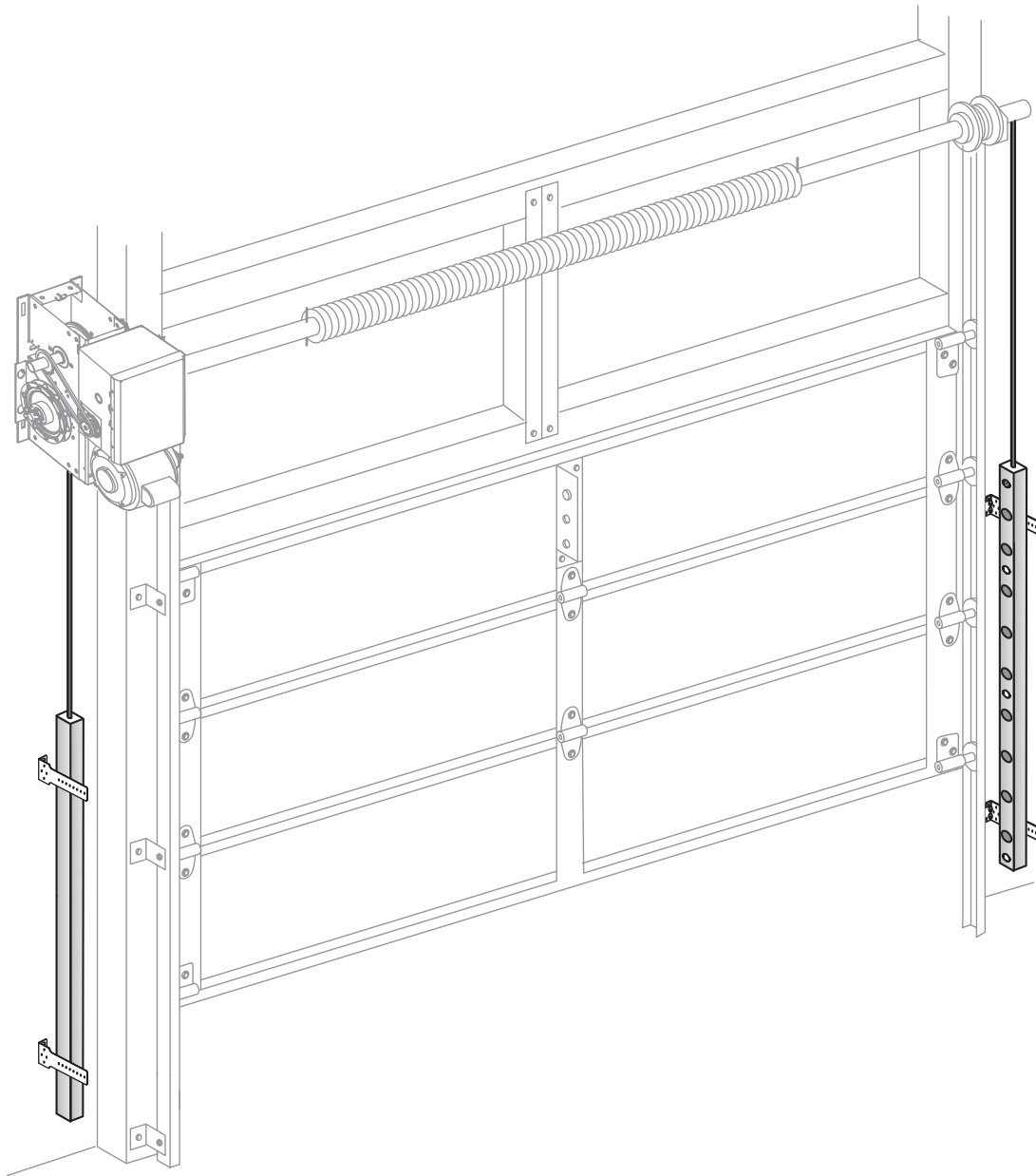


LiftMaster® Monitored Light Curtain

Model LC36M, LC36M41



NOTE: (Images not to scale)



INTRODUCTION

WARNING

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

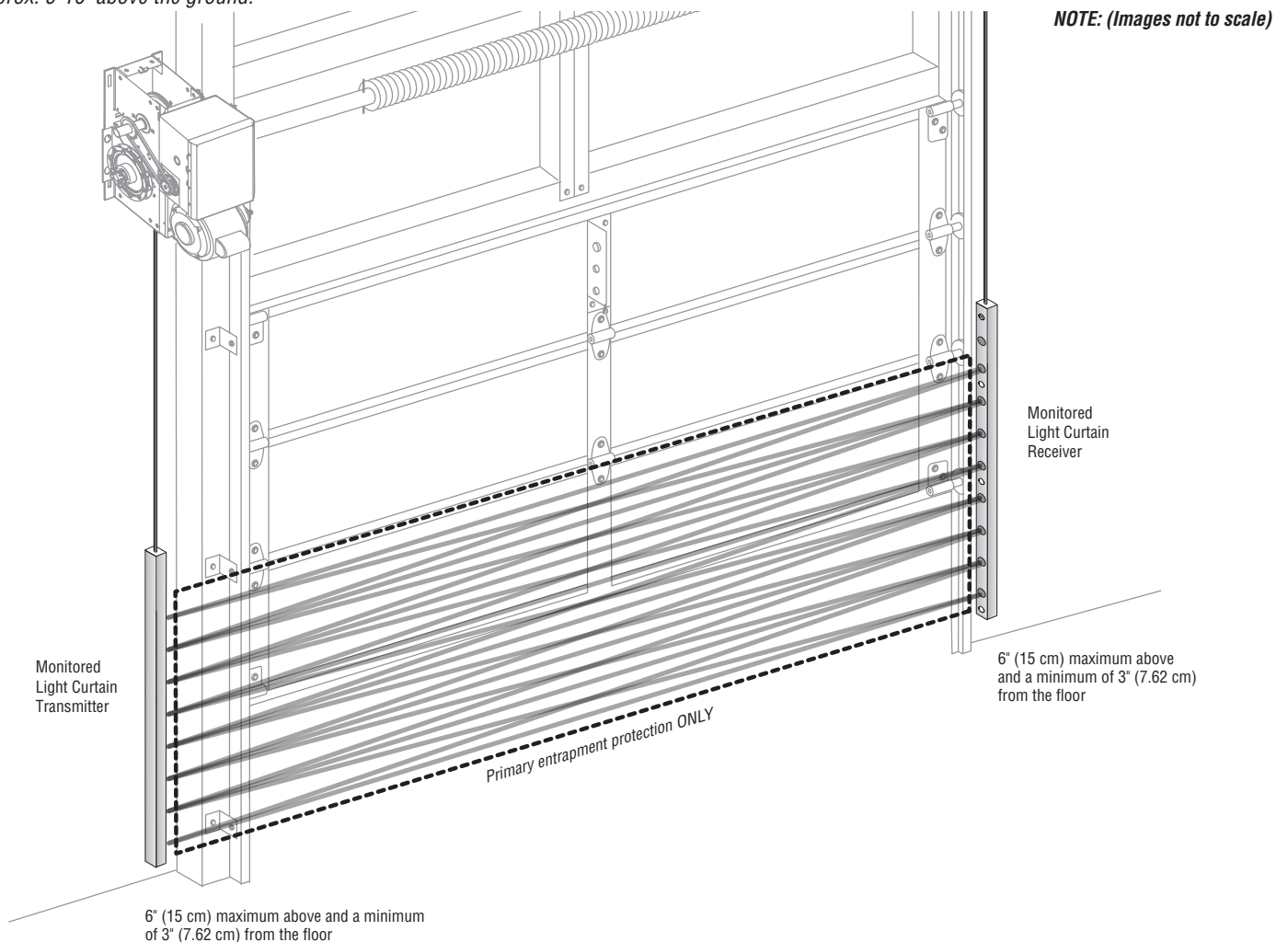
- Be sure to DISCONNECT POWER to the operator BEFORE installing the Monitored Light Curtain .
- The door MUST be in the fully opened or closed position BEFORE installing the Monitored Light Curtain .
- Mount bottom optical sensor of Monitored Light Curtain no higher than 3" to 6" above the ground if used as primary entrapment protection.
- Correctly connect and align the Monitored Light Curtain transmitter and receiver.
- The Monitored Light Curtain is for use with LiftMaster® Commercial Doors. Use with ANY other product voids the warranty.
- DO NOT use this product for the protection of dangerous machinery or in explosive atmospheres or radioactive environments. Use ONLY specific and approved types of devices for such applications.
- The Monitored Light Curtain MUST be installed ONLY by authorized and fully trained personnel.

IMPORTANT INFORMATION ABOUT THE MONITORED LIGHT CURTAIN

LiftMaster® Monitored Light Curtain (Model LC36M, Model LC36M41) is an entrapment protection device used with sectional and rolling doors that is designed with 8 optical sensors that form 22 total invisible light beams. These light beams create a cross-pattern or netting effect for maximum protection against entrapment. When properly connected and aligned, the Monitored Light Curtain will detect an obstruction in the path of the light beams. If an obstruction breaks any light beam while the door is closing, the operator will stop and reverse to the full open position. The invisible light beam must be unobstructed. No part of the door (or door tracks, springs, hinges, rollers or other hardware) may interrupt the light beam while the door is closing.

When the Monitored Light Curtain is installed as the primary entrapment protection device, the lowest optical sensor will need to be installed 6" (15 cm) maximum above and a minimum of 3" (7.62 cm) from the floor. If the Monitored Light Curtain is the secondary monitored entrapment protection device it must be installed 12" (30.5cm) above the primary monitored entrapment protection device. The Monitored Light Curtain Transmitter must be installed facing the Light Curtain Receiver across the entrapment zone.

NOTE: In this application, in order for the lowest optical sensor to be no higher than 6" above the floor, the wiring of the Monitored Light Curtain must be facing in the upward direction. If installed with the wires facing down, the lowest optical sensor will be much higher than 6" above the ground; it will be approx. 9-10" above the ground.



INTRODUCTION

The images in this document are for reference only and your product may look different.

APPLICATION

The Monitored Light Curtain is UL Approved and compatible with LiftMaster LOGIC 5.0 Heavy and Standard-Duty, Medium-Duty, DDO8900W, LJ8900W, LJ8950W, ATSW, VFOH, HPH1, HPH2, HCTDCUL, Fire Door Operators (FDC, FDCL, FDO-A, FDO-B), and Egress (LGE) Commercial Door Operators. The Monitored Light Curtain is for indoor use only but may be installed in areas exposed to rain or moisture.

SPECIFICATIONS

Optical

Operating range:3 - 33 feet (.91 - 10 meters)
 Coverage area: 36" (91.4 cm) detection zone
 Number of optical sensors:.....8
 Number of invisible light beams:.....22
 Receiver LED:..... Green
 Transmitter LED:..... Amber

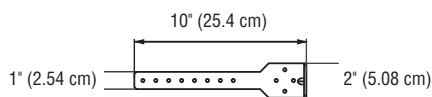
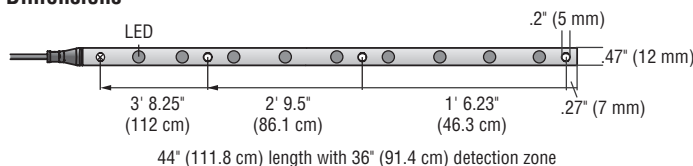
Electrical

Current Draw..... 40 mA
 Supply voltage:18 to 30 volts AC or DC
 Output Type:Open Collector, Pulsed

Mechanical

Housing material:..... Aluminum, anodized
 Cable length LC36M:.....6'6" (2m)
 Cable length LC36M41:.....41' (12.5m)
 Enclosure rating:..... IP 67
 Operating temperature range: - 40°F to +140°F (- 40°C to +60°C)
 Storage temperature range: - 40°F to +185°F (- 40°C to +85°C)

Dimensions



10" (25.4 cm) Extended Mounting Brackets with Reinforced Ribs for doors with a 2" (5.08 cm) edge

ACCESSORIES

Conduit Kit..... OES-COND
 Conduit kit with 2 junction boxes and 2 flexible cables.

Plug-In Power Supply 100MAPS

For Medium Duty Logic, DDO8900W, LJ8900W, LJ8950W, ATSW LiftMaster commercial door operators that have little or no accessory power available. Also for use with LOGIC 5.0 operators to provide additional power for the Light Curtains when multiple Accessories are used. 100MAPS is always required when 2 sets of light curtains are employed. Up to 2 sets of Light Curtains may be powered by a single 100MAPS.

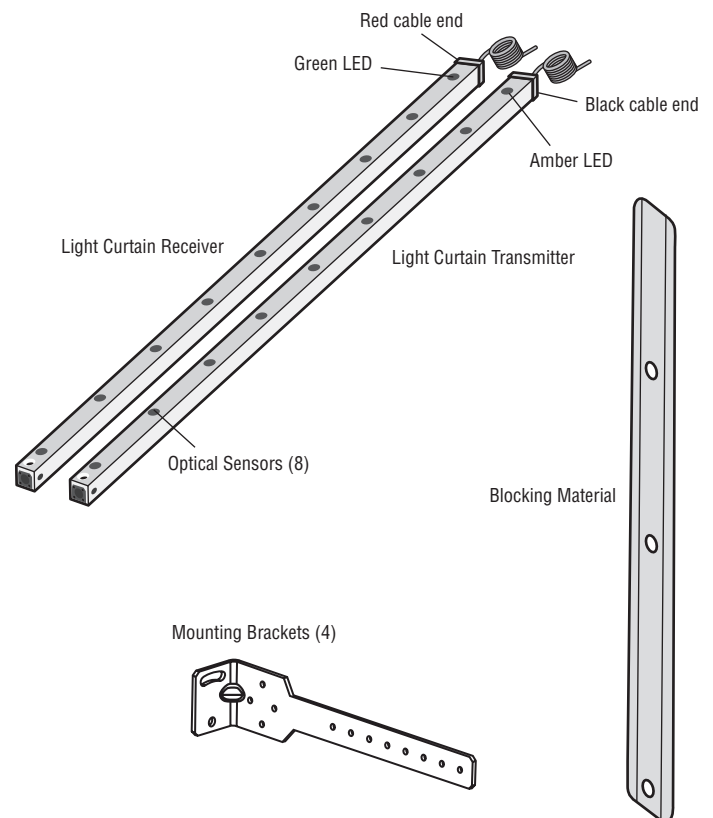
Plug-In Optional CardGPS3CARD

Required to wire 2nd Monitored Entrapment Protection Device to LOGIC 5.0 Operators.

CARTON INVENTORY

Not Shown

- Screws, Washers, and Nuts with Nylon Insert
- Wire Connectors (6)
- Installation Manual
- Model LC36M - Wire length 6'6"
- Model LC36M41 - Wire length 41'



INSTALLATION

WARNING

To prevent possible product damage and incorrect operation:

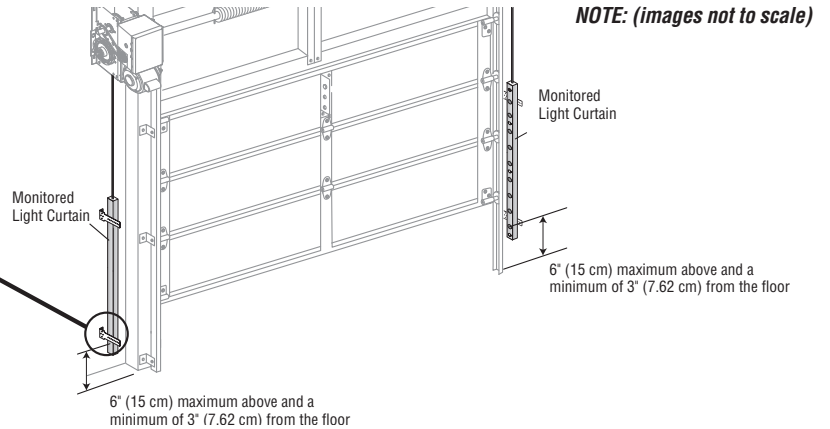
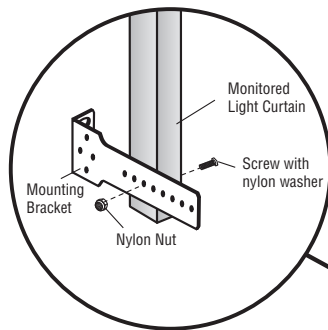
- NEVER scratch or paint the optical sensors.
- DO NOT drill ANY additional holes into the Monitored Light Curtain.
- Correctly connect and align the Monitored Light Curtain transmitter and receiver.
- DO NOT bend or twist the Monitored Light Curtain.
- Oil may damage the Monitored Light Curtain cable so contamination MUST be avoided at ALL times.
- DO NOT mount the Monitored Light Curtain where sunlight or other external infrared light sources will shine directly into the optical sensors of the Monitored Light Curtain receiver. If necessary, switch the mounting side of the Monitored Light Curtain transmitter and receiver.

INSTALL ONE SET OF MONITORED LIGHT CURTAINS AS STANDALONE PRIMARY ENTRAPMENT PROTECTION

The mounting brackets must be securely fastened to a solid surface such as a wall framing. If installing the mounting brackets in masonry construction, add a piece of wood at each location to avoid drilling extra holes in the masonry. **NOTE:** If the Monitored Light Curtain is installed with coil cord, the coil cord needs to be secured so it will not interrupt the light beams.

1. Fasten the mounting brackets loosely to both Monitored Light Curtain with the screws provided.
2. Measure a maximum of 6 inches above the floor. Mark this location. The lowest optical sensor of the Monitored Light Curtain must be installed at or below this point. In this application, in order to assure that the lowest optical sensor is mounted no higher than 6" above the ground, the light curtain wires must be oriented at the top of the light curtain in this application.
3. Hold the Monitored Light Curtain up to the desired mounting location with the cable end pointing upward. Secure the bottom mounting bracket to the mounting surface.
4. Make sure the Monitored Light Curtain is level and secure the upper mounting bracket to the mounting surface.
5. Tighten the screws to secure the Monitored Light Curtain to the mounting bracket.
6. Secure the other Monitored Light Curtain to the opposite side of the door following steps 2 - 5, making sure they are aligned.
7. Run wires to the operator.
8. Twist like colored wires together, brown to brown and blue to blue.

NOTE: In this application, in order for the lowest optical sensor to be no higher than 6" above the floor, the wiring of the Monitored Light Curtain must be facing in the upward direction. If installed with the wires facing down, the lowest optical sensor will be much higher than 6" above the ground; it will be approx. 9-10" above the ground.

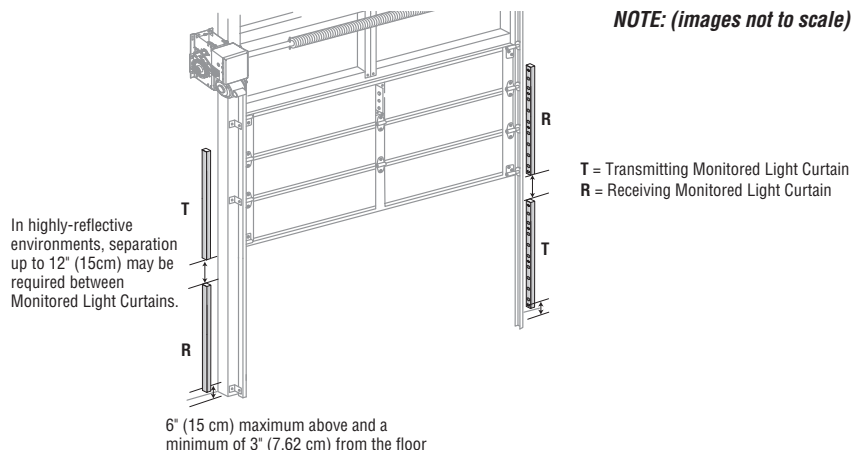


INSTALL TWO SETS OF MONITORED LIGHT CURTAINS

Installing two sets of Monitored Light Curtains on the same door is recommended when taller portions of vehicles and equipment must be protected. Applicable with HCT, LOGIC 5.0, and HPH1 Operators.

1. Install the first set of Monitored Light Curtain on the door as described in the Install One Set of Monitored Light Curtain section.
2. Install the second set of Monitored Light Curtain above the first set. The black and white wires are wired in parallel and the blue and brown wires are wired in parallel.
3. Position the Transmitters and Receivers as shown in the image below to prevent cross-talk. In this application, the upper Light Curtain may be mounted with wiring oriented up or down.

NOTE: When a 2nd Monitored Entrapment Protection device is used with the HCT Operator, the 2nd device must be wired to the existing HCT Expansion Board. When a 2nd Monitored Entrapment Protection device is used with a LOGIC 5.0 Operator, the 2nd device must be wired using the CPS3CARD (plug-in option card.) When a 2nd Monitored Entrapment Protection device is used with HPH1, no additional hardware is required.



NOTE: In this application, in order for the lowest optical sensor to be no higher than 6" above the floor, the wiring of the Monitored Light Curtain must be facing in the upward direction. If installed with the wires facing down, the lowest optical sensor will be much higher than 6" above the ground; it will be approx. 9-10" above the ground.

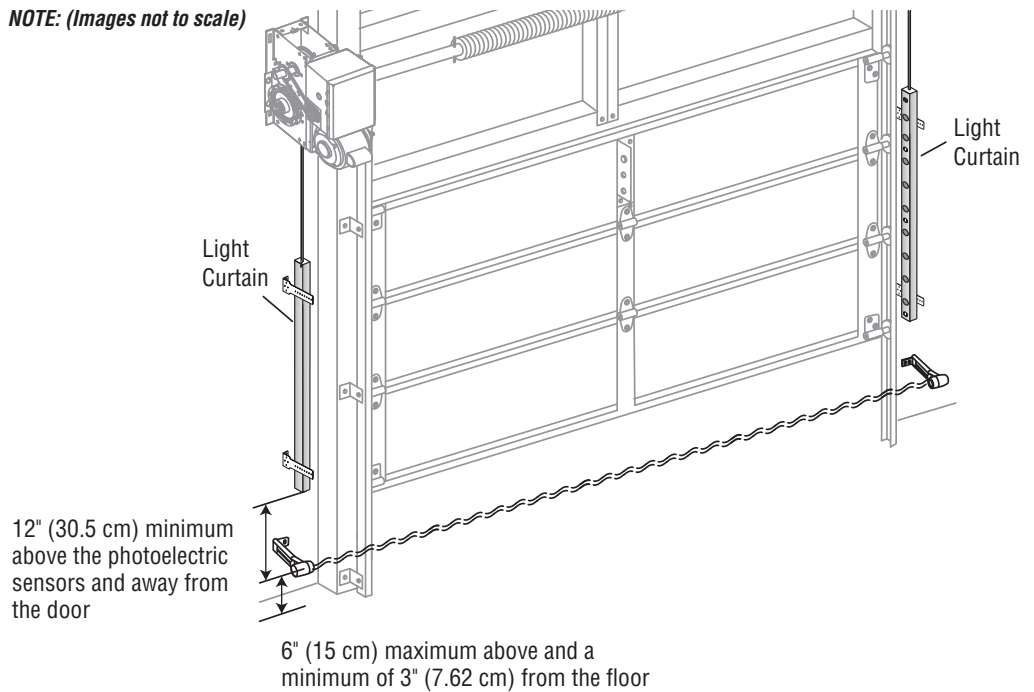
INSTALLATION

INSTALL ONE SET OF MONITORED LIGHT CURTAINS ON TOP OF PHOTO SENSOR EYE

Monitored Light Curtains may also be used as a 2nd Monitored device in tandem with a photo eye on LOGIC 5.0 and HCT Operators. The lowest beam of the Primary monitoring device must be mounted no higher than 6" above the ground. The vertical distance between the photo eye and the bottom of the Monitored Light Curtain must be at least 12". Applicable with HCT, LOGIC 5.0, and HPH1 Operators.

NOTE: When a 2nd Monitored Entrapment Protection device is used with the HCT Operator, the 2nd device must be wired to the existing HCT Expansion Board. When a 2nd Monitored Entrapment Protection device is used with a LOGIC 5.0 Operator, the 2nd device must be wired using the CPS3CARD (plug-in option card.) When a 2nd Monitored Entrapment Protection device is used with HPH1, no additional hardware is required.

NOTE: (Images not to scale)

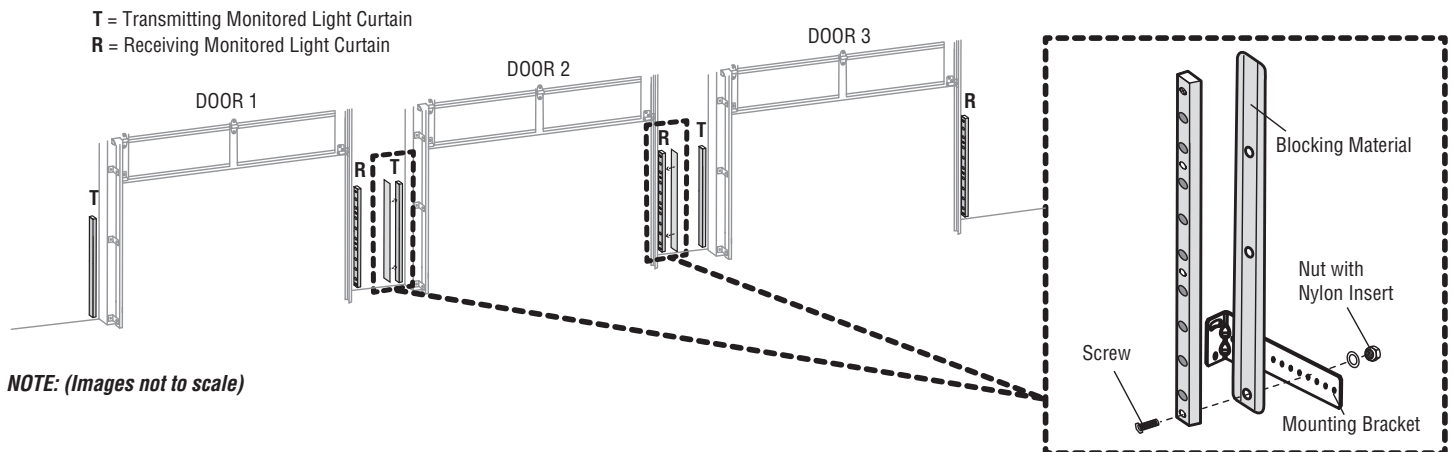


INSTALL MULTIPLE MONITORED LIGHT CURTAINS ON ADJACENT DOORS

When installing more than one set of Monitored Light Curtains on adjacent doors, blocking material must be attached to the center Monitored Light Curtains (as shown) to prevent cross-talk that could occur due to the close proximity of the Monitored Light Curtain sensors. **NOTE:** In this application, install all of the Blocking Material provided for each Monitored Light Curtain to prevent the Receiver from accepting potential cross-talk.

1. Thread mounting screws through the Monitored Light Curtain, blocking material and bracket, and loosely secure with locking nylon nut.
2. Position the Transmitters and Receivers as shown in the image below to prevent cross-talk.

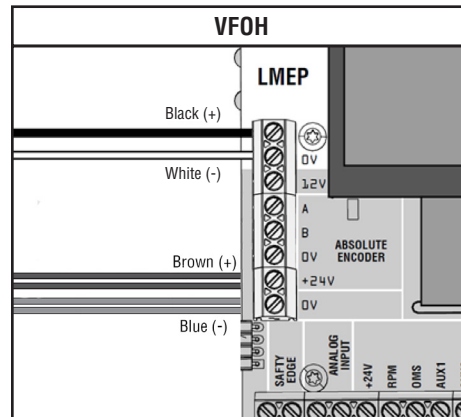
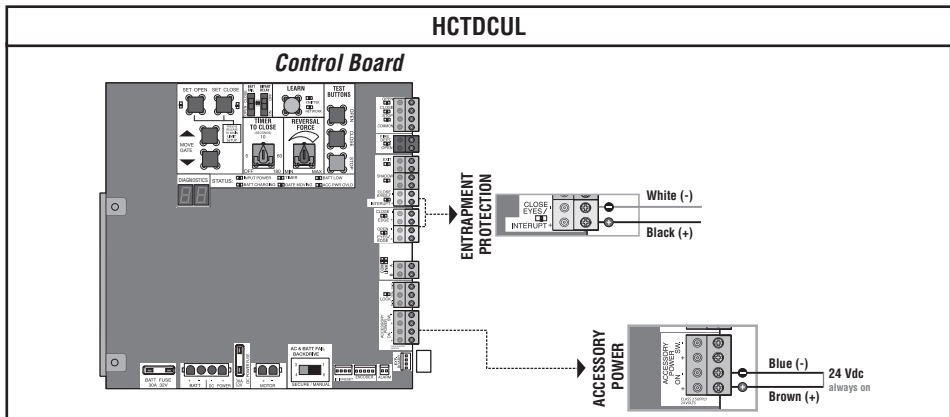
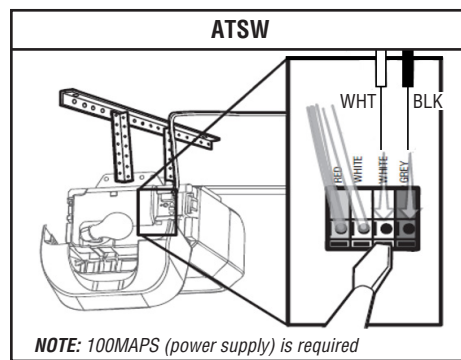
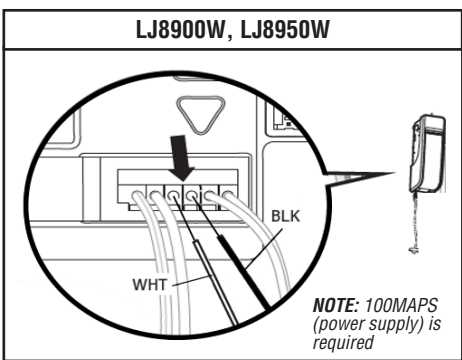
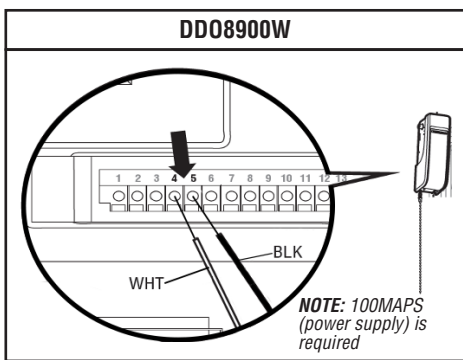
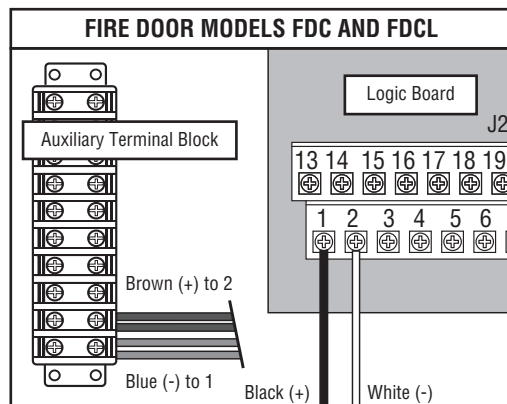
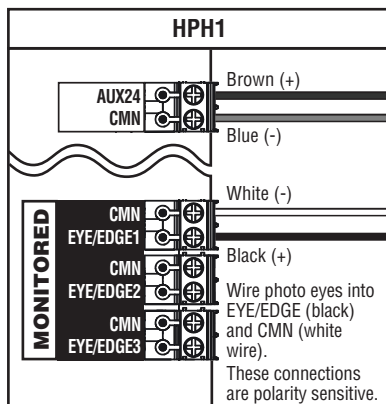
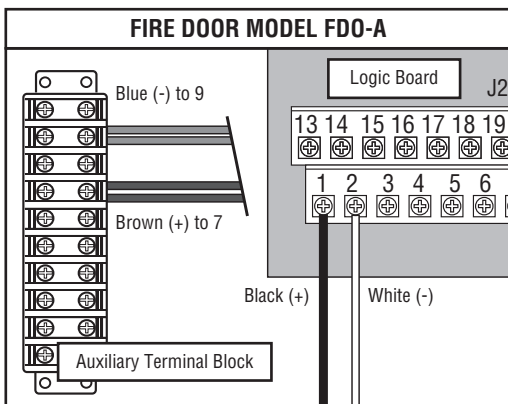
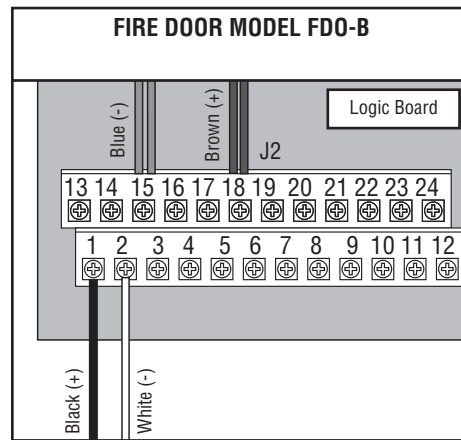
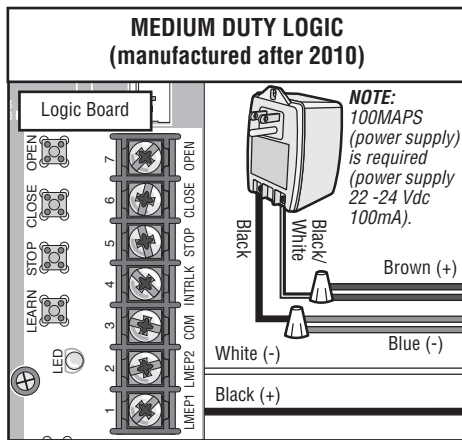
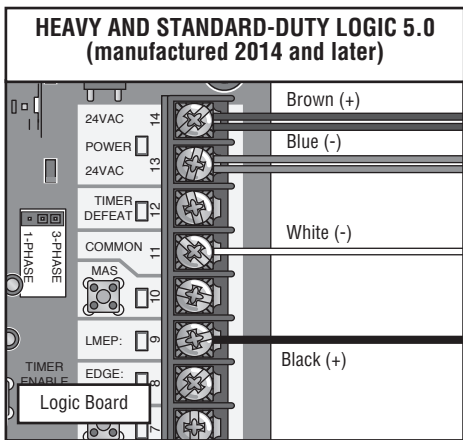
Follow steps 2 - 8 of the *Install One Set of Monitored Light Curtain* section.



POWER WIRING

Do not run wiring in the same conduit with AC power. If installing on a LiftMaster LOGIC 5.0 Heavy and Standard-Duty, Medium-Duty Logic, FDC, FDCL, FDOA, FDOB, HCTDCUL, LGE, VFOH, DDO8900W, LJ8900W, LJ8950W, ATSW, HPH1, and Egress Commercial Door Operators (refer to Accessories).

1. Disconnect power to the operator.
2. Connect the wires from the Monitored Light Curtain to the operator as illustrated below (follow the instructions according to your operator type).
3. Reconnect power to the operator.



FINISH INSTALLATION

ALIGN THE MONITORED LIGHT CURTAINS

The Monitored Light Curtain transmitter and receiver must be aligned. When properly wired and aligned the amber and green LEDs will be ON. The amber LED is located on the Monitored Light Curtain Transmitter and the green LED is located on the Monitored Light Curtain Receiver. If the amber and green LEDs are not on, refer to the table below.

1. Open and close the door for one complete cycle to let the operator register the Monitored Light Curtain.

AMBER LED	GREEN LED	STATUS	SOLUTION
OFF	OFF	No power	Check wiring.
ON	Blinks	<ul style="list-style-type: none">• Monitored Light Curtain receiver and transmitter are not aligned• Obstructed light beam• Defective Monitored Light Curtain Receiver	<ul style="list-style-type: none">• Adjust the Monitored Light Curtains to correct alignment• Remove the obstruction• Replace Monitored Light Curtain receiver and transmitter (Model LC36M)

TEST THE PRIMARY AND ENTRAPMENT PROTECTION

It is the responsibility of the specifier, purchaser, installer and property owner to ensure that, on completion, the installation of the entrapment protection devices comply with all relevant federal, state, and local codes and regulations.

TEST THE MONITORED LIGHT CURTAIN (PRIMARY ENTRAPMENT PROTECTION)

1. With the door in the full open position, press the close button.
2. While the door is closing, obstruct any of the light beams on the Monitored Light Curtain (the green LED on the Monitored Light Curtain Receiver will blink when the invisible light beam is obstructed). The door should stop and reverse.

TEST THE PHOTOELECTRIC SENSORS (IF PRESENT IN THE APPLICATION)

1. With the door in the full open position place a solid object in the path of the photoelectric sensors and press the close button. The operator should not move.
2. Remove the solid object and press the close button. The door should close.
3. While the door is closing, obstruct the photo beam by moving a solid object in the path of the photoelectric sensors, the door should stop and reverse.

TEST THE EDGE SENSORS (IF PRESENT IN THE APPLICATION)

1. With the door in the full open position place a solid object on the ground in the door way. Press the close button. The operator should stop and reverse off of the solid object.

MAINTENANCE

Periodically, check the following:

- Examine the optical sensors, ensuring they are clear of dirt and dust. If necessary, clean the front surface with a soft towel. Never use solvents, cleaners or mechanically abrasive towels to clean the Monitored Light Curtains because this can damage the optical sensors. Avoid direct, high-pressure water spray to clean the Monitored Light Curtains. Do not scratch the surface of the optical sensors when cleaning the Monitored Light Curtains.
- Check the mounting brackets, make sure they are securely fastened to the mounting surfaces. Tighten if necessary.
- Check that the Monitored Light Curtain cables are secured properly.

NOTICE: To comply with FCC and/or Industry Canada (IC) rules, adjustment or modifications of this digital device are prohibited. THERE ARE NO OTHER USER SERVICEABLE PARTS. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules and IC License-Exempt RSS Standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.