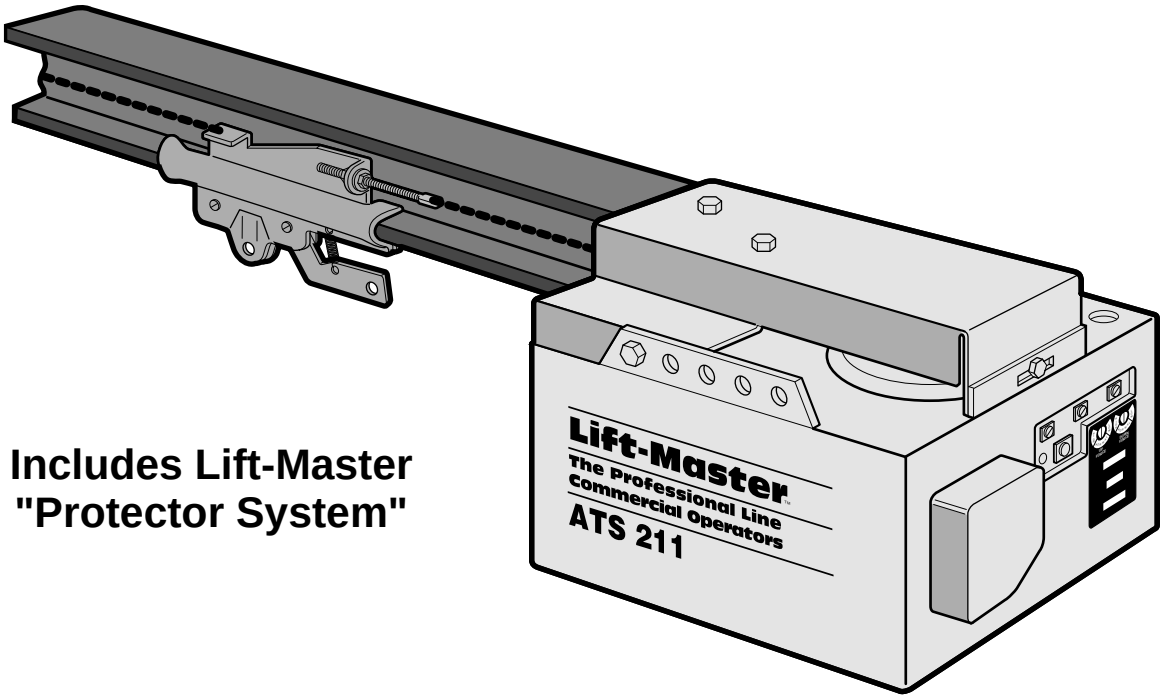
Lift-Master©
The Professional Line

The Chamberlain Group, Inc.
A DUCHOSSOIS ENTERPRISE
845 Larch Avenue, Elmhurst, Illinois 60126

As of date of manufacture, meets all ANSI/UL 325 Safety Standards and requirements for residential and commercial applications.

OWNER'S MANUAL

MODEL ATS 211
COMMERCIAL DOOR OPENER
For Residential and Light Duty Commercial Use
Install on Sectional Doors Only



Includes Lift-Master "Protector System"

Please read this manual and the enclosed safety materials carefully!
Fasten the manual near the garage door after installation.

Periodic checks and adjustment of the opener are required to ensure safe operation.
The model number label is located on the operator cover.

Start by reviewing these important safety alert symbols

When you see these safety symbols on the following pages, they will alert you to the possibility of *serious injuries or death* if you do not comply with the corresponding instructions. The hazard may come from something mechanical or from electric shock. *Read the instructions carefully.*

Mechanical

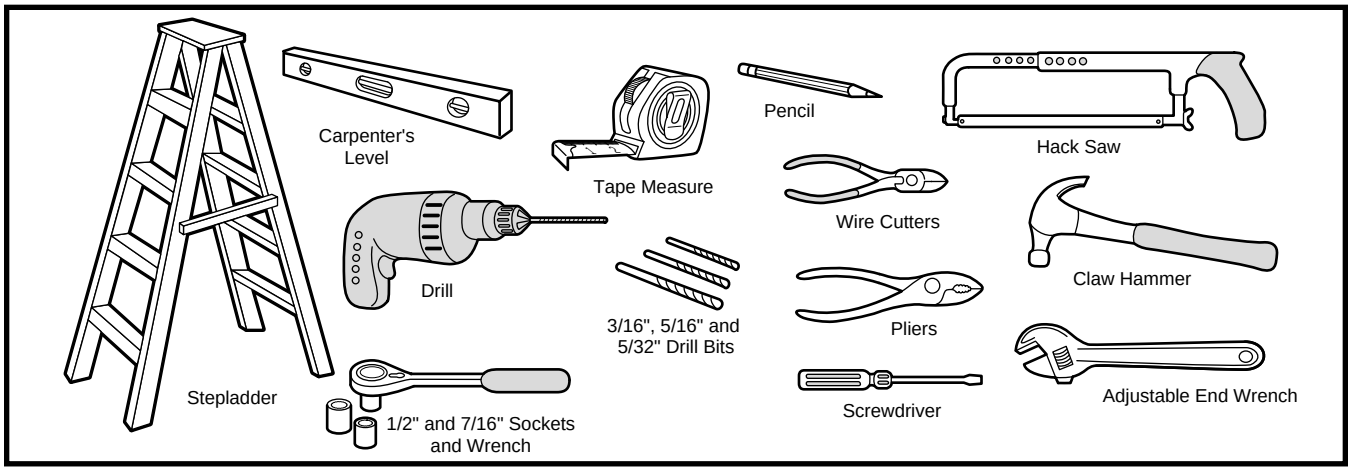
Electrical

When you see this safety symbol 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 corresponding instructions. *Read the instructions carefully.*

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

You'll Need Tools

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



WARNING

Ropes left on a garage door could cause someone to become entangled and killed. **Remove all ropes connected to the door before installing and operating the opener.**

WARNING

This product is for use on sectional garage doors only. ***Serious personal injury could result from the use of this product on one-piece garage doors.***

CAUTION

To avoid damage to the garage door and opener, disable locks before installing and operating the opener. Use a wood screw or nail to hold locks in the "open" (unlocked) position.

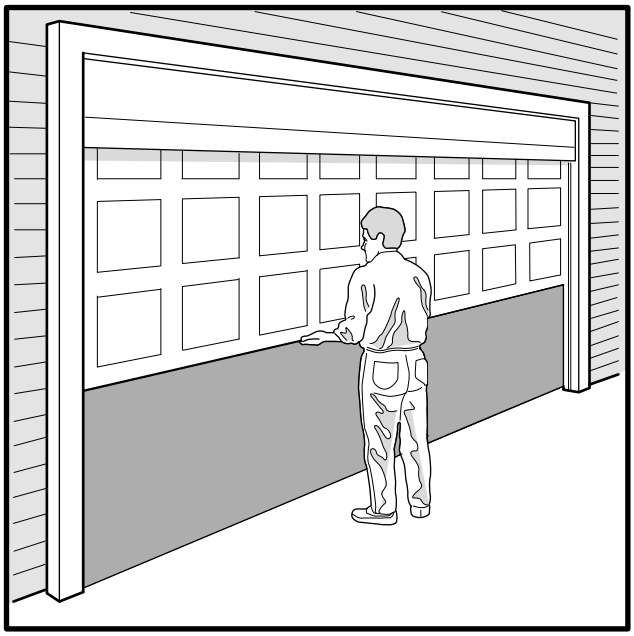
Operation at other than 120V 60 Hz will cause opener malfunction and damage.

Before you begin, complete the following test to make sure your door is balanced and is not sticking or binding. Identify the type and height of your door, any special conditions that exist, and any additional materials that may be required by referring to the lists on page 4.

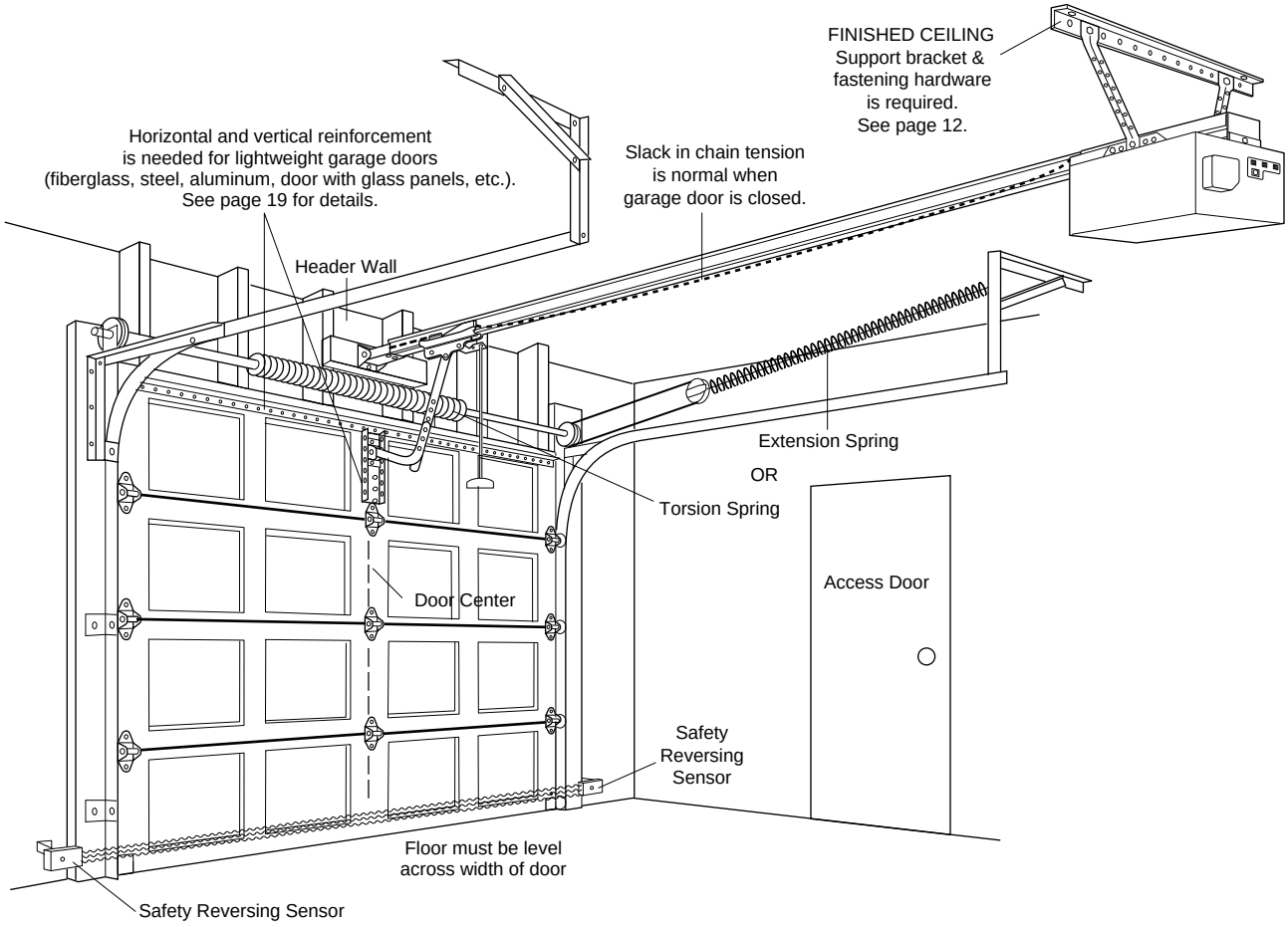
- Lift the door about halfway as shown. Release the door. It should stay in place, supported entirely by its springs.
- Raise and lower the door to see if there is any binding or sticking.

An unbalanced garage door might not reverse when required and someone under the door could be seriously injured or killed.

If your garage door binds, sticks or is out of balance, call for professional garage door service. ***Garage doors, door springs, cables, pulleys, brackets and their hardware, are under extreme tension and can cause serious injury or death.*** **Do not try to loosen, move or adjust them yourself!**



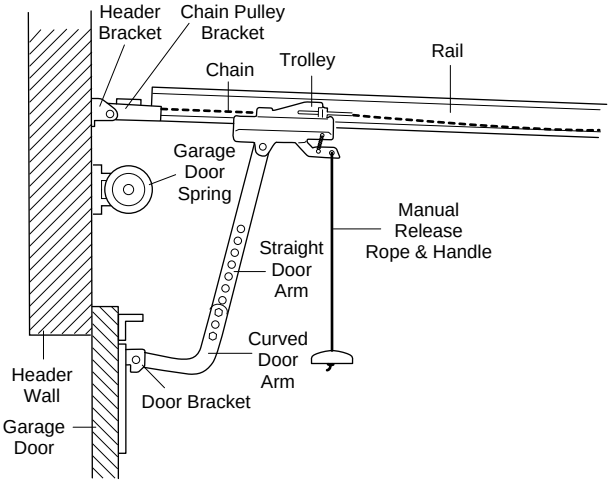
Before you begin, survey your garage area. Do any of the following conditions apply to you?



Based on your particular requirements, there are several installation steps which might call for materials and/or hardware not included in the carton.

- Step 1, page 8 - Look at the wall or ceiling above the garage door. The header bracket *must* be securely fastened to structural supports.
- Step 5, page 12 - Do you have a finished ceiling in your garage? If so, a support bracket and additional fastening hardware may be required.
- Safety reversing sensor, page 16 - Depending upon garage construction, wood blocks may need to be fastened to mounting locations before sensors are installed.
- Step 10, page 17 - Alternate floor mounting of the safety reversing sensor will require hardware not provided.
- Step 11, page 19 - Do you have a steel, aluminum, fiberglass or glass panel door? If so, horizontal and vertical reinforcement is required.
- Look at the garage door where it meets the floor. It must close on the floor all the way across. Otherwise, the safety reverse system may not work properly. See page 23. Floor or door should be repaired.
- If your door is more than 7 feet high, see longer rails available on page 30.

Closed Position



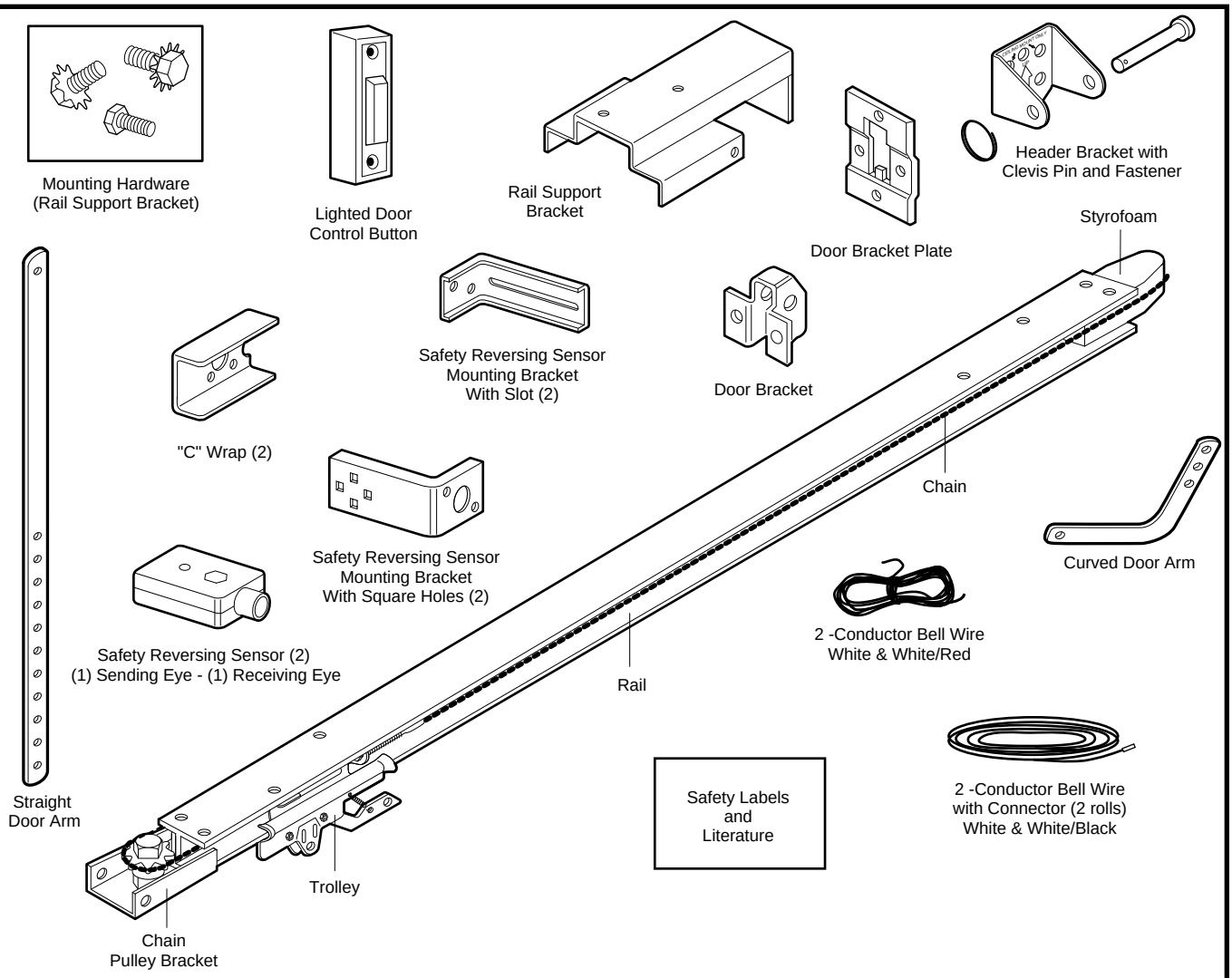
- The opener can be installed within 2 feet to the left or right of the door center if there is a torsion spring or center bearing plate in the way of the header bracket or door bracket area. If your door has extension springs, the opener *must* be installed in the center of the door. See pages 8 and 19.

Do you have an access door in addition to the garage door? If not, Model 1702 Outside Quick Release is required. See page 30.

You may find it helpful to refer back to this page as you proceed with the installation of your opener.

Opener Carton Inventory

Your garage door opener is packaged in two cartons which contain all parts illustrated below. If anything is missing, carefully check the packing material. Parts may be "stuck" in the foam. Hardware for assembly and installation is listed below.



Hardware Inventory

Assembly Hardware

5/16"-18x1/2" Washered Screw, (2)
(Mounted in Opener)
1/4"-20x5/8" Hex Screw (2)
1/4"-20x5/8" Lock Washer (2)
#8-32x3/8" Screw (1)
5/16"-18x1/2" Washered Screw (2)

Installation Hardware

Hex Screw 5/16"-18x7/8" (4)
Nut 5/16"-18 (6)
Lock Washer 5/16" (6)
Rail Grease
Lag Screw 5/16"-18x1-7/8" (4)
Screw 6ABx1-1/2" (2)
Handle
Ring Fastener (3)
Carriage Bolt 5/16"-18x2-1/2" (2)
Insulated Staples (10)
Dry Wall Anchors (2)
Clevis Pin 5/16"x2-3/4" (1)
Clevis Pin 5/16"x1" (2)
Rope

Hardware for Safety Reversing Sensor

Lag Screw 1/4x1-1/2" (4)
Carriage Bolt 1/4"-20x1/2" (4)
Lock Nut 1/4"-20 (4)
Wing Nut (2)
Hex Screw 1/4-20x1-1/2" (2)
Screw #10-32x3/8" (4)
Lock Nut #10x32 (4)
Insulated Staples (20)

Assembly Section: Pages 6 – 7

Assembly Step 1

Attach the Rail to the Opener

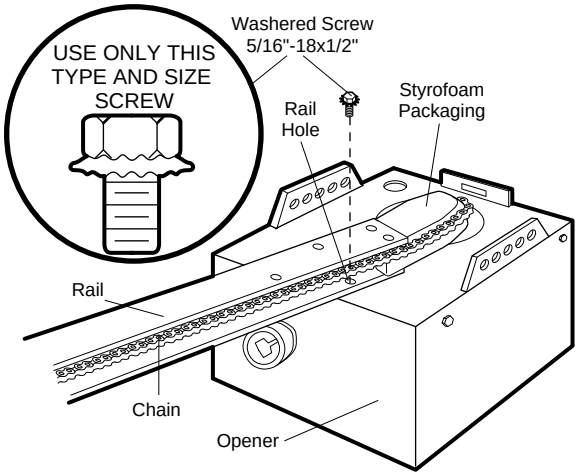
- Place the opener on packing material to protect the cover.
- Remove the (2) 5/16"-18x1/2" washered screws mounted in the top of the opener.
- Align rail at an angle with opener so one hole in rail and opener line up.
- Thread one of the washered screws part way in.

Use only these screws! **Use of any other screws will cause serious damage to door opener.**

- Cut tape from rail, chain and styrofoam.
- **REMOVE STYROFOAM.**

WARNING

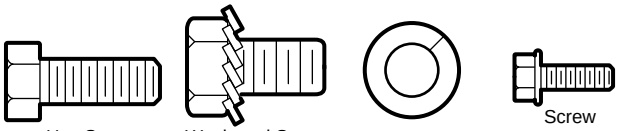
Use only those screws mounted in the top of the opener. Any other screws will cause serious damage to the opener.



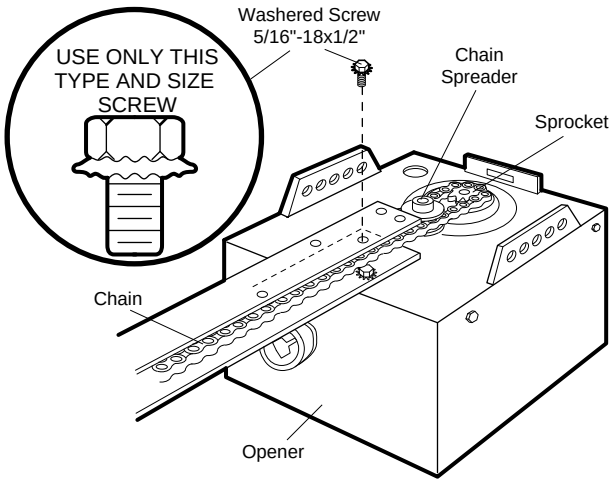
Assembly Step 2

Attach the Chain to the Sprocket & Install the Rail Support Bracket

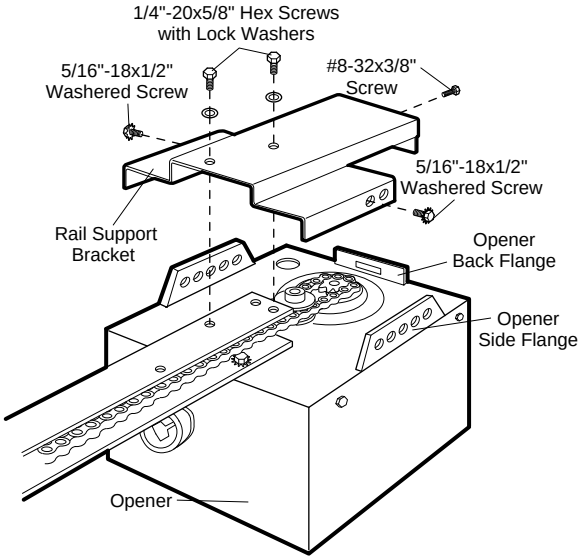
Hardware Shown Actual Size



- Guide the chain over chain spreader and opener sprocket. If necessary, loosen the outer nut on the trolley to obtain more chain slack. Insert the second washered screw. ***CAUTION! Use only the screw previously removed from opener.***
- Tighten both screws securely through the rail into the opener as shown.



- Position the rail support bracket on the opener.
- Attach the bracket to the rail with 1/4"-20x5/8" hex screws and lock washers.
- Attach the bracket to the opener by inserting a 5/16"-18x1/2" washered screw through a hole in each opener side flange and a matching hole in the bracket. Complete the connection by inserting the #8-32x3/8" screw through the opener back flange and the hole in rail support.



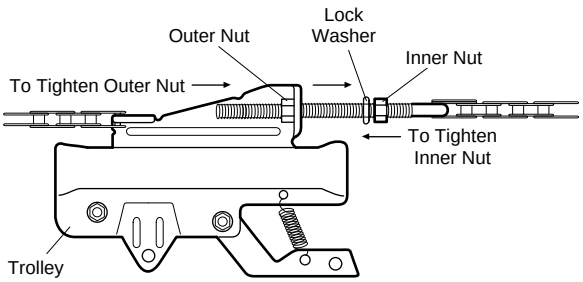
Assembly Step 3

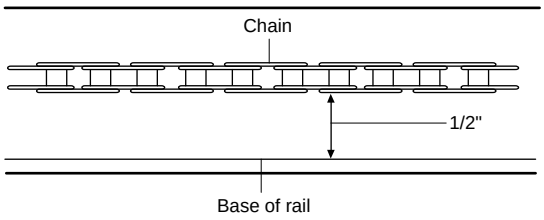
Tighten the Chain

- 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" 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.*





You have now finished assembling your garage door opener.

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING **WARNING**

To reduce the risk of severe injury or death to persons:

1. **READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS**
2. **Install only on a properly balanced garage door. *An improperly balanced door could result in severe injury or death.* Repairs to cables, spring assemblies and other hardware must be made by a qualified service person before installing opener.**
3. **Disable all locks and remove all ropes connected to the garage door before installing the opener. *Ropes connected to a garage door can cause entanglement and death.***
4. **If possible, install door opener 7 feet or more above floor with the manual release handle mounted 6 feet above the floor.**
5. **Do not connect the opener to power source until instructed to do so.**
6. **Locate the Door Control within sight of the door at a minimum height of 5 feet where small children cannot reach and away from all moving parts of the door.**
7. **Install the User Safety Instruction Label on the wall adjacent to the control button and the Maintenance Instruction Label in a prominent location on the inside of the garage door.**
8. **Upon completion of the installation, the door must reverse when it comes in contact with a 2x4 laid flat on the floor.**
9. **Do not wear watches, rings or loose clothing while installing or servicing an opener. Jewelry or loose clothing can be caught in the mechanism of the garage door or the opener.**

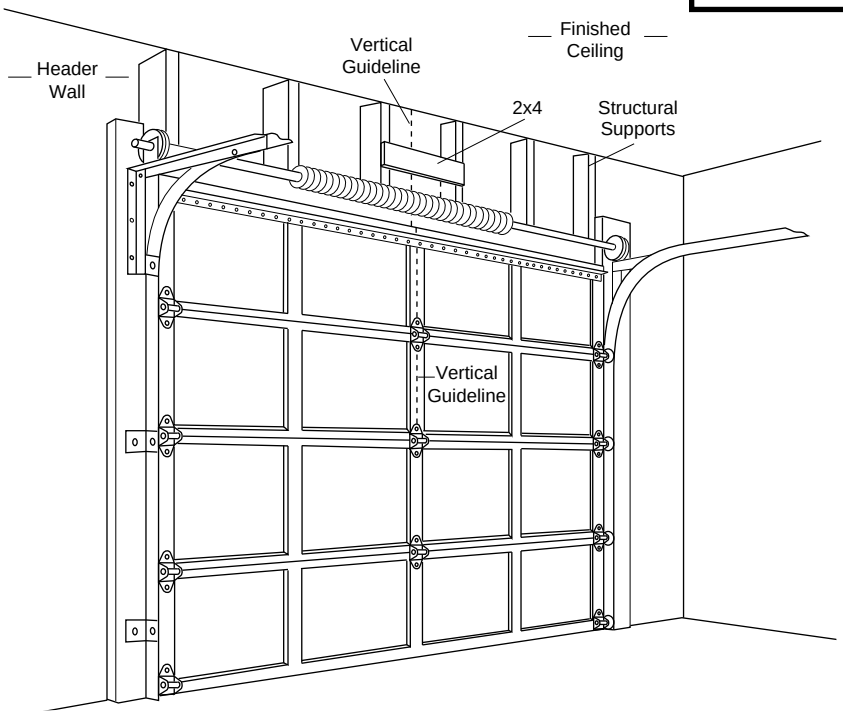
Installation Step 1

Determine Header Bracket Location

WARNING

If the header bracket is not rigidly fastened to a structural support on the header wall or ceiling, the safety reverse system may not work properly (see page 23). ***The door might not reverse when required, and could cause serious injury or death.***

The garage door springs, cables, pulleys, brackets and their hardware are under extreme tension. ***Do not attempt to loosen, move or adjust them yourself. Serious personal injury or death could result.*** **Call for garage door service.**

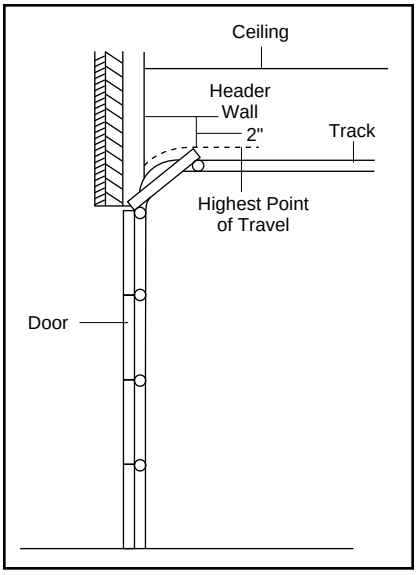


- Close the door and mark the inside vertical centerline of the garage door.
- Extend the line onto the header wall above the door.

Remember, you can fasten the header bracket within 2 feet to 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 (refer to page 9) when clearance is minimal.

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

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



Proceed to Step 2, page 9.

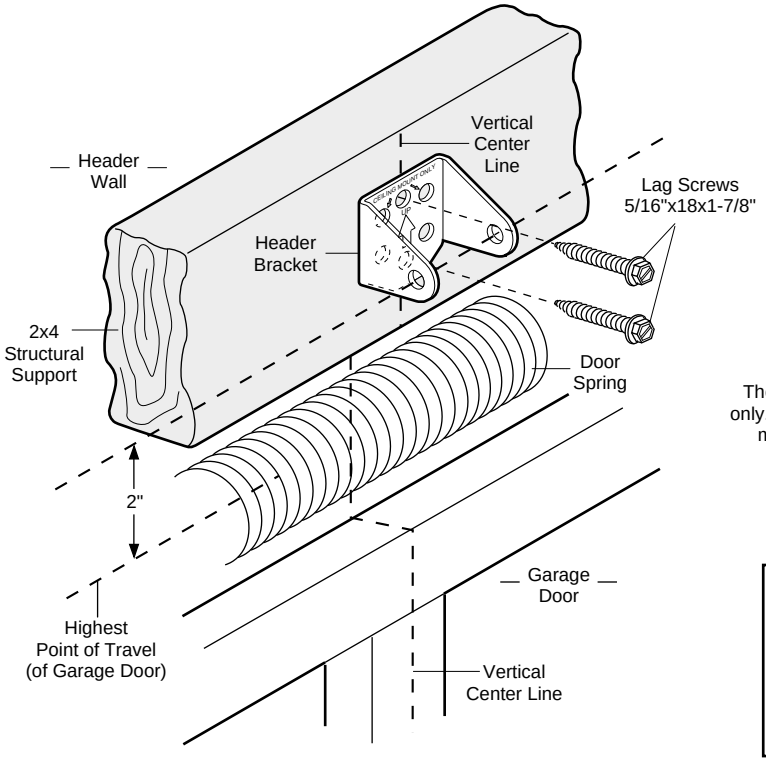
Installation Step 2

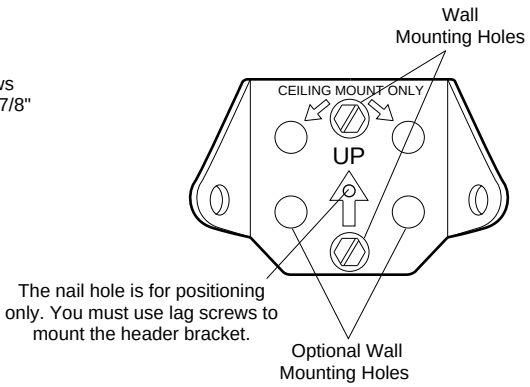
Install the Header Bracket

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.

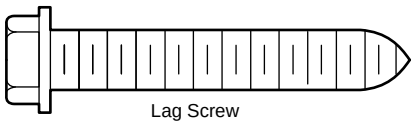
Fasten the Header Bracket to the Wall

- Center the bracket on the vertical guideline with the bottom edge of the bracket on the horizontal line as shown (with the arrow pointing toward the ceiling).
- Mark either 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.





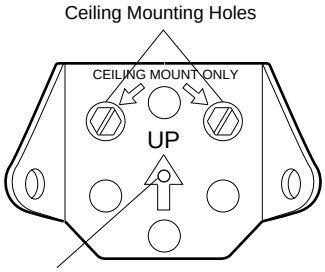
Hardware Shown Actual Size

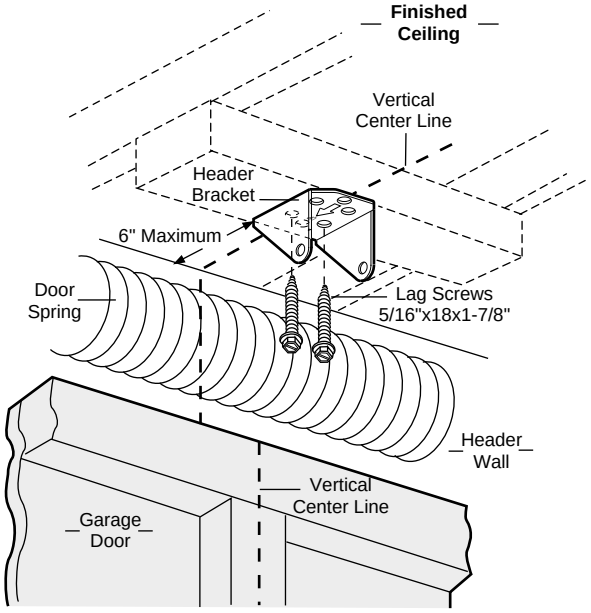


Lag Screw 5/16"-18x1-7/8"

Fasten the Header Bracket to the Ceiling

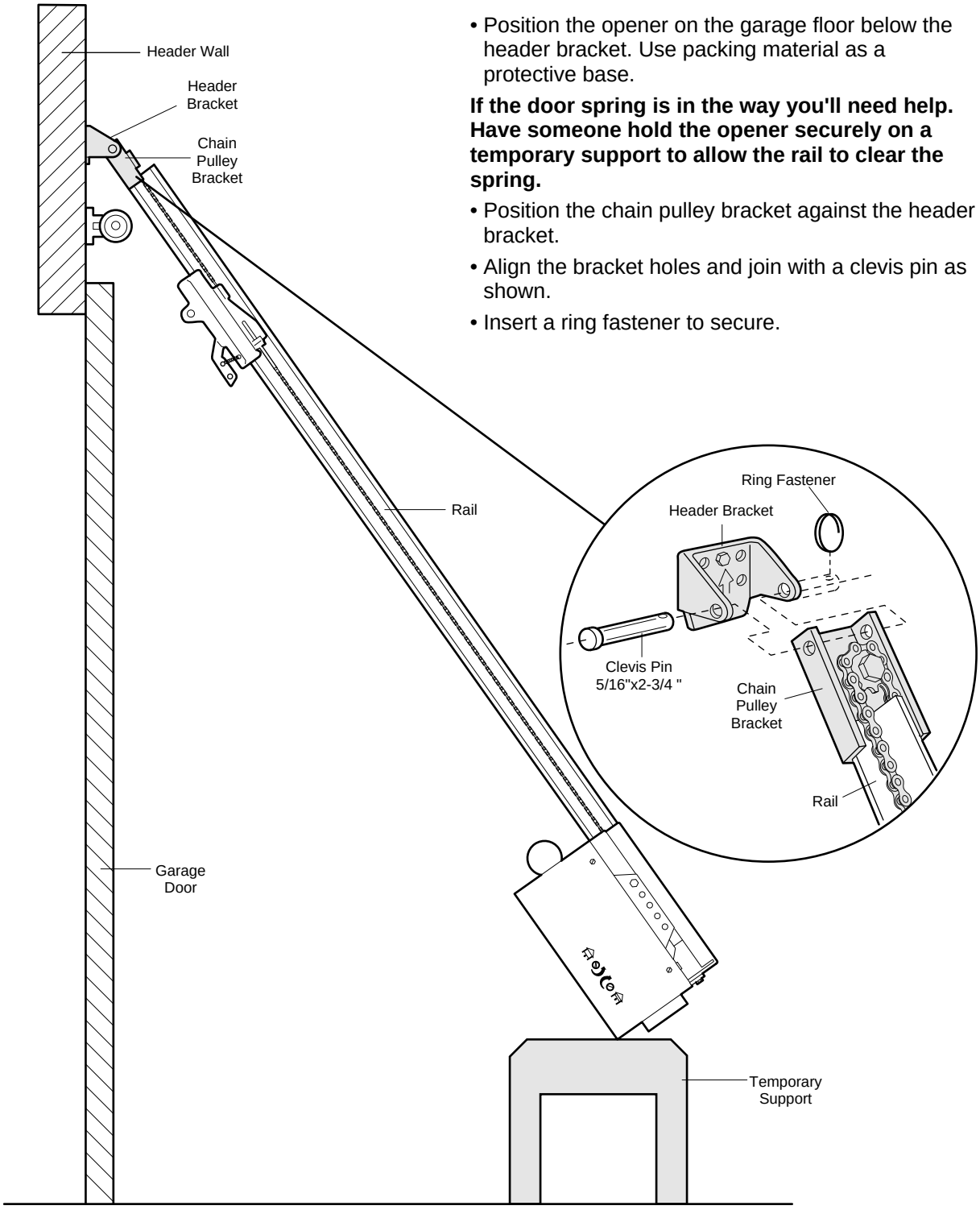
- Extend the vertical guideline onto the ceiling as shown.
- Center the bracket on the vertical mark, no more than 6" from the wall. Make sure the arrow is pointing toward the wall. The bracket can be mounted flush against the ceiling when clearance is minimal.
- Mark holes designated for ceiling mount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





Installation Step 3

Attach the Rail to the Header Bracket

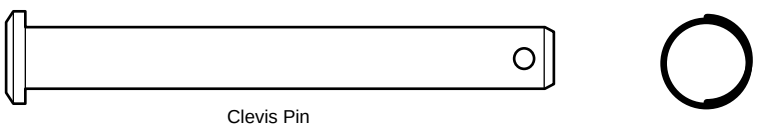


- Position the opener on the garage floor below the header bracket. Use packing material as a protective base.

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 chain pulley bracket against the header bracket.
- Align the bracket holes and join with a clevis pin as shown.
- Insert a ring fastener to secure.

Hardware Shown Actual Size



Clevis Pin
5/16" x 2-3/4"

Ring Fastener

Installation Step 4

Position the Opener

CAUTION

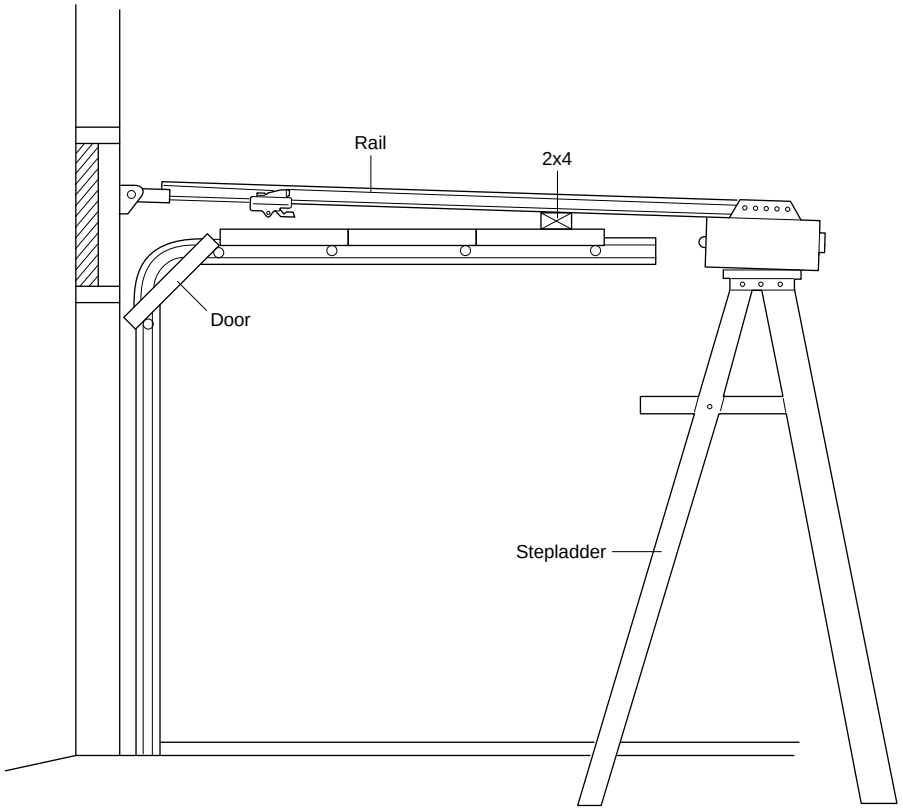
To prevent damage to steel, aluminum, fiberglass or glass panel doors, do not rest the opener on the door without using a 2x4.

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

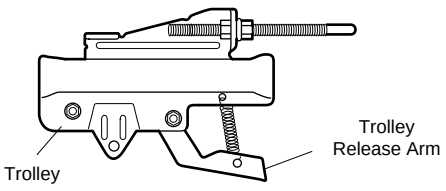
- Raise the opener onto a stepladder.

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 panel hits the trolley when you raise the door, pull down on the trolley release arm to disconnect the inner and outer sections. The trolley can remain disconnected until Step 12 is completed.***



Installation Step 5

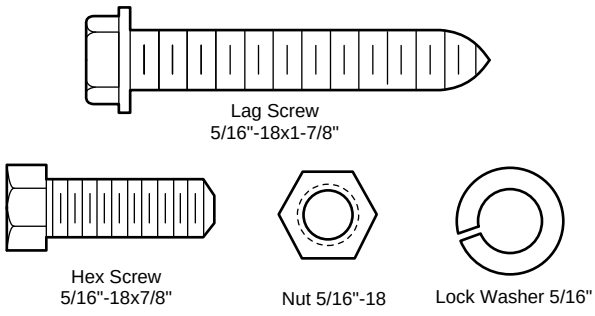
Hang the Opener

Two representative installations are shown. Yours may be different. Hanging brackets should be angled, Figure 1, to provide rigid support. On finished ceilings, Figure 2, attach a sturdy metal bracket to structural supports in ceiling before installing the opener. The bracket and fastening hardware are not supplied.

- Measure the distance from *each* side of the opener to the structural support.
- Cut both pieces of the hanging bracket to required lengths.
- Drill 3/16" pilot holes in the structural supports.
- Attach one end of each bracket to a support with 5/16"x1-7/8" lag screws.
- Fasten the opener to the hanging brackets with 5/16"-18x7/8" hex screws, lock washers and nuts.
- 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).
- Remove the 2x4. Operate the door manually. If the door hits the rail, raise the header bracket.

Grease the top and underside of the rail surface where the trolley slides. A tube of grease is supplied.

Hardware Shown Actual Size



WARNING

The opener could fall and injure someone if it is not properly secured. **Fasten the opener securely to structural supports of the garage.**

Figure 1

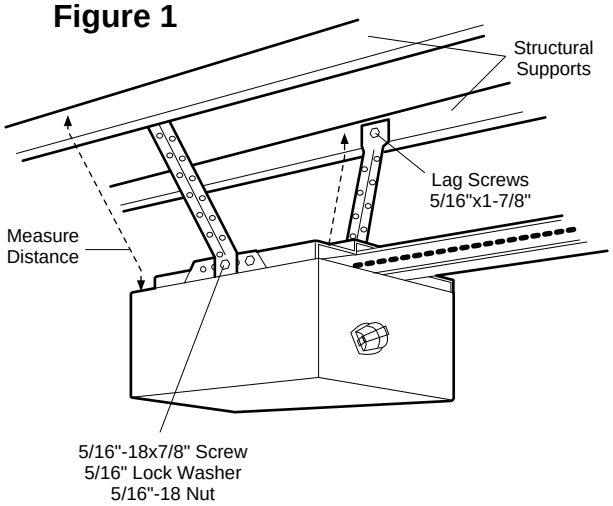
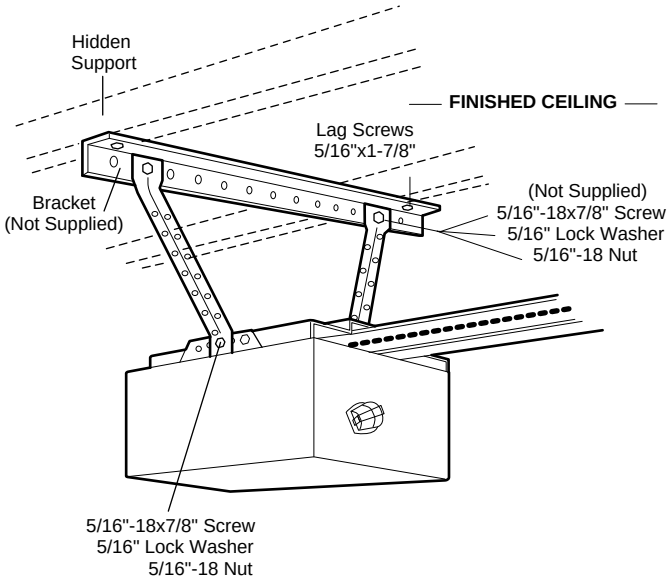


Figure 2



Installation Step 6

Install the Door Control

- Strip 1/4" of insulation from one end of the bell wire; connect the wire to the two screw terminals on the back of the Door Control by color, white to 2, and white/red to 1.
- Locate the door control within sight of the door at a minimum height of 5 feet where small children cannot reach, and away from all moving parts of the door and door hardware. Fasten the Door Control Button securely with 6ABx1-1/2" screws. If installing into drywall, drill 5/32" holes and use the anchors provided.
- Run the bell wire up the wall and across the ceiling to the opener. Use insulated staples to secure the wire in several places. Be careful not to pierce the wire with a staple, thereby resulting in a short.
- Receiver terminal screws and the antenna are located on the back panel of the opener. Position the antenna wire as shown.
- Then connect the bell wire by color to the opener terminal screws: white to 2 and white/red to 1.
- **Remember to affix the User Safety Instruction label to the wall near the door control, and the Maintenance Instruction Label in a prominent location on the inside of the garage door.**

If the label adhesive will not adhere to your garage wall surface (or becomes loose with time), use tacks to secure the label alongside the door control.

Page 25 explains how to operate the opener using the door control.

WARNING

Children operating or playing with a garage door opener can injure themselves or others. *The garage door could close and cause serious injury or death.*

Install the Door Control (or any additional push buttons) out of the reach of children and away from all moving parts of the door and door hardware, *but where the garage door is visible.* Do not allow children to operate the push button(s) or the remote control transmitter(s).

***A moving garage door could injure someone under it.* Activate the opener only when the door is properly adjusted, you can see it clearly, and there are no obstructions to door travel.**

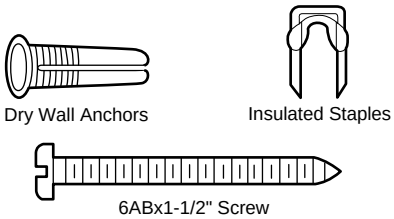
***Do NOT connect the power and operate the opener at this time.* The trolley will travel to the full *open* position but will not return to the *close* position until the sensor beam is connected and properly aligned.**

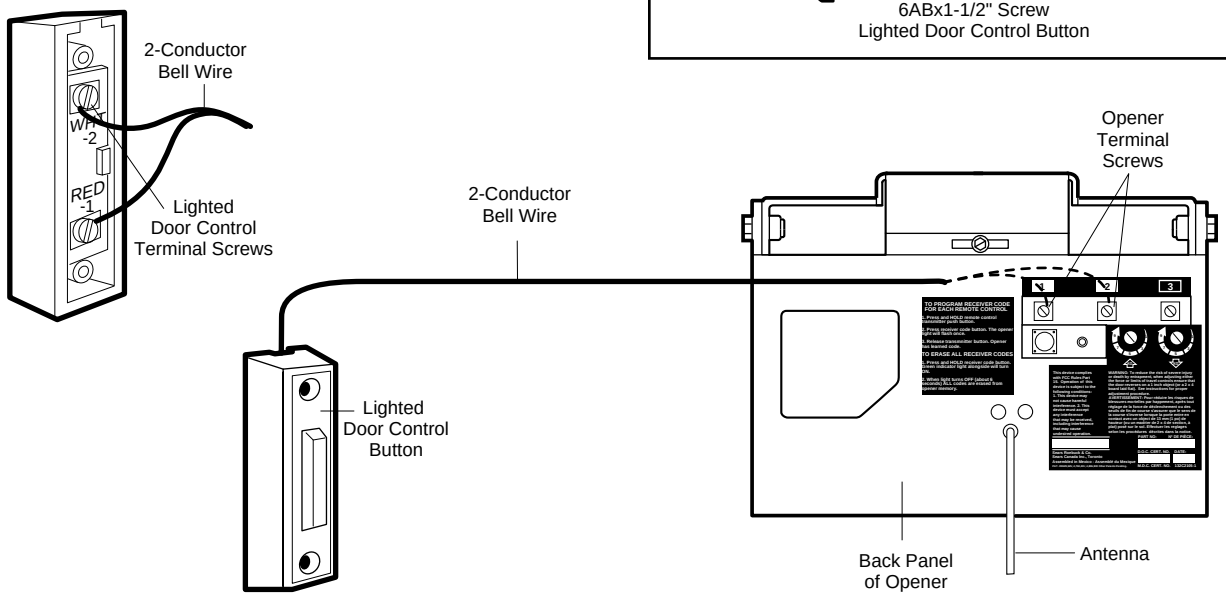
See Safety Reversing Sensor Instructions beginnning on page 16.

Outside Keylock Accessory Connections

To opener terminal screws:
white to 2 and white/red to 1

Hardware Shown Actual Size



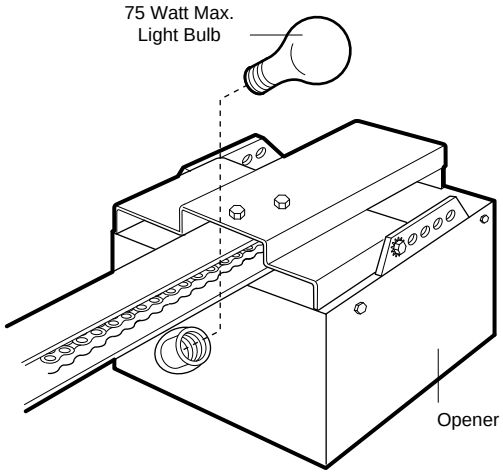


Installation Step 7

Install the Light

Install the Light

- Install a 75 watt maximum light bulb in the socket. The light will turn ON and remain lit for approximately 4-1/2 minutes when power is connected. Then the light will turn OFF.
- If the bulb burns out prematurely due to vibration, replace with a "Garage Door Opener" bulb.



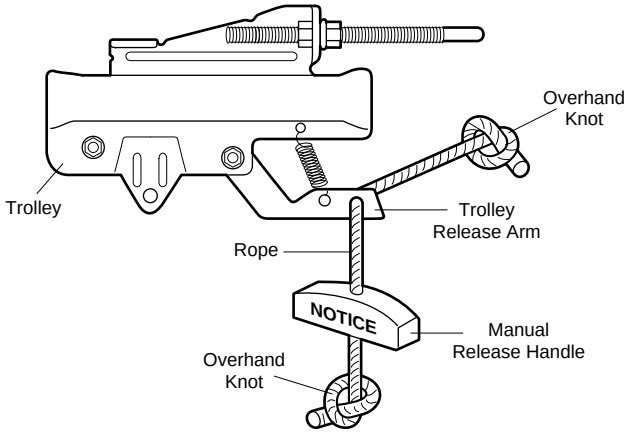
Installation Step 8

Attach the Manual Release Rope and Handle

WARNING

Do not use the red handle to pull the door open or closed. *The rope knot could become untied and you could fall.* Use the manual release only to disengage the trolley and, if possible, only when the door is closed.

If the door is open when the handle is pulled, the door could close inadvertently if it is not properly balanced.



- 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.

The knot should be at least 1" 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 above the floor. Secure with an overhand knot.

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

Installation Step 9

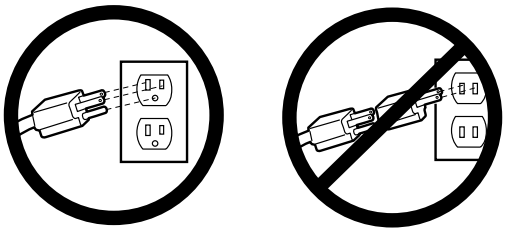
Electrical Requirements

WARNING

***To prevent electrocution or fire,* installation and wiring must be in compliance with local electrical and building codes.**

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**

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

- ***Do not change the plug in any way.***
- ***Do not use a 2-wire adapter.***
- ***Do not use an extension cord.***

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

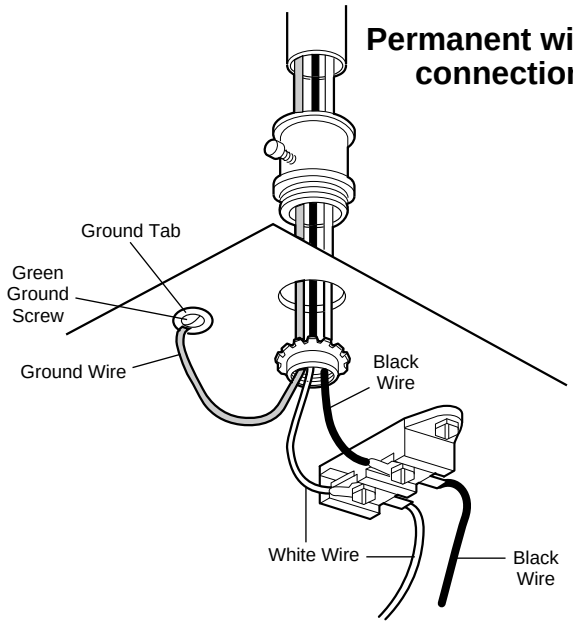
WARNING

To prevent electrocution, remove power from the garage door opener *and* from the circuit you plan to use for the permanent connection.

To make a permanent connection through the 7/8" diameter hole in the top of the opener (according to local code):

- Remove the opener 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.

Permanent wiring connection



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

Information you'll need before you begin the installation of the safety reversing sensor.

The safety reversing sensor *must* be connected and aligned correctly before the garage door opener will move in the down direction. This is a required safety device and cannot be disabled.

WARNING

Without a properly working safety reversing sensor, persons (particularly children) could be killed by a closing garage door. **Read and follow all instructions.**

To protect small children, install the safety reversing sensor so that the beam will be no higher than 4-6" above the garage floor.

Disconnect power to the garage door opener before installing the safety reversing sensor.

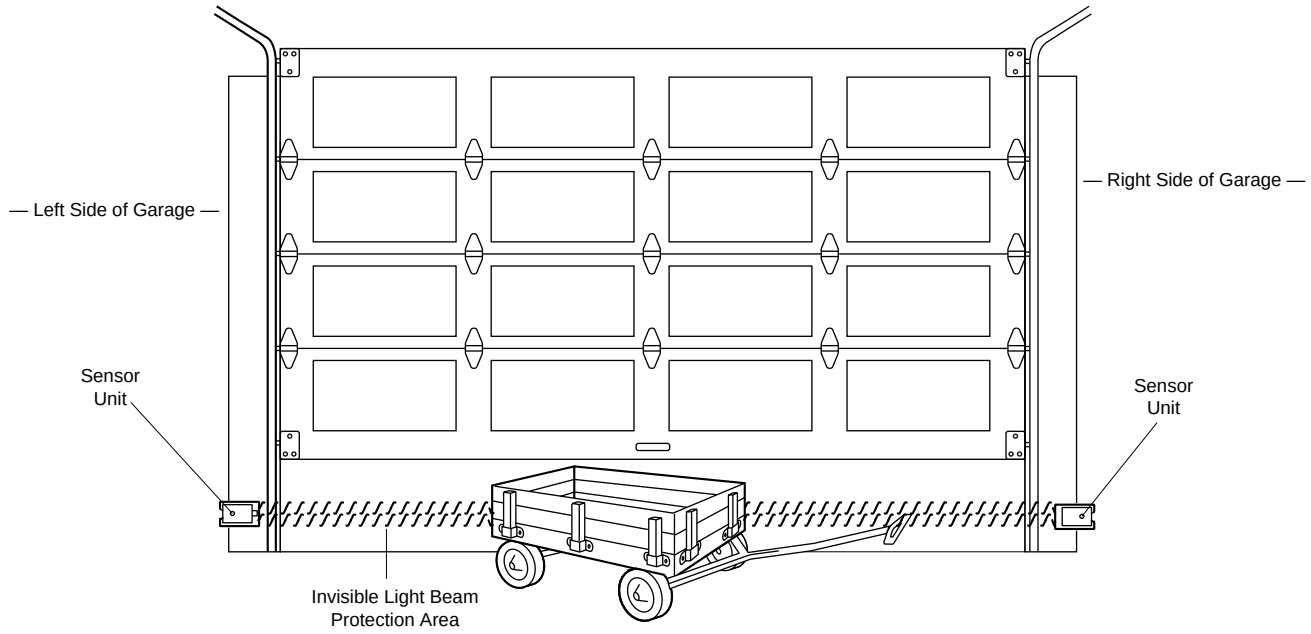


Figure 1: Facing the door from inside the garage

Be sure power to the opener is disconnected.

The sending eye transmits an invisible light beam to the receiving eye. The units can be installed on either side of the garage door as long as the sun never shines directly into the receiving eye lens.

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

The brackets must be connected and fastened so that the sending and receiving eyes face each other as shown in Figure 1.

If an obstruction breaks the light beam while the garage door is closing, the door will stop and reverse to full open position and the opener lights will flash for 5 seconds.

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

The invisible light beam path must be unobstructed. No part of the garage door (or door tracks, springs, hinges, rollers or other hardware) can interrupt the beam while the door is closing. If it does, use a piece of wood to build out each sensor mounting location to the minimum depth required for light beam clearance.

Installation Step 10

Install the Safety Reversing Sensor (Receiving and Sending Eyes)

Figures 2, 3 and 4 show recommended assembly of bracket(s) and "C" wrap based on the *wall* installation of the sensors on each side of the garage door as shown on page 16, or on the *garage door tracks* themselves.

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

- Fasten the "C" wraps to the mounting brackets having square holes, using the hardware shown in Figure 2.

WALL INSTALLATION ONLY

- Connect each assembly to a slotted bracket, using the hardware shown in Figure 3. **Note alignment of brackets for left and right sides of the door.**
- Finger tighten the lock nuts.
- Use bracket mounting holes as a template to locate and drill (2) 3/16" diameter pilot holes on both sides of the garage door, 4"-6" above the floor (but not exceeding 6"). See Warning on page 16.
- Attach bracket assemblies with 1/4"x1-1/2" lag screws as shown in Figure 3.
- Adjust right and left side bracket assemblies to the same distance out from mounting surface. Make sure all door hardware obstructions are cleared. Tighten the nuts securely.

DOOR TRACK INSTALLATION ONLY

- Discard slotted bracket. Drill 3/8" holes in each track and fasten securely with hardware as shown in Figure 4. See Warning on page 16 regarding height of sensor beam.

Figure 2

Garage WALL or DOOR TRACK Installation

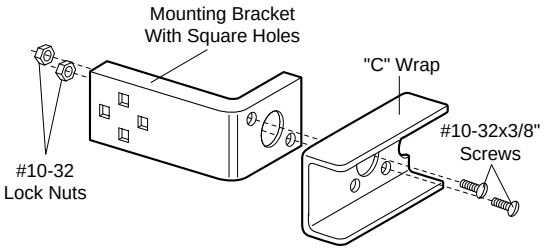


Figure 3

Garage WALL Installation

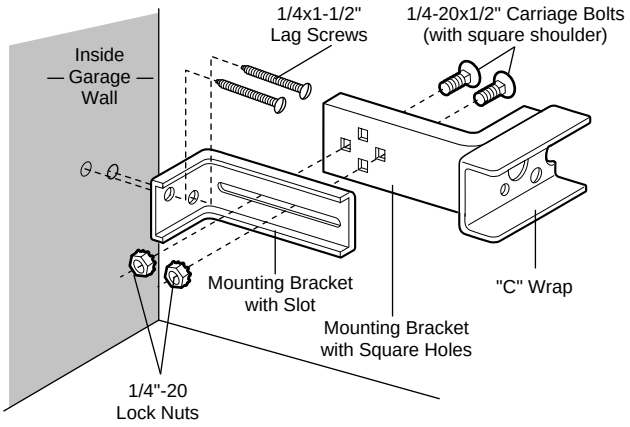
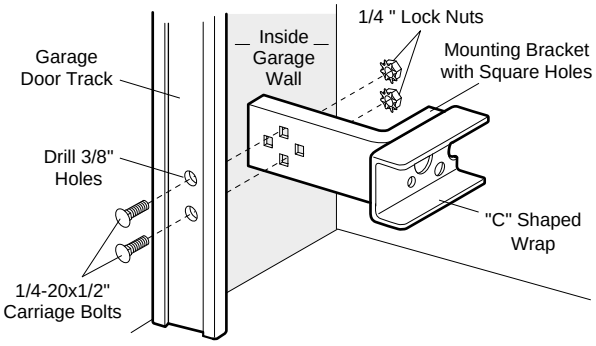


Figure 4

Garage DOOR Track Installation



Hardware Shown Actual Size

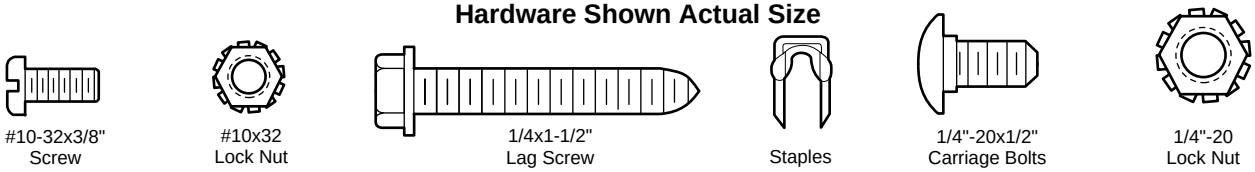
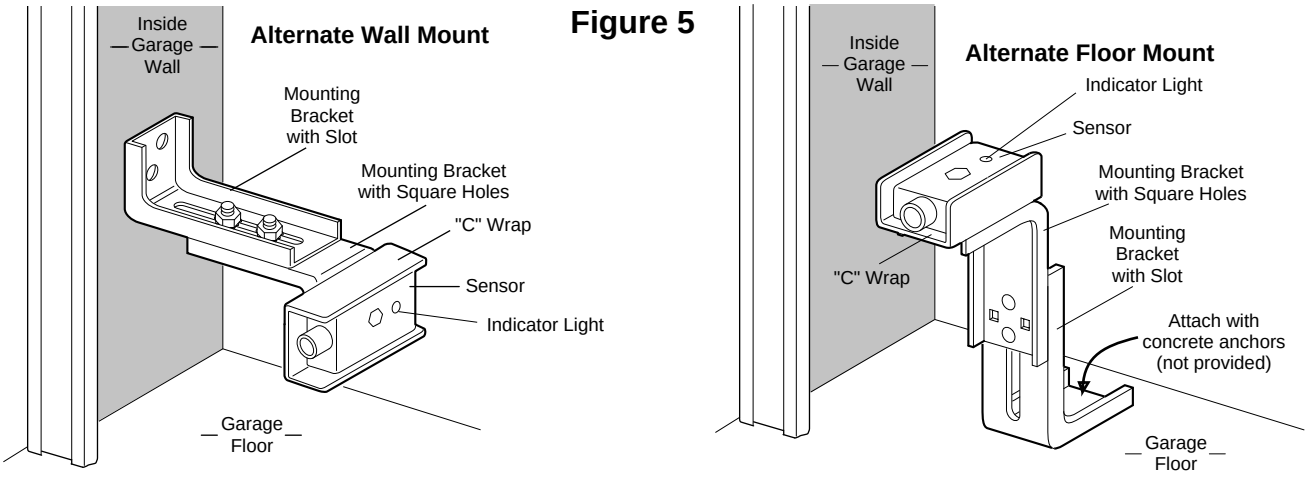


Figure 5



- Insert the wire connector into each sensor and push until you hear a click (Figure 6). The white tab on the sensor should be flush with the back of the connector.

Figure 6

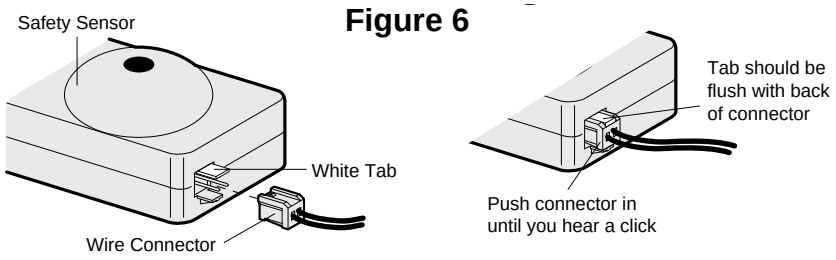
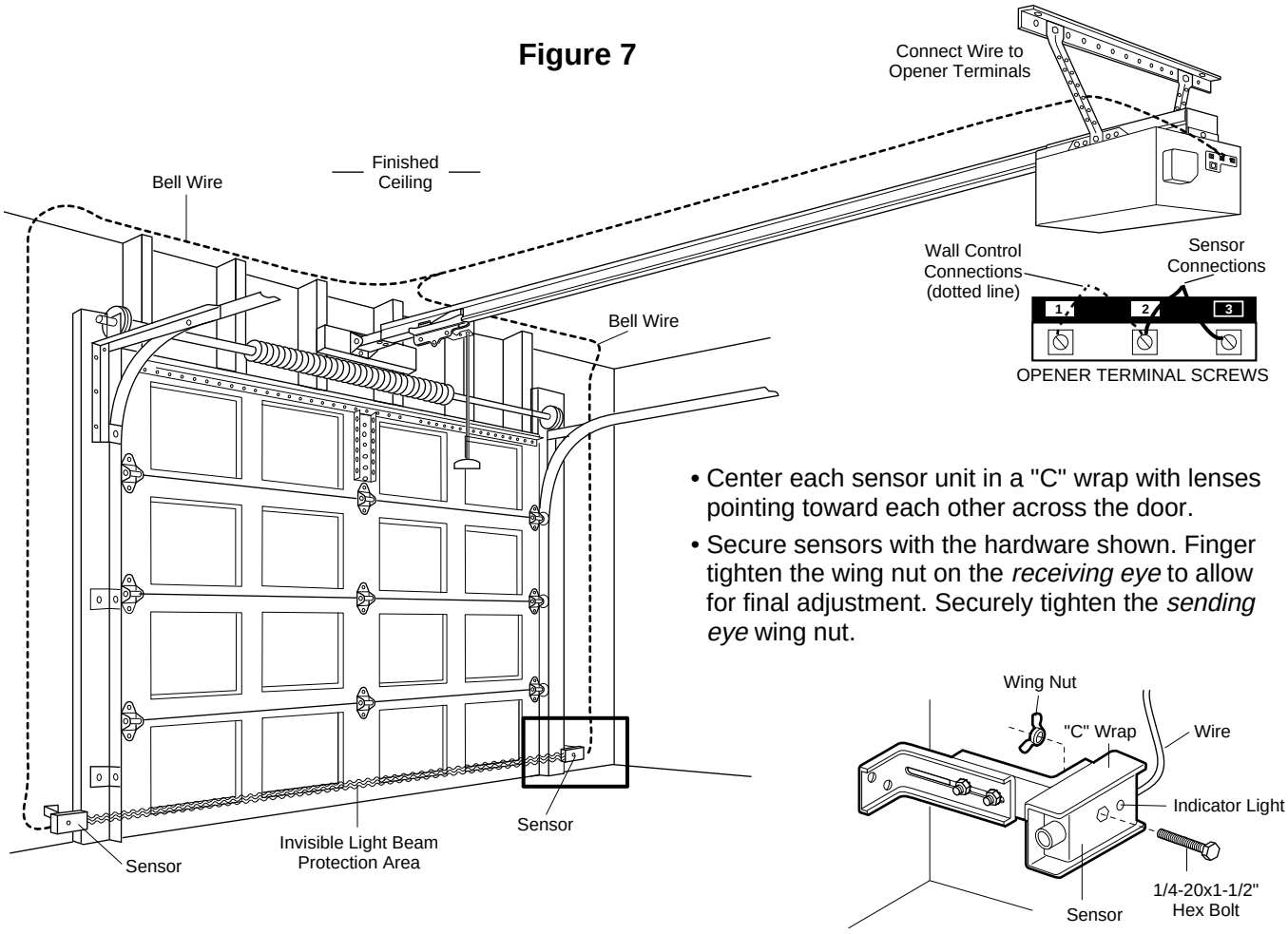


Figure 7



- Center each sensor unit in a "C" wrap with lenses pointing toward each other across the door.
- Secure sensors with the hardware shown. Finger tighten the wing nut on the *receiving eye* to allow for final adjustment. Securely tighten the *sending eye* wing nut.

- Run paired wires from both sensors to the opener. Use insulated staples to secure wire to wall and ceiling.
- Strip 1/4" of insulation from each set of wires. Separate white and white/black wires sufficiently to connect to the opener terminal screws: white to 2 and white/black to 3.
- Plug in the opener. Green indicator lights in both the sending and receiving eyes will *glow steadily* if wiring connections and alignment are correct.

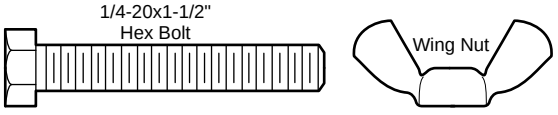
If the indicator light is *off* in the *receiving eye* (and the invisible light beam path is not obstructed), alignment is required.

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

Trouble Shooting

1. 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 under staples or at screw terminal connections.
   - Incorrect wiring between sensors and opener.
   - An open wire (wire break).
2. 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.

Hardware Shown Actual Size



Installation Step 11

Fasten Door Bracket & Plate

CAUTION

To prevent damage to steel, aluminum, fiberglass or glass panel doors, always reinforce the inside of the door both vertically and horizontally with an angle iron.

A horizontal brace should be long enough to be secured to 2 vertical supports. A vertical brace should cover the height of the top panel.

The illustration 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.

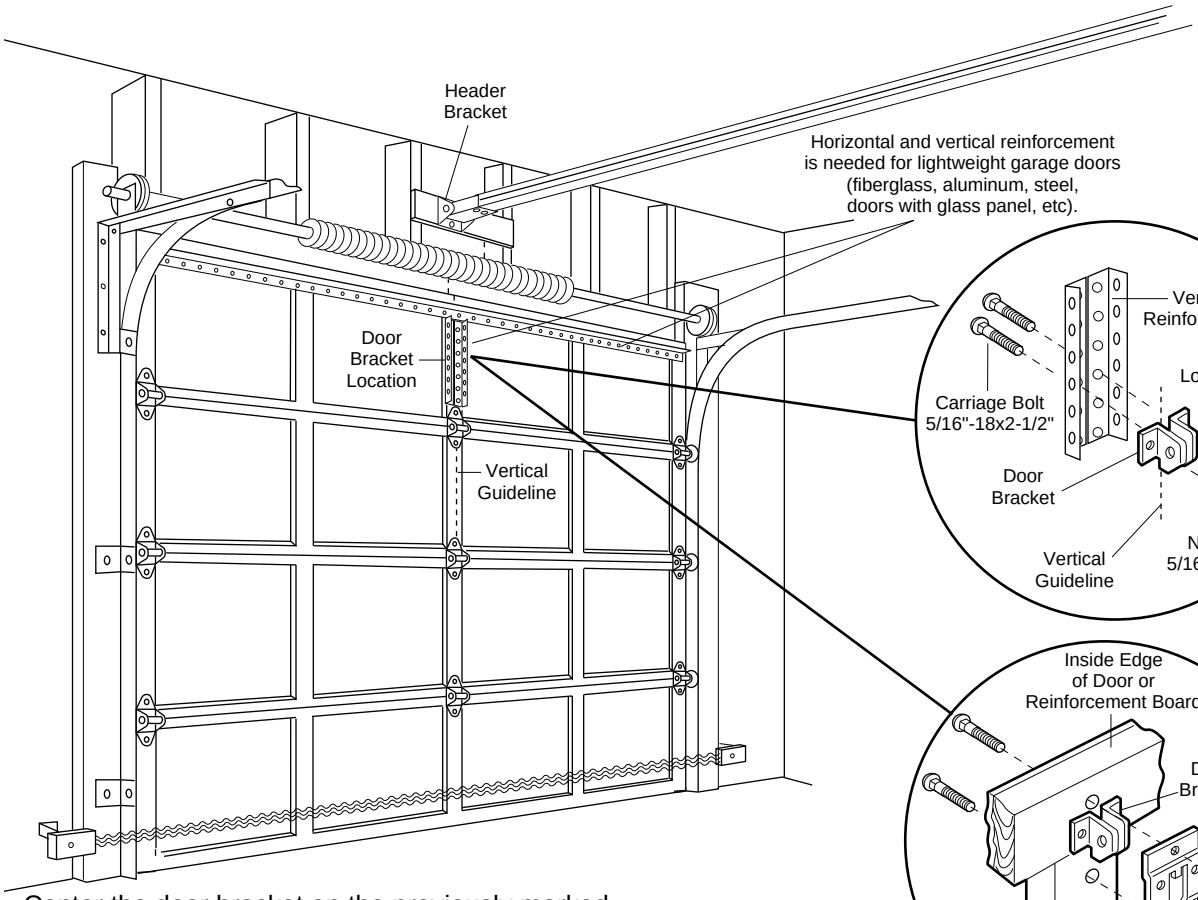


Figure 1

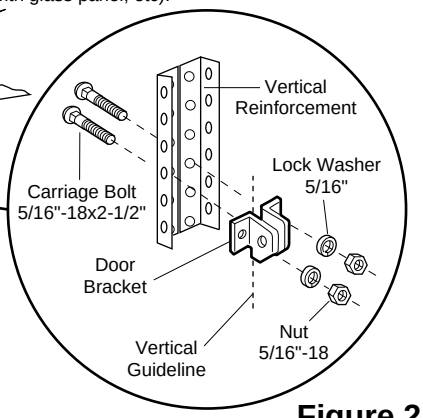
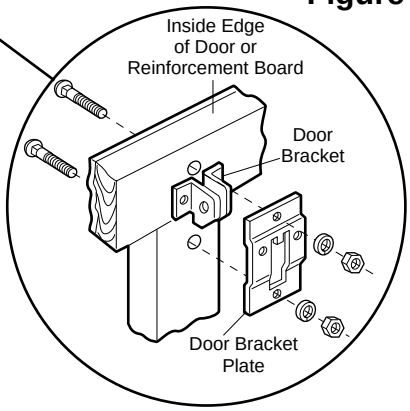


Figure 2



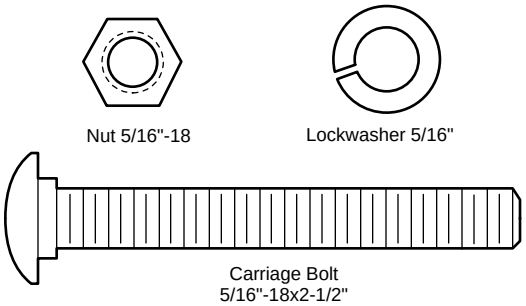
- Center the door bracket on the previously marked vertical guideline used for the header bracket installation.
- Position the bracket on the face of the door within the following limits:

  A) The top edge of the bracket 2"-4" below the top edge of the door.

  B) The top edge of the bracket directly below any structural support across the top of the door.
- Mark and drill 5/16" left and right fastening holes. Secure the bracket as shown in Figure 1 if there is vertical reinforcement.

If your installation doesn't require vertical reinforcement but does need top and bottom fastening holes for the door bracket, position the door plate over the door bracket as shown in Figure 2. Fasten securely with hardware shown in Figure 1.

Hardware Shown Actual Size



Installation Step 12

Connect Door Arm to Trolley

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

Figure 1:

- Fasten straight door arm section to outer trolley with a clevis pin. Secure the connection with a ring fastener.
- Fasten curved section to the door bracket in the same way as shown.

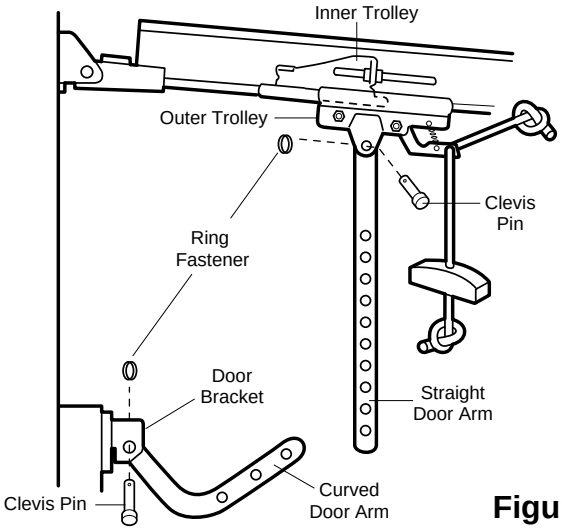


Figure 1

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.

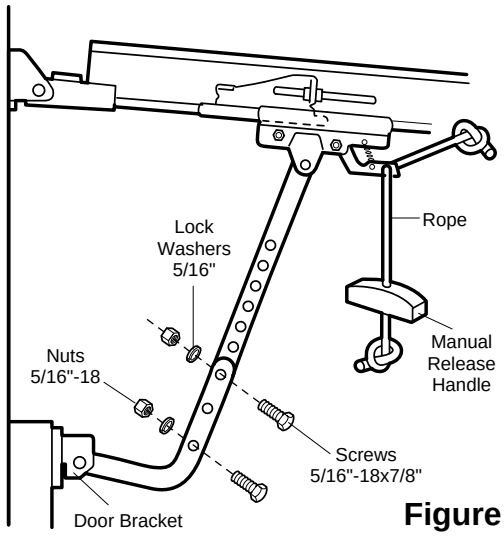


Figure 2

Hole Alignment Alternative

Figure 3:

- If holes in curved arm are *above* holes in straight arm, disconnect straight arm. Cut about 6" 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 screws, lock washers and nuts.

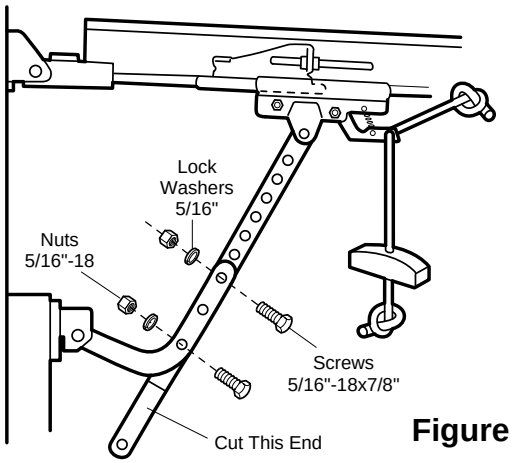
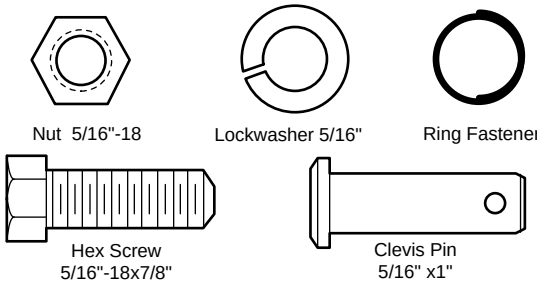


Figure 3

Hardware Shown Actual Size



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

Adjustment Section: Pages 21 – 23

Adjustment Step 1

Adjust the UP and DOWN Limits

WARNING

Improper adjustment of the travel limits could interfere with the proper operation of the safety reverse system. See page 23. *The door might not reverse when required and could seriously injure or kill someone under it.*

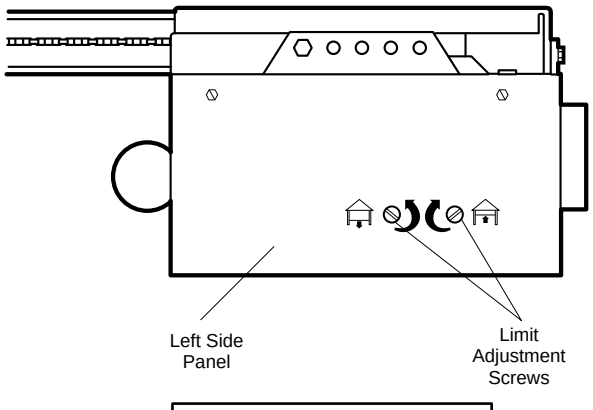
Limit adjustment settings regulate the points at which the door will *stop* when moving up or down.

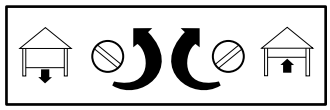
The door will *stop* in the *up* direction if anything interferes with door travel. The door will *reverse* in the *down* direction if anything interferes with the door travel (including binding or unbalanced doors).

To operate the opener, press the Door Control push button. 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.





Adjustment Label

Adjustment procedures are outlined below. Run the opener through a complete travel cycle after each adjustment.

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

Read the procedures carefully before proceeding to Adjustment Step 2. Use a screwdriver to make limit adjustments.

When to Adjust the Limits

If the door does not *open completely* but opens *at least* five feet

Increase *up* travel. Turn the UP limit adjustment screw clockwise. One turn equals 2" of travel.

If door does not open at least 5 feet: 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 2" of travel.

If door still won't close completely, try lengthening the door arm. (See page 20.)

If you have adjusted the door arm to the maximum length and the door still will not close completely, lower the header bracket. See Installation Steps 1 and 2, pages 8 and 9.

If the opener *reverses* in fully closed position

Decrease *down* travel. Turn the DOWN limit adjustment screw clockwise. One turn equals 2" 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 Sensor is obstructed. Remove the obstruction.

Test the door for binding: Pull the manual release handle. Manually open and close the door. If the door is binding, call for garage door service. If the door is not binding or unbalanced, adjust the DOWN (close) force. See Adjustment Step 2.

Adjustment Step 2

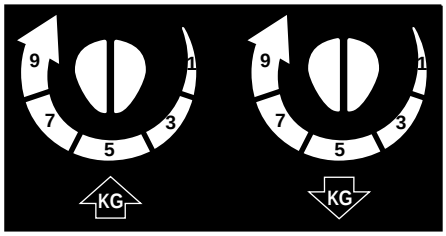
Adjust the Force

Force adjustment controls are located on the back panel of the opener. Force adjustment settings regulate the amount of power required to open and close the door.

The door will *stop* in the *up* direction if anything interferes with its travel. The door will *reverse* in the *down* direction if anything interferes with its travel (including binding or unbalanced doors).

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.

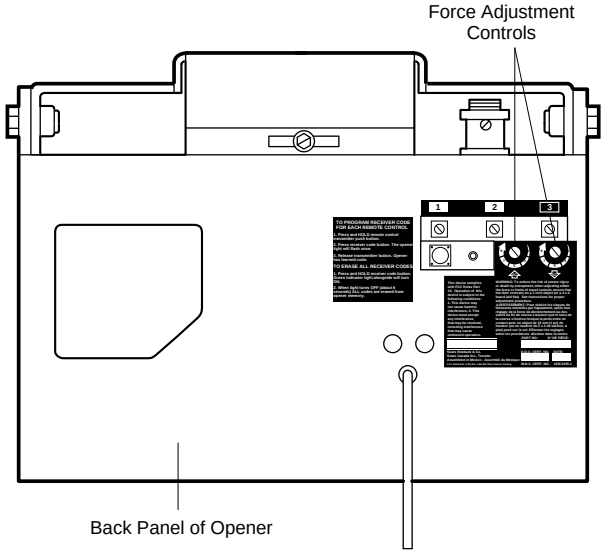
The maximum force adjustment range is 260 degrees, about 3/4 of a complete turn. Do not force controls beyond that point. Turn force adjustment controls with a screwdriver.



Adjustment Label

WARNING

Too much force on the door will interfere with the proper operation of the safety reverse system. See page 23. *The door might not reverse properly when required and could seriously injure or kill someone under it.* Do not increase the force beyond what is required to close the door. Do not use the force adjustments to compensate for a binding or sticking garage door.



When to Adjust the Forces

Test the DOWN (close) force

Grasp the door bottom when the door is about halfway through DOWN (close) travel. The door should reverse. If the door is hard to hold or doesn't reverse, decrease the DOWN (close) force by turning the control counterclockwise.

Make 10 degree turn adjustments until the door reverses normally. After each adjustment, run the opener through a complete cycle.

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 10 degree turn adjustments until the door stops easily. After each adjustment, run the opener through a complete travel cycle.

If the door doesn't open *at least* 5 feet

Increase UP (Open) force by turning the control clockwise. Make 10 degree turn adjustments until door opens completely. Re-adjust the UP limit if necessary. After each adjustment, run the opener through a complete travel 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 10 degree turn adjustments until the door completes a close cycle. After each adjustment, run the opener through a complete travel cycle.

Adjustment Step 3

Test The Safety Reversing Sensor

- Press the Door Control push button to open the door.
- Place the opener carton in the path of the door.
- Press the Door Control push button to close the door. *The door will not move more than an inch, and the opener light(s) will flash.*

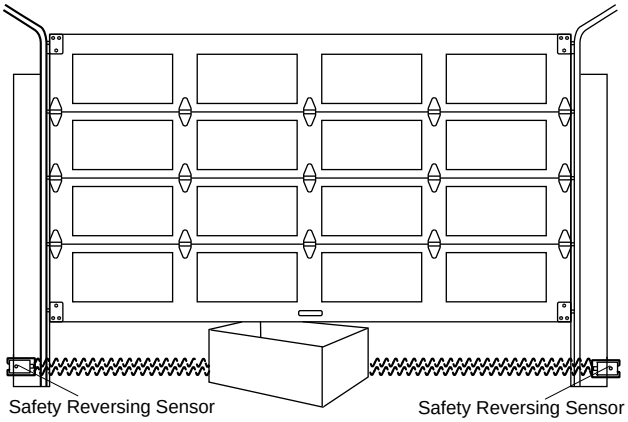
The garage door opener will not close from a remote control transmitter if the indicator light in either sensor is *off* (alerting you to the fact that the sensor is misaligned or obstructed).

The garage door can be closed by pressing and holding the Door Control push button until down travel is completed.

Professional service is required if the opener closes the door when the safety reversing sensor is obstructed.

WARNING

Without a properly working safety reversing sensor, persons (particularly children) could be seriously injured or killed by a closing garage door. **Repeat this test once a month.**



Adjustment Step 4

Test the Safety Reverse System

Test:

- Place 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.

Adjustment:

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

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

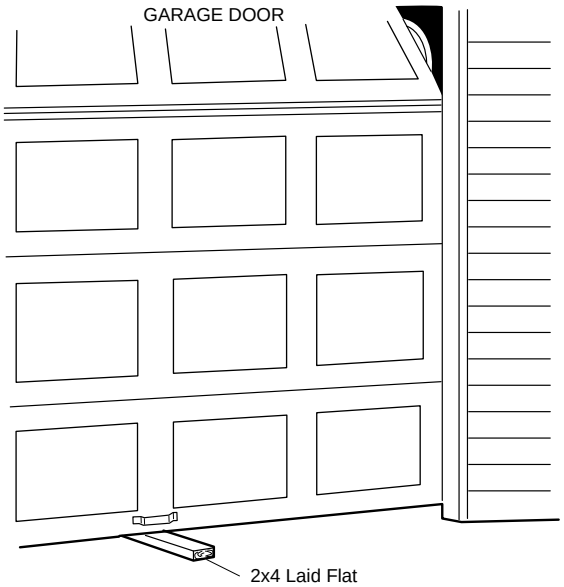
Make sure limit adjustments do not force the door arm beyond a straight up and down position. See the illustration on page 20.

- When the door reverses on the 2x4, remove the obstruction and run the opener through 3 or 4 complete travel cycles to test adjustment.

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

WARNING

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



Important safety check

Repeat Adjustment Steps 1, 2 and 4 after:

- Each adjustment of door arm length, force controls or limit 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.

IMPORTANT SAFETY INSTRUCTIONS

WARNING **WARNING**

To reduce the risk of severe injury or death to persons:

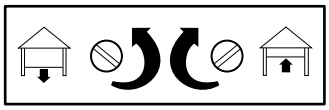
1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. **Do not permit children either to operate or to play with the opener. Keep a remote control in a location inaccessible to children.**
3. **Operate opener only when the door is in full view and free from any obstruction. Keep the door in sight until it is completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR.**
4. **Check safety reversal system monthly. See page 23. The garage door *MUST* reverse on contact with a 2x4 board laid flat on the floor. If an adjustment is made to either the force or the limit of travel, both adjustments may be needed and the safety reversal system must be checked. *Failure to properly adjust the opener may result in severe injury or death.***
5. **If possible, use the manual release only when the door is in a closed position. Caution should be taken whenever the disconnect cord is actuated with the door open. *Weak or broken springs may cause the door to fall rapidly, causing injury or death to persons.***
6. **KEEP GARAGE DOORS PROPERLY BALANCED. See page 3. *An improperly balanced door could result in severe injury or death.* Repairs to cables, spring assemblies and other hardware must be made by a qualified person.**
7. **Disconnect the electric power from the garage door opener before making any repairs or removing the covers.**
8. **SAVE THESE INSTRUCTIONS.**

Do not exceed 8 complete cycles of door operation per hour in commercial applications.

Care of Your Opener

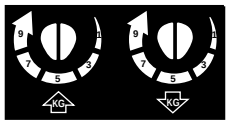
Limit and Force Adjustment Control

Limit Controls



Adjustment Label
(Located on the left side panel)

Force Controls



Adjustment Label
(Located on the back panel)

Weather conditions may cause some minor changes in door operation requiring some re-adjustments, 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 (page 23) after any adjustment of limits or force.

Maintenance Schedule

Once a Month

- **Manually operate door.** If it is unbalanced or binding, call for professional garage door service.
- **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 page 23.)

Twice a Year

- **Check chain tension.** Adjust if necessary.

Once a Year

- **Oil door rollers, bearings and hinges.**

The opener does not require additional lubrication.

Do not grease the door tracks.

Operation of Your Opener

WARNING

Weak or broken springs could allow an open door to fall (either rapidly or unexpectedly), resulting in serious injury, death or property damage. **If possible, use the manual release rope and handle *only* when the door is fully closed.**

Activate the opener with any of the following devices:

1. **The Door Control.** Hold push button down until the door starts to move.
2. **A Remote Control Transmitter.** Hold push button down until the door starts to move.
3. **The Outside Keylock or Keyless Entry Accessories.**

When the opener is activated:

1. If open, the door will close. If closed, the door will open.
2. If closing, the door will reverse.
3. If opening, the door will stop (allowing space for entry and exit of pets and for fresh air).
4. If the door has been stopped in a partially open position, it will close.
5. If obstructed while closing, the door will reverse.
6. If obstructed while opening, the door will stop.
7. With the safety reversing sensor installed and correctly aligned, the garage door will reverse in the closing cycle when the invisible beam is broken. If fully open, the door will not close when the beam is broken. The sensor has no effect in the opening cycle.

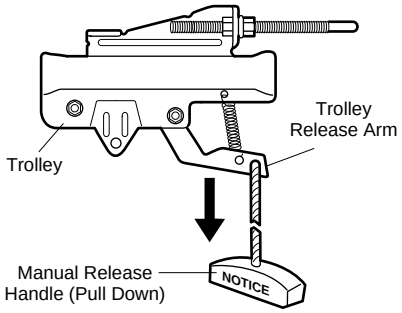
If the sensor is not installed, or is not aligned correctly, the door won't close from a remote control transmitter. You can close the door with the Door Control, however, if you press and *hold* the push button until down travel is complete. If you release the push button too soon, the door will *reverse.*

The opener light will *blink for 5 seconds* when the safety reversing sensor is obstructed.

The opener light will turn on under the following conditions: When the opener is initially plugged in; when the power is interrupted and when the opener is activated. It will turn off automatically after 4-1/2 minutes. Bulb size is 75 watts maximum.

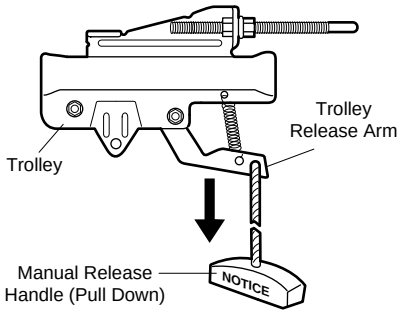
To open the door manually:

The door should be fully closed if possible. Pull down sharply on the red manual 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 manual 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 manual release handle straight down. The trolley will reconnect on the next UP or DOWN operation.



Lockout position

Having a Problem?

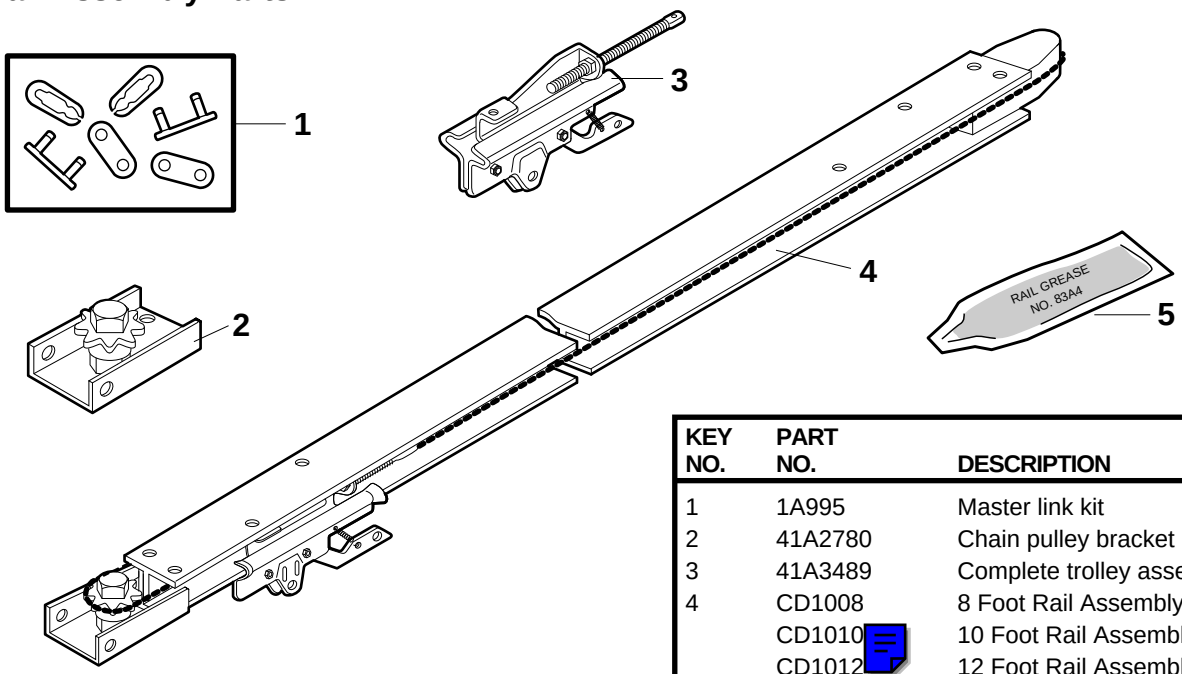
Situation	Probable Cause & Solution
The opener doesn't operate from either the Door Control or a remote control:	1. Have you disabled all door locks? Review installation instruction warnings on page 7. 2. Does the opener have electric power? Plug a lamp into the outlet. If it doesn't light, check the fuse box or the circuit breaker. (Some outlets are controlled by a wall switch.) 3. Repeated operation may have tripped the overload protector in the motor. Wait 15 minutes. Try again. 4. Is there a build-up of ice or snow under the door? The door may be frozen to the ground. Remove any restriction. 5. Remove the bell wire from the opener terminal screws. Short the red and white terminals by touching both terminals at the same time with a piece of metal (screwdriver or coin). If the opener runs, check for a faulty wire connection at the door control or a short under the staples.
Opener operates from a remote control, but not from Door Control:	1. Are the wiring connections correct? Review Step 6, page 13.
A remote control has short range:	1. Check the battery test light. If the light is dim, change the battery. 2. Change the location of the remote control in the car. 3. A metal door, foil-backed insulation or metal garage siding will reduce the transmission range. 4. Check to be sure the antenna on the back panel of opener extends fully downward. ***Install Antenna Kit, Part No. 41A3504, to increase range.***
Opener noise is disturbing in living quarters of home:	1. If operational noise is a problem because of proximity of the opener to the living quarters, the Vibration Isolator Kit 41A3263 can be installed. This kit was designed to eliminate the "sounding board effect" and is easy to install.
The garage door opens and closes by itself:	1. Check to be sure that a remote control push button is not stuck in the "down" position. 2. Remove the bell wire from the Door Control terminals and operate from a remote control 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 opener.
The door doesn't open completely:	1. Is something obstructing the door? 2. If door opens at least 5 feet, the travel limits may need to be increased. One turn equals 2 inches of travel. See page 21. ***Repeat the safety reverse test after the adjustment is complete.*** 3. If the door has been working properly but now doesn't open all the way, increase the *up force.* See page 22. ***Repeat the safety reverse test after the adjustment is complete.***
The door doesn't close completely:	1. Is something obstructing the door? 2. Review travel limits adjustment procedures on page 21. ***Repeat the safety reverse test after any adjustment of door arm length, close force or down limit.***

Having a Problem? *(continued)*

Situation	Probable Cause & Solution
The door opens but won't close:	1. Check the safety reversing sensor. If the sensor lights do not glow, see page 18.
The door reverses for no apparent reason and opener light doesn't blink:	1. Is something obstructing the door? Pull the red manual release handle. Operate the door manually. If it is unbalanced or binding, call a garage door serviceman to correct the problem. 2. Clear any ice or snow from the garage floor area where the door closes. 3. Review force adjustment procedures on page 22. ***Repeat the safety reverse test after the adjustment is complete.*** 4. If door reverses in the *fully closed* position, decrease the travel limits (page 21). ***Repeat safety reverse test after the adjustment is complete. The need for occasional adjustment of the force and limit settings is normal. Weather conditions in particular can affect door travel.***
The door reverses for no apparent reason and opener light blinks for 5 seconds after reversing:	1. Check the safety reversing sensor. Remove the obstruction or align the receiving eye. See page 18.
The opener light	***. . . doesn't turn on:*** 1. Replace the light bulb (75 watts maximum). Use a "garage door opener bulb" if standard bulb burns out prematurely due to vibration. Vibration may be caused by loose end panel. Retighten the screws. ***. . . doesn't turn off:*** 1. There may be a defective ground at the ceiling or wall receptacle. **The unit must be grounded.**
The opener strains or maximum force is needed to operate door:	1. The door may be out of balance or the springs are broken. **Close the door** and use the manual release rope and 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 garage door serviceman to correct the problem. ***Do not increase the force to operate the opener.***
The opener motor hums briefly, then won't work:	1. The garage door springs are broken. See above. 2. The trolley may be jammed into the stop bolts. Pull or push on the door while the motor is humming to release the jammed condition. Re-adjust the door limits (page 21) to prevent over-travel. ***Repeat the safety reverse test after the adjustment is complete.*** 3. If the problem occurs on the first operation of the opener, door may be locked. *Disable the door lock*. If the chain was removed and reinstalled, the motor may be out of phase. Remove the chain; cycle the motor to the down position. Observe the drive sprocket. When it turns in a clockwise direction and stops in the down position, re-install the chain. ***Repeat the safety reverse test after the adjustment is complete.***
The opener won't operate due to power failure:	1. Use the manual release rope and handle to disconnect the trolley. The door can be opened and closed manually. When the power is restored, press the Door Control push button and trolley will automatically reconnect (unless trolley is in lockout position. See page 25.) 2. 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.
The chain droops or sags:	1. It is normal for the chain to droop slightly in the closed door position. Use the manual 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, no adjustments are needed (see page 7).

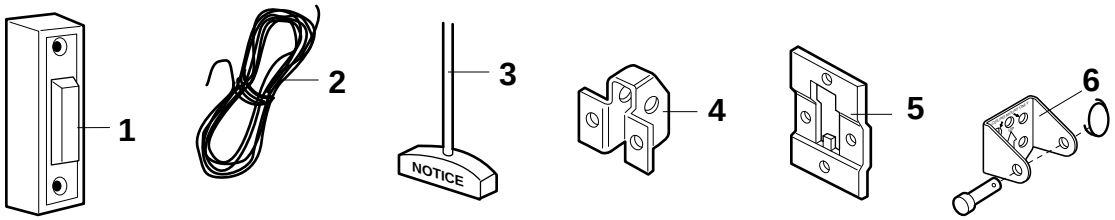
Repair Parts

Rail Assembly Parts

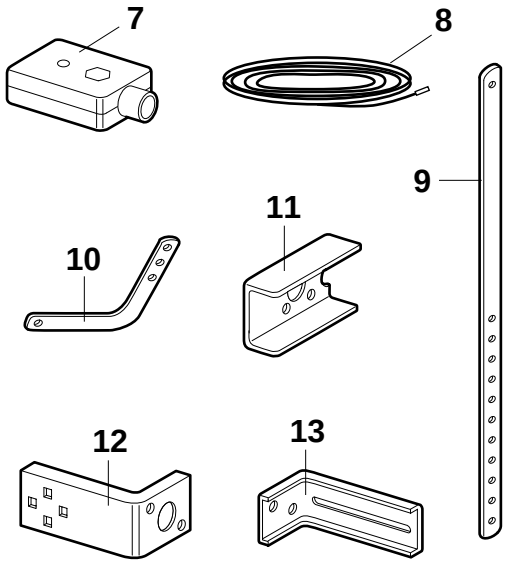


KEY NO.	PART NO.	DESCRIPTION
1	1A995	Master link kit
2	41A2780	Chain pulley bracket
3	41A3489	Complete trolley assembly
4	CD1008	8 Foot Rail Assembly
	CD1010	10 Foot Rail Assembly
	CD1012	12 Foot Rail Assembly
5	83A4	Rail grease

Installation Parts

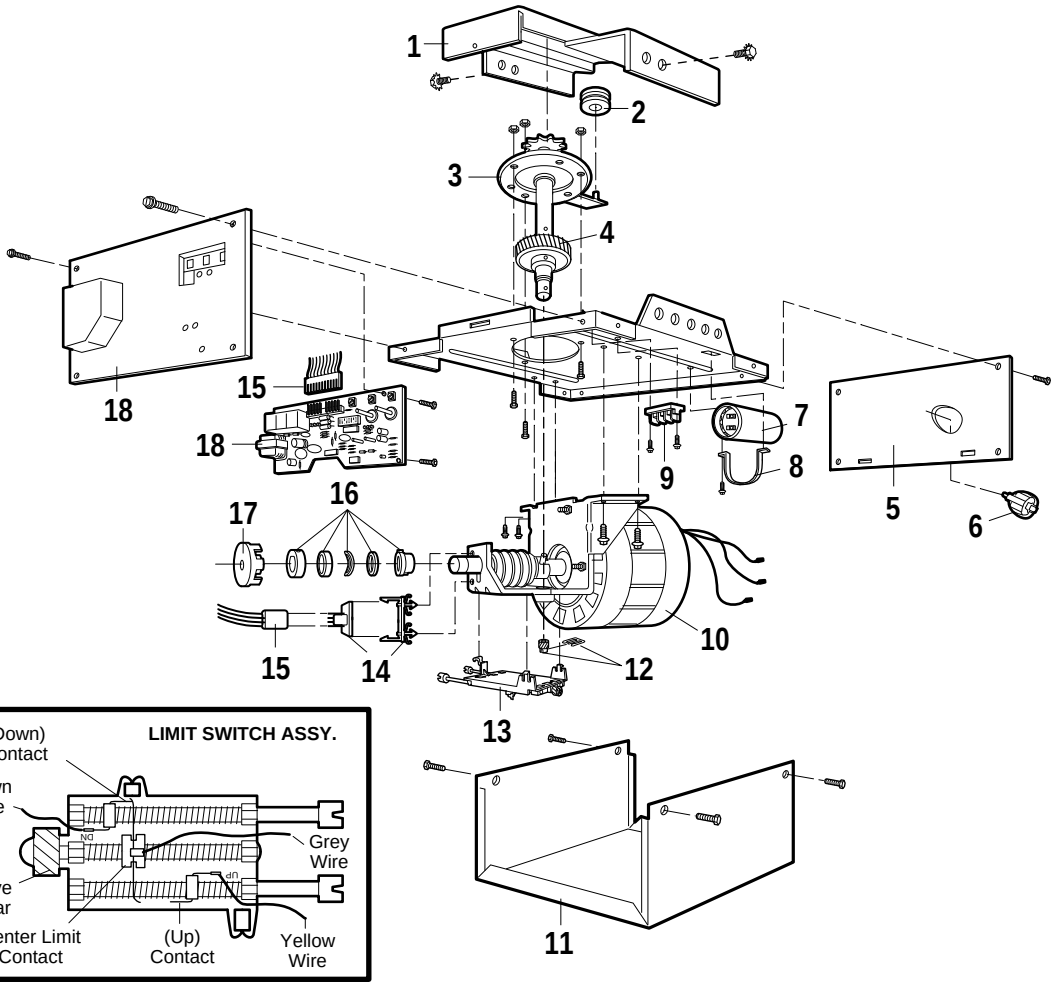


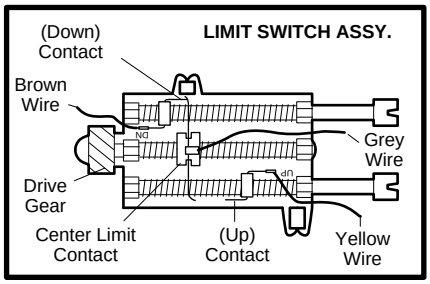
KEY NO.	PART NO.	DESCRIPTION
1	41A4166	Door control push button
2	217A238	2-conductor bell wire, white & white/red
3	41A2828	Manual rope & handle assembly
4	12B374	Door bracket
5	12B380	Door bracket plate
6	41A4353	Header bracket w/clevis pin & fastener
7	41A4373	Safety sensor kit (receiving and sending eye only)
8	41B4115	2-conductor wire with connector (2 rolls) white & white/black
9	178B34	Straight door arm section
10	178B35	Curved door arm section
11	12B483	C Wrap bracket
12	12B484	Square hole mounting bracket
13	12B485	Slotted mounting bracket
		NOT SHOWN
	41A3535	Installation hardware bag (includes hardware listed on page 5).
	41A4116	Safety sensor hardware
	114A1648	Owner's manual



Repair Parts

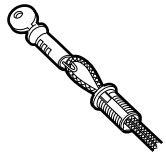
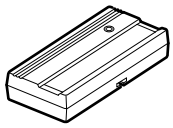
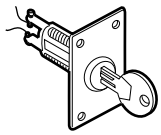
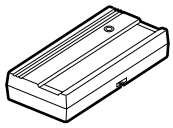
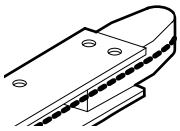
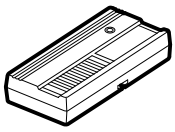
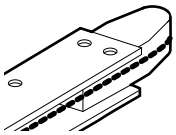
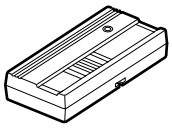
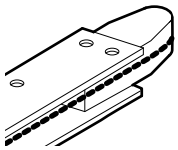
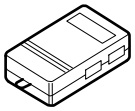
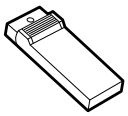
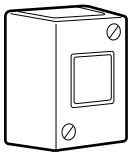
Opener Assembly Parts





KEY NO.	PART NO.	DESCRIPTION
1	41D4478	Rail support bracket assembly kit
2	144B18	Pulley (Chain)
3	41C4470	Gear and sprocket assy. **Complete with:** Spring washer Thrust washer Retaining washer Bearing plate Roll pins (2) Drive gear and worm gear Helical gear w/retainer and grease Sprocket shaft plate with screws
4	41A2817	Drive/worm gear kit w/grease Roll pins (2)
5	143D146	Front end panel
6	175B88M	Light socket
7	30B432	Capacitor
8	12A461	Capacitor bracket
9	41A3150	Terminal block with screws
10	41D4509	Replacement motor & bracket assembly **Complete with:** Motor, worm, bracket, bearing assembly
11	41A4475	Cover
12	41A2818	Helical gear & retainer w/grease
13	41D3452	Limit switch assembly
14	41C4398	RPM sensor assembly
15	41C4246	Wire harness assembly w/plug
16	41A2826	Shaft bearing kit
17	41A2822	Interruptor cup assembly
18	41A4252-7A	Receiver logic board assembly **Complete with:** Logic board, end panel with all labels
		NOT SHOWN
	41A2825	Opener assembly hardware kit (includes screws not designated by a number in illustration).

Accessories Available for your Opener

Model 1702 	**Outside Quick Release:** *Required* for a garage with NO access door.	**Model 81LM** 	**"Smart" Remote Control:** Includes visor clip.
Model 60 	**Outside Keylock:** Opens the garage door automatically from outside when remote control is not handy.	**Model 61LM** 	**Single-Function Standard Size Remote Control:** Includes visor clip.
Model CD1008 	**8 foot Complete Rail and Chain Assembly:** To allow an 8 foot door to open fully.	**Model 62LM** 	**2-Channel Remote Control:** Includes visor clip.
Model CD1010 	**10 foot Complete Rail: and Chain Assembly** To allow a 10 foot door to open fully.	**Model 63LM** 	**Multi-Function Standard Size Remote Control:** Includes visor clip.
Model CD1012 	**12 foot Complete Rail: and Chain Assembly** To allow a 12 foot door to open fully.	**Model 64LM** 	**Multi-Function Mini Remote Control:** With key ring & Velcro fastening strip.
Model 66LM 	**Keyless Entry:** Enables homeowner to operate garage door opener from outside by entering code on specially designed keyboard.	**180C139** 	**NEMA 1 Push Button** Heavy Duty Door Control Push Button (one button).
Model 57LM 	**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.	**41A3504** **Coaxial Cable**	**Antenna Extender Kit:** If the metal environment in which the operator has been installed causes short radio control range, install Antenna Extender Kit, Part No. 41A3504.

Index

LIFT-MASTER SERVICE IS ON CALL

OUR LARGE SERVICE ORGANIZATION SPANS AMERICA

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

1-800-528-9131

HOURS: 7:00 A.M. TO 3:30 P.M.
(Mountain Std. Time)
MONDAY through SATURDAY

For professional installation, parts and service, contact your local LIFT-MASTER/ 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.
Parts and Service Department
2106 N. Forbes Boulevard
Tucson, Arizona 85745

SERVICE INFORMATION
TOLL FREE NUMBER:

1-800-528-9131

LIFT-MASTER GARAGE DOOR OPENER ONE-YEAR LIMITED WARRANTY

The Chamberlain/Lift-Master warrants to the first retail purchaser of this product that it will be free from any defect in materials and/or workmanship for a period of twelve full months from the date of purchase. The product must be used in complete accordance with Lift-Master's instructions for installation, operation and care.

LIMITED WARRANTY ON MOTOR

Model ATS 211: The motor is warranteed to be free from any defect in materials and/or workmanship for a period of 12 full months (1 year) from the date of purchase.

This warranty does not cover non-defect damage, damage caused by unreasonable use (including abuse, failure to provide reasonable and necessary maintenance, or any alterations to the product), labor charges for dismantling or reinstalling of a repaired or replaced unit or replacement batteries.

If, during the warranty period, the product appears as though it may be defective, **CALL OUR TOLL FREE SERVICE NUMBER BEFORE DISMANTLING IT (1-800-528-9131).** If the product is then alleged to be defective, please send it pre-paid and insured to our Service Center to obtain warranty repair. You will be advised of shipping instructions when you call the number listed above.

Please be sure to include a brief description of the problem and a dated proof-of-purchase receipt with any product that is returned for warranty repair.

Product under warranty, which upon receipt by Chamberlain/Lift-Master is determined to be defective in materials and/or workmanship, will be repaired or replaced (Chamberlain's option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory rebuild parts at Chamberlain's option.

THE DURATION OF IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. SOME STATES MAY NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

All claims for consequential or incidental damages for breach of this warranty are excluded and in no event shall manufacturer's liability for breach of warranty, negligence, strict liability or breach of contract exceed the cost of the product covered herein, but the purchaser is entitled to the remedies expressly provided in this policy. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

No representative or person is authorized to assume for us any other liability in connection with the sale of this product. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

114A1648D

Printed in Mexico