

- **The Protector System™ - Safety Reversing Sensor Model 770E**
For models LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Das "Protector System"-Sicherheitsreversionssensoren Modell 770E**
Für Modelle LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Système "Protector" - Détecteur Inversement de Sécurité Modèle 770E**
Pour les modèles LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Het Beveiligingssysteem - Beveiligingsdetector Model 770E**
Voor modellen LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Il sistema "Protector" - Sensore di sicurezza per l'inversione del movimento Modello 770E**
Per i modelli LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Protector-systemet - Reverseringsavkännare modell 770E**
För modeller LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Beskyttersystemet - Sensor for sikkerhetsreversering Modell 770E**
Modeller LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Sikkerhedssystem - Sikkerhedsreversionssystem Model 770E**
Modeller LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000
- **Suojarjärjestelmä - Suojaperäytysjärjestelmä malli 770E**
Mallien LM60, LM600/800/1000A, 5580, 3780, BAS300, 3750E-1A, 4410E, PRO9000



Review all safety warnings on Page one of your garage door operator owner's manual.
Ensure that the door and all its operating gear is in good condition and works easily when it is manually operated.

HOT LINES: Germany 06838 / 907250 • France 03.87.98.62.84 • UK 01935 848526 • International 0049 6838 907 250

The Protector System™ - Safety Reversing Sensor Model 770E

Installation procedures are the same for sectional and one-piece doors.

To protect small children, install the Protector System™ no higher than 4"-6" (100mm-150mm) above the garage floor.
Disconnect power to the garage door opener before installing the Protector System™.

Look at the label on the connector end of each case to identify the sensors.

The sending eye transmits an invisible light beam to the receiving eye.

If an obstruction breaks the light beam while the garage door is closing, the door will stop and reverse to full open position.

The units can be installed on either side of the garage door (Figure 1) as long as the sun never shines directly into the receiving eye lens, *but* the brackets must be connected and fastened so that the sending and receiving eyes face each other as shown in Figure 1.

The brackets *must* be securely fastened to a solid surface such as the studs on either side of the door, or add a piece of wood at each location if installing in masonry construction.

The invisible light beam path must be unobstructed. No part of the garage door (or door tracks, springs, hinges, rollers or other hardware) can 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.

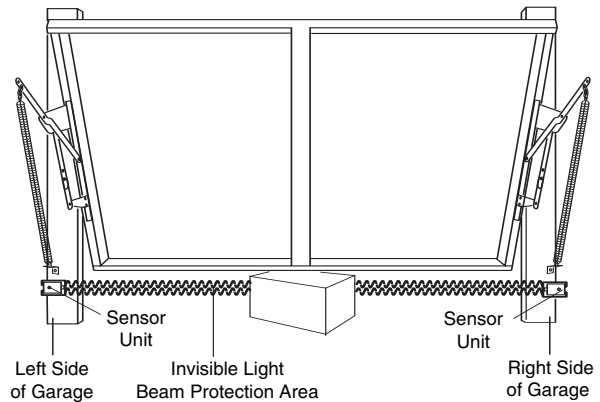


Figure 1: Facing the door from inside the garage

ASSEMBLY PROCEDURES

Figures 2, 3 and 4 show recommended assembly of bracket(s) and "C" wrap based on the *wall* installation of the sensors on each side of the garage door shown above, or on the *garage door tracks* themselves.

Figure 5 shows variations which may fit your installation requirements better. **Make sure the wraps and brackets are aligned so the sensors will face each other across the garage door.**

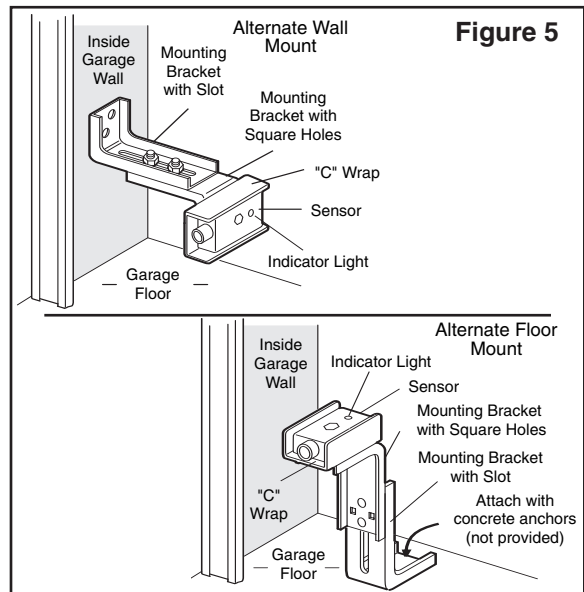
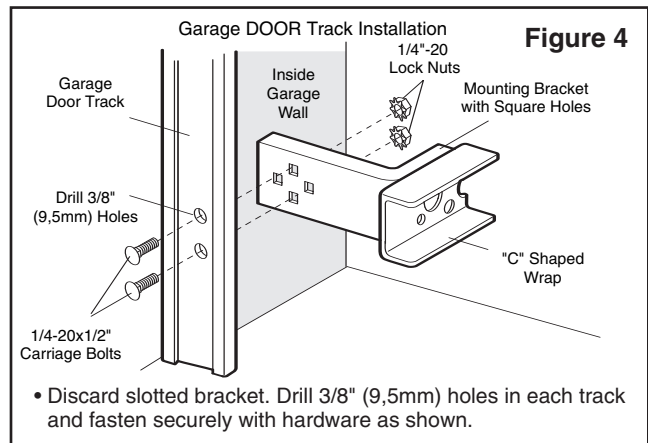
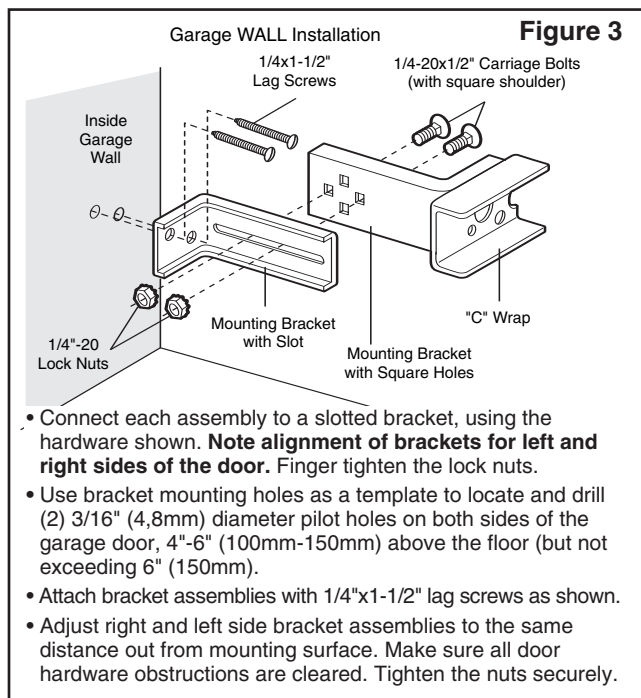
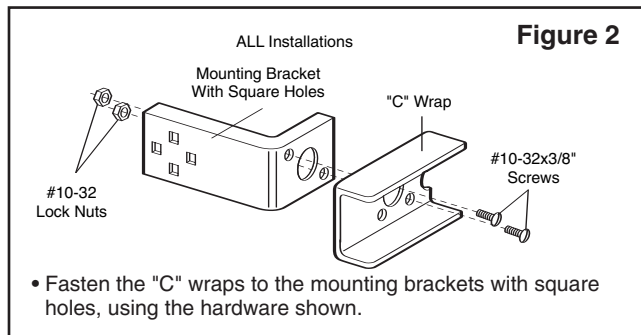
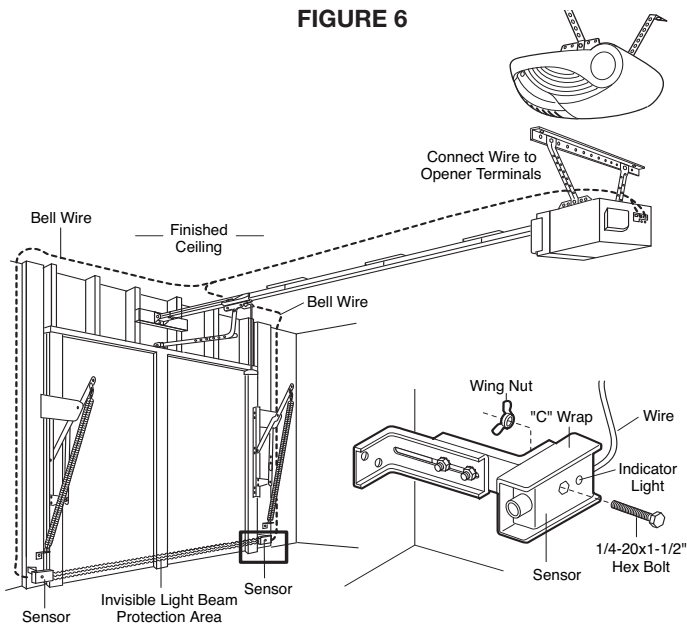
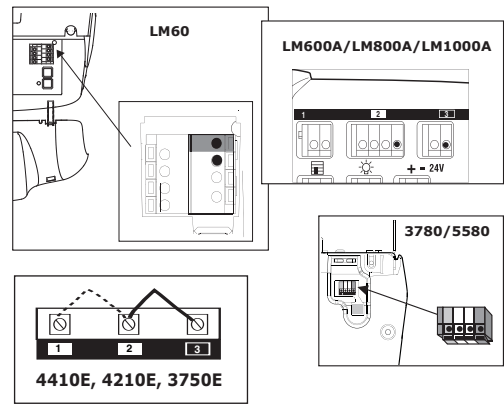


FIGURE 6



- Center each sensor unit in a "C" wrap with lenses pointing toward each other across the door.
- Secure sensors with the hardware shown in Figure 6. Finger tighten the wing nut on the *receiving* eye to allow for final adjustment. Securely tighten the *sending* eye wing nut.
- Run wires from both sensors to the opener as shown in Figure 6. Use insulated staples to secure the wire to the wall and ceiling.
- Connect both sets of wires to the opener terminals as shown.
- Plug in the opener. If your opener has the Multi-Function Door

Connect Sensor Wires to Opener Terminals



Control, make sure the Lock Feature is *off*. Red indicator lights in both the sending and receiving eyes will *glow* if wiring connections and alignment are correct.

If the indicator lights are *blinking* (and the invisible light beam path is not obstructed), alignment is required.

- Loosen the receiving eye wing nut to allow slight rotation of unit. Adjust sensor vertically and/or horizontally until the red indicator light *glows*.
- When indicator lights are glowing in both units, tighten the wing nut in the receiving eye unit.

TEST THE PROTECTOR SYSTEM™

- Press the remote control push button to open the door.
- Place an object large enough to obstruct the sensor beam in the path of the door.
- Press the remote control push button to close the door. *The door will not move more than an inch (25mm).*

The garage door opener will not close from a remote control if the indicator light in either sensor is *blinking* (alerting you to the fact that the sensor is misaligned or obstructed).

You can operate the garage door opener by disconnecting the safety reversing sensor.

Professional service is required if the opener closes the door when the Protector System™ is obstructed.

TROUBLE SHOOTING

1. If the *sending* eye or *receiving* eye indicator light does not glow after installation, check for:
 - Electric power to the opener.
 - A short in the black/white wires. These can occur under staples or at screw terminal connections.
 - Incorrect wiring between sensors and opener.
 - An open wire, (wire break).
 - Lock switch on Multi-Function Door Control Panel is activated. Deactivate.
2. If both sensors are blinking, realign or remove obstruction.
3. If an infrared sensor has been installed, it can not be removed later on. The unit only operates with the IR sensor (starting September 2004).
4. If the IR sensors are damaged and cannot be repaired, the door, nevertheless, can be closed using the wall switch

TEST THE SAFETY REVERSE SYSTEM



WARNING

Failure to test and adjust the safety reverse system may result in serious injury or death from a closing garage door. Repeat this test once a month and adjust as needed.

TEST:

- Place a one-inch (25mm) obstacle laid flat on the floor, centered under the garage door.
- Operate the door in the down direction. The door **must** reverse on striking the obstruction.

ADJUSTMENT:

If the door *stops* on the obstruction, it is not traveling far enough in the down direction.

- Increase the DOWN limit by turning the DOWN limit adjustment screw counterclockwise 1/4 turn.
- Repeat the test.

On a sectional door, make sure limit adjustments do not force the door arm beyond a straight up and down position.

- When the door reverses on the one-inch (25mm) obstacle, remove the obstruction and run the opener through 3 or 4 complete travel cycles to test adjustment.

If the door will not reverse after repeated adjustment attempts, call for professional door service.

REPLACEMENT PARTS

2-strand black & white wire with connector.....	41B4115	C-Wrap Bracket.....	12B483
Safety Sensor Kit (receiving and sending eyes only)	41A4373	Square Hole Bracket	12B484
Safety sensor hardware bag	41A4116	Slotted Bracket.....	12B485