

## **WARNING**

To prevent possible **SERIOUS INJURY** or **DEATH** from a closing door or gate:

- Be sure to **DISCONNECT POWER** to the operator **BEFORE** installing the photoelectric sensor.
- The door or gate **MUST** be in the fully opened or closed position **BEFORE** installing the LiftMaster® Monitored Entrapment Protection device.
- Correctly connect and align the photoelectric sensor.
- Install the photoelectric sensor beam **NO HIGHER** than 6" (15 cm) above the floor for door and 27.5" (69.8 cm) above grade for gate operators.
- LiftMaster® Monitored Entrapment Protection devices are for use with LiftMaster® Commercial Door and Gate Operators **ONLY**. Use with **ANY** other product voids the warranty.
- Entrapment protection devices **MUST** be installed per the operator owner's manual for each Entrapment Zone.

## **APPLICATION**

The LiftMaster® Monitored Protector System models CPS-RPEN4 and CPS-RPEN4GM, are single-sided safety devices providing monitored entrapment protection for use with LiftMaster® Commercial Door and Gate Operators. The CPS-RPEN4 and CPS-RPEN4GM may be installed in areas exposed to rain or moisture. The images are for reference and your product may look different.

<b>Model CPS-RPEN4 (LiftMaster® Commercial Door Operators)</b>		<b>Model CPS-RPEN4GM (LiftMaster® Gate Operators)</b>		
Logic 4	FDCL Commercial Door Operator	CSL24V Series	RSW12V Series	LA500
Medium Duty Logic	FDOA Commercial Door Operator	CSW24V Series	LA400	
FDC Commercial Door Operator	FDOB Commercial Door Operator	RSL12V Series	LA412	

## **CARTON INVENTORY**

Photoelectric Sensor . . . . .	(1)	Reflector Support Bracket . . . . .	(1)
Mounting Brackets . . . . .	(2)	Installation Instruction . . . . .	(1)
Reflector . . . . .	(1)	Self-tapping Screws . . . . .	(4)

## **LIFTMASTER® MONITORED PROTECTOR SYSTEM**

### **IMPORTANT INFORMATION ABOUT THE PHOTOELECTRIC SENSOR**

**Be sure power to the operator is disconnected.**

When properly connected and aligned, the photoelectric sensor will detect an obstruction in the path of its beam. If an obstruction breaks the beam while the door/gate is closing, the operator will stop and typically reverse to the full open position.

The photoelectric sensor must be installed so that it faces the reflector across the entrapment zone, no more than 6" (15 cm) above the floor for a door and no more than 27.5" (69.6 cm) above grade for a gate. Minimum installation width of 5 feet and maximum width of 50 feet. The devices can either be installed on the left or right of the entrapment zone.

The brackets must be securely fastened to a solid surface such as the wall framing. If installing in masonry construction, add a piece of wood at each location to avoid drilling extra holes in masonry if repositioning is necessary.

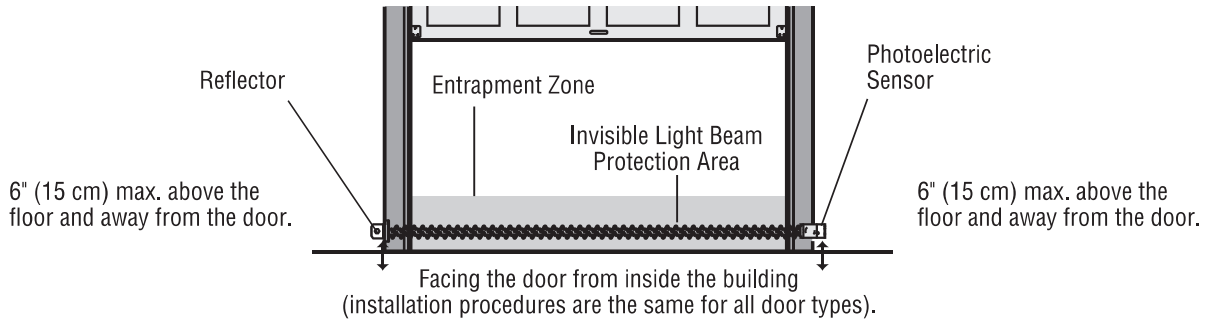
The invisible light beam path must be unobstructed. No part of the gate or door (or door tracks, springs, hinges, rollers or other hardware) may interrupt the beam while the door/gate is closing.

## ENTRAPMENT ZONES

Make sure the brackets are aligned so the photoelectric sensor and reflector will face each other across the entrapment zone as illustrated. Determine the configuration for your brackets.

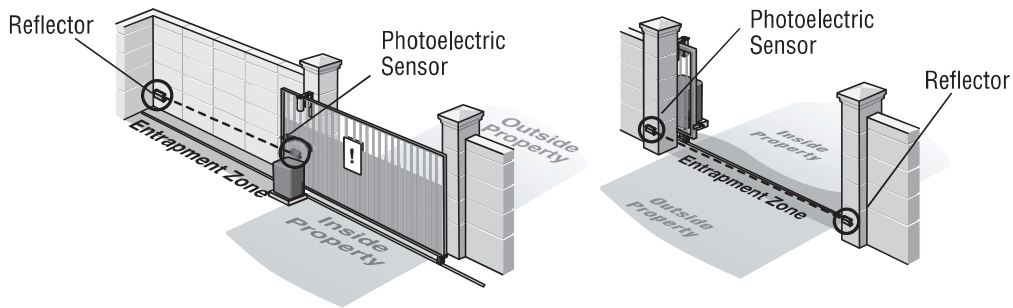
### COMMERCIAL DOOR APPLICATION (MODEL CPS-RPEN4)

#### COMMERCIAL DOOR ENTRAPMENT ZONE

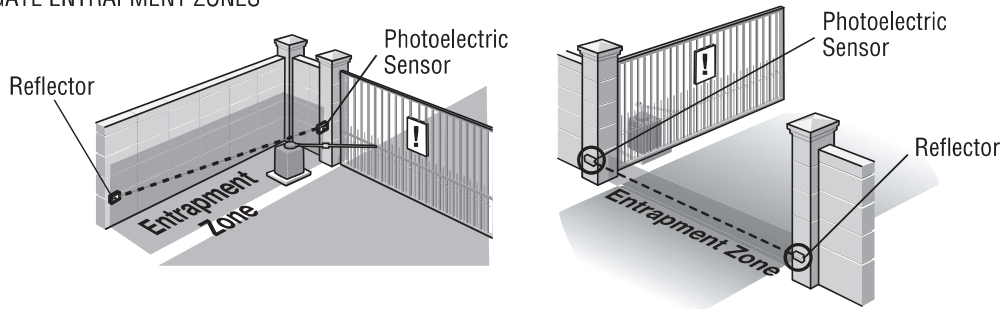


### GATE APPLICATION (MODEL CPS-RPEN4GM)

#### SLIDE GATE ENTRAPMENT ZONES

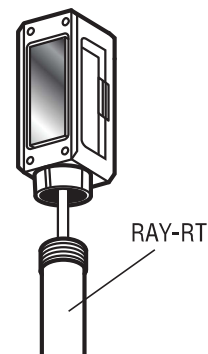


#### SWING GATE ENTRAPMENT ZONES



### FOR HIGHLY CORROSIVE ENVIRONMENTS

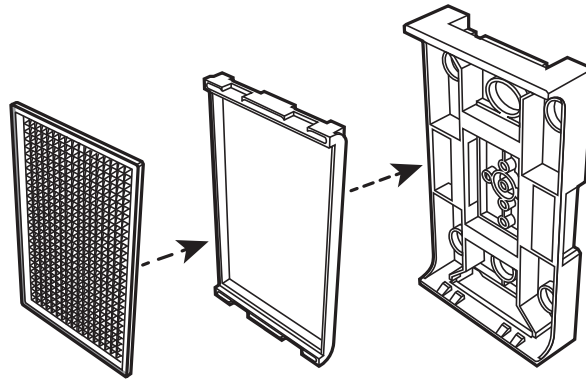
RAY-RT is recommended for installation in locations near saltwater or chemicals instead of the flexible conduit supplied with the sensor. The RAY-RT easily fits into standard 1/2"-14 NPSM thread connectors.



# COMMERCIAL DOOR APPLICATION

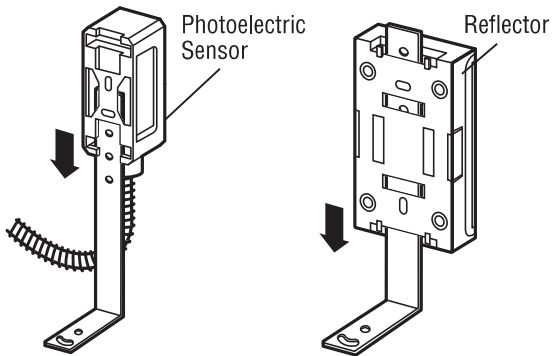
## INSTALLATION

1. Assemble reflector.

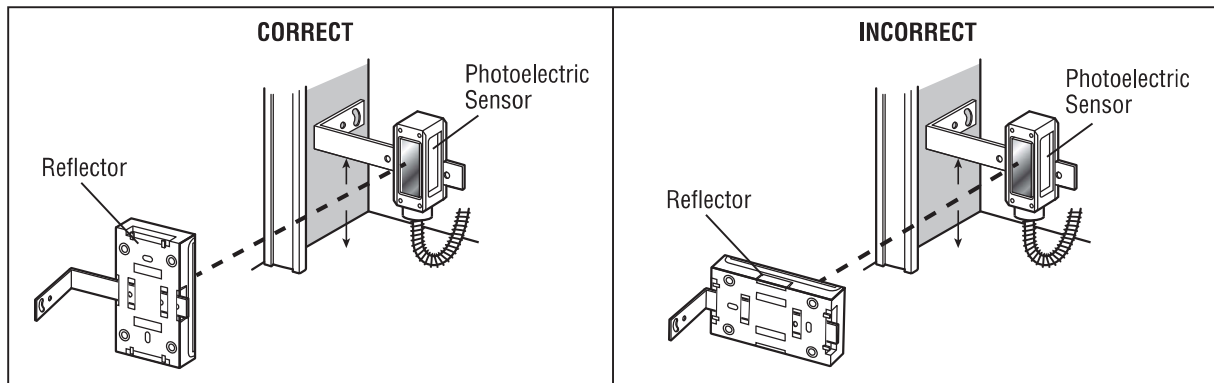
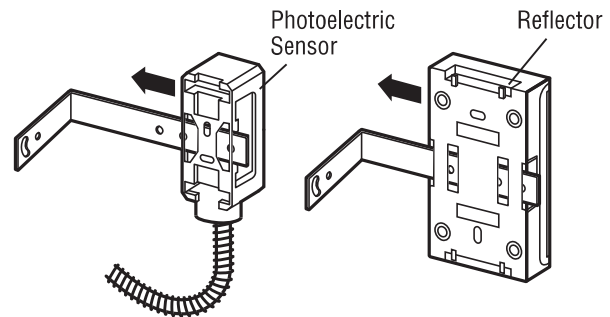


2. Slide the photoelectric sensor and the reflector onto the mounting brackets and secure with self-tapping screws provided. The photoelectric sensor and reflector must be aligned with the same orientation.

FLOOR MOUNT

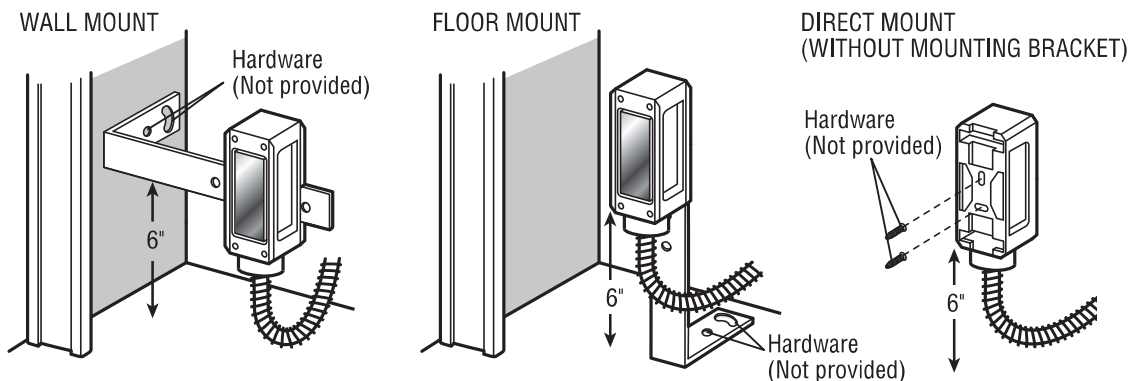


WALL MOUNT



3. Attach mounting bracket to solid surface with hardware (not provided).

**NOTE:** Track mounting is not recommended.



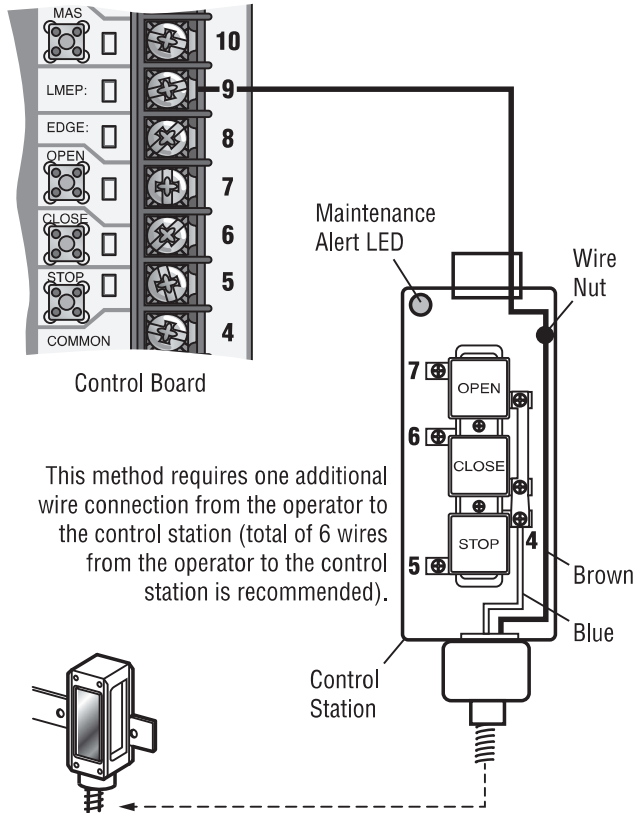
## WIRING CONNECTIONS

**Be sure power to the operator is disconnected. Do not run control wiring in the same conduit with AC power.**

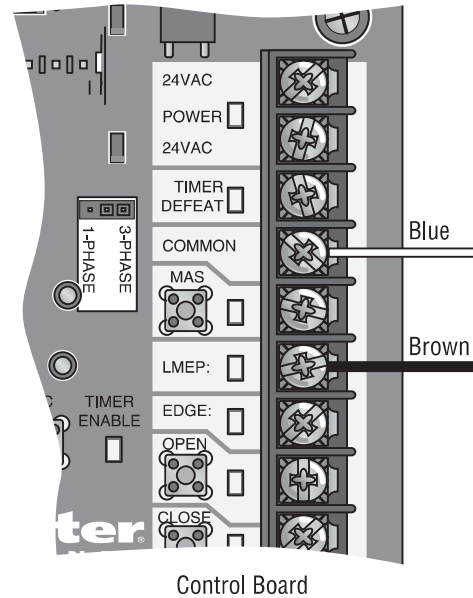
The wire cable is intended to aid in installation to either a junction box on the wall or can be routed through the control station mounted next to the door allowing the wires to run in the same conduit as the controls. The photoelectric sensor also is capable of receiving a 1/2" thread conduit.

Connect the photoelectric sensor as illustrated below for your operator type. The wiring is polarity sensitive so make certain to wire as indicated below.

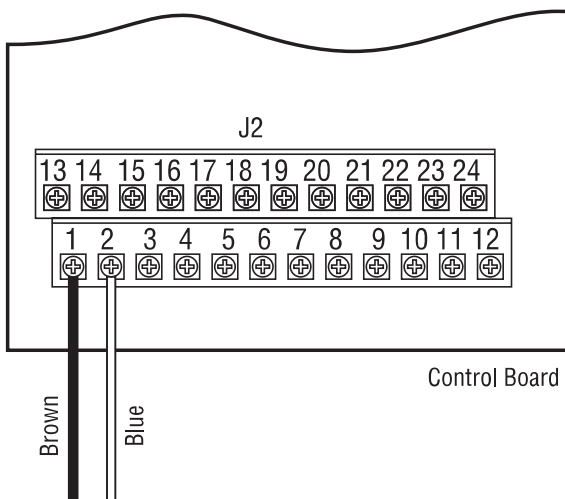
### LOGIC 4.0 - INCORPORATING THE CONTROL STATION



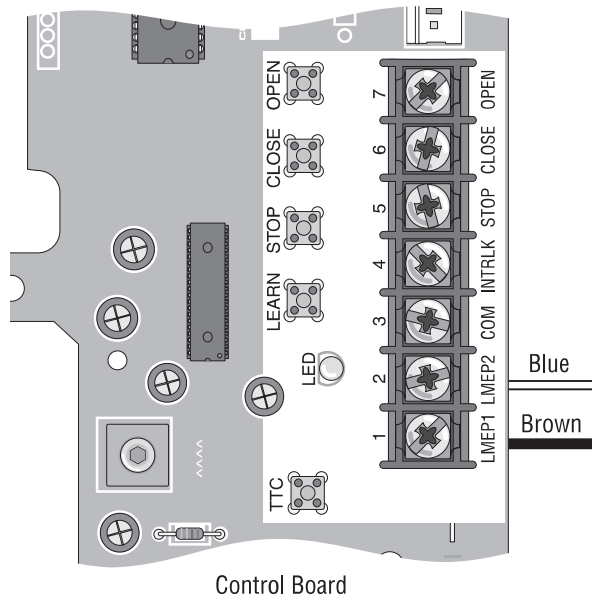
### LOGIC 4.0



### COMMERCIAL DOOR OPERATORS MODELS FDC, FDCL, FDOA, AND FDOB



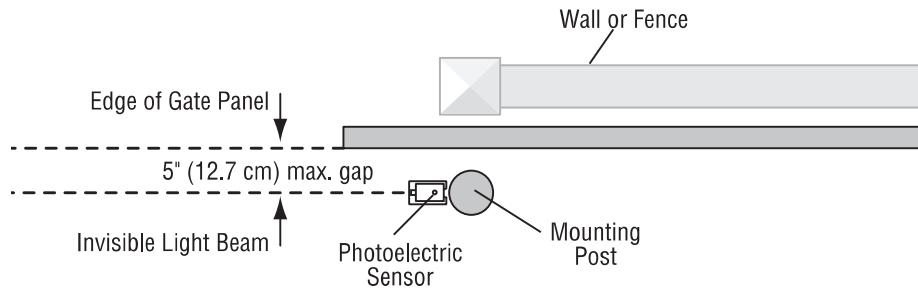
### MEDIUM DUTY LOGIC



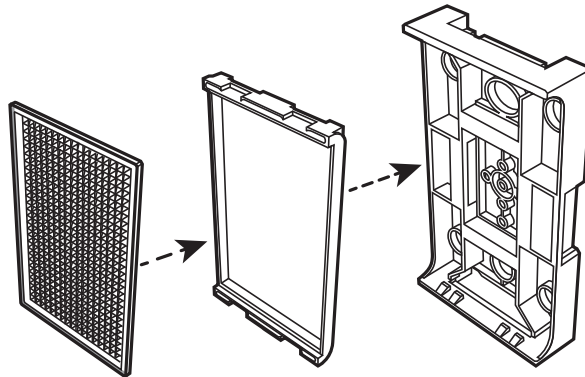
## GATE APPLICATION

### INSTALLATION

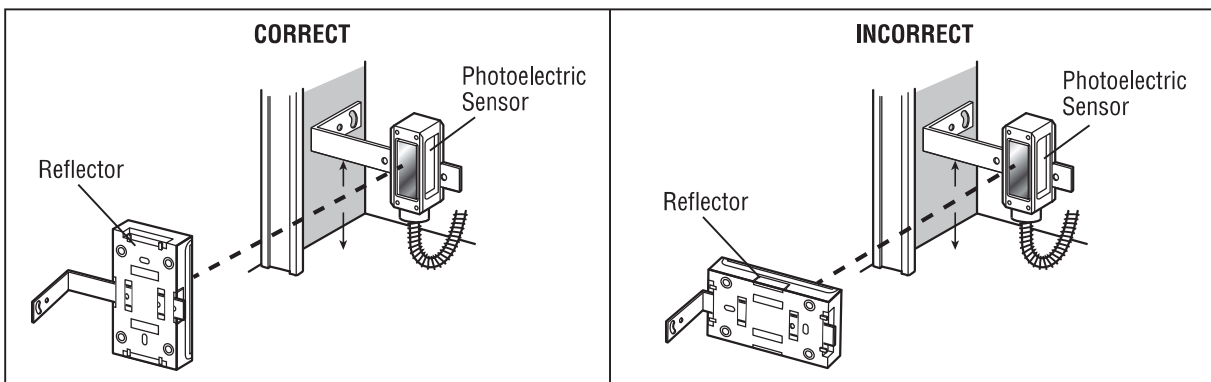
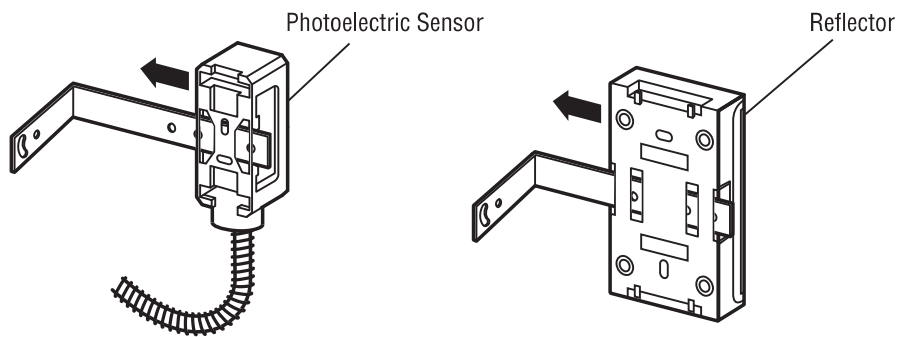
Install the photoelectric sensors and reflector up to 5" (12.7 cm) maximum from the gate.



1. Assemble reflector.

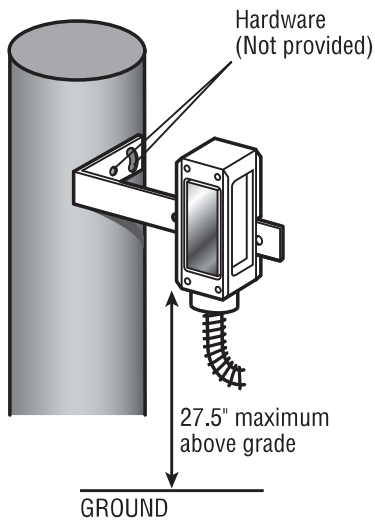


2. Slide the photoelectric sensor and the reflector onto the mounting brackets and secure with self-tapping screws provided. The photoelectric sensor and reflector must be aligned with the same orientation.

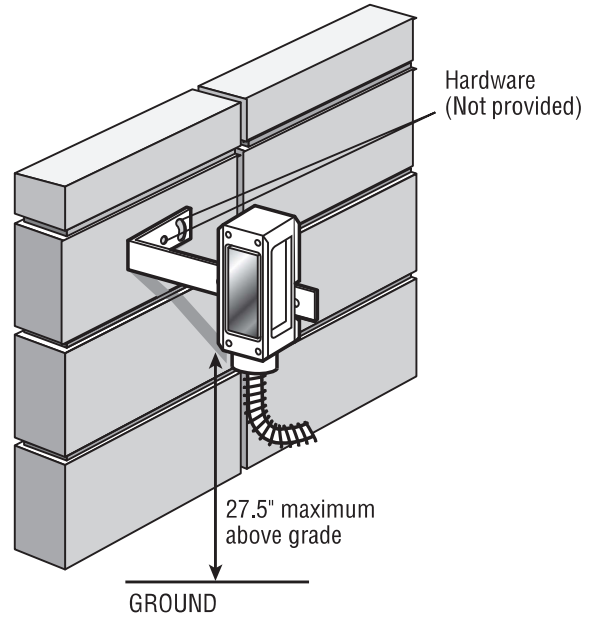


3. Attach mounting bracket to solid surface with hardware (not provided).

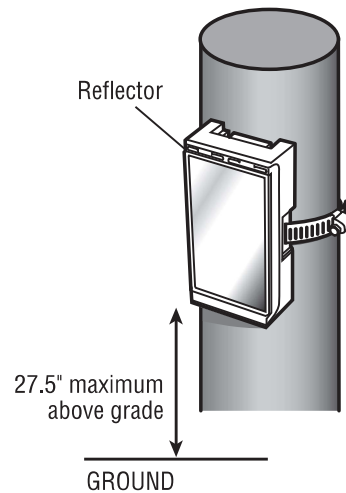
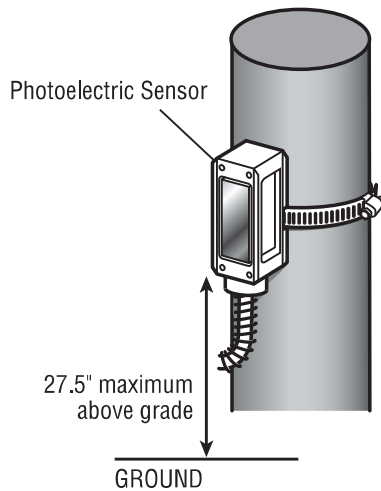
POST MOUNT WITH BRACKET (PROVIDED)



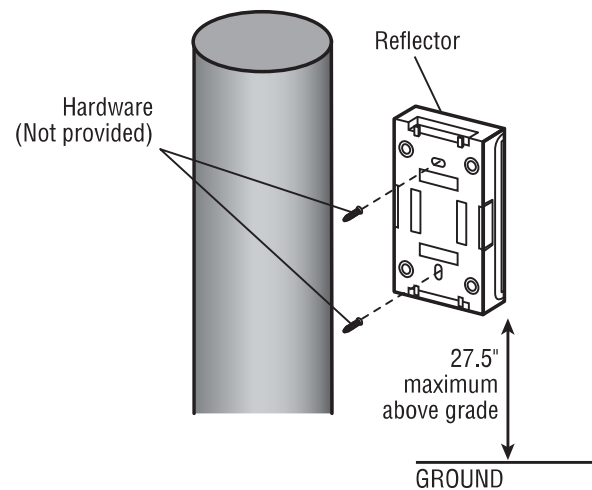
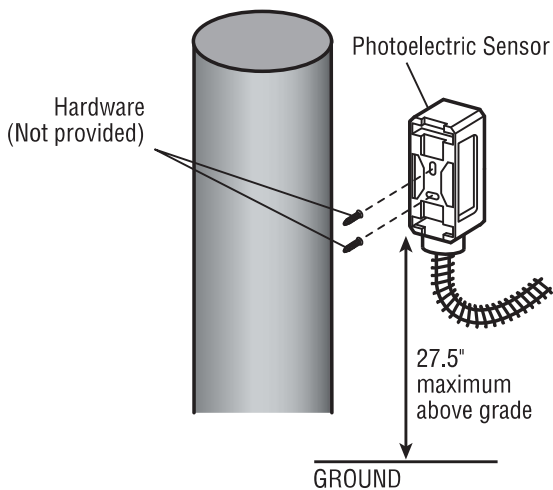
WALL MOUNT WITH BRACKET (PROVIDED)



MOUNTING WITH BANDING TECHNIQUE



DIRECT MOUNT (WITHOUT BRACKET PROVIDED)

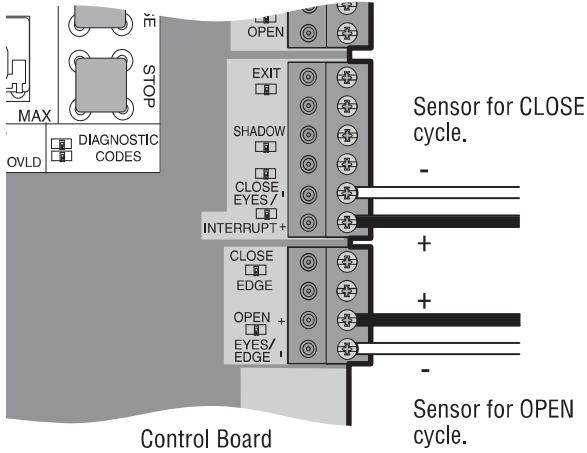


## WIRING CONNECTIONS

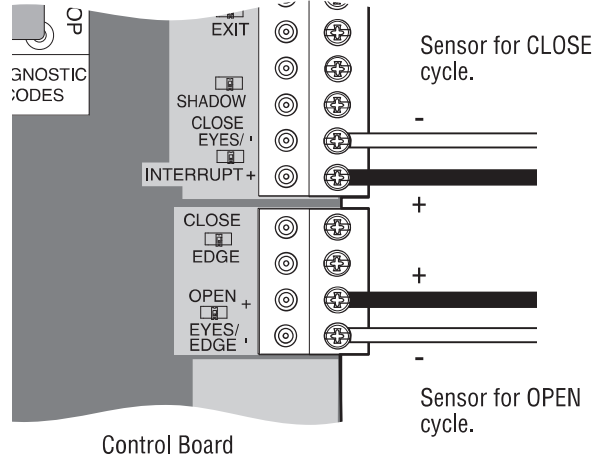
**Be sure power to the operator is disconnected.**

The photoelectric sensor is capable of receiving a 1/2" threaded conduit. Connect the photoelectric sensor as illustrated below for your operator type. The wiring is polarity sensitive, connect the BLUE wire to the '-' terminal and the BROWN wire to the '+' terminal.

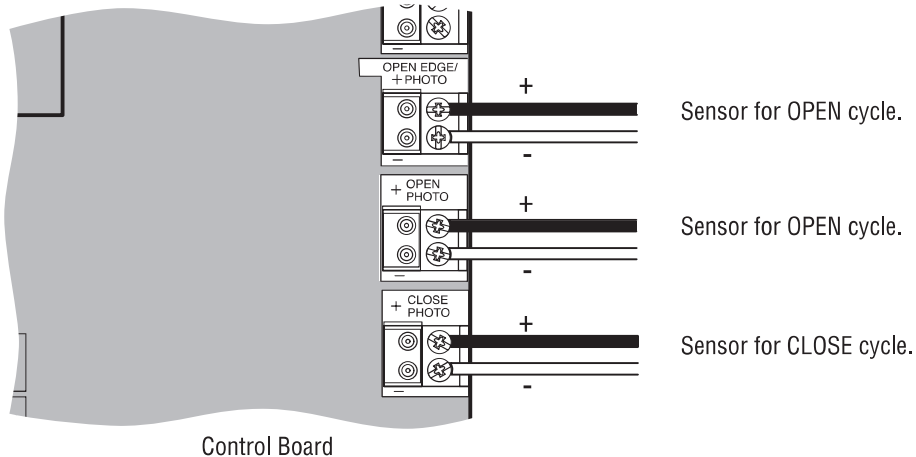
### MODELS CSL24V SERIES AND CSW24V SERIES



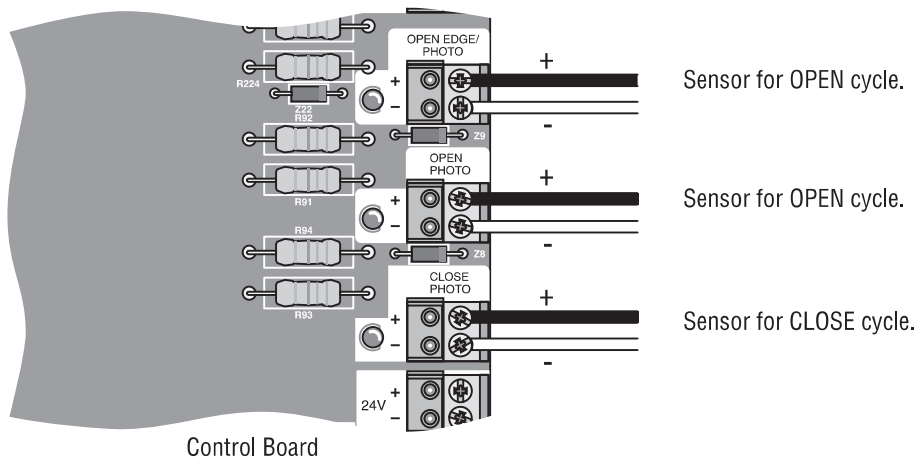
### MODEL LA500 SERIES



### MODELS LA412, RSW12V, AND RSL12V SERIES



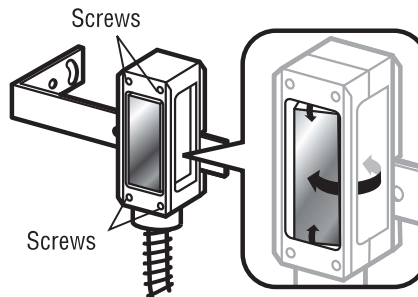
### MODEL LA400 SERIES



## ALIGN THE PHOTOELECTRIC SENSOR AND REFLECTOR

The photoelectric sensor and reflector must be aligned with the same orientation. When properly wired and aligned the amber LED within the photoelectric sensor will not be illuminated. The alignment LED within the photoelectric sensor will blink rapidly when the eye is not at the optimal positioning. If the LED is solidly illuminated this indicates it is powered up properly and is not aligned with the reflector.

For precise alignment to the reflector, loosen the screws and rotate the photoelectric sensor horizontally or vertically.



## TEST THE LIFTMASTER MONITORED PROTECTOR SYSTEM

### Commercial door installations:

The photoelectric sensor works on the close cycle on a LiftMaster commercial door operator only. With the door in the full open position place an obstruction in the path of the photoelectric sensor and then try a CLOSE command. The operator should not move. Now remove the obstruction and give the operator a close command. The door should close and when the path of the photoelectric sensor is obstructed the door should reverse.

### Gate installations:

The photoelectric sensor can be installed to work on either the open or closing cycles. Refer to the gate operator installation manual for more information.

## TROUBLESHOOTING

Symptom	Cause	Resolution
No alignment LED seen	1. Not wired properly. 2. Wired properly and aligned with reflector.	1. Check wiring. Polarity sensitive. 2. None. Working properly.
Alignment LED on solid	Wired properly but NOT aligned with the reflector.	Adjust photoelectric sensor to reflector until the LED goes out.
Alignment LED blinking	Indicates the photoelectric sensor is not optimally aligned with the reflector.	Adjust photoelectric sensor to reflector until the LED goes out.

## REPLACEMENT PARTS LIST

P/N:	Description
RPEN4-BKT	Mounting Bracket
RPEN4-RFLCTR	Reflector with Support Bracket

**1-800-528-2806**  
**LiftMaster.com**