



SECURITY+[®]

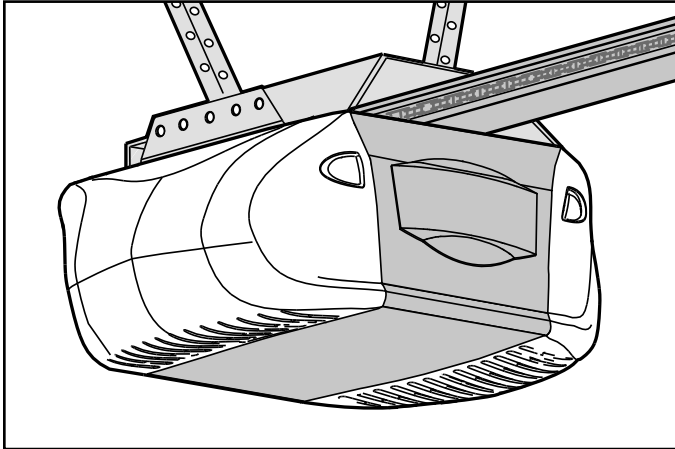
GARAGE DOOR OPENER

Model 3595S 3/4 HP

For Residential Use

Install on Sectional Doors ONLY

THIS OPERATOR IS INTENDED FOR USE ONLY WITH I-BEAM RAILS.



Owner's Manual

- Please read this manual and the enclosed safety materials carefully!
- Fasten the manual near the garage door after installation.
- The door **WILL NOT CLOSE** unless the Protector System[®] is connected and properly aligned.
- Periodic checks of the opener are required to ensure safe operation.
- The model number label is located under the light lens on the left side panel of your opener.

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INTRODUCTION

Safety Symbol and Signal Word Review

This garage door opener has been designed and tested to offer safe service provided it is installed, operated, maintained and tested in strict accordance with the instructions and warnings contained in this manual.



Mechanical



Electrical

CAUTION

When you see these Safety Symbols and Signal Words on the following pages, they will alert you to the possibility of **serious injury or death** if you do not comply with the warnings that accompany them. The hazard may come from something mechanical or from electric shock. Read the warnings carefully.

When you see this Signal Word on the following pages, it will alert you to the possibility of damage to your garage door and/or the garage door opener if you do not comply with the cautionary statements that accompany it. Read them carefully.

Preparing your garage door

Before you begin:

- Disable locks.
- Remove any ropes connected to garage door.
- **Complete the following test** to make sure your garage door is balanced and is not sticking or binding:
 1. Lift the door about halfway as shown. Release the door. If balanced, it should stay in place, supported entirely by its springs.
 2. Raise and lower the door to see if there is any binding or sticking.

If your door binds, sticks, or is out of balance, call a trained door systems technician.



WARNING

To prevent possible **SERIOUS INJURY** or **DEATH**:

- **ALWAYS** call a trained door systems technician if garage door binds, sticks or is out of balance. An unbalanced garage door may **NOT** reverse when required.
- **NEVER** try to loosen, move or adjust garage door, door springs, cables, pulleys, brackets or their hardware, **ALL** of which are under **EXTREME** tension.
- Disable **ALL** locks and remove **ALL** ropes connected to garage door **BEFORE** installing and operating garage door opener to avoid entanglement.

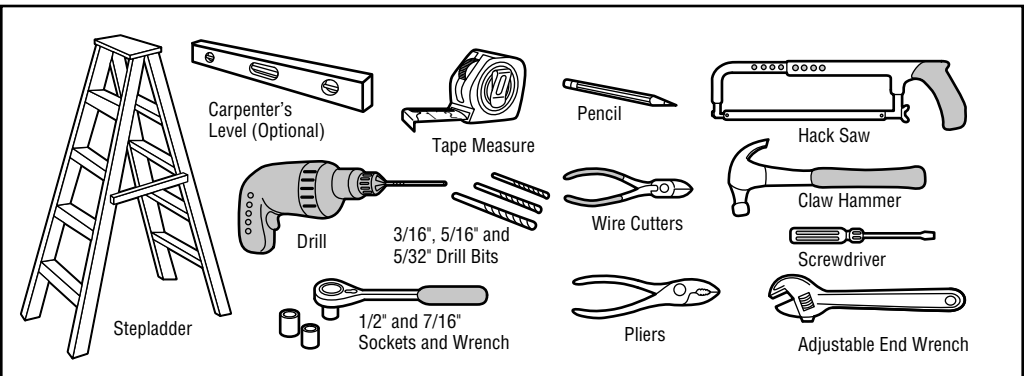
CAUTION

To prevent damage to garage door and opener:

- **ALWAYS** disable locks **BEFORE** installing and operating the opener.
- **ONLY** operate garage door opener at 120V, 60 Hz to avoid malfunction and damage.

Tools needed

During assembly, installation and adjustment of the opener, instructions will call for hand tools as illustrated below.



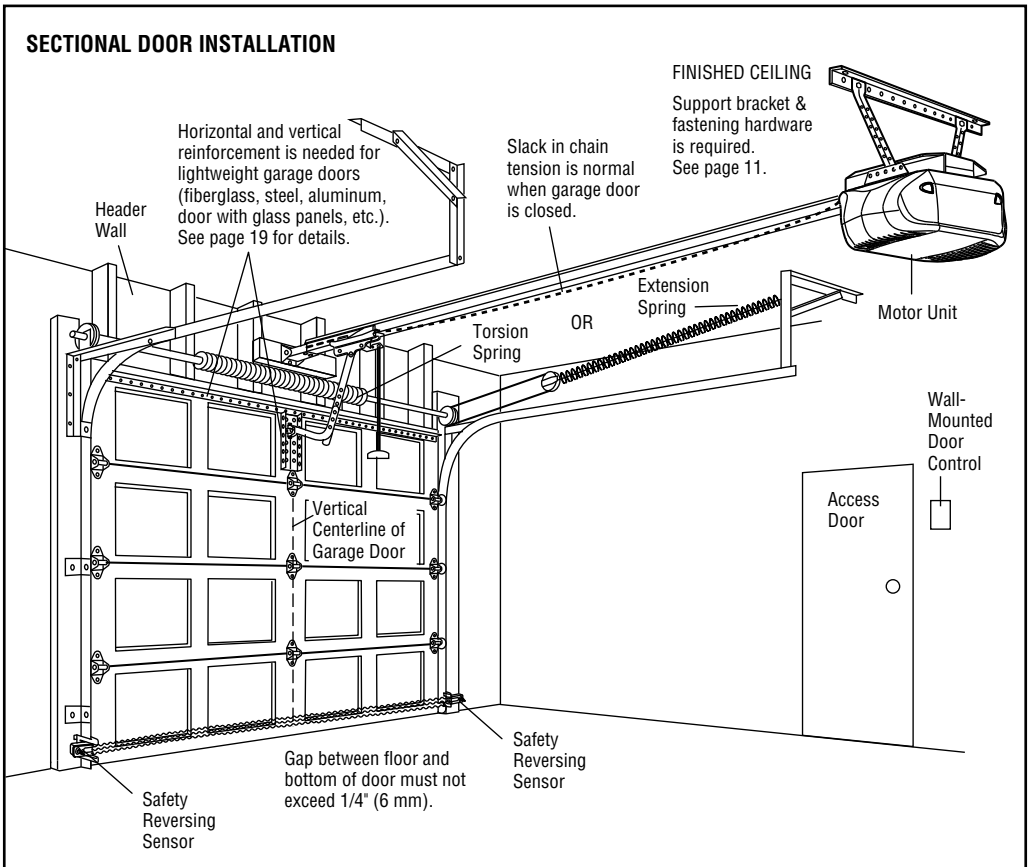
Planning

Identify the type and height of your garage door. Survey your garage area to see if any of the conditions below apply to your installation. Additional materials may be required. You may find it helpful to refer back to this page and the accompanying illustrations as you proceed with the installation of your opener.

WARNING

Without a properly working safety reversal system, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing garage door.

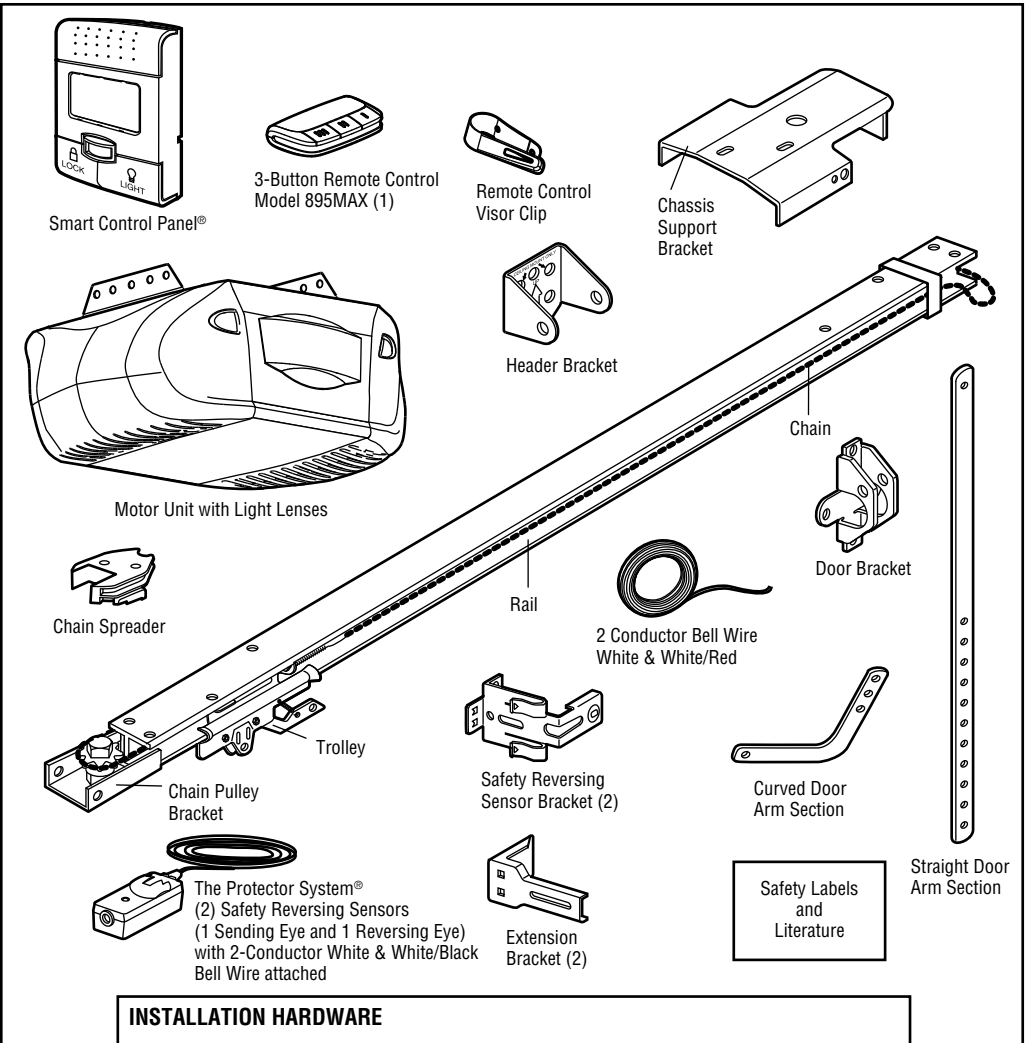
- The gap between the bottom of the garage door and the floor **MUST NOT** exceed 1/4" (6 mm). Otherwise, the safety reversal system may **NOT** work properly.
- The floor or the garage door **MUST** be repaired to eliminate the gap.



Carton Inventory

Your garage door opener is packaged in two cartons which contain the motor unit and all parts illustrated below. Accessories will depend on the model purchased.

If anything is missing, carefully check the packing material. Parts may be stuck in the foam. Hardware for installation is also listed below.



INSTALLATION HARDWARE

Hex Bolt 5/16"-18x7/8" (4)	Hex Bolt 1/4"-20x5/8" (4)
Lag Screw 5/16"-9x1-5/8" (2)	Hex Screws 8-32x1" (2)
Lag Screw 5/16"-18x1-7/8" (2)	Screw #8-32x3/8"
Clevis Pin 5/16"x2-3/4" (1)	Insulated Staples (10)
Clevis Pin 5/16"x1-1/4" (1)	Ring Fastener (3)
Clevis Pin 5/16"x1" (1)	Drywall Anchors (2)
Nut 5/16"-18 (4)	Carriage Bolt 1/4"-20x1/2" (2)
Lock Washer 5/16" (4)	Wing Nut 1/4"-20 (2)
Screw 6ABx1-1/4" (2)	Lock Nut 1/4"-20
Screw 6-32x1" (2)	Lag Screw 1/4"x1-1/2" (4)
Self-Threading Screw 1/4"-14x5/8" (2)	Rope
Washed Bolt 5/16"-18x1/2" (2)	Handle

ASSEMBLY STEP 1

Attach the Rail to the Motor Unit

To avoid installation difficulties, do not run the garage door opener until instructed to do so.

- Remove the bolt and lock nut from the top of the motor unit.
- Place rail onto the bolt mounted on the motor unit and align the back hole with the hole in the top of the unit.
- Fasten rail with the washered bolt and lock nut previously removed. Tighten securely (Figure 1).
Remember to use only these bolts/fasteners! Any other bolts/fasteners will cause serious damage to the opener.

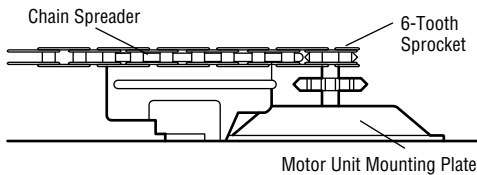
ASSEMBLY STEP 2

Attach the Chain Spreader

- Attach chain spreader to the motor unit with two screws (Figure 2).
- Guide the chain around the selected groove in the chain spreader, to engage either the 8-tooth sprocket or the 6-tooth sprocket (Figure 3).

NOTE: The 6-tooth sprocket is for use with Carriage House Doors and the 8-tooth sprocket is for use with Regular Doors.

Figure 3



ASSEMBLY STEP 3

Attach the Chassis Support Bracket

- Position the rail support bracket on the unit.
- Attach the bracket to the rail with 1/4"-20x5/8" hex bolts and lock washers. **Do not overtighten.**
- Attach the bracket to the opener by inserting a 5/16"-18x1/2" washered screw through a hole in each side flange and a matching hole in the bracket. Complete the connection by inserting the #8-32x3/8" screw through the back flange and the hole in rail support (Figure 4).

Proceed to Assembly Step 4.

CAUTION

To avoid SERIOUS damage to opener, ONLY use bolts/fasteners mounted in the top of the opener.

Figure 1

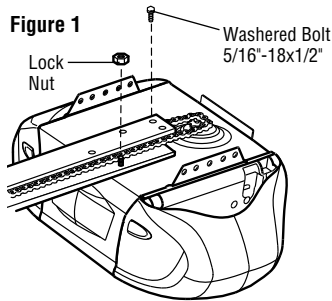
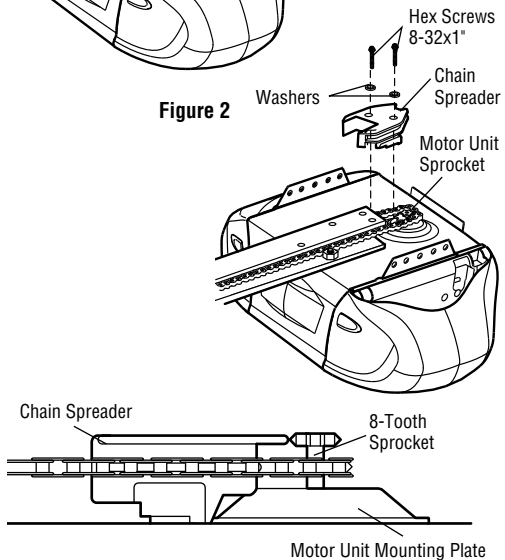


Figure 2

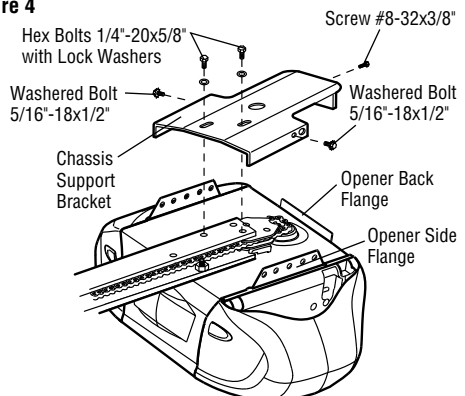


WARNING

To avoid possible SERIOUS INJURY to fingers from moving garage door opener:

- ALWAYS keep hand clear of sprocket while operating opener.
- Securely attach chain spreader BEFORE operating.

Figure 4



ASSEMBLY STEP 4

Tighten the Chain

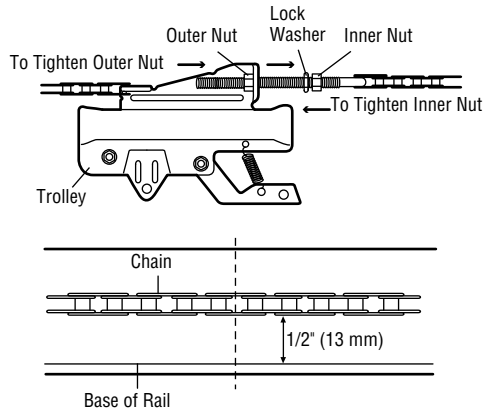
- Spin the inner nut and lock washer down the threaded shaft, away from the trolley.
- To tighten the chain, turn outer nut in the direction shown. **As you turn the nut, keep the chain from twisting.**
- When the chain is approximately 1/2" (13 mm) above the base of the rail at its midpoint, re-tighten the inner nut to secure the adjustment.

Sprocket noise can result if chain is either too loose or too tight.

When installation is complete, you may notice some chain droop with the door closed. This is normal. If the chain returns to the position shown when the door is open, do not re-adjust the chain.

NOTE: During future maintenance, ALWAYS pull the emergency release handle to disconnect trolley before adjusting chain.

You have now finished assembling your garage door opener. Please read the following warnings before proceeding to the installation section.



INSTALLATION

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL INSTALLATION WARNINGS AND INSTRUCTIONS.
2. Install garage door opener ONLY on properly balanced and lubricated garage door. An improperly balanced door may NOT reverse when required and could result in SEVERE INJURY or DEATH.
3. ALL repairs to cables, spring assemblies and other hardware MUST be made by a trained door systems technician BEFORE installing opener.
4. Disable ALL locks and remove ALL ropes connected to garage door BEFORE installing opener to avoid entanglement.
5. Install garage door opener 7 feet (2.13 m) or more above floor.
6. Mount the emergency release within reach, but at least 6 feet (1.8 m) above the floor and avoiding contact with vehicles to avoid accidental release.
7. NEVER connect garage door opener to power source until instructed to do so.
8. NEVER wear watches, rings or loose clothing while installing or servicing opener. They could be caught in garage door or opener mechanisms.
9. Install wall-mounted garage door control:
 - within sight of the garage door.
 - out of reach of children at minimum height of 5 feet (1.5 m).
 - away from ALL moving parts of the door.
10. Place entrapment warning label on wall next to garage door control.
11. Place manual release/safety reverse test label in plain view on inside of garage door.
12. Upon completion of installation, test safety reversal system. Door MUST reverse on contact with a 1-1/2" (3.8 cm) high object (or a 2x4 laid flat) on the floor.

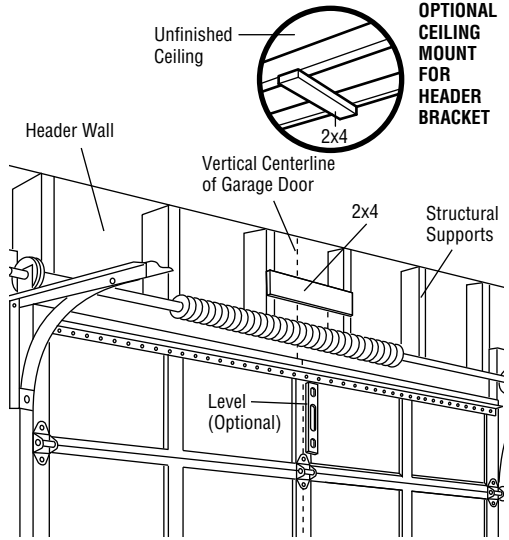
INSTALLATION STEP 1

Determine the Header Bracket Location

WARNING

To prevent possible SERIOUS INJURY or DEATH:

- Header bracket **MUST** be RIGIDLY fastened to structural support on header wall or ceiling, otherwise garage door might NOT reverse when required. DO NOT install header bracket over drywall.
- Concrete anchors **MUST** be used if mounting header bracket or 2x4 into masonry.
- NEVER try to loosen, move or adjust garage door, springs, cables, pulleys, brackets, or their hardware, ALL of which are under EXTREME tension.
- ALWAYS call a trained door systems technician if garage door binds, sticks, or is out of balance. An unbalanced garage door might NOT reverse when required.



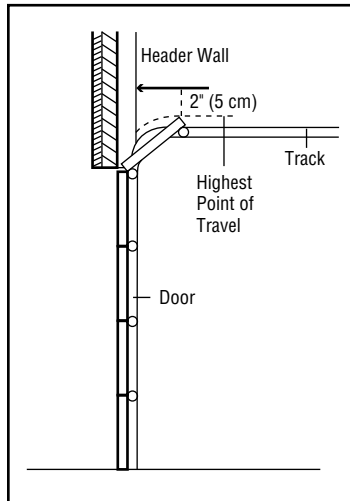
SECTIONAL DOOR ONLY

1. Close the door and mark the inside vertical centerline of the garage door.
2. Extend the line onto the header wall above the door.

You can fasten the header bracket within 4 feet (1.22 m) of the left or right of the door center only if a torsion spring or center bearing plate is in the way; or you can attach it to the ceiling (see page 9) when clearance is minimal. (It may be mounted on the wall upside down if necessary, to gain approximately 1/2" (1 cm).)

If you need to install the header bracket on a 2x4 (on wall or ceiling), use lag screws (not provided) to securely fasten the 2x4 to structural supports as shown here and on page 9.

3. Open your door to the highest point of travel as shown. Draw an intersecting horizontal line on the header wall 2" (5 cm) above the high point. This height will provide travel clearance for the top edge of the door.



Sectional door with curved track

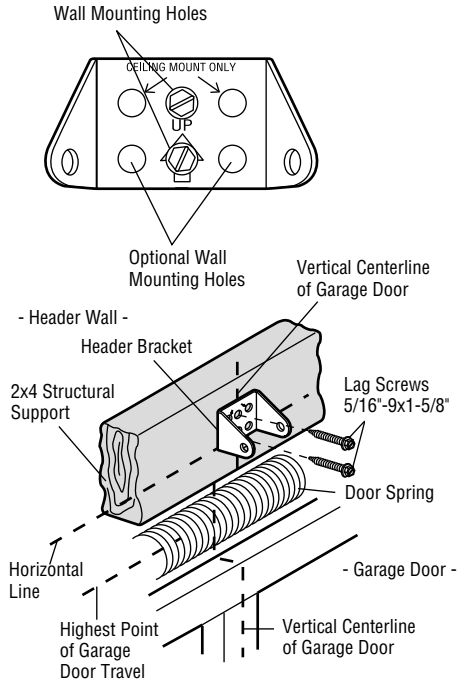
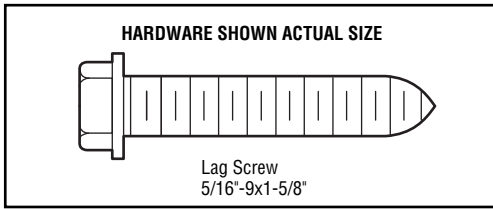
INSTALLATION STEP 2

Install the Header Bracket

You can attach the header bracket either to the wall above the garage door, or to the ceiling. Follow the instructions which will work best for your particular requirements. **Do not install the header bracket over drywall. If installing into masonry, use concrete anchors (not provided).**

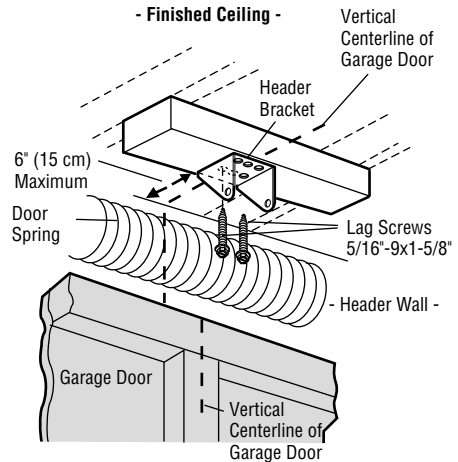
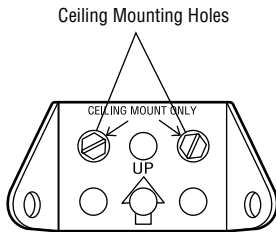
WALL HEADER BRACKET INSTALLATION

- Center the bracket on the vertical centerline with the bottom edge of the bracket on the horizontal line as shown (with the arrow pointing toward the ceiling).
- Mark the vertical set of bracket holes (do not use the holes designated for ceiling mount). Drill 3/16" pilot holes and fasten the bracket securely to a structural support with the hardware provided.



CEILING HEADER BRACKET INSTALLATION

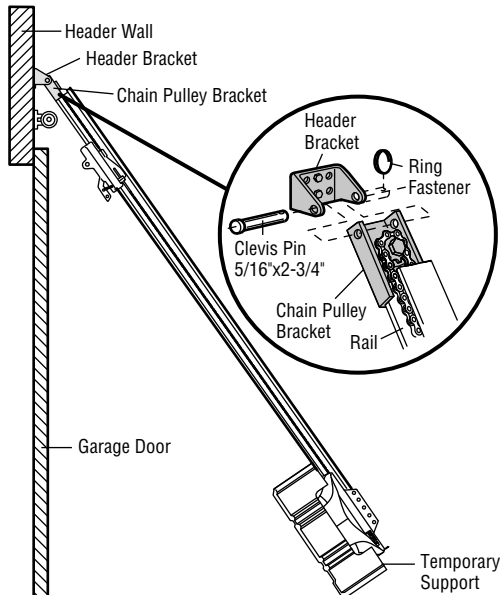
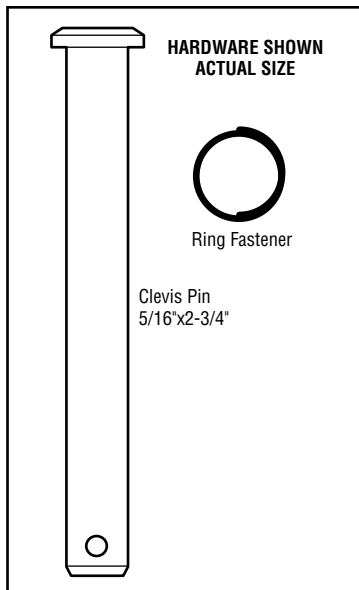
- Extend the vertical centerline onto the ceiling as shown.
- Center the bracket on the vertical mark, no more than 6" (15 cm) from the wall. Make sure the arrow is pointing toward the wall. The bracket can be mounted flush against the ceiling when clearance is minimal.
- Mark the side holes. Drill 3/16" pilot holes and fasten bracket securely to a structural support with the hardware provided.



INSTALLATION STEP 3

Attach the Rail to the Header Bracket

- Position the opener on the garage floor below the header bracket. Use packing material as a protective base. **NOTE:** If the door spring is in the way you'll need help. Have someone hold the opener securely on a temporary support to allow the rail to clear the spring.
- Position the rail bracket against the header bracket.
- Align the bracket holes and join with a clevis pin as shown.
- Insert a ring fastener to secure.



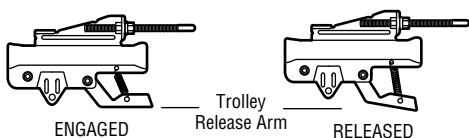
INSTALLATION STEP 4

Position the Opener

SECTIONAL DOOR ONLY

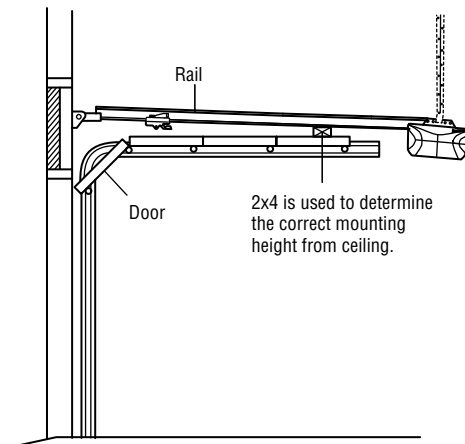
A 2x4 laid flat is convenient for setting an ideal door-to-rail distance.

- Raise the opener onto a stepladder. You will need help at this point if the ladder is not tall enough.
- Open the door all the way and place a 2x4 laid flat on the top section beneath the rail.
- If the top section or panel hits the trolley when you raise the door, pull down on the trolley release arm to disconnect inner and outer sections. Slide the outer trolley toward the motor unit. The trolley can remain disconnected until Installation Step 12 is completed.



CAUTION

To prevent damage to garage door, rest garage door opener rail on 2x4 placed on top section of door.



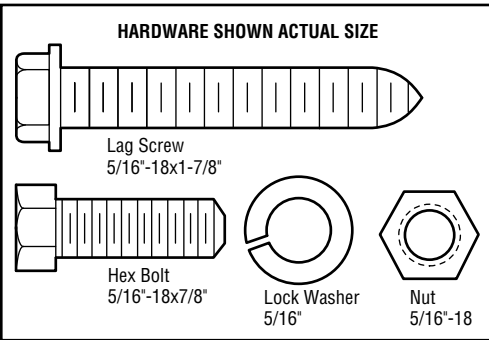
INSTALLATION STEP 5

Hang the Opener

Three representative installations are shown. Yours may be different. Hanging brackets should be angled (Figure 1) to provide rigid support. On finished ceilings (Figure 2 and Figure 3), attach a sturdy metal bracket to structural supports before installing the opener. This bracket and fastening hardware are not provided.

1. Measure the distance from each side of the motor unit to the structural support.
2. Cut both pieces of the hanging bracket to required lengths.
3. Drill 3/16" pilot holes in the structural supports.
4. Attach one end of each bracket to a support with 5/16"-18x1-7/8" lag screws.
5. Fasten the opener to the hanging brackets with 5/16"-18x7/8" hex bolts, lock washers and nuts.
6. Check to make sure the rail is centered over the door (or in line with the header bracket if the bracket is not centered above the door).
7. Remove the 2x4. Operate the door manually. If the door hits the rail, raise the header bracket.

NOTE: DO NOT connect power to opener at this time.



⚠ WARNING

To avoid possible **SERIOUS INJURY** from a falling garage door opener, fasten it **SECURELY** to structural supports of the garage. Concrete anchors **MUST** be used if installing **ANY** brackets into masonry.

Figure 1

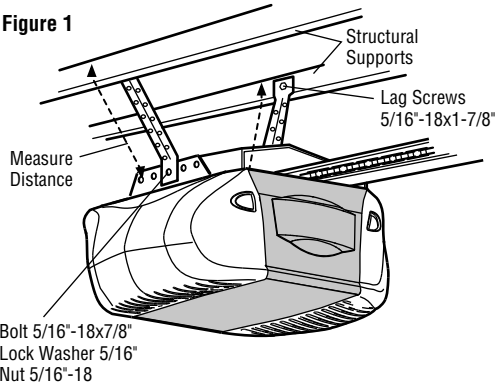


Figure 2

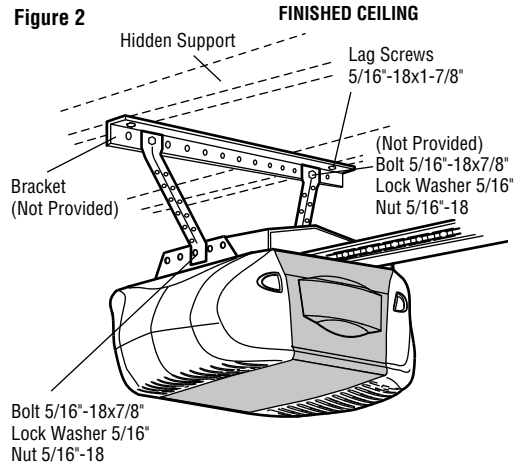
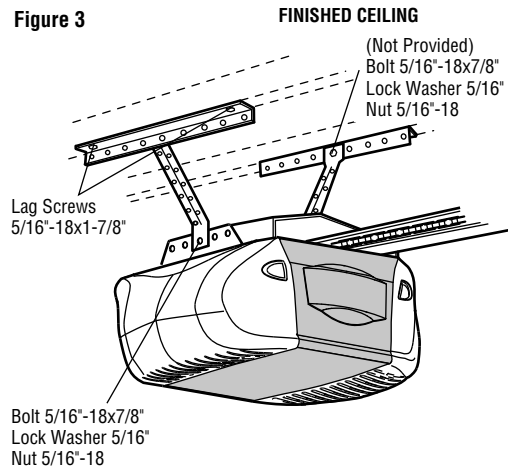


Figure 3



INSTALLATION STEP 6

Install the Door Control

Locate door control within sight of door, at a minimum height of 5 feet (1.5 m) where small children cannot reach, away from moving parts of door and door hardware. If installing into drywall, drill 5/32" holes and use the anchors provided. For pre-wired installations (as in new home construction), it may be mounted to a single gang box (Figure 1).

NOTE: The functional temperature range of the door control is between -4° F (-20° C) and 122° F (50° C). Scroll speed of display is slower at lower temperatures although the door control remains fully functional.

CAUTION: Continuous exposure of the door control to temperatures below -22° F (-30° C) may damage the LCD screen.

SPECIAL NOTE: Only one 398LM can be connected to each garage door opener. If additional wall controls are desired to operate the same garage door opener, it is recommended to use model 378LM wireless wall control as the secondary door control.

- Strip 7/16" (11 mm) of insulation from one end of bell wire and connect to the two screw terminals on back of door control by color: white wire to the W (2) and white/red wire to the R (1) (Figure 2).
- Remove push bar cover by gently prying at the lower/middle portion of the cover with a small flat-head screwdriver. Fasten with 6ABx1-1/4" self-tapping screws (drywall installation) or 6-32x1" machine screws (into gang box) as follows:
 - Install bottom screw, allowing 1/8" (3 mm) to protrude above wall surface.
 - Position bottom of door control on screw head and slide down to secure. Adjust screw for snug fit.
 - Drill and install top screw with care to avoid cracking plastic housing. **DO NOT overtighten.**
 - Replace cover by inserting top tabs first and then snap cover in place.
- (For standard installations ONLY)** Run bell wire up wall and across ceiling to motor unit. Use insulated staples to secure wire in several places. **DO NOT** pierce wire with a staple, creating a short or open circuit.
- Strip 7/16" (11 mm) of insulation from end of bell wire. Connect bell wire to the quick-connect terminals on the motor unit: white to white and white/red to red (Figure 2).

NOTE: If you have any trouble with the operation of the buttons, loosen the top mounting screw. **DO NOT** connect power and operate the opener at this time. The trolley will travel to the full open position but will not return to the close position until the sensor beam is connected and properly aligned.

⚠️ ⚠️ WARNING

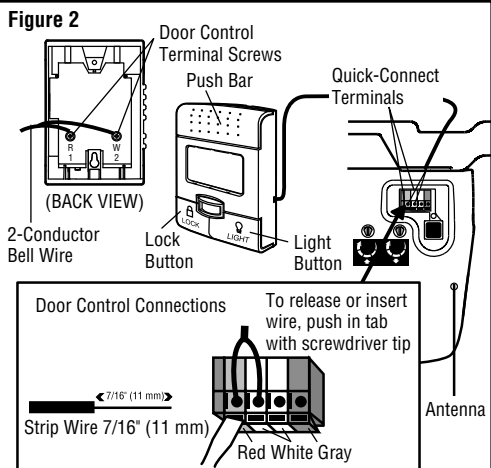
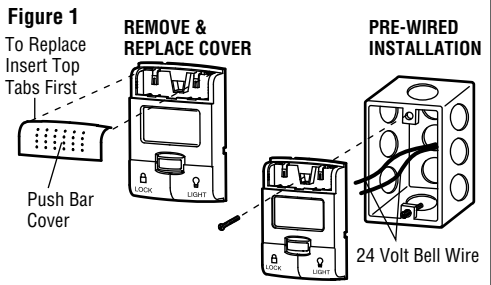
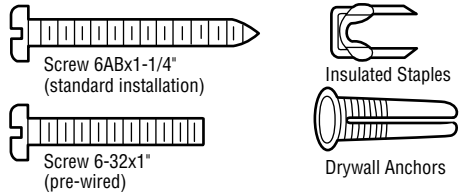
To prevent possible **SERIOUS INJURY** or **DEATH** from electrocution:

- Be sure power is **NOT** connected **BEFORE** installing door control.
- Connect **ONLY** to 24 VOLT low voltage wires.

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

- Install door control within sight of garage door, out of reach of children at a minimum height of 5 feet (1.5 m), and away from ALL moving parts of door.
- **NEVER** permit children to operate or play with door control push buttons or remote control transmitters.
- Activate door **ONLY** when it can be seen clearly, is properly adjusted, and there are no obstructions to door travel.
- **ALWAYS** keep garage door in sight until completely closed. **NEVER** permit anyone to cross path of closing garage door.

HARDWARE SHOWN ACTUAL SIZE

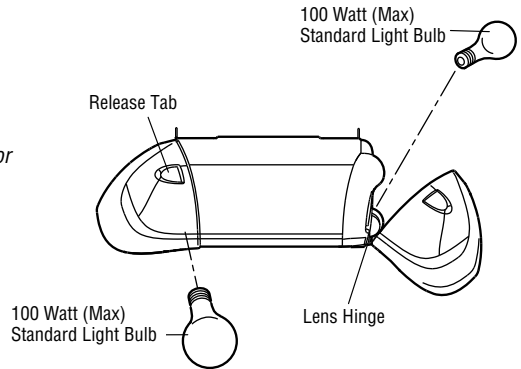


INSTALLATION STEP 7

Install the Light

- Press the release tabs on both sides of lens. Gently rotate lens back and downward until the lens hinge is in the fully open position. Do not remove the lens.
- Install up to a 100 watt maximum light bulb in each socket. Light bulb size should be A19, standard neck only. The light will turn ON and remain lit for approximately 4-1/2 minutes when power is connected. Then the lights will turn OFF.
- Reverse the procedure to close the lens.
- Use A19, standard neck garage door opener bulbs for replacement.

NOTE: Use only standard light bulbs. The use of short neck or specialty light bulbs may overheat the endpanel or light socket.



INSTALLATION STEP 8

Attach the Emergency Release Rope and Handle

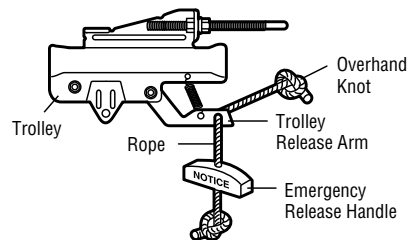
- Thread one end of the rope through the hole in the top of the red handle so "NOTICE" reads right side up as shown. Secure with an overhand knot at least 1" (25 mm) from the end of the rope to prevent slipping.
- Thread the other end of the rope through the hole in the release arm of the outer trolley.
- Adjust rope length so the handle is 6 feet (1.82 m) above the floor. Secure with an overhand knot.

NOTE: If it is necessary to cut the rope, heat seal the cut end with a match or lighter to prevent unraveling.

WARNING

To prevent possible SERIOUS INJURY or DEATH from a falling garage door:

- If possible, use emergency release handle to disengage trolley ONLY when garage door is CLOSED. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly.
- NEVER use emergency release handle unless garage doorway is clear of persons and obstructions.
- NEVER use handle to pull door open or closed. If rope knot becomes untied, you could fall.

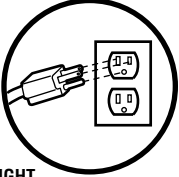


INSTALLATION STEP 9

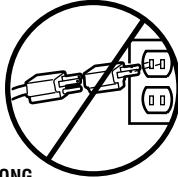
Electrical Requirements

To avoid installation difficulties, do not run the opener at this time.

To reduce the risk of electric shock, your garage door opener has a grounding type plug with a third grounding pin. This plug will only fit into a grounding type outlet. If the plug doesn't fit into the outlet you have, contact a qualified electrician to install the proper outlet.



RIGHT



WRONG

If permanent wiring is required by your local code, refer to the following procedure.

To make a permanent connection through the 7/8" hole in the top of the motor unit:

- Remove the motor unit cover screws and set the cover aside.
- Remove the attached 3-prong cord.
- Connect the black (line) wire to the screw on the brass terminal; the white (neutral) wire to the screw on the silver terminal; and the ground wire to the green ground screw. **The opener must be grounded.**
- Reinstall the cover.

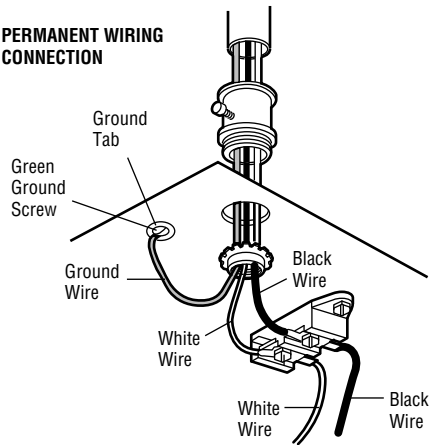
To avoid installation difficulties, do not run the opener at this time.

WARNING

To prevent possible SERIOUS INJURY or DEATH from electrocution or fire:

- Be sure power is NOT connected to the opener, and disconnect power to circuit BEFORE removing cover to establish permanent wiring connection.
- Garage door installation and wiring MUST be in compliance with ALL local electrical and building codes.
- NEVER use an extension cord, 2-wire adapter, or change plug in ANY way to make it fit outlet. Be sure the opener is grounded.

PERMANENT WIRING CONNECTION



INSTALLATION STEP 10

Install The Protector System®

The safety reversing sensor must be connected and aligned correctly before the garage door opener will move in the down direction.

IMPORTANT INFORMATION ABOUT THE SAFETY REVERSING SENSOR

When properly connected and aligned, the sensor will detect an obstacle in the path of its electronic beam. The sending eye (with an amber indicator light) transmits an invisible light beam to the receiving eye (with a green indicator light). If an obstruction breaks the light beam while the door is closing, the door will stop and reverse to full open position, and the opener lights will flash 10 times.

The units must be installed inside the garage so that the sending and receiving eyes 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.

The mounting brackets are designed to clip onto the track of sectional garage doors without additional hardware.

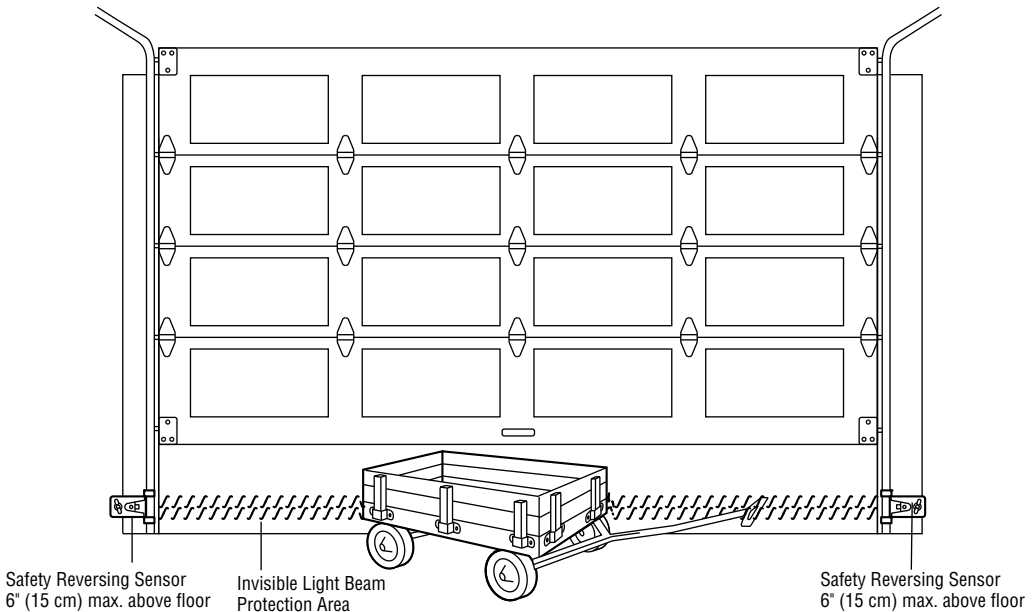
! WARNING

Be sure power is NOT connected to the garage door opener BEFORE installing the safety reversing sensor. To prevent SERIOUS INJURY or DEATH from a closing garage door:

- Correctly connect and align the safety reversing sensor. This required safety device MUST NOT be disabled.
- Install the safety reversing sensor so beam is NO HIGHER than 6" (15 cm) above garage floor.

If it is necessary to mount the units on the wall, the brackets must be securely fastened to a solid surface such as the wall framing. Extension brackets (see accessories) are available if needed. 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.



INSTALLING THE BRACKETS

Be sure power to the opener is disconnected. Install and align the brackets so the sensors will face each other across the garage door, with the beam no higher than 6" (15 cm) above the floor. They may be installed in one of three ways, as follows:

Garage door track installation (preferred):

- Slip the curved arms over the rounded edge of each door track, with the curved arms facing the door. Snap into place against the side of the track. It should lie flush, with the lip hugging the back edge of the track, as shown in Figure 1.

If your door track will not support the bracket securely, wall installation is recommended.

Wall installation:

- Place the bracket against the wall with curved arms facing the door. Be sure there is enough clearance for the sensor beam to be unobstructed.
- If additional depth is needed, an extension bracket or wood blocks can be used.
- Use bracket mounting holes as a template to locate and drill (2) 3/16" diameter pilot holes on the wall at each side of the door, no higher than 6" (15 cm) above the floor.
- Attach brackets to wall with lag screws.
- If using extension brackets or wood blocks, adjust right and left assemblies to the same distance out from the mounting surface. Make sure all door hardware obstructions are cleared.

Floor installation:

- Use wood blocks or extension brackets to elevate sensor brackets so the lenses will be no higher than 6" (15 cm) above the floor.
- Carefully measure and place right and left assemblies at the same distance out from the wall. Be sure all door hardware obstructions are cleared.
- Fasten to the floor with concrete anchors as shown.

Figure 1 DOOR TRACK MOUNT (RIGHT SIDE)

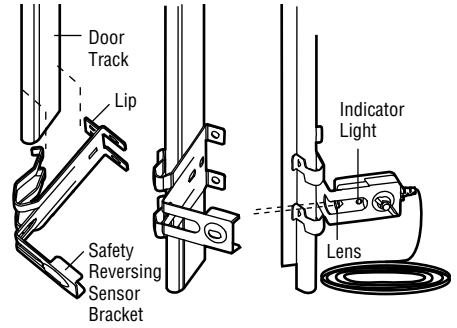


Figure 2 WALL MOUNT (RIGHT SIDE)

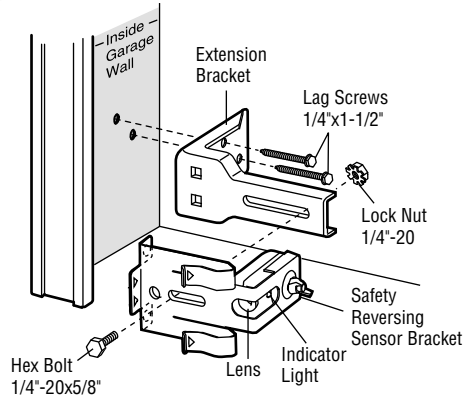
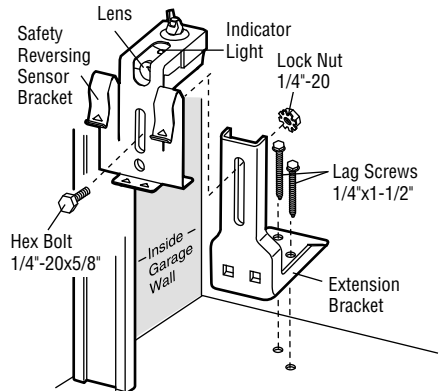
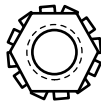


Figure 3 FLOOR MOUNT (RIGHT SIDE)



HARDWARE SHOWN ACTUAL SIZE



Lock Nut 1/4"-20 (2)



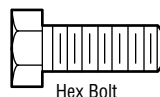
Wing Nut 1/4"-20



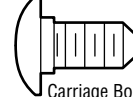
Staples



Lag Screw
1/4"x1-1/2 (4)



Hex Bolt
1/4"-20x5/8 (2)



Carriage Bolt
1/4"-20x1/2"

MOUNTING AND WIRING THE SAFETY REVERSING SENSORS

Mounting:

- Slide a 1/4"-20x1/2" carriage bolt head into the slot on each sensor. Use wing nuts to fasten sensors to brackets, with lenses pointing toward each other across the door. Be sure the lens is not obstructed by a bracket extension (Figure 4).
- Finger tighten the wing nuts.

Option A - Installation Without Pre-Wiring:

- Run the bell wire from both sensors to the garage door opener. Attach the wire to the wall and ceiling with the staples (Figure 5).

Option B - Pre-Wired Installation:

If your garage already has wires installed for the safety reversing sensors, follow the instructions below:

- Cut the end of the safety reversing sensor wire, making sure there is enough wire to reach the pre-installed wires from the wall (Figure 6).
- Separate the safety reversing sensor wires and strip 7/16" (11 mm) of insulation from each end. Choose two of the pre-installed wires and strip 7/16" (11 mm) of insulation from each end. Make sure that you choose the same color pre-installed wires for each sensor (Figure 7).
- Connect the pre-installed wires to the sensor wires with wire nuts making sure the colors correspond for each sensor (Figure 8).

Figure 4

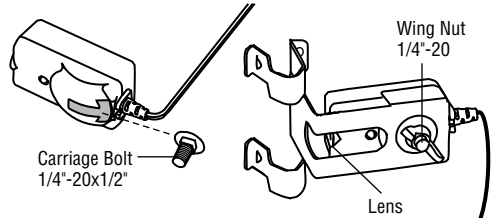


Figure 5

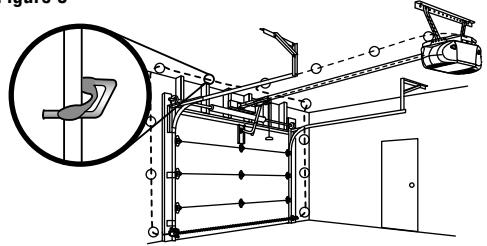


Figure 6

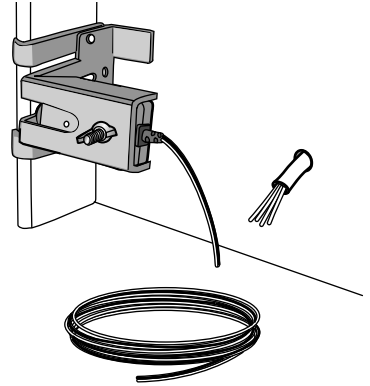


Figure 7

Safety Reversing Sensor Wires

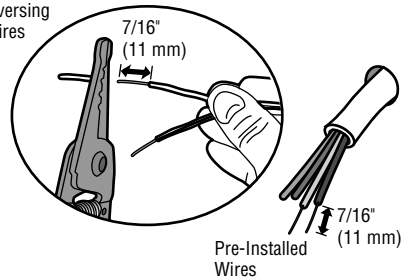
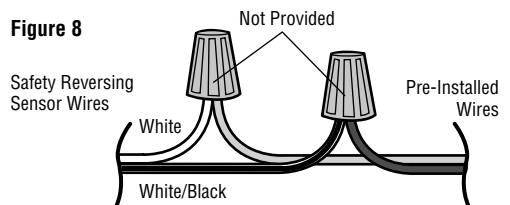
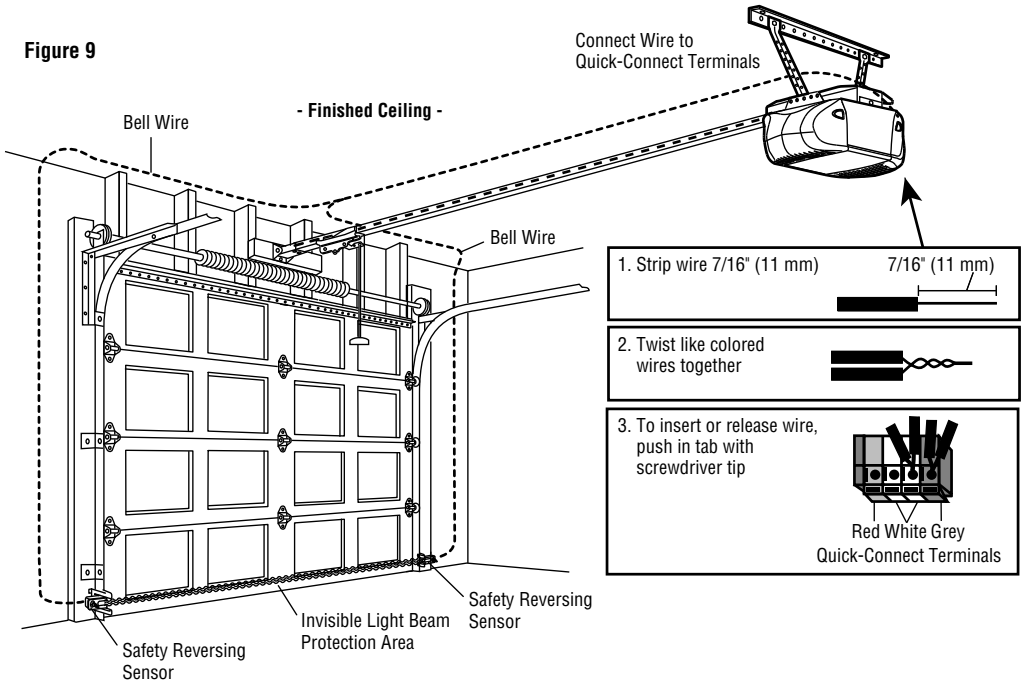


Figure 8



Connect to garage door opener:

- Strip 7/16" (11 mm) of insulation from each set of wires. Separate white and white/black wires sufficiently to connect to the opener quick-connect terminals. Twist like colored wires together. Insert wires into quick-connect holes: white to white and white/black to grey (Figure 9).



ALIGNING THE SAFETY REVERSING SENSORS

- Plug in the opener. The indicator lights in both the *sending* and *receiving eyes* will *glow steadily* if wiring connections and alignment are correct.

The *sending eye* amber indicator light will glow regardless of alignment or obstruction. If the green indicator light in the *receiving eye* is off, dim, or flickering (and the invisible light beam path is not obstructed), alignment is required.

- Loosen the *sending eye* wing nut and readjust, aiming directly at the *receiving eye*. Lock in place.
- Loosen the *receiving eye* wing nut and adjust sensor until it receives the sender's beam. When the green indicator light *glows steadily*, tighten the wing nut.

TROUBLESHOOTING THE SAFETY REVERSING SENSORS

- If the *sending eye* indicator light does not *glow steadily* after installation, check for:
 - Electric power to the opener.
 - A short in the white or white/black wires. These can occur at staples, or at opener connections.
 - Incorrect wiring between sensors and opener.
 - A broken wire.
- If the *sending eye* indicator light *glows steadily* but the *receiving eye* indicator light doesn't:
 - Check alignment.
 - Check for an open wire to the *receiving eye*.
- If the *receiving eye* indicator light is dim, realign either sensor.

NOTE: When the invisible beam path is obstructed or misaligned while the door is closing, the door will reverse. If the door is already open, it will not close. The opener lights will blink 10 times. (If bulbs are not installed, 10 clicks can be heard.) See page 15.

INSTALLATION STEP 11

Fasten the Door Bracket

Follow instructions which apply to your door type as illustrated below or on the following page.

A horizontal reinforcement brace should be long enough to be secured to two or three vertical supports. A vertical reinforcement brace should cover the height of the top panel.

Figure 1 shows one piece of angle iron as the horizontal brace. For the vertical brace, 2 pieces of angle iron are used to create a U-shaped support. The best solution is to check with your garage door manufacturer for an opener installation door reinforcement kit.

NOTE: Many door reinforcement kits provide for direct attachment of the clevis pin and door arm. In this case you will not need the door bracket; proceed to Step 12.

SECTIONAL DOORS

1. Center the door bracket on the previously marked vertical centerline used for the header bracket installation. Note correct UP placement, as stamped inside the bracket.
2. Position the top edge of the bracket 2"-4" (5-10 cm) below the top edge of the door, OR directly below any structural support across the top of the door.
3. Mark, drill holes and install as follows, depending on your door's construction:

Metal or light weight doors using a vertical angle iron brace between the door panel support and the door bracket:

- Drill 3/16" fastening holes. Secure the door bracket using the two 1/4"-14x5/8" self-threading screws. (Figure 2A)
- Alternately, use two 5/16" bolts, lock washers and nuts (not provided). (Figure 2B)

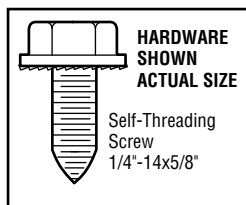
Metal, insulated or light weight factory reinforced doors:

- Drill 3/16" fastening holes. Secure the door bracket using the self-threading screws. (Figure 3)

Wood Doors:

- Use top and bottom or side to side door bracket holes. Drill 5/16" holes through the door and secure bracket with 5/16"x2" carriage bolts, lock washers and nuts (not provided). (Figure 4)

NOTE: The 1/4"-14x5/8" self-threading screws are not intended for use on wood doors.



CAUTION

Fiberglass, aluminum or lightweight steel garage doors **WILL REQUIRE** reinforcement BEFORE installation of door bracket. Contact your door manufacturer for reinforcement kit.

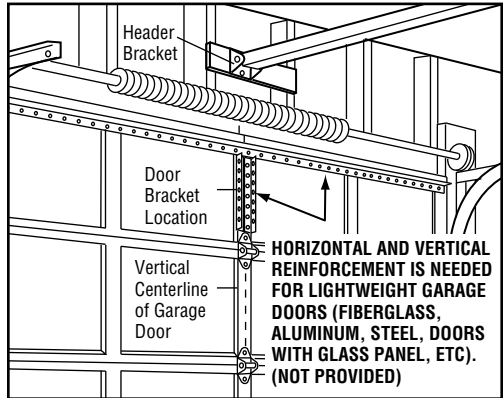


Figure 1

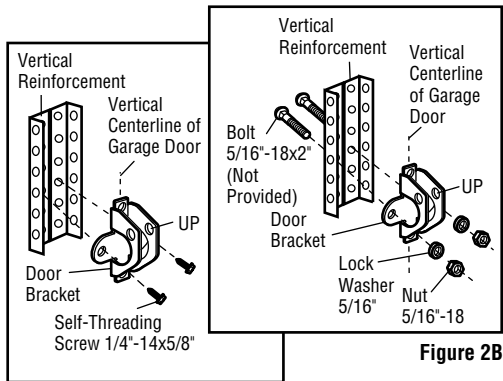


Figure 2B

Figure 2A

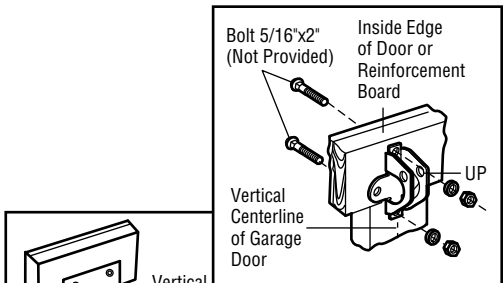


Figure 4

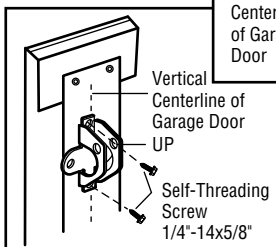


Figure 3

INSTALLATION STEP 12

Connect Door Arm to Trolley

SECTIONAL DOORS ONLY

- Make sure garage door is fully closed. Pull the emergency release handle to disconnect the outer trolley from the inner trolley. Slide the outer trolley back (away from the door) about 2" (5 cm) as shown in Figures 1, 2 and 3.

• **Figure 1:**

- Fasten straight door arm section to outer trolley with the 5/16"x1" clevis pin. Secure the connection with a ring fastener.
- Fasten curved section to the door bracket in the same way, using the 5/16"x1-1/4" clevis pin.

IMPORTANT: The groove on the straight door arm **MUST** face away from the curved door arm (Figure 4).

• **Figure 2:**

- Bring arm sections together. Find two pairs of holes that line up and join sections. Select holes as far apart as possible to increase door arm rigidity.

• **Figure 3, Hole alignment alternative:**

- If holes in curved arm are above holes in straight arm, disconnect straight arm. Cut about 6" (15 cm) from the solid end. Reconnect to trolley with cut end down as shown.

- Bring arm sections together.

- Find two pairs of holes that line up and join with bolts, lock washers and nuts.

- Proceed to Adjustment Step 1, page 21. Trolley will re-engage automatically when opener is operated.

Figure 1

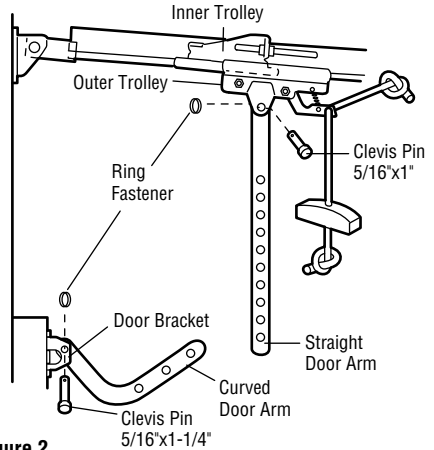


Figure 2

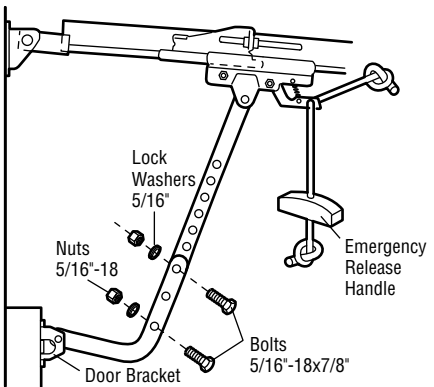


Figure 3

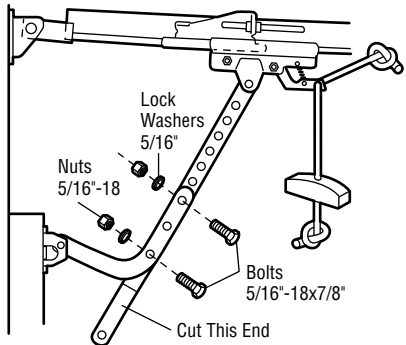
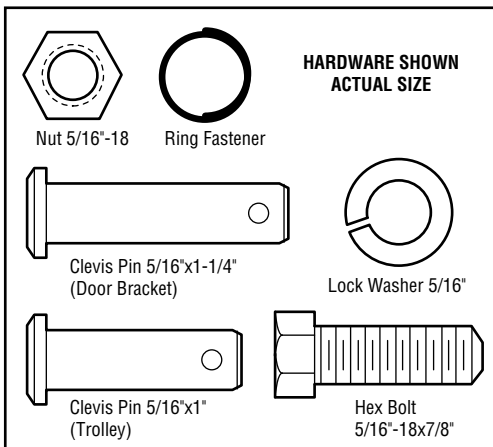
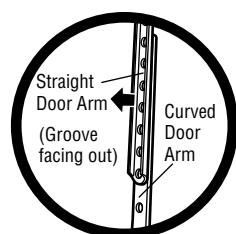


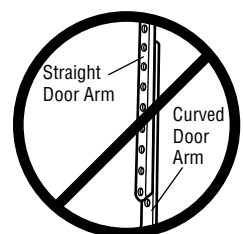
Figure 4



CORRECT



INCORRECT



ADJUSTMENT STEP 1

Adjust the UP and DOWN Travel Limits

Limit adjustment settings regulate the points at which the door will stop when moving up or down.

To operate the opener, press the Door Control push bar. Run the opener through a complete travel cycle.

- Does the door open and close completely?
- Does the door stay closed and not reverse unintentionally when fully closed?

If your door passes both of these tests, no limit adjustments are necessary unless the reversing test fails (Adjustment Step 3, page 23).

Adjustment procedures are outlined below. Read the procedures carefully before proceeding to Adjustment Step 2. Use a screwdriver to make limit adjustments. **Run the opener through a complete travel cycle after each adjustment.**

NOTE: Repeated operation of the opener during adjustment procedures may cause the motor to overheat and shut off. Simply wait 15 minutes and try again.

NOTE: If anything interferes with the door's upward travel, it will stop. If anything interferes with the door's downward travel (including binding or unbalanced doors), it will reverse.

HOW AND WHEN TO ADJUST THE LIMITS

- **If the door does not open completely but opens at least five feet (1.5 m):**

Increase up travel. Turn the UP limit adjustment screw clockwise. One turn equals 3" (7.5 cm) of travel.

NOTE: To prevent the trolley from hitting the cover protection bolt, keep a minimum distance of 2-4" (5-10 cm) between the trolley and the bolt.

- **If door does not open at least 5 feet (1.5 m):**

Adjust the UP (open) force as explained in Adjustment Step 2.

- **If the door does not close completely:**

Increase down travel. Turn the down limit adjustment screw counterclockwise. One turn equals 3" (7.5 cm) of travel.

If door still won't close completely and the trolley bumps into the pulley bracket, try lengthening the door arm (page 20) and decreasing the down limit.

- **If the opener reverses in fully closed position:**

Decrease down travel. Turn the down limit adjustment screw clockwise. One turn equals 3" (7.5 cm) of travel.

- **If the door reverses when closing and there is no visible interference to travel cycle:**

If the opener lights are flashing, the Safety Reversing Sensors are either not installed, misaligned, or obstructed. See Troubleshooting, page 18.

Test the door for binding: Pull the emergency release handle. Manually open and close the door. If the door is binding or unbalanced, call for a trained door systems technician. If the door is balanced and not binding, adjust the DOWN (close) force. See Adjustment Step 2.

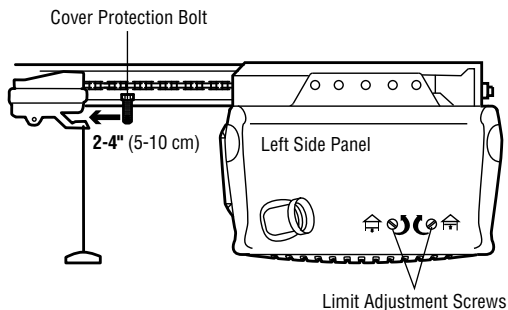
⚠ WARNING

Without a properly installed safety reversal system, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing garage door.

- Incorrect adjustment of garage door travel limits will interfere with proper operation of safety reversal system.
- If one control (force or travel limits) is adjusted, the other control may also need adjustment.
- After ANY adjustments are made, the safety reversal system **MUST** be tested. Door **MUST** reverse on contact with 1-1/2" high (3.8 cm) object (or 2x4 laid flat) on floor.

CAUTION

To prevent damage to vehicles, be sure fully open door provides adequate clearance.



ADJUSTMENT LABEL

ADJUSTMENT STEP 2

Adjust the Force

Force adjustment controls are located on the right side panel of the motor unit. Force adjustment settings regulate the amount of power required to open and close the door.

If the forces are set too light, door travel may be interrupted by nuisance reversals in the down direction and stops in the up direction. Weather conditions can affect the door movement, so occasional adjustment may be needed.

The maximum force adjustment range is about 3/4 of a complete turn. Do not force controls beyond that point. Turn force adjustment controls with a screwdriver.

NOTE: If anything interferes with the door's upward travel, it will stop. If anything interferes with the door's downward travel (including binding or unbalanced doors), it will reverse.

HOW AND WHEN TO ADJUST THE FORCES

1. Test the DOWN (close) force

- Grasp the door bottom when the door is about halfway through DOWN (close) travel. The door should reverse. *Reversal halfway through down travel does not guarantee reversal on a 1-1/2" (3.8 cm) obstruction. See Adjustment Step 3, page 23. If the door is hard to hold or doesn't reverse, DECREASE the DOWN (close) force by turning the control counterclockwise. Make small adjustments until the door reverses normally. After each adjustment, run the opener through a complete cycle.*
- **If the door reverses during the down (close) cycle and the opener lights aren't flashing, INCREASE DOWN (close) force by turning the control clockwise. Make small adjustments until the door completes a close cycle. After each adjustment, run the opener through a complete travel cycle. Do not increase the force beyond the minimum amount required to close the door.**

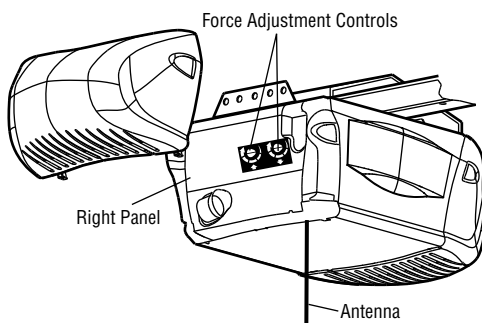
2. Test the UP (open) force

- Grasp the door bottom when the door is about halfway through UP (open) travel. The door should stop. **If the door is hard to hold or doesn't stop, DECREASE UP (open) force by turning the control counterclockwise. Make small adjustments until the door stops easily and opens fully. After each adjustment, run the opener through a complete travel cycle.**
- **If the door doesn't open at least 5 feet (1.5 m), INCREASE UP (open) force by turning the control clockwise. Make small adjustments until door opens completely. Readjust the UP limit if necessary. After each adjustment, run the opener through a complete travel cycle.**

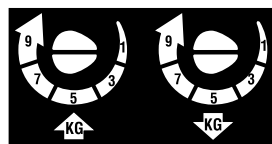
⚠ WARNING

Without a properly installed safety reversal system, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing garage door.

- Too much force on garage door will interfere with proper operation of safety reversal system.
- NEVER increase force beyond minimum amount required to close garage door.
- NEVER use force adjustments to compensate for a binding or sticking garage door.
- If one control (force or travel limits) is adjusted, the other control may also need adjustment.
- After ANY adjustments are made, the safety reversal system **MUST** be tested. Door **MUST** reverse on contact with 1-1/2" high (3.8 cm) object (or 2x4 laid flat) on floor.



FORCE ADJUSTMENT LABEL



Open Force

Close Force

ADJUSTMENT STEP 3

Test the Safety Reversal System

TEST

- With the door fully open, place a 1-1/2" (3.8 cm) board (or a 2x4 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.

ADJUST

- 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.

NOTE: On a sectional door, make sure limit adjustments do not force the door arm beyond a straight up and down position. See the illustration on page 20.

- Repeat the test.
- When the door reverses on the 1-1/2" (3.8 cm) board, remove the obstruction and run the opener through 3 or 4 complete travel cycles to test adjustment.
- If the unit continues to fail the Safety Reverse Test, call for a trained door systems technician.

IMPORTANT SAFETY CHECK:

Test the Safety Reverse System after:

- Each adjustment of door arm length, limits, or force controls.
- Any repair to or adjustment of the garage door (including springs and hardware).
- Any repair to or buckling of the garage floor.
- Any repair to or adjustment of the opener.

ADJUSTMENT STEP 4

Test The Protector System®

- Press the remote control push button to open the door.
- Place the opener carton 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 (2.5 cm), and the opener lights will flash.

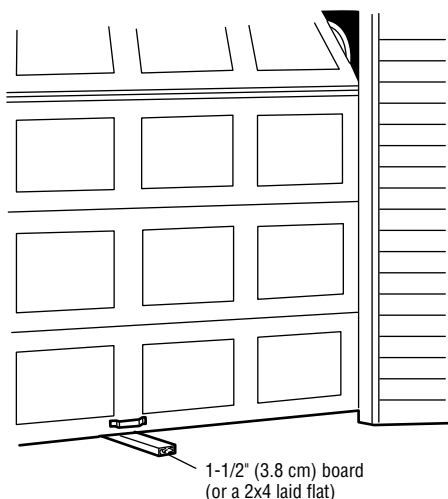
The garage door opener will not close from a remote if the indicator light in either sensor is off (alerting you to the fact that the sensor is misaligned or obstructed).

If the opener closes the door when the safety reversing sensor is obstructed (and the sensors are no more than 6" (15 cm) above the floor), call for a trained door systems technician.

! WARNING

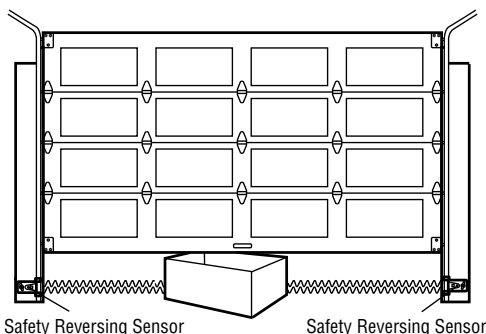
Without a properly installed safety reversal system, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing garage door.

- Safety reversal system **MUST** be tested every month.
- If one control (force or travel limits) is adjusted, the other control may also need adjustment.
- After **ANY** adjustments are made, the safety reversal system **MUST** be tested. Door **MUST** reverse on contact with 1-1/2" high (3.8 cm) object (or 2x4 laid flat) on the floor.



! WARNING

Without a properly installed safety reversing sensor, persons (particularly small children) could be **SERIOUSLY INJURED** or **KILLED** by a closing garage door.



OPERATION

IMPORTANT SAFETY INSTRUCTIONS



To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL WARNINGS AND INSTRUCTIONS.
2. ALWAYS keep remote controls out of reach of children. NEVER permit children to operate or play with garage door control push buttons or remote controls.
3. ONLY activate garage door when it can be seen clearly, it is properly adjusted, and there are no obstructions to door travel.
4. ALWAYS keep garage door in sight and away from people and objects until completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR.
5. NO ONE SHOULD GO UNDER A STOPPED, PARTIALLY OPEN DOOR.
6. If possible, use emergency release handle to disengage trolley ONLY when garage door is CLOSED. Use caution when using this release with the door open. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly and increasing the risk of SEVERE INJURY or DEATH.
7. NEVER use emergency release handle unless garage doorway is clear of persons and obstructions.
8. NEVER use handle to pull garage door open or closed. If rope knot becomes untied, you could fall.
9. If one control (force or travel limits) is adjusted, the other control may also need adjustment.
10. After ANY adjustments are made, the safety reversal system MUST be tested.
11. Safety reversal system MUST be tested every month. Garage door MUST reverse on contact with 1-1/2" high (3.8 cm) object (or a 2x4 laid flat) on the floor. Failure to adjust the garage door opener properly increases the risk of SEVERE INJURY or DEATH.
12. ALWAYS KEEP GARAGE DOOR PROPERLY BALANCED (see page 3). An improperly balanced door may NOT reverse when required and could result in SEVERE INJURY or DEATH.
13. ALL repairs to cables, spring assemblies and other hardware, ALL of which are under EXTREME tension, MUST be made by a trained door systems technician.
14. ALWAYS disconnect electric power to garage door opener BEFORE making ANY repairs or removing covers.
15. **SAVE THESE INSTRUCTIONS.**

Using Your Garage Door Opener

Your Security+® opener and hand-held remote control have been factory-set to a matching code which changes with each use, randomly accessing over 100 billion new codes. Your opener will operate with up to eight Security+® remote controls and one Security+® Keyless Entry System. If you purchase a new remote, or if you wish to deactivate any remote, follow the instructions in the *Programming* section.

Activate your opener with any of the following:

- *The Hand-Held Remote Control:* Hold the large push button down until the door starts to move.
- *The Wall-Mounted Door Control:* Hold the push button or bar down until the door starts to move.
- *The Keyless Entry (See Accessories):* If provided with your garage door opener, it must be programmed before use. See *Programming*.

When the opener is activated (with the safety reversing sensor correctly installed and aligned):

1. If open, the door will close. If closed, it will open.
2. If closing, the door will reverse.
3. If opening, the door will stop.
4. If the door has been stopped in a partially open position, it will close.
5. If obstructed while closing, the door will reverse. If the obstruction interrupts the sensor beam, the opener lights will blink for five seconds.

6. If obstructed while opening, the door will stop.
7. If fully open, the door will not close when the beam is broken. The sensor has no effect in the opening cycle.

If the sensor is not installed, or is misaligned, the door won't close from a hand-held remote. However, you can close the door with the Door Control, the Outside Keylock, or Keyless Entry, *if you activate them until down travel is complete*. If you release them too soon, the door will reverse.

The opener lights will turn on under the following conditions: when the opener is initially plugged in; when power is restored after interruption; when the opener is activated.

They will turn off automatically after 4-1/2 minutes or provide constant light when the Light feature on the Smart Control Panel® is activated. Bulb size is A19. Bulb power is 100 watts maximum.

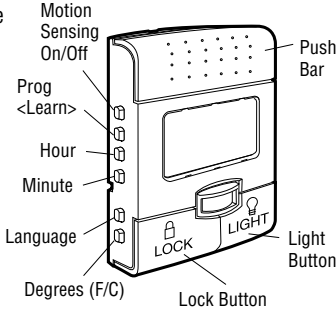
Security+® light feature: Lights will also turn on when someone walks through the open garage door. With a Smart Control Panel®, this feature may be turned off as follows: With the opener lights off, press and hold the light button for 10 seconds, until the light goes on, then off again. To restore this feature, start with the opener lights on, then press and hold the light button for 10 seconds until the light goes off, then on again.

Using the Wall-Mounted Door Control

THE SMART CONTROL PANEL®

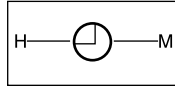
Press the push bar to open or close the door. Press again to reverse the door during the closing cycle or to stop the door while it's opening.

This door control contains a motion sensing detector that will automatically turn on the light when it detects a person entering the garage.



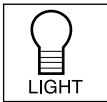
(PROG) Learn Feature

The door control is equipped with a PROG <LEARN> button to assist in learning remote controls to the unit. Press the PROG <LEARN> button once to initiate LEARN mode and the display will show 'Learn Remote Control - Press Learn Button Again to Confirm'. Press the PROG <LEARN> button a second time and the display will show 'Learn Mode - Press Remote Control Button to Learn Remote.' Press the button of the remote control to be learned and the worklight will blink to confirm the remote control has been learned.



Hour & Minute Feature

Press or hold either of these side buttons to increment the hour or minute displayed on the LCD display.



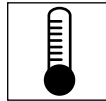
Light Feature

Press the Light button to turn the opener light on or off. It will not control the opener lights when the door is in motion. If you turn it on and then activate the opener, the light will remain on for 4-1/2 minutes. Press again to turn it off sooner. The 4-1/2 minute interval can be changed to 1-1/2, 2-1/2, or 3-1/2 minutes as follows: Press and hold the Lock button until the light blinks (about 10 seconds). A single blink indicates that the timer is reset to 1-1/2 minutes. Repeat the procedure and the light will blink twice, resetting the timer to 2-1/2 minutes. Repeat again for a 3-1/2 minute interval, etc., up to a maximum of four blinks and 4-1/2 minutes.

When using the opener lights as working lights, we recommend that you first disable the motion sensor. See *Automatic Light Feature*, below.

(LANG) Language Feature

Press this side button to toggle between the three languages - English, French and Spanish.



Degrees F/C Feature

Press this side button to toggle the temperature units between Fahrenheit and Celsius.

Display Contrast Adjustment

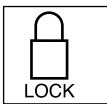
Press and hold the light button then push the hour button to increase the contrast or the minute button to decrease the contrast.

Motion Sensing (Automatic Light Feature): The opener light will turn on automatically when a person enters the garage. When a person walks in front of the door control, the light will come on for five minutes, then shut off. This feature works by detecting body heat.



To disable this feature, push the motion sensing button on the side of the door control.

We recommend that you disable the motion sensor when using the opener lights as working lights. Otherwise, they will turn off automatically if you are working beyond the sensors range.



Lock Feature

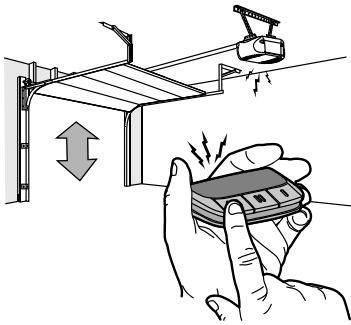
Designed to prevent operation of the door from hand-held remote controls. However, the door will open and close from the Door Control, the Outdoor Key Switch and the Keyless Entry Accessories.

To activate, press and hold the Lock button for 2 seconds.

To turn off, press and hold the Lock button again for 2 seconds. The Lock feature will also turn off whenever the "learn" button on the motor unit panel is activated.

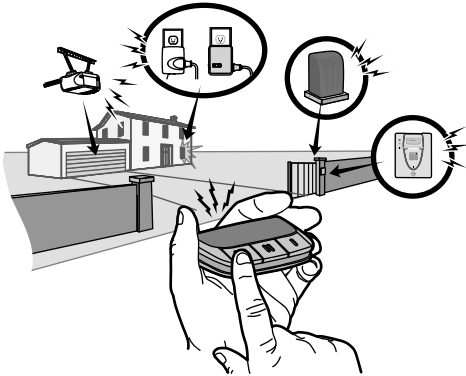
Using the Remote Control

Press and hold the button down until the door or gate starts to move. The remote control will operate from up to 3 car lengths away on typical installations. Installations and conditions vary, contact an installing dealer for more information.



3-BUTTON REMOTE CONTROLS

Additional buttons on the remote control can be programmed to operate up to 3 devices such as additional garage door openers, light controls, gate operators or access control systems.



TO CONTROL THE OPENER LIGHTS

Additional buttons on the remote control can be programmed to operate the garage door opener lights without opening the door.

1. *With the door closed*, press and hold the remote button that you want to control the light.
2. Press and hold the Light button on the Smart Control Panel®.
3. Press and hold the Lock button on the Smart Control Panel®.
4. After the opener lights flash, release all buttons.

Test by pressing the remote push button. The opener lights should turn on or off but the door should not move.

THE REMOTE CONTROL BATTERY

! WARNING

To prevent possible **SERIOUS INJURY** or **DEATH**:

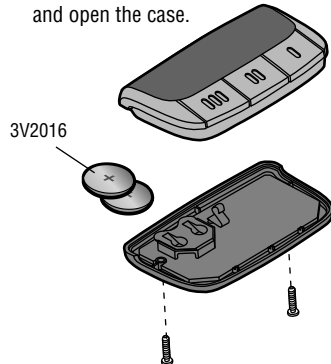
- NEVER allow small children near batteries.
- If battery is swallowed, immediately notify doctor.

To reduce risk of fire, explosion or chemical burn:

- Replace **ONLY** with 3V2016 coin batteries.
- **DO NOT** recharge, disassemble, heat above 100° C (212° F) or incinerate.

The LED(s) on your remote control will stop flashing when the battery is low and needs to be replaced. To replace battery, open the case as shown. Insert battery positive side up (+). Replace the battery with only 3V2016 coin cell batteries. Dispose of old battery properly.

Remove the two screws
and open the case.



NOTICE: To comply with FCC and or Industry Canada rules (IC), adjustment or modifications of this receiver and/or transmitter are prohibited, except for changing the code setting or replacing the battery. **THERE ARE NO OTHER USER SERVICEABLE PARTS.**

Tested to Comply with FCC Standards for Home or office use. 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.

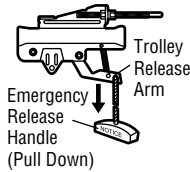
To Open the Door Manually

WARNING

To prevent possible **SERIOUS INJURY** or **DEATH** from a falling garage door:

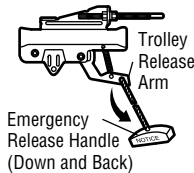
- If possible, use emergency release handle to disengage trolley **ONLY** when garage door is **CLOSED**. Weak or broken springs or unbalanced door could result in an open door falling rapidly and/or unexpectedly.
- **NEVER** use emergency release handle unless garage doorway is clear of persons and obstructions.
- **NEVER** use handle to pull door open or closed. If rope knot becomes untied, you could fall.

The door should be fully closed if possible. Pull down on the emergency release handle and lift the door manually. To reconnect the door to the opener, press the door control push button.



MANUAL DISCONNECT POSITION

The *lockout feature* prevents the trolley from reconnecting automatically. Pull the emergency release handle down and back (toward the opener). The door can then be raised and lowered manually as often as necessary. To disengage the lockout feature, pull the handle straight down. The trolley will reconnect on the next UP or DOWN operation.



LOCKOUT POSITION

Care of Your Opener

LIMIT AND FORCE ADJUSTMENTS:

Weather conditions may cause some minor changes in door operation requiring some readjustments, particularly during the first year of operation.

Pages 21 and 22 refer to the limit and force adjustments. Only a screwdriver is required. Follow the instructions carefully.

Repeat the safety reverse test (Adjustment Step 3, page 23) after any adjustment of limits or force.

FORCE CONTROLS



LIMIT CONTROLS



MAINTENANCE SCHEDULE

Every Month

- Manually operate door. If it is unbalanced or binding, call a trained door systems technician.
- Check to be sure door opens and closes fully. Adjust limits and/or force if necessary. (See pages 21 and 22.)
- Repeat the safety reverse test. Make any necessary adjustments. (See Adjustment Step 3.)

Two Times a Year

- Check chain tension. Disconnect trolley first. Adjust if necessary. (See page 7.)

Every Year

- Oil door rollers, bearings and hinges. The opener does not require additional lubrication. Do not grease the door tracks.

Every Three to Four Years

- Use a rag to wipe away the existing grease from the garage door opener rail. Reapply a small layer of white lithium grease to the rail.

Having a Problem?

1. The opener doesn't operate from either the Door Control or the remote control:

- Does the opener have electric power? Plug a lamp into the outlet. If it doesn't light, check the fuse box or the circuit breaker. (Some outlets are controlled by a wall switch.)
- Have you disabled all door locks? Review installation instruction warnings on page 7.
- Is there a build-up of ice or snow under the door? The door may be frozen to the ground. Remove any restriction.
- The garage door spring may be broken. Have it replaced.
- Repeated operation may have tripped the overload protector in the motor. Wait 15 minutes and try again.

2. Opener operates from the remote, but not from the Door Control:

- Is the door control lit? If not, reverse the wires. If the opener runs, check for a faulty wire connection at the door control, a short under the staples, or a broken wire.
- Are the wiring connections correct? Review *Installation Step 6*, page 12.

3. The door operates from the Door Control, but not from the remote control:

- Is the door push bar flashing? If your model has the Lock feature, make sure it is off.
- Program the opener to match the remote control code. (Refer to instructions on the motor unit panel.) Repeat with all remotes.

4. The remote control has short range:

- Change the location of the remote control in your car.
- Check to be sure the antenna on the side or back panel of motor unit extends fully downward.
- Some installations may have shorter range due to a metal door, foil backed insulation, or metal garage siding.

5. Opener noise is disturbing in living quarters of home:

- If operational noise is a problem because of proximity of the opener to the living quarters, the Vibration Isolator Kit 89LM can be installed. This kit was designed to minimize vibration to the house and is easy to install.

6. The garage door opens and closes by itself:

- Be sure that all remote control push buttons are off.
- Remove the bell wire from the door control terminals and operate from the remote only. If this solves the problem, the door control is faulty (replace), or there is an intermittent short on the wire between the door control and the motor unit.
- Clear memory and re-program all remote controls.

7. The door doesn't open completely:

- Is something obstructing the door? Is it out of balance, or are the springs broken? Remove the obstruction or repair the door.
- If the door is in good working order but now doesn't open all the way, increase the up force. See *Adjustment Step 2*.
- If the door opens at least 5 feet, the travel limits may need to be increased. One turn equals 3" (7.5 cm) of travel. See *Adjustment Step 1*.

Repeat the safety reverse test after the adjustment is complete.

8. The door stops but doesn't close completely:

- Review the travel limits adjustment procedures on page 21.

Repeat the safety reverse test after any adjustment of door arm length, close force or down limit.

9. The door opens but won't close:

- If the opener lights blink, check the safety reversing sensor. See *Installation Step 10*.
- If the opener lights don't blink and it is a new installation, check the down force. See *Adjustment Step 2*. For an existing installation, see next page.

Repeat the safety reverse test after the adjustment is complete.

Having a Problem? (Continued)

10. The door reverses for no apparent reason and opener lights don't blink:

- Is something obstructing the door? Pull the emergency release handle. Operate the door manually. If it is unbalanced or binding, call a trained door systems technician.
- Clear any ice or snow from the garage floor area where the door closes.
- Review *Adjustment Step 2*.
- If door reverses in the fully closed position, decrease the travel limits (*Adjustment Step 1*).

Repeat safety reverse test after adjustments to force or travel limits. The need for occasional adjustment of the force and limit settings is normal. Weather conditions in particular can affect door travel.

11. The door reverses for no apparent reason and opener lights blink for 5 seconds after reversing:

- Check the safety reversing sensor. Remove any obstruction or align the receiving eye. See *Installation Step 10*.

12. The opener lights don't turn on:

- Replace the light bulbs (100 watts maximum). Use a standard neck garage door opener bulb if regular bulb burns out.

13. The opener lights don't turn off:

- Is the Light feature on? Turn it off.

14. The opener strains or maximum force is needed to operate door:

- The door may be out of balance or the springs may be broken. **Close the door** and use the emergency release handle to disconnect the trolley. Open and close the door manually. A properly balanced door will stay in any point of travel while being supported entirely by its springs. If it does not, disconnect the opener and call a trained door systems technician. **Do not increase the force to operate the opener.**

15. The opener motor hums briefly, then won't work:

- The garage door springs may be broken. See above.
- If the problem occurs on the first operation of the opener, door may be locked. Disable the door lock.

Repeat the safety reverse test after the adjustment is complete.

16. The opener won't operate due to power failure:

- Use the emergency release handle to disconnect the trolley. The door can be opened and closed manually. When power is restored, press the Door Control push bar and trolley will automatically reconnect (unless trolley is in lockout position.) See page 27.
- The Outside Quick Release accessory (for use on garages with no service door) disconnects the trolley from outside the garage in case of power failure.

17. The chain droops or sags:

- It is normal for the chain to droop slightly in the closed door position. Use the emergency release rope and handle to disconnect the trolley. If the chain returns to the normal height when the trolley is disengaged, and the door reverses on a 2x4 laid flat, no adjustments are needed. (See page 7.)

Smart Control Panel® Messages

The following messages are contained within the Smart Control Panel® and may appear during the operations of the unit:

Message

**SAFETY SENSORS
CHECK ALIGNMENT,
BLOCKAGE OR
MISWIRING. SEE
OWNER'S MANUAL.**

● **Meaning:** This message will appear if the Safety Reversing Sensors are out of alignment, if they are blocked or if the wiring is disconnected. To clear message from Smart Control Panel® do the following:

- Check to see that area is clear between the Safety Reversing Sensors.
- Check to see that the Safety Reversing Sensors are not misaligned.
 - Realign receiving eye sensor, clean lens and secure brackets.
 - Verify door track is firmly secured to wall and does not move.
- Check to see that the Safety Reversing Sensor wires are connected to the motor unit.
- If message has not cleared after the above checks, refer to message #2.

Message

**SAFETY SENSORS
MALFUNCTION.
CHECK MISWIRING.
SEE OWNER'S
MANUAL.**

● **Meaning:** This message will appear if the Safety Reversing Sensors are miswired. To clear the message, do the following:

- Inspect the safety reversing sensor wires for a short (staple in wire), correct wiring polarity (black/white wires reversed), replace/attach as needed.
- Disconnect all wires from back of motor unit.
- Remove safety reversing sensors from brackets and shorten sensor wires to 1-2 ft. (30-60 cm) from back of each sensor.
- Reattach sending eye to motor unit using shortened wires. If sending eye indicator light glows steadily, attach the receiving eye.
- Align sensors, if the indicator lights glow replace the wires for the sensors. If the sensor indicator lights do not light, replace the safety reversing sensors.

Message

**LEARN REMOTE CONTROL.
PRESS LEARN BUTTON TO
CONFIRM.**

● **Meaning:** This message will appear when the Prog <LEARN> button has been pressed on the Smart Control Panel®. Pressing the Prog <LEARN> button again will allow the user to program an additional remote control to the opener.

Message

**LEARN MODE.
PRESS REMOTE
CONTROL BUTTON TO
PROGRAM REMOTE.**

● **Meaning:** This message will appear when the Prog <learn> button has been pressed a second time on the Smart Control Panel® or anytime on the opener. The opener is ready to program another remote control by simply pressing the remote control button. Once the opener has 'LEARNED' the remote control, the worklight will blink one time.

Message

**LOCK MODE. REMOTE
CONTROL LOCKED OUT.
PRESS LOCK BUTTON TO
ENABLE REMOTE.**

● **Meaning:** This message will appear when the 'Lock' button has been pressed and held for more than one second. This feature will disable the opener from receiving remote control signals. To exit 'LOCK' mode, press and hold the button for more than one second.

Message

**ENGLISH, FRANÇAIS AND
ESPAÑOL.**

● **Meaning:** This message will appear when the 'Language' button has been pressed. Pressing the button will toggle to the next language.

Message

**MOTION SENSING ON,
MOTION SENSING OFF.**

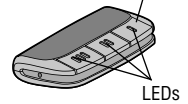
● **Meaning:** This message will appear when the 'MOTION SENSING' button is pressed. The Motion Detector will toggle on or off with each press of the button.

PROGRAMMING

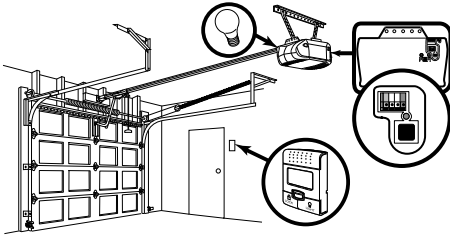
Your garage door opener has already been programmed at the factory to operate with your hand-held remote control. The door will open and close when you press the button shown.

Below are instructions for programming your garage door opener to operate with additional 895MAX remote controls. To program additional remote controls, refer to the instructions provided with the remote control.

Factory Programmed Button

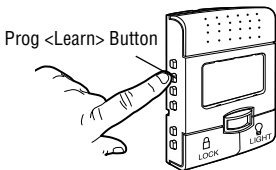


To Add or Reprogram a Remote Control (Model 895MAX)



USING THE SMART CONTROL PANEL®

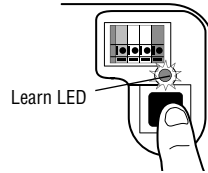
2. Press and release the Prog <Learn> button on the Smart Control Panel® **twice**. Within 30 seconds...



OR

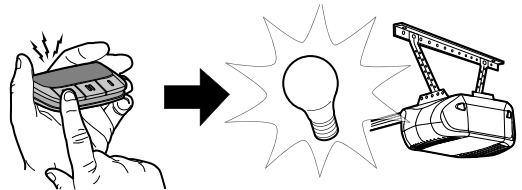
USING THE "LEARN" BUTTON

2. Press and release the Learn button on the garage door opener. The Learn LED will light. Within 30 seconds...



3. Press and release the remote control button you want to use...

Check to see if the garage door opener light bulb blinks. If not, wait for the remote control LED to light solid then **slowly** press and release the remote control button again. **Repeat** until the light bulb blinks. **DO NOT** press the button after the light bulb blinks.

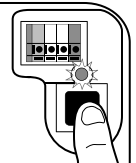


4. To exit programming mode, press any remote control button except the button that was just programmed.

To Erase All Codes From Motor Unit Memory

To deactivate any unwanted remote, first erase all codes:

Press and hold the "learn" button on motor unit until the learn indicator light goes out (approximately 6 seconds). All previous codes are now erased. Reprogram each remote or keyless entry you wish to use.

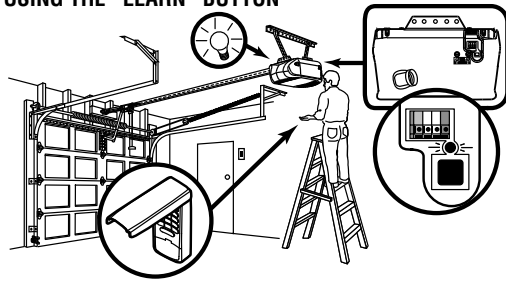


NOTICE: If this Security+® garage door opener is operated with a non-rolling code transmitter, the technical measure in the receiver of the garage door opener, which provides security against code-theft devices, will be circumvented. The owner of the copyright in the garage door opener does not authorize the purchaser or supplier of the non-rolling code transmitter to circumvent that technical measure.

To Add, Reprogram or Change a Keyless Entry PIN

NOTE: Your new Keyless Entry must be programmed to operate your garage door opener.

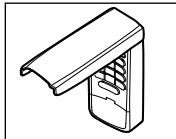
USING THE “LEARN” BUTTON



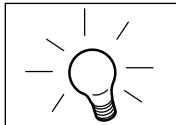
1. Press and release the “learn” button on motor unit. The learn indicator light will glow steadily for 30 seconds.



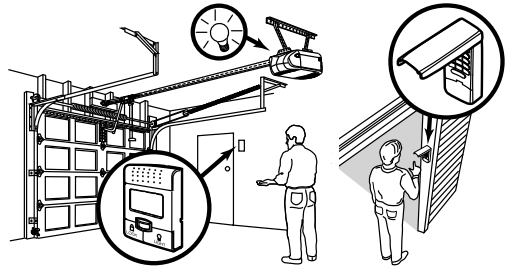
2. Within 30 seconds, enter a four digit personal identification number (PIN) of your choice on the keypad. Then press and hold the ENTER button.



3. Release the button when the motor unit lights blink. It has learned the code. If light bulbs are not installed, two clicks will be heard.

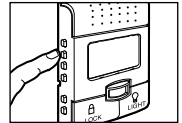


USING THE SMART CONTROL PANEL®

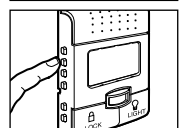


NOTE: This method requires two people if the Keyless Entry is already mounted outside the garage.

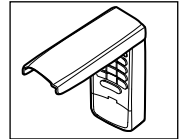
1. Press the Prog <Learn> button on the Smart Control Panel®.



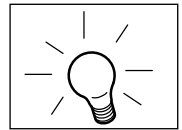
2. Press the Prog <Learn> button again to confirm Learn Mode.



3. Enter a four digit personal identification number (PIN) of your choice on the keypad. Then press enter.



4. When the motor unit lights blink, it has learned the code. If light bulbs are not installed, two clicks will be heard.



To change an existing, known PIN

If the existing PIN is known, it may be changed by one person without using a ladder.

1. Press the four buttons for the present PIN, then press and hold the # button.

The opener light will blink twice. Release the # button.

2. Press the new 4-digit PIN you have chosen, then press Enter.

The motor unit lights will blink once when the PIN has been learned.

Test by pressing the new PIN, then press Enter. The door should move.

To set a temporary PIN

You may authorize access by visitors or service people with a temporary 4-digit PIN. After a programmed number of hours or number of accesses, this temporary PIN expires and will no longer open the door. It can be used to *close* the door even after it has expired.

To set a temporary PIN:

1. Press the four buttons for your personal entry PIN (not the last temporary PIN), then press and hold the * button.

The opener light will blink three times. Release the button.

2. Press the temporary 4-digit PIN you have chosen, then press Enter.

The opener light will blink four times.

3. To set the number of **hours** this temporary PIN will work, press the number of hours (up to 255), then press *.

OR

3. To set the number of **times** this temporary PIN will work, press the number of times (up to 255), then press #.

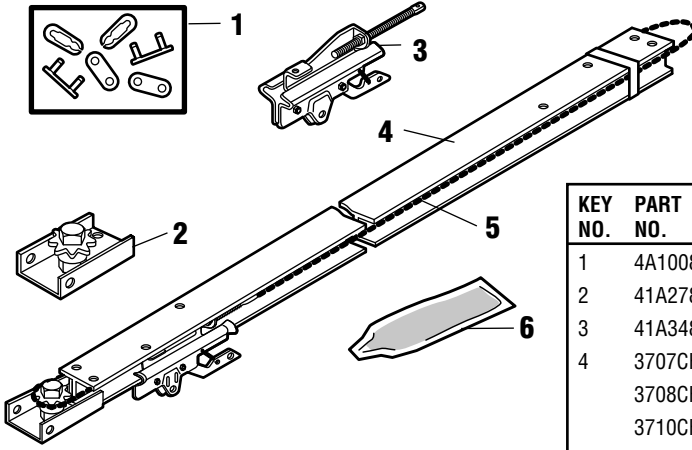
The opener light will blink once when the temporary PIN has been learned.

Test by pressing the four buttons for the temporary PIN, then press Enter. The door should move. If the temporary PIN was set to a certain number of openings, remember that the test has used up one opening. To clear the temporary password, repeat steps 1-3, setting the number of hours or times to 0 in step 3.

One Button Close: Opener can be closed by pressing only the ENTER button if the one button close feature has been activated. This feature has been activated at the factory. To activate or deactivate this feature press and hold buttons 1 and 9 for 10 seconds. The keypad will blink twice when the one button close is active. The keypad will blink four times when one button close is deactivated.

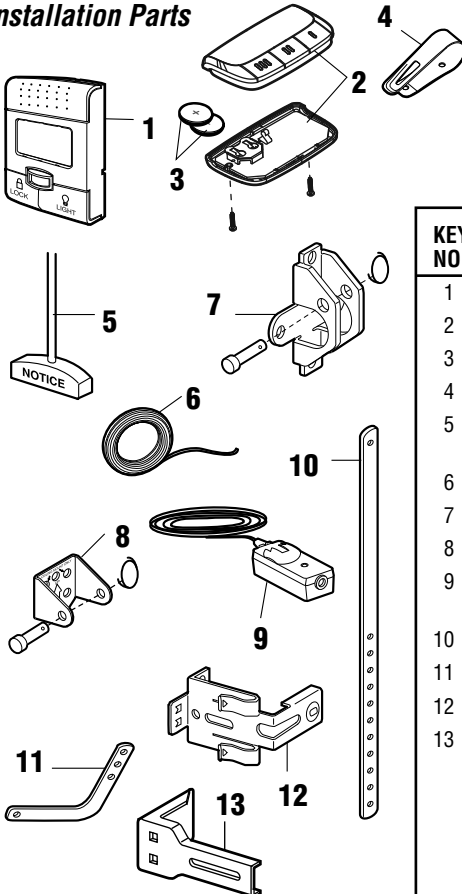
REPAIR PARTS

Rail Assembly Parts



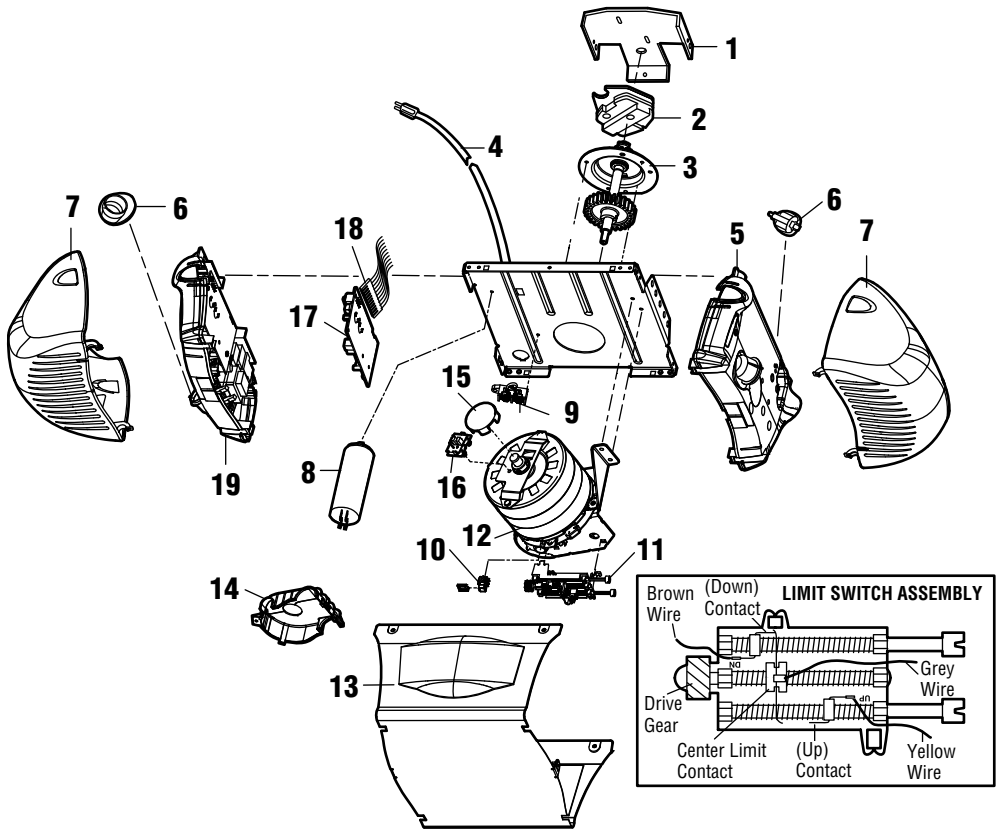
KEY NO.	PART NO.	DESCRIPTION
1	4A1008	Master link kit
2	41A2780	Chain pulley bracket
3	41A3489	Complete trolley assembly
4	3707CH	7 feet (2.1 m) Rail assembly
	3708CH	8 feet (2.4 m) Rail assembly
	3710CH	10 feet (3 m) Rail assembly
5	41D3484	7 feet (2.1 m) Chain assembly
	41D3483	8 feet (2.4 m) Chain assembly
	41D3485	10 feet (3 m) Chain assembly
6	83A11-2	Rail grease

Installation Parts



KEY NO.	PART NO.	DESCRIPTION
1	398LM	Smart Control Panel®
2	895MAX	3-Button remote control
3	10A19	3V2016 Lithium battery: LED and opener
4	29C151	Remote control visor clip
5	41A2828	Emergency release rope and handle assembly
6	41B4494-1	2-Conductor bell wire, white & white/red
7	41A5047	Door bracket w/clevis pin & fastener
8	41A4353	Header bracket w/clevis pin & fastener
9	41A5034	Safety sensor kit (receiving and sending eyes) with 3' (.9 m) 2-conductor bell wire
10	178B34	Straight door arm section
11	178B35	Curved door arm section
12	41A5266-1	Safety reversing sensor brackets (2)
13	41A5281	Extension brackets (2)
		NOT SHOWN
	41A2770-8	Installation hardware bag (includes hardware listed on page 5).
	114A4272	Owner's manual
	114A4272SP	Owner's manual - Spanish

Motor Unit Assembly Parts



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	41C5069	Chassis support bracket assembly kit	12	41D5563-1	Universal replacement motor & bracket assembly Complete with: Motor, worm, bracket, gear case, bearing assembly, RPM sensor
2	41A4208-2	Chain spreader	13	41A5633-13	Cover
3	41A5658	Gear and sprocket assembly Complete with: Spring washer, thrust washer, retaining ring, bearing plate, roll pins (2), drive gear and worm gear, helical gear with retainer and grease	14	41A5532	Gear case
4	41B4245-1	Line cord	15	41A2822-1	Interrupter cup assembly
5	41A5484	End panels with all labels	16	41C4398A	RPM sensor assembly
6	4A1344	Light socket	17	41AC075-2S	Receiver logic board assembly Complete with: Logic board, end panel with all labels, light socket
7	108D79	Lens	18	41C5657	High voltage wire harness
8	30B652	Capacitor		41C6661	Low voltage wire harness
9	41A3150	Terminal block with screws	19	41D180-1	End panel with all labels
10	81C253	Limit switch drive & retainer			NOT SHOWN
11	41A5640	Limit switch assembly		41A2826	Motor shaft bearing kit
				41A2825	Opener assembly hardware kit (includes screws not designated by a number in illustration)

ACCESSORIES

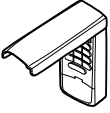
1702LM



Outside Quick Release:

Required for a garage with NO access door. Enables homeowner to open garage door manually from outside by disengaging trolley.

377LM



Wireless Keyless Entry with Security+®:

Enables homeowner to operate garage door opener from outside by entering a password on a specially designed keyboard. Also can add a temporary password for visitors or service persons. This temporary password can be limited to a programmable number of hours or entries.

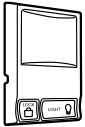
41A5281



Extension Brackets:

(Optional) For safety reversing sensor installation onto the wall or floor.

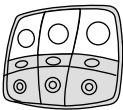
78LM



Multi-Function Door Control Panel:

Provides a lock feature which prevents operation of garage door opener from portable remotes and a light feature for constant light.

902LM/903LM



2 & 3 Door Multi-Function Wall Control:

Ideal for homes with up to three garage doors. Combine up to three controls into one wall control panel for a neat compact appearance. Enhanced functions include Lock Feature to lock out outside radio signals while you are away from home and turn opener lights on or off from the control panel.

895MAX



3-Button Remote Control:

Includes visor clip.

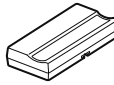
370LM



3-Button Mini-Remote Control with Security+®:

With key ring and fastening strip.

371LM



Single-Button Security+® Remote Control:

Includes visor clip.

915LM



Garage Door Monitor:

Security for the largest door of your home!

Tells you if your garage door is open or closed. Monitors up to 4 garage doors by adding additional sensor modules.

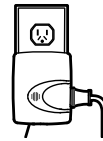
916LM



Garage Door Monitor Sensor:

Additional accessory sensor for homes with multiple garage doors.

395LM



Remote Light Control:

Enables homeowner to turn on a lamp, television or other appliance from their car with their garage door opener remote or from anywhere in their home with an additional LiftMaster Security+® remote.

975LM



Laser Park Assist:

Laser enables homeowners to precisely park vehicles in the garage.

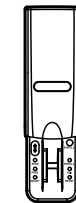
990LM



Surge Protector:

The Garage Door Opener Surge Protector is designed to protect LiftMaster® garage door openers against damage from lightning and power surges.

379LM-10



Fingerprint Keyless Entry:

The system uses biometric technology that enables an authorized user to gain access by scanning their fingerprint. The sensor strip on the unit makes a numeric template of the fingerprint that is unique to that user. The unit's memory can store up to ten fingerprints.

LIFTMASTER® SERVICE IS ON CALL

OUR LARGE SERVICE ORGANIZATION
SPANS AMERICA

INSTALLATION AND SERVICE INFORMATION IS AS
NEAR AS YOUR TELEPHONE.
SIMPLY DIAL OUR TOLL FREE NUMBER:

1-800-528-9131

www.liftmaster.com

For professional installation, parts and service,
contact your local LIFTMASTER/CHAMBERLAIN
dealer. Look for him in the Yellow Pages, or call our
Service number for a list of dealers in your area.

HOW TO ORDER REPAIR PARTS

Selling prices will be furnished on request or parts
will be shipped at prevailing prices and you will be
billed accordingly.

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

SERVICE INFORMATION TOLL FREE NUMBER:

1-800-528-9131

LIFTMASTER® FIVE-YEAR LIMITED WARRANTY LIFETIME MOTOR LIMITED WARRANTY

The Chamberlain Group, Inc. ("Seller") warrants to the first retail purchaser of this product, for the residence in which this product is originally installed, that it is free from defect in materials and/or workmanship for a period of five years from the date of purchase, the motor is free from defect in materials and/or workmanship for the lifetime of the product. The proper operation of this product is dependent on your compliance with the instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this limited warranty in its entirety.

If, during the limited warranty period, this product appears to contain a defect covered by this limited warranty, call 1-800-528-9131, toll free, before dismantling this product. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product returned for warranty repair. Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

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