LiftMaster®
Commercial Door Operators

COMMERCIAL PROTECTOR SYSTEM®
INSTALLATION INSTRUCTIONS

⚠ WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- This device is for use ONLY on LiftMaster® Commercial Door Operators.
- For INDOOR USE ONLY.
- Disconnect power BEFORE installing the Commercial Protector System®.
- READ AND FOLLOW ALL INSTRUCTIONS.

WARNING: This product can expose you to chemicals including lead, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to *www.P65Warnings.ca.gov*

APPLICATION

The Commercial Protector System® (CPS) is suitable for LiftMaster Commercial Door Operators with a Normally Open (N.O.) sensing edge input.

The CPS is for use with ancillary entrapment protection devices only, and not used for primary monitored entrapment protection devices.

CARTON INVENTORY

PART #	DESCRIPTION	QTY
CPS-U	Photoelectric Sensors with Mounting Hardware	1
41K4629	Commercial Protector Interface	1

THE COMMERCIAL PROTECTOR SYSTEM®

IMPORTANT INFORMATION ABOUT THE PHOTOELECTRIC SENSORS

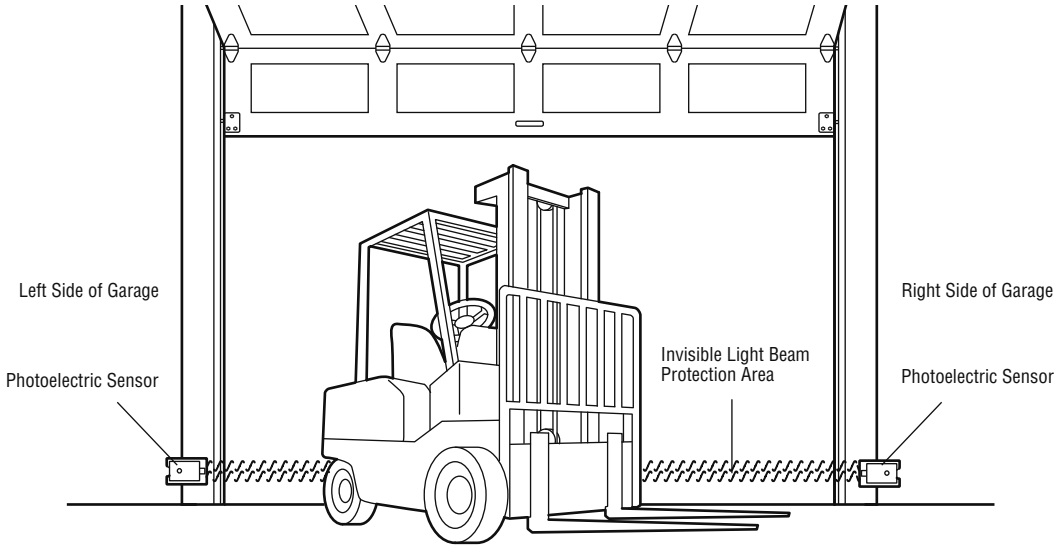
Be sure power to the operator is disconnected.

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

The photoelectric sensors must be installed inside the garage so that the sending and receiving sensors face each other across the door, no more than 6" (15 cm) above the floor. Either can be installed on the left or right of the door as long as the sun never shines directly into the receiving eye lens. This product is not suitable for outdoor use.

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 garage door (or door tracks, springs, hinges, rollers or other hardware) may interrupt the beam while the door is closing. If it does, use a piece of wood to build out each sensor mounting location to the minimum depth required for light beam clearance.



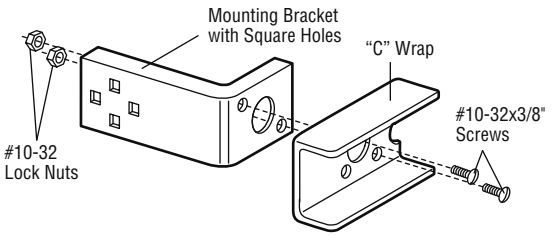
Facing the door from inside the garage (installation procedures are the same for all door types).

INSTALLATION

ASSEMBLE AND MOUNT THE BRACKETS

The following instructions show recommended assembly of the bracket(s) and "C" wrap based on the wall installation of the photoelectric sensors on each side of the door or on the door tracks themselves. There are also alternate mounting methods which may fit your installation requirements better.

Make sure the wraps and brackets are aligned so the photoelectric sensors will face each other across the door.



1 Fasten the "C" wraps to the mounting brackets having square holes, using hardware shown.

WALL INSTALLATION

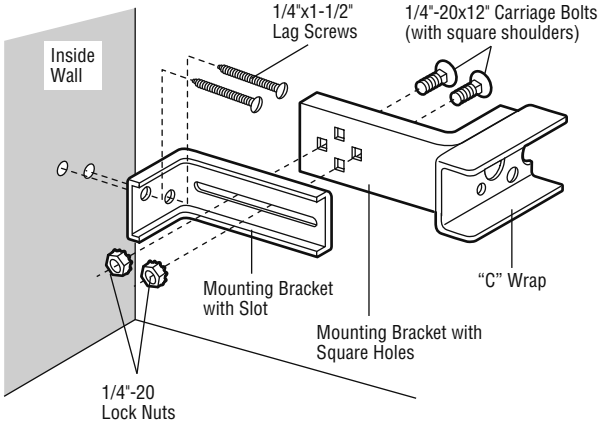
2 Connect each assembly to a slotted bracket, using the hardware shown. **Note alignment of brackets for left and right sides of the door.**

3 Finger tighten the lock nuts.

4 Use bracket mounting holes as a template to locate and drill (2) 3/16" diameter pilot holes on both sides of the garage door, 4-6 inches (10-15 cm) above the floor. Do not exceed 6 inches (15 cm).

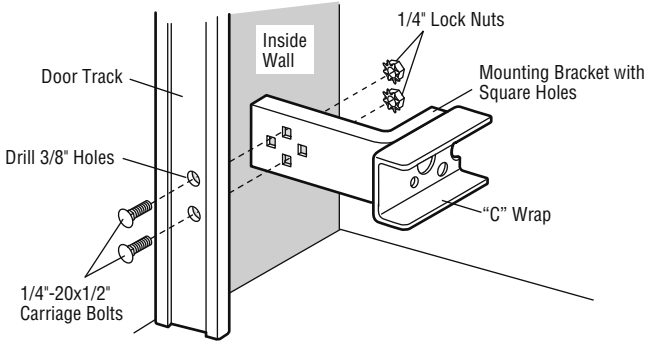
5 Attach bracket assemblies with 1/4"x1-1/2" lag screws.

6 Adjust right and left side bracket assemblies to the same distance out from mounting surface. Make sure all door hardware obstructions are cleared. Tighten the nuts securely.

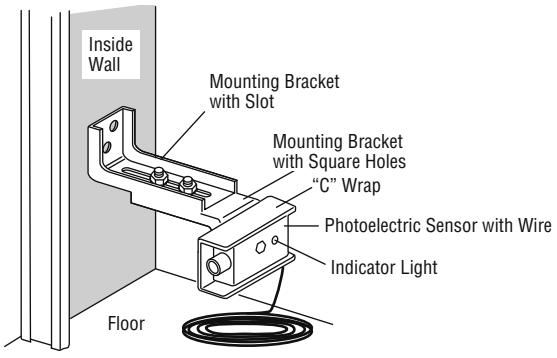


DOOR TRACK INSTALLATION

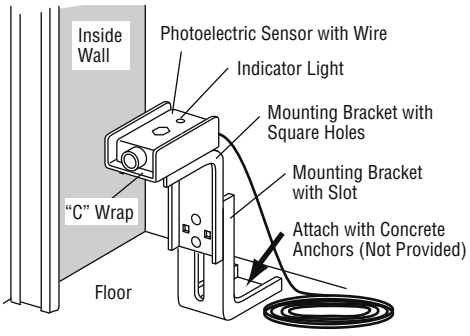
2 Discard slotted bracket. Drill 3/8" holes in each track and fasten securely with hardware.



ALTERNATE WALL INSTALLATION



ALTERNATE FLOOR INSTALLATION



INSTALLATION

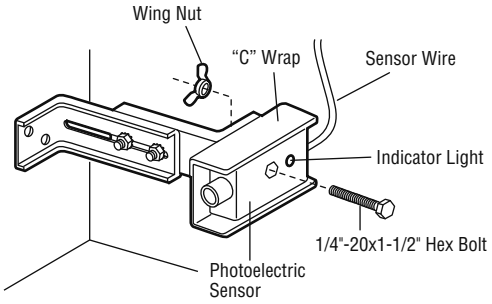
MOUNT AND WIRE THE PHOTOELECTRIC SENSORS

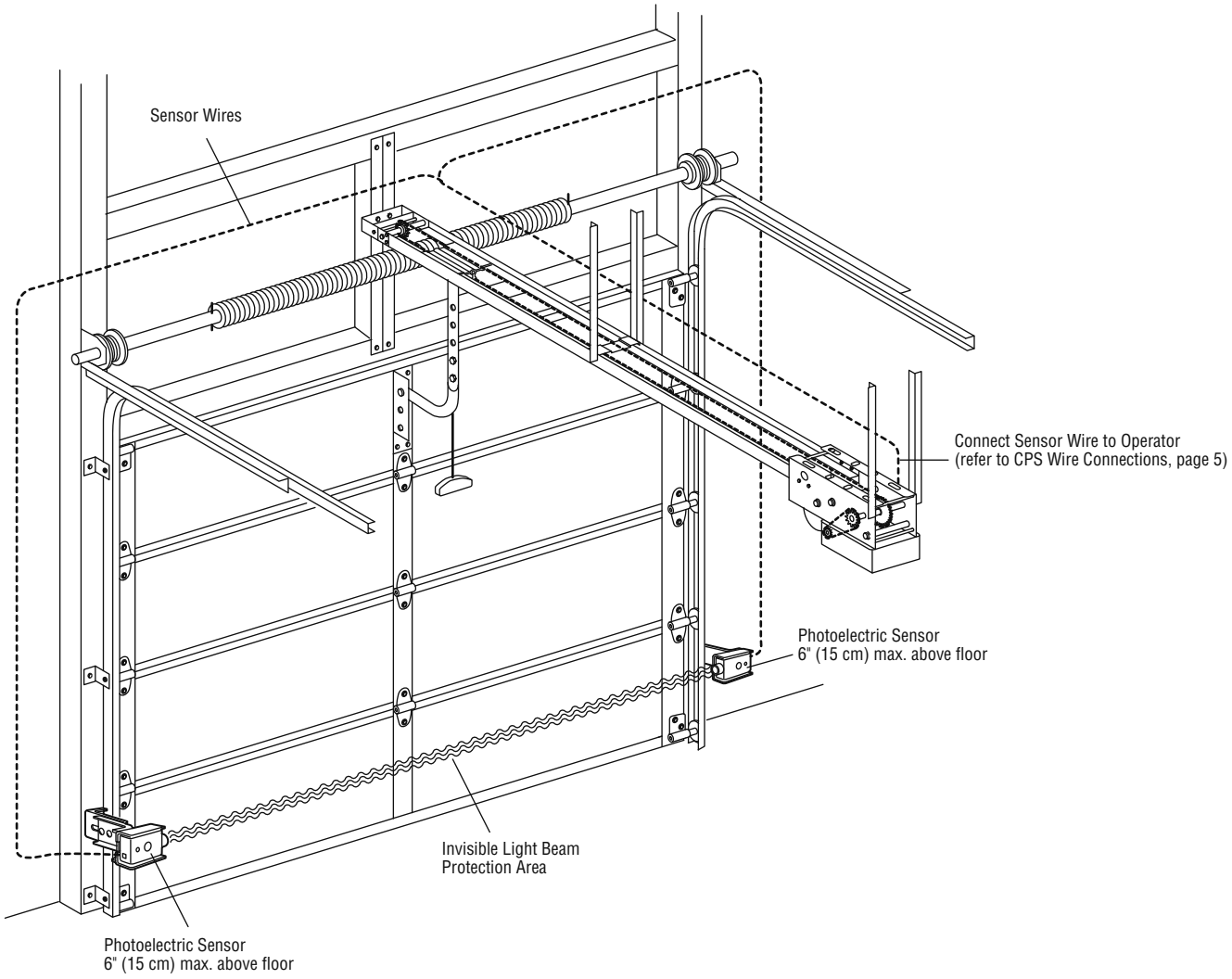
1 Center each photoelectric sensor in the bracket with the lenses pointing toward each other across the door.

2 Attach the photoelectric sensors to the brackets with the provided hardware. Finger tighten the receiving sensor wing nut. Securely tighten the sending sensor wing nut.

3 Run the photoelectric sensor wires to the operator. Fasten the photoelectric sensor wires appropriately.

4 Connect the photoelectric sensor wires to the operator (refer to CPS Wiring Connections, page 5).





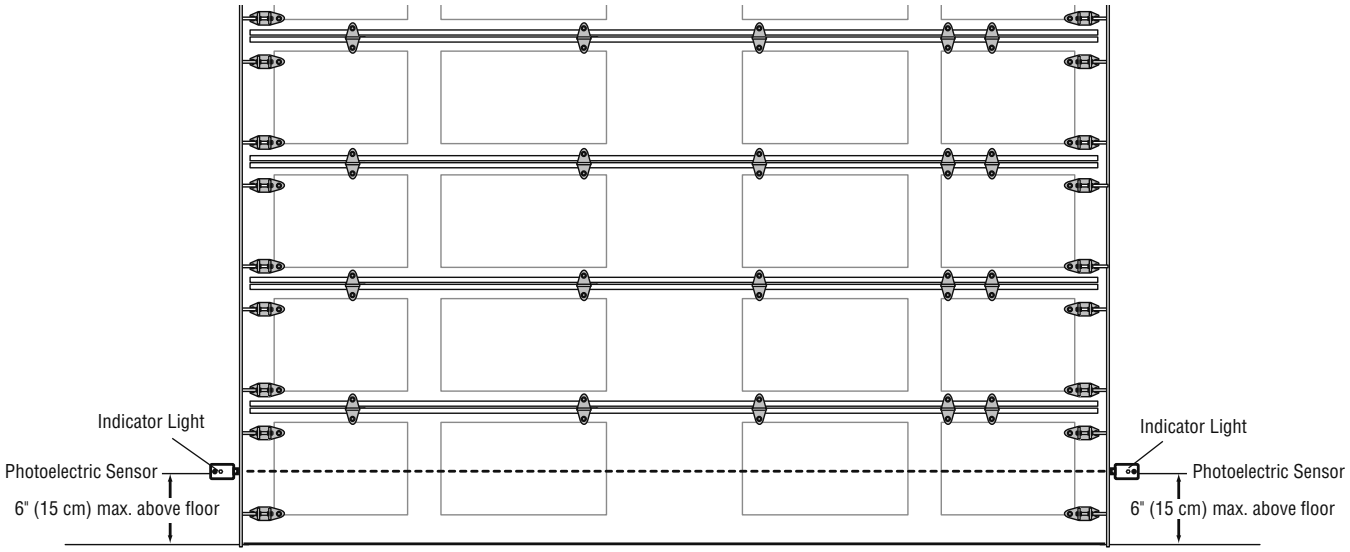
INSTALLATION

ALIGN THE PHOTOELECTRIC SENSORS

1 Connect power to the operator. The green indicator lights in both the sending and receiving sensors will glow steadily if wiring connections and alignment are correct.

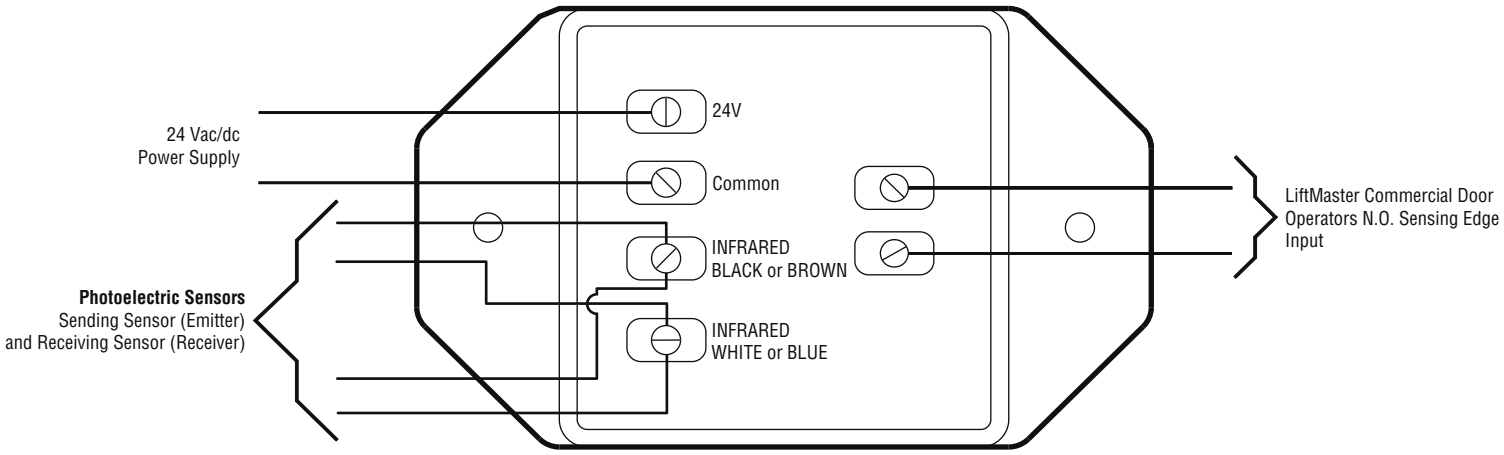
2 If both green indicator lights are flashing rapidly (and the invisible light beam path is not obstructed), alignment is required:

- Loosen the receiving sensor wing nut to allow slight rotation of the sensor. Adjust sensor vertically and/or horizontally until the green indicator lights *glow steadily*.
- When the indicator lights are glowing in both photoelectric sensor, tighten the receiving sensor wing nut.



CPS WIRING CONNECTIONS

COMMERCIAL PROTECTOR INTERFACE



TYPICAL WIRING CONNECTIONS

** **NOTE:** Refer to your owner's manual for wiring diagrams specific to your LiftMaster Commercial Door Operator.*

Connection at CPS Interface Box	Emitter Wire	Receiver Wire	Mechanical (Terminal)	Logic 2 (Terminal)	Logic 3-4 (Terminal)
	At CPS	At CPS	At Operator	At Operator	At Operator
24V			3*	12	13
Common			Wire Nut*	13	14
Photoelectric Sensors BLACK or BROWN	BLACK or BROWN	BLACK or BROWN			
Photoelectric Sensors WHITE or BLUE	WHITE or BLUE	WHITE or BLUE			
Sensing Edge Input (1/2)			3*	8	8
Sensing Edge Input (2/2)			10*	11	11

TEST THE COMMERCIAL PROTECTOR SYSTEM®

⚠ WARNING

To reduce the risk of SERIOUS INJURY or DEATH, the Commercial Protector System® MUST be properly installed and working.

1 Press the OPEN button to fully open the door.

2 Press the CLOSE button to close the door.

3 Obstruct the light beam while the door is closing. *The door should stop and reverse.*

The operator will not close if the indicator light in either sensor is not glowing steadily, alerting you to the fact that the sensor is misaligned or obstructed.

TROUBLESHOOTING

If the sending sensor and receiving sensor indicator lights do not glow steadily after installation, check for:

- Photoelectric sensor alignment
- Obstruction
- Power to the operator
- A short in the wires
- Incorrect wiring between the photoelectric sensors and commercial protector interface
- A broken wire (open wire)

If both green indicator lights are flashing rapidly (and the invisible light beam path is not obstructed), alignment is required.

If the sending sensor and receiving sensor indicator lights are both glowing steadily but interrupting the photoelectric sensors does not cause the door to reverse when closing, check both photoelectric sensors to make sure one sensor is the sending and the other is a receiving sensor.

NOTES:

- *Direct sunlight to the sending sensor may prevent the operator from closing even when both the sending and receiving indicator lights are illuminated. A protective cover shielding both sensors from direct sunlight will resolve this issue.*
- *Professional service is required if the operator closes the door when the photoelectric sensors are obstructed.*
- *For non-solid state operators, if the door is stopped in a mid position, activation of the sensors will cause the door to open. This is similar to activating a sensor edge.*

HOW TO ORDER REPAIR PARTS

OUR LARGE SERVICE ORGANIZATION SPANS AMERICA
FOR INSTALLATION AND SERVICE INFORMATION
SIMPLY DIAL OUR TOLL FREE NUMBER:

1-800-528-2806

www.liftmaster.com

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- **PART NUMBER**
- **PART NAME**
- **MODEL NUMBER**

ADDRESS ORDERS TO:

THE CHAMBERLAIN GROUP, INC.
Technical Support Group
6050 S. Country Club Road
Tucson, Arizona 85706