

EAGLE-II

1/2 HP SWING GATE OPERATOR EAGLE RESIDENTIAL

1/2 HP Residential Swing Gate Operator
Gate Capacity Up to 14' & 300 lbs

- State of the Art Control Board
- Smooth & Quiet Operation
- Lightning & Surge Protection



Quick-Release Lever

EAGLETM
ACCESS CONTROL SYSTEMS, INC.

WWW.EAGLEOPERATORS.COM



Table of Contents

UL Listings	Page 3
Installing the Warning Sign / Precautions	Page 5
Methods of Installation / Compact Installation	Page 6
Mounting the Secondary Entrapment / Welding Gate Arm	Page 7
Mounting Operator(s) to Concrete Pad(s)	Page 8
Selecting the Opening Direction of Gate	Page 8
Connecting the Power / Reverse / Exit Loop Installations	Page 9
Two Way Adjustable Reverse Sensors / ERD	Page 10
The Feature Selector	Page 11
Connecting Accessories	Page 12
Master & Slave Operations	Page 13
Output Connections	Page 15
Description of Inputs	Page 16
Receiver Connections	Page 17
Gate Travel Distance / Setting the Limit Switches	Page 17
Emergency Release	Page 18
Resetting the Motor	Page 18
Adjusting the Operator's Clutch	Page 18
Troubleshooting	Page 19

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UL Listings

Gate Operators Installation Instructions

- 1) Install the gate operator only when:
 - The operator is appropriate for the construction and the usage Class of the gate.
 - 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 ¼ inch (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 the open position.
 - All exposed pinch points are eliminated or guarded.
 - Guarding is supplied for exposed rollers.
- 2) The operator is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening.
- 3) 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.
- 4) The gate must be properly installed and work freely in both directions prior to the installation of the gate operator.
- 5) 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 two sequential activations of the entrapment protection device(s) must be located in the line of sight of the outdoor gate or easily accessible controls shall have a security feature to prevent unauthorized use.
- 6) All warning signs and placards must be installed where visible in the area of the gate.
- 7) For a gate operator utilizing a non-contact sensor such as a photo beam:
 - See instructions on the placement of non-contact sensor for each type of application.
 - Care shall be given to reduce the risk of nuisance tripping such as when a vehicle trips the sensor while the gate is still moving.
 - 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.
- 8) Gate operators utilizing a contact sensor such as an edge sensor:
 - One or more contact sensors shall be located at the leading edge, trailing edge, and post mounted both inside and outside of a vehicular horizontal sliding gate.
 - One or more contact sensors shall be located at the bottom edge of a vehicular lift gate.
 - One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.
 - A hardwire contact sensor shall be located and its wiring arranged so that the communication between the sensor and the gate operator is not subject to mechanical damage.
 - A wireless contact sensor such as one that transmits radio frequency (RF) signals to the gate operator for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structure, natural landscaping, or similar obstruction. A wireless contact sensor shall function under the intended end use conditions.

UL Listings

Essential Safety Procedures

WARNING - TO REDUCE THE RISK OF INJURY OR DEATH - READ AND FOLLOW ALL INSTRUCTIONS:

- Never let children operate or play with gate controls. Keep the remote control away from children.
 - Always keep people and objects away from gate while the gate is in operation. NO ONE SHOULD CROSS THE PATH OF A MOVING GATE.
 - 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.
 - Use the emergency release only when the gate is not moving. Make sure the power for the gate operator is off.
 - KEEP GATES PROPERLY MAINTAINED. Read and follow the manual. Have a qualified service person make repairs to the gate or gate hardware.
 - The entrance is for vehicles only. Pedestrians must use separate entrance.
- BE SURE TO CONTINUE TO KNOW & PRACTICE THESE INSTRUCTIONS •

UL Listings

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.

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.

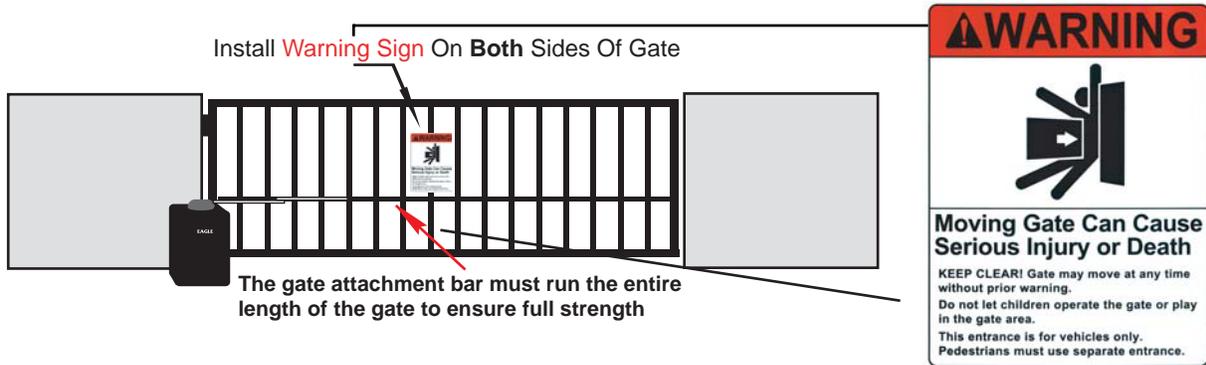
Residential vehicular gate operator - Class I - A vehicular gate operator (or system) intended for use in a home of one to four single family dwellings, or a garage or parking area associated therewith.

Commercial / General access vehicular gate operator - Class III - A vehicular gate operator (or system) intended for use in an industrial location, loading dock area, or other location not intended to service the general public.

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 buildings servicing the general public.

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

Installing the Warning Sign

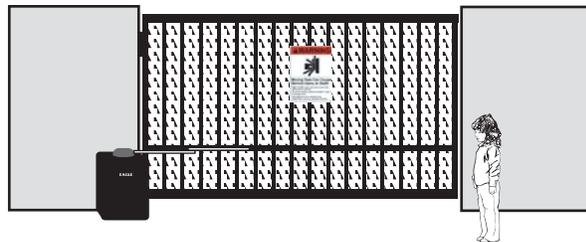


Precautions

 Eagle swing gate operators are for vehicular use only!
They are not for pedestrian use!



Regarding Ornamental Grill Styled Gates: Injuries may be avoided if a mesh or screen is installed on the gate. Injuries resulting from hands and feet becoming stuck in gate or children riding the gate while in movement, can be greatly reduced if this "screen" or "mesh" is applied to gate as a safety precaution.



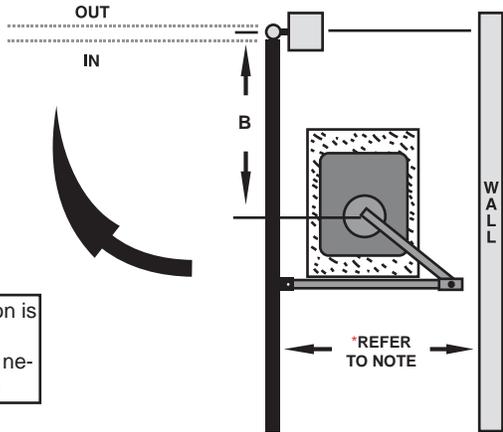
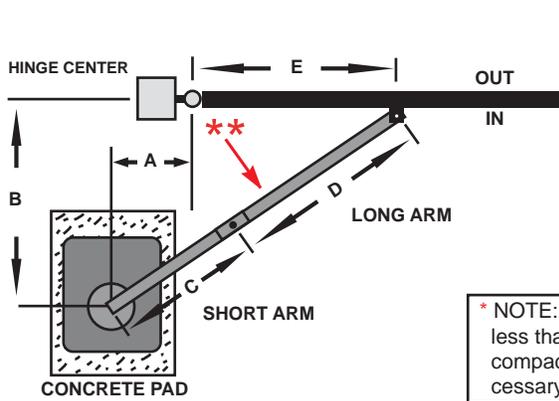
 **CAUTION!** Be sure to read and follow all the Eagle Access Control Systems, Inc. and UL instructions before installing and operating any Eagle Access Control Systems, Inc. products. Eagle Access Control Systems, Inc. is not responsible for any improper installation procedures caused by failure to comply with local building codes.

Methods of Installation



An experienced installer should perform the installation of all operators. Improper installation may result in property damage, severe injury, or death. Read entire manual before proceeding with the installation.

Installation for the Eagle-II



* NOTE: If this dimension is less than 35 inches, compact installation is necessary. (Refer below)

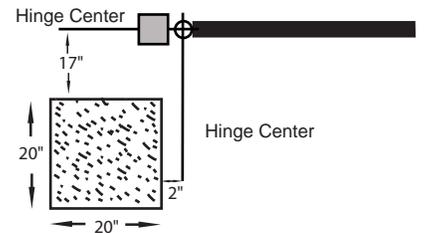
**

When gate is in fully closed position, be sure that both arms are fully **EXTENDED** and **LOCKED**

EAGLE-II

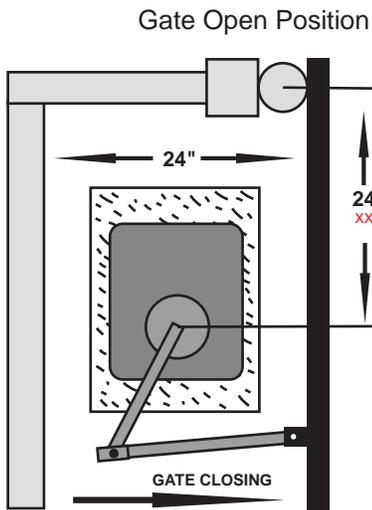
	A	B	C	D	E
STANDARD 1	11	24	28	24	36
2	11	26	29.5	25.5	37
3	11	28	31	27	38
4	11	30	32.5	28.5	39

Placement of Concrete Pad in Relation to Gate.



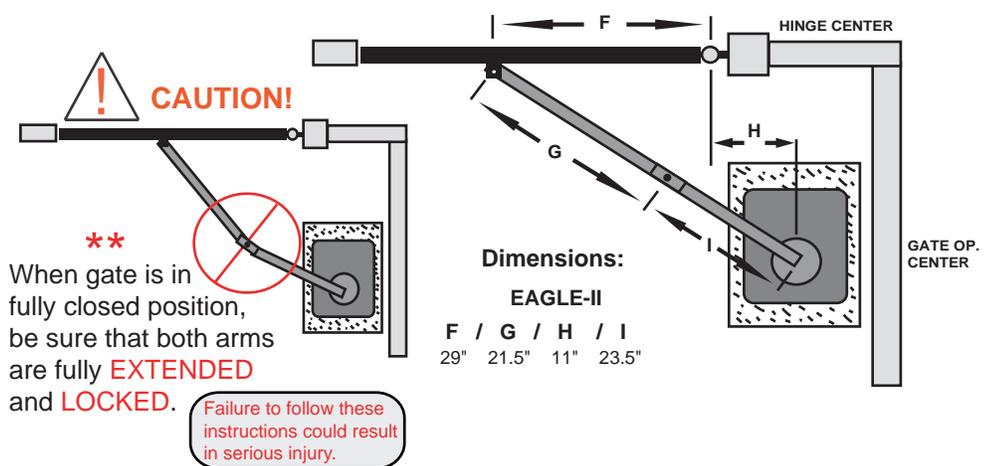
Compact Installation

The following dimensions are for **COMPACT INSTALLATIONS** only!



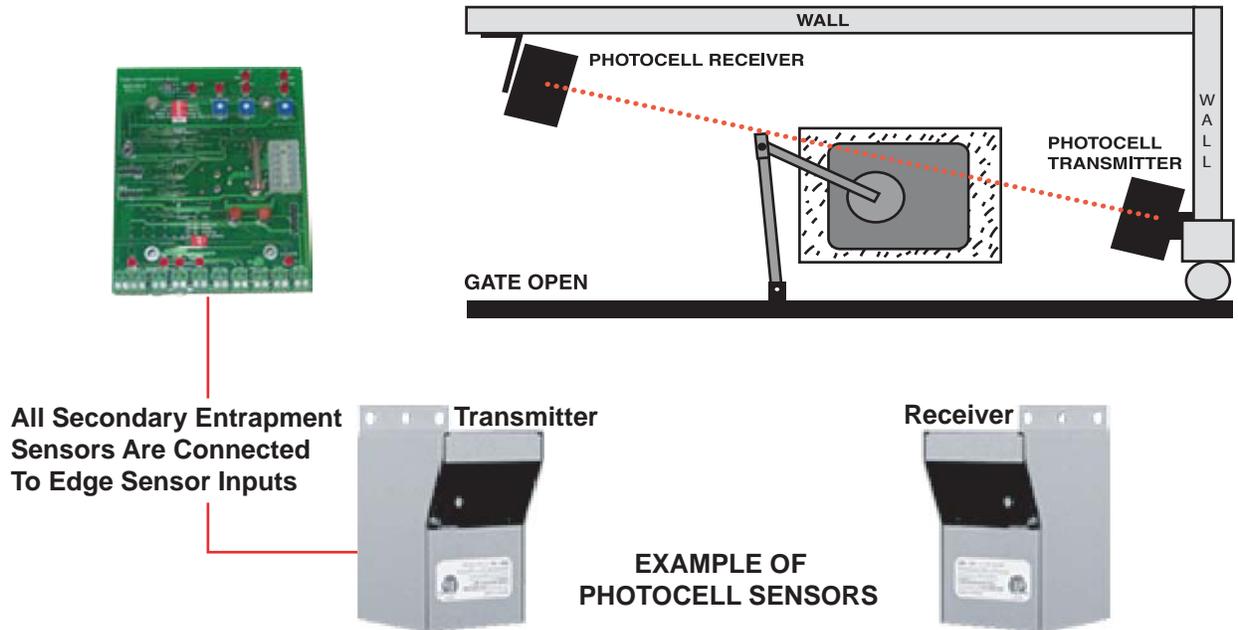
(DIAGRAMS N.T.S.)

Gate Closed Position

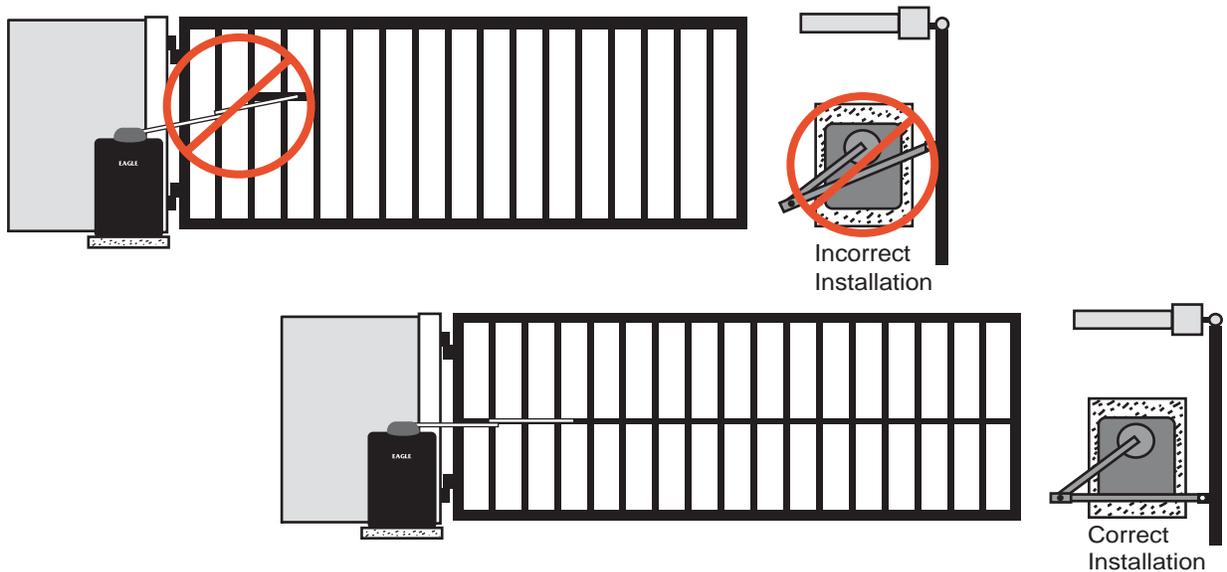


Mounting The Secondary Entrapment

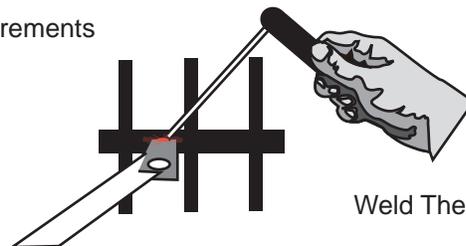
Note: Eagle Access Control Systems, Inc. recommends the installation of a photocell sensor .



Welding The Gate Arm



Once The Gate Arm Measurements Are Calculated:



Weld The Bracket On The Gate

Mounting Operator(s) To A Concrete Pad



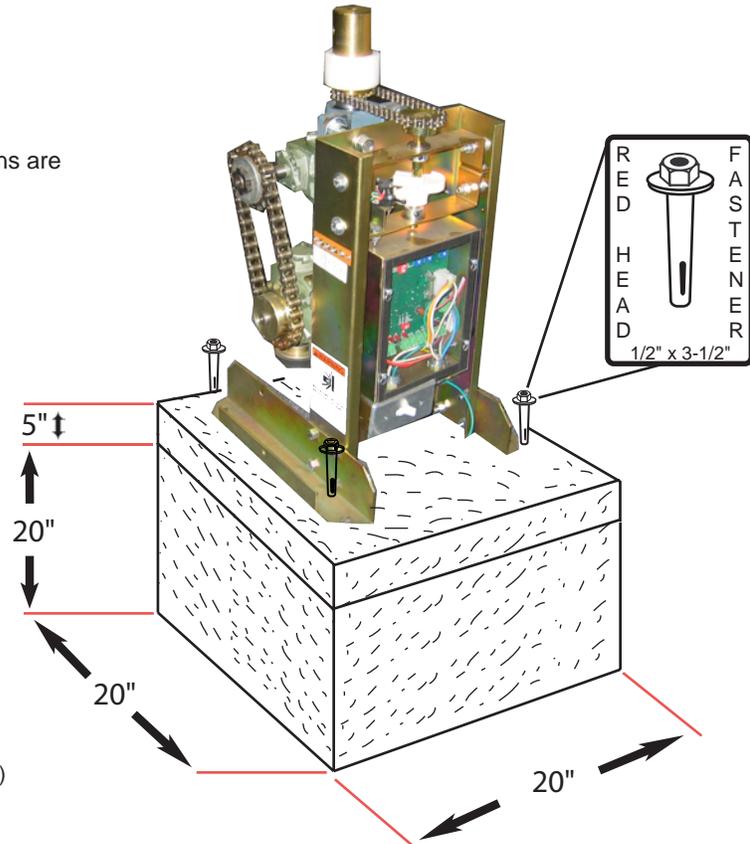
Be sure that the operator is installed in a level position and is properly secured. Improper installation could result in property damage, injury, or death.

Note:

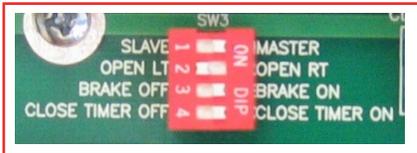
The following concrete recommendations are installation suggestions only. Please consult local codes for actual requirements in your area.

Recommended Dimensions

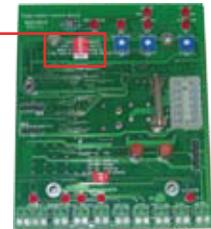
(Concrete Pad Diagram N.T.S.)



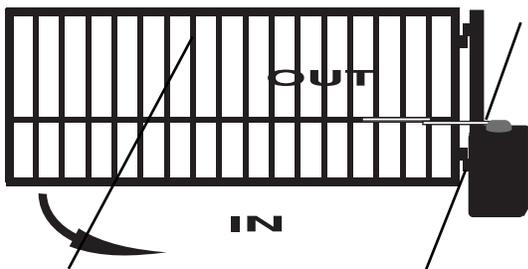
Selecting Opening Direction of Gate



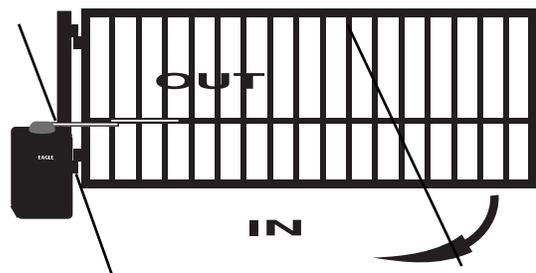
To select the opening direction of the gate, use the Feature Selector (as shown). Move switch #2 to the "open left" position for left opening. Move switch #2 to the "open right" position for right opening.



OPEN TO THE RIGHT



OPEN TO THE LEFT



Connecting The Power



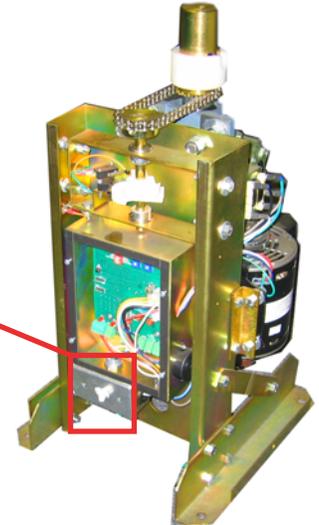
Be sure that the circuit breaker for the line input power is turned off before connecting the input power to the unit.

Connect 120 VAC, 15A, 60HZ, line input power to the wires provided in the power switch junction box located near the bottom of the operator.

Warning: Eagle Access Control Systems, Inc. is not responsible for researching and complying with local building codes. Be sure to check these codes before installation.



All units must be properly grounded



The wires are color coded as follows:

- Black - 120 VAC / Line Input Power
- White - Neutral Input
- Green - Ground Input (from an approved grounding method)

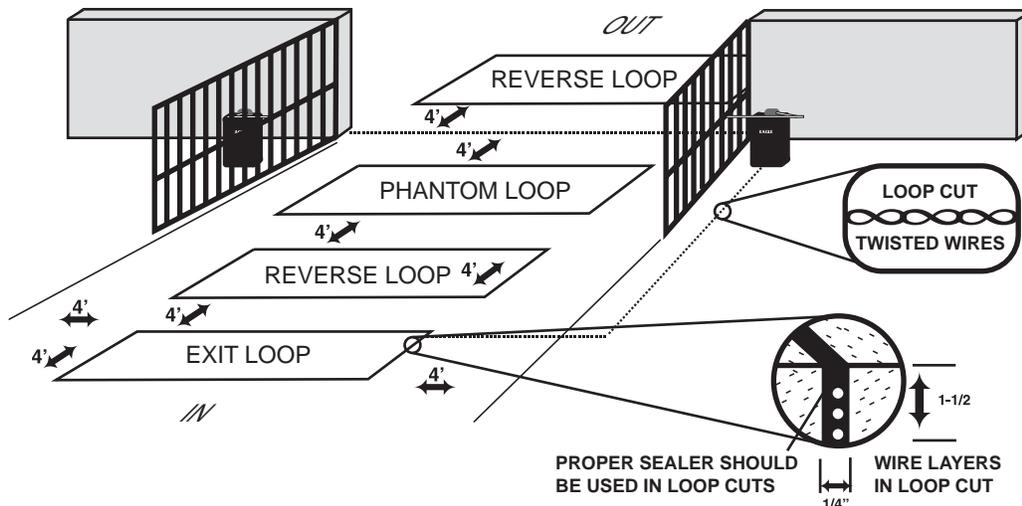
SUGGESTED WIRE

14 AWG	12 AWG	10 AWG	8 AWG	4 AWG
250 ft.	400 ft.	650 ft.	1000 ft.	2000 ft.

Reverse / Exit Loop Installation

The Purpose for a reversing loop is to prevent the gate from closing on a vehicle while it is exiting or stopped in the middle of the gate area. The purpose of the exit loop is to automatically open the gate when a vehicle approaches to exit.

Exit Loop Operation



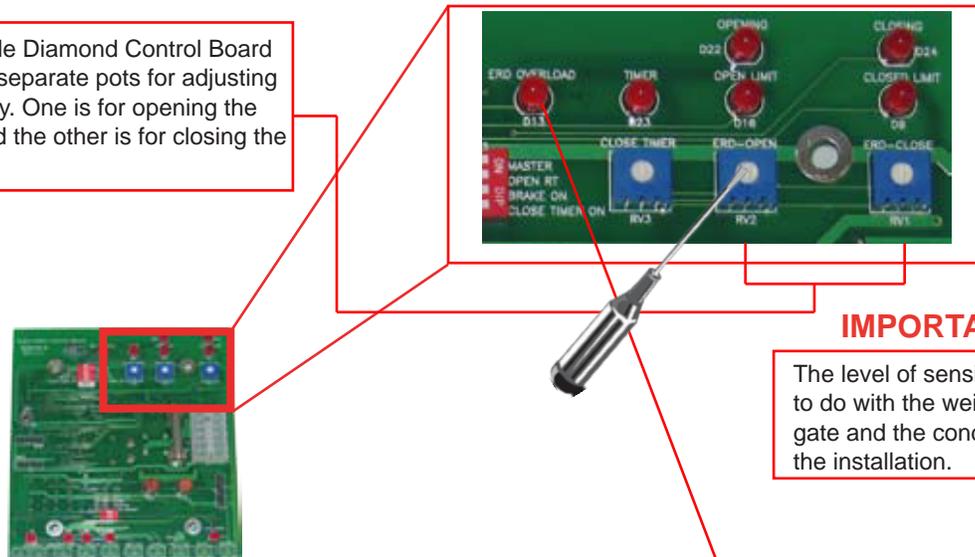
Wires must be wrapped inside the groove three times. Once you have completed the process, fill up the grooves with a proper sealant.

Two Way Adjustable Reverse Sensor / ERD



An experienced installer should make all adjustments to the sensor

The Eagle Diamond Control Board has two separate pots for adjusting sensitivity. One is for opening the gate, and the other is for closing the gate.



IMPORTANT

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

There is an LED "OVERLOAD" warning that will light up when the gate is heavier than normal for the operator. During this warning, the operator will not function properly.

When Adjusting Sensors Remember...

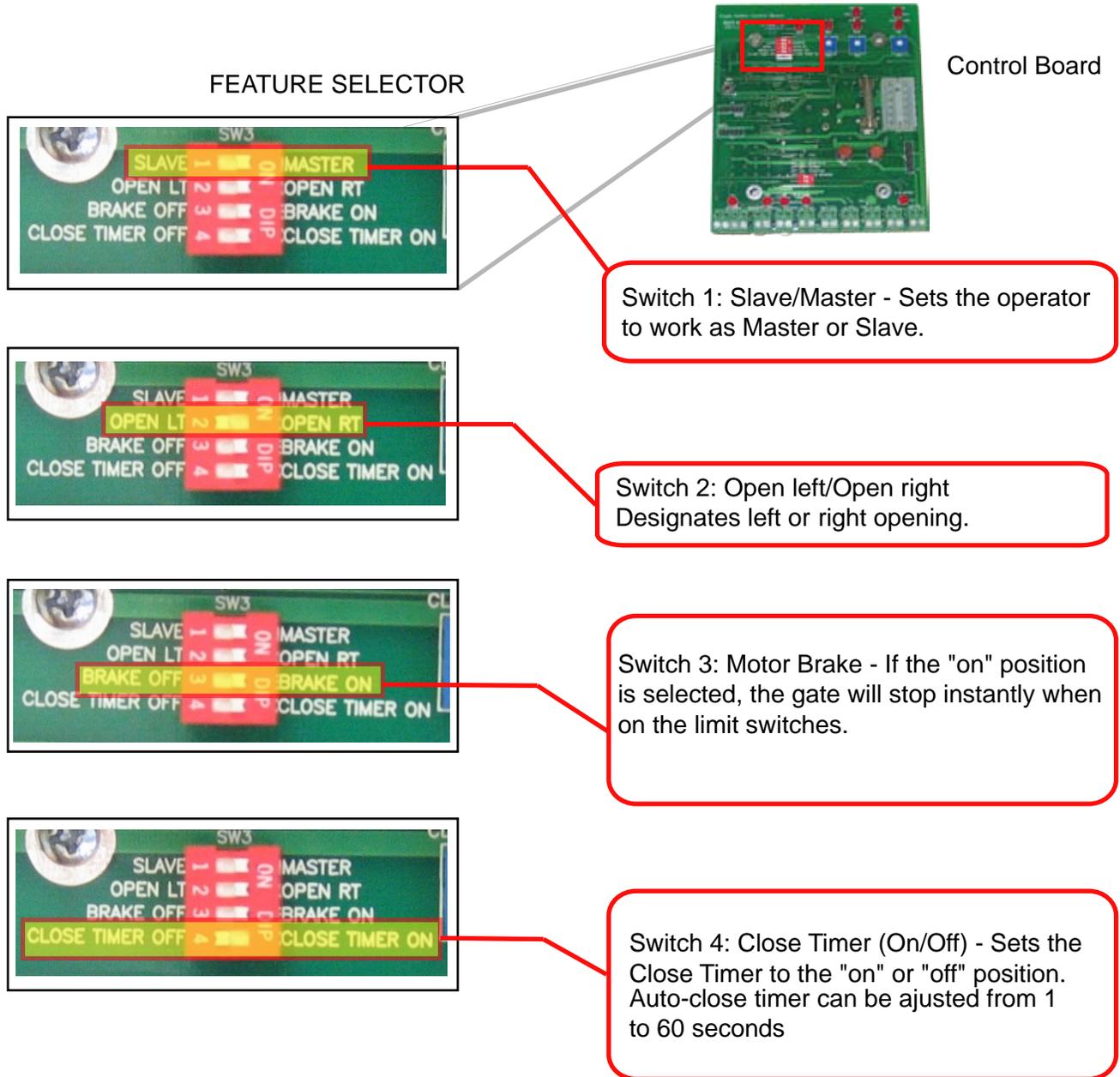
- Too Sensitive = if the gates stops or reverses by itself
- Not Sensitive enough = if the gate strikes an object and does not stop or reverse



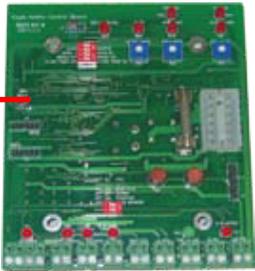
The Feature Selector

The selector uses a four-station switch system that allows selection of the standard features and customized installation settings. The switch description is as follows:

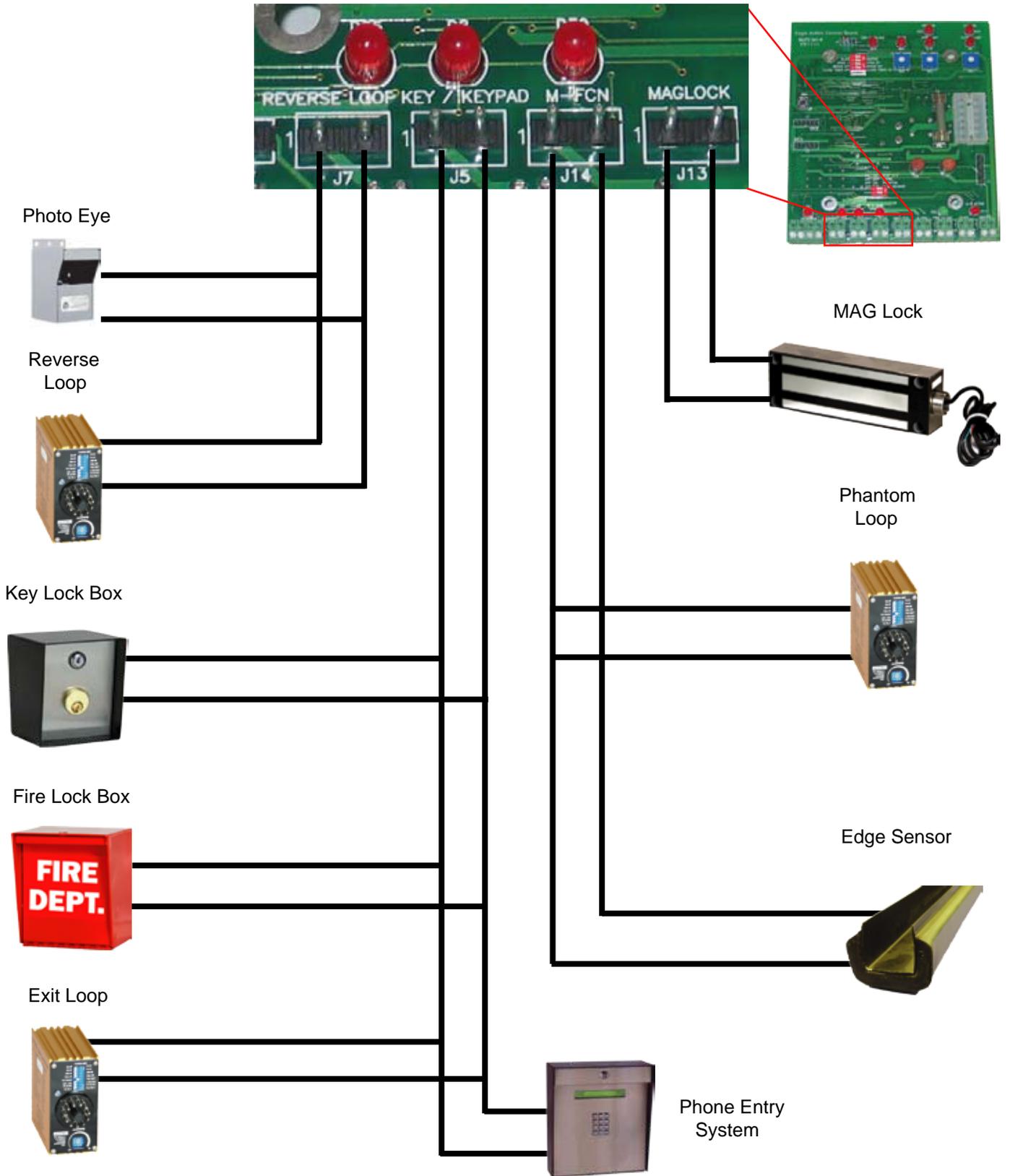
Note: The power should always be turned off when designating feature selector switches



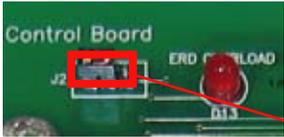
The reset button is used to reset the microprocessor. IF YOU MAKE A CHANGE WITH THE SWITCHES, YOU MUST USE THE RESET BUTTON TO APPLY CHANGES. **Note: If the power light is on and the operator does not function, press the reset button once. If this does not solve the problem, proceed with turning off the power switch and then switching it back on again.**



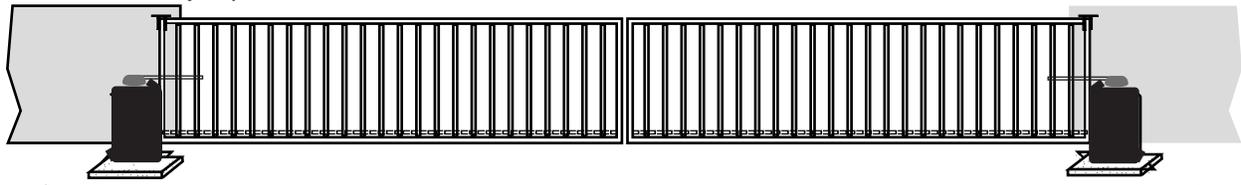
Connecting The Accessories



Master and Slave Operation



NOTE: If the Master and Slave Operators are not communicating properly, verify if they are on the same phase by switching the phase jumper on either the master or the Slave Unit.



Master Board



Use 20GA stranded wire for Master/Slave communication

Slave Board

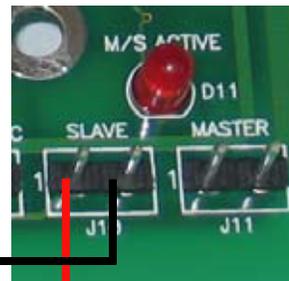


NOTE: Correct polarity between Master & Slave is necessary When using these connections

Set dip switch #1 (ON) for the Master



Set dip switch #1 (OFF) for the Slave



Use 20GA stranded wire

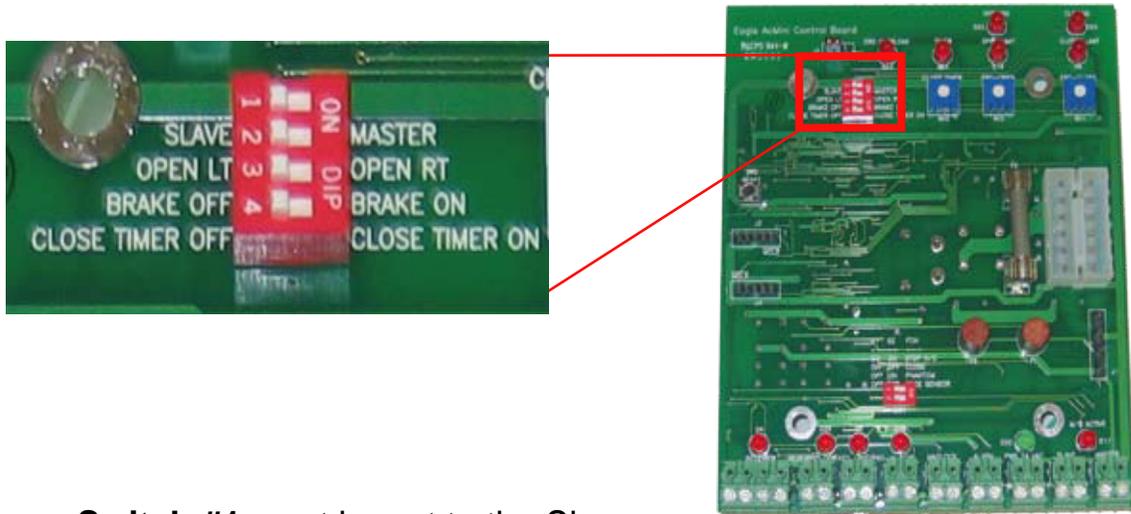
Master Control Options

Use the feature selector on the master operator to choose available features by designating the various switches (2 through 4).

Gate opening direction, motor brake and close timer.



Slave Control Options



Switch #1 must be set to the Slave or to the "off" position.

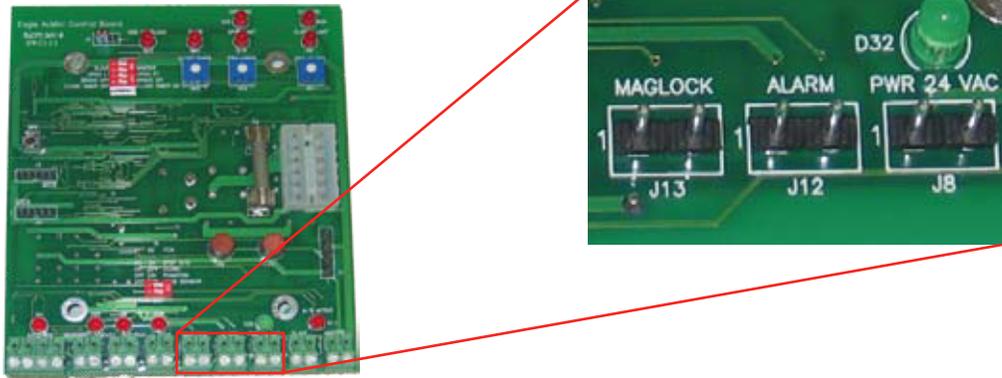
Switch #2 Set to the "open left" or to the "open right" position.

Switch #3 Set motor to "ON" or "OFF" position.

Switch #4 Set to "OFF" position.

Describing The Output Connections

Entire Output Section



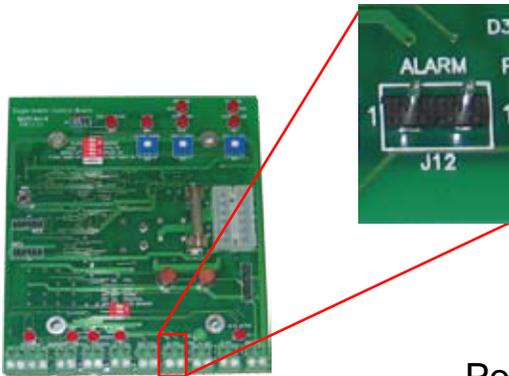
MAG Lock Solenoid Connections (24 VDC)

The Control Board provides a 24VDC and relay output for MAG Locks or Solenoids.



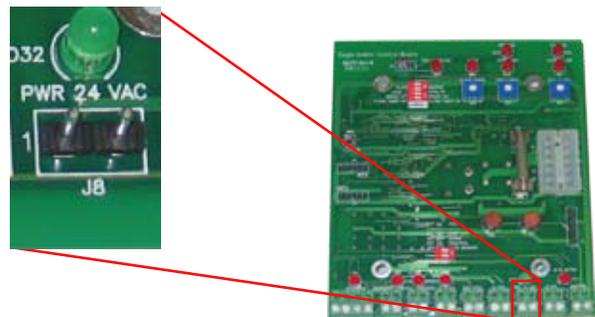
Alarm (12 VDC)

Safety Alarm: If the gate hits an obstruction twice while closing or opening, the system will shut down for 5 minutes. On the Board, you have two options of reset mode.



Power (24 VAC)

The Control Board provides 24 VAC Power, which can be used for loop detectors and receivers.



Description of Inputs



REVERSE LOOP INPUT

Reverse Loop - Momentary or Continuous Signal

This input is active only when the gate is closing or when its fully open. If this input is active, the close timer is disabled. All vehicle detectors and photo-eyes should be connected here. Multiple devices may be connected in parallel.

KEY / KEYPAD INPUT

Key / Keypad

Timer On - Momentary or Continuous Input

Once activated the gate will fully open. Activation while the gate is closing will cause the gate to reopen. Continuous activation while the gate is open will disable the timer to close function from automatically closing the gate.

Timer Off - Momentary Input

This function must be released and reentered to be recognized. This input is to be used for COMMAND OPEN / COMMAND CLOSE applications. The first signal will cause the gate to begin opening. The second signal will close the gate only when the gate is in the fully open position.

MULTI-FUNCTION INPUT

Stop - Momentary or Continuous Signal

This function overrides all other signals. Once activated, the gate will immediately stop and await a new command. If the stop input is continuously activated, the gate will not move.

Close - Momentary or Continuous Signal

Once activated the gate will fully close. Activation while the gate is opening has no effect.

Phantom Loop - Momentary or Continuous Signal

This input is active only when the gate is at rest in the fully open position. The input has no effect on the gate when fully closed or while closing or opening. Continuous activation will prevent the gate from moving in the close direction. When the input is removed normal operation is resumed. This input is intended for a vehicle loop detector to sense a vehicle in the gate path. Multiple devices may be connected in parallel.

Edge Sensor - Momentary or Continuous Signal

This signal is active when the gate is opening and/or closing.

If activated when the gate is opening:

The gate will stop, pause and reverse in the close direction for 1 1/2 seconds and stop. Continuous activation will prevent the gate from moving in the opening direction. If the second activation occurs before the limit switch is activated, the gate will stop and reverse direction for 1 1/2 seconds and stop, thus activating the alarm mode. At this point the operator must be manually reset (ON/OFF) before normal operation can resume.

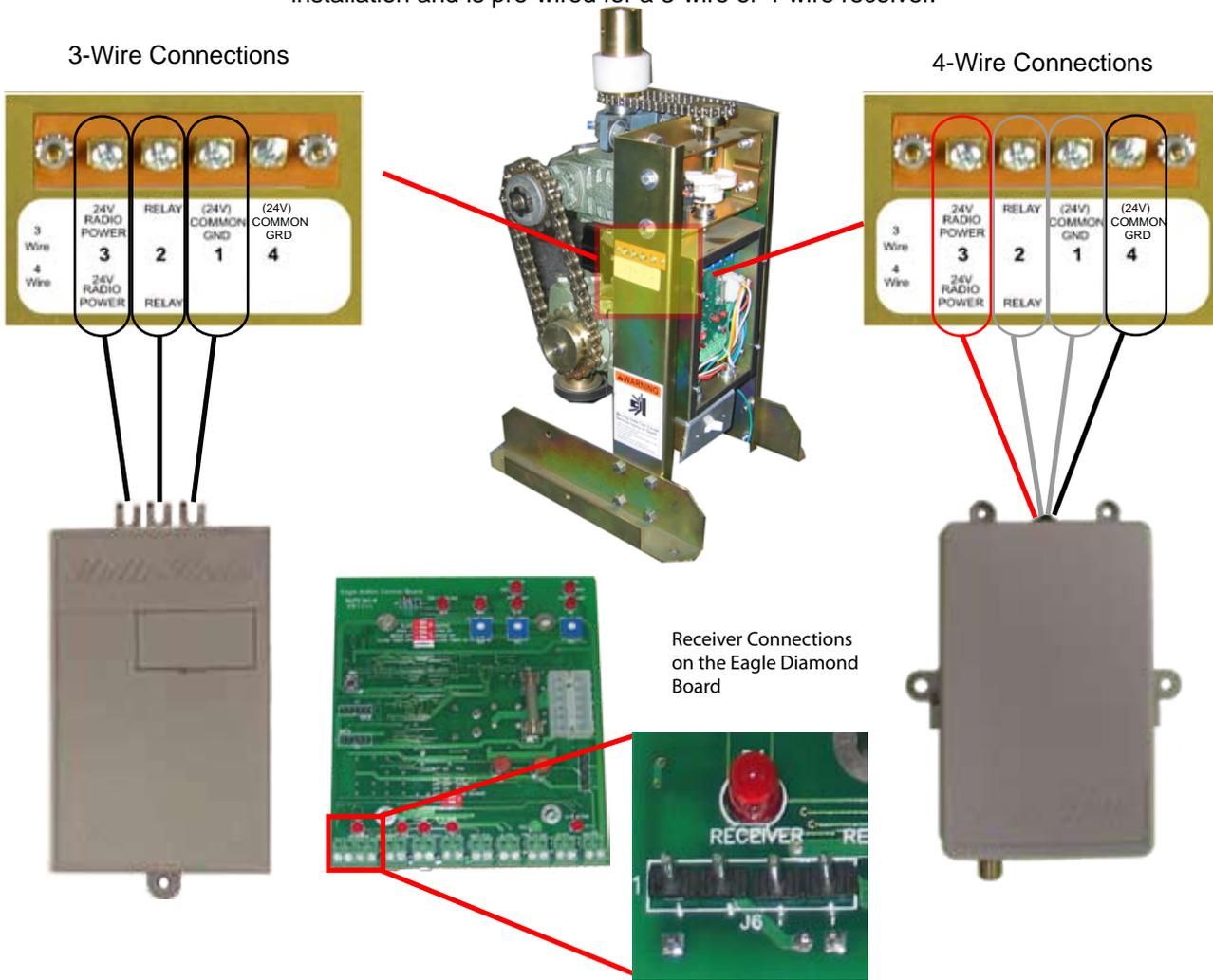
If activated when the gate is closing:

The gate will stop, pause and fully reopen. During this mode the timer to close, reverse loop, exit loop and phantom loop are disabled. The Key / Keypad and Receiver will cause the gate to close if a second activation occurs before the limit switch is activated. The gate will then stop and reverse direction for 1 1/2 seconds, stop again, thus activating the alarm mode. At this point the operator must be manually reset (ON/OFF) before normal operation can resume.

Multiple devices may be connected in parallel to the Edge Sensor Input.

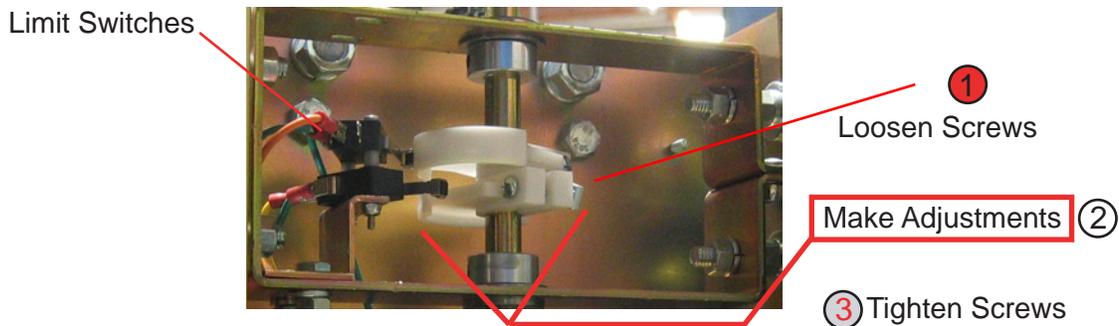
Receiver Connections

The Receiver Terminal is mounted on the control box for easy installation and is pre-wired for a 3-wire or 4-wire receiver.



Gate Travel Distance / Setting The Limit Switches

The limit switches must be set so that the gate stops at the proper position.



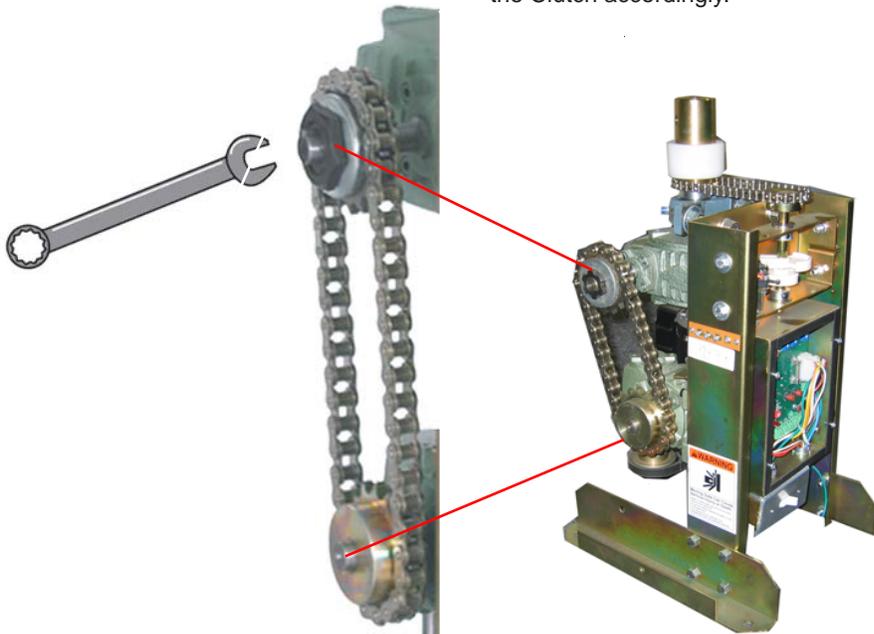
Emergency Release



To release operator, simply unscrew bolt, remove the top cap, and lift the arm.

Adjusting the Operator's Clutch

Depending on the weight of the gate clutch slippage may occur. Typical Clutch slippage is about 1/4 turn. If it does not slip, readjust the Clutch accordingly.



Use an appropriate wrench to adjust the clutch

Troubleshooting

SYMPTOMS	PROBABLE CAUSES	REMEDY
Gate stops and reverses direction in mid travel and the OVERLOAD LED remains ON.	<ul style="list-style-type: none"> (A) Gate operator is not plumb and level. (B) ERD current sensor may be set to sensitive. (C) Gate encountered an obstruction while in travel. 	<ul style="list-style-type: none"> (A) Remount operator or swing arm (B) Turn the ERD sensor slightly in the clockwise direction. (C) Check and remove all obstructions.
Gate will not CLOSE.	<ul style="list-style-type: none"> (A) The Radio Receiver's LED remains on. (B) One or more of the global input LED(S) remain active. (C) Gate has reopened because it encountered an obstruction while closing. (D) The Loop Detector LED is on. (E) Switch #8 is not functioning. 	<ul style="list-style-type: none"> (A) Remote or receiver has malfunctioned in the "on" position. (B) Check any Global Inputs for a possible short circuit. (C) Only key/keypad and receiver will resume normal operation. (D) Reset Loop Detector, verify correct wiring, set to a different frequency and/or change the sensitivity of the Loop Detector. (E) Be sure that the "Close Timer" (switch #4) is set to the "on" position.
Gate will not OPEN.	<ul style="list-style-type: none"> (A) Motor overload. (B) Radio Receiver is not "on" when the remote control is activated. (C) The green LED is "off." (D) Fuse blown. 	<ul style="list-style-type: none"> (A) Reset thermal breaker on motor. (See page 18) (B) The receiver in the gate operator has malfunctioned in the "off" position. (C) Turn "on" the power switch and/or reset the main circuit breaker. (D) Check and/or replace with a proper fuse.

COMMON OVERSIGHTS TO BE AWARE OF:

- (A) Switch #1 must be set to the "Master On" position, unless the operator is being used as a "Slave unit.
- (B) Safety Loop Detectors must be connected to the Reverse Loop input.
- (C) If the "Timer to Close" function is desired, switch #4 must be set to the "on" position.
- (D) It is Ok to call the Eagle Access Customer Service Department with any questions...we are here to serve YOU!

1-800-708-8848



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