



### REGULAR INSTALLATION

#### STANDARD INSTALLATION IS SHOWN ON PAGE 6



Distances (A) thru (E) are from the center of one pivot point to the center of another pivot point.

SUGGESTION: If the gate is longer than 18 feet, follow chart A: A-2.

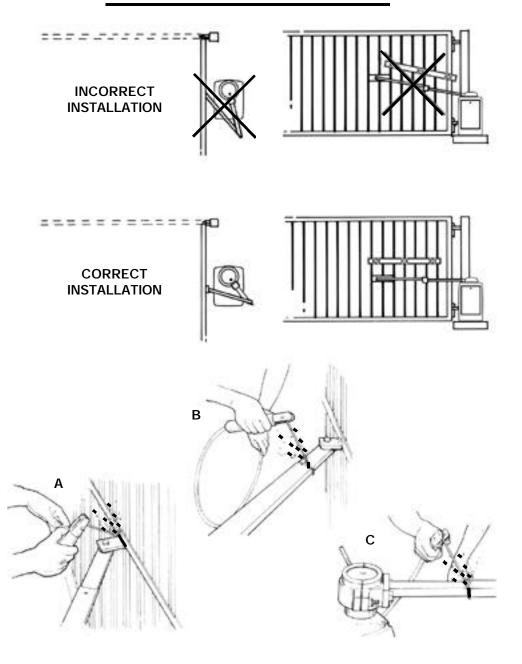
**CAUTION:** The distance between the gate and the concrete bed is always 10 inches less than distance D.

**EXAMPLE:** D = 42", if the distance between the gate and concrete bed is 32".

	<u>CHART A</u>					
	Α	В	С	D	Ε	Distance
1	46"	35½"	29½"	35"	11"	45"
2	46¾"	35½"	33½"	42"	11"	37"
3	46¾"	35½"	31½"	40"	11"	41"
4	471/4"	37¼"	30"	37"	11"	45"
5	47"	35"	29½"	32"	11"	45"
6	42½"	33"	26½"	28½"	11"	41"

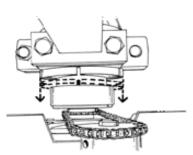
	<u>CHART B</u>					
	Α	В	С	D	E	Distance
1	34½"	35¾"	29½"	35"	14"	43"
2	44"	36½"	32½"	42"	14"	32"
3	44"	37"	30½"	40"	14"	40"
4	45"	37"	30½"	37"	14"	43"
5	44¾"	35¾"	29½"	32"	14"	44"
6	41"	39"	27½"	28½"	14"	41"

### GATE ARM INSTALLATION

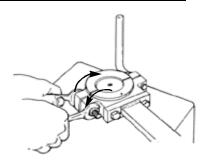


Once the gate arm measurements are calculated, weld the bracket on the gate. Weld the longer arm first, then weld the shorter arm. Make sure around the tube is welded completely.

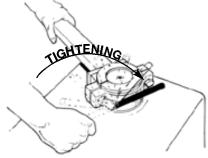
### ADJUSTMENT OF OUTPUT SHAFT



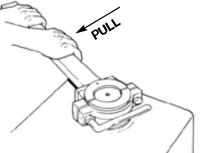
1. Make sure the pin fits in the notch as shown above.



Place the red handle in 90° position.
 By tightening the nut you will be able to adjust the clutch.

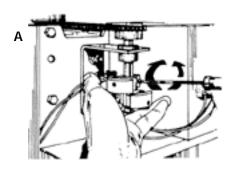


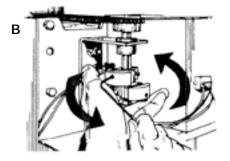
3. Place the red handle back in its original position.



4. Pull the short arm away from the gate. Make sure slipping does not occur, if it does, then repeat step no. 2 & 3.

### ADJUSTING GATE TRAVELING DISTANCE

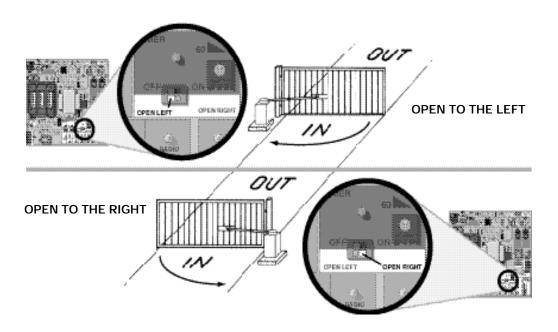




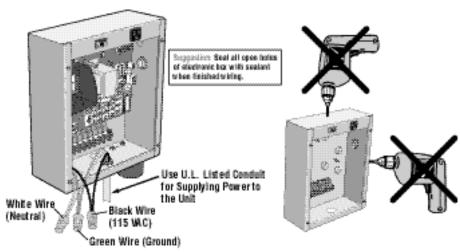
A. Release the red handle and open the gate to a distance desired. Loosen the bolt (as shown in picture "A"). Turn plastic part until the half moon shape hits the limit switch. For closing cycle, do the same.

B. For a more precise adjustment, you may use the set screw (picture "B").

#### CHOOSING MOVEMENT DIRECTION



### **HOW TO CONNECT POWER (120V)**

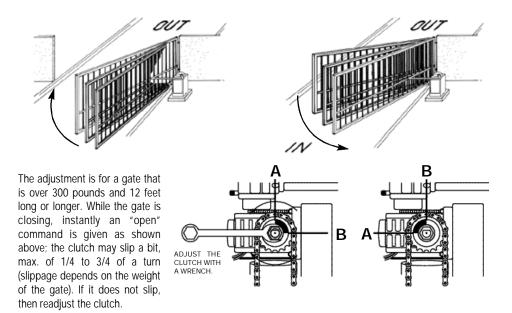


WIRE GUAGE REQUIREMENT FOR 115 VAC POWER SUPPLY: 1/2 HP AND DUAL MOTOR ONLY

16 Gauge	14 Gauge	12 Gauge	10 Gauge	8 Gauge	4 Gauge
15 Feet	250 Feet	400 Feet	650 Feet	1888 Feet	2200 Feet

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### **CLUTCH ADJUSTMENT**



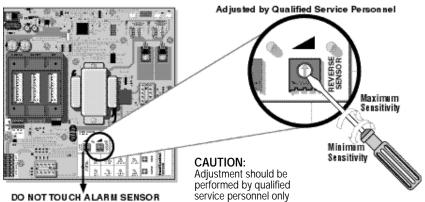
#### **IMPORTANT!**

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





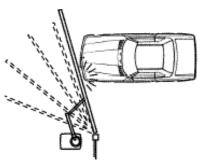
#### TWO-WAY ADJUSTABLE REVERSING SENSOR



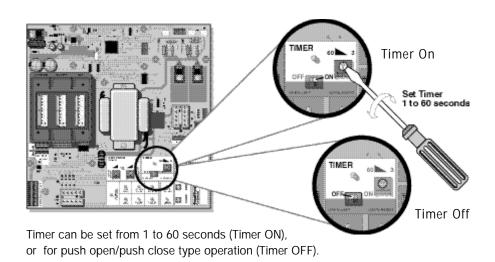
The level of sensitivity has to do with the weight of the gate and the condition of installation.

Too sensitive = if the gate stops or reverses by itself. Not sensitive enough = if the gate hits an object and does not stop or reverse.

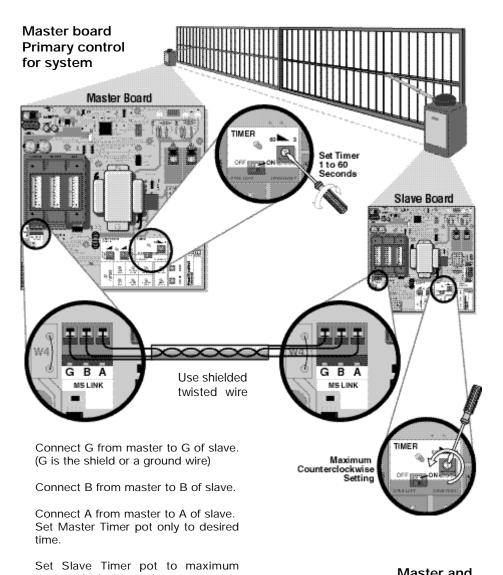
**CAUTION:** If the power supply to the gate operator is less than 99 volts, adjust the alarm by turning the alarm adjustment clockwise enough to actuate the alarm when obstructed but not sensitive enough for false triggering to occur.



#### **ADJUSTABLE TIMER**



#### MASTER AND SLAVE WITH TIMER ON

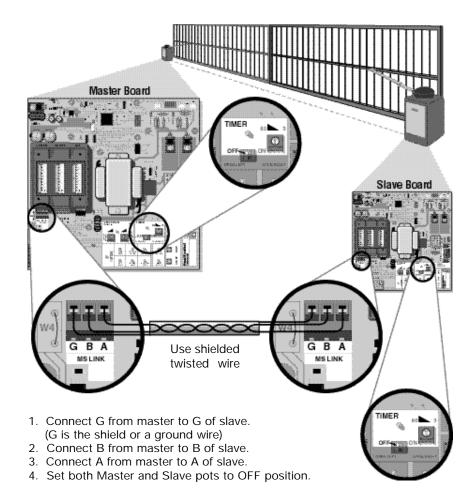


Master timer must be on.

counterclockwise setting.

Master and Slave boards are interchangeable

#### MASTER AND SLAVE WITH TIMER OFF

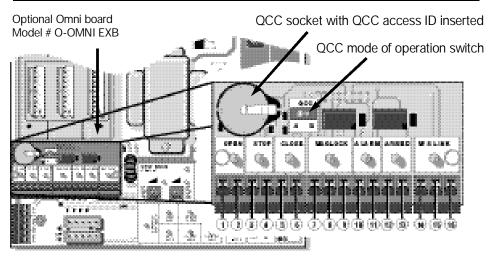


#### PARTIAL MASTER/INDIVIDUAL CONTROL

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.
- 4. Connect the fire department switch to both entry and exit gates.

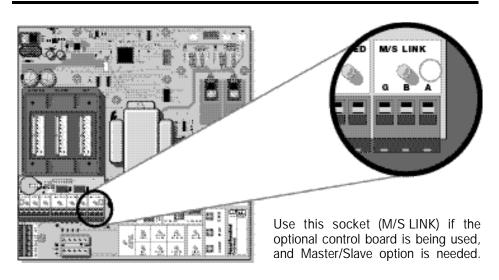
#### INSTRUCTIONS FOR OPTIONAL SYSTEMS



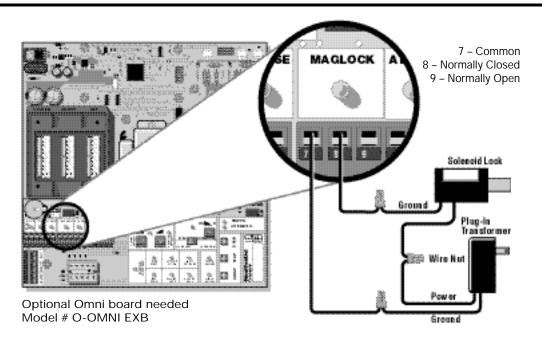
#### QCC IS DESIGNED FOR SLIDE GATE OPERATORS ONLY!

1 & 2	- Open Command		- Burglar Alarm Output
3 & 4	- Stop Command	12 & 13	- Burglar Alarm Input
5 & 6	- Close Command	14	- Ground 🔍
7	- Common \ Maglock	15	- B Master/Slave
8	- Normally Closed > or	16	- A RS485
9	- Normally Open / Solenoid		

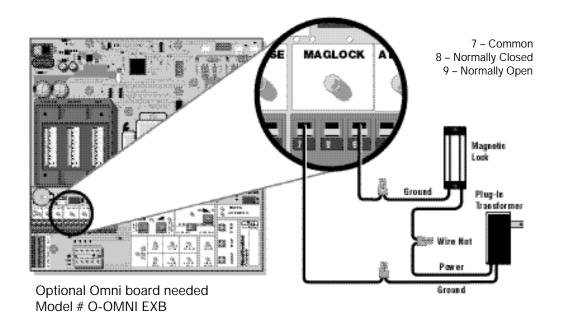
#### MASTER/SLAVE WITH OPTIONAL BOARD



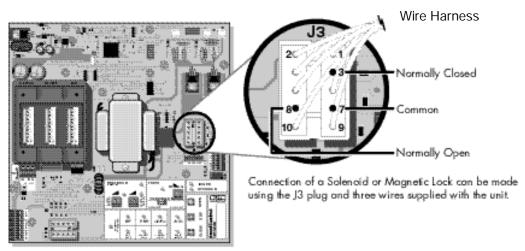
### SOLENOID CONNECTION WITH OPTIONAL BOARD

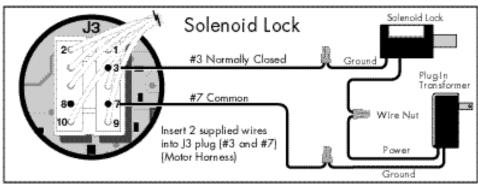


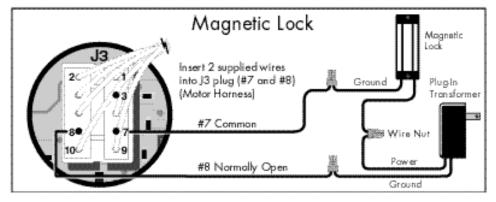
### MAGLOCK CONNECTION WITH OPTIONAL BOARD



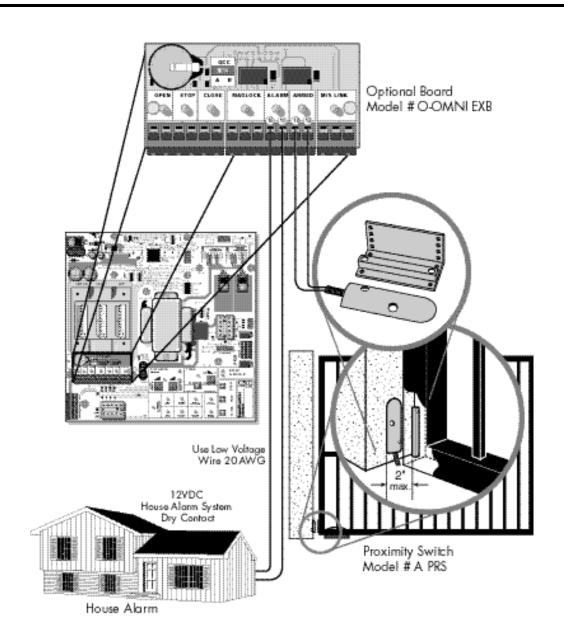
#### SOLENOID/MAGLOCK J3 CONNECTION



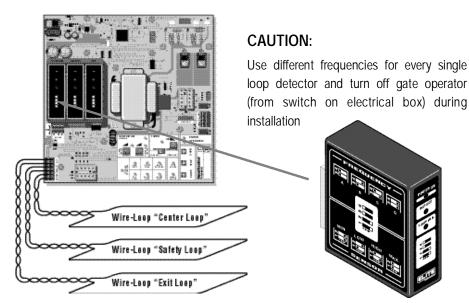




#### HOUSE ALARM/PROXIMITY SWITCH CONNECTIONS

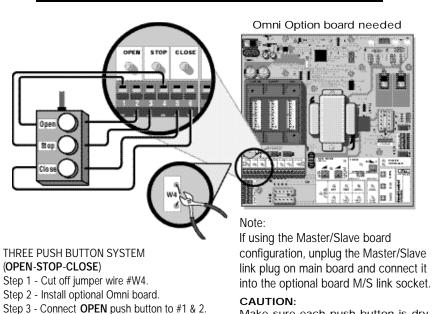


#### OPTIONAL BUILT-IN LOOP DETECTORS



Elite Loop detectors (Model # ELD) needed to do this function.

#### THREE PUSH BUTTON STATION

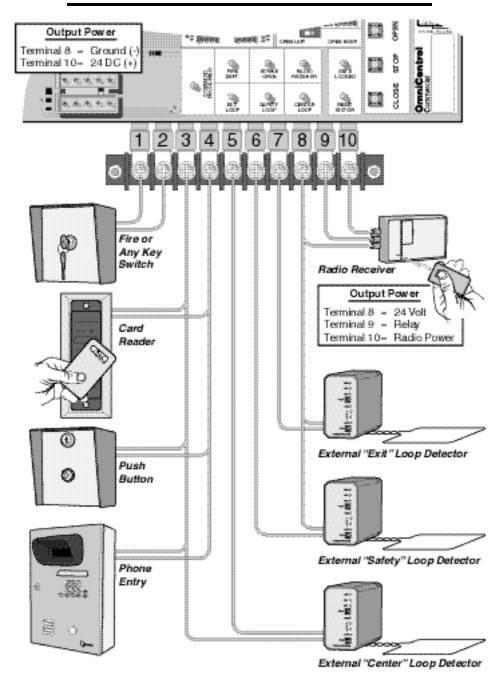


Step 4 - Connect STOP push button to #3 & 4.

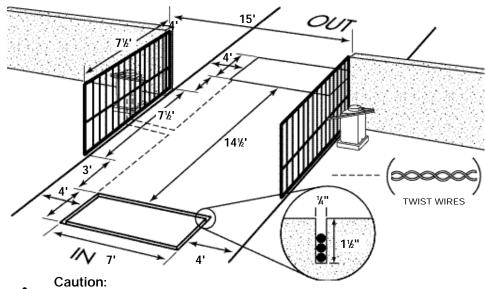
Step 5 - Connect CLOSE push button to #5 & 6.

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

### TERMINAL INPUT CONNECTIONS



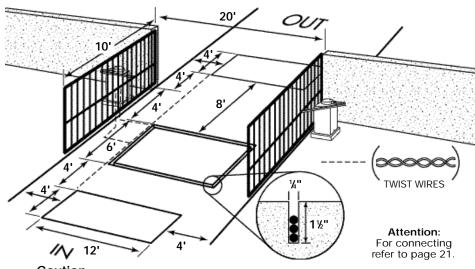
### SAFETY LOOP SYSTEM





Suggested for vehicles 14 feet long or longer. If a vehicle is shorter, a center loop system is recommended and should be installed.

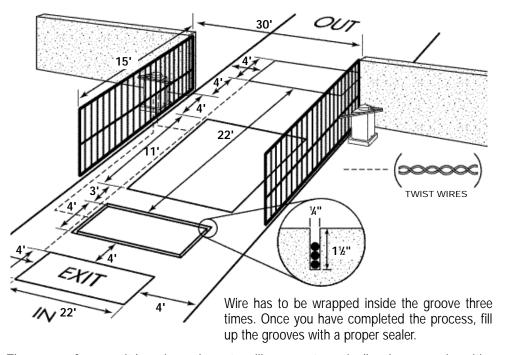
#### CENTER LOOP SYSTEM



#### Caution:

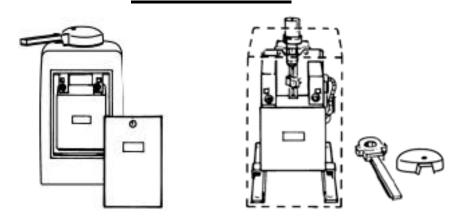
This option is for all vehicles including ones less than 14' long. This system requires two loop detectors.

### EXIT LOOP SYSTEM



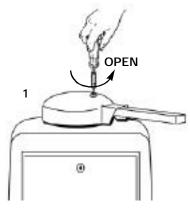
The reason for an exit loop is so the gate will open automatically when a car is exiting.

### ACCESS DOOR



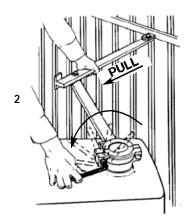
**Access Door** - Plenty of space is allowed for loop detector and radio receiver. In order to have a stronger attachment, use Velcro on the loop detector.

#### **EMERGENCY RELEASE**

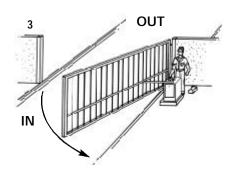


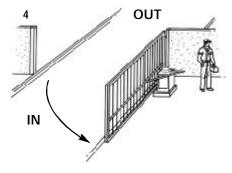
#### OPTIONAL SAFETY BOLT

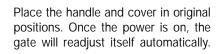
Unscrew the bolt and remove the stainless steel cover (special wrench is required).

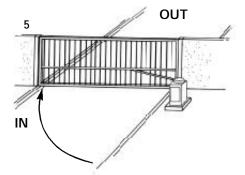


Pull the red handle as shown in the illustration; at this point, the gate is released.

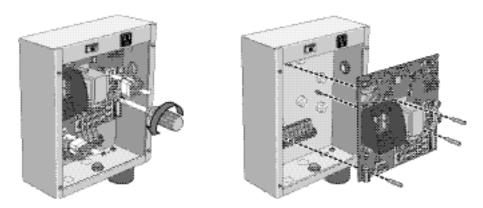








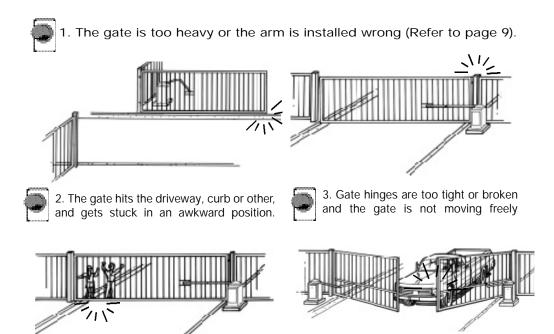
#### HOW TO REPLACE THE CONTROL BOARD



Disconnect two J-1 plug harnesses from OMNIControl board. Unscrew 3 nuts to remove board.

#### **AUDIO ALARM**

When one of the following events happen twice consecutively, an alarm will sound.



4. An object is on the gate frame while

the gate is moving.

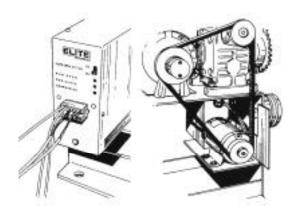
Refer to troubleshooting table.

5. The gate is moving and an object

pushes the gate.

#### OPTIONAL DC-1000U BACK UP

#### **POWER BACK-UP**



#### **OPTION A:**

In case of power failure the gate opens automatically one time and stays open. when power is restored the operator returns to normal condition.

#### **OPTION B:**

In case of power failure the gate will not open automatically until activated by a key switch or push button.

# FOR MORE DETAILS ASK YOUR LOCAL DEALER

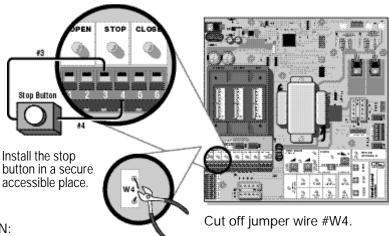
#### STOP BUTTON ALARM SHUT-OFF

FOR USE WITH OPTIONAL BOARD



This is an important command required to stop the audio alarm in case it has been triggered.

Otherwise the alarm will sound for 5 minutes and reset itself.

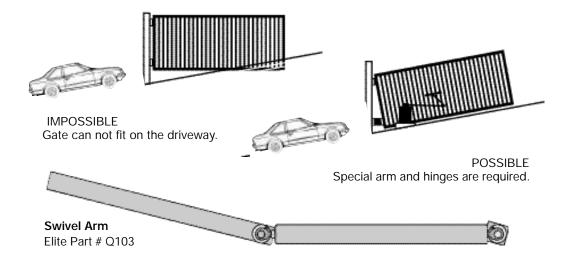


#### **USE THIS BUTTON:**

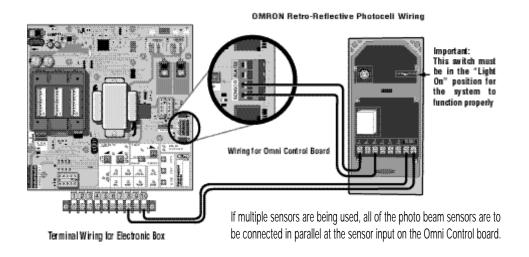
To stop movement of gate in case of potential entrapment To reset the audio alarm (check for obstructions) To stop gate operator while traveling

When using the optional board, use the STOP input to connect the stop button.

#### UPHILL DRIVE WAY INSTALLATION



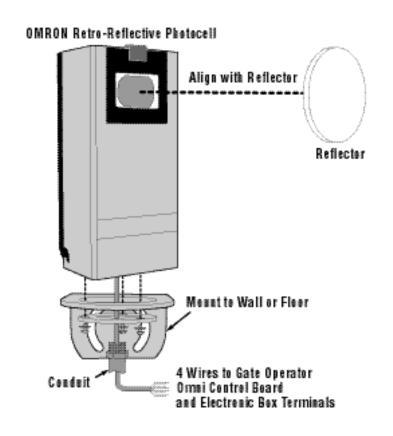
#### SECONDARY ENTRAPMENT WIRING

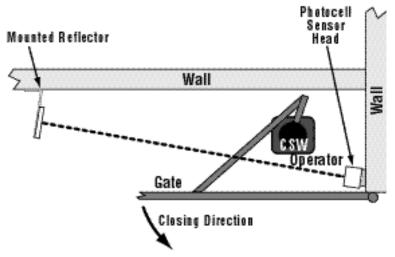


If you are going to use a non-contact sensor as a secondary entrapment protection you should use a recognized component to component to comply with the revised UL 325 intended to be use in class I or class II gate operator, like the following: OMRON Retro-Reflective Photocell, Model: E3K-R10K4-NR

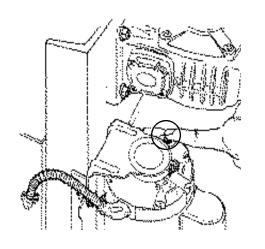
ELITE Model # A OMRON

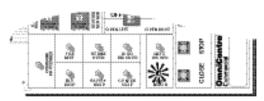
#### SECONDARY ENTRAPMENT MOUNTING



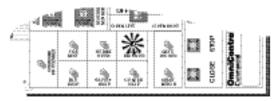


### TROUBLESHOOTING LED INFORMATION

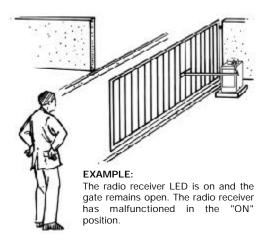


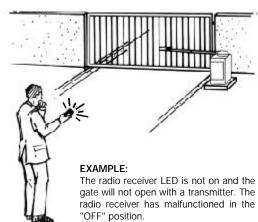


If the gate is not moving in any direction and the reset motor light is on, reset thermal breaker on the motor as directed in the picture.





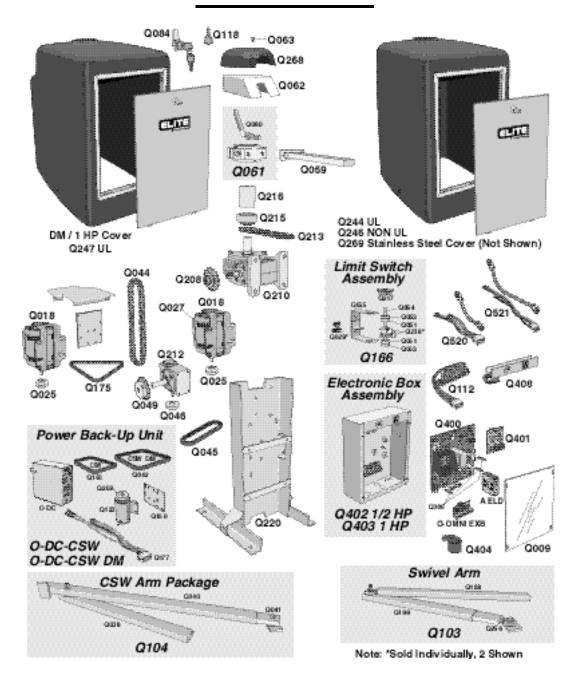




## TROUBLESHOOTING TABLE

CONDITION	POSSIBLE CAUSES	SOLUTION
OVERLOAD LED ON And POWER LED OFF	Short circuit at terminals 8 and 10     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     Sent the board to repair
OVERLOAD LED ON And POWER LED ON	Excessive current draw at terminal 10     Over-voltage at the 120 VAC line input	Reduce the accessories load from terminal 10     Verify your electrical power
SYSTEM ON LED FLASHING	One limit switch is faulty     Motor thermal fuse has pop-out	Test the limit switches and wire connections, fix the fault     Reset the motor
REVERSE SENSOR LED ON	1.Gate has encounter and obstruction during traveling     2.Reverse sensor is extra sensitive	Remove the obstruction     Turn counter-clock-wise the reverse sensor pot a bit more and try again
ALARM SENSOR LED ON	1.Gate encountered and obstruction during traveling     2.Alarm sensor is extra sensitive	1.Remove the obstruction     2. Turn counter-clock-wise the alarm sensor pot     a bit more and try again
ALARM SENSOR LED ON	1.Gate encountered and obstruction during traveling     2.Alarm sensor is extra sensitive	Remove the obstruction     Turn counter-clock-wise the alarm sensor pot a bit more and try again
COMMAND PROCESSED ON	There is a command hold active	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 BLINKING	There is a command holding the gate open	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 And COMMAND PROCESSED 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.     2. You can stop the alarm by using the stop button.
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.
ANY "LOOP LED" ON And NO VEHICLE ON THE SENSING AREA	1.The loop detector needs to be reset. 2.The wire loop has been disrupted 3.The loop detector needs to work in a different frequency 4.The loop detector is too sensitive	1.Reset the loop detector (If you use Elite Plug-in Loop detectors, change the setting for sensitivity and come back to your original setting). 2. Verify and correct connections 3.Set a different working frequency 4.Decrease the sensitivity of the loop detector

### CSW-200 PARTS



#### CSW-200 PARTS LIST

Clutch As Q061	CO60 - ARM RELEASE HANDLE CO61 - OUTPUT SHAFT CLUDGE (T)	Electronic Box Assembly Q402 1/2 HP	Q4031 HP	
Swivel Ar Q103	TO Q198 - ARM (TWO PARTS) Q266 - ADJUSTABLE SOLID METAL	Q006 - PC BOARD NUTS ( Q009 - ELECTRONIC ACCI Q018 - 1/2 HP ELECTRIC N Q019 - CONTROL BOARD	ESS PANEL IOTOR	
Q104-	Package Q038 - SHORT ARM Q040 - LONG ARM Q041 - ADJUSTABLE SOLID METAL	Q025 - MOTOR PULLEY (ID Q027 - MOTOR CAPACITO Q044 - CHAIN #50 Q045 - DRIVE BELT 1/2 HP Q046 - GEAR REDUCER P	95/8) R 4L190	
	tch Assembly  — Q029 - LIMIT SWITCH  Q051 - COLLAR 1/2 In.  Q052 - GATE ADJUSTMENT  (PLASTIC PART)  Q053 - BALL BEARING  Q054 - GATE ADJUSTMENT SHAFT  Q055 - LIMIT SWITCH HOLDER  — Q217 - SPROCKET GATE ADJUSTMENT	Q049 - SPROCKET (B50-16 Q059 - OUTPUT ARM SOLI Q062 - STAINLESS STEEL Q063 - SECURITY BOLT Q064 - EMERGENCY KEY Q112 - WIRE HARNESS-B' Q118 - KEY FOR ACCESS Q175 - BELT UL DM'1 HP Q206 - CLUTCH SET (POS Q210 - GEAR BOX - SIZE 7 Q212 - GEAR REDUCER 4	IÓ GOVER RELEASE TERMINAL BLOCK DOOR T 10/95) 0 0-30:1	
	Assembly for 1/2 Horse Motor WIRE HARNESS AND CONDUIT	Q213 - ENDLESS CHAIN # Q215 - OUTPUT SHAFT SE Q216 - OUTPUT SHAFT FO	PROCKET - 35B18 OR 70 REDUCER	
	Assembly for Dual Motor WIRE HARNESS AND CONDUIT	Q220 - CSW-200 CHASSIS Q244 - UL COVER - DM HD Q246 - NON UL COVER - D	POLYETHYLENE M HD POLYETHYLENE	
O-DC-CSW DM O-DC-C		Q247 - UL COVER - DM HD POLYETHYLENE Q268 - CLUTCH COVER - PLASTIC Q269 - STAINLESS STEEL COVER (NOT SHOWN) Q400 - OM/8 MAIN PCB Q401 - 1 HORSEPOWER BOARD® Q404 - OM/8 ALARM Q406 - ELECTRONIC POWER STRIP A ELD - LOOP DETECTOR® O-CMNI EXB - OPTIONAL BOARD®		

Mulple Parts "Q" Numbers #OMNI Control Board Accessories "Operator Serial No. and Model No. Required When Ordering

### MAINTENANCE

- 1.THE GATE AREA SHOULD BE KEPT CLEAN TO INSURE PROPER OPERATION.
- 2. MAKE SURE HINGES ARE WORKING SMOOTHLY AND LUBRICATED PROPERLY.
- 3. MAKE SURE GATE ARM IS GREASED PROPERLY.
- 4. KEEP THE COVER CLEAN.
- 5. CHECK BELT FOR CRACKING, LOOSNESS, WEAR.
- 6. CHECK GATE REVERSING SENSOR.
- 7. CHECK FOR PROPER CLUTCH ADJUSTMENT.
- 8. CHECK FOR PROPER SYNTHETIC OIL LEVEL IN UPPER GEAR BOX
- 9. FOR PARTS, REFER TO PAGE 31 AND THIS PAGE.

IF YOU NEED FURTHER ASSISTANCE, PLEASE CALL YOUR LOCAL SERVICE COMPANY.

### **AVAILABLE PRODUCTS**

