

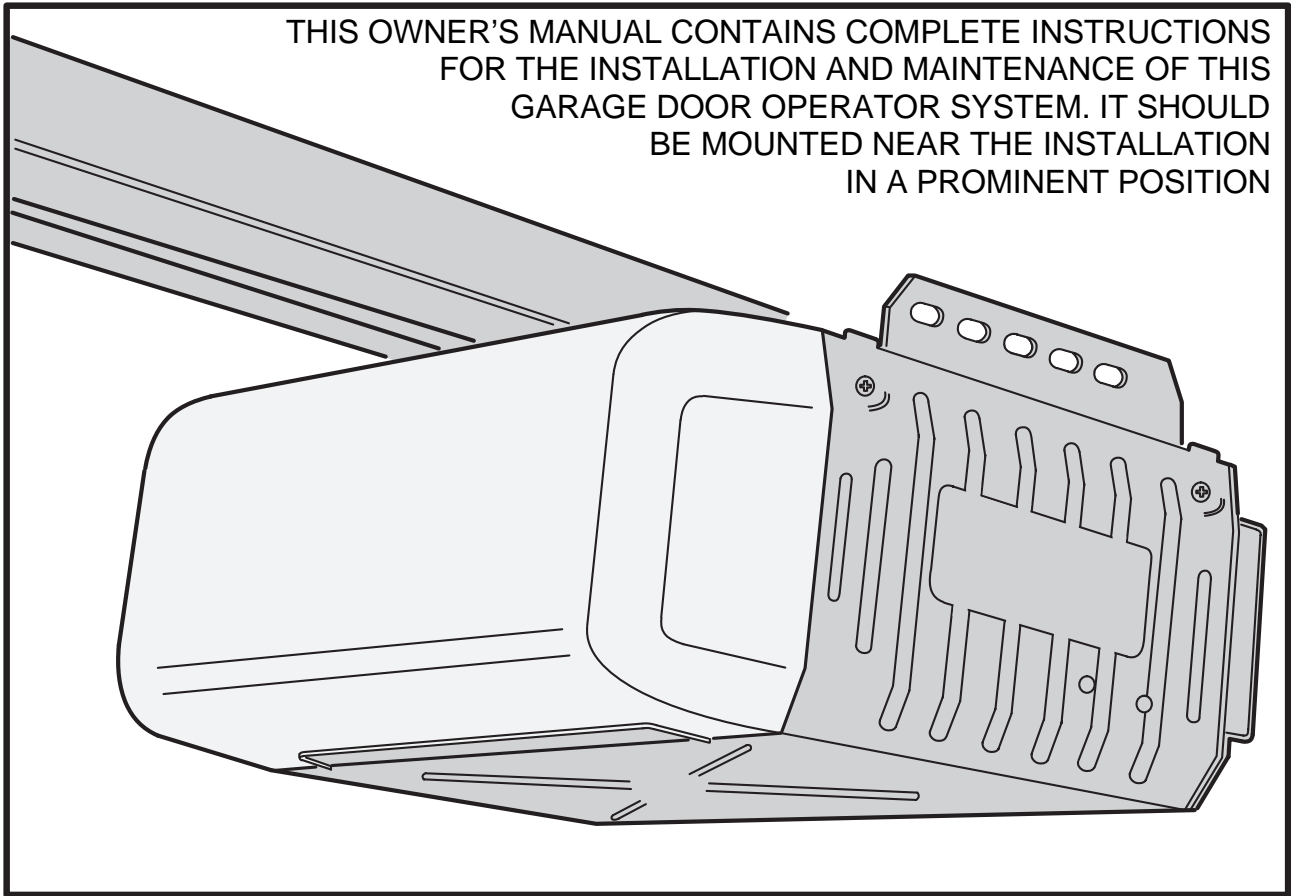
CHAIN-DRIVE GARAGE DOOR OPERATORS

With DoorSentry® Infrared Safety Beam

Models XX325, XX333 & XX350

Assembly and Installation Instructions

THIS OWNER'S MANUAL CONTAINS COMPLETE INSTRUCTIONS FOR THE INSTALLATION AND MAINTENANCE OF THIS GARAGE DOOR OPERATOR SYSTEM. IT SHOULD BE MOUNTED NEAR THE INSTALLATION IN A PROMINENT POSITION



WARNING



*To reduce the risk of injury to persons, install this operator on: **SECTIONAL DOOR** if channel box is labeled **XST**.*



CAUTION



This door operator will require constant pressure on the wall button to close the door unless the infrared emitter and detector are installed and properly aligned.

MOORE O MATIC

Quality Garage Door Operators with Linear Radios
(800) 421-1587

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IMPORTANT SAFETY NOTES

Please read the instructions carefully! This garage door operator is designed to provide safe and reliable service if installed and tested as described in this manual. A garage door is the largest mechanical appliance in a residence. Care must be taken to prevent injury or death during installation and operation of the garage door and garage door operator.

The following formats are used for safety notes in this manual:



WARNING

This type of warning note is used to indicate possible mechanical hazards that may cause serious injuries or death.



WARNING

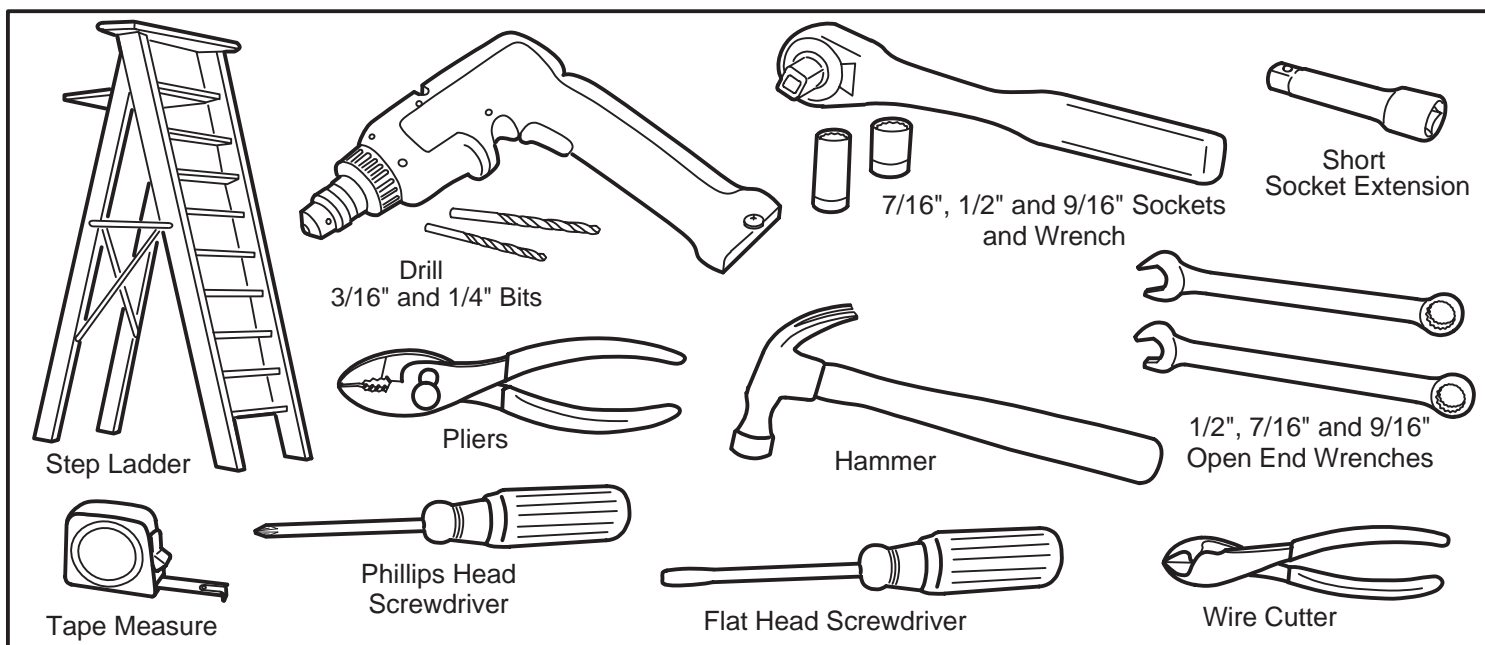
This type of warning note is used to indicate possible electrical shock hazards that may cause serious injuries or death.



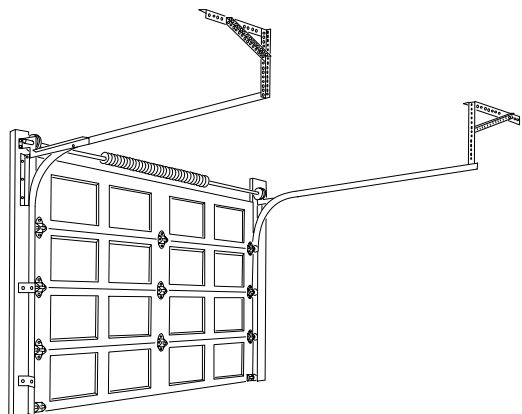
CAUTION

This type of warning note is used to indicate the possibility of damage to the garage door or garage door operator.

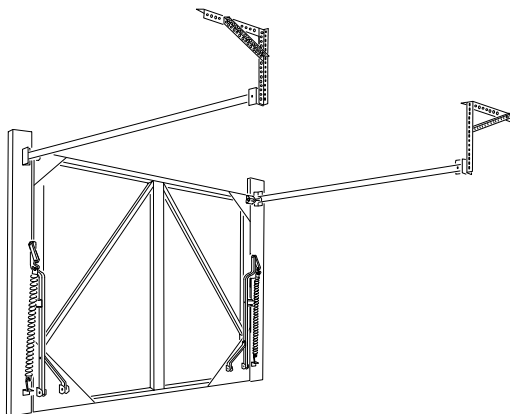
INSTALLATION TOOLS REQUIRED



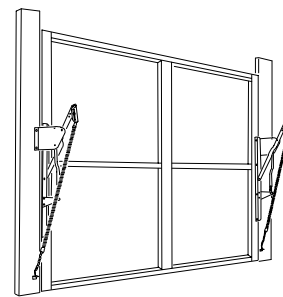
GARAGE DOOR TYPES



SECTIONAL DOOR



ONE PIECE DOOR WITH TRACK



JAMB DOOR

CHECK DOOR BALANCE

For any electric garage door operator to perform safely, it must be installed on a properly balanced garage door. The weight of the garage door is counterbalanced by the garage door spring(s). The springs must be correctly adjusted and the door hardware must be lubricated and in good working order. **Prior to testing, disable lock assembly and remove all ropes.** Before installing the garage door operator, test the operation of the garage door as follows:

- ☞ *Raise the garage door about halfway up. Release your hold on the door and see if the door balances. It shouldn't go up or down on its own.*
- ☞ *Slowly open the door all the way, then close it all the way. Notice if there is any binding, sticking or rubbing caused by the garage door hardware, track wheels or door frame. The door should travel smoothly.*

If the garage door is unbalanced or if the door travel isn't smooth, have a qualified garage door installation professional adjust or repair the door.

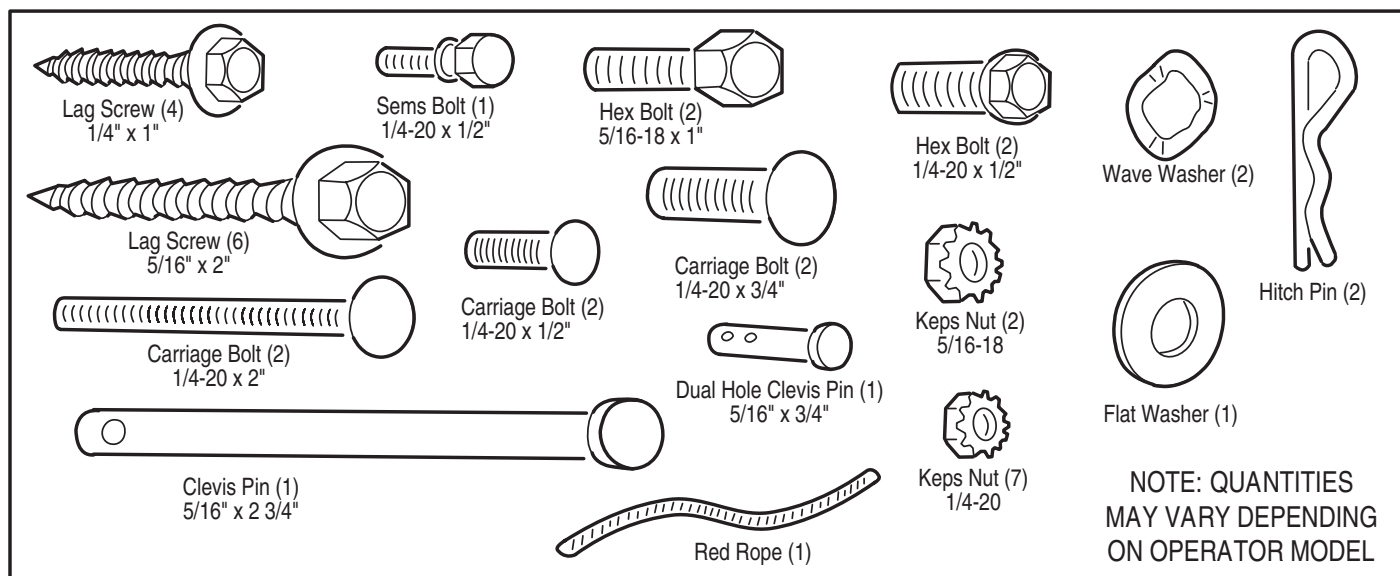
! WARNING! !

The garage door operator must not be installed and used on an unbalanced door. The operator's internal door pressure sensor will not function properly on an unbalanced door. Risk of serious injury or death may result.

! WARNING! !

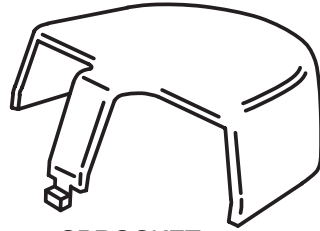
Garage door hardware (springs, cables, brackets, pulleys, etc.) are under extreme pressure and tension. DO NOT ATTEMPT TO LOOSEN, TIGHTEN OR ADJUST ANY DOOR HARDWARE UNLESS YOU ARE A QUALIFIED GARAGE DOOR INSTALLATION PROFESSIONAL!

HARDWARE IDENTIFICATION

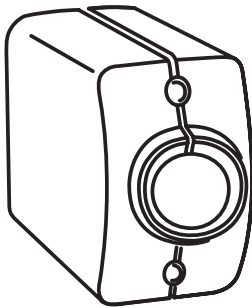


OPERATOR PARTS IDENTIFICATION

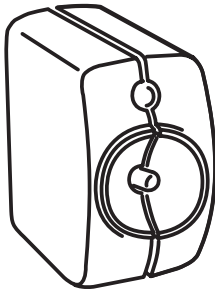
When you unpack the operator, check to ensure it has not been damaged. Make sure all parts have been received before beginning installation. Read all instructions before starting assembly and installation.



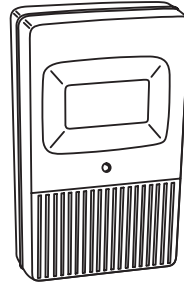
SPROCKET
COVER



DOORSENTRY
DETECTOR



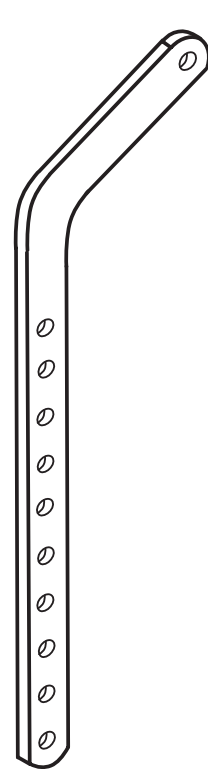
DOORSENTRY
EMITTER



DELTA-3 OR
MEGACODE
TRANSMITTER



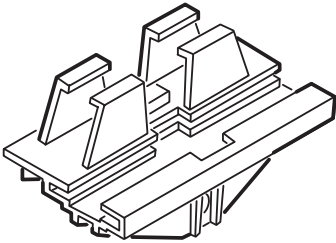
PUSHBUTTON



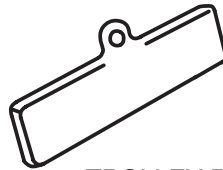
CURVED
DOOR ARM



17" STRAIGHT
DOOR ARM



TROLLEY



TROLLEY RELEASE
HANDLE

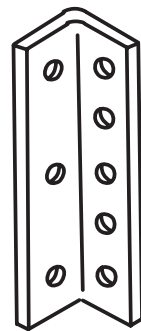


WIRE
CLIPS

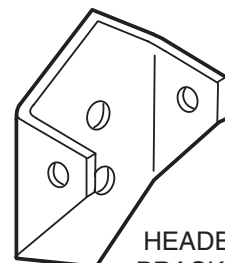


2-CONDUCTOR
WIRE

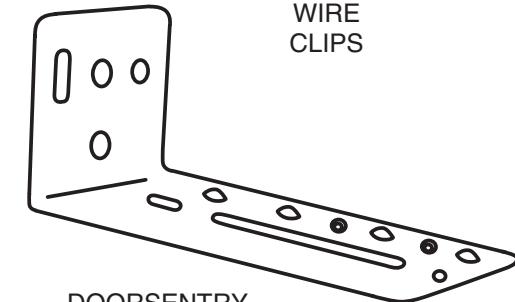
PACKED IN CHANNEL CARTON



SECTIONAL
DOOR BRACKET



HEADER
BRACKET



DOORSENTRY
MOUNTING BRACKET (4)

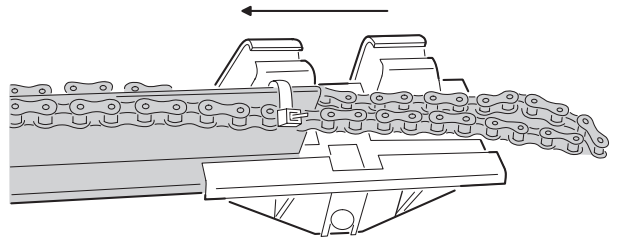
ASSEMBLY STEP 1

Attaching Rail to Operator

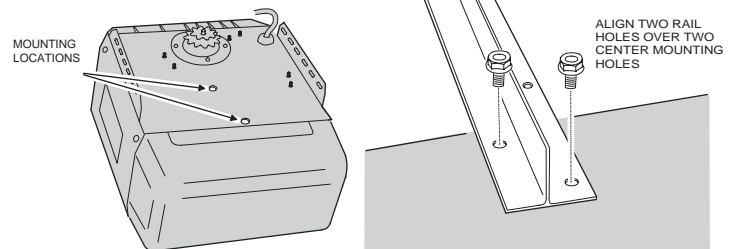
Attaching Rail

- Place operator head on garage floor with cardboard underneath to protect the finish.
- Slide the trolley onto rail with arrow on trolley pointing toward the end with the pulley bracket. Slide trolley down rail until it locks with the clam shell on the chain assembly. The trolley should be 4-1/2" from the pulley mount assembly.

SLIDE TROLLEY ONTO RAIL WITH
ARROW POINTING TOWARDS THE
PULLEY MOUNT BRACKET ASSEMBLY

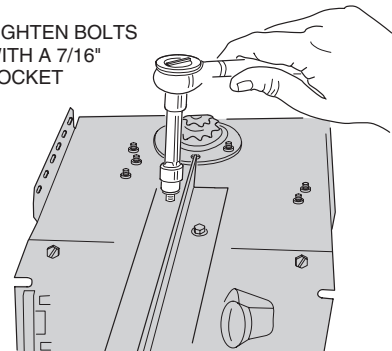


- Align rail over the two diagonal holes on the operator head.



- Install two 1/4-20 x 1/2" bolts and tighten bolts with a 7/16" socket.

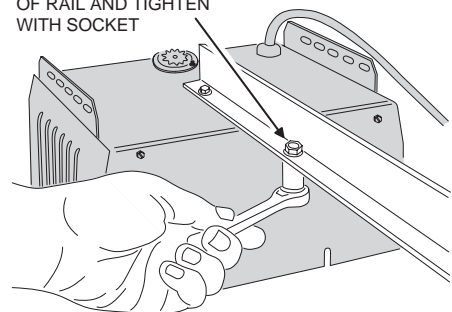
TIGHTEN BOLTS
WITH A 7/16"
SOCKET



- Install 1/4-20 x 1/2" sems bolt into hole in rail near operator head from the bottom of the rail. Secure sems bolt with 1/4-20 keps nut, tighten with 7/16" socket.

☞ **NOTE:** This unit cannot be used with Moore-O-Matic's "L" type rail.

INSTALL SEMS BOLT FROM BOTTOM
OF RAIL AND TIGHTEN
WITH SOCKET



ASSEMBLY STEP 2

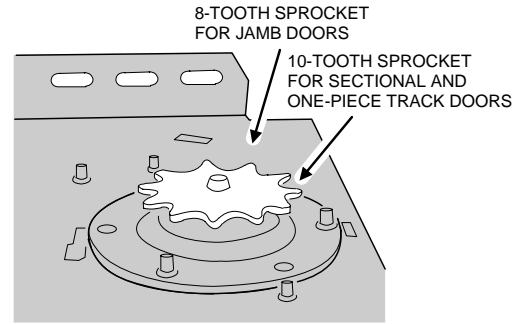
Attaching Chain to Sprocket

Sectional Operators: Operators for sectional doors and one-piece track doors have a 10-tooth sprocket.

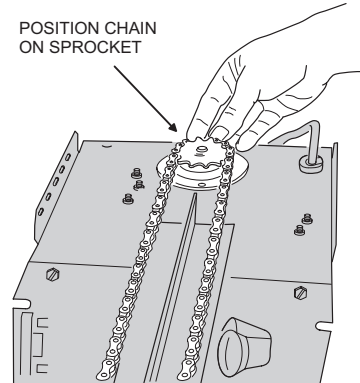
Jamb Operators: Operators for jamb doors have an 8-tooth sprocket.

☞ **NOTE:** To prevent upsetting the pre-adjusted door limits in the operator, keep the trolley at the same place on the rail until the chain is mounted on the sprocket.

- ❑ Cut the zip-tie that secures the chain assembly to the rail. Do not cut the second zip-tie until the chain is mounted on the sprocket.



- ❑ Pull chain from rear of rail and position it on the sprocket.
- ❑ Cut the second zip-tie holding the chain.



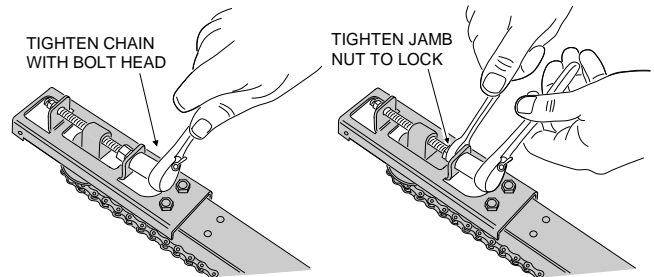
ASSEMBLY STEP 3

Adjusting Chain and Installing Sprocket Cover

The chain is adjusted by turning the long bolt at the front end of the rail with socket wrench, a 9/16" socket and a short socket extension.

Adjusting chain

- ❑ Tighten chain with bolt head turning counter clockwise.

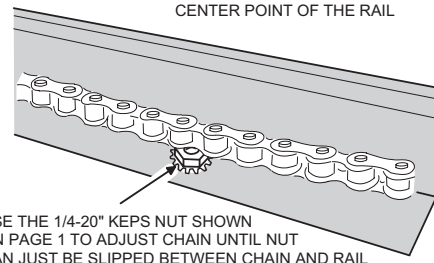


- ❑ Tighten until a 1/4-20" keps nut can just be slipped between chain rail. (Use the 1/4-20" nut shown on page 1 in Hardware Identification illustrations.)

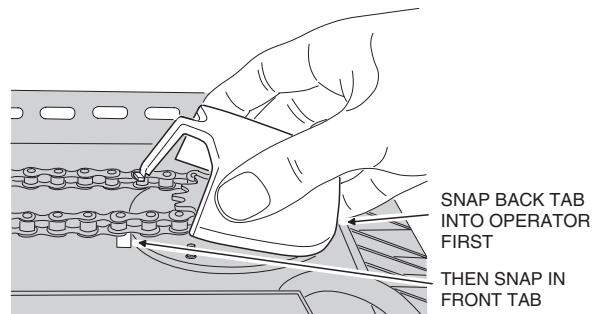
- ❑ Tighten jamb nut to lock adjustment.

☞ **NOTE:** It is normal for the chain to have a small amount of slack. A chain too tight or too loose will cause excessive sprocket noise and wear.

NOTE: CHECK SPACING AT THE CENTER POINT OF THE RAIL



- ❑ Align the sprocket cover over the sprocket and chain.
- ❑ Snap the sprocket cover into place.



WARNING

Sprocket cover must be snapped in place before operator is connected to power. Keep all fingers, arms, legs, face, and clothing away from all moving parts.

IMPORTANT INSTALLATION SAFETY INSTRUCTIONS



WARNING



*To reduce the risk of severe injury or death to persons,
review these installation safety steps before proceeding:*

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 operator.
3. Disable all locks and remove all ropes connected to the garage door before installing the operator. *Ropes connected to a garage door can cause entanglement and death.*
4. If possible, install door operator 7 feet or more above floor with the emergency release handle mounted 6 feet above the floor.
5. Do not connect the operator to the power source until instructed to do so.
6. Locate the wall station within sight of the door at a minimum height of 5 feet so that small children cannot reach it. Locate the wall station away from all moving parts of the door.
7. Install the User Safety Instruction Label (shown below) on the wall adjacent to the wall station.
8. Upon completion of the installation, the door must reverse when it comes in contact with a 1 1/2" high object (or a 2x4 laid flat) on the floor or when the DoorSentry infrared safety beam is blocked.
9. Do not wear watches, rings or loose clothing while installing or servicing an operator. Jewelry or loose clothing can be caught in the mechanism of the garage door or the operator.
10. Disconnect the electric power from the garage door operator before making any repairs or removing the cover.

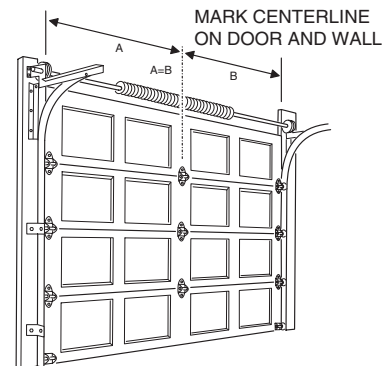


**Example of User Safety
Instruction Label**

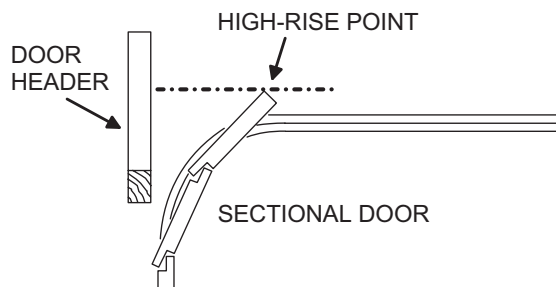
INSTALLATION STEP 1A

Sectional Door and One-piece Track Door Header Bracket Location

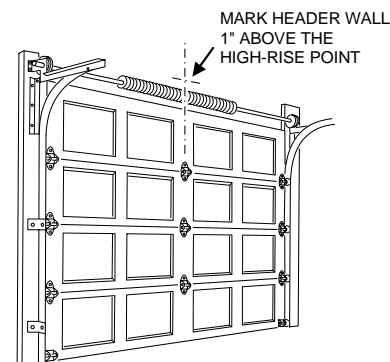
- ❑ Verify that the door type is a sectional or one-piece track door from the illustration of the three garage doors on Page 1. If the door is a trackless door, go to Installation Step 1B.
- ❑ Close the door.
- ❑ From inside the garage, use a pencil to mark the vertical center line of the door on header wall and on the top panel of the door.
- ❑ Examine the area above the center of the door on the door header wall for a header bracket mounting location.



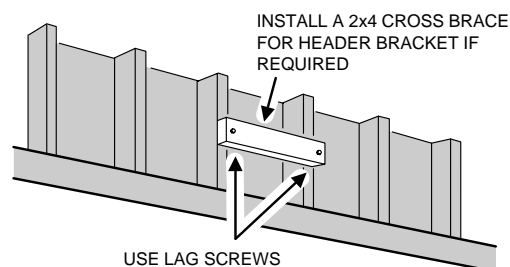
- ❑ Open the door to the high-rise point (the point where the top edge of the door is highest above the floor) and measure the distance to the floor with a tape measure.



- ❑ Close the door and use a pencil to mark the header wall 1" higher than the high-rise point distance measured.

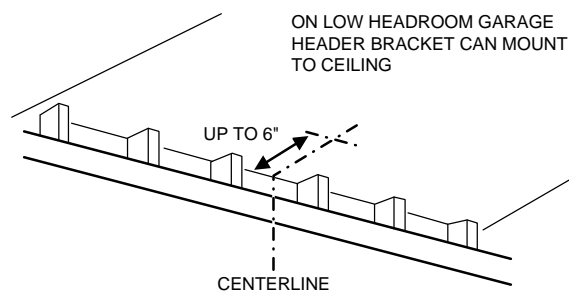


- ☞ **NOTE:** In some installations, the high-rise point plus 1" will be higher than the door header. This will require adding a 2x4 (or larger) cross piece to the wall studs to provide a mounting location for the header bracket. Use lag screws (not supplied) to attach the 2x4 to the studs.



- ❑ On sectional doors with low headroom, the header bracket can be attached to the ceiling up to 6" back from the header wall (see Installation Step 2).

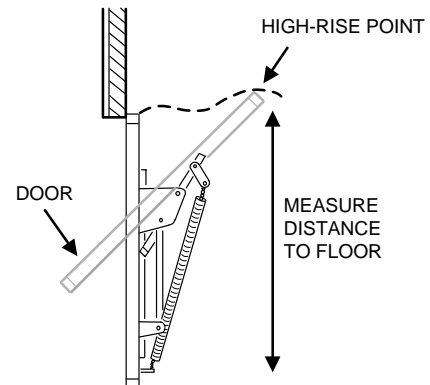
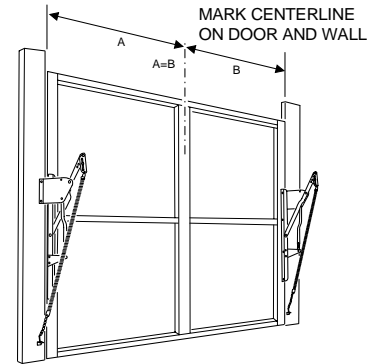
SKIP TO INSTALLATION STEP 2



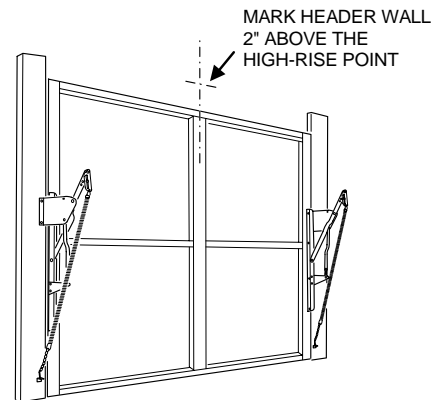
INSTALLATION STEP 1B

One-piece Door without Track Header Bracket Location

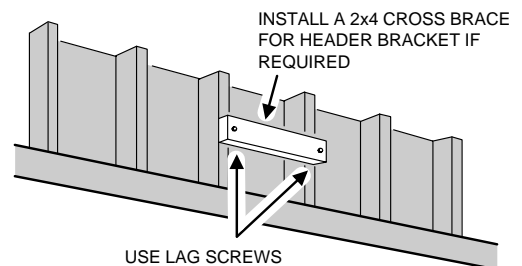
- Verify your door type is a one-piece door without a track from the illustration of the three garage doors on Page 1.
- Close the door.
- From inside the garage, use a pencil to mark the vertical center line of the door on header wall and on top of door.
- Examine the area above the center of the door on the door header wall for a header bracket mounting location.
- Open the door to the high-rise point (the point where the top edge of the door is highest above the floor) and measure the distance to the floor with a tape measure.



- Close the door and use a pencil to mark the header wall 2" higher than the high-rise point distance measured.



☞ **NOTE:** In some installations, the high-rise point plus 2" will be higher than the door header. This will require adding a 2x4 cross piece to the wall studs to provide a mounting location for the header bracket. Use lag screws (not supplied) to attach the 2x4 to the studs.



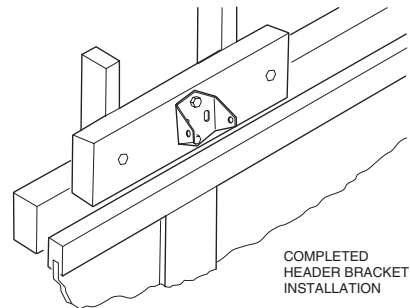
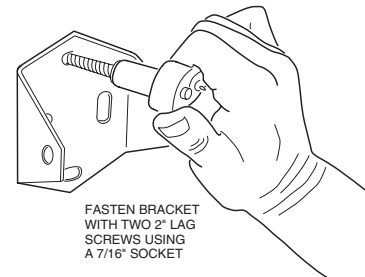
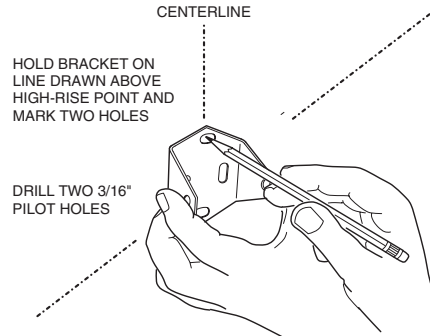
INSTALLATION STEP 2

Installing the Header Bracket

The header bracket can be fastened to the door header wall or to the ceiling. Select the location that suits the installation. A 2x4 cross piece may be required to mount the bracket if a flat mounting surface does not exist.

Attaching Header Bracket to Wall

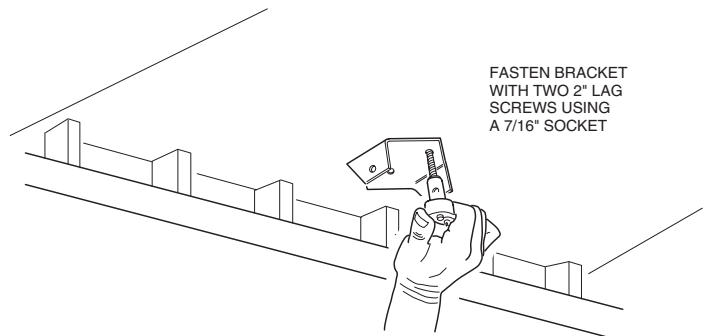
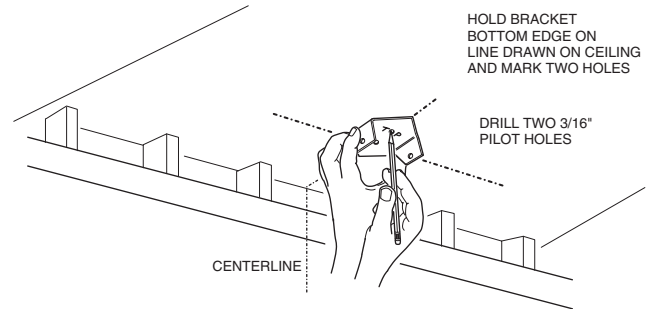
- Hold the header bracket on the center line drawn above the door with the bottom edge of the bracket on the line marked above the high-rise point.
- Use a pencil to mark the centers of two of the bracket holes.
- Drill two 3/16" pilot holes about 2" deep.
- Use a 7/16" socket to fasten the bracket with two 5/16" x 2" lag screws.



Attaching Header Bracket to Ceiling

NOTE: On a finished ceiling, be sure there is a joist to fasten to under the sheet rock where the header bracket will be located (use a stud finder). If there is none, install a 2x4 cross piece between the two closest joists to fasten the header bracket onto.

- Extend the center line drawn on the header wall along the ceiling.
- Hold the header bracket on the center line with the edge of the bracket no further than 6" from the header wall.
- Use a pencil to mark the centers of two of the bracket holes.
- Drill two 3/16" pilot holes about 2" deep.
- Use a 7/16" socket to fasten the bracket with two 5/16" x 2" lag screws.



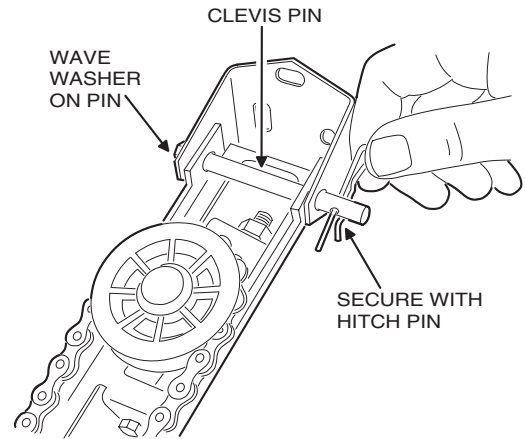
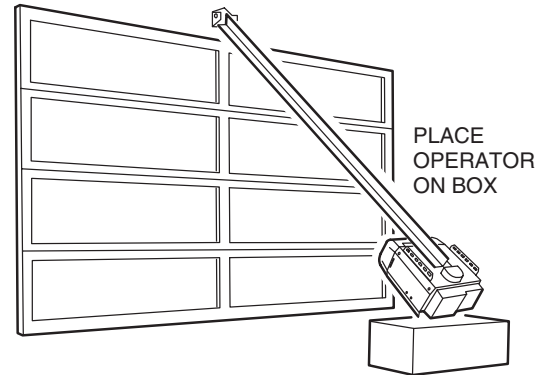
INSTALLATION STEP 3

Connecting Rail to the Header Bracket

- Place assembled operator on the empty carton on the floor with rail towards the door.
- ☞ **NOTE:** If door is equipped with a torsion spring it may be necessary to place the operator head on a ladder so the rail will clear the spring.

Connecting Rail to the Header Bracket

- Place wave washer on clevis pin.
- Insert the end of the rail into header bracket.
- Insert the 5/16" x 2-3/4" clevis pin through header bracket and T-rail.
- Secure the clevis pin with the hitch pin.

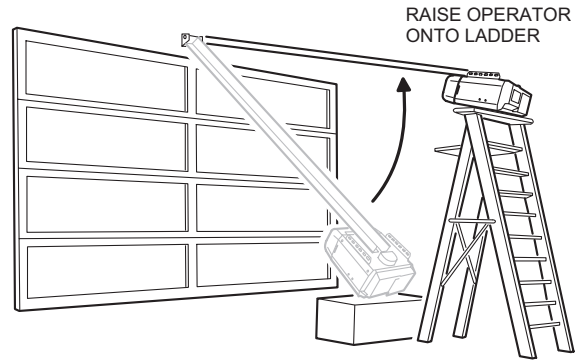


INSTALLATION STEP 4

Positioning the Operator

Sectional & One-piece Doors with Track

- Raise the operator head and set it on top of a stepladder (use extra spacers on top of ladder if it isn't tall enough).

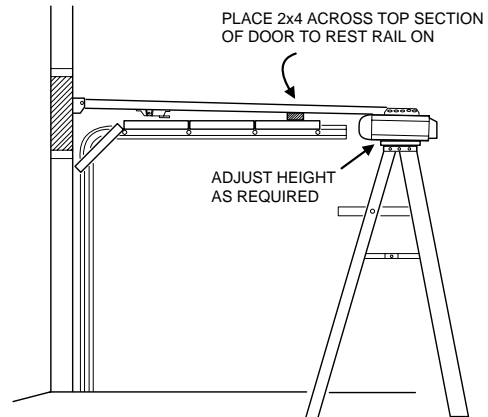


- Carefully open the door to the full up position. Be sure the rail and trolley clears the door.
- Lay a 2x4 across the top section of the door to rest the rail on.



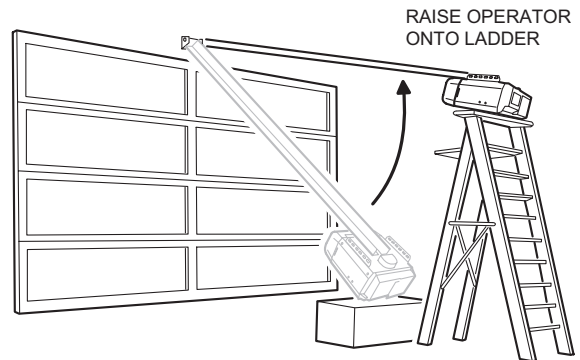
Do not rest the operator on the door without using the 2x4 spacer. Damage may occur to the door.

- ☞ **NOTE:** The 2x4 spacer protects the door as well as providing the correct amount of space between the door and rail for hanging the operator.

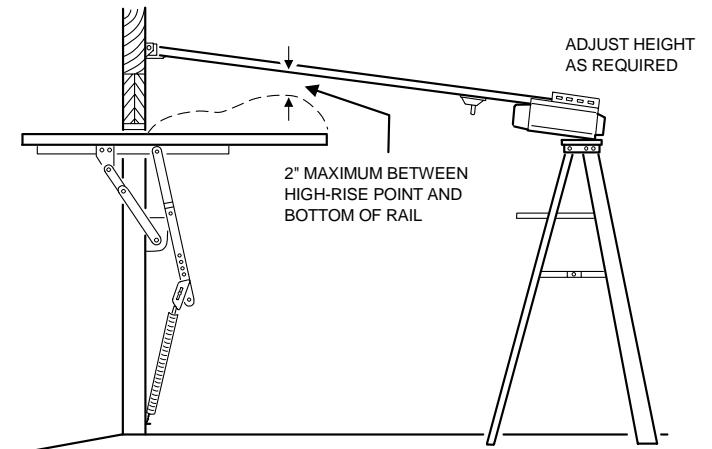


One-piece Doors without Track

- Raise the operator head and set it on top of a stepladder (use extra spacers on top of ladder if it isn't tall enough).



- Carefully open the door, noting when the door goes past the high-rise point. Stop the door at the high-rise point if possible.
- Raise or lower the operator head until the rail clears the top of the door by about 2" at the high-rise point of the door.
- Support the operator at the point determined above until it can be hung (next step).



INSTALLATION STEP 5

Hanging the Operator

Installation requirements vary with garage construction. Hanging brackets should be angled to provide rigid support. **Hanging material is not provided.** Angle iron and lag screws are recommended. Following are typical operator hanging methods. Certain installations will require improvised methods.

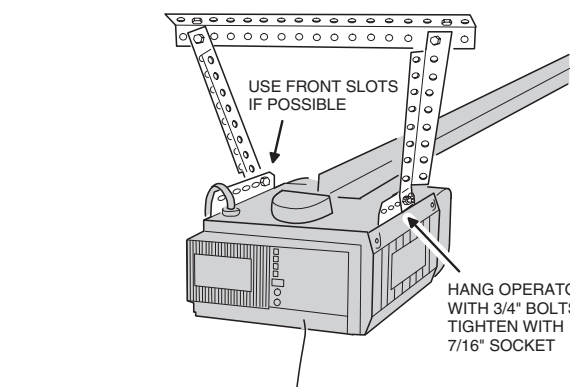
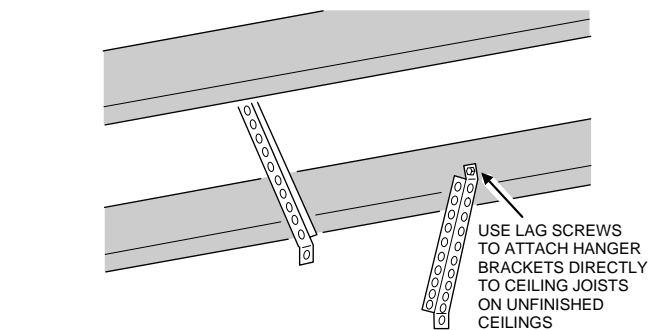
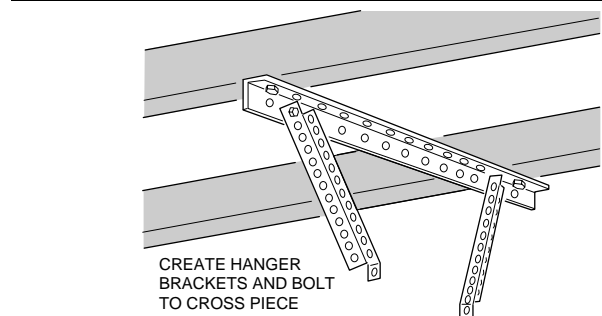
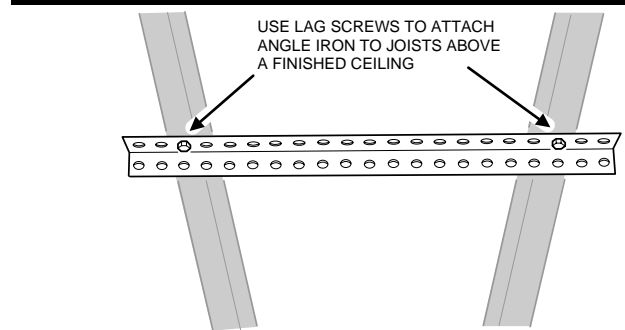
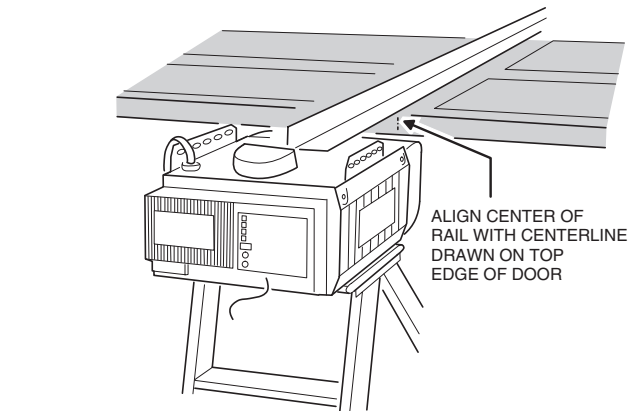


WARNING



The operator must be fastened securely to the garage structure. Always use lag screws (not nails) when fastening the hardware to the structure. If the operator is not properly secured, it could fall, causing personal injury or property damage.

- ❑ Center operator head and rail with center line mark on the top of the door.
- ❑ *On finished ceilings*, an angle iron cross piece between the two closest joists above the operator will be required. Mark mounting hole locations, drill 3/16" pilot holes and attach the piece with two 5/16" x 2" lag screws using a 7/16" socket.
- ❑ Measure the distance from each of the operator hanging tabs to the structural support or angle iron cross piece.



- ❑ Cut two angle iron pieces to the required lengths for hanging brackets. Bend brackets if required.
- ❑ *On unfinished ceilings*, hold each bracket in place and use a pencil to mark the locations where they will be attached to the joists, drill 3/16" pilot holes and attach the pieces with two 5/16" x 2" lag screws using a 7/16" socket.
- ❑ *On finished ceilings with an angle iron cross piece*, attach the two hanging brackets to the cross piece with two 1/4-20 x 3/4" bolts and two 1/4-20 keps nuts (not provided).
- ❑ Attach operator to hanging brackets using two 1/4-20 x 3/4" carriage bolts and two 1/4-20 keps nuts. Insert bolts from the inside of hanger brackets with the nuts on the outside of the operator.
- ❑ Tighten all nuts with a 7/16" socket.
- ❑ Open and close the door manually. The door should clear the rail by at least 1 inch.

☞ **NOTE:** For best balance, mount the hanging brackets to the operator mounting slots closest to the front (lamp end) of the operator.

☞ **NOTE:** Operators installed on one-piece doors without a track will be at a slight angle. The operator head should be lower than the header bracket.

INSTALLATION STEP 6

Installing the Pushbutton



WARNING

Children operating or playing with a garage door operator can injure themselves or others. The garage door could close and cause serious injury or death. Do not allow children to operate the wall station or the remote control transmitters.

Install the pushbutton out of reach of children and away from all moving parts of the door. The door must be clearly visible from the pushbutton.

A moving garage door could injure someone under it. Only activate the door when it is properly adjusted, when it can be seen clearly, and when there are no obstructions to the door travel.

NOTE: A standard pushbutton is supplied with the operator. An optional 3-function wall station (Model XX-WS) with light control and vacation lock can also be used with this operator (see Operator Accessories page).

- ❑ Strip 1/4" of insulation from one end of the 2-conductor wire supplied with the operator.
- ❑ Connect the wires to the two terminals on the back of the pushbutton. With the standard pushbutton, polarity of the wires is unimportant.
- ❑ Select a convenient location for mounting the pushbutton near an access door. **The door must be clearly visible from the wall station.** Use the screws provided to mount the pushbutton at a minimum height of 5 feet, where children cannot reach it and away from all moving parts of the door.



CAUTION

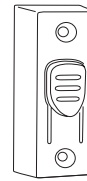
Be careful to route the wiring away from any moving parts of the door, gear or track mechanism.

- ❑ Route the wire to the back of the operator. Use staples to secure the wire. **Staples must straddle both wires to avoid electrical shorts.**
- ❑ Cut the wire, leaving about 6" slack, strip back each conductor about 1/4".
- ❑ Connect the one wire to the COMMON pushbutton terminal and the one wire to the PUSHBUTTON terminal on the back of the operator.
- ❑ Apply the User Safety Instruction Label to the wall next to the pushbutton. Use staples or tacks to help the label remain in place over time.

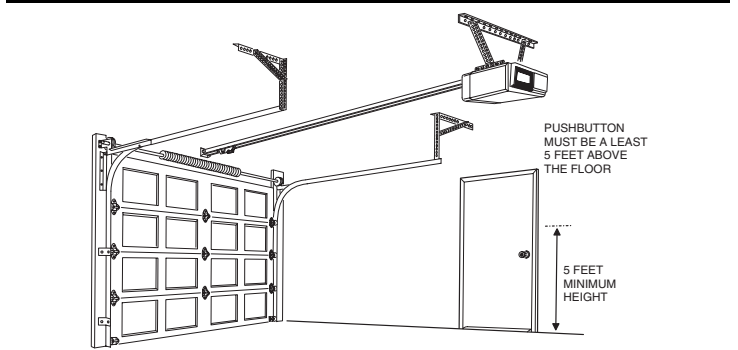


WARNING

DO NOT PLUG THE OPERATOR IN AT THIS TIME! More installation is required.

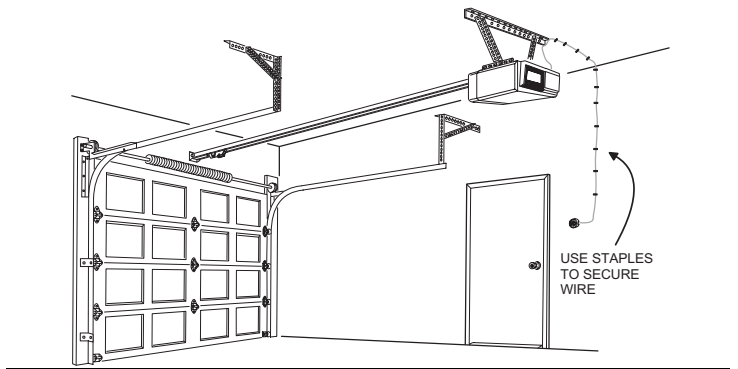


PRESS BUTTON AT ANY TIME DURING DOOR MOTION TO STOP THE DOOR

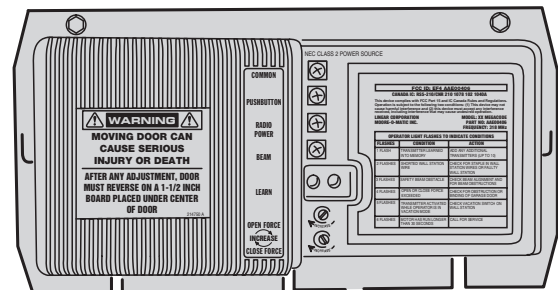


PUSHBUTTON MUST BE AT LEAST 5 FEET ABOVE THE FLOOR

5 FEET MINIMUM HEIGHT

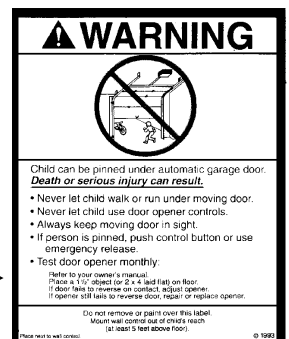


USE STAPLES TO SECURE WIRE



IMPORTANT!

Apply the User Safety Instruction Label to the wall next to the pushbutton.



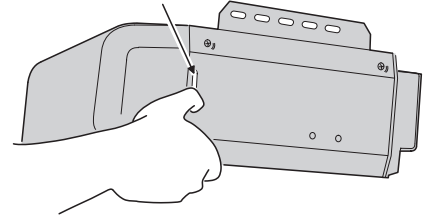
INSTALLATION STEP 7

Installing the Lens Cover and Light Bulb

The plastic lens cover protects the light bulb and diffuses the light from the bulb.

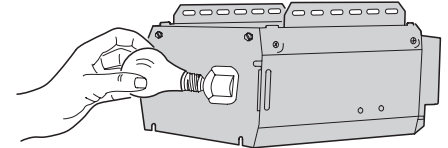
- Press tab to release lens (it may be slightly difficult the first time it is opened). The lens is hinged on one side so it will not come off completely.

PRESS TAB TO
RELEASE LENS

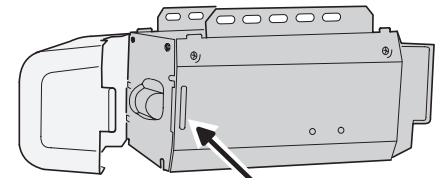


- Install a 75 watt maximum rough service in the lamp socket.

INSTALL 75 WATT
ROUGH SERVICE
LIGHT BULB



- Swing the lens closed, snapping it shut.



SWING LENS CLOSED

SNAP TAB IN SLOT

INSTALLATION STEP 8

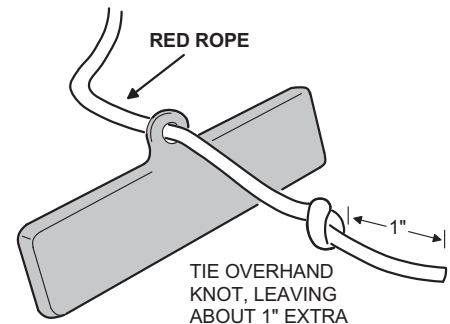
Attaching the Trolley Release Handle

The trolley release handle is used to disengage the operator from the garage door. It can be used during power failures to allow manual operation of the door.

- Thread one end of the red rope supplied through the hole in the red plastic trolley release handle. Tie an overhand knot in the rope so it won't slip through the hole.
- Thread the other end of the red rope through the hole in the trolley release lever. Adjust the length so that the handle is at least 6' above the floor. Tie an overhand knot in the rope so it won't slip through the hole.
- Cut off excess rope. Seal the cut with a match or lighter to prevent unraveling of the rope.

☞ **NOTE:** Both knots should be about 1" from the ends of the rope to prevent slippage.

RED ROPE



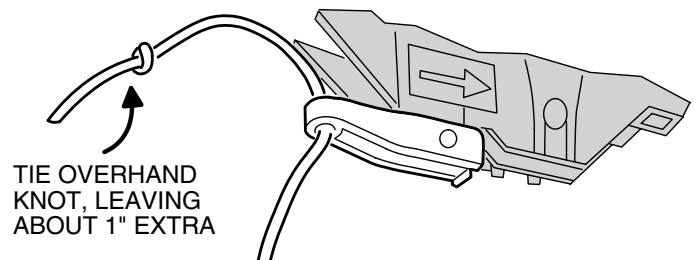
TIE OVERHAND
KNOT, LEAVING
ABOUT 1" EXTRA



WARNING



Remove all pull ropes from the door. Do not use the trolley release handle to pull the door up or down. Use the trolley release only to disengage the door and, if possible, only when the door is in the down position. An unbalanced door could fall if the trolley release is pulled when the door is up.



TIE OVERHAND
KNOT, LEAVING
ABOUT 1" EXTRA

INSTALLATION STEP 9

Installing the DoorSentry® Infrared Safety Beam

The DoorSentry consists of two units, an infrared emitter and an infrared detector. The emitter constantly sends a narrow infrared beam to the detector. If the door is moving down, and an obstacle interrupts the beam, the DoorSentry will stop the door and reverse it causing the door to go up.

If the door is up and there is an obstacle interrupting the beam, or the DoorSentry is not aligned, the radio transmitter will not function. The operator will only run the door down if constant pressure is applied to the wall station pushbutton.



WARNING

Without a properly installed and adjusted DoorSentry object sensor, persons (particularly children) could be killed by a closing garage door. Read and follow all instructions carefully.

NOTE: The "DoorSentry" must be installed so the path of the light beam is not obstructed by the garage door, door tracks, springs, hinges, rollers or any other part of the door mechanism. It may be necessary to add a piece of wood to the wall at mounting locations to insure proper clearance or for installation on masonry wall construction.

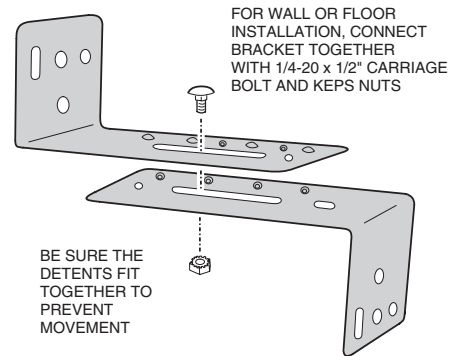


WARNING

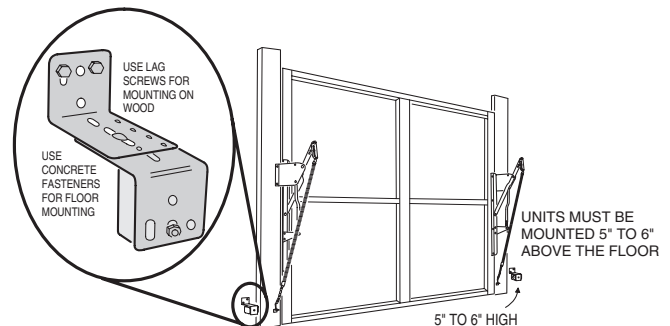
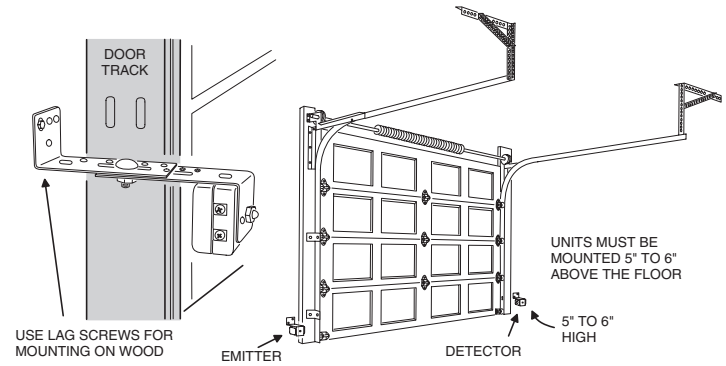
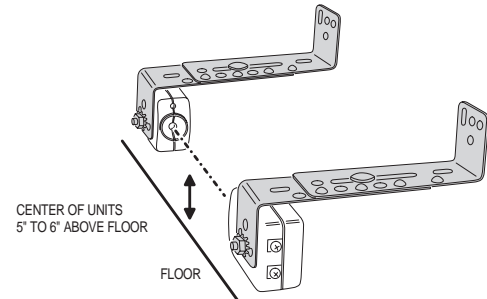
Install the DoorSentry no higher than 5" to 6" from the floor to the center of the emitter and detector to protect small children.

NOTE: The detector must be installed on the "shade" side of the garage door, where sun will not shine directly into the detector lens.

- Assemble the two DoorSentry brackets from the four L-shaped brackets using two 1/4-20 x 1/2" carriage bolts and 1/4-20 keps nuts. Finger tighten hardware only until later adjustment.
- Position detector and emitter on their brackets and secure them with the 1/4-20 keps nuts.
- Position the units at the same height (approximately 5" to 6" above the floor). The clear emitter infrared light must point towards the clear detector lens. Use a pencil to mark the locations for the lag screws for wall or floor mounting.
- Drill 3/16" x 1" pilot hole for lag screw at mark. Mount the brackets with 1/4" x 1" lag screws (or proper concrete fasteners when floor mounting), tighten with a 7/16" socket.



FOR GARAGE WALL OR FLOOR INSTALLATION MOUNT UNITS INSIDE BRACKETS



INSTALLATION STEP 10

Wiring the DoorSentry® Infrared Safety Beam

The DoorSentry system receives power from the operator and sends its control signals back to the operator through two-conductor wire.

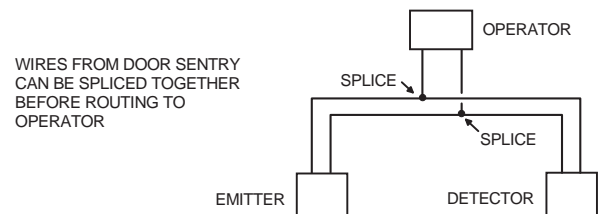
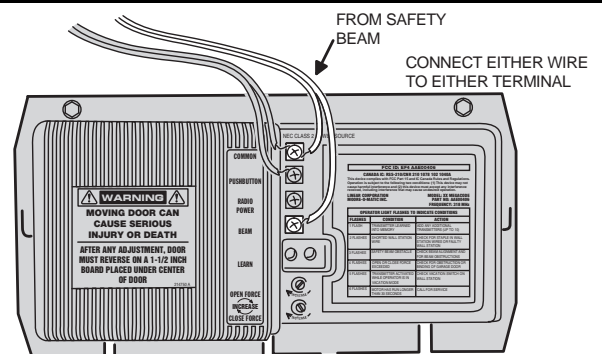
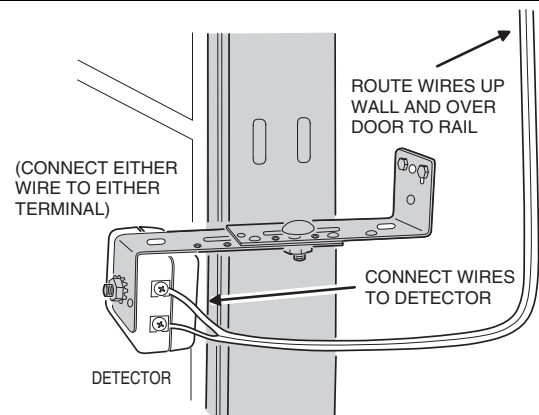
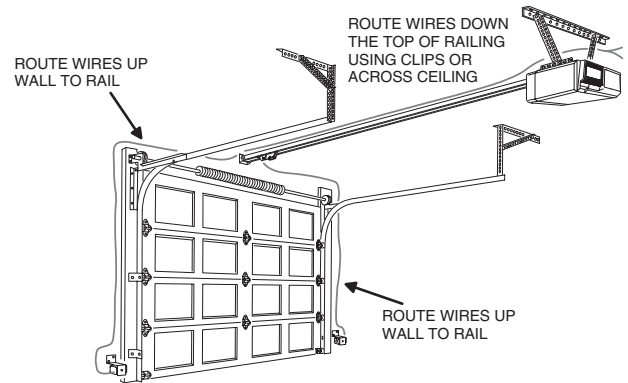
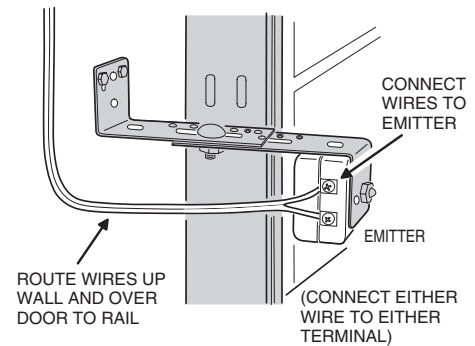
- Strip 1/4" of insulation from the supplied 2-conductor wire. Attach to the terminals on the *emitter*. (Either wire to either terminal.)

CAUTION
Be careful to route the wiring away from any moving parts of the door, gear or track mechanism.

- Route the wires up the wall, halfway over the door, along the top of the rail using the clips supplied or across ceiling to the back of the operator head, leaving about 6" slack.
- Cut the wire. Strip 1/4" of insulation from the wire. Attach to the terminals marked COMMON & BEAM on the back of the operator. (Either wire to either terminal.)
- Strip 1/4" of insulation from the supplied wire. Attach to the terminals on the *detector*. (Either wire to either terminal.)
- Route the wires up the wall, halfway over the door, along the top of the rail using clips supplied or across ceiling and back of the operator head, leaving about 6" slack.
- Strip 1/4" of insulation from the wire. Attach to the terminals marked COMMON & BEAM on the back of the operator operator. (Either wire to either terminal.)

- Secure all the wires to the wall and ceiling with the staples. **Staples must straddle both wires to prevent shorts.**

WARNING
Failure to test and adjust safety reverse system may result in serious injury or death from a closing garage door. Repeat the test once a month and adjust as needed. See Page 19 for adjustment and testing details.



INSTALLATION STEP 11A

Sectional Door, Door Bracket and Door Arm Installation



CAUTION

To prevent damage to steel, aluminum, Fiberglass or glass panel doors, a reinforcement piece must be used when operators are installed on these types of doors. Check with door manufacturer for door reinforcement kit. The reinforcement must be in place before attempting to install the door bracket.

- ❑ From the inside of the door, centered on the top sectional panel, hold the door bracket on the vertical center line drawn on the door with the three-hole side toward the door. Use a pencil to mark the top and bottom holes of the bracket.
- ❑ Drill 1/4" holes at marks and insert two 1/4-20 x 2" carriage bolts from outside of door through the door bracket.
- ❑ Secure door bracket with two 1/4-20 keps nuts. Tighten with a 7/16" socket.

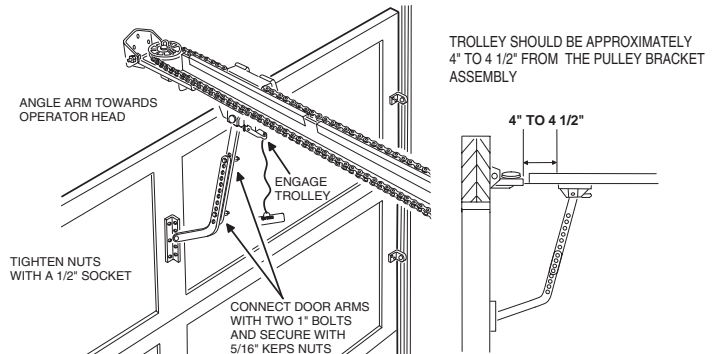
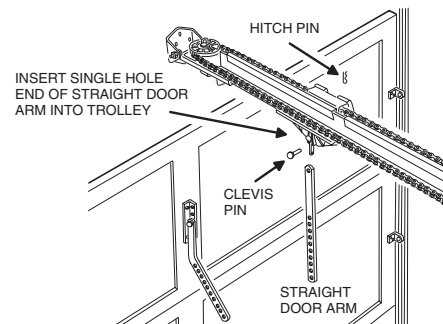
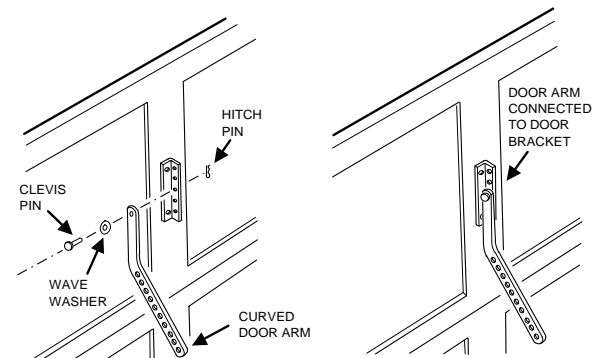
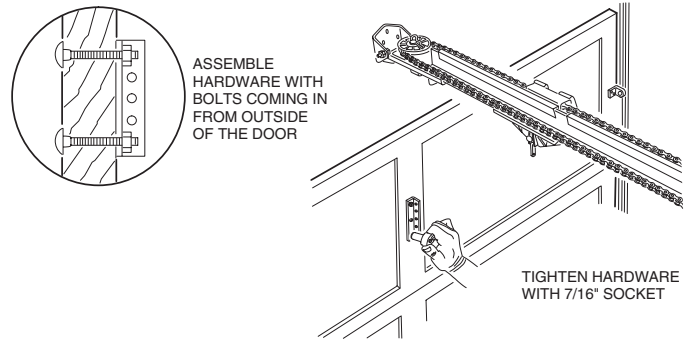
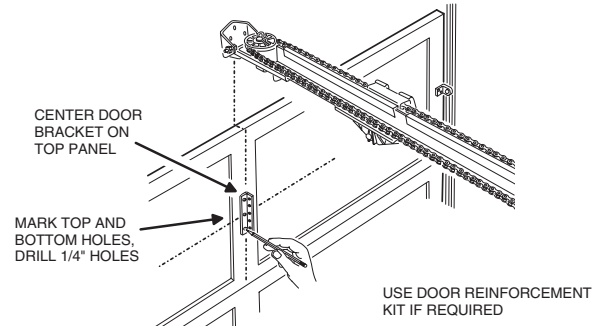
☞ **NOTE:** Self tapping screws may be used in place of carriage bolts on steel doors.

- ❑ Slide wave washer on dual-hole 5/16" x 3/4" clevis pin.
- ❑ Slide clevis pin through the single hole on the end of curved door arm then through center hole on door bracket.
- ❑ Insert the hitch pin clip through the inside hole on clevis pin.
- ❑ Make sure the trolley is disengaged by pulling trolley release handle.
- ❑ Remove clevis pin from trolley. Insert the single hole end of the straight door arm into the slot in the trolley. Slide the clevis pin through the hole and secure it with the hitch pin.
- ❑ Rotate the curved door arm upward to meet the door straight arm connected to the trolley. Align the two door arms so that the holes in both arms overlap.

☞ **NOTE:** The straight door arm should **not** be past vertical. It should be angled towards the operator head. If the holes don't match, slide the trolley toward operator head until a match occurs. Trolley should be approximately 4" to 4 1/2" away from the pulley bracket assembly.

- ❑ Connect the arms together using two 5/16-18 x 1" bolts inserted in the highest and lowest matching holes, secure the bolts with two 5/16" keps nuts, tighten with a 1/2" socket.
- ❑ Move the trolley release lever into the horizontal position.
- ❑ Raise the door manually until the trolley engages the traveler on the chain. It will engage with a snap.

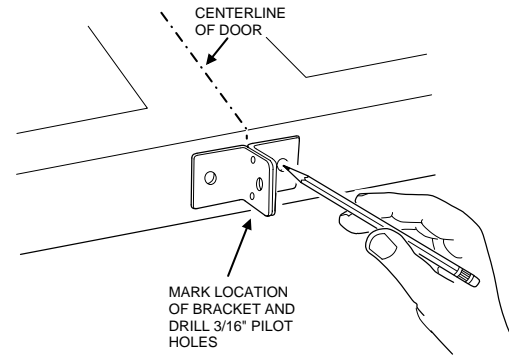
☞ **NOTE:** If door is difficult to raise, pull the door arm toward the operator head while lifting the door.



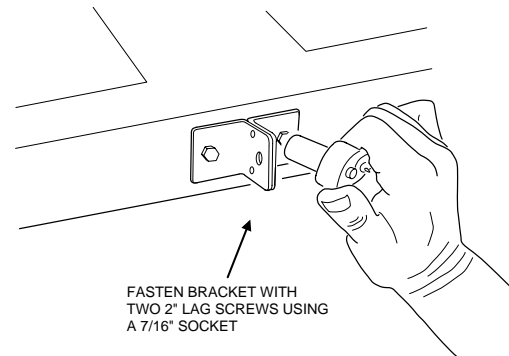
INSTALLATION STEP 11B

One-piece Doors (With and Without Track), Door Bracket and Door Arm Installation

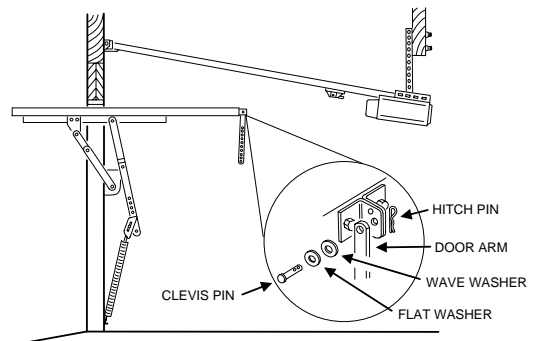
- ❑ Hold the door bracket on the vertical center line drawn on top edge of the door. Use a pencil to mark the two mounting holes of the bracket.
- ❑ Drill 3/16" pilot holes at marks.



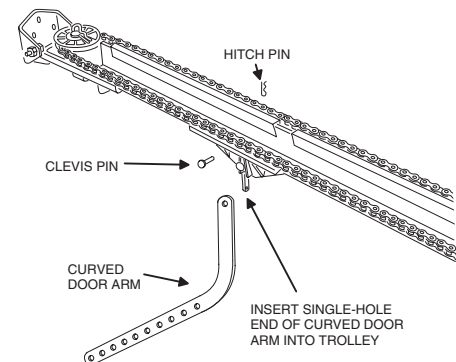
- ❑ Use a 7/16" socket to fasten the bracket to the door with two 5/16" x 2" lag screws.



- ❑ Slide the flat washer onto the dual-hole 5/16" x 3/4" clevis pin.
- ❑ Slide the wave washer onto the clevis pin.
- ❑ Slide the clevis pin through the single hole on the end of the straight door arm then through the hole on door bracket.
- ❑ Insert the hitch pin clip through the outside hole on clevis pin.

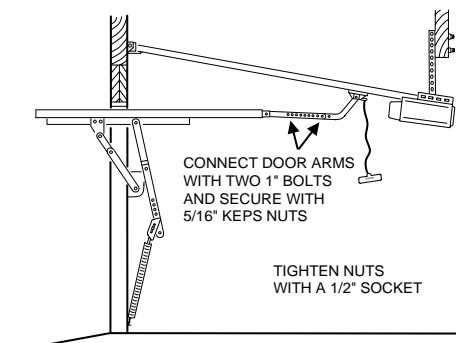


- ❑ Disengage trolley by pulling trolley release handle.
- ❑ Remove clevis pin from trolley. Insert the single hole end of the curved door arm into the slot in the trolley. Slide the clevis pin through the hole and secure it with the hitch pin.



- ❑ Rotate the straight door arm upward to meet the door curved arm connected to the trolley. Align the two door arms so that the holes in both arms overlap.
- ❑ Connect the arms together using two 5/16-18 x 1" bolts inserted in the highest and lowest matching holes, secure the bolts with two 5/16" keps nuts, tighten with a 1/2" socket.
- ❑ Move the trolley release lever into the horizontal position.
- ❑ Raise the door manually until the trolley engages the traveler on the chain. It will engage with a snap.

☞ **NOTE:** If door is difficult to raise, pull the door arm toward the operator head while lifting the door.



INSTALLATION STEP 12

Connecting Operator to Power Source



WARNING

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

Cord and Outlet Connection

The operator should be connected to a grounded receptacle on the ceiling or near the operator head. If none is available which will accept the grounded operator plug, one should be installed by a qualified electrician. **Do not use an extension cord.**



WARNING

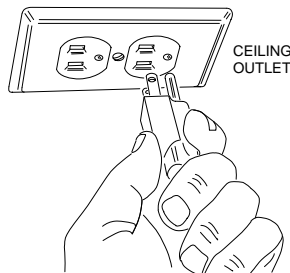
To reduce the risk of electric shock, this operator has a grounding type plug, with a third grounding pin. This plug will only fit into a grounding type outlet. If the plug doesn't fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

- ☐ Plug operator into grounded receptacle.
- ☐ When operator is plugged in, a click should sound in the operator and the light should turn on. If light does not turn on, check the power source and light bulb.

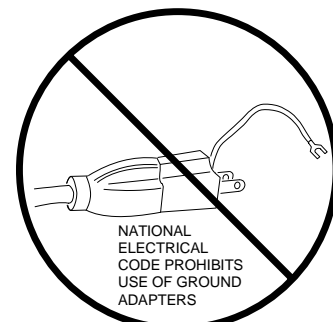
Permanent Wiring

SOME LOCAL ELECTRICAL CODES REQUIRE PERMANENT WIRING TO THE POWER SOURCE THROUGH CONDUIT. IT IS RECOMMENDED THAT YOU HAVE A LICENSED ELECTRICAL CONTRACTOR FOLLOW THESE STEPS ONLY IF PERMANENT WIRING IS REQUIRED.

- ☐ Be sure power cord is disconnected.
- ☐ Cut the power cord about 1" from the strain relief bushing on the operator.
- ☐ Remove the four side screws and bottom cover of operator.
- ☐ Use pliers to remove the strain relief bushing. Discard bushing.
- ☐ Remove the outer insulation from the power cord and strip the white, black and green wire insulation back about 1/4".
- ☐ Pull white (neutral), black (hot) and green (ground) wires through conduit.
- ☐ Connect the conduit to the operator with the appropriate termination.
- ☐ Use wire nuts (not supplied) to connect the wires to the matching color wires inside operator head.
- ☞ **NOTE:** Be sure the wires inside of the operator are clear of the gears and all moving parts.
- ☐ Replace the operator cover and four side screws.
- ☐ Connect conduit wires to power source at junction box.
- ☐ When power is applied to the operator, a click should sound and the light should turn on. If light does not turn on, check the power source, wiring and light bulb.



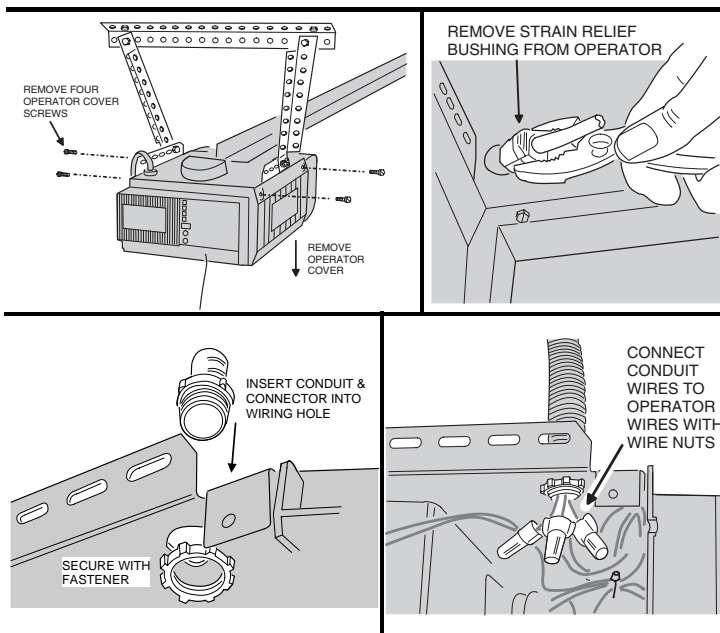
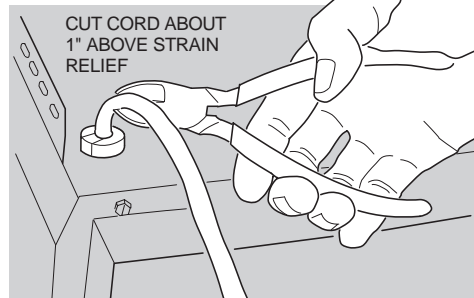
RIGHT



WRONG!

FOR PERMANENT WIRING ONLY!!!

BE SURE CORD IS UNPLUGGED!



ADJUSTMENT STEP 1

Aligning the DoorSentry® Infrared Safety Beam



WARNING



For safety, pull the trolley release handle to disengage the trolley from the traveler slide during these alignment tests.

The DoorSentry consists of two units, an infrared emitter and an infrared detector. The emitter constantly sends a narrow infrared beam to the detector. If the door is moving down, and an obstacle interrupts the beam, the DoorSentry will stop the door and reverse it causing the door to go up. The operator light will flash three times, indicating an obstruction has occurred.

If the door is up and there is an obstacle interrupting the beam, or the DoorSentry is not aligned, the radio transmitter will not function. The operator will only run the door down if constant pressure is applied to the wall station pushbutton.



WARNING



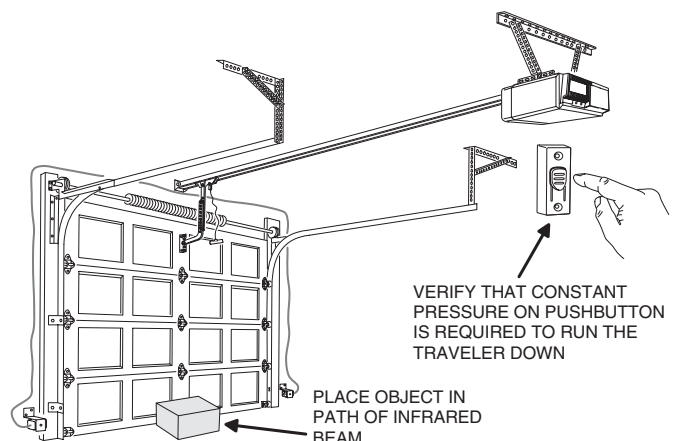
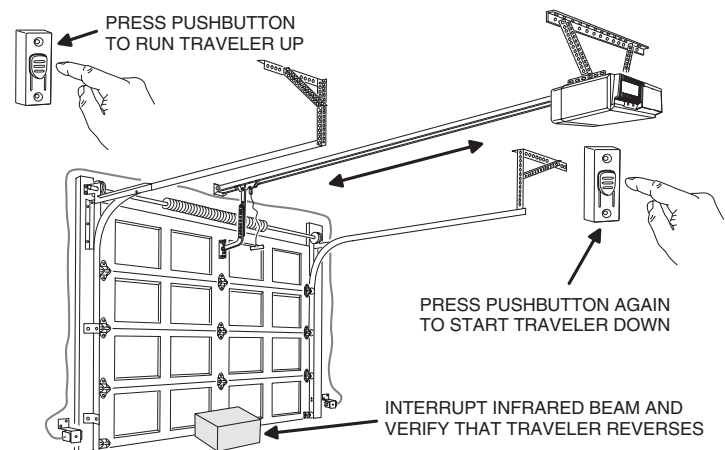
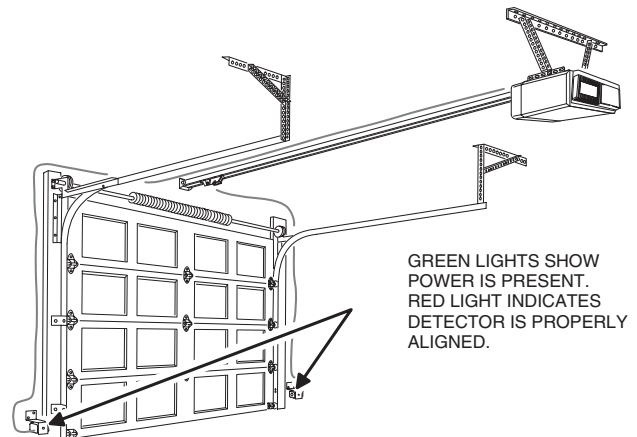
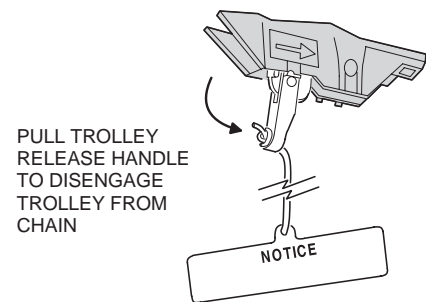
Failure to test and adjust safety reverse system may result in serious injury or death from a closing garage door. Repeat this test once a month and adjust as needed.

- Be sure power is applied to the operator.
- The green lights on the DoorSentry detector and emitter should be lit.
- If the detector's red light is off and the green light is on, the detector is getting power, but it is not "seeing" the infrared beam from the emitter. Either there is an object blocking the beam or the emitter and detector are not properly aligned. Loosen the mounting nuts and re-align the safety beam while watching the red light (stay out of the path of the beam while aligning).
- Adjust until the red light glows constantly and tighten all mounting hardware.

☞ **NOTE:** If detector's red light remains off, check for the following: 1) Dirt on detector lens, 2) Sunlight shining on detector causing interference, 3) Short in wires (from staples or at screw terminals), 4) Incorrect wiring of detector or emitter to operator.

- **With the trolley disengaged**, press the wall station button to run the traveler to the up position.
- Push the wall station button again. While the traveler is moving to the down position, block the infrared light beam. **THE TRAVELER MUST STOP, THEN REVERSE TO THE UP POSITION.** The operator light will flash three times.
- Leave an object in the path of the infrared light beam. Verify that constant pressure on the wall station pushbutton is required to cause the traveler to move to the down position. Release the wall station pushbutton before the traveler stops, verify that the traveler returns to the up position.

☞ **NOTE:** The garage door operator will not respond to a CLOSE command from a radio transmitter if red light on the detector is off.



ADJUSTMENT STEP 2

Testing the Radio Remote Control



WARNING



Children operating or playing with a garage door operator can injure themselves or others. The garage door could cause serious injury or death. Do not allow children to operate the radio remote control(s) or the wall station.

A moving garage door could injure or kill someone under it. Activate the operator only when the door is clearly visible, free of obstructions and adjusted properly.

The radio receiver is located in the rear bulkhead of the operator. The small white wire serves as an antenna for the receiver.

More transmitters can be purchased for additional users of the door operator. Before purchasing, check to see if your operator is equipped with MegaCode or Delta-3 radio remote controls.

Delta-3 Radio Controls

If the operator is equipped with Delta-3 Radio Controls, all transmitters must be set to the same code. Only one code can be stored by the receiver. The transmitter's code switch is located under the battery cover.

MegaCode Radio Controls

MegaCode transmitters are permanently factory coded. Up to 10 MegaCode transmitters can be stored in the receiver's memory.

Programming the Receiver

To add transmitters.

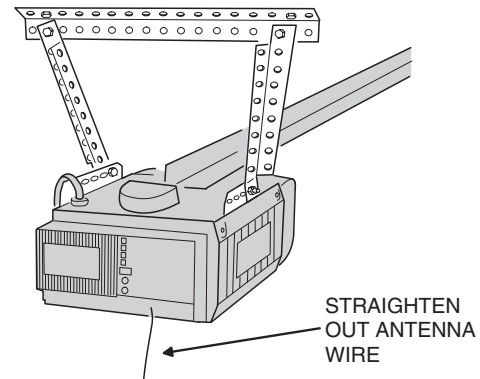
- ☐ Momentarily press the receiver's learn button. The receiver's red learn light will glow if there's room in the receiver's memory for more transmitters. The red light will stay on for about 15 seconds. **A transmitter must be entered while the red light is still on.** Press the transmitter button. The red learn light and the operator light will flash once indicating that the receiver has accepted the transmitter.

To erase all transmitters from receiver memory:

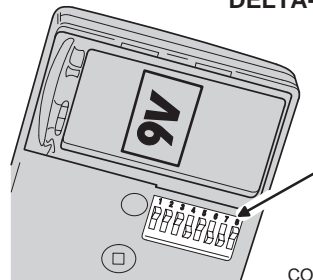
- ☐ Press and hold the receiver's learn button for 10 seconds or more. **This will erase all of the transmitters stored in the receiver's memory.** Release the button and the receiver's red programming light will blink off then on again for 15 seconds. Transmitters can be learned during this time.
- ☐ Follow the add transmitter step to re-program all needed transmitters.
- ☐ For programming multi-channel transmitters, refer to the instructions supplied with the equipment.

Testing

- ☐ Before testing the radio control, straighten out the antenna wire so it points down toward the floor.
- ☐ Stand clear of the door, press the transmitter button and verify that the operator starts.
- ☐ Check learn light for flickering. If learn light flickers without sending a transmission, radio interference may be present that may affect transmitter range.

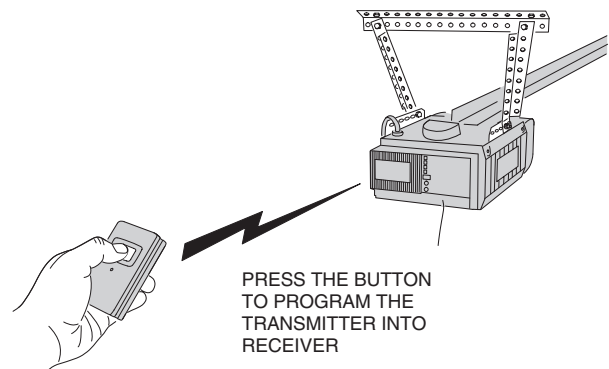
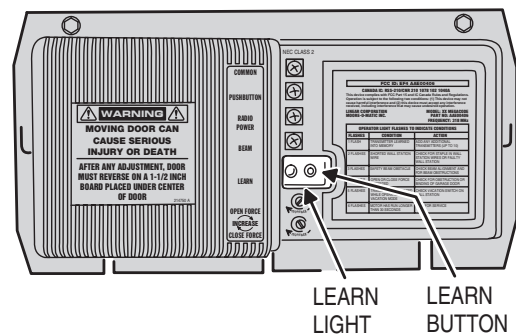


DELTA-3 TRANSMITTER



SWITCHES IN ALL TRANSMITTERS USED WITH THE OPERATOR **MUST** BE SET TO THE SAME CODE

CODE SHOULD BE CHANGED FROM THE FACTORY SETTING PRIOR TO INSTALLATION



ADJUSTMENT STEP 3

Setting the Up and Down Limits



CAUTION

Set the up and down limits adjustment carefully. Setting the limits beyond the distance that the door can travel could cause damage to the door, door hardware or operator.

NOTE: Limits are factory preset for 7 foot doors.

The limit adjustments are located on the side of the operator head. They control how far the door will open or close. The limits should be set so that the door opens just short of the bump stops, and closes right at the floor.

- Start with the door in the down position.
- Engage the trolley (trolley release lever in horizontal position). Lift the door slightly to snap the trolley into the traveler.

NOTE: To speed the limit switch adjustment, the door may be "parked" and reversed. Press the transmitter after about one foot of travel to stop the operator. Make limit switch adjustments and press the transmitter again to reverse the operator.

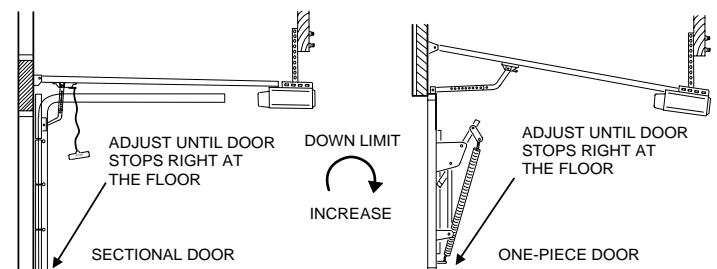
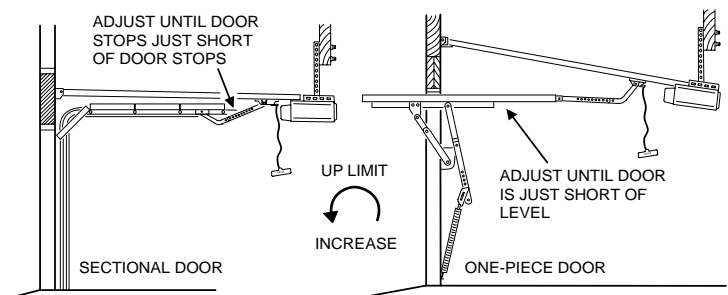
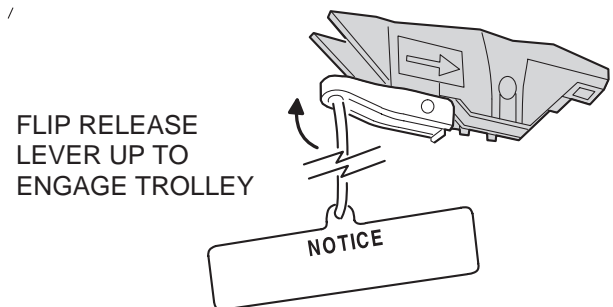
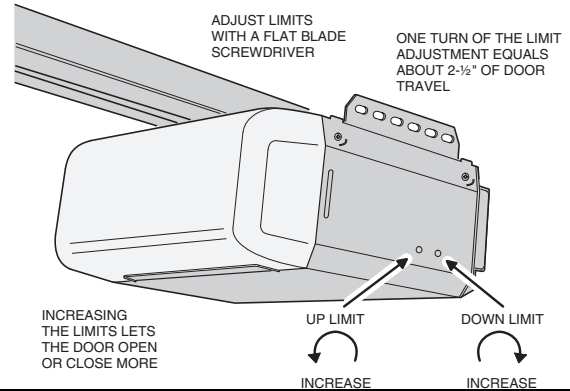
- Press the transmitter button to cause the door to open to the up limit position.

NOTE: One turn of each limit screw is equal to about 2-1/2" of door travel.

- Notice the position of the door. If the door needs to open *more*, turn the **UP LIMIT** adjustment screw counterclockwise to increase the up limit. If the door needs to open *less*, turn the up limit adjustment screw clockwise to decrease the up limit.
- Press the transmitter button to cause the door to close to the down limit position.
- Notice the position of the door. If the door needs to close *more*, turn the **DOWN LIMIT** adjustment screw clockwise to increase the down limit. If the door needs to close *less*, turn the down limit adjustment screw counterclockwise to decrease the down limit.

NOTE: If the door stops during the up motion or reverses during the down motion before reaching the limits the door pressure adjustment needs to be set. Change the adjustment as described in the next step then return to this step to finish setting the limits.

- Repeat the up and down limit adjustments until they are set correctly.



ADJUSTMENT STEP 4

Adjusting the Door Force



WARNING

Too much door force will interfere with the proper operation of the safety system. SOMEONE COULD BE SERIOUSLY INJURED OR KILLED IF THE DOOR FORCE IS SET TOO HIGH. The closing door might not reverse properly when required and someone could be pinned under it. The opening door might not stop when going up and someone hanging on the door could get pinned between the door and the header. Do not increase the door force beyond what is required to move the door. DO NOT USE THE DOOR FORCE ADJUSTMENT TO COMPENSATE FOR A BINDING OR STICKING GARAGE DOOR. Repeat this test monthly.

The door force mechanism must be in proper adjustment at all times. This ensures that the garage door will reverse its direction in the event that an obstruction is encountered during downward travel and stop its motion in the event that an obstruction is encountered during upward travel.

NOTE: Read the following directions carefully before setting the door force adjustment.

- Start with the door in the up position. Press the transmitter button to cycle the door.

Close Force Adjustment

- Turn the close force adjustment in 1/8 turn increments in the "DECREASE" direction until the door stops and reverses mid travel during the down motion.
- Increase the CLOSE FORCE adjustment in 1/8 turn increments in the "INCREASE" direction until the door travels to the fully closed position without stopping.
- Lay a 2 x 4 flat on the floor as an obstacle where it will be struck by the center of the door as it closes.
- Verify that when the door strikes the obstacle that the operator reverses. The door **must** reverse its direction of travel within 2 seconds after it strikes the obstacle.

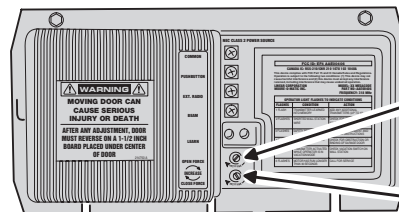
NOTE: If the door stops after encountering the obstacle and does not reverse, the CLOSE FORCE needs to be "DECREASED".

- If required, turn the CLOSE FORCE pressure adjustment in 1/8 turn increments in the "DECREASE" direction.
- Repeat to test until door reverses within 2 seconds of striking the obstruction.

Open Force Adjustment

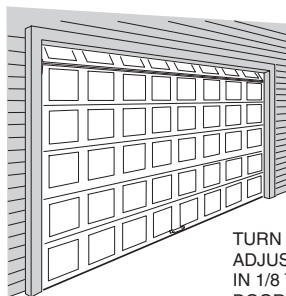
- Turn the OPEN FORCE door pressure adjustment in 1/8 turn increments in the "DECREASE" direction until the door stops mid travel during the up motion.
- Increase the OPEN FORCE adjustment in 1/8 turn increments in the "INCREASE" direction until the door can travel to the fully open position without stopping.

DOOR FORCE ADJUSTMENTS

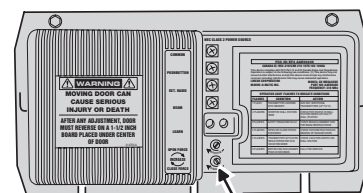


* OPERATOR LIGHT WILL FLASH FOUR TIMES WHEN THE PRESET OPEN OR CLOSE FORCE IS EXCEEDED.

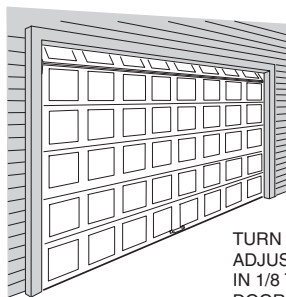
OPEN FORCE
INCREASE
CLOSE FORCE
INCREASE



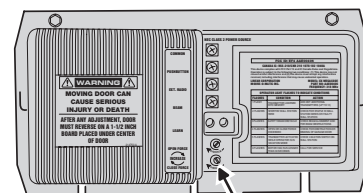
TURN "CLOSE FORCE" ADJUSTMENT TO "INCREASE" IN 1/8 TURN INCREMENTS UNTIL DOOR WILL CLOSE COMPLETELY WITHOUT REVERSING



CLOSE FORCE
INCREASE



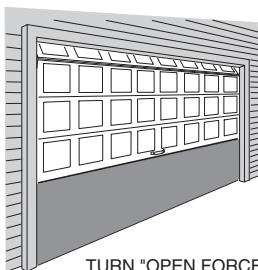
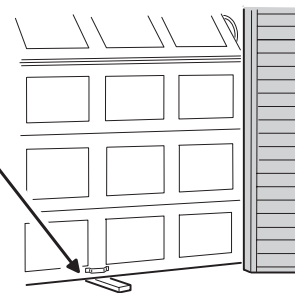
TURN "CLOSE FORCE" ADJUSTMENT TO "INCREASE" IN 1/8 TURN INCREMENTS UNTIL DOOR WILL CLOSE COMPLETELY WITHOUT REVERSING



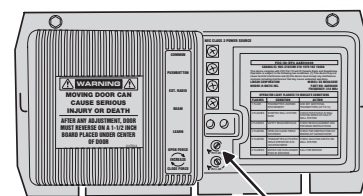
CLOSE FORCE
INCREASE

LAY A 2x4 FLAT ON THE FLOOR WHERE THE CENTER OF THE DOOR WILL HIT IT

THE DOOR MUST REVERSE WHEN IT STRIKES THE 2x4



TURN "OPEN FORCE" ADJUSTMENT TO "DECREASE" UNTIL DOOR STOPS DURING UPWARD TRAVEL, THEN MAKE 1/8 TURN "INCREASE" ADJUSTMENTS UNTIL DOOR WILL OPEN COMPLETELY WITHOUT STOPPING



OPEN FORCE
DECREASE

USER INSTRUCTIONS 1

Using the Garage Door Operator

Opening the Door

- * Press the wall station pushbutton or activate a wireless remote control transmitter (see Adjustment Step 2 for details on testing the radio remote control).
- * When the operator is activated, the courtesy lamp will light and the door will begin to open.
- * The door will open until the up limit is reached (unless an obstacle is encountered, which will stop the door).
- * The courtesy lamp will remain lit for about 5 minutes after the operator stops.

Closing the Door

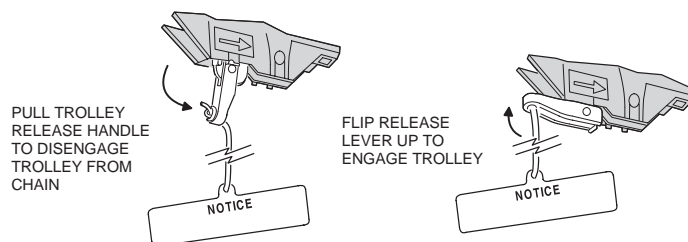
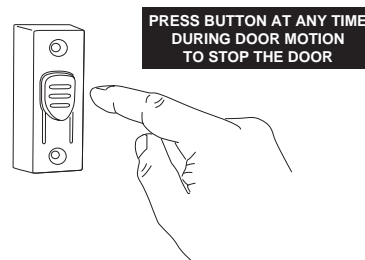
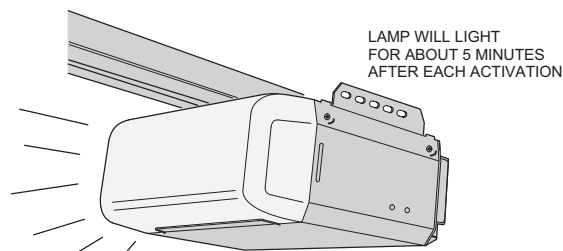
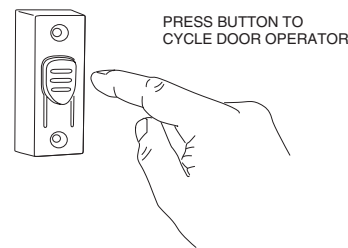
- * Press the wall station pushbutton or activate a wireless remote control transmitter.
- * When the operator is activated, the courtesy lamp will light and the door will begin to close.
- * The door will close until the down limit is reached (unless an obstacle is encountered, which will stop and reverse the door).
- * The courtesy lamp will remain lit for about 5 minutes after the operator stops.

Stopping the Door Mid-travel

- * The door motion can be halted immediately at any time by pressing the wall station pushbutton or by activating a wireless remote control transmitter.
- * The next time the operator is activated, it will move in the *opposite* direction.

Manually Using the Door

- * The trolley release handle is used to disengage the operator from the garage door. It can be used during power failures to allow manual operation of the door.
- * Pull the red trolley release handle to disengage the door.
- * The door can now be raised or lowered manually.
- * To re-engage the door, flip the trolley release lever up. Move the door manually until the trolley engages the traveler on the chain. It will engage with a snap.



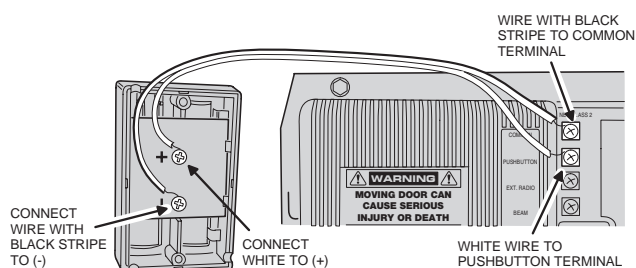
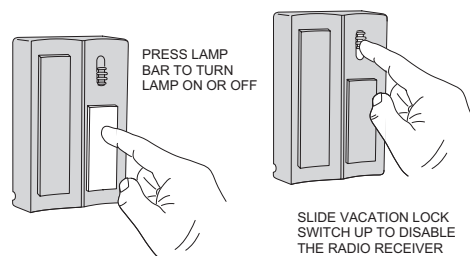
OPTIONAL MODEL XX-WS 3-FUNCTION WALL STATION FEATURES

Wall Station Vacation Lock (With 3-function Wall Station Only)

- * The lock switch on the wall station prevents the operator from responding to radio control signals.
- * Slide the lock switch to the locked position for additional security. If the lock switch is on and a transmitter is activated, the operator light will flash five times, but not activate. The operator will not respond to radio control signals but will still activate from the wall station pushbutton.
- * Slide the lock switch to the unlocked position to return the operator to normal operation.

Wall Station Light Control (With 3-function Wall Station Only)

- * If the operator's courtesy lamp is off, pushing the wall station's light button will turn the operator's lamp on. The lamp will remain on until the light button is pressed again or until the operator is cycled.
- * If the operator's courtesy lamp is on, pushing the wall station's light button will turn the operator's lamp off.



USER INSTRUCTIONS 2

Care for the Garage Door Operator



WARNING

Always perform the door force safety system test after making any adjustments to the operator (see Page 22).

Seasonal weather changes affecting the door could require some fine tuning of the operator's adjustments over time. Wooden doors can swell and gain weight during wet periods, sectional door hinges and rollers might bind during cold periods, etc.

Monthly Testing

- ☐ With the door closed, pull the trolley release handle to disengage the trolley from the chain.
 - ☐ By hand, from outside the garage, slowly open the door all the way, then close it all the way. Notice if there is any binding, sticking or rubbing caused by the garage door hardware, track wheels or door frame. The door should travel smoothly.
 - ☐ Raise the garage door about halfway up. Release your hold on the door and see if the door balances. It shouldn't go up or down on its own. Close the door.
 - ☐ Move the trolley release lever into the horizontal position. Raise the door manually until the trolley engages the traveler on the chain. It will engage with a snap.
- ☞ **NOTE:** *If the garage door is unbalanced or if the door travel isn't smooth, have a qualified garage door installation professional adjust or repair the door.*
- ☐ Perform the DoorSentry infrared safety beam alignment tests as described in Adjustment Step 1.
 - ☐ Perform the up and down limit adjustments as described in Adjustment Step 3.
 - ☐ Perform the door force adjustments as described in Adjustment Step 4.

Bi-Annual Testing

- ☐ Check the chain tension and adjust it if necessary as described in Assembly Step 3.

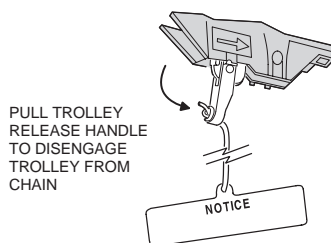
Yearly Maintenance

- ☐ Check the door hardware for lubrication needs. Lubricate door hinges, rollers and bearings according to door manufacturers recommended procedures.

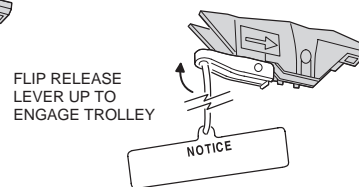
Courtesy Lamp Indications

The courtesy lamp will flash to indicate various conditions:

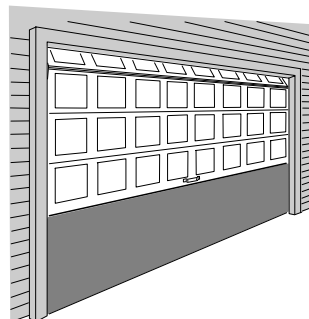
- * One flash occurs when a transmitter is learned.
- * Two flashes occur if a transmitter is activated while the pushbutton wires are shorted.
- * Three flashes occur when the DoorSentry units are misaligned, wires shorted, or the beam is interrupted while the door is in motion.
- * Four flashes occur when the open or close force settings are exceeded or if the motor has overheated and is waiting to reset.
- * Five flashes occur if a transmitter is activated while the 3-function wall station vacation switch is on.
- * Six flashes occur and the motor stops if the operator motor runs more than 30 seconds.



PULL TROLLEY
RELEASE HANDLE
TO DISENGAGE
TROLLEY FROM
CHAIN

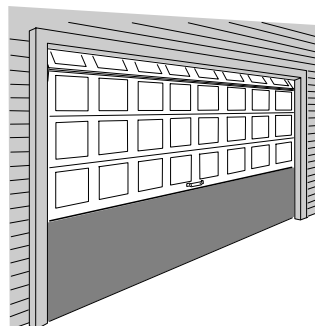


FLIP RELEASE
LEVER UP TO
ENGAGE TROLLEY



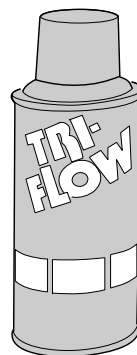
RAISE AND LOWER
THE DOOR BY HAND

CHECK FOR DOOR
STICKING BINDING
OR RUBBING



POSITION DOOR
HALFWAY UP

VERIFY THAT THE
DOOR BALANCES

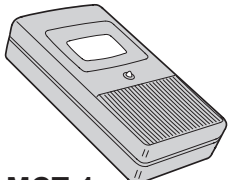
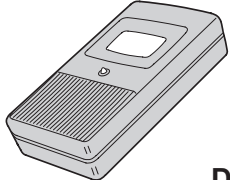
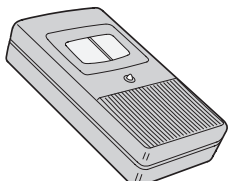
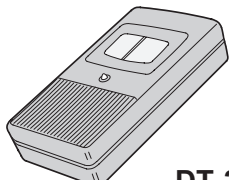
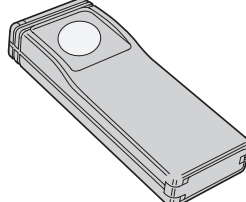
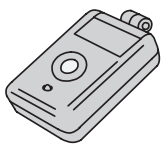
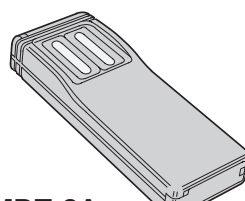
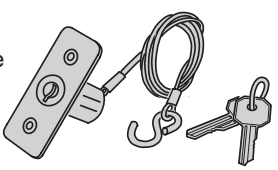
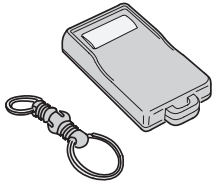
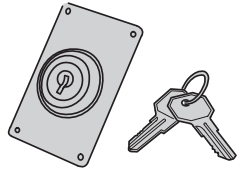
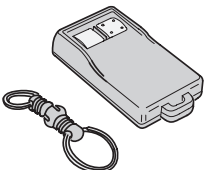
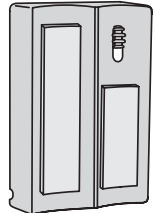
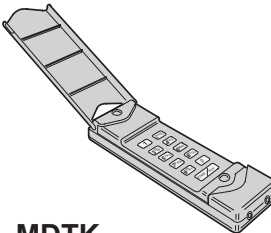
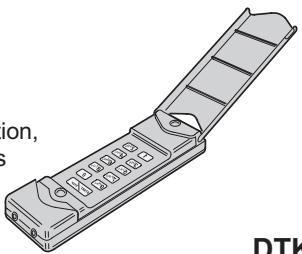


Tri-Flow Lubricant

Factory recommended
lubricant for operator
chain, door hardware
and screw drive trolleys.
(4 oz. aerosol can.)

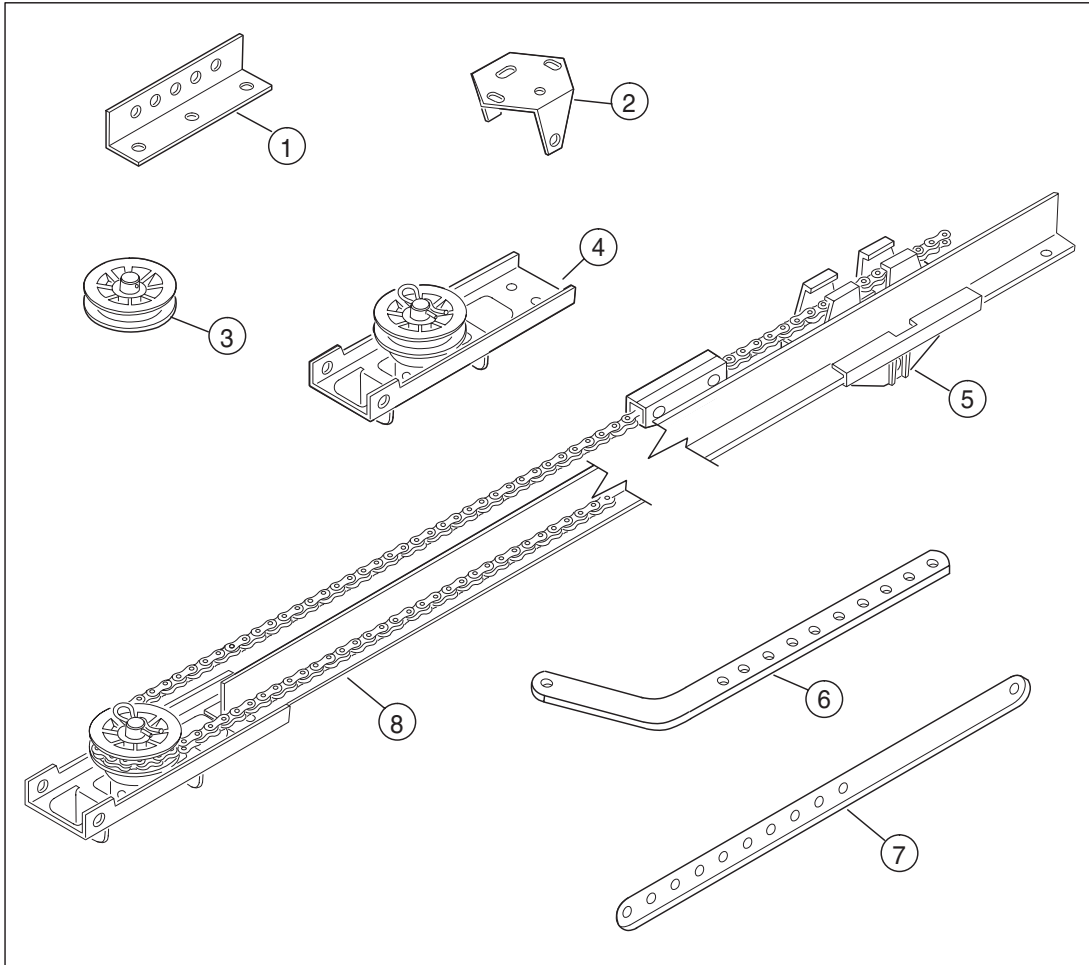
211825

OPERATOR ACCESSORIES

 <p>MCT-1</p>	<p>1-Channel Standard MegaCode Transmitter</p> <p>Controls single garage door operator. 318 MHz</p>	<p>1-Channel Delta-3 Transmitter</p> <p>Controls single garage door operator. 310 MHz Two-channel transmitter also available.</p>  <p>DT</p>
 <p>MCT-2</p>	<p>3-Channel Standard MegaCode Transmitter</p> <p>Controls three garage door operators or devices. 318 MHz</p>	<p>2-Channel Delta-3 Transmitter</p> <p>Controls two garage door operators. 310 MHz</p>  <p>DT-2</p>
 <p>MDT-1A</p>	<p>1-Channel Deluxe MegaCode Transmitter</p> <p>Controls single garage door operator. MegaCode 318 MHz DX 433 MHz</p>	<p>MiniTransmitter</p> <p>Designed to be used with a keychain. Activates one device. 310 MHz</p>  <p>MINI-T</p>
 <p>MDT-2A</p>	<p>2-Channel Deluxe MegaCode Transmitter</p> <p>Controls two devices. The top button can be used to control a third device. MegaCode 318 MHz DX 433 MHz</p>	<p>Vault Door Cable Release</p> <p>For garage doors with no service door. Release operator from outside.</p>  <p>VDCR</p>
 <p>MMT-1</p>	<p>MMT-1 Mini Transmitter</p> <p>Designed to be used with the keychain provided. Activates one device. 318 MHz</p>	<p>Key Lock Switch</p> <p>A wired control station outside a garage. Secure from anyone without a key.</p>  <p>KLS</p>
 <p>MMT-2</p>	<p>MMT-2 Mini Transmitter (Two Button)</p> <p>Designed to be used with the keychain provided. Activates two devices. 318 MHz</p>	<p>Wall Station</p> <p>Independently controls garage door operator and lights. Vacation switch disables radio for added security. 3 function - 2 wire XX Operator Only!</p>  <p>XX-WS</p>
 <p>MDTK</p>	<p>MegaCode Wireless Keypad</p> <p>Designed for use with MegaCode radios. Keypad has weather-proof construction, easy to read numbers and is backlit for use at night. 1,000,000 possible codes.</p>	<p>Delta-3 Wireless Keypad</p> <p>Designed for use with Delta-3 radios. Keypad has weather-proof construction, easy to read numbers and is backlit for use at night. 256 possible codes.</p>  <p>DTKP</p>

REPLACEMENT PARTS LIST

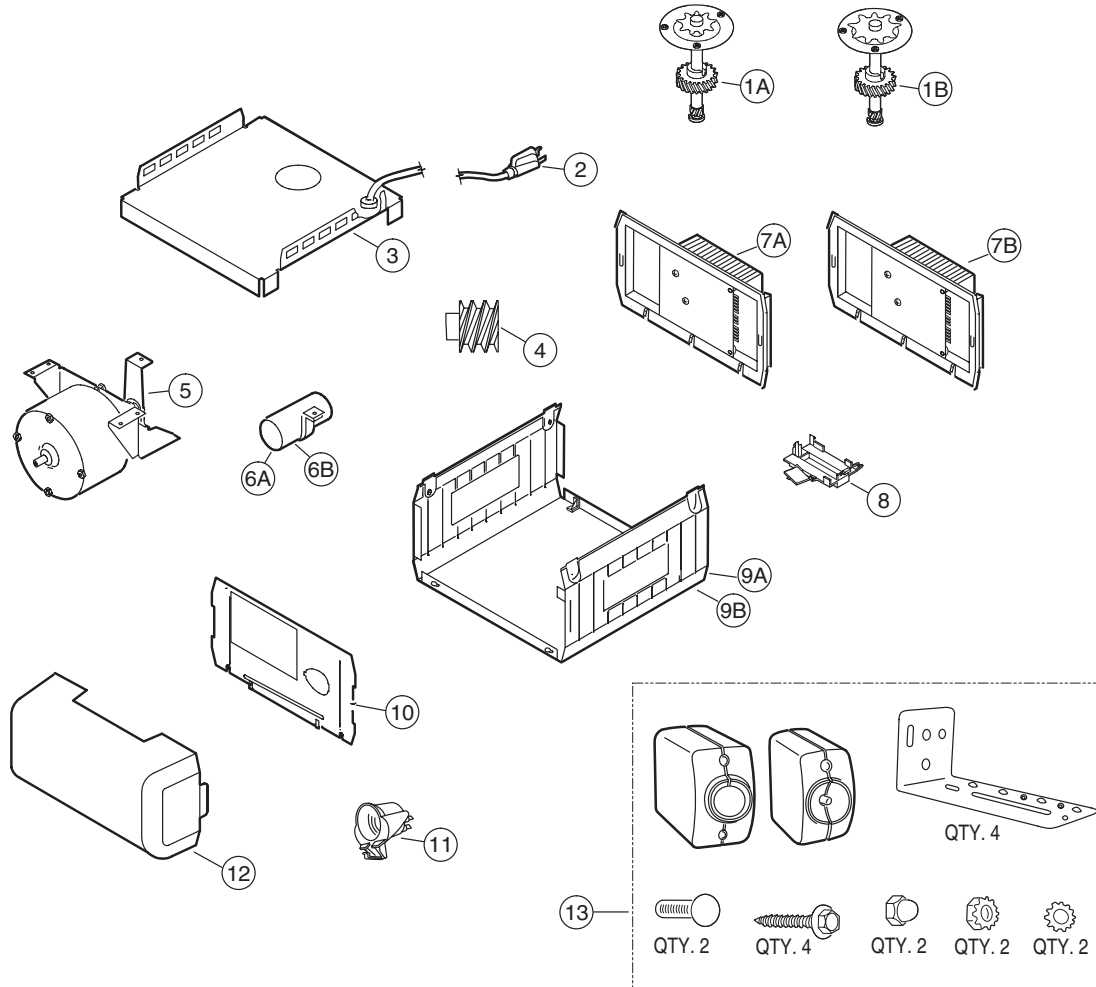
T-Rail



ITEM #	PART #	DESCRIPTION
1	211435	DOOR BRACKET
2	211797	HEADER BRACKET
3	210921	PULLEY (ONLY)
4	212164-01	PULLEY BRACKET ASSEMBLY
5	212165-01	TROLLEY ASSEMBLY
6	211233	DOOR ARM 17" 67 DEGREE
7	211235	DOOR ARM 17"
8A	XS7T	CHANNEL ASSEMBLY (7 FOOT)
8B	XS8T	CHANNEL ASSEMBLY (8 FOOT)
8C	XS10T	CHANNEL ASSEMBLY (10 FOOT)

REPLACEMENT PARTS LIST

Operator Head



ITEM #	PART #	DESCRIPTION
1A	AAE00345	DRIVE SHAFT ASSEMBLY, JAMB
1B	AAE00346	DRIVE SHAFT ASSEMBLY, SECTIONAL
2	210964-01	POWER CORD ASSEMBLY
3	209802	MAIN MOUNTING PLATE
4	210803	WORM GEAR
5	210267-02	MOTOR MOUNTING PLATE ASSEMBLY
6A	210982-01	MOTOR CAPACITOR ASSY. 43-53 MFD (1/3 HP)
6B	210982-02	MOTOR CAPACITOR ASSY. 53-64 MFD (1/2 HP)
7A	AAE00414	REAR COVER ASSEMBLY (MEGACODE)
7B	AAE00415	REAR COVER ASSEMBLY (DELTA)
8	AAE00378	LIMIT SWITCH ASSEMBLY
9A	AAE00411	WRAP COVER, GREEN, XX333
9B	AAE00412	WRAP COVER, GREEN, XX350
10	209801	FRONT PANEL
11	211024	LAMP SOCKET
12	209796	LIGHT LENS
13	AAE00415	DOORSENTRY KIT

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IMPORTANT SAFETY INSTRUCTIONS



WARNING



TO REDUCE THE RISK OF DEATH OR SEVERE INJURY:

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. **Never let children operate, or play with door controls. Keep remote control away from children.**
3. **Always keep moving door in sight and away from people and objects until it is completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR.**
4. **Test door opener monthly. The garage door MUST reverse on contact with a 1 1/2" object (or a 2 by 4 board laid flat) on the floor. If adjusting either the force or the limit of travel, re-test the door opener. Failure to adjust the operator properly may cause severe injury or death.**
5. **If possible, use the emergency release only when the door is closed. Use caution when using this release with the door open. Weak or broken springs may cause the door to fall rapidly, causing injury or death.**
6. **KEEP GARAGE DOORS PROPERLY BALANCED. (See owner's manual.) An improperly balanced door could cause severe injury. Have a qualified service person make repairs to cables, spring assembly and other hardware.**
7. **SAVE THESE INSTRUCTIONS.**

The table below is a quick reference to the diagnostic codes indicated by the operator light flashing

DIAGNOSTIC CODES	PROBLEM	CONDITION	ACTION
1 Flash	None	Transmitter learned into memory	Add any additional transmitters (up to 10) MegaCode only.
2 Flashes	Door won't close	Shorted wall station wires	Check wall station wires. Be sure both are connected to terminal screws. Check for a staple in wall station wires. Remove any staples compressing the wire.
3 Flashes	Door won't close	Safety beam obstacle	Refer to your Owner's Manual Page 19. Check both safety beams. Both beams should have a small GREEN light. One side should have both a GREEN and RED light. If one or both sides do not have a GREEN light; (1) check beam screw terminals for loose wires, (2) check wire staples for compressed or cut beam wires. If both sides have a GREEN light but receiver does not have a bright RED light; (1) check beam path to assure nothing is blocking beam path, (2) check beam alignment and move beam until RED alignment light glows bright. If all wires are attached and both RED & GREEN lights are bright, check to see if one of the beams is in bright sunlight. Remove both and change sides. This should take the "receiver" out of the sunlight.
4 Flashes	Door reverses or won't open or close	Open or Close force exceeded	Door reversing and light flashing four times indicates a torque sensitivity problem. Refer to your Owners Manual Page 22. Disconnect the door from the operator (Page 24). Operate the door manually. If door seems too heavy when opening or if door drops quickly or slams down when closing, the door may be out of balance. Call your local garage door professional to adjust and balance your door.
5 Flashes	Door won't open from transmitter	Transmitter activated while operator is in Vacation Mode.	Check vacation switch on wall station.
6 Flashes		Motor has run longer than 30 seconds	Call your local garage door professional.

LIMITED WARRANTY

THE WARRANTOR WARRANTS THAT: The motor on this operator is warranted to the consumer against defects in material and workmanship for Ten years from the date of purchase. The drive train will be free from defects in materials and/or workmanship for a period of:

MODEL XX325 - One year

MODEL XX333 - Three years

MODEL XX350 - Five years

All other parts will be free of defects in materials and workmanship for a period of One year from date of purchase. This warranty applies to first retail buyers of new devices. The product must be used in complete accordance with Moore-O-Matic's instructions for installation, operation and care.

Warrantor will repair, or at its option, replace, any device it finds that requires service. The device must be sent to the warrantor at the consumer's expense.

RETURNED FOR REPAIR PRODUCTS:

All returns, not going through your local dealer, must be sent prepaid freight with a pre-authorized Return Product Authorization Number (RPA#). This authorization number can be obtained by calling the Technical Services Group at 1-800-421-1587. This number should be clearly written on the outside of the box to speed the processing of your return. Returned product without an RPA# may be refused. Repaired products will be returned via prepaid freight.

The consumer must contact the warrantor at the phone number listed above to obtain shipping instructions prior to shipping the device to the warrantor. The warrantor will return the repaired or replaced device to the consumer at the warrantor's cost.

Remedies provided by this warranty are exclusive. Implied warranties under state law are limited to a period of one year from the date of purchase by the consumer. This limitation is not valid in jurisdictions which do not allow limitations of incidental or consequential damages.

To obtain service under this warranty, the consumer must present a copy of proof of purchase of the device when submitting a device for service.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IMPORTANT !!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- ★ *For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.*
- ★ *A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.*
- ★ *Changes or modifications to the device may void FCC compliance.*
- ★ *Infrequently used radio links should be tested regularly to protect against undetected interference or fault.*
- ★ *A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.*

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Quality Garage Door Operators with Linear Radios