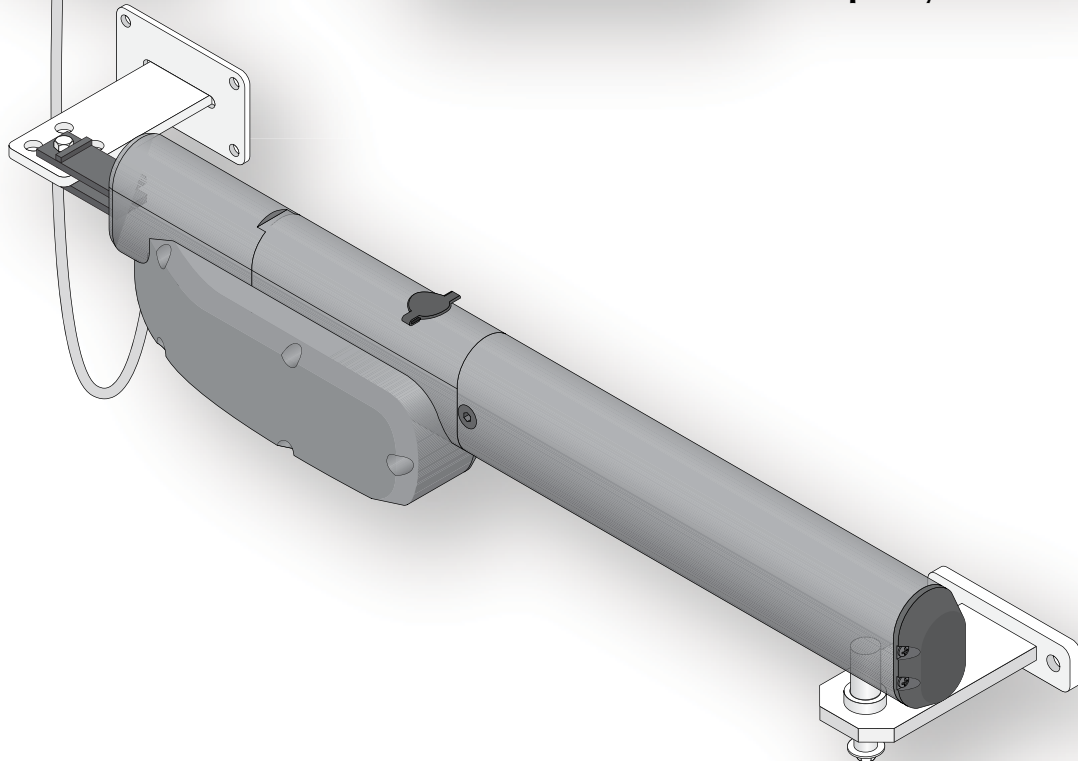
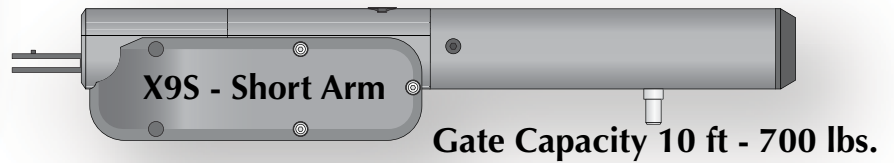
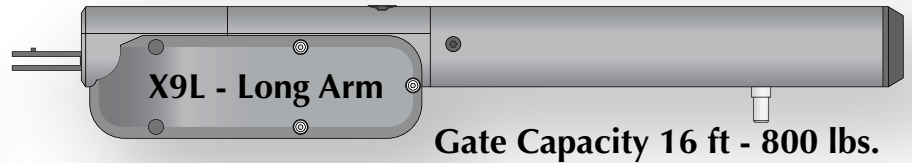
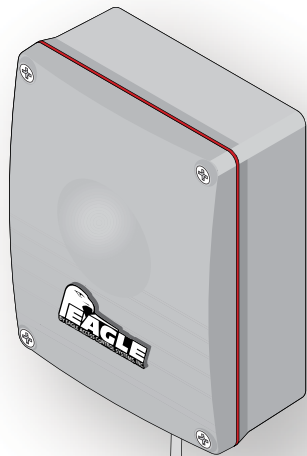




X9S & X9L

Swing Gate Operators



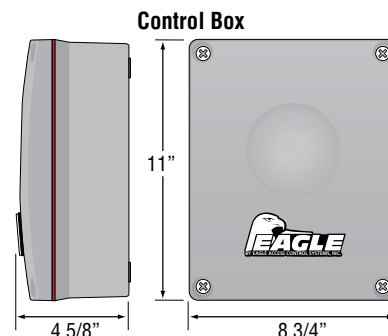
Installation & Owners Manual

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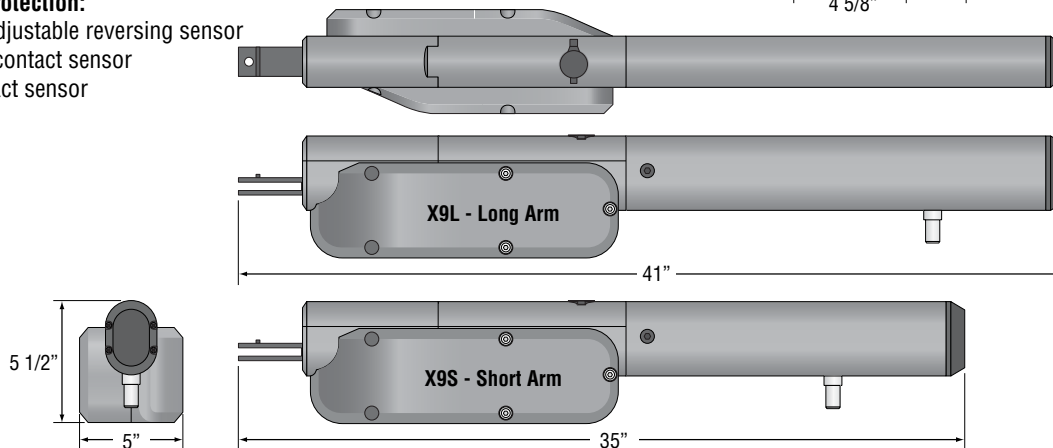
X9 SWING GATE OPERATOR SPECIFICATIONS

Control Box Power	115 VAC @ 60 Hz - 4 amps per Arm
Motor Power	24 VDC @ 180 Watts per Arm
Thrust	1900
Normal Gate Cycles	Intensive
Traveling Distance (Drive Screw)	X9S: 13 3/4" X9L: 19 5/8"
Max Gate Length	X9S: 10 ft per Gate X9L: 16 ft Per Gate
Max Gate Weight	X9S: 700 lbs per Gate X9L: 800 lbs per Gate
Opening Time 90°	X9S: 20 sec X9L: 25 sec



Entrapment Protection:

- Built-In ERD adjustable reversing sensor
- Input for non-contact sensor
- Input for contact sensor



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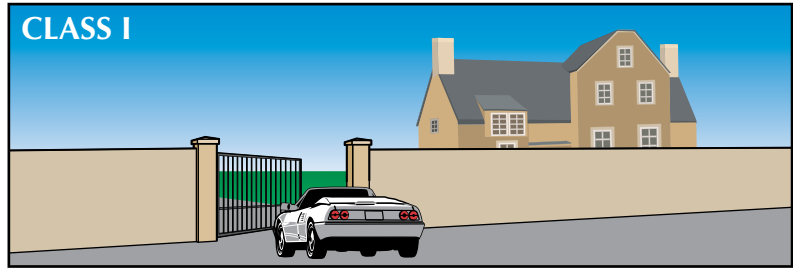
UL 325 Listings

1. Install the gate operator only when:
 - a) The operator is appropriate for the construction of the gate 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 6 feet (1.83 m) above the ground to prevent a 2-1/4 inch (57.2 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.
 - c) All exposed pinch points are eliminated or guarded, and
 - d) 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. The pedestrian access opening shall be designed to promote pedestrian usage. Locate the pedestrian gate such that persons will not come in contact with the vehicular gate during the entire path of travel of the vehicular gate.
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. Do not over-tighten the operator clutch or pressure relief valve to compensate for a damaged gate.
5. For gate operators utilizing Type D protection:
 - a) The gate operator controls must be placed so that the user has full view of the gate area when the gate is not moving.
 - b) The placard provided marked in letters at least 1/4 in. (6.4-mm) high with the word "WARNING" and the following statement or the equivalent: "Moving Gate Has the Potential of Inflicting Injury or Death – Do Not Start Gate Unless Path is Clear" shall be placed adjacent to the controls,
 - c) An automatic closing device (such as a timer, loop sensor, or similar device) shall not be employed, and
 - d) No other activation device shall be connected.
6. 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.
7. The Stop and /or Reset button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.
8. A minimum of two (2) WARNING SIGNS shall be installed, one on each side of the gate where easily visible.
9. For gate operators utilizing a non-contact sensor in accordance with Usage Class:
 - a) See instructions on the placement of non-contact sensors 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, and
 - 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.
10. For gate operators utilizing a contact sensor in accordance with Usage Class:
 - 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) One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.
 - d) 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.
 - e) 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 structures, natural landscaping or similar obstruction. A wireless contact sensor shall function under the intended end-use conditions.
 - f) One or more contact sensors shall be located on the inside and outside leading edge of a swing gate.
Additionally, if the bottom edge of a swing gate is greater than 6 inches (152 mm) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.
 - g) One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

UL 325 Model Classifications

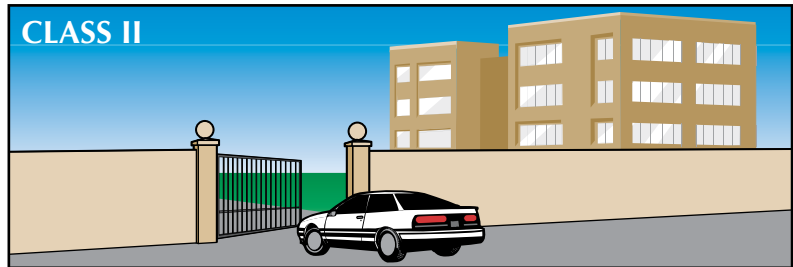
CLASS I

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



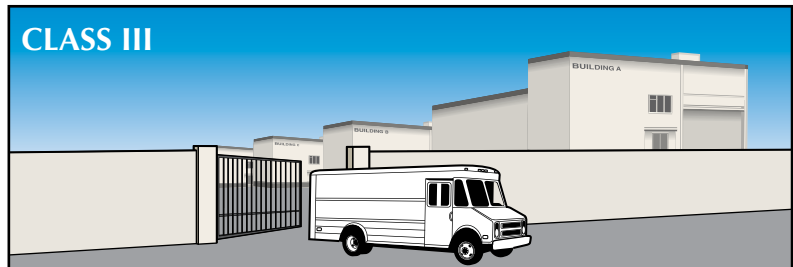
CLASS II

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



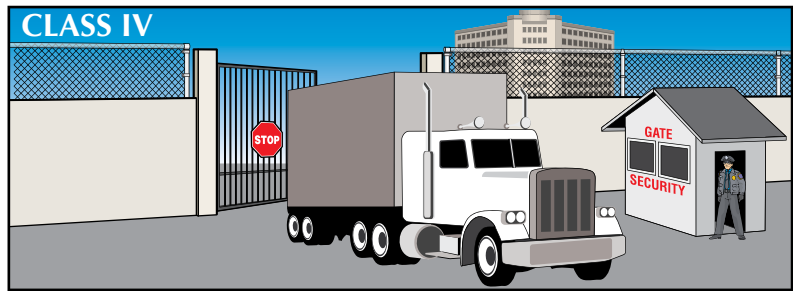
CLASS III

Industrial/Limited Access Vehicular Gate Operator - A vehicular gate operator (opener or system) intended for use in an industrial location, loading dock area or other location not intended to service the general public.



CLASS IV

Restricted Access Vehicular Gate Operator - A vehicular gate operator (opener 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.



UL 325 Entrapment Protection

Entrapment Protection Requirements for Each Type of Operator.

Proper installation must satisfy the entrapment protection chart as shown.

Gate Type	Entrapment Protection
Horizontal Slide Vertical Lift Vertical Pivot Gate	A, B1*, B2* or D
Swing Gate or Vertical Barrier (arm)	A, B1*, B2* C or D

A - Inherent (built into the gate operator) entrapment protection.

B1 - Non-contact sensor such as photo-eye or equivalent.

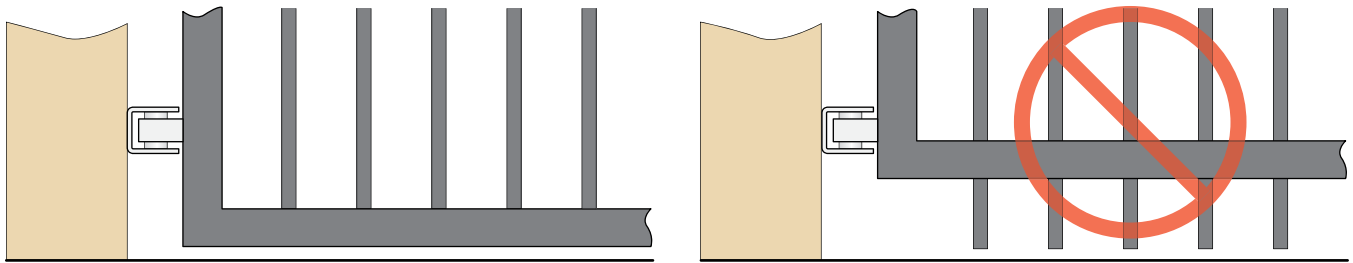
B2 - Contact sensor such as edge sensor or equivalent.

C - Inherent adjustable clutch or pressure relief device.

D - Actuating device requiring continuous pressure to maintain gate motion.

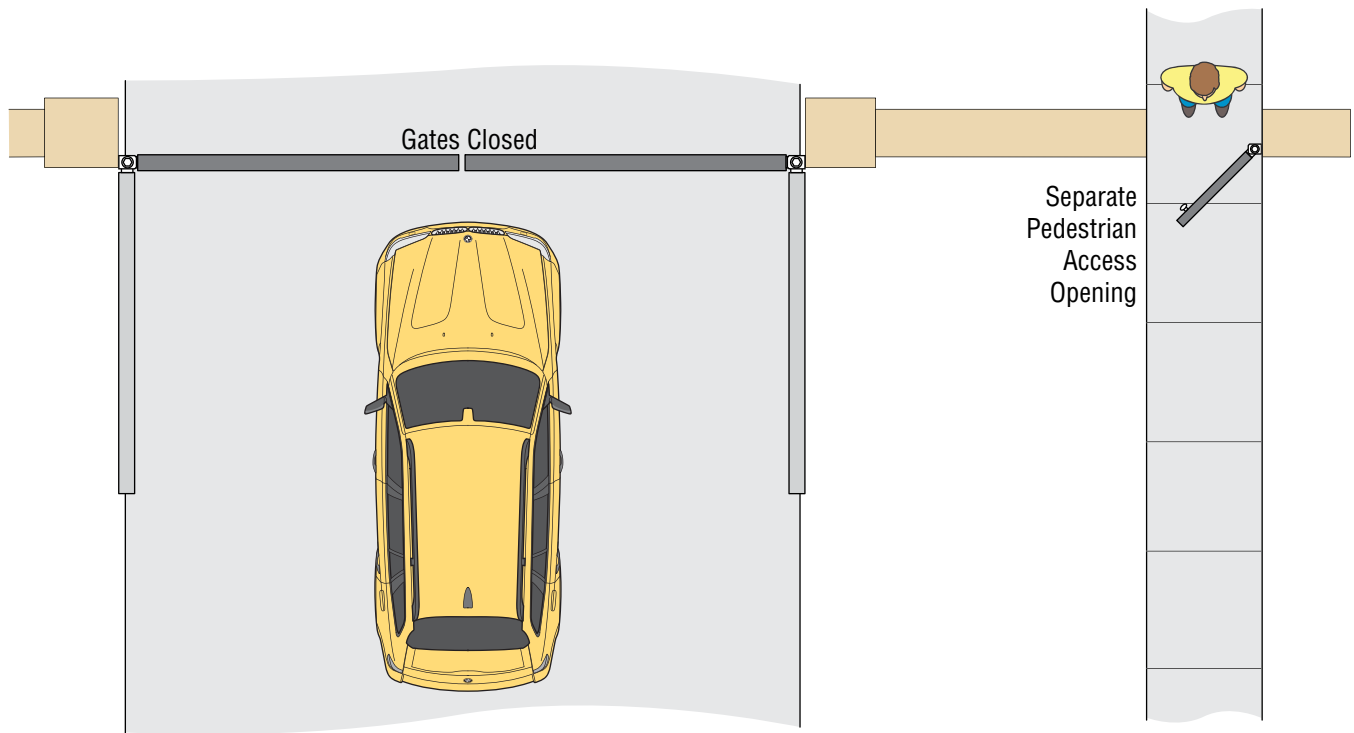
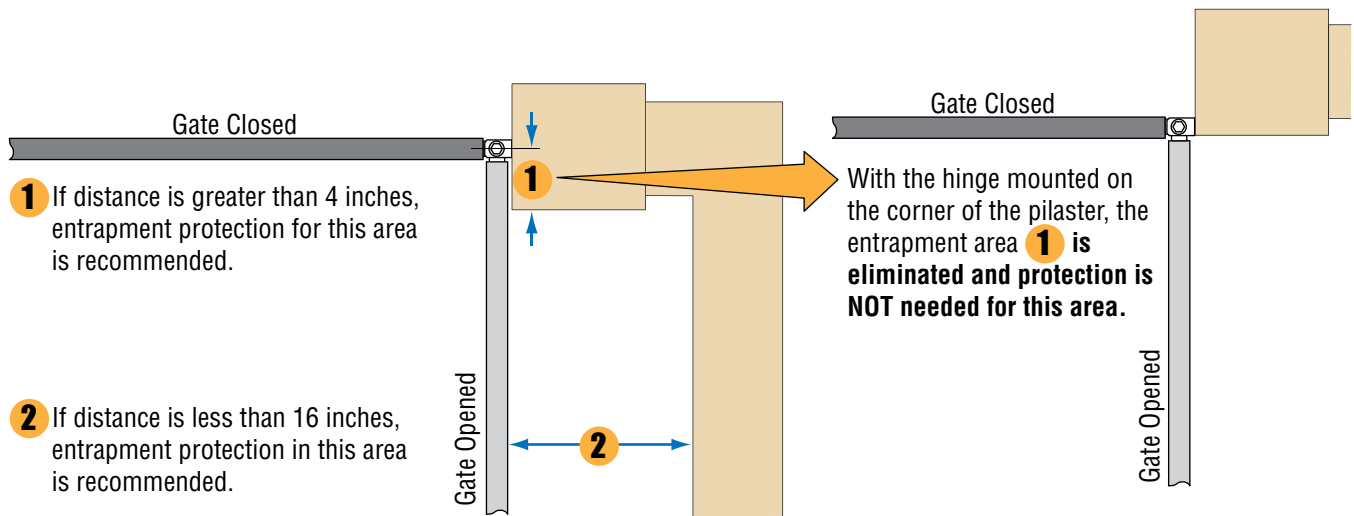
* UL 325 requires that B1 and B2 means of entrapment protection must be **MONITORED**.

Swing Gate Recommendations



Gates should have smooth bottom edges, with vertical bottom edged protrusions not exceeding 0.50 inches.

Swing Gate Requirements



The operator is intended for installation ONLY on gates used for vehicles. Pedestrians should be supplied with a separate access opening. The pedestrian access opening should 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.

Important Safety Information

WARNING

To reduce the risk of injury or death read and follow the instructions

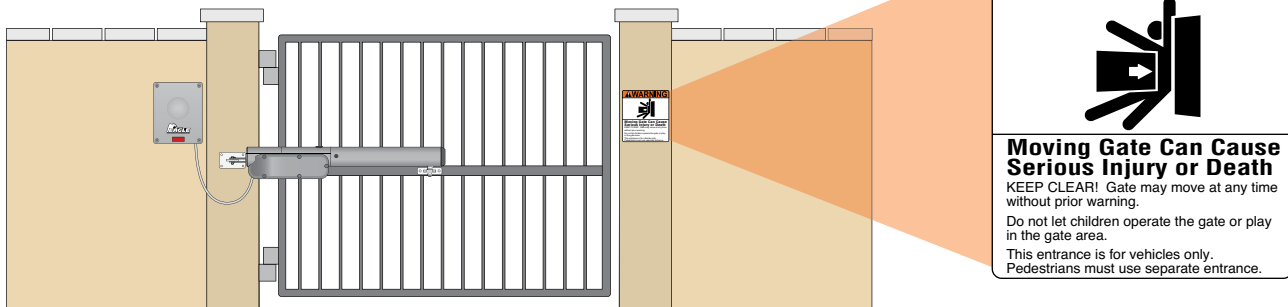
1. Never let children operate or play with gate controls. Keep the remote control away from children.
2. Always keep people and objects away from gate. **NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.**
3. Test the operator monthly. The gate **MUST** reverse on contact with a rigid object or stop when 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.
4. Use the emergency release **ONLY** when the gate is not moving and verify that operator power has been turned OFF.
5. **KEEP GATES PROPERLY MAINTAINED.** Read the owner's manual. Have a qualified service person make repairs to gate hardware.
6. The entrance is for vehicles only. Pedestrians must use separate entrance.
7. **SAVE THESE INSTRUCTIONS.**

General Safety Information

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 System, Inc. products. Eagle Access Control Systems, Inc. is not responsible for any improper installation procedures caused by failure to comply with local building codes.

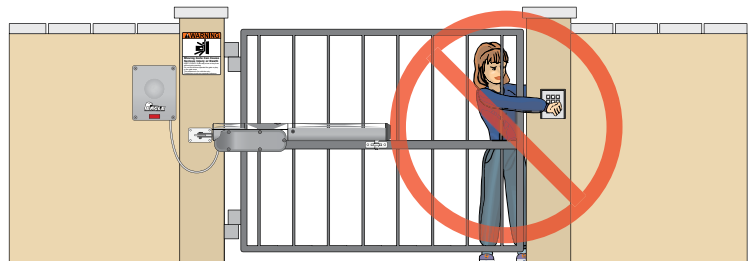
Install Warning Signs



Install warning signs on **BOTH** sides of the gate.

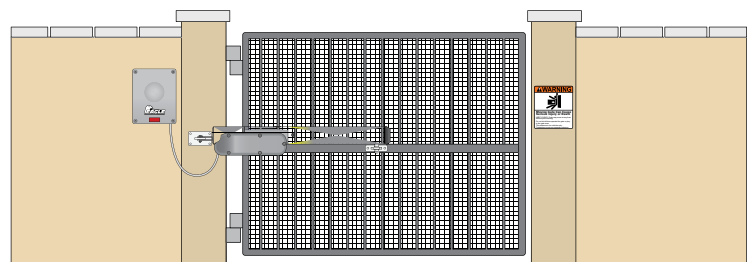
Installing Opening Devices

Be sure to mount **ALL** gate operating devices at least six feet (6') away from any moving part of the gate. They must **NOT** be able to be operated reaching through the gate.



Ornamental Grill Styled Gates

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



SAMPLE SINGLE GATE INSTALLATION SETUPS

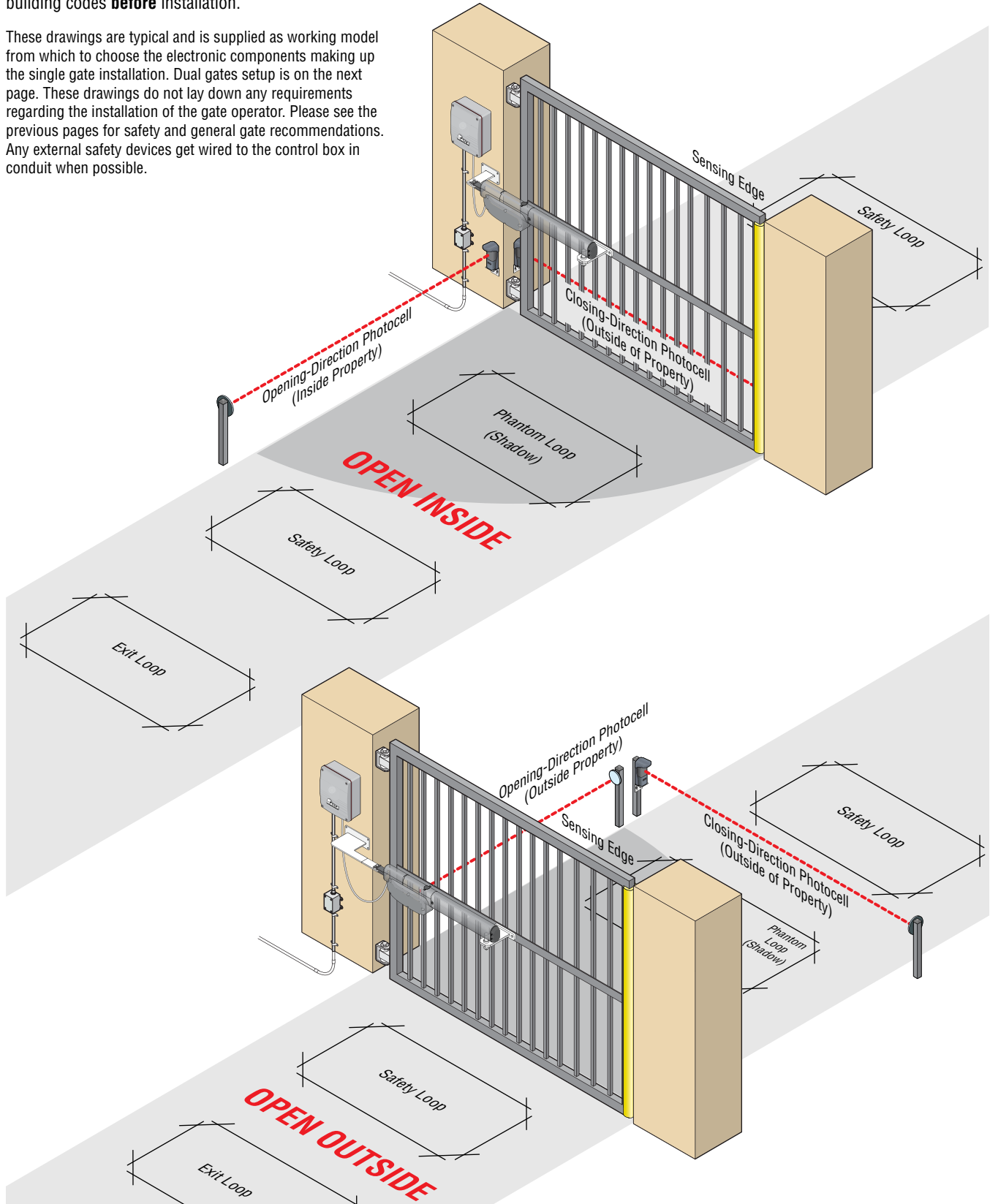
An experienced installer should perform the installation. Improper installation may result in property damage, severe injury or death.

Read the entire manual before proceeding with the installation.

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

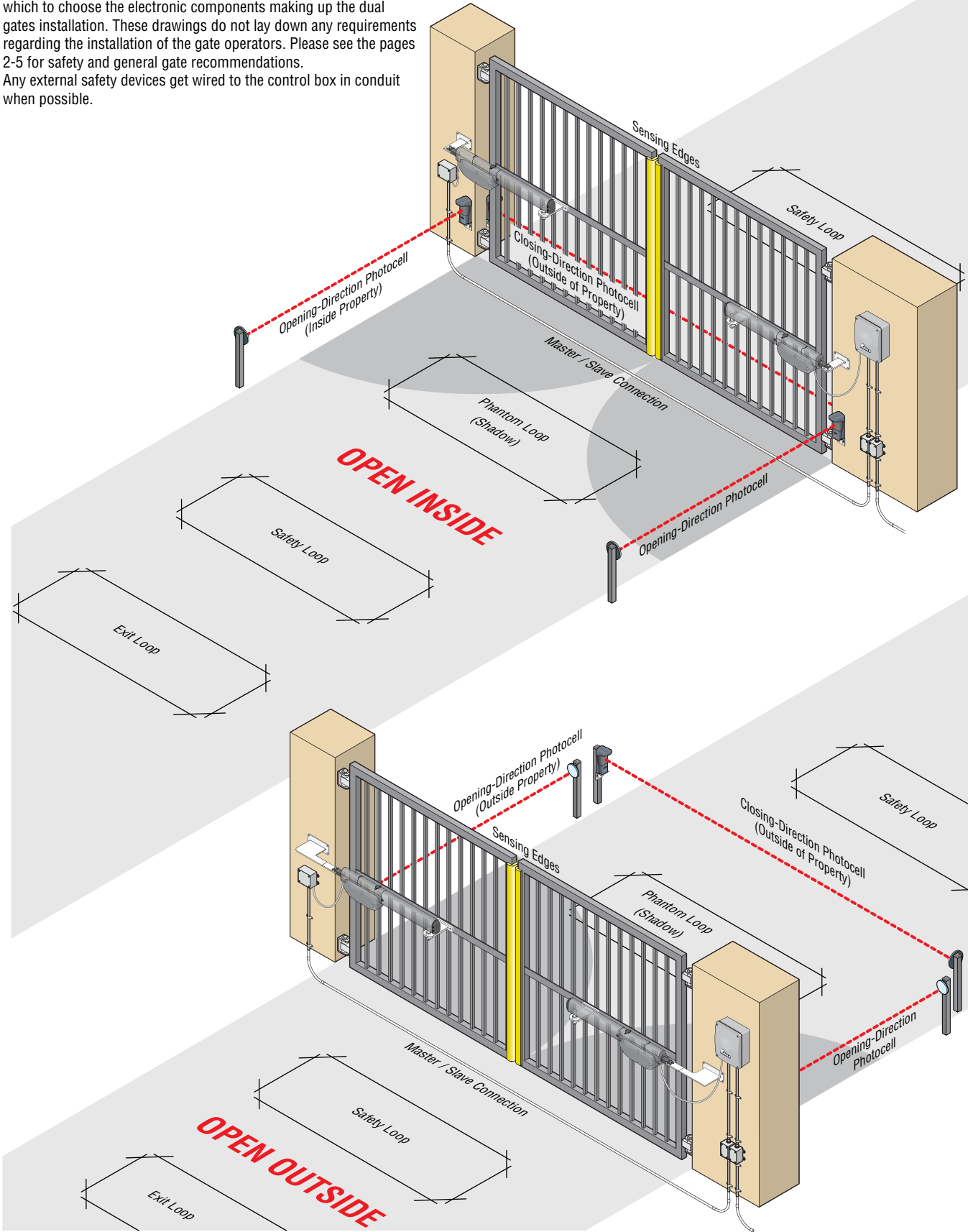
These drawings are typical and is supplied as working model from which to choose the electronic components making up the single gate installation. Dual gates setup is on the next page. These drawings do not lay down any requirements regarding the installation of the gate operator. Please see the previous pages for safety and general gate recommendations. Any external safety devices get wired to the control box in conduit when possible.

Single Gate Installation Setup



SAMPLE DUAL GATES INSTALLATION SETUPS

These drawings are typical and is supplied as working model from which to choose the electronic components making up the dual gates installation. These drawings do not lay down any requirements regarding the installation of the gate operators. Please see the pages 2-5 for safety and general gate recommendations. Any external safety devices get wired to the control box in conduit when possible.



Dual Gate Installation Setup

DISASSEMBLE OPERATOR

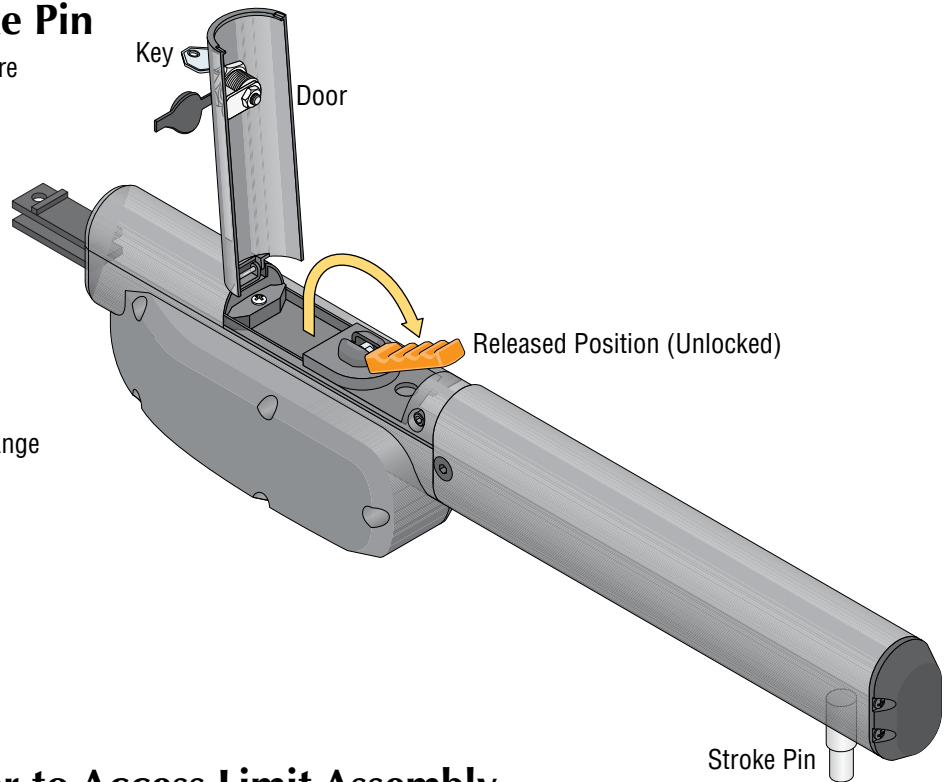
Step 1 - Release Stroke Pin

The stroke pin must be released before installation.

1. Unlock with Key and open door.
2. Flip orange handle forward.
3. Stroke pin can now be moved.

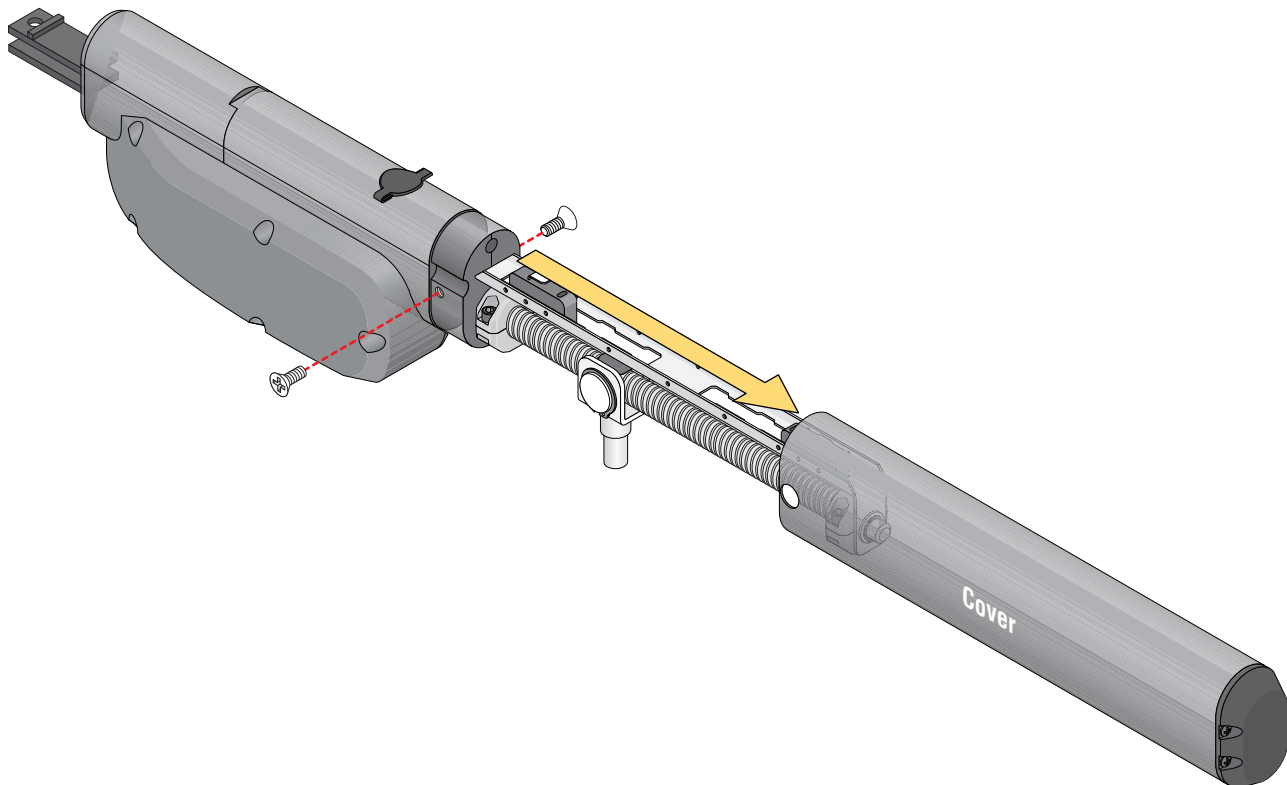
NOTE: The stroke pin can **REMAIN UNLOCKED** by simply removing the orange handle in the released position.

4. **To Lock Stroke Pin again:** Flip orange handle back to original position.
5. Close and lock door.

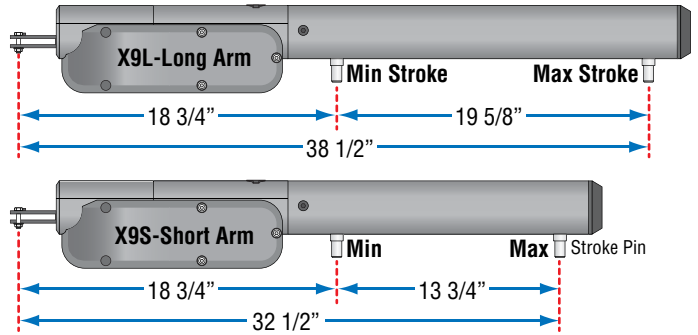
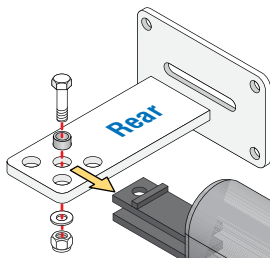


Step 2 - Remove Cover to Access Limit Assembly

1. Remove two 5mm allen screws
2. Slide cover off.

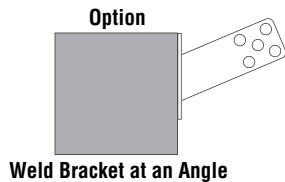


MOUNT ARM

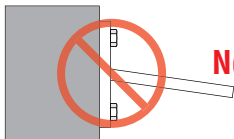
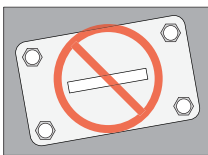
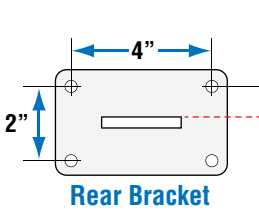
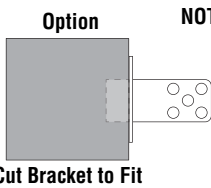


NOTE: Release the stroke pin before installation, see "Release Stroke Pin" on previous page.

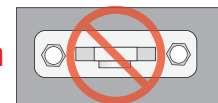
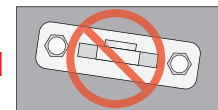
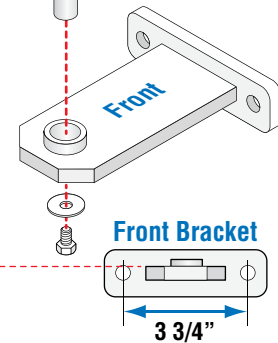
See pages 11 and 12 for dimensional layouts.



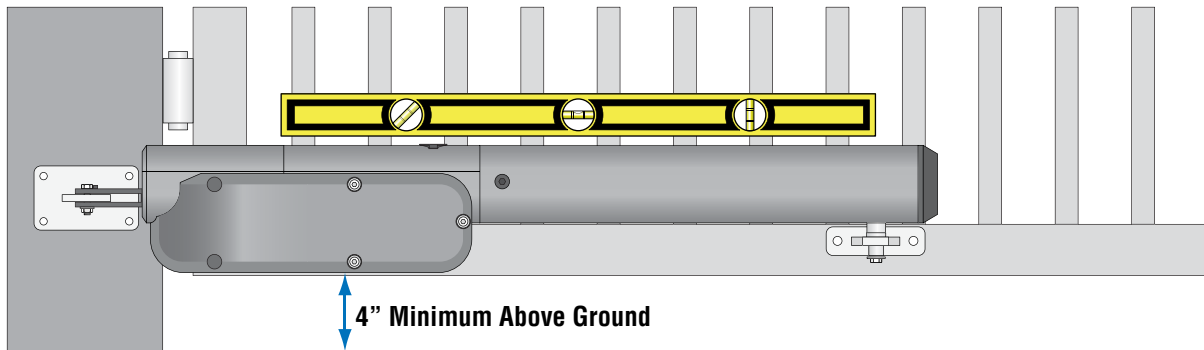
Option **NOTE:** Weld **COMPLETELY** around bracket.



2" Offset Between Brackets



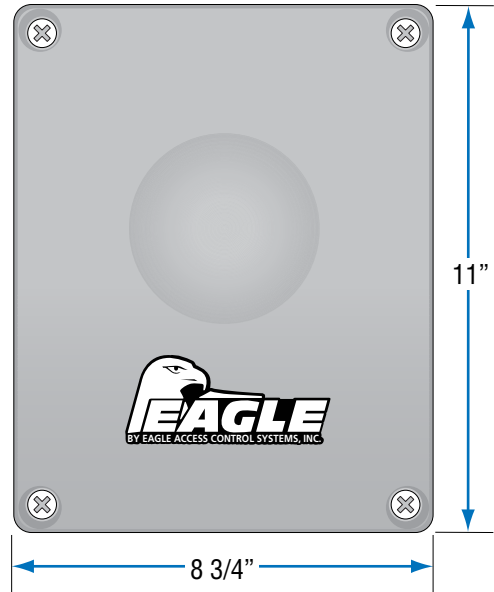
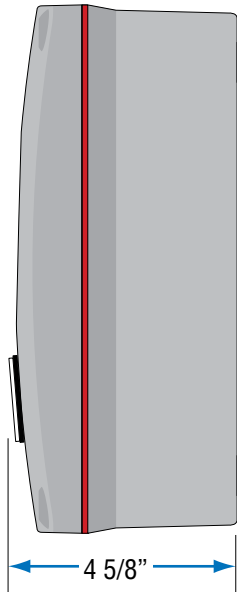
COMMON MISTAKES TO BE AWARE OF:



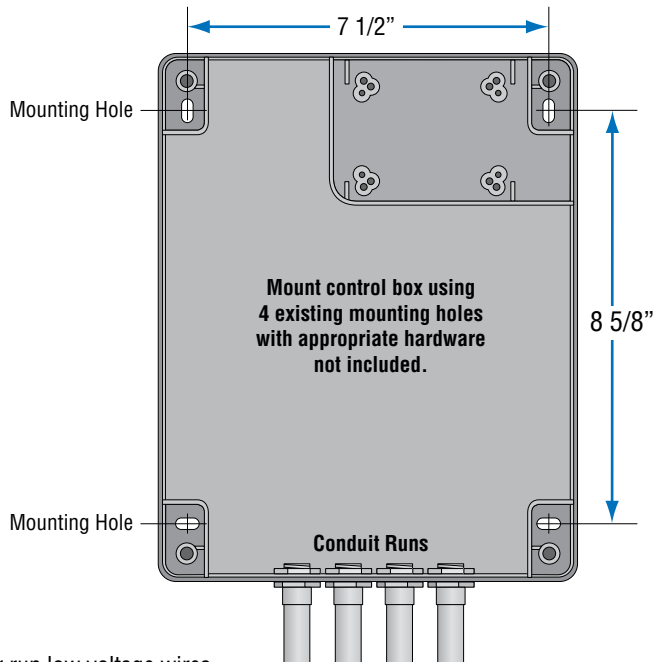
Mount Arm

MOUNT CONTROL BOX

Mount Control Box

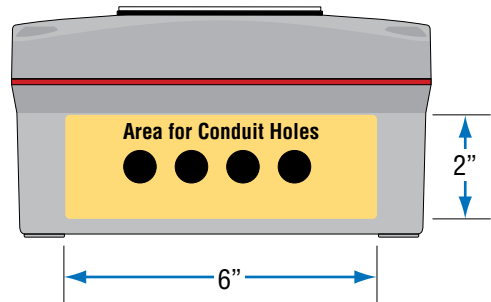
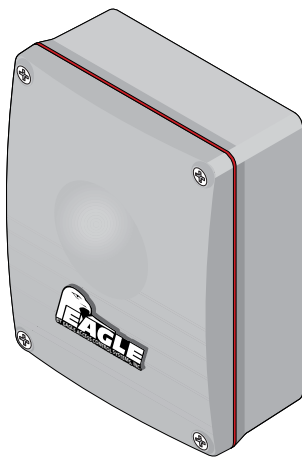


Mount the control box as near as possible to the actuator arm. Keep the box high enough above the ground to avoid landscape sprinklers and such. Avoid drilling holes in the side or top of the box. Seal any holes made in box to keep out moisture. The antenna reception for the radio receiver gets better the higher the box is above the ground.

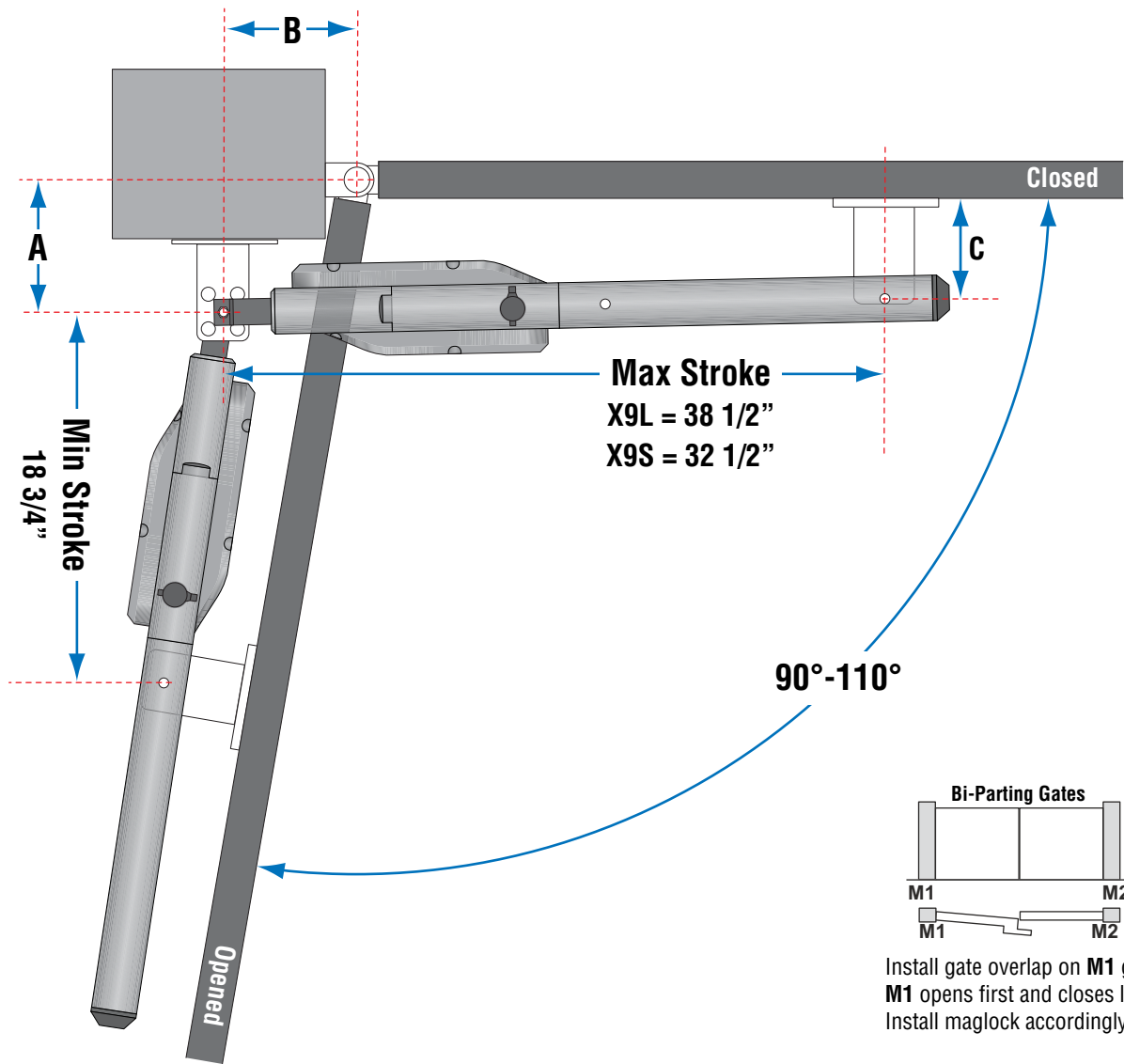


Never run low voltage wires in the same conduit as high voltage wire.

- Conduit 1. Motor 1
- Conduit 2. Motor 2
- Conduit 3. Accessories
- Conduit 4. Power



OPEN INSIDE MOUNTING DIMENSIONS



Open **INSIDE** Dimensions

X9L-LONG Arm: MAX 16 ft per Gate
X9S-SHORT Arm: MAX 10 ft per Gate

(°)	A"	B"	C"
90	6 3/4	7	4 3/4
90	7 1/4	7	4 3/4
90	8	5 1/4	4 3/4
110	6 3/4	6 3/4	4 3/4
110	5 1/2	6	4 3/4
110	6	6	4 3/4

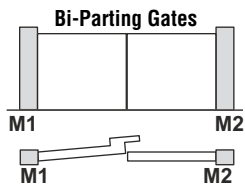
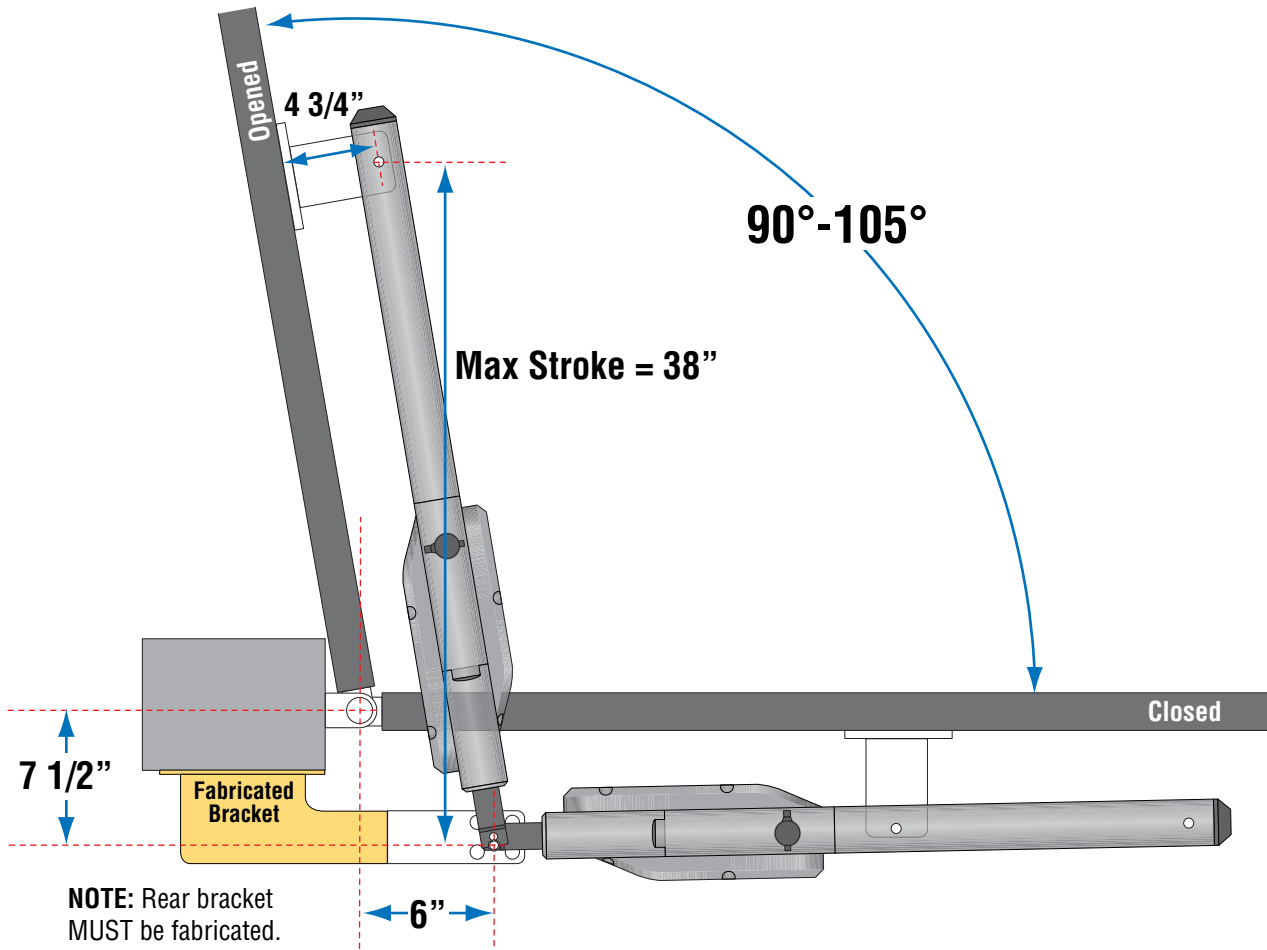
The position of the brackets establishes the **maximum** opening angle and the length of the actuator's linear stroke.

The **longer** the stroke, the **greater** the torque and **smoother** movements of the gate. The **shorter** the stroke, the **less** the torque and more abrupt movements of the gate.

OPEN OUTSIDE MOUNTING DIMENSIONS

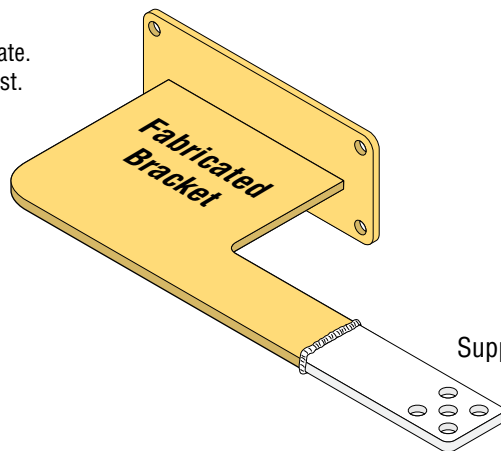
Only to be used with the X9L – Long Arm

Open OUTSIDE Dimensions



Install gate overlap on **M1** gate.
M1 opens first and closes last.
 Install maglock accordingly.

The position of the brackets establishes the **maximum** opening angle and the length of the actuator's linear stroke.
 The **longer** the stroke, the **greater** the torque and **smoother** movements of the gate.
 The **shorter** the stroke, the **less** the torque and more abrupt movements of the gate.



ADJUST PHYSICAL LIMITS

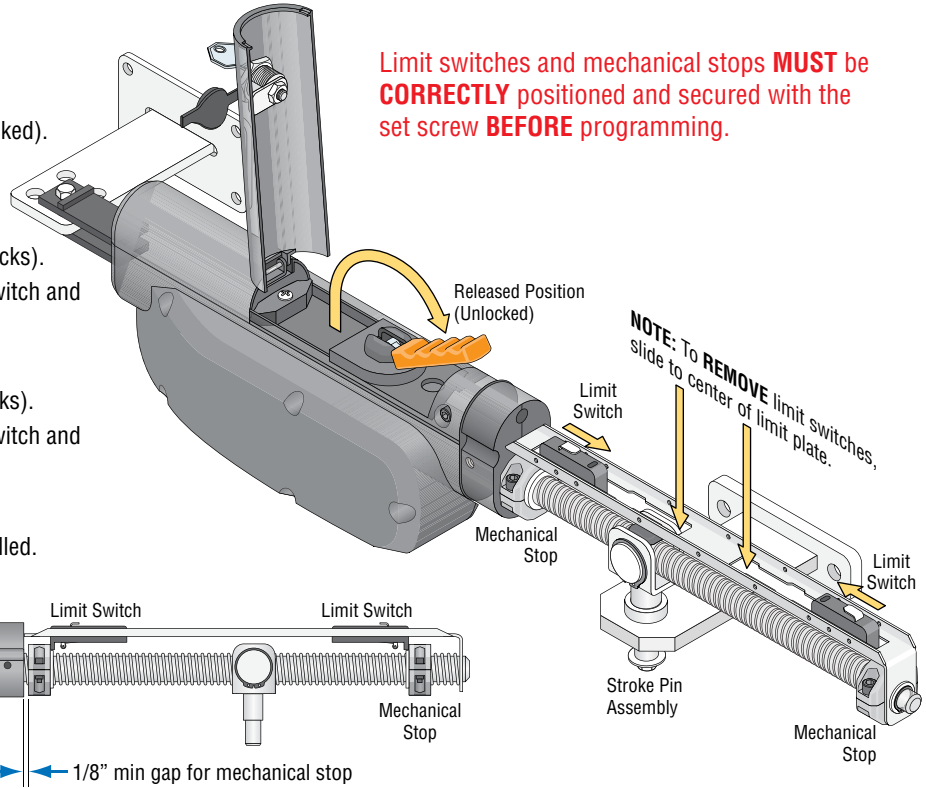
Operator **Must** be in released position (Unlocked).
Cover **MUST** be removed.

Manually move gate to **CLOSED** position.
Slide **CLOSE** limit switch until it activates (clicks).
Spin mechanical stop until it touches limit switch and tighten it down.

Manually move gate to **OPEN** position.
Slide **OPEN** limit switch until it activates (clicks).
Spin mechanical stop until it touches limit switch and tighten it down.
Re-lock operator and reinstall cover.

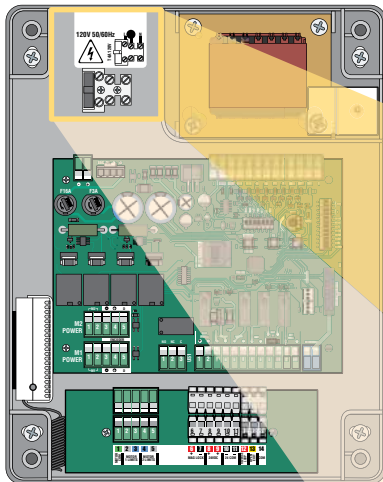
Repeat process with second operator if installed.

Limit switches and mechanical stops **MUST** be **CORRECTLY** positioned and secured with the set screw **BEFORE** programming.

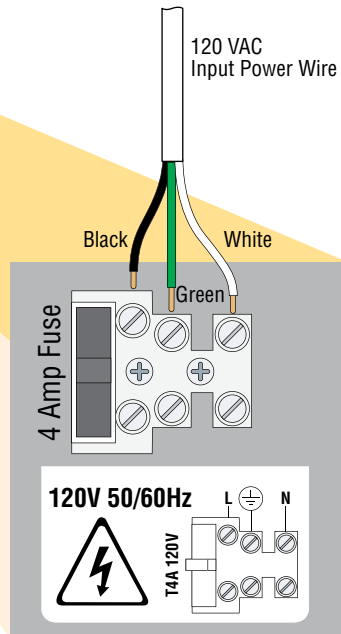


Adjust Physical Limits

120 VAC INPUT POWER CONNECTION



Never run low voltage wires in the same conduit as high voltage wire.



CAUTION

Be sure that the circuit breaker for the input power is turned **OFF** before connecting the input power to the operator.

All operators **MUST** be properly grounded.
Installing surge protection is recommended.

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

Wire Color Description

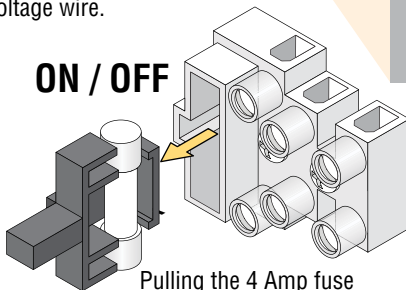
- Black** - 120 VAC input power
- White** - Neutral input
- Green** - Ground input (from an approved grounding method)

120 VAC

120 VAC Input Power Wire Runs Maximums

	14 AWG	12 AWG	10 AWG	8 AWG
Single Arm	400 ft	600 ft	1200 ft	2000 ft
Dual Arms	300 ft	500 ft	1000 ft	1700 ft

ON / OFF

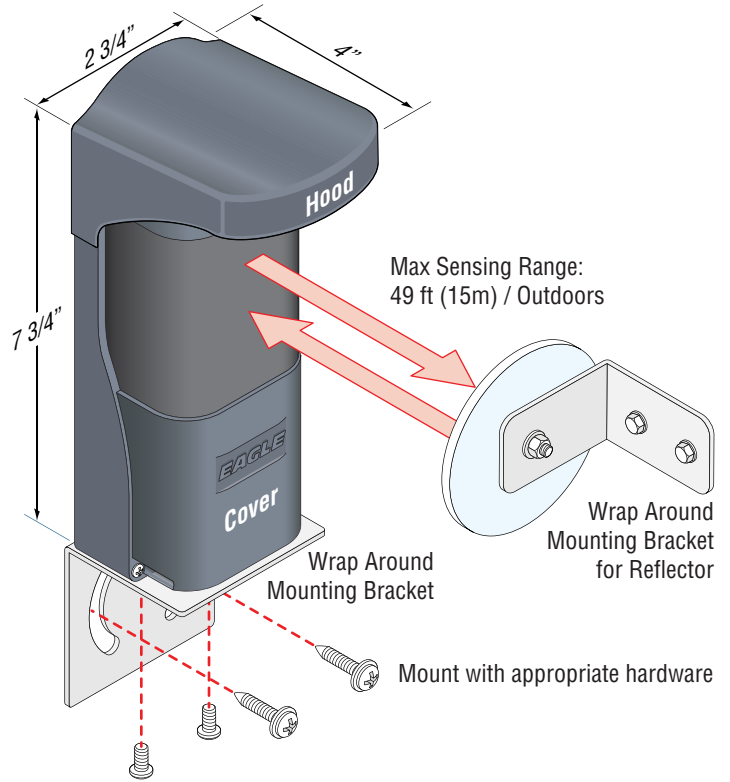
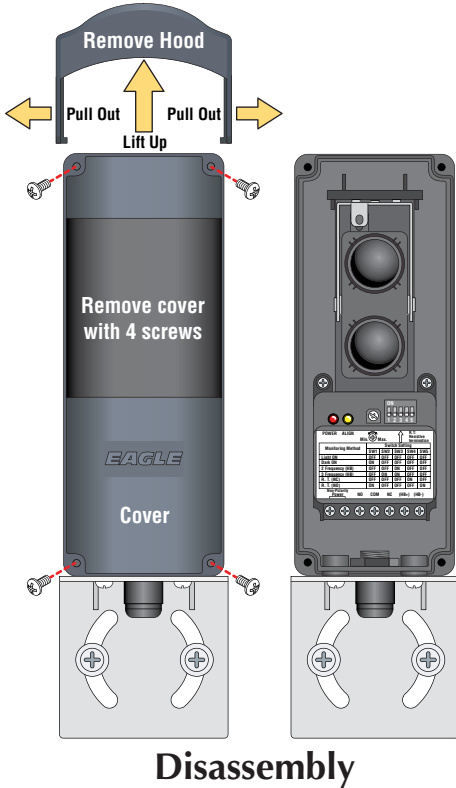


IMPORTANT: DO NOT cycle the operator **before** physically setting the limit switches (see above) **AND** programming has been completed (see pages 23-24). Damage or injury could occur.

Input Power Connection

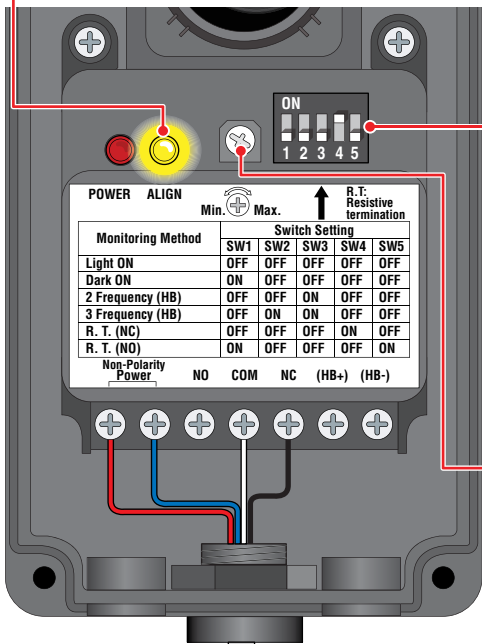
PHOTO EYE INSTALLATION

Photo Eye Installation



Beam Adjustment

Beam is aligned with reflector when yellow **ALIGN** LED turns ON.

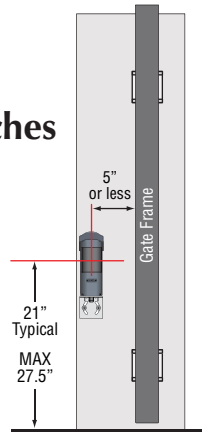


DIP-Switches

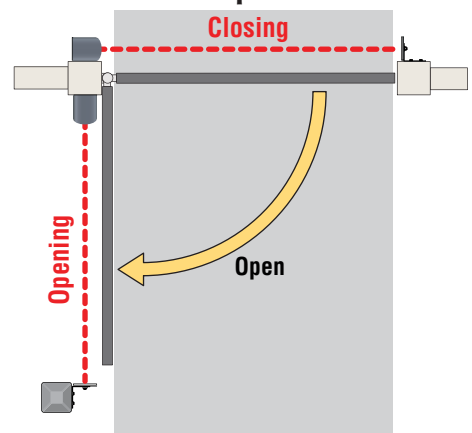
- SW 1 = OFF
- SW 2 = OFF
- SW 3 = OFF
- SW 4 = ON
- SW 5 = OFF

Typical Vehicular Gate Locations

Side View



Top View

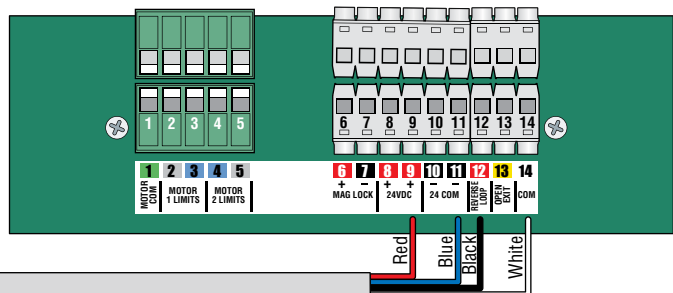


Sensing Range Adjustment

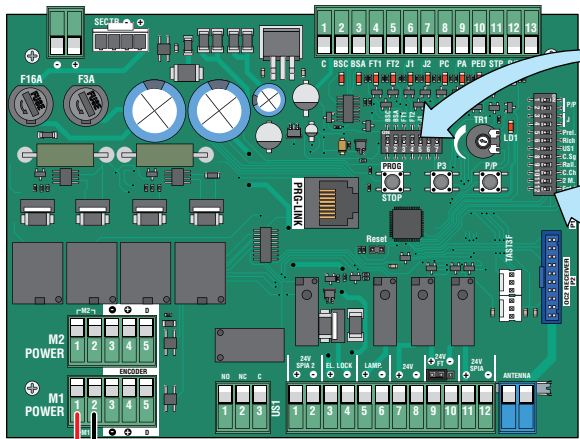
Turning Clockwise: Range becomes longer.

Turning Counter-Clockwise: Range becomes shorter.

- Red - 9
- Blue - 11
- Black - 12
- White - 14



OPEN INSIDE - SINGLE OPERATOR & PHOTO EYE WIRING

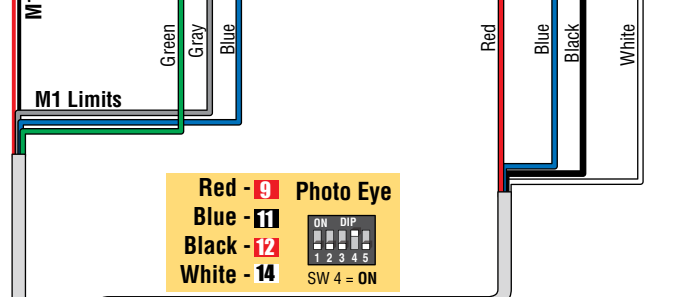
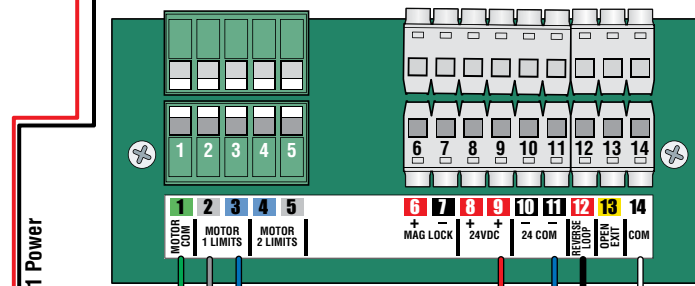


- SW 1 = ON
- SW 2 = ON
- SW 3 = **OFF** (Photo Eye FT1)
- SW 4 = ON
- SW 5 = **OFF**
- SW 6 = **OFF**
- SW 7 = ON

DIP Switch Settings

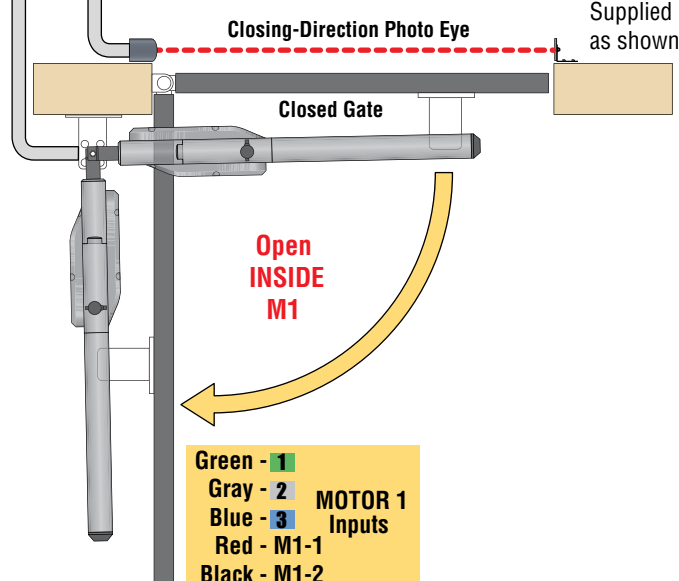


- SW 1 = OFF
- SW 2 = OFF
- SW 3 = **ON** (limits for motor 1 only)
- SW 4 = OFF
- SW 5 = OFF
- SW 6 = ON (automatic closure is active)
- SW 7 = OFF
- SW 8 = OFF
- SW 9 = **ON** (slow down near endpoints)
- SW 10 = OFF
- SW 11 = OFF (1 motor configuration)
- SW 12 = OFF



Red - 9 Photo Eye
 Blue - 11
 Black - 12
 White - 14
 ON DIP SW 4 = ON

Supplied Photo Eye should be installed in closing direction as shown, see page 17 for installation requirements.



Green - 1
 Gray - 2 MOTOR 1
 Blue - 3 Inputs
 Red - M1-1
 Black - M1-2

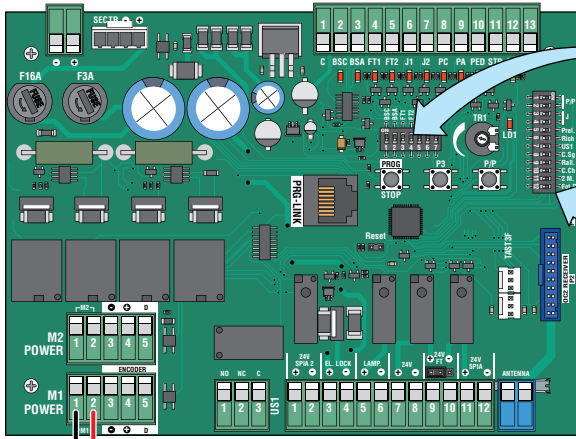
Open INSIDE - Single Operator Wiring

Operator **MUST OPEN** after initial power up. If operator begins to close, shut-off power and reverse **Red** and **Black** wires.

OPEN OUTSIDE - SINGLE OPERATOR & PHOTO EYE WIRING

Only to be used with the X9L - Long Arm

Open OUTSIDE - Single Operator Wiring

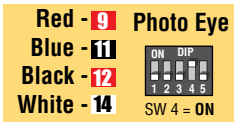
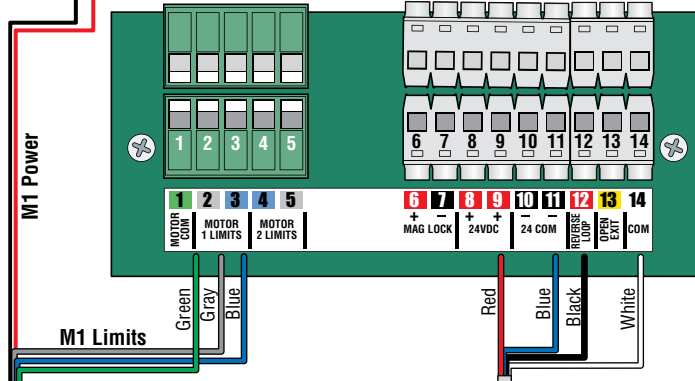


- SW 1 = ON
- SW 2 = ON
- SW 3 = OFF (Photo Eye FT1)
- SW 4 = ON
- SW 5 = OFF
- SW 6 = OFF
- SW 7 = ON

DIP Switch Settings

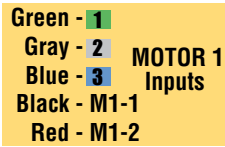


- SW 1 = OFF
- SW 2 = OFF
- SW 3 = ON (limits for motor 1 only)
- SW 4 = OFF
- SW 5 = OFF
- SW 6 = ON (automatic closure is active)
- SW 7 = OFF
- SW 8 = OFF
- SW 9 = ON (slow down near endpoints)
- SW 10 = OFF
- SW 11 = OFF (1 motor configuration)
- SW 12 = OFF



Supplied Photo Eye should be installed in closing direction as shown, see page 17 for installation requirements.

Closing-Direction Photo Eye

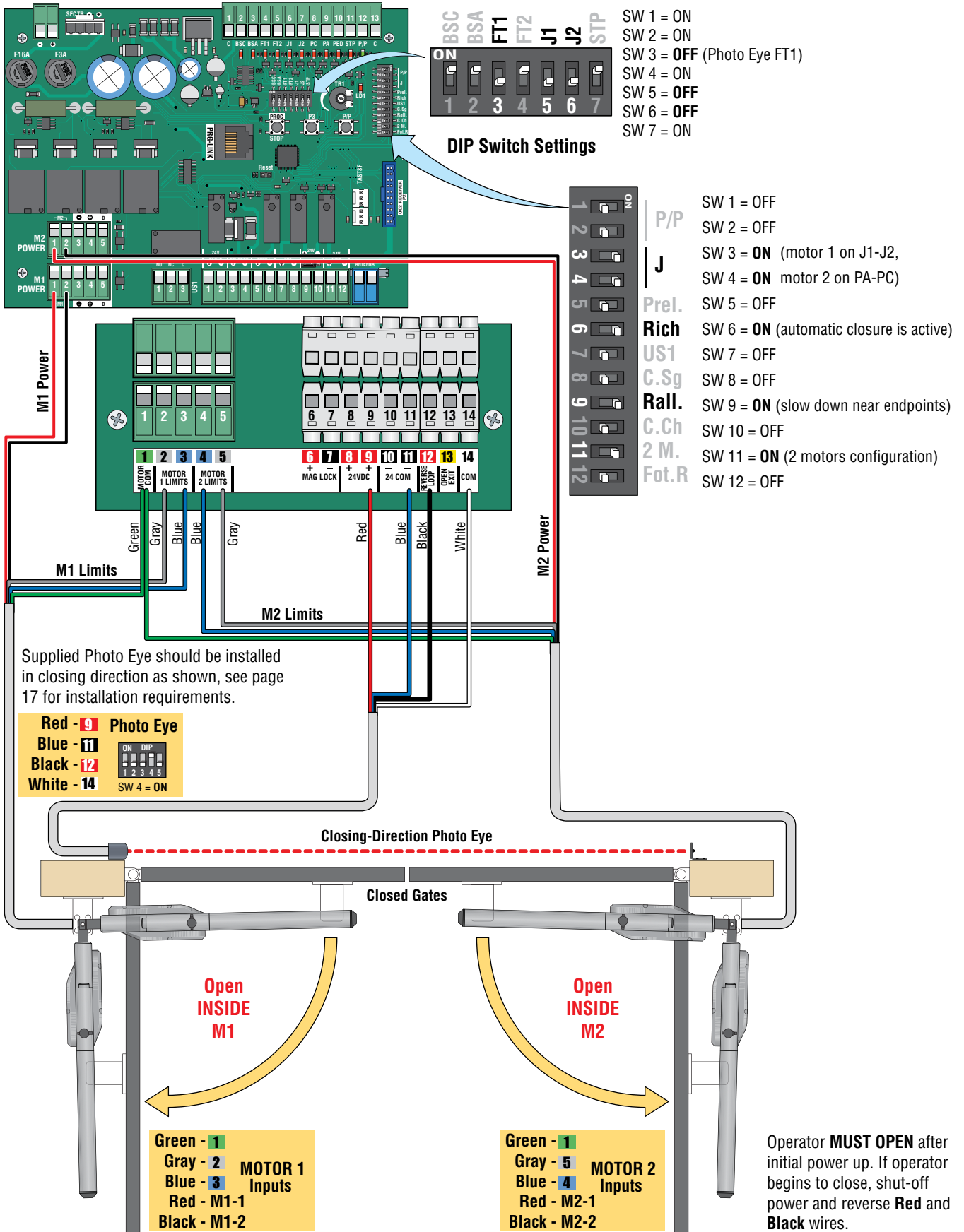


Open OUTSIDE M1

Closed Gate

Operator **MUST OPEN** after initial power up. If operator begins to close, shut-off power and reverse **Red** and **Black** wires.

OPEN INSIDE - DUAL OPERATORS & PHOTO EYE WIRING

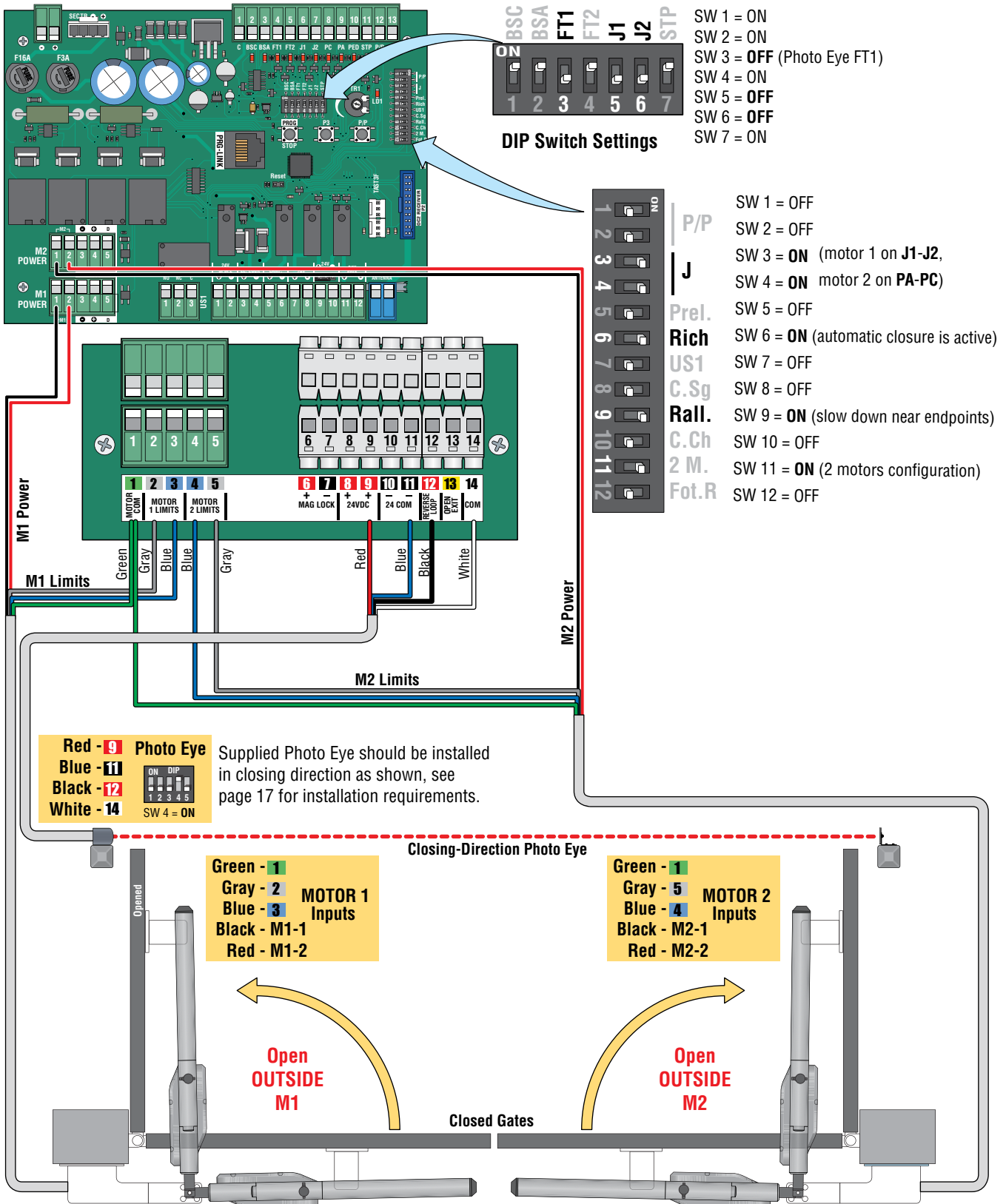


Open INSIDE - Dual Operators Wiring

OPEN OUTSIDE - DUAL OPERATORS & PHOTO EYE WIRING

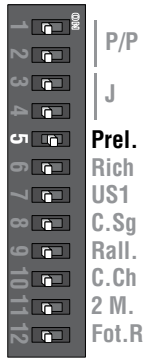
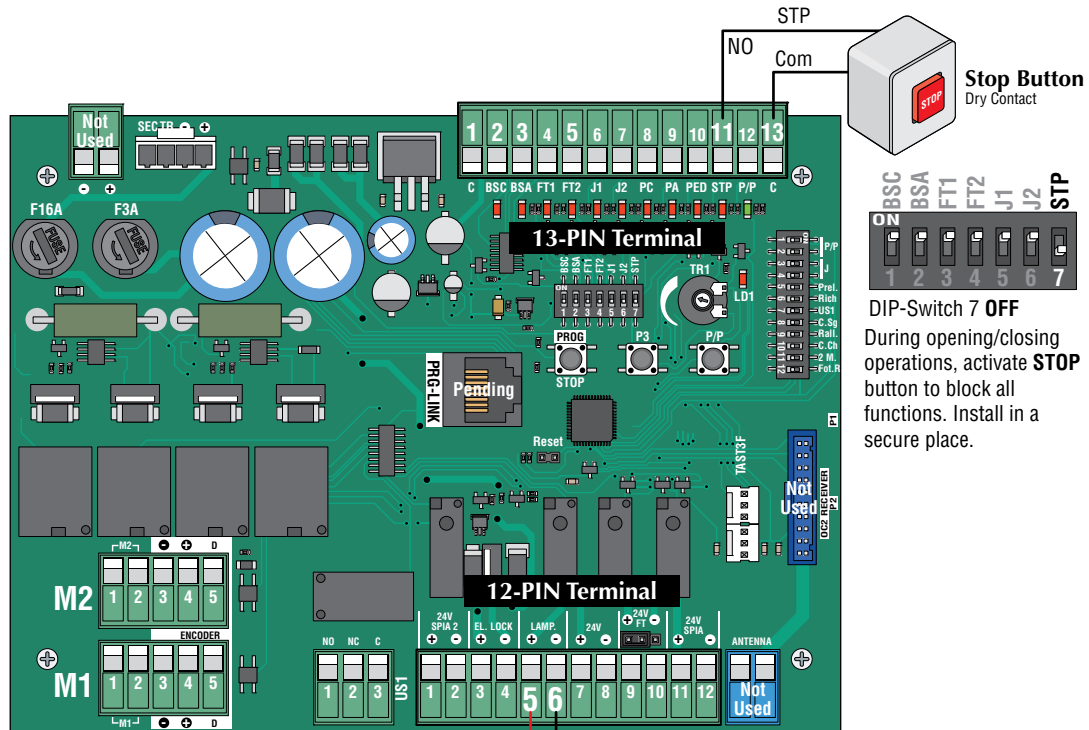
Only to be used with the X9L - Long Arm

Open OUTSIDE - Dual Operators Wiring

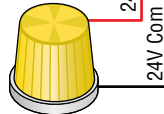


Operator **MUST OPEN** after initial power up. If operator begins to close, shut-off power and reverse **Red** and **Black** wires.

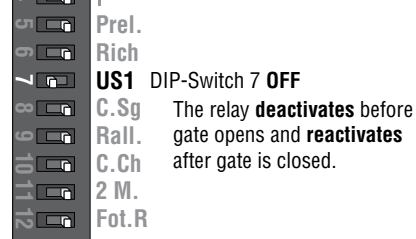
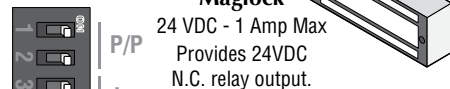
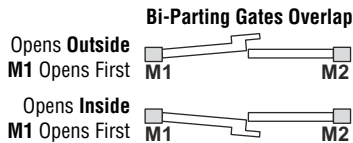
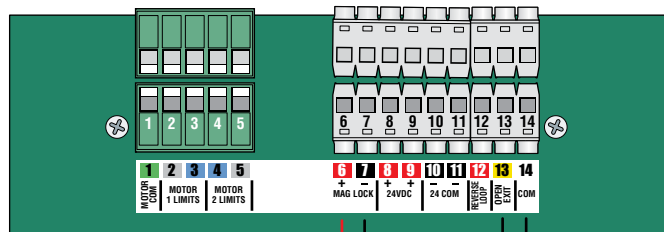
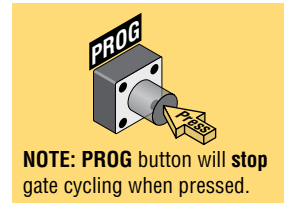
WIRING ACCESSORIES



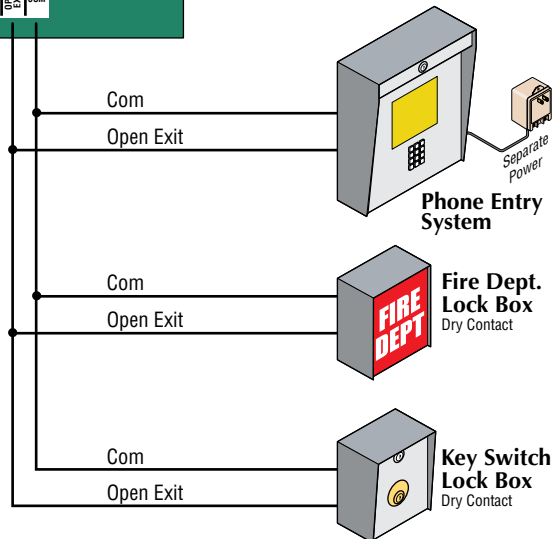
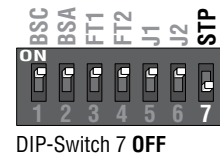
Warning Light
24 VDC



Set DIP-Switch 5 for desired Operation
OFF - The flashing light **ONLY** operates when motor operates.
ON - The flashing light operates 5 seconds **before** any motor operation.



Opening Devices



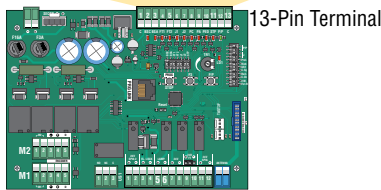
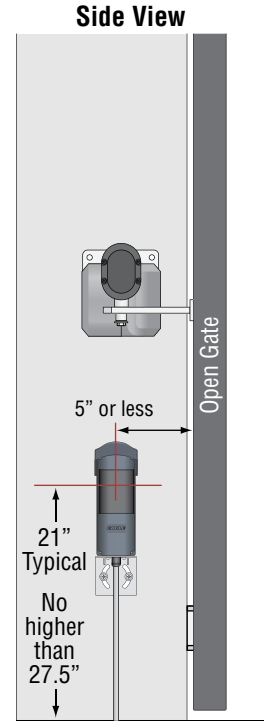
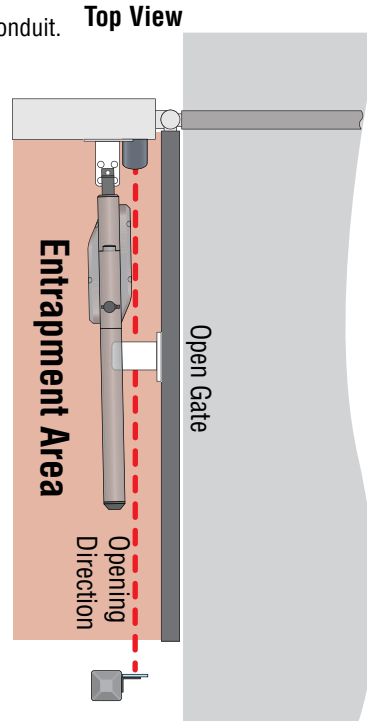
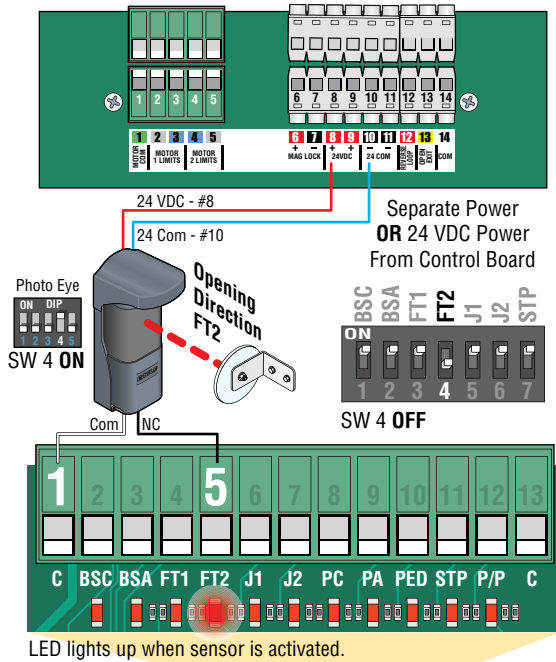
ADVANCED ACCESSORY CONNECTION

Used with the 13-Pin Terminal - Entrapment Protection

Photo Eye

Photo Eye OPENING Direction

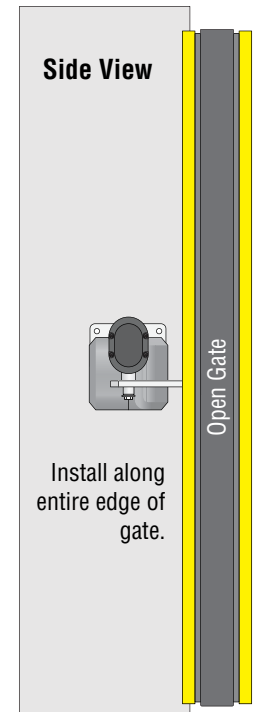
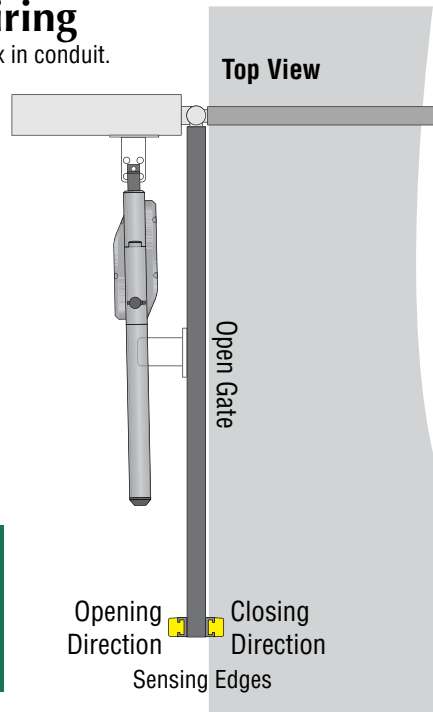
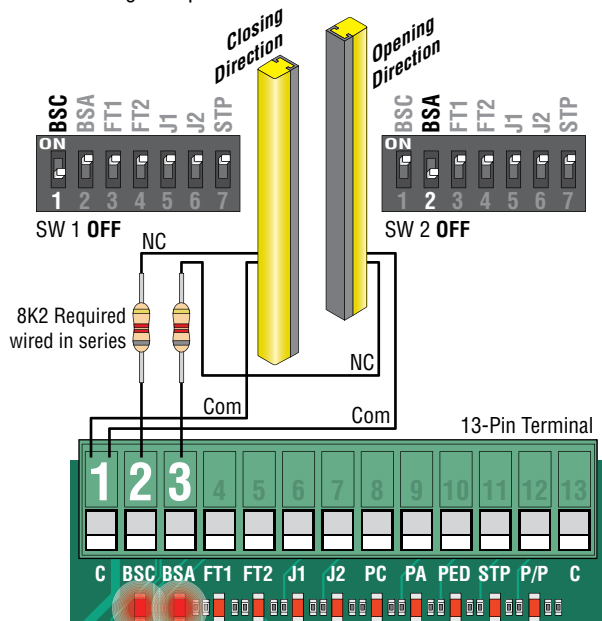
Mount photo eye in position shown and run wire to control box in conduit.



Sensing Edge

Sensing Edge Installation and Wiring

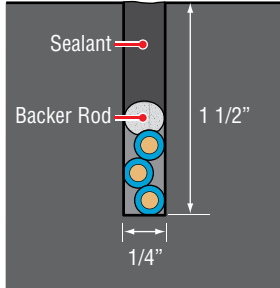
Mount the edges in position shown and run wires to control box in conduit.



LOOP DETECTORS

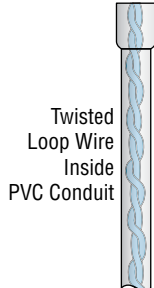
Reverse, Phantom (Shadow) and Exit In-Ground Loop Installation

Reversing and phantom loops are used to prevent the gate from closing on a vehicle while it is in the gates swinging path (**CAUTION:** phantom loop is **ONLY** active when gate is **FULLY** open, **NOT** during the closing cycle). An exit loop is used to automatically open the gate when a vehicle approaches to exit. **An experienced installer should perform this installation.**



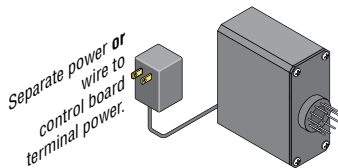
Cutaway of Groove

Loop wire must be wrapped inside the groove three times. Fill the grooves with a proper sealant.



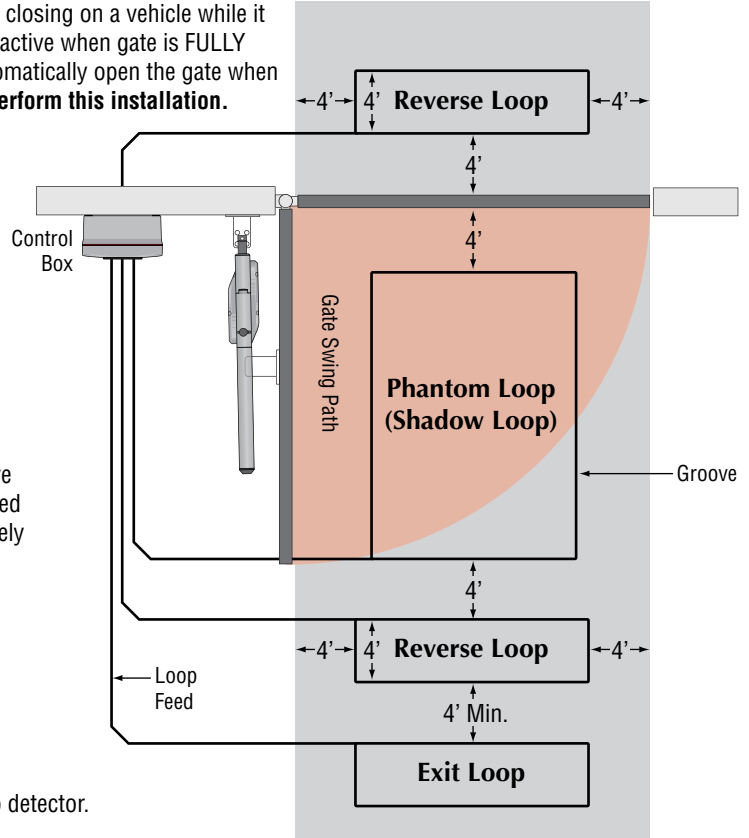
Loop Feed

Loop feed must have the loop wires twisted in them approximately 6 twists per foot.



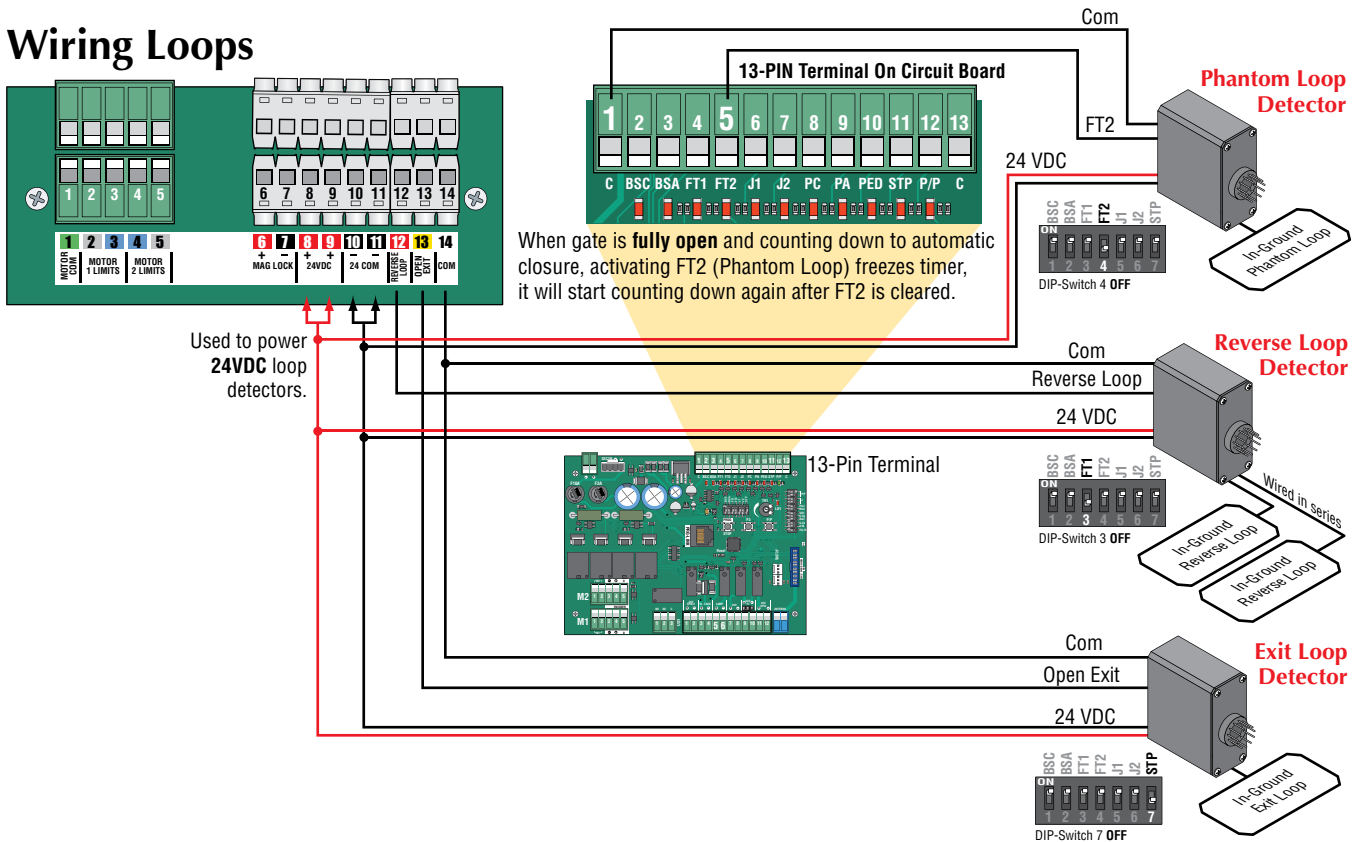
External Loop Detector

Connect loop feed wires directly to external loop detector.

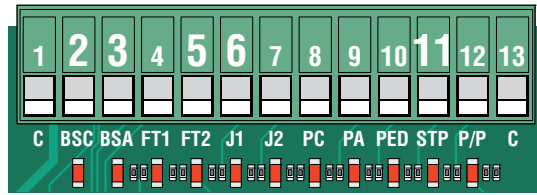


Loop Detectors

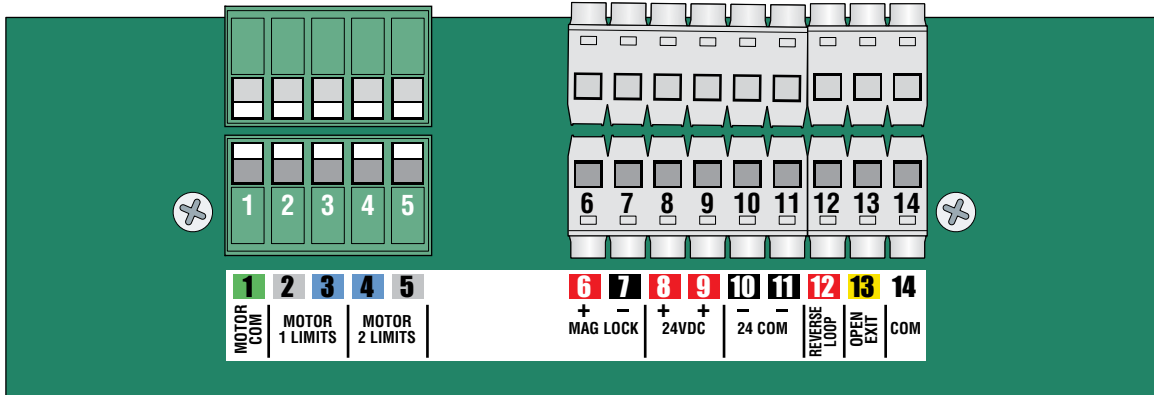
Wiring Loops



DIP-SWITCH DESCRIPTIONS

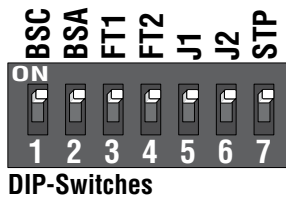


13-PIN Terminal On Circuit Board



Turn DIP-switch **OFF** for any **CONNECTED** device will **INCLUDE** them in Programming. Turning DIP-switch **ON** will **EXCLUDE** the corresponding terminal input.

DIP-Switch Descriptions



Switch	Set	Description
BSC #1	OFF	Closing sensing edge installed on terminal #2-BSC.
	ON	Excludes the closing sensing edge input on terminal #2-BSC. NOTE: Terminal #2-BSC must remain disconnected.
BSA #2	OFF	Opening sensing edge installed on terminal #3-BSA.
	ON	Excludes the opening sensing edge input on terminal #3-BSA. NOTE: Terminal #3-BSA must remain disconnected.
FT1 #3 12	OFF	CLOSING Photocell has been installed on terminals #4-FT1 & 12
	ON	Excludes the closing photocell input on terminals #4-FT1 & 12 NOTE: Terminals #4-FT1 & 12 must remain disconnected.
FT2 #4	OFF	Photocell has been installed on terminal #5-FT2.
	ON	Excludes the photocell input on terminal #5-FT2. NOTE: Terminal #5-FT2 must remain disconnected.
J1 #5 2	OFF	Device has been installed on terminals #6-J1 & 2
	ON	Excludes the J1 input on terminals #6-J1 & 2 NOTE: Terminals #6-J1 & 2 must remain disconnected.
J2 #6 3	OFF	Device has been installed on terminals #7-J2 & 3
	ON	Excludes the J2 input on terminals #7-J2 & 3 NOTE: Terminals #7-J2 & 3 must remain disconnected.
STP #7	OFF	Stop Button has been installed on terminal #11-STP.
	ON	Excludes the Stop Button input on terminal #11-STP. NOTE: Terminal #11-STP must remain disconnected.

DIP-SWITCH DESCRIPTIONS



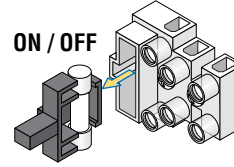
P/P

J

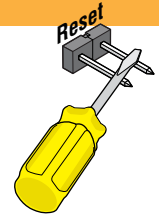
**Prel.
Rich
US1
C.Sg
Rall.
C.Ch
2 M.
Fot.R**

- After changing DIP-switches, changes will take effect after:
- Resetting the ECU (Momentarily short reset pins to RESET)
 - Shut power OFF and back ON again.
 - At the end of a complete gate cycle the new settings will take effect.

ON / OFF



Pulling the 4 Amp fuse will shut-off power.



Momentarily short pins to reset control board.

Open Input (P/P)	Setting	ON / OFF	Description
Open-Stop-Close	OFF		During OPENING , activating 13 input stops gate, activating it again closes gate.
	OFF		During CLOSING , activating 13 input stops gate, activating it again opens gate.
	ON		During OPENING , activating 13 input stops gate, then closes .
	OFF		During CLOSING , activating 13 input stops gate, then opens .
Always Open (House Complex)	OFF		During OPENING , activating 13 input has NO effect.
	ON		During CLOSING , activating 13 input stops gate, then opens .
Open-Close (NO reversal during Opening)	ON		During OPENING , activating 13 input has NO effect. After open, activating it again closes gate.
	ON		During CLOSING , activating 13 input stops gate, then opens .


Jolly Input Mode (J)	J1=Timer OFF	J2=FT 3 OFF	J1=TIMER input; closes the gate when the contact is opened and opens it when the contact is closed. J2=third photocell input (FT3); intervenes only during opening and forces closing. Use N.C. contacts.
	J1 = FCA M1 ON	J2 = FCC M1 OFF	Stops only motor M1 with electric travel limits . Use N.C. contacts (Single Operator)
	J1 = FCA M1 OFF	J2 = FCA M2 ON	Both M1 and M2 motors are stopped using electric travel limits . Use N.C. contacts (Dual Operators)
	J1 = FCA M1 ON	J2 = FCC M1 ON	For installations with 4 travel limits. Connect the travel limits of motor M1 to the inputs 2 and 3 . Connect the travel limits of motor M2 to the inputs 4 and 5 . Use N.C. contacts
Preflash (Prel.)	OFF	Excluded - The flashing light operates together with the motor.	
	ON	Inserted - The flashing light operates 5 seconds before any operation.	
Re-Closure Timer (Rich)	OFF	Excluded - After one complete opening, the control unit only closes again with a manual control .	
	ON	Inserted - After one complete opening, the control unit closes automatically after the programmed pause time (Auto-Close Timer).	
US1 Output (US1)	C OFF	Dry Contact - This contact gives information regarding the status of the gate. The relay activates as the gate begins to open and deactivates only after complete closing has been achieved.	
	NO ON	CH 2 (OC2) - Second radio channel output. If you don't use this function the second radio channel will activate pedestrian opening. (Not Used)	
Gate Release Jolt (C. Sg)	OFF	Excluded - Function excluded.	
	ON	Inserted - The gate release jolt is needed to release the electric lock . The gate with M1 installed will carry out a brief closing movement before starting the opening cycle.	
Slowdown (Rall)	OFF	Excluded - There is NO slowdown in the last part of travel.	
	ON	Inserted - With the slowdown function connected, the motor halves its speed at end of gate cycle.	
Power Closing Jolt (C.Ch)	OFF	Excluded - Increased power closing is NOT carried out.	
	ON	Inserted - The end of closing cycle will increase to full power on motor M1.	
1-2 Motors (2 M)	OFF	1 Motor - Only M1 motor output is enabled. (Single Operator)	
	ON	2 Motors - Enables both M1 and M2 motor outputs. (Dual Operator)	
Re-Closing after Photocells (Fot.R)	OFF	Excluded - Function excluded.	
	ON	Inserted - One Pass activation of a photocell reduces the pause time from what is was to ONLY 2 sec.	

DIP-Switch Descriptions


PROGRAMMING & ADJUSTMENTS

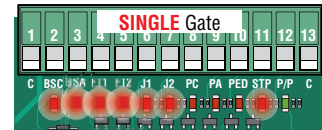
Program Travel Distance and Pause Time to Close Gate(s)

Limit switches and mechanical stops **MUST** be **CORRECTLY** positioned **BEFORE** programming either **SINGLE** or **BI-PARTING** gates on next page.

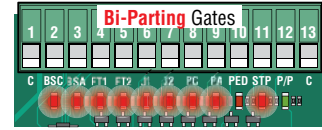
6  **Rall.** DIP-Switch 9-Rall. **ON DURING** programming: **Self-learning** cycle that **slows down** after **5 SEC** so it can find the mechanical travel limit **safely**. Use this setting for longer and/or heavier gate.

DIP-Switch 9-Rall. **OFF DURING** programming: **Rapid** mechanical travel limit detection **without** slow down.


11  **2 M.** DIP-Switch 11-2 M **OFF** for **SINGLE** Gate.
DIP-Switch 11-2 M **ON** for **Bi-Parting** Gates.



BSC, BSA, FT1, FT2, J1, J2 and STP **MUST** be LIT



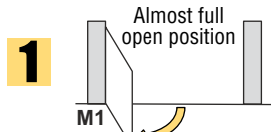
BSC, BSA, FT1, FT2, J1, J2, PC, PA and STP **MUST** be LIT

BEFORE beginning programming, check the correct DIP-Switch settings and connections by observing the leds: 

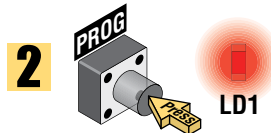
OPTIONAL Slow Down programming: Not required to complete programming. Typically used with uneven opening, longer or heavier gates.

DIP-Switch 9 set to **ON** only **AFTER** programming complete. The **OPTIONAL** programmed slow down times will be **enabled**.

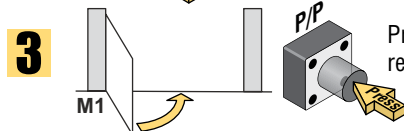
SINGLE Gate Programming



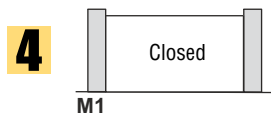
Shut-off the power. **Manually release** the operator and move to an **almost fully open** position. Re-lock operator and turn power back **ON**.



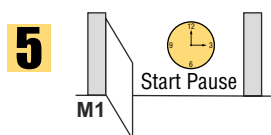
Hold down the **PROG** button for at least 3 seconds until led **LD1** lights up. **"Programming mode"** has been activated.



Press the **P/P** button. The gate should begin to **CLOSE**, if it opens instead, **shut-off the power**, reverse **motor M1** Red and Black wires and start again.

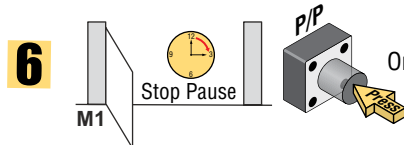


When gate has **closed** it will **stop** and start **opening automatically**.

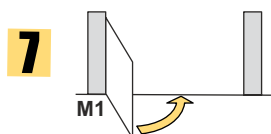


When the gate has **opened completely** (reaching the mechanical stop), **PAUSE TIME** memorization will start **automatically**.

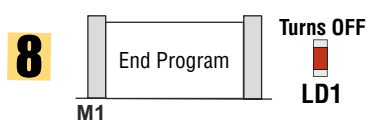
NOTE: If automatic reclosing pause is not desired you may press **P/P** button **immediately**.



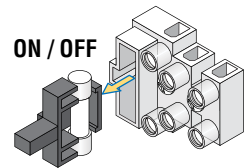
Once the desired **PAUSE TIME** has elapsed, **Press P/P** button.



Gate will begin to **close**.

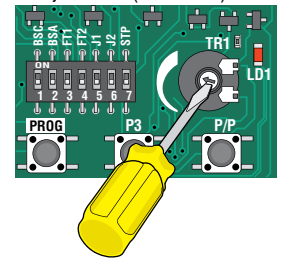


When the gate has **closed completely**, the motor will stop, led **LD1** will **turn OFF** and programming mode ends.



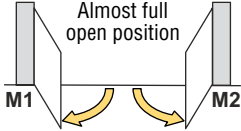
Pulling the 4 Amp fuse will shut-off power.

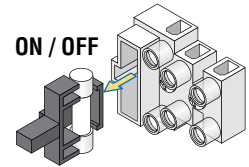
NOTE: If the operator stops before reaching the travel limit, **decrease the TR1** reversing **sensitivity** adjustment (clockwise).



BI-PARTING Gates Programming

See “**Programming Travel Distance and Pause Time to Close Gate(s)**” statements about DIP-Switch settings etc. on previous page **BEFORE** programming Bi-Parting gates.

1  Almost full open position
Shut-off the power and **Manually release** the gate leaves and move them to an **almost fully open** position. Re-lock operator(s) and turn power back **ON**.

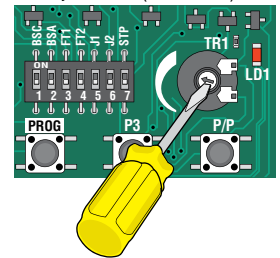


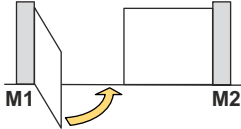
Pulling the 4 Amp fuse will shut-off power.

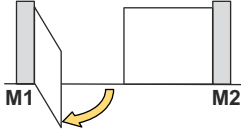
2  **PROG** **LD1**
Hold down the **PROG** button for at least 3 seconds until led **LD1** lights up. “**Programming mode**” has been activated.

3  **P/P**
Press the **P/P** button. The gate with **M2 Operator** should begin to **CLOSE**. If it opens instead, **shut-off the power**, reverse **motor M2 Red and Black wires** and start again.

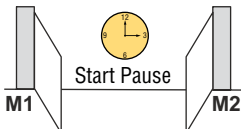
NOTE: If the operator stops before reaching the travel limit, **decrease the TR1 reversing sensitivity adjustment (clockwise).**



4  **M1** **M2**
When gate leaf with **M2 Operator** has completely closed it will **stop** and **M1 Operator** will begin to **close**. If it opens instead, **shut-off the power**, reverse **motor M1 Red and Black wires** and start again.

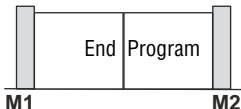
5  **M1** **M2**
When the gate leaf with **M1 Operator** has completely **closed** it will stop and start to **open automatically**.

6  **M1** **M2**
When the gate with **M1 Operator** completely opens, **M2 Operator** will begin to **open**.

7  **M1** **M2** Start Pause
When the gate with **M2 Operator** has **opened completely** (reaching the mechanical stop), **PAUSE TIME** memorization will start **automatically**.
NOTE: If automatic reclosing is not being used you may press **P/P** button immediately.

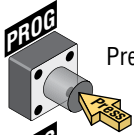
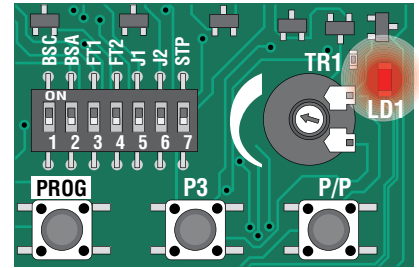
8  **M1** **M2** Stop Pause **P/P**
Once the desired **PAUSE TIME** has elapsed, **Press P/P button** and **M2 Operator** will begin to **close**.

9  **M1** **M2**
When the gate with **M2 Operator** completely closes, **M1 Operator** will begin to **close**.

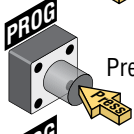
10  **M1** **M2** End Program **Turns OFF** **LD1**
When the gate with **M1 Operator** has **closed completely**, the motor will stop, led **LD1** will **turn OFF** and programming mode ends.

MODIFY PROGRAMMED PAUSE TIME TO CLOSE GATE

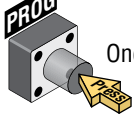
This procedure allows you to modify the pause time set during previous programming procedure. This operation must be carried out with the gate **CLOSED**.



Press the **PROG** button and hold it down until the **Led LD1** lights up and remains lit.



Press the **PROG** button **again**, **LD1** will start to **flash** and start to memorize the pause time.

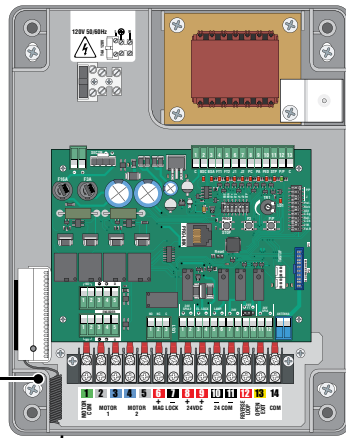
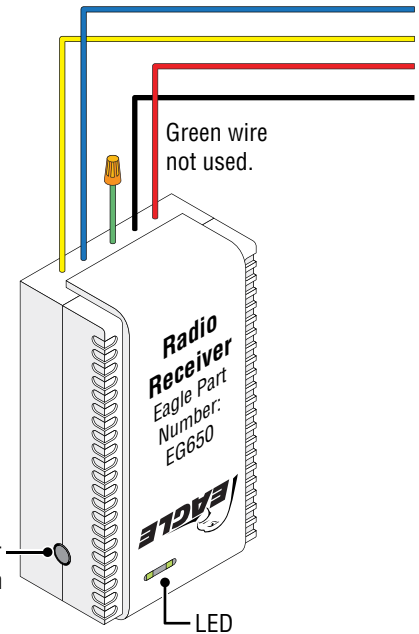


Once the desired pause time has elapsed, press the **PROG** button **again**. **LD1** will turn off and the procedure will terminate.

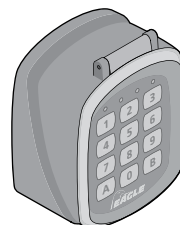
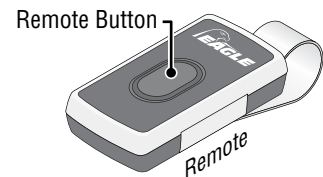
LEARN REMOTE BUTTON

LEARN Remote Button

1. Press and release button on the receiver. LED will turn red.
2. Press button on remote twice and the LED will flash and turn back to green.
3. Repeat steps for other desired remote buttons.
4. To delete all remotes, hold the receiver program button for 8 seconds.
5. The EG650 receiver has a maximum capacity of 30 remotes.
Optional: EG652 receiver has a maximum capacity of 300 remotes.



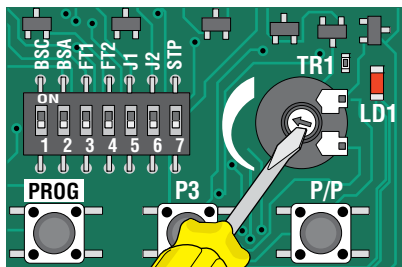
Leave antenna wire coiled up inside box for limited range or run antenna through a hole in the bottom of box to increase wireless range.



Eagle Wireless Keypad
Eagle Part Number: EG654

ADJUST REVERSE SENSOR

Carry out the impact test and adjust the motor force by rotating the trimmer (**TR1**).
 If this is not sufficient, we advise you to install a rubber protective edge at the head of the gate so as to soften the impact.
 If you have adjusted the sensitivity setting and added a rubber profile to the head of the gate and you are still unable to satisfy the standards in force, you will need to add other safety devices such as a sensitive safety edge to the moving part of the gate.

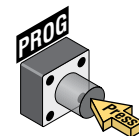


IMPORTANT: The level of sensitivity has to do with the weight of the gate and the condition of the installation. A heavier gate will require **LESS** sensitivity and a lighter gate will require **MORE** sensitivity.

When adjusting the sensors sensitivity:

TOO sensitive - If the gate stops or reverses by itself.

NOT sensitive enough - If the gate strikes an object and does **NOT** stop or reverse.



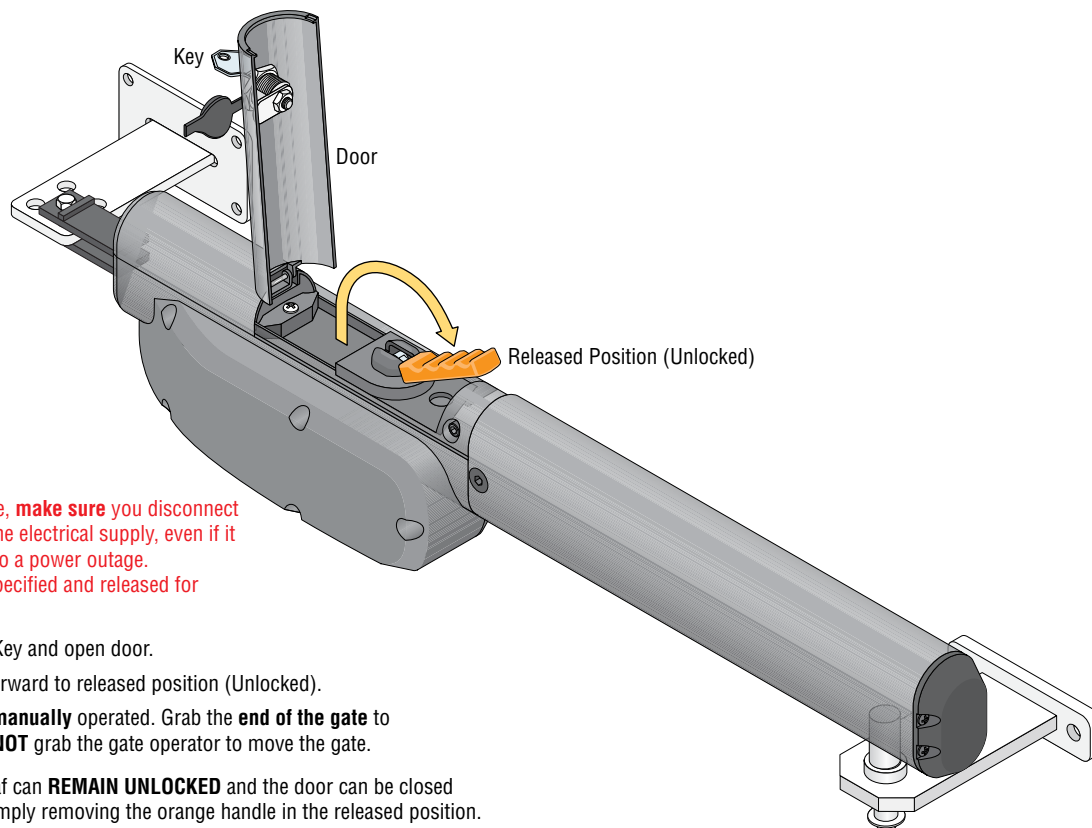
NOTE: PROG button will stop gate cycling when pressed.

TR1 adjusts for both the **OPENING** direction and **CLOSING** direction of the gate. **Both** directions **MUST** be adjusted. Adjustment must be made so that the gate stops and reverses when meeting an obstruction.

Proper function of reverse sensor:

When meeting an obstruction in the **CLOSING** direction, the gate will **STOP**, reverse direction and return to the **FULL OPEN** position.
 When meeting an obstruction in the **OPENING** direction, the gate will **STOP** and reverse its direction and **stop again** after 4-6 inches.

POWER FAIL OPERATION



Before performing procedure, make sure you disconnect the entire automation from the electrical supply, even if it is currently unpowered due to a power outage.
 Any electric locks must be specified and released for manual operations.

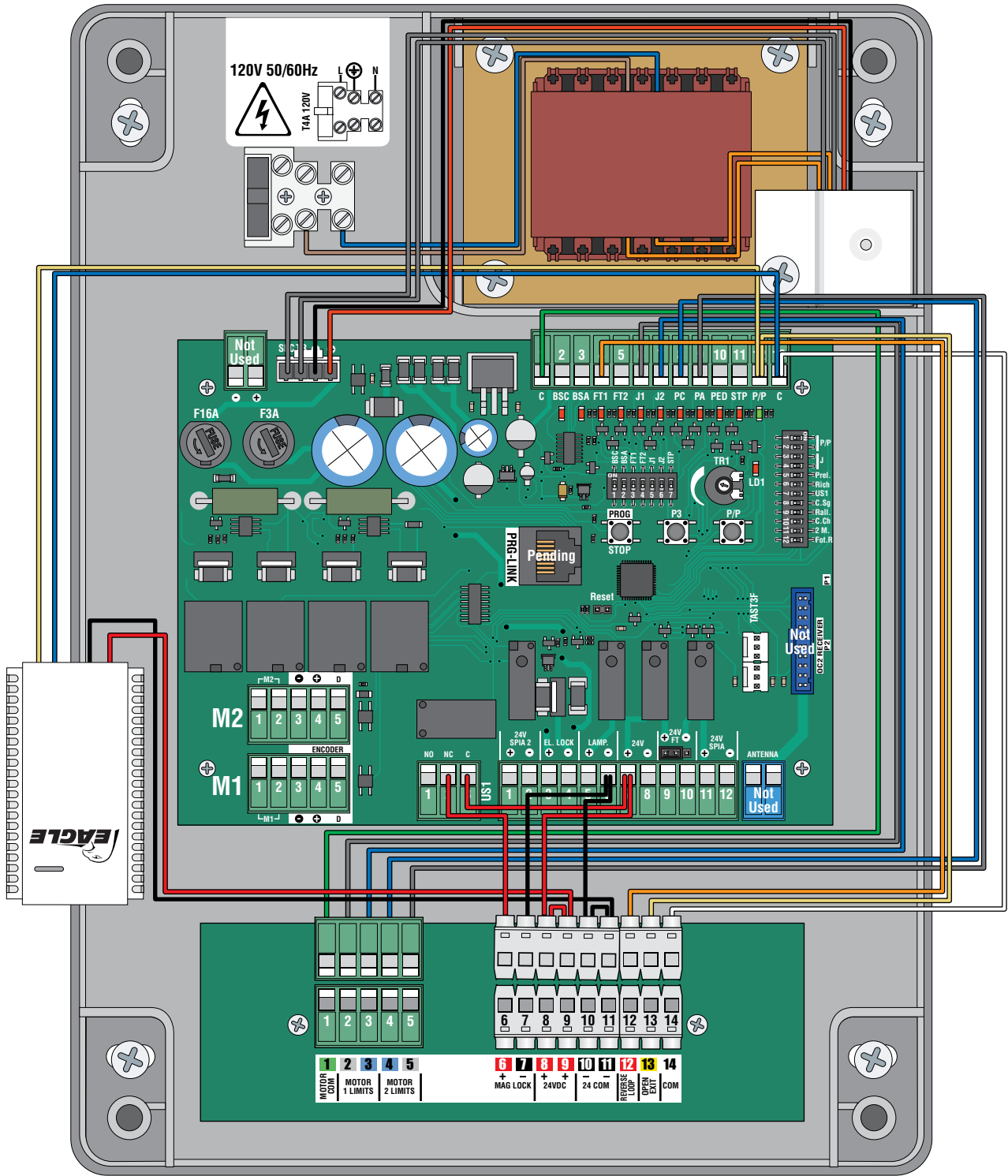
1. Unlock with Key and open door.
2. Flip handle forward to released position (Unlocked).
3. Gate can be **manually** operated. Grab the **end of the gate** to move it. **DO NOT** grab the gate operator to move the gate.

NOTE: The gate leaf can **REMAIN UNLOCKED** and the door can be closed and relocked by simply removing the orange handle in the released position.

4. **To Lock Operator again:** Flip orange handle back to original position.
5. Close and lock door. Operator is ready for normal operation again.

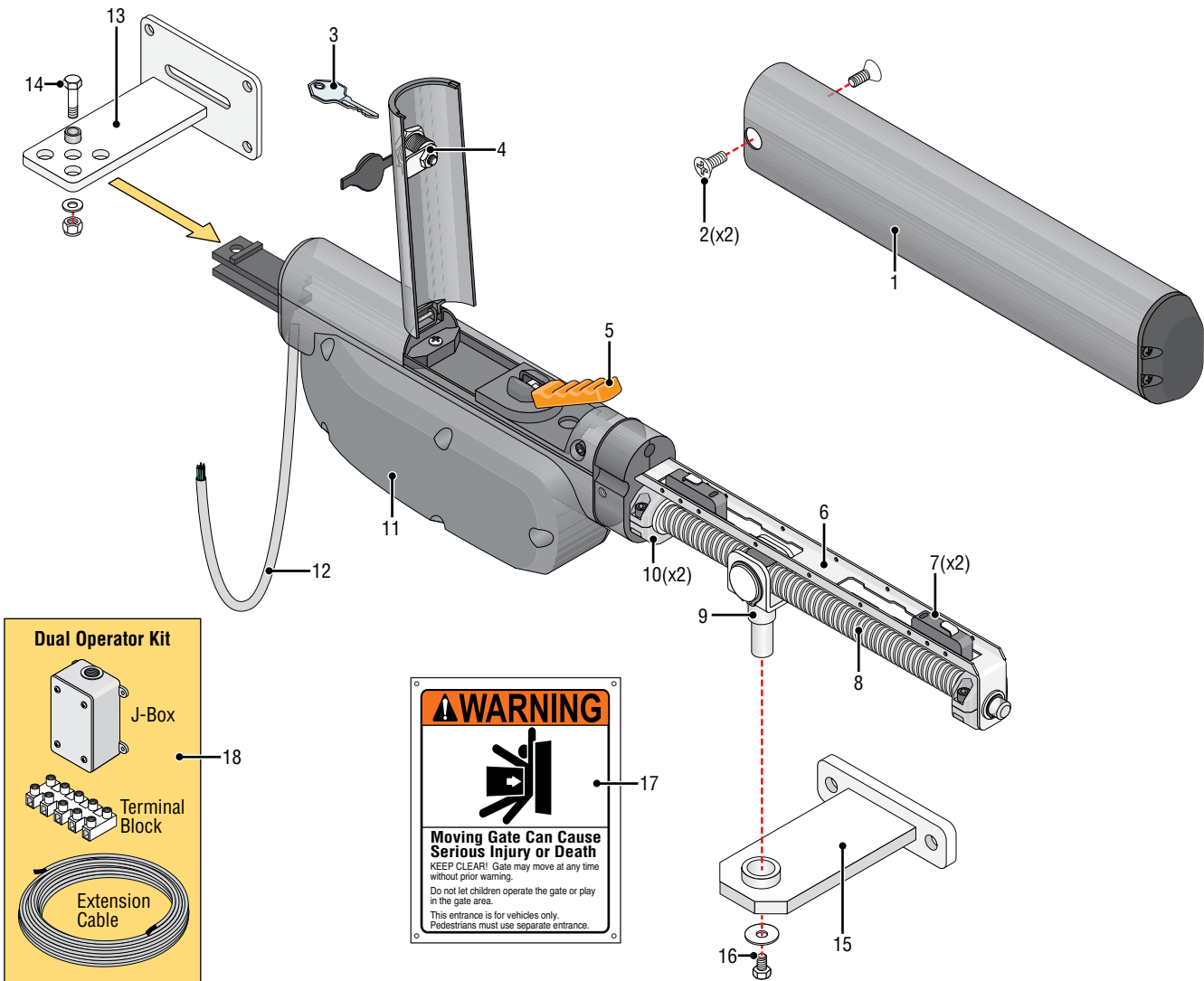
CONTROL BOX WIRING DIAGRAM

Control Box Wiring Diagram



X9 REPLACEMENT PARTS ILLUSTRATION

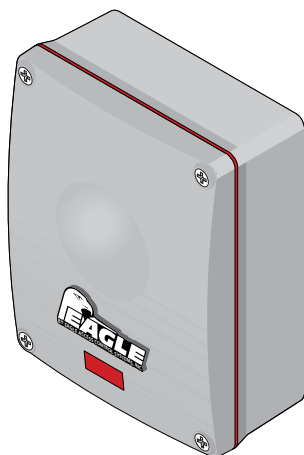
Eagle Parts List on next page.



Replacement Parts Illustrations

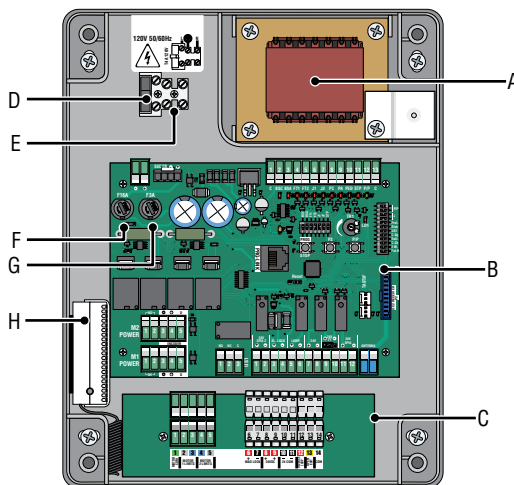
CONTROL BOX REPLACEMENT PARTS ILLUSTRATION

Eagle Parts List on next page.



Complete Control Box Assembly
I

Plastic Control Box ONLY
J



Eagle Parts List on next page.

X9 REPLACEMENT PARTS LIST

Item	X9-Number	Part Description
1	X9002	X9 Operator Cover (Removable)
2	X9004	X9 Cover Bolt (x2)
3	X9006	X9 Key
4	X9008	X9 Lock
5	X9010	X9 Manual Release Handle
6	X9012	X9 Limit Plate
7	X9014	X9 Limit Switch (x2)
8	X9016	X9 Stroke Screw Shaft
9	X9018	X9 Stroke Pin Assembly
10	X9020	X9 Mechanical Stop (x2)
11	X9022	X9 Motor Assembly / Motor Housing
12	X9024	X9 Motor Cable
13	X9026	X9 Rear Bracket
14	X9028	X9 Rear Bracket Securing Bolt Assembly
15	X9030	X9 Front Bracket
16	X9032	X9 Front Bracket Securing Bolt Assembly
17	X9034	Warning Sign
18	X9035	Dual Operator Kit

CONTROL BOX REPLACEMENT PARTS LIST

Item	X9-Number	Part Description
A	X9036	Step-Down Transformer
B	X9038	X9 Control Board
C	X9040	14-PIN Terminal Board
D	X9042	T4 Amp Fuse
E	X9044	Input Power Terminal On/Off Switch
F	X9046	F16 Amp Fuse
G	X9048	F3 Amp Fuse
H	X9050	Eagle Transmitter
I	X9048	Control Box Assembly (Complete)
J	X9048	Plastic Control Box ONLY

If you are uncertain about a specific part you may need, please call us for assistance:

1-800-708-8848



X9S & X9L

Swing Gate Operators

www.eagleoperators.com

Toll Free: 1-800-708-8848

Phone: (818) 837-7900

Fax: (818) 837-7911

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