LiftMaster® Light Curtain

Model LC-36A

CE

LiftMaster®

INTRODUCTION

⚡⚠ WARNING
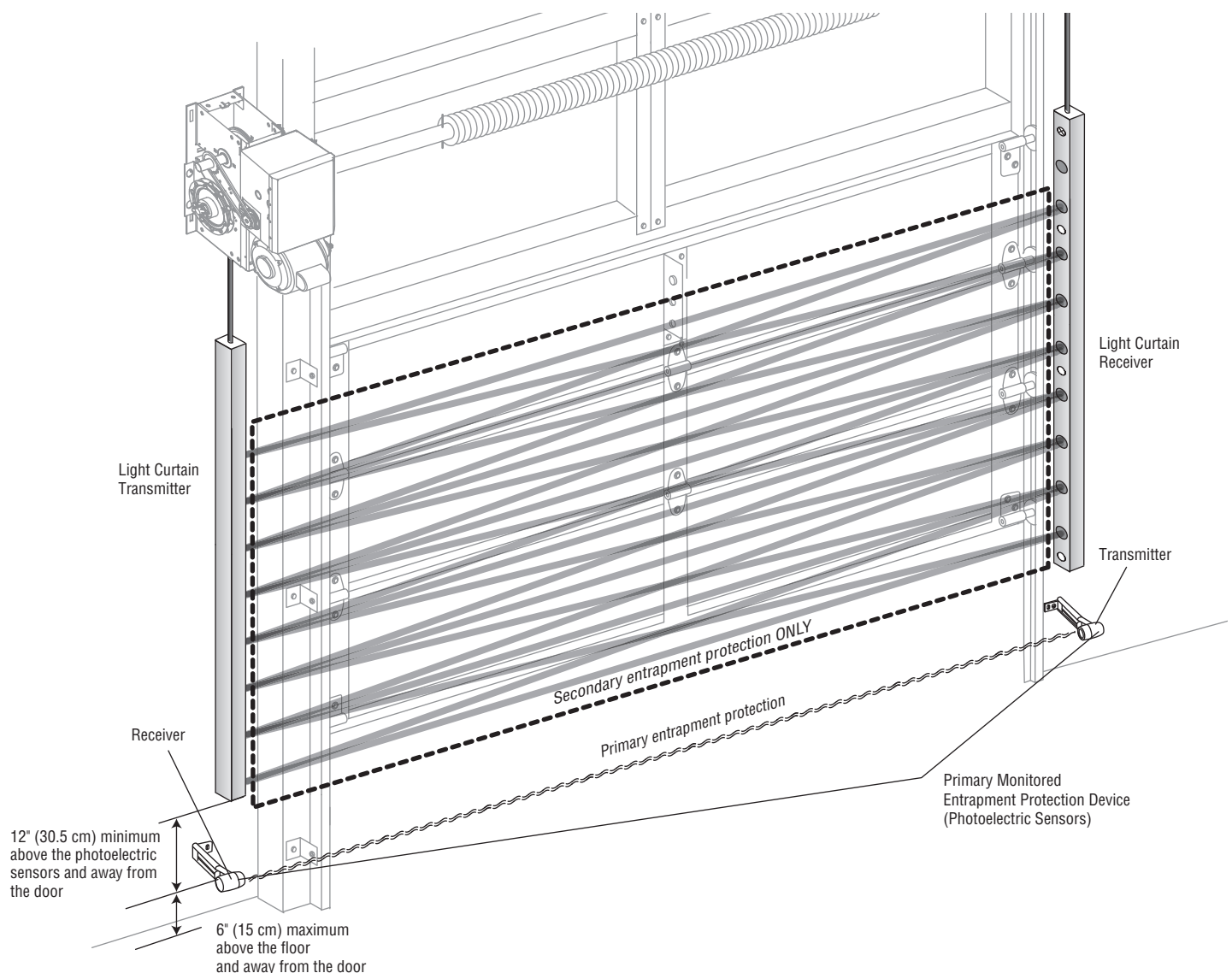
To prevent possible SERIOUS INJURY or DEATH from a closing door:
- Be sure to DISCONNECT POWER to the operator BEFORE installing the Light Curtain.
- The door MUST be in the fully opened or closed position BEFORE installing the Light Curtain.
- Correctly connect and align the Light Curtain transmitter and receiver.
- The 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 Light Curtain MUST be installed ONLY by authorized and fully trained personnel.
- LiftMaster Monitored Entrapment Protection devices are required in addition to the Light Curtain. The Light Curtain may NOT be used as the sole entrapment protection device for ANY entrapment zone.

IMPORTANT INFORMATION ABOUT THE LIGHT CURTAIN

LiftMaster® Light Curtain (Model LC-36A) is an ancillary 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 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.

The Light Curtain Transmitter must be installed facing the Light Curtain Receiver across the entrapment zone, 12" (30.5 cm) above the primary monitored entrapment protection device. The minimum installation width is 3 feet (.91 m) and the maximum width is 33 feet (10 m).

Light Curtain Receiver

Light Curtain Transmitter

Transmitter

Secondary entrapment protection ONLY

Primary entrapment protection

Receiver

Primary Monitored Entrapment Protection Device (Photoelectric Sensors)

12" (30.5 cm) minimum above the photoelectric sensors and away from the door

6" (15 cm) maximum above the floor and away from the door

INTRODUCTION

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

APPLICATION

The Light Curtain is compatible with LiftMaster Heavy, Standard, and Medium Duty Logic, FDC, FDCL, FDOA, FDOB, and Egress Commercial Door Operators. The Light Curtain is approved for track mounting. The Light Curtain is for indoor use only but may be installed in areas exposed to rain or moisture.

CARTON INVENTORY

Not Shown
- Screws, Washers, and Nuts with Nylon Insert
- Wire Connectors (6)
- Blocking Material
- Installation Manual

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
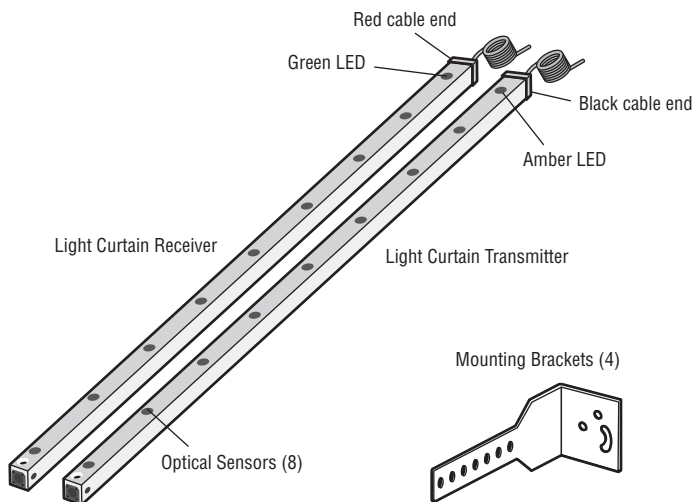Supply voltage: ....18 to 30 volts AC or DC
Output Type: ......Solid-state Relay, Normally Open (N.O.) when energized

Mechanical
Housing material: .... Aluminum, anodized
Cable length: ....6'6" (2m)
Enclosure rating: .... NEMA 4
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

Red cable end
Green LED
Black cable end
Amber LED
Light Curtain Receiver
Light Curtain Transmitter
Mounting Brackets (4)
Optical Sensors (8)

LED
.2" (5 mm)
.47" (12 mm)
3' 8.25" (112 cm)
2' 9.5" (86.1 cm)
1' 6.23" (46.3 cm)
.27" (7 mm)
44" (111.8 cm) length with 36" (91.4 cm) detection zone

ACCESSORIES

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

Plug-In Power Supply 100MAPS
For medium-duty LiftMaster commercial door operators with low current capability. Also for use with Logic operators for additional power to operate the Light Curtains.
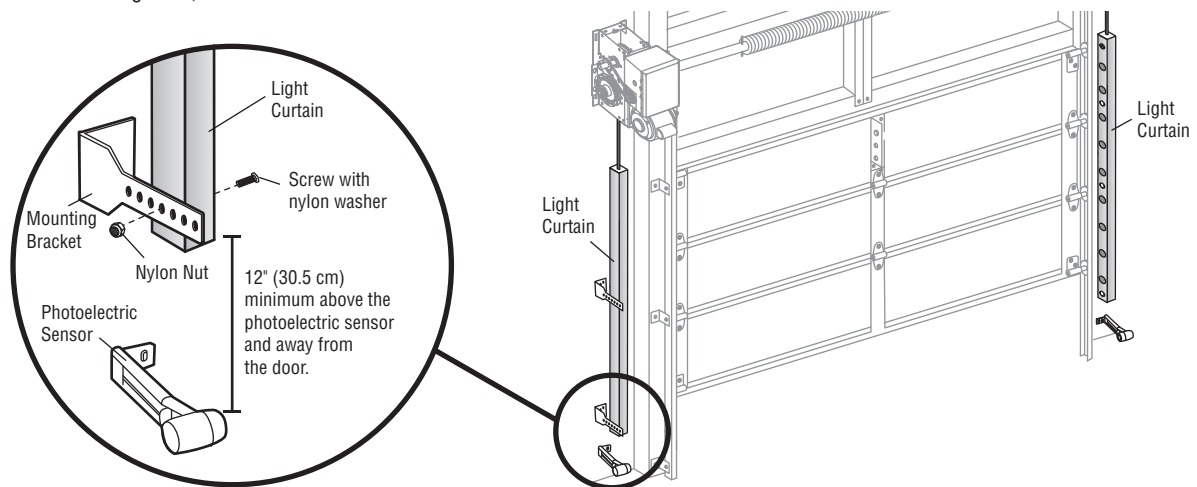
INSTALLATION

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

INSTALL ONE SET OF LIGHT CURTAINS

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 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 Light Curtains with the screws provided.
2. Measure a minimum of 12 inches above the photoelectric sensors. Mark this location. The Light Curtain must be installed above this point.
3. Hold the 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 Light Curtain is level and secure the upper mounting bracket to the mounting surface.
5. Tighten the screws to secure the Light Curtain to the mounting bracket.
6. Secure the other 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.

Light Curtain

Screw with nylon washer

Mounting Bracket

Nylon Nut

Photoelectric Sensor

12" (30.5 cm) minimum above the photoelectric sensor and away from the door.
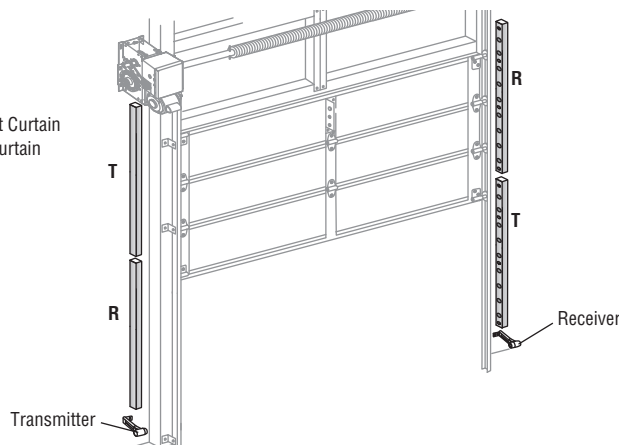
Light Curtain

Light Curtain

INSTALL TWO SETS OF LIGHT CURTAINS ON THE SAME DOOR

Installing two sets of light curtains on the same door is recommended for high volume vehicle traffic.

1. Install the first set of Light Curtains on the door as described in the Install One Set of Light Curtains section.
2. Install the second set of Light Curtains above the first set. The black and white wires are wired in parallel and the blue and brown wires are wired in parallel.

T = Transmitting Light Curtain
**R** = Receiving Light Curtain

Receiver

Transmitter

INSTALLATION

INSTALL MULTIPLE LIGHT CURTAINS ON ADJACENT DOORS

When installing more than one set of Light Curtains on adjacent doors, blocking material must be attached to the center Light Curtains (as shown) to prevent cross-talk that could occur due to the close proximity of the Light Curtain sensors.
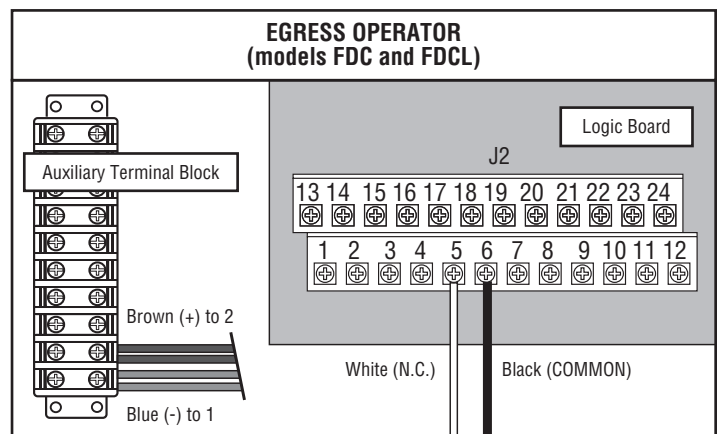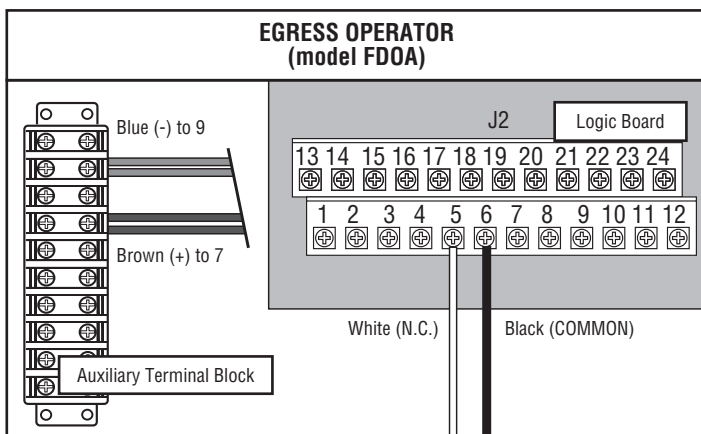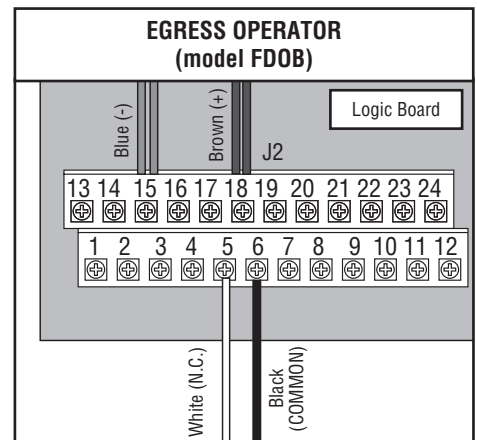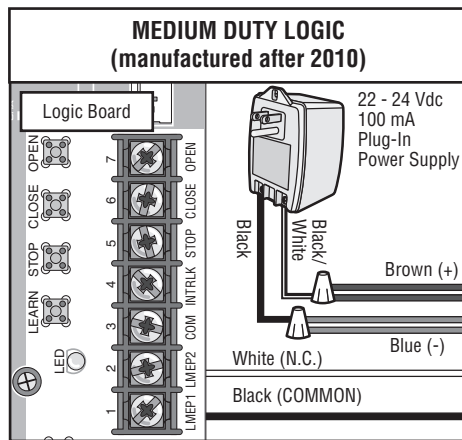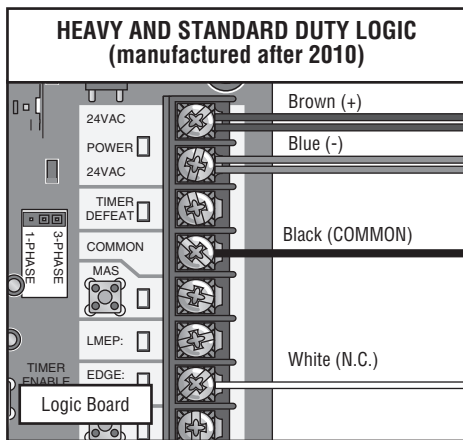
1. Thread mounting screws through the Light Curtain, blocking material and bracket, and loosely secure with locking nylon nut.

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

T = Transmitting Light Curtain
R = Receiving Light Curtain

DOOR 1 · DOOR 2 · DOOR 3

Blocking Material
Nut with Nylon Insert
Screw
Mounting Bracket
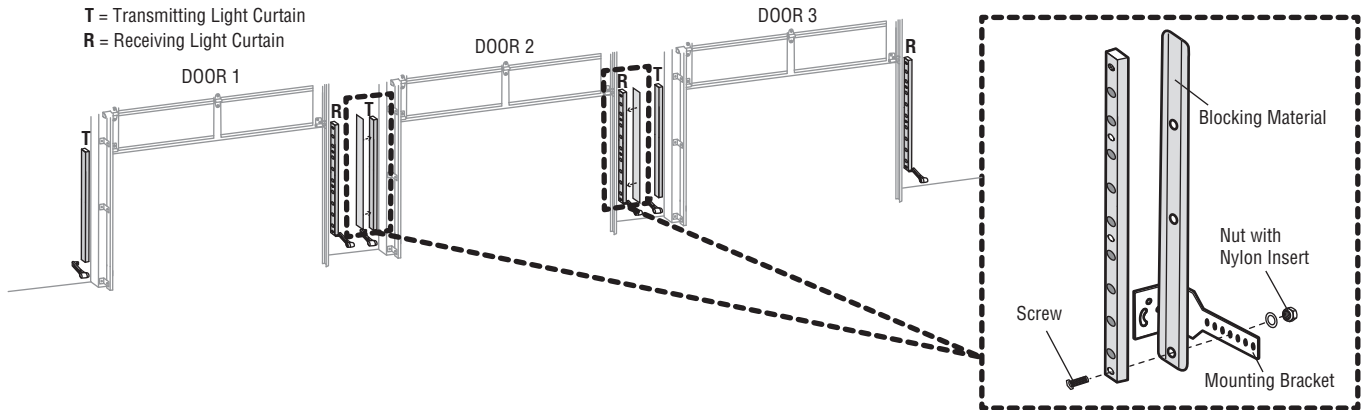
POWER WIRING

Do not run wiring in the same conduit with AC power. If installing on a medium duty LiftMaster commercial door operator, a 22 Vdc to 24 Vdc 100 mA Plug-In Power Supply is required (refer to Accessories).

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

HEAVY AND STANDARD DUTY LOGIC (manufactured after 2010)

Brown (+)
Blue (-)
Black (COMMON)
White (N.C.)

MEDIUM DUTY LOGIC (manufactured after 2010)

22 - 24 Vdc 100 mA Plug-In Power Supply
Brown (+)
Blue (-)
White (N.C.)
Black (COMMON)

EGRESS OPERATOR (model FDOB)

Blue (-) · Brown (+)
White (N.C.) · Black (COMMON)

EGRESS OPERATOR (model FDOA)

Blue (-) to 9
Brown (+) to 7
White (N.C.) · Black (COMMON)

EGRESS OPERATOR (models FDC and FDCL)

Brown (+) to 2
Blue (-) to 1
White (N.C.) · Black (COMMON)

FINISH INSTALLATION

ALIGN THE LIGHT CURTAINS

The 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 Light Curtain Transmitter and the green LED is located on the 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 Light Curtain.

AMBER LED	GREEN LED	STATUS	SOLUTION
OFF	OFF	No power	Check wiring.
ON	Blinks	• Light Curtain receiver and transmitter are not aligned • Obstructed light beam • Defective Light Curtain Receiver	• Adjust the Light Curtains to correct alignment • Remove the obstruction • Replace Light Curtain receiver and transmitter (Model LC-36A)

TEST THE PRIMARY AND ANCILLARY ENTRAPMENT PROTECTION

It is the responsibility of the specifier, purchaser, and installer to ensure that, on completion, the installation of the Light Curtain complies with all relevant federal, state, and local codes and regulations.

TEST THE LIGHT CURTAIN (ANCILLARY 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 invisible light beams on the Light Curtain (the green LED on the Light Curtain Receiver will blink when the invisible light beam is obstructed). The door should stop and reverse.

TEST THE PHOTOELECTRIC SENSORS (PRIMARY ENTRAPMENT PROTECTION)

1. With the door in the full open position place an obstruction in the path of the photoelectric sensors and press the close button. The operator should not move.
2. Remove the obstruction and press the close button. The door should close.

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 Light Curtains because this can damage the optical sensors. Avoid direct, high-pressure water spray to clean the Light Curtains. Do not scratch the surface of the optical sensors when cleaning the Light Curtains.

• Check the mounting brackets, make sure they are securely fastened to the mounting surfaces. Tighten if necessary.

• Check that the Light Curtain cables are secured properly.

HOW TO ORDER REPAIR PARTS

DEVANCO CANADA

19192 HAY ROAD, UNIT Q
SUMMERSTOWN, ON K0C 2E0

TOLL FREE: 855-931-3334
www.devancocanada.com

**WHEN ORDERING REPAIR PARTS
PLEASE SUPPLY THE FOLLOWING INFORMATION:**

✓ **PART NUMBER**
✓ **DESCRIPTION**
✓ **MODEL NUMBER**