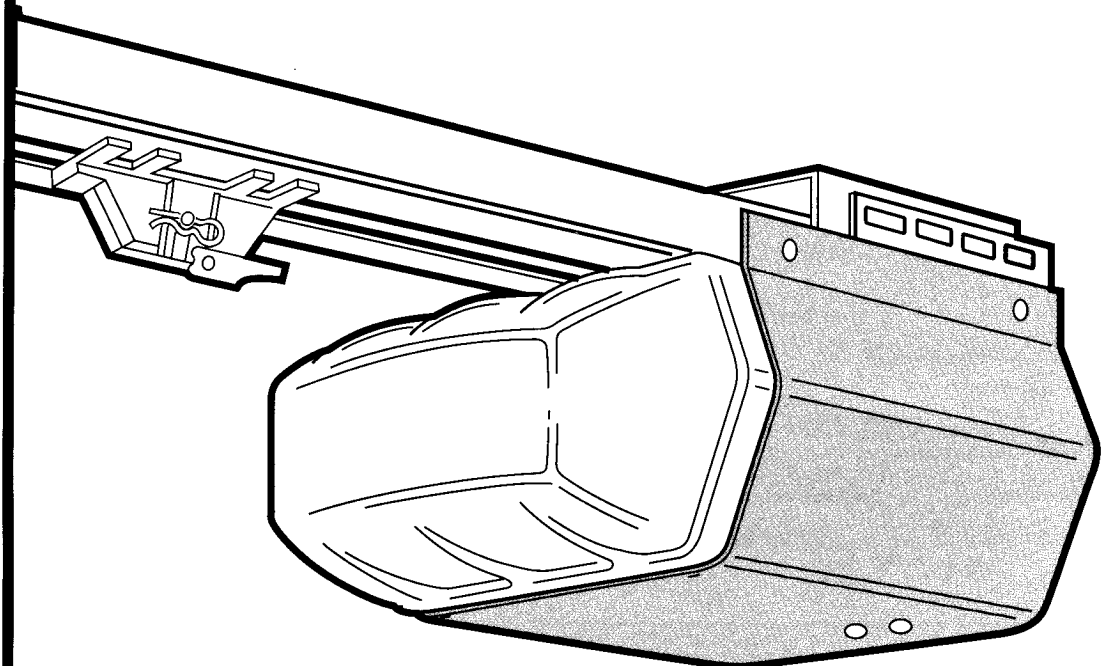


Owner's Installation and operation manual

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.



Chain-drive garage door operator

Models X125a, X133a, and X150a



WARNING

To reduce the risk of injury to persons - Install this operator on:
SECTIONAL DOOR IF CHANNEL BOX SHOWS "CS" or "X"
ONE PIECE JAMB DOOR IF CHANNEL BOX SHOWS "CJ" or "XJ"

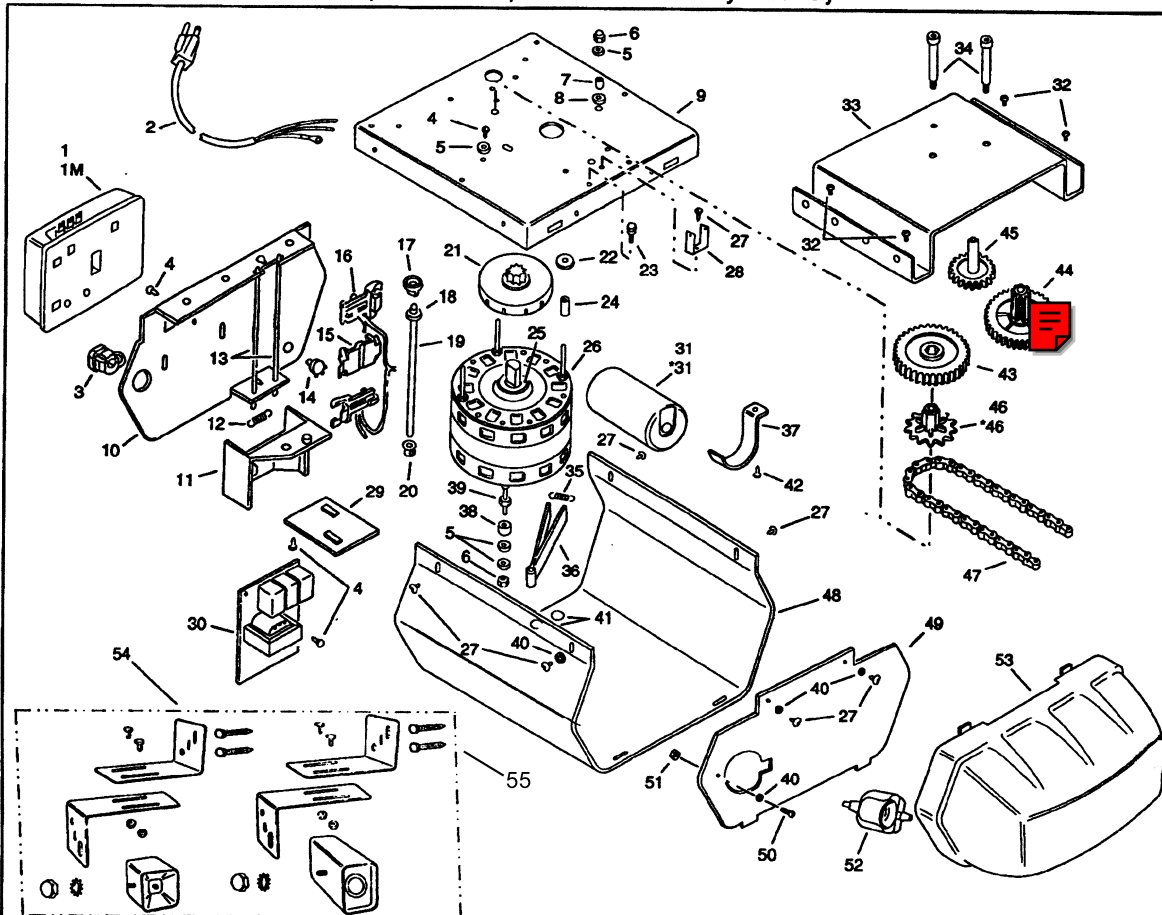
THIS DOOR OPERATOR WILL REQUIRE CONSTANT PRESSURE ON THE WALL BUTTON
TO CLOSE THE DOOR UNLESS THE INFRARED EMITTER AND DETECTOR ARE INSTALLED
AND PROPERLY ALIGNED.

MOORE-O-MATIC

Quality Garage Door Operators with Linear Radios

MODEL X125a, X133a, X150a REPLACEMENT PARTS LIST

Exploded View Operator and Door Sentry Assembly



ITEM	PART #	DESCRIPTION	QTY.
3	210977	STRAIN RELIEF BUSHING	1
7	A7265	SPACER .25 LONG	3
8	A7268	GROMMET, .312 ID X.625OD	3
13	B5664	LIMIT ADJUST SCREW	2
16	209064-01	LIMIT SWITCH ASSY	1
17	B5587	KEYED BEARING (OPEN).228	1
18	A7095	RING, EXTERNAL PUSH-ON .374 ID	1
20	B5588	KEYED BEARING (CLOSED) .126	1
27	A8157	SCREW, #6 X 1/4" PAN HEAD	10
29	AAE00306	TORQUE SENSOR ASSY	1
30	AAE00341	CONTROLLER (UL93)	1
31	210719	CAPACITOR, 43-53 MFD (MODEL X125 & X133)	1
31	210718	CAPACITOR, 53-64 MFD (MODEL X150)	1
34	A6737	BOLT, 5/16"X1-3/4" STRIPPER	2
35	A7104	SPRING	2
38	A6935	SPACER, NYLON .50 OD X .19 ID	1
41	A6741	GROMMET, .187 ID X .312 OD	2
43	A6721	GEAR, 38 TOOTH	1
44	A6723	GEAR, 36/9 TOOTH	1
45	A6720	GEAR, LIMIT	1
46	A6724 NLA	USE A7274 FOR COMP. KIT 13 TOOTH SPRCKT (SECT.)	1
46	A6728	SPROCKET, 9 TOOTH (JAMB)	1
52	211024	LAMP HOLDER	1
53	8311-000	LIGHT LENS	1
54	AAE00324	DOOR SENTRY- PHOTO EYES ONLY	1

ANY PART NOT LISTED ABOVE FOR THIS MODEL IS OBSOLETE WITH NO SUB

DR- Delta Receiver MDR- Mega Code Receiver

MODELS X125a, X133a, AND X150a INSTALLATION MANUAL

MODEL X150a FIVE YEAR MANUFACTURER'S WARRANTY

Limited Warranty

THE WARRANTOR WARRANTS THAT: The motor is warranted to be free from any defect in materials and/or workmanship for a period of 10 years from the date of purchase. The drive train will be free from defects in materials and/or workmanship for a period of five years from the date of purchase. 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 only to the first retail buyer of a new device. 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, will replace any device which it finds to require service. The device must be sent to the warrantor at the consumer's expense to one of the following addresses:

MOORE-O-MATIC, INC.
Repair Center
419 Oak Street, P.O. Box 349
Waupaca, WI 54981

ATTENTION: REPAIR

MOORE-O-MATIC, INC.
Repair Center
2580 Pioneer Avenue, Suite C
Vista, CA 92083
(800) 835-5666

ATTENTION: REPAIR

The consumer must contact the warrantor at one of the addresses shown 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 the period of implied warranties.

Warrantor will not be liable for incidental or consequential damages. 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. You may also have other rights, which vary from state to state.

MODEL X133a THREE YEAR MANUFACTURER'S WARRANTY

Limited Warranty

THE WARRANTOR WARRANTS THAT: The motor is warranted to be free from any defect in materials and/or workmanship for a period of 10 years from the date of purchase. The drive train will be free from defects in materials and/or workmanship for a period of three years from the date of purchase. 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 only to the first retail buyer of a new device. 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, will replace any device which it finds to require service. The device must be sent to the warrantor at the consumer's expense to one of the following addresses:

MOORE-O-MATIC, INC.
Repair Center
419 Oak Street, P.O. Box 349
Waupaca, WI 54981

ATTENTION: REPAIR

MOORE-O-MATIC, INC.
Repair Center
2580 Pioneer Avenue, Suite C
Vista, CA 92083
(800) 835-5666

ATTENTION: REPAIR

The consumer must contact the warrantor at one of the addresses shown 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 the period of implied warranties.

Warrantor will not be liable for incidental or consequential damages. 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. You may also have other rights, which vary from state to state.

MODEL X125a ONE YEAR MANUFACTURER'S LIMITED WARRANTY ON ALL PARTS AND WORKMANSHIP



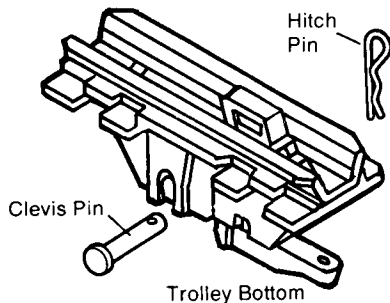
WARNING

When installing an operator, observe the following safety precautions. They are for your protection and to help make installation easier.

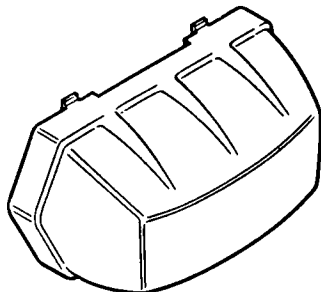
KEEP THIS MANUAL FOR FUTURE REFERENCE!

COMPONENT PARTS REQUIRED FOR INSTALLATION

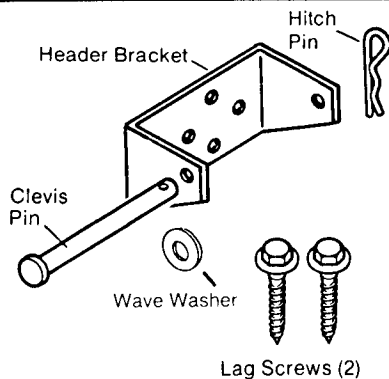
The parts shown on this page are listed in the order used during assembly.



Trolley Bottom Assembly
See Figure 1, Page 5



Light Lens
See Figure 30, Page 15



Header Bracket Assembly
See Figures 8 and 23
Steps 16 and 59
Pages 8 and 14

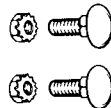
NOTE:

The hardware packaged with this operator is required for several models.

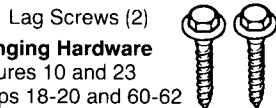
Depending on your application, there may be excess hardware.



Trolley Stop Hardware
Figure 4, Step 1
Page 5

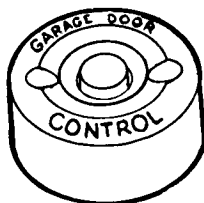


Keps Nuts (2) Carriage Bolts (2)

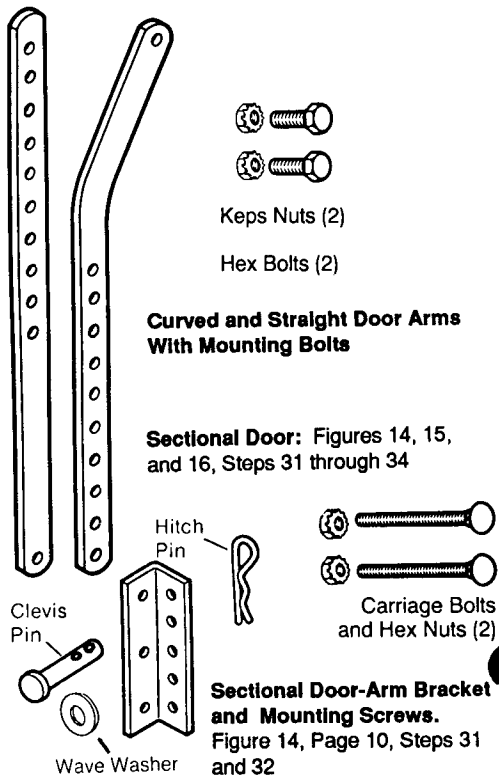


Hanging Hardware
Figures 10 and 23
Steps 18-20 and 60-62
Pages 8 and 14

Customer to supply hanging material to secure power unit to ceiling joists.



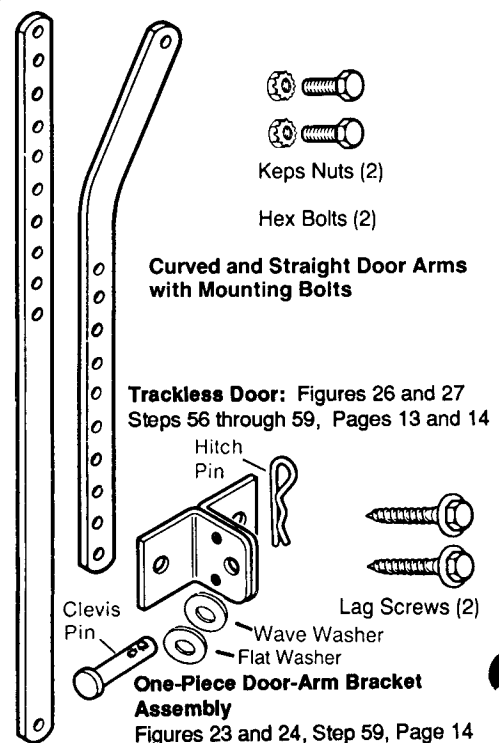
Wall Station Assembly
See Figure 11, Steps 24 through 29
Page 9



Curved and Straight Door Arms With Mounting Bolts

Sectional Door: Figures 14, 15, and 16, Steps 31 through 34

Sectional Door-Arm Bracket and Mounting Screws.
Figure 14, Page 10, Steps 31 and 32



Curved and Straight Door Arms with Mounting Bolts

Trackless Door: Figures 26 and 27
Steps 56 through 59, Pages 13 and 14

One-Piece Door-Arm Bracket Assembly
Figures 23 and 24, Step 59, Page 14



WARNING

When installing an operator, observe the following safety precautions. They are for your protection and to help make installation easier.

SPECIFICATIONS

Door Size and Type: The Model X125a-S/X133a-S/X150a-S will open **sectional** and **one-piece track type** doors up to 7 feet 6 inch high. Channel assemblies for 8 foot and 10 foot doors are also available.

The Model X125a-J/X133a-J/X150a-J is for use on **one-piece jamb hardware** (no track) doors up to 8 feet high.

Required Headroom: 1 1/2" above maximum high-rise point of door (sectional doors only). Refer to Figure 24 for jamb type door.

Travel Time Per Second: Approximately 8" for sectional operators and 5 1/2" for jamb operators.

Control: Can be controlled by a wall button, a radio transmitter, a key switch, or a wireless keypad.

FUNCTIONS

- Reverses automatically when an obstacle is encountered during downward travel.
- Stops automatically when an obstacle is encountered during upward travel.
- Automatically returns to fully open position if door encounters obstacle during downward travel.
- Light stays on 5 minutes after each use.

- Door can be "parked" at any point in travel.
- Internal thermal overload protection motor resets itself.
- Remote radio control can be coded by homeowner.

PRE-INSTALLATION

Before starting assembly and installation, review these instructions thoroughly, and identify all requirements and components.

Door Hardware and Lubrication

Door hardware must be well lubricated with a light coat of oil, and operate freely, if the operator is to work properly. Lubricate door bearings, rollers, hinges and any other moveable parts. Tighten all hardware. Check door to ensure that it is in proper balance and operates smoothly. If door springs are weak or damaged, they should be adjusted or replaced by a qualified serviceman.

Required Tools

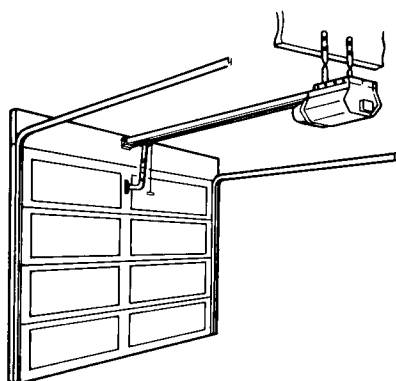
The hand tools required to install an operator include a drill and 3/16" and 1/4" bit, hammer, screwdriver, 1/2" and 7/16" socket wrenches, tape measure, level, pliers, wire cutter, and an 8' stepladder.



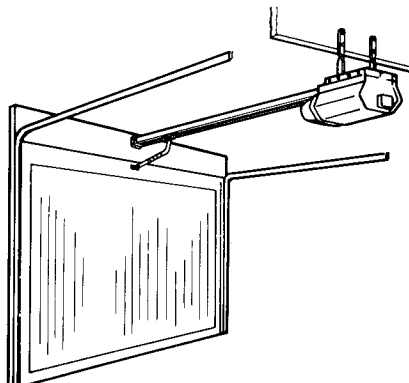
WARNING

Do not plug in the operator until instructed.

USE MODEL-S FOR THESE DOOR TYPES

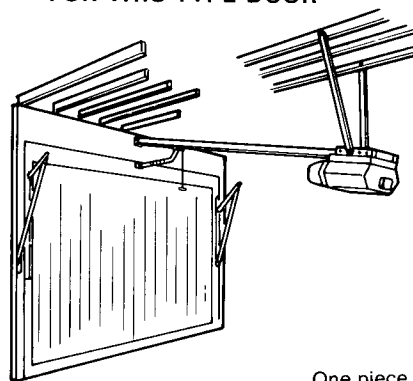


Sectional door



One piece door with track

USE MODEL -J FOR THIS TYPE DOOR



One piece trackless door with jamb hardware



WARNING

Lightweight doors of light gauge metal, fiberglass, or wood must be reinforced prior to installation of an operator. Moore-O-Matic is not responsible or liable for damages or injury resulting from improper installation. Consult the door manufacturer for specific reinforcement requirements.

ASSEMBLY INSTRUCTIONS

Preparation

When you unpack your operator, check to ensure that it has not been damaged. Make sure all parts have been received before beginning installation.

Step 1: Remove trolley latch assembly from parts pack and slide over the channel, flanges in the proper orientation (see Figure 1). Attach keps nut and sems bolt to hole located six inches from end of channel that is attached to the operator head.

Note: Arrow on trolley to be pointed towards door end of channel.

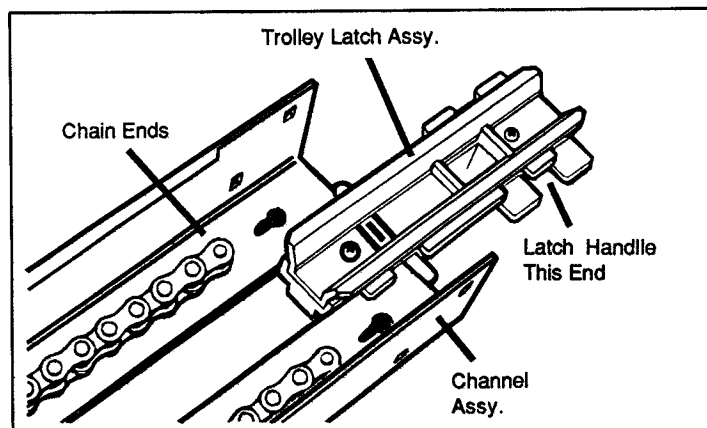


Figure 1

Step 2: Place the operator head on the garage floor and secure the channel assembly to the head (see Figure 2).

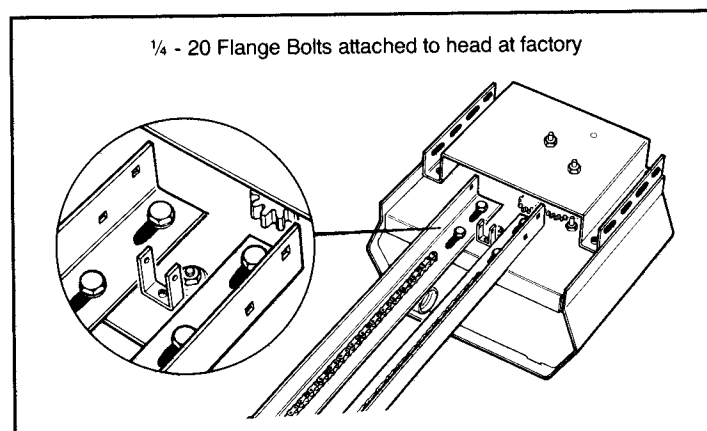


Figure 2

Step 3: Locate two each chain master links. Connect the two chain ends on the operator head to the two chain ends of the channel assembly. Make sure there are no kinks and that the chain is properly oriented. After connecting the chain ends, remove the tie holding the operator head chain (see Figure 3).

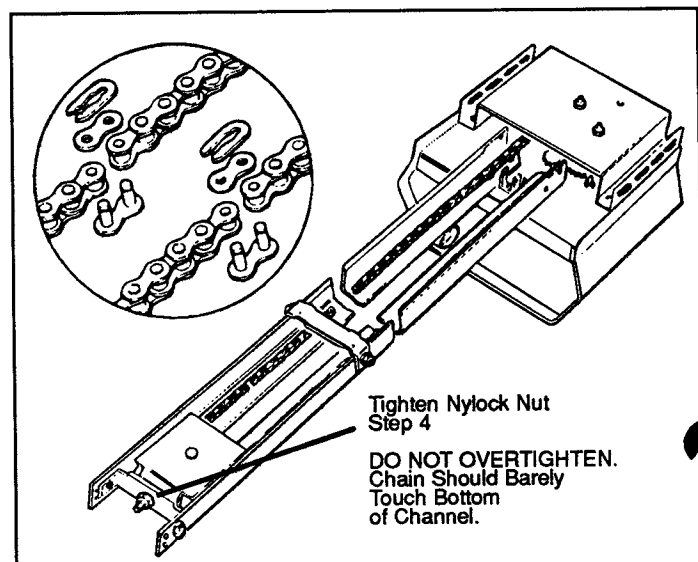


Figure 3

Step 4: At the channel end, turn T-bolt nut to tighten chain. Adjust nut (do not overtighten) until chain barely touches bottom of channel (see Figure 3).

Step 5: Install a 40 watt bulb, appliance type recommended (see Figure 4).

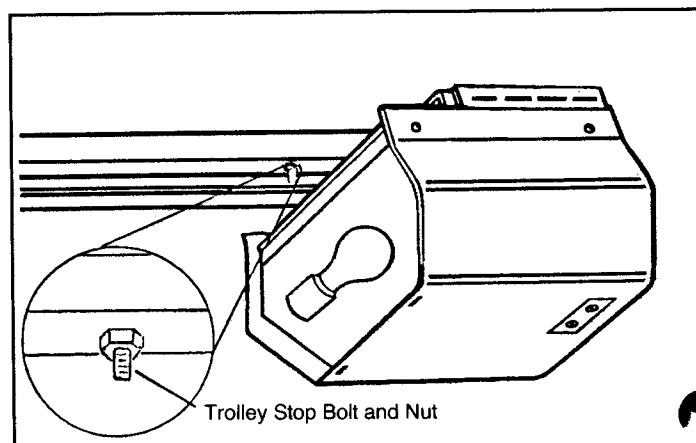


Figure 4

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. Have a qualified service person make repairs to cables, spring assemblies and other hardware before installing opener.**
3. **Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener.**
4. **If possible, install door opener 7 feet or more above floor. Mount the emergency release handle 6 feet above the floor.**
5. **Do not connect the opener to power source until instructed to do so.**
6. **Locate the control button (a) within sight of the door (b) at a minimum height of 5 feet so small children cannot reach and (c) away from all moving parts of the door.**
7. **Install Entrapment Warning Label (see Figure 13) next to control button and Control Adjustment Label (LA-368) in a prominent location, such as the inside of the garage door. If labels will not adhere to surface, staple to wall.**
8. **After installing opener, the door must reverse when it comes in contact with a 1-inch high (a 2 by 4-inch board laid flat) obstruction located on the floor.**

Testing of Opener Prior to Installation

Step 6: Plug operator cord into a grounded receptacle. The operator light should turn on. This is a normal function and the light will turn off in approximately five minutes. If the light does not turn on, check power source.

Step 7: Check screws on terminal strip to verify that connections are tight (see Figure 19).

Step 8: Using a screwdriver or needle-nose pliers, momentarily touch the [(-) common] and [P.B. Input] terminals simultaneously. When the connection is made the motor should start and the chain should move. After breaking the connection, the motor will stop.

Step 9: This step confirms that power is being supplied to the operator and that the motor and chain-drive mechanism function properly. Note that since this is a low-voltage circuit, this test does not constitute a shock hazard.

NOTE:

DO NOT WORRY ABOUT THE AMOUNT OF TRAVEL AT THIS TIME. ADJUSTMENT WILL BE MADE AFTER INSTALLATION IS COMPLETE.

Step 10: After completing the check, make sure that the trolley assembly is positioned at the door end of the channel.

Step 11: Disconnect operator cord from AC power.

YOU HAVE NOW FINISHED ASSEMBLING YOUR GARAGE DOOR OPENER.

INSTALLATION

Identify your type of door in Figure 5 and proceed as instructed.

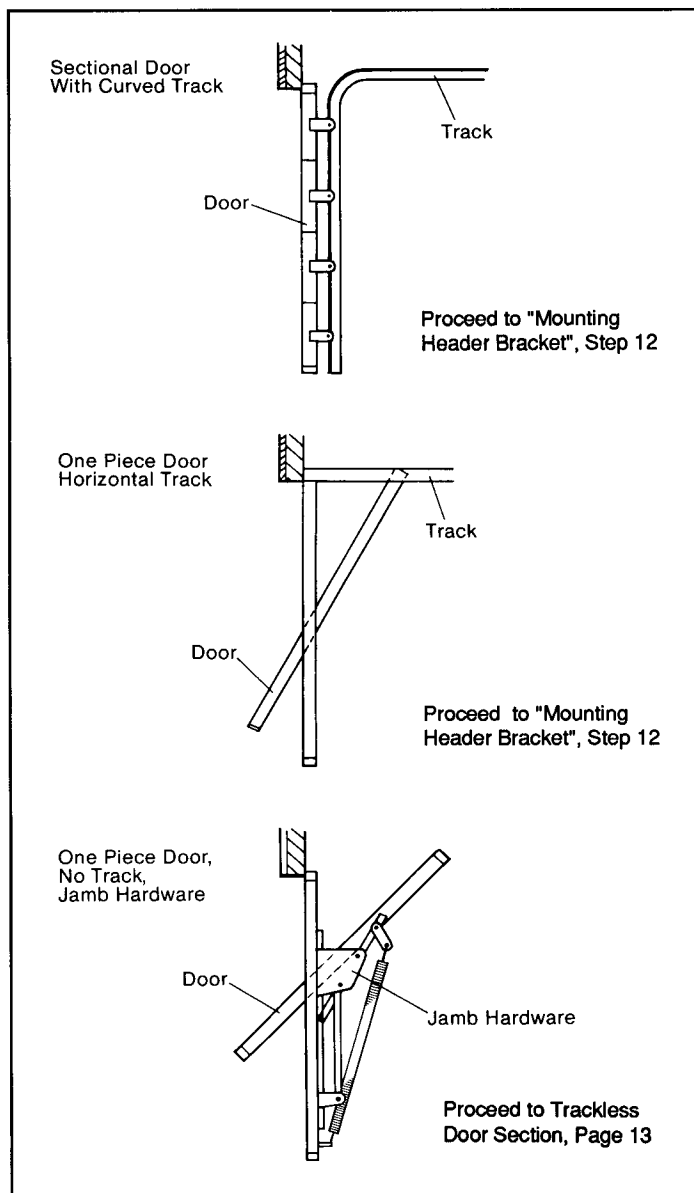


Figure 5

SECTIONAL AND ONE-PIECE TRACK DOORS

Mounting Header Bracket

The header bracket and two lag screws are required to complete the following installation sequence.

Step 12: Determine centerline of door (see Figure 6). Mark center line on header and top of door.

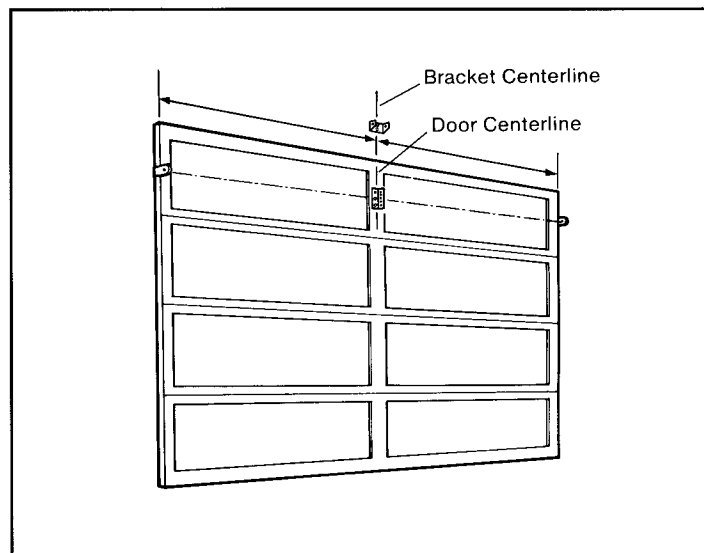


Figure 6

Step 13: Determine high-rise point of door (highest point door reaches when opening) (see Figure 7). Place straight edge or level at the top of the center of the door at its highest point of travel. Make sure straight edge is level and mark the door header where it touches. This is your high-rise point.

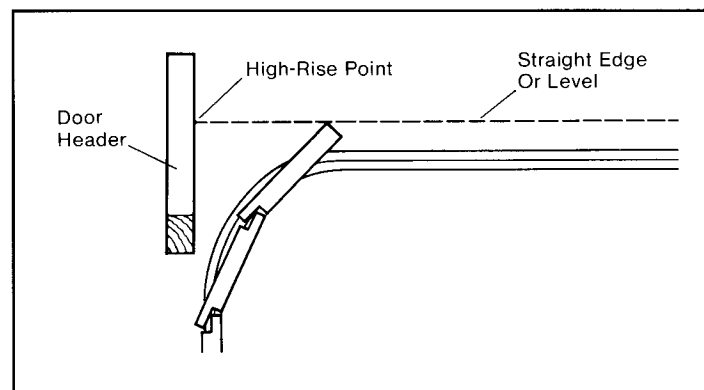


Figure 7

Step 14: If high-rise point is above door header, install 2"x6" mounting board at this point (see Figure 8).

Step 15: Use lag screws to mount bottom of header bracket one inch (1") above high-rise point on centerline of header (see Figure 8).

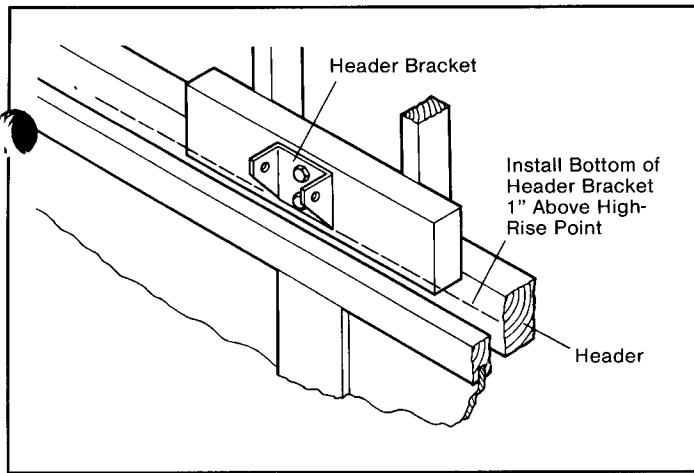


Figure 8

Mounting Channel to Header Bracket

A 4" clevis pin, hitch pin clip, and wave washer are required to complete this part of the installation.

Step 16: Place assembled operator on floor with exposed end of the channel facing door. Put operator head on empty carton (see Figure 9). Place wave washer on clevis pin. Next, raise end of channel and insert it into header bracket. Insert clevis pin through header bracket and channel and secure with hitch pin clip.

Note

When the door is equipped with a torsion spring, the spring extends inward above the door to a distance which creates an angle that makes it impossible to rest the operator head on the floor as shown in Figure 9. For such installation place the power head on a ladder so that the channel will clear the torsion spring and reach the header bracket.

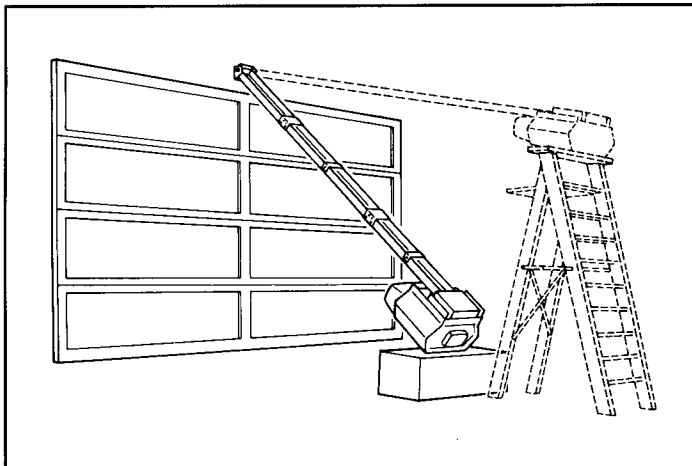


Figure 9

Step 17: Raise the head end of the operator and rest it on a ladder about 8 feet above the floor so that the operator will not obstruct the door when it is opened (see Figure 9). Next, raise garage door to the fully open position.

Mounting Power Unit End of Opener

Lag screws, 1/4-20x1/2" carriage bolts, and keps nuts are provided for this operation.

Step 18: With 2" lag screws, bolt the hanging material of your choice to power head using the carriage bolts and keps nuts. Use the most convenient holes on power head for this step (see Figure 10).

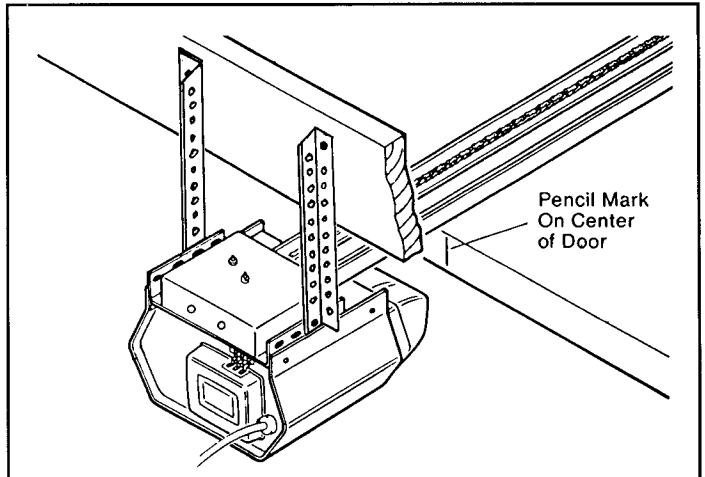


Figure 10

Step 19: Center the power head and channel in line with the header bracket. To accomplish this, align channel with pencil mark at the top center of the door as shown in Figures 6 and 10.

Step 20: Raise channel two inches above top edge of door. Place 2x4 on door and rest operator on it. Use 2" lag screws provided to attach hanging material to ceiling joist or header (see Figure 10). Note that the channel must clear the door.

Note:

Installation requirements may vary with garage construction. Additional material may be required for finished ceiling (drywall or plaster). In such cases, be sure that the hanger straps are secured to the ceiling joists, or to a header plate (see Figure 10) which in turn must be attached through the finished ceiling to the supporting joists.

Step: 21: Open and close door manually to ensure that it clears channel assembly.

Connection To Power Source

Step 22: The operator power head should be connected to a grounded receptacle located on the ceiling or near the operator head. If no receptacle is available which will accept the operator plug which has the third (grounding) pin, close by, one should be installed by a qualified electrician.

Step 23: Plug operator power cord into receptacle.

Notice

Some local codes require the use of metal conduit to bring power to the operator. When such requirements exist, the installer must then perform steps "A" through "E" as follows:

Step A: Disconnect power cord and remove bottom cover from power head.

Step B: Cut the power cord about three inches from the back of the power unit. Next, pull the three colored power wires into the power head enclosure—one at a time.

Step C: Then, using pliers, remove the insulated cable section from the retaining ring and push ring out of the case—from the inside out.

Step D: Pull three colored power wires through conduit and use wire nuts to connect them to the matching wires inside power head.

Step E: Lock conduit into operator head and connect wires and conduit to junction box at power source. At this point, power should be available at the operator head.

All permanent wiring should be installed in accordance to local electrical codes.

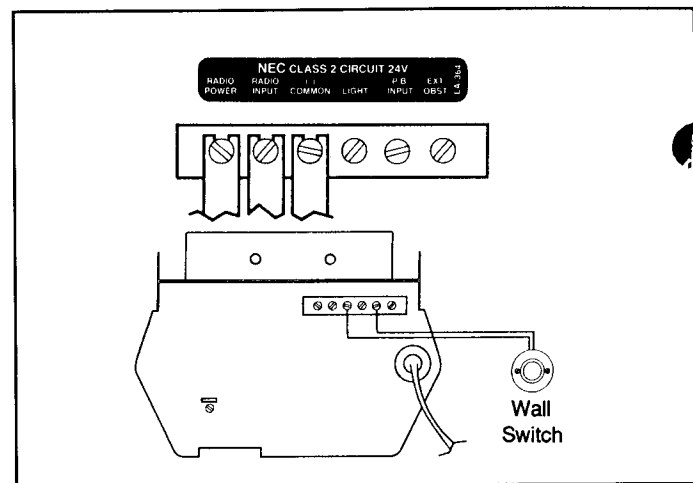


Figure 12

Step 29: Test the wall switch function by pressing the button. At this point, the motor should engage and operate the chain-drive mechanism for approximately 6 inches.

Note

The light will turn on and remain on for five minutes. This time interval will occur each time the push button or transmitter is activated.

An additional wall switch can be installed to operate the light independently. To do this, install the wall switch using a two-conductor wire and attach to the terminals marked "light" and "common" on the back of the operator.

Connecting Wall-Button Station

A length of two-conductor wire and staples are the only materials required to connect a wall switch to the operator. Perform the following steps to complete this part of the installation.

Step 24: Select a convenient mounting location for the wall switch near an access door. It is recommended that it be mounted no lower than 5 feet so as to be out of reach of small children (see Figure 11).

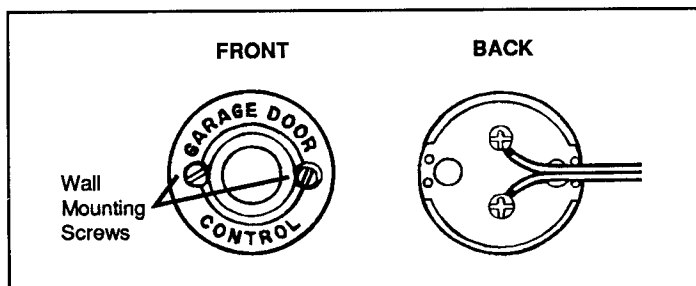


Figure 11

Step 25: Attach one wire to each of the two terminal screws on the back of the wall switch (see Figure 11).

Step 26: Using the two small screws provided, mount the wall switch at the selected position.

Step 27: Run wires up wall and across ceiling to back of power head. When staples are used to mount wires, they must straddle both wires so that no electrical shorts occur.

Step 28: Cut off excess wire at the power head, strip wire ends and attach one wire to terminal marked, "P.B." Attach the other wire to terminal marked, "Common" (see Figure 12).



Figure 13

Note

The label shown in Figure 13 must be mounted in visible place near the wall switch. If label will not adhere to surface, staple to wall.

Attaching Door Bracket and Door Arm

Step 30: For sectional doors, proceed to Step 31. For one piece trackless doors, go to page 13, column 2.

Note

For operators installed on fiberglass or metal doors, a reinforcement kit must be used. This kit is available from your dealer. It must be in place before attempting to install the door bracket.

Step 31: To complete this part of installation, it is necessary to use the door arm (which consists of two 17" sections, one straight and one curved), a door bracket, 2 clevis pins, 2 hitch pin clips, carriage bolts with keps nuts, and a quick-release pull cord.

The right-angled portion of the bracket (which contains the door arm adjustment holes) should be mounted at the center-line of the door with the outward facing angle to the right (see Figure 14). Note that the middle of the mounting bracket should be in line with the top rollers at the sides of the door. To install, use the door bracket as a template and mark position of top and bottom bolt locations on door and drill 1/4" holes. Note that the carriage bolts should be inserted through the bracket from the outside of the door.

Step 32: Insert dual hole clevis pin through center hole on the bracket. Slide wave washer on clevis pin. Then slide clevis pin through door arm. Insert hitch pin clip through hole on clevis pin.

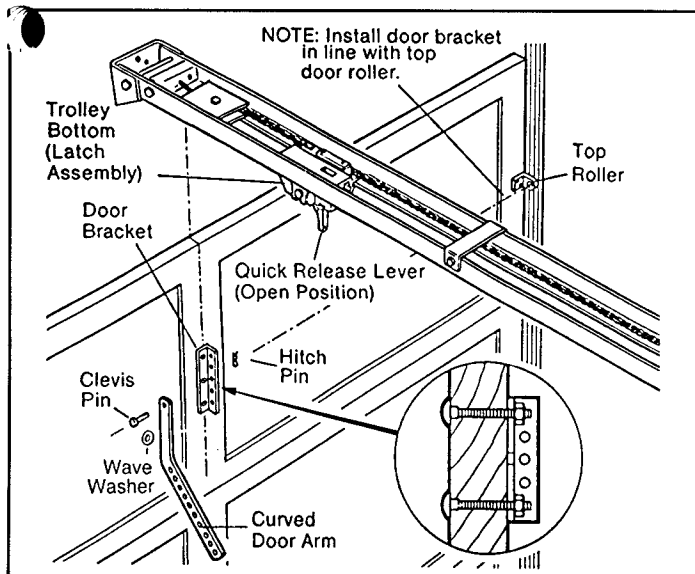


Figure 14

Step 33: Attach the straight section of the door arm to the trolley bottom (see Figure 15). Remove the hitch pin clip from the clevis pin and remove clevis pin from trolley bottom. Insert door arm into trolley bottom and slide clevis pin through trolley bottom and door arm and lock in place with hitch pin clip.

Step 34: Connect the two free ends of the door-arm assembly by rotating the curved section upward to the straight section so that two holes in each section can be matched (see Figure 16). The straight section should be kept as straight up and down as possible.

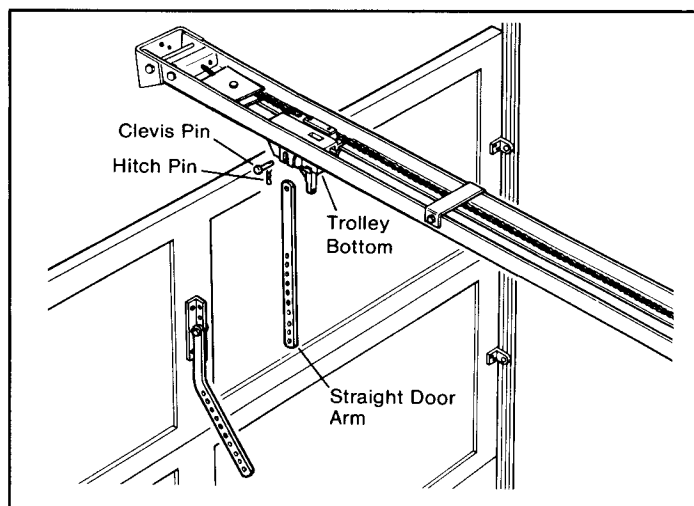


Figure 15

Note:

If the holes do not match precisely, slide the trolley bottom toward the operator head until a match occurs. At that point, insert a bolt at the adjoining holes. Next, insert second bolt through lowest set of adjoining holes.

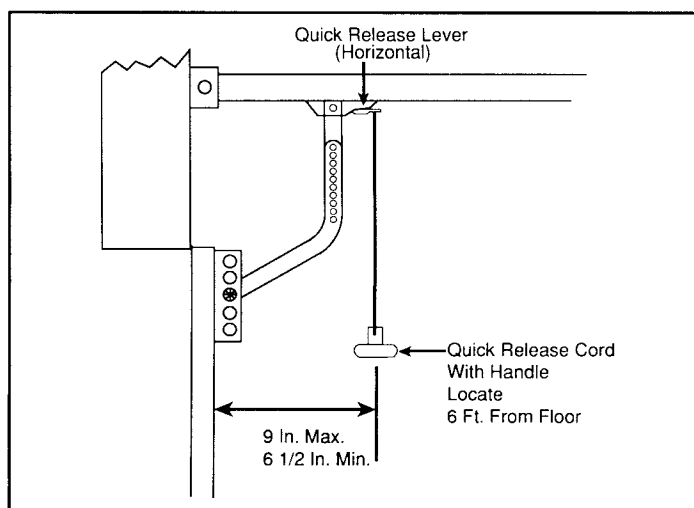


Figure 16

Step 35: Attach pull cord to quick-release lever on trolley bottom as shown in Figure 16. The red handle should be 6' above the garage floor or high enough to clear vehicles entering the garage.

Note:

The quick-release lever (with pull cord attached must be in the horizontal position (up) (see Figure 16). If the quick-release (disconnect) lever is in the vertical position (down) the trolley bottom will not engage the "traveler" that rides the chain drive and the door will not move.

Step 36: Raise the door manually until the quick-release mechanism in the trolley bottom engages the traveler on the chain drive. Note: If it is difficult to raise the door, pull the door arm toward the operator head (away from the door) while lifting the door. When the trolley bottom engages the traveler, it will snap together audibly, lock into position, and cease to move.

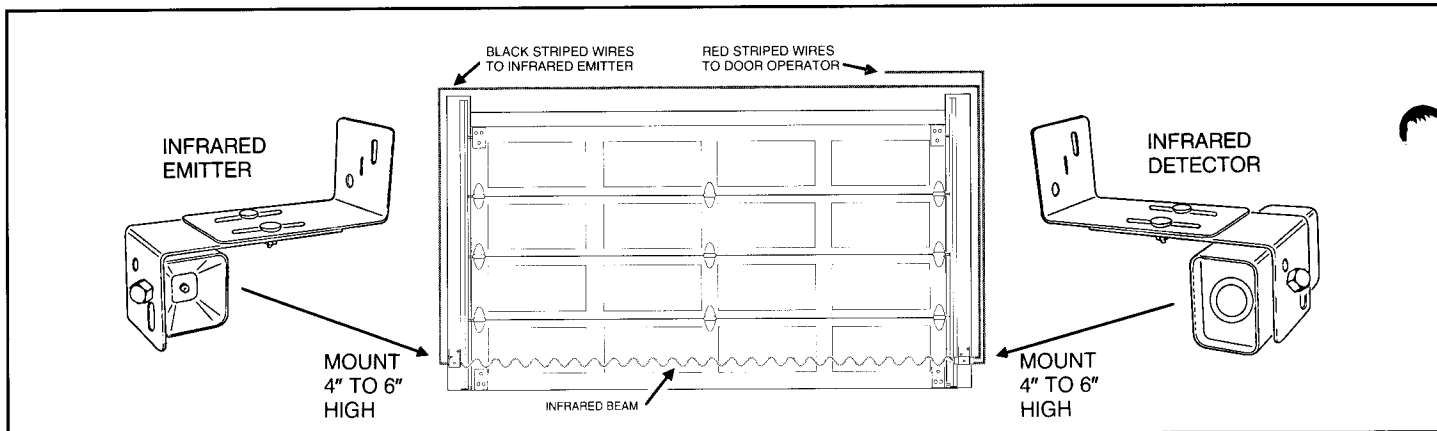
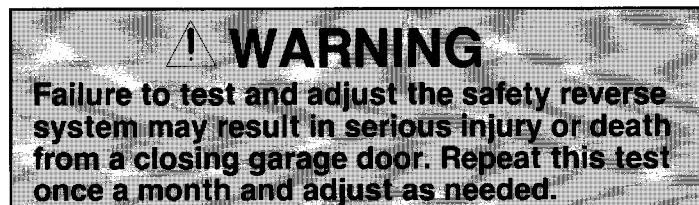


Figure 22

External Obstruction-Sensing Devices

The following information is to be used when connecting the external obstruction-sensing device such as a photorelay to an "Z" series operator for which terminals are provided to receive such an input.



Install the Moore-O-Matic object sensor, The "DoorSentry" after the garage door opener installation has been completed.



THIS SYMBOL MEANS WARNING—PERSONAL SAFETY OR PROPERTY DAMAGE INSTRUCTION. READ INSTRUCTIONS CAREFULLY.

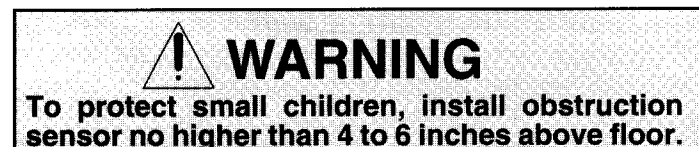
The "DoorSentry" object sensor must be installed and operated in strict accordance with the following safety instructions.

Failure to comply with the following instructions may result in personal injury or property damage.

Before installing the "DoorSentry", be sure to complete all garage door opener installation instructions as provided in your owners manual.

Disconnect power to garage door opener before installing the Moore-O-Matic object sensor.

Step 37: 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 to install sensors on masonry wall construction).



Step 38: Install emitter and detector inside garage on each side of garage door. Sensors must be positioned at the same height (approximately 4" to 6" above the floor). Directional arrows on the sensor labels must point toward each other and be horizontal to the floor. (See Figures 22 and 23)

NOTE: Detector should be installed on the "Shade" side of the garage, away from the sun's direct rays.

Step 39: For each bracket assembly drill two 3/16" pilot holes into the wall centered into slotted holes. Fasten bracket to walls with two lag screws through slotted holes. Position bracket to be square with the floor. Tighten both lag screws (see Figure 23). For each bracket assembly, attach mating bracket using the carriage bolts and nuts, as in Figure 22. Do not completely tighten nuts yet. Position detector in bracket as shown in Figure 22. Fasten detector to bracket with acorn nut and washer. Do the same with emitter. Slide bracket unit out from wall an equal distance until beam is completely clear of garage door, door hinges, tracks, springs, rollers, or any other part of door mechanism. Tighten carriage bolts and nuts.

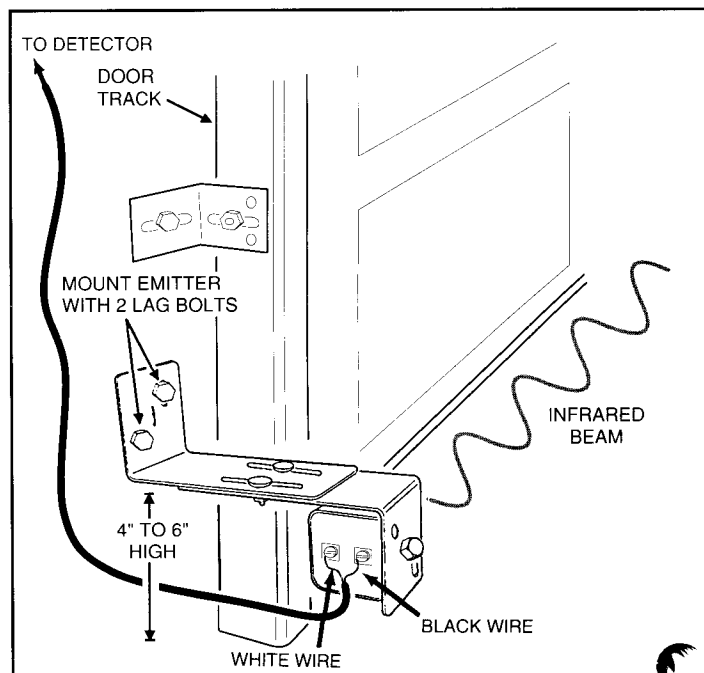


Figure 23

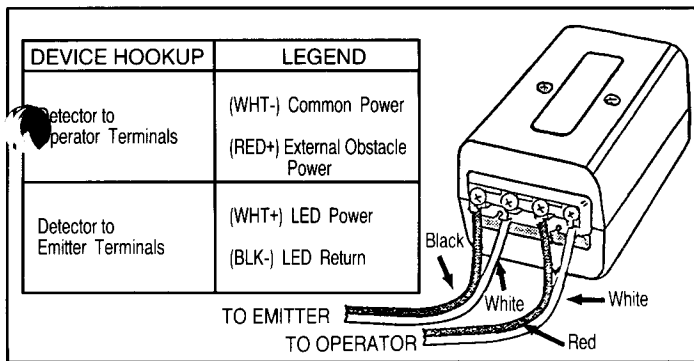


Figure 24

Step 40: Attach black striped wires to detector, run up and over the door to the terminals on the emitter. Attach wires to emitter terminals by color as shown on label. (See Figures 24). Use insulated staples to fasten wires to walls surrounding garage door.

Step 41: Run the red striped two-conductor "DoorSentry" wire from the detector up the side of the door opening and over to the channel. Run the wire across the top of the channel to the operator terminals marked "Common" and "Ext. Obst." (see Figure 25). Push the **three (3) wire ties** provided into the holes of the first, center and last spreader brackets. Wrap ties around the wire and pull through slot to secure wire firmly.

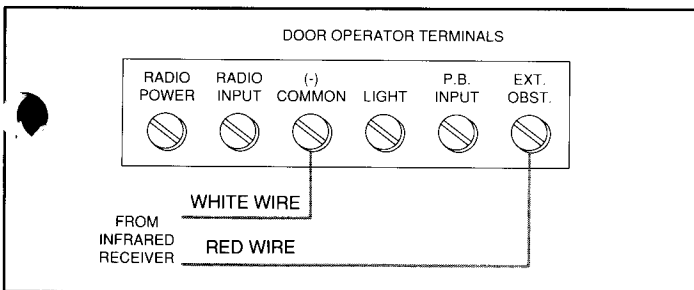


Figure 19

Step 42: Plug garage door operator power cord in receptacle. Small red lamp in detector should glow. If red lamp flashes after installation, check bracket position (see Step 45). Arrows should be horizontal to the floor. If brackets are installed correctly, position of detector within mounting bracket may require adjustment. Loosen detector case mounting nut and rotate detector. If red lamp glows, retighten mounting nut. Alignment is correct. If light continues flashing after adjustment, check the following:

1. Dirt on the detector lens or sunlight shining directly into the receiver lens causing interference.
2. Short in black striped or red striped wires. These can occur under staples or at screw terminals.
3. Incorrect wiring of detector to emitter.

Step 43: Test the object sensor. Place an object in the path of the invisible-light beam between detector and emitter as the garage door is closing. The door **must** reverse and return to a full open position. The garage door operator will not respond to a CLOSE command from the transmitter if the red light in the detector is flashing. The garage door can be closed manually by pulling down on the red emergency release handle connected to the trolley or by applying constant pressure on the wall button.

Adjusting Up-Down Door Travel

Limits are set at the factory for 7 foot doors.

The up and down travel limits are adjusted in the following sequence.

Step 44: Depress the transmitter button and observe the door's direction of travel and where it stops. If the operator traveled in the Up direction, go to Step 45. If the operator traveled in the Down direction go to Step 47.

Step 45: To increase the "up" distance, turn the slotted "Up Limit" screw in the counterclockwise direction (see Figure 20). Note that each turn is equal to approximately one inch of door travel. Then estimate the number of turns required.

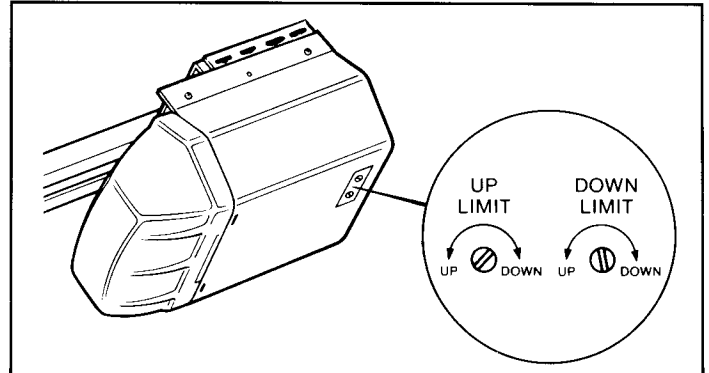


Figure 20

Step 46: Activate the transmitter so that the door will travel approximately one foot in the downward direction and depress the button again to stop the door. Then activate the transmitter to check the "up" distance. Continue this procedure until the "up" limit is properly adjusted.

Step 47: To increase the "down" distance turn the slotted "Down Limit" screw in the clockwise direction (see Figure 20). Note that each turn is equal to approximately one inch of door travel. Then estimate the number of turns required.

Step 48: Activate the transmitter so that the door will travel approximately one foot in the upward direction and depress the button again to stop the door. Then activate the transmitter to check the "down" distance. Continue this procedure until the "down" limit is properly adjusted. If you have not adjusted "up" limit go to Step 45.

Note:

As the door approaches the upper and lower limits selected, reduce the number of turns per adjustment.

Step 49: To decrease the upper and/or lower travel limit, activate the transmitter, and while the door is still in motion (up or down), activate the transmitter again. This will stop the door in the "park" position. Then decrease the travel adjustment as desired. "Parking" the door a distance away from the limit switches (instead of against them) makes the adjustment easier.

Step 50: To provide positive mechanical locking, see page 15, Steps 69 through 71, "Posi Lock Stop."

Adjusting Door Pressure Sensitivity

The door pressure (torque sensing) mechanism must be in proper adjustment at all times. This is required to ensure that the garage door will reverse its direction in the event that an obstruction is encountered during downward travel. If force on door seems excessive, decrease door pressure, never increase the pressure beyond that required to close the door.

Note:

Read the following directions thoroughly before setting the door pressure.

Step 51: Activate the transmitter to raise the door to the open position.

Step 52: Place a sturdy 2 x 4 laid flat on the floor so that it will be struck by the center of the door as it closes.

Step 53: Activate the transmitter so that the door will close and contact the obstruction. The door must reverse its direction of travel within 2 seconds after it encounters the obstruction.

Step 54: If the door stops after encountering the obstruction, it is an indication that the down limit needs to be adjusted. Turn the down limit screw 1 or two turns in the down direction (see Figure 20). Keep in mind that the door arm should not pass the vertical position.

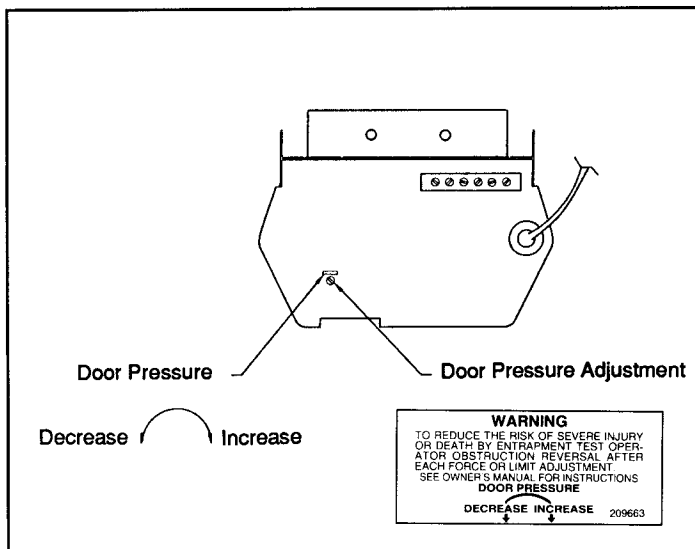
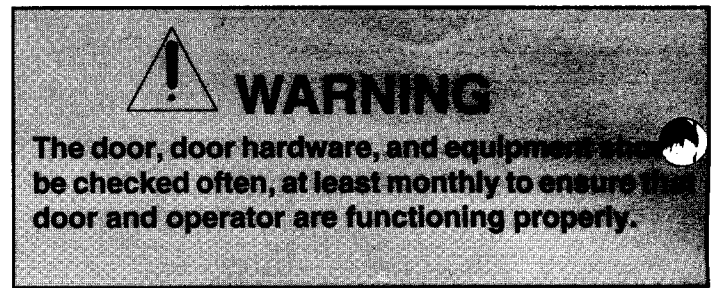


Figure 21

Step 55: Repeat Steps 51 through 54 to ensure correct operation.

Note:

If the door does not reverse on the obstruction after repeated adjustment attempts, disconnect door from operator and call for professional help.



Note:

The door pressure should be no greater than is required to cause the door to reverse its direction when it encounters an obstruction while closing.

TRACKLESS DOORS (JAMB)

The requirements for installing a garage door operator on a trackless door are different from the requirements for installing the same type operator on a sectional or one-piece, track mounted door.

Trackless doors are one-piece doors which employ jamb-type counterbalance hardware as part of the lifting mechanism. They are sometimes called "California" doors. Typically, the one-piece door and its accompanying hardware appear as shown in Figure 22. Note that there is another type of one-piece, trackless door that operates on a pivot. This garage door operator is **not recommended** for use on the pivot type garage door.

Note

For optimum operation of trackless doors, the power head end of the operator should be lower than the end of the channel attached to the header bracket above the door. In turn, this requirement makes it necessary to install the header bracket high enough above the door so that the high-rise point of the door clears the channel when the door opens and closes.

Attaching The Header Bracket

Step 56: Establish the exact center of the door and mark that location on the header above the door as shown in Figure 22.

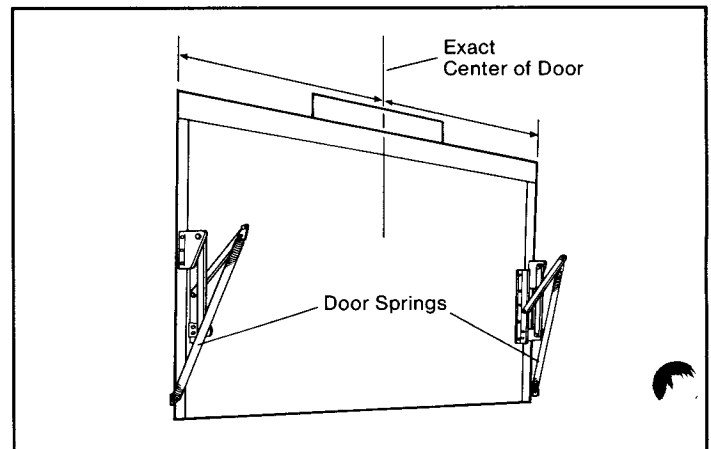


Figure 22

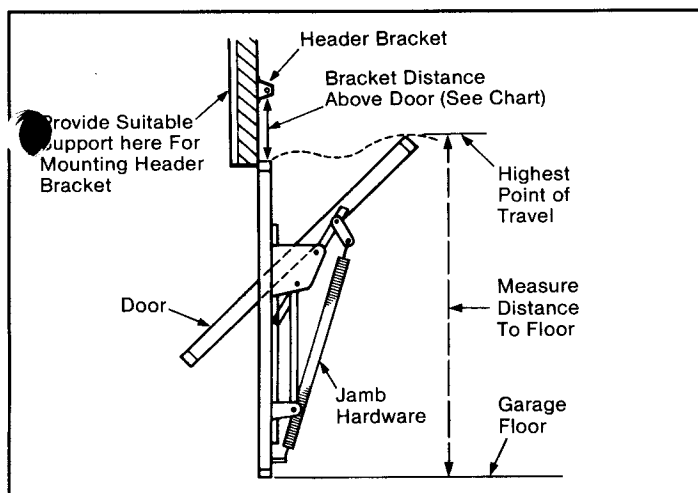


Figure 23

Step 57: Establish the high-rise point of the door. That is its highest point of travel when it opens or closes (see Figure 23). To establish this point, open the door and measure the distance between its highest point of travel and the floor. Next, measure the height of the door. The difference is the door rise.

Step 58: Having calculated the door rise, refer to the chart shown in Figure 24. With reference to the high-rise point, the chart shows the distance above the door where the header bracket should be installed.

High-Rise Point Above Door (In Inches)	Location of Header Bracket Above Door (In Inches)
Up to 4	Up to 10
4 to 8	10 to 15
8 to 12	15 to 20

Figure 24

Step 59: Using the lag screws provided, install header bracket on centerline of door at the height shown in Figure 24.

Note:

These charted header bracket locations cannot be achieved in garages with low ceiling. If this is the situation, mount the header bracket as high as possible, and hang the head end at the lowest acceptable (safe) level.

Mounting Operator To Header Bracket

To complete this series of steps, hanging material of your choice, 2" lag screws, 1/4-20x1/2" carriage bolts, and keps nuts are required.

Step 60: Bolt hanging material to power head (see Figure 10, page 8).

Step 61: Raise power head end of operator until high-rise point of door clears channel assembly by at least one inch, or

until the power head is level with the top edge of the door when it is in the open position (see Figure 25). Temporarily maintain that position (on a ladder, for example) until the hanging material on the operator head is permanently mounted.

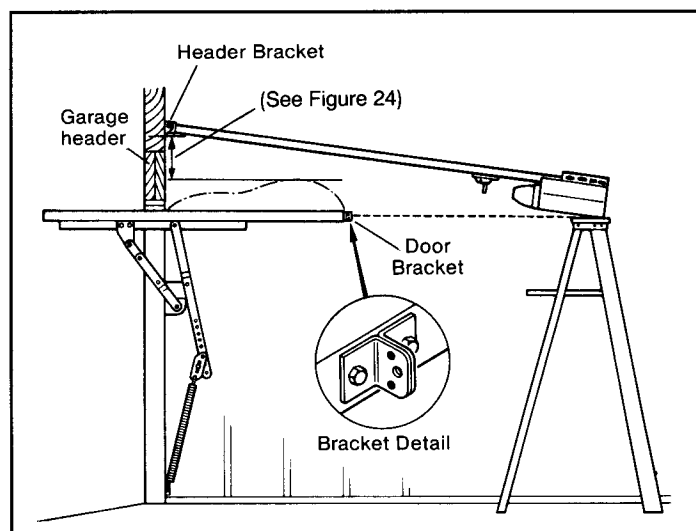


Figure 25

Step 62: For mounting power head, electrical power connections, and wall station, refer to Step 18 (page 8) through Step 29 (page 9).

Mounting the Door Bracket and Door Arm

The door bracket and door arm assemblies for trackless doors are shown in Figures 25, 26, and 27.

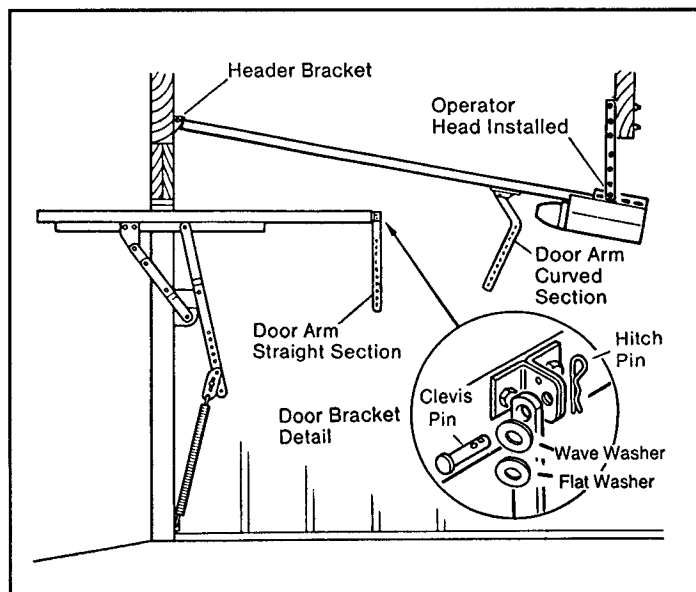


Figure 26

Step 63: Locate centerline of door. Refer to Figure 6, page 7. Next, install door bracket on centerline as close as possible to the top edge of the door. Use 2" lag screws (see Figure 26).

Step 64: Hold the straight door arm up to the door bracket already mounted and align the proper holes (see Figure 26). Slide the flat washer and wave washer onto the dual hole clevis pin. Insert the clevis pin into the aligned holes and secure with hitch pin clip.

Step 65: Attach the curved section of the door arm to the trolley bottom as shown in Figure 27. To attach, remove the hitch pin clip from the clevis pin and remove the clevis pin from the trolley bottom. Next, insert door arm section into trolley bottom and place clevis pin through the trolley bottom and door arm and lock in place with hitch pin.

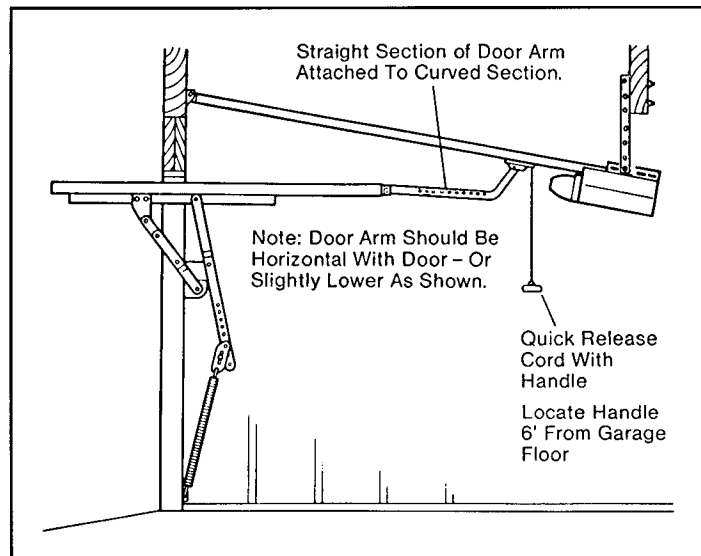


Figure 27

Step 66: Connect the two free ends of the door arms by rotating the straight section upward to the rear vertical (toward the curved door-arm section) so that two holes in each section can be matched (see Figure 27). Connect the two parts of the door arm using the bolts and keps nuts supplied. **Note:** If holes do not match precisely, slide the trolley bottom toward the operator head until a match occurs. At that point, insert a bolt through top adjoining holes. Next, insert second bolt through lowest set of adjoining holes.

Step 67: Attach pull cord to quick-release lever on trolley bottom as shown in Figure 27.

Setting Travel Limits and Door Pressure

Step 68: Refer to Steps 44 through 49 (page 12) and Steps 51 through 53 (page 13).

THE POSI-LOCK STOP

Step 69: After the limits have been set and all other systems are working, install the Posi-Lock STOP and the Posi-Lock SPACER (item Q). See Figure 28 The Posi-Lock mechanism is pre-assembled into the chain and trolley unit at the factory. To make it functional, however, a stop or clamp must be

affixed to the channel. When force is exerted to open a closed door, the trolley will apply pressure to the Posi-Lock PLATE (item P) causing it to engage the STOP (item S) which will prevent any further movement of the trolley and drive system. (see Figure 29).

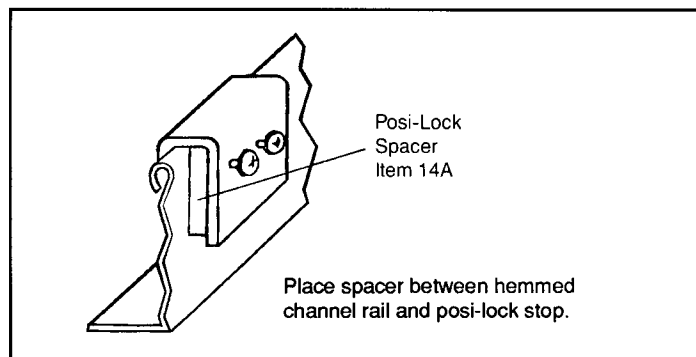


Figure 28

Step 70: Under power, run the door down to its normal, fully closed position.

Step 71: Clamp the Posi-Lock STOP to the channel rail at a point exactly 1/4" from the Posi-Lock PLATE, screws to the outside (see Figure 29).

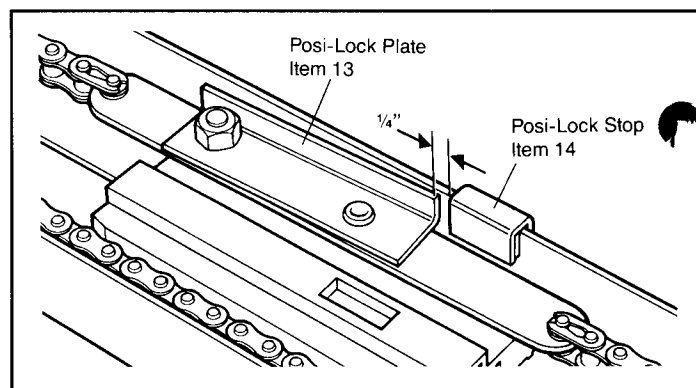


Figure 29

ATTACHING LIGHT LENS

Insert the top retainer tabs into the slots in the chassis. Swing the light lens down and snap it into the slots in the wrap cover (see Figure 30). To replace the light bulb, press the bottom of the light lens to release the retainer tabs and swing upwards to detach the top retainer tabs. Lens not included with Model X125a.

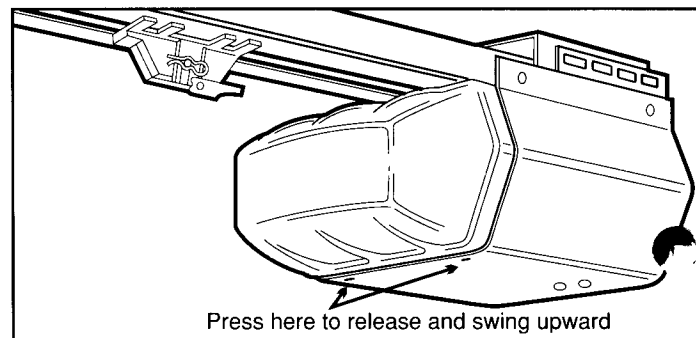


Figure 30

IMPORTANT SAFETY INSTRUCTIONS



WARNING—To reduce the risk of severe injury or death:

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 inch object (or a 2 by 4 board laid flat) on the floor. If adjusting either the force or the limit of travel, retest the door opener. Failure to adjust the opener 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 assemblies and other hardware.**
7. **SAVE THESE INSTRUCTIONS.**

TROUBLESHOOTING GUIDE

READ PAGE 6 FOR IMPORTANT INSTALLATION INSTRUCTIONS

Opener does not open from wallbutton or transmitter.	<ul style="list-style-type: none">● Check electric power to operator. Check fuses or circuit breakers.● Are all door locks disabled?● Is beam properly installed and aligned? (Red LED should shine steady)● Check for dead short in wallbutton wiring.
Opener works from transmitter but not from wallbutton.	<ul style="list-style-type: none">● Check wallbutton and wiring for correct wiring or short in wiring.● Make sure that staples do not penetrate wires.
Opener works from wallbutton but not from transmitter.	<ul style="list-style-type: none">● If LED on transmitter does not light, change battery.● Check to see that transmitter and receiver are coded alike.
Door will go up, but not down.	<ul style="list-style-type: none">● If door will go down when constant pressure is applied, check beam for alignment, obstruction or short in wiring.
Door opens and closes by itself. (Phantom operation)	<ul style="list-style-type: none">● Change code in receiver and transmitter.● Intermittent short in wiring to pushbutton. Locate and repair or replace wiring.
Light bulbs burn out frequently.	<ul style="list-style-type: none">● Use "Appliance" or "Garage Door Opener" bulb.

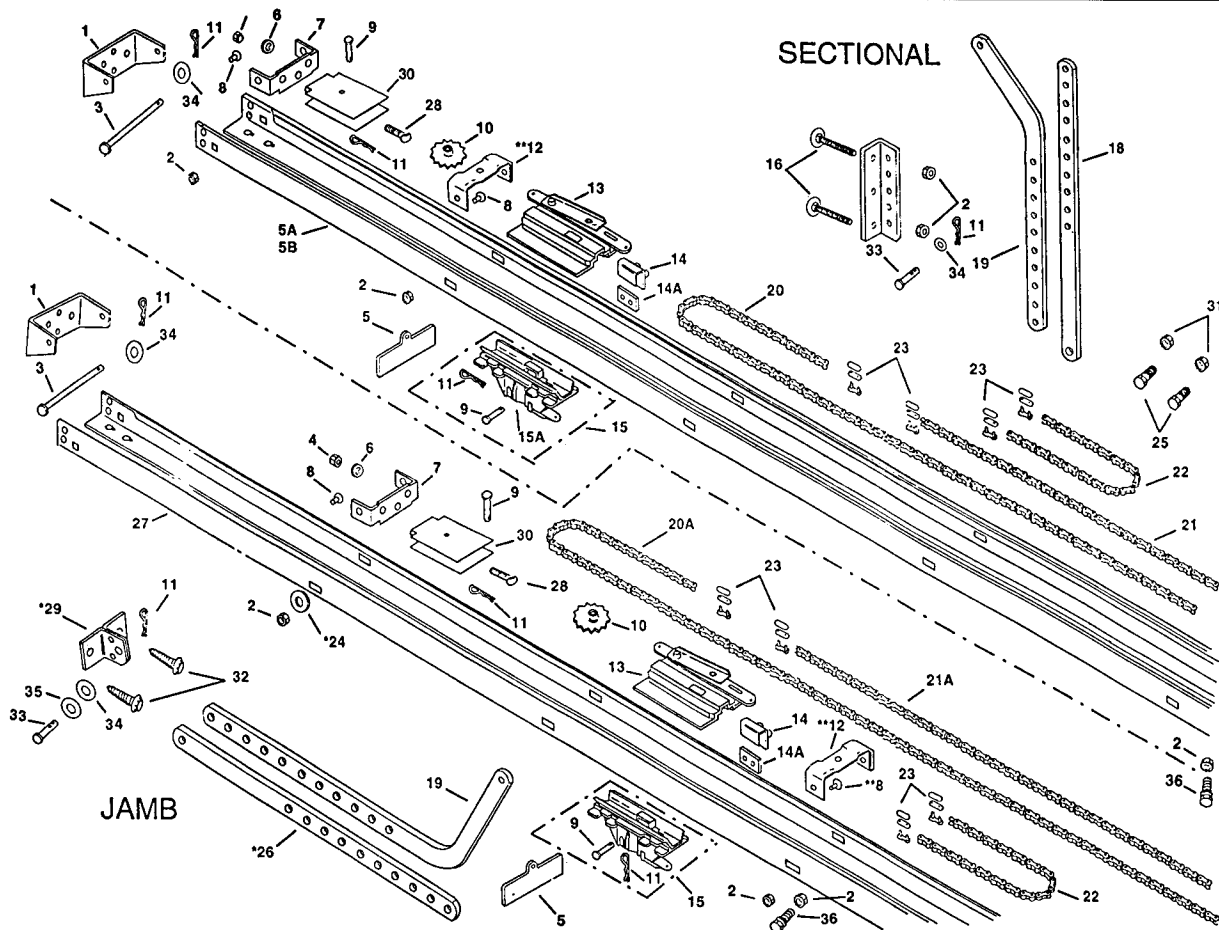
If the above suggestions do not fix the problem with your opener, contact your local Moore-O-Matic dealer or installer. Or you may contact Moore-O-Matic at the following locations:

Western Repair Center
2580 Pioneer Avenue, Suite C
Vista, CA 92083
(800) 835-5666

Central Repair Center
419 Oak Street
P.O. Box 349
Waupaca, WI 54981

RAIL ASSEMBLY REPLACEMENT PARTS LIST

NOTE: Inset parts and asterisk (*) denotes one piece jamb door hardware (**) denotes alternate parts for 8 ft. sectional model



ITEM	PART NO.	DESCRIPTION	QTY.
1	A7952	HEADER BRACKET	1
2	210493	1/4-20 KEPS NUT	11* 15-17**
3	210107	CLEVIS PIN 3.96	1
4	7282-000	1/4-20 NYLOCK NUT	1
5	211226	TROLLEY RELEASE HANDLE	1
5A	210086	CHANNEL SECT. (SECT'L). 113.5" HEMMED	2
5B	210087	CHANNEL SECT. (8' SECT'L). 126.125" HEMMED	2**
6	A8107	PAL NUT	1
7	A8004	CHANNEL ADJUSTMENT BRACKET	1
8	210488	1/4-20 x 1/2 CARRIAGE BOLT	10* 14-16**
9	7330-00	5/16 x 1 1/8 CLEVIS PIN	2
10	A6722	IDLER SPROCKET	1
11	211223	#3 HITCH PIN	4
12	A7790	SPREADER BRACKET	3* 5-6**
13	A7809	TROLLEY ASSY. (NO CHAIN)	1
**	A8551	TROLLEY ASSOYS. (CHAIN INCLUDED): (WITH 113.5" + 93.5") - (7')	1
	A8552	(WITH 126.5" + 106.5") - (8')	
	A7814	(WITH 54.5" + 75.5") (JAMB)	
14	A7005	POSI-LOCK STOP ASSEMBLY	1
*A	A7924	POSI-LOCK SPACER	1
15	A7805	TROLLEY SLIDE ASSY. COMPLETE	1
15A	A7207	LATCH REPLACEMENT KIT	1
16	210487	1 4-20 x 2" FULL THREAD CARRIAGE BOLT	2

ITEM	PART NO.	DESCRIPTION	QTY.
17	B6195	DOOR BRACKET	1
18	A6801	17" STRAIGHT DOOR ARM (SHIPPED WITH HEAD ASSEMBLY)	1
19	A6305	17" CURVED DOOR ARM (PACKED WITH HEAD)	1
20	A8533	CHAIN 113.5" - (7')	1
**	A8535	CHAIN 126.5" - (8')	1
20A	A6758	CHAIN 75.5" (JAMB)	1
21	A8534	CHAIN 93.5" - (7')	1
**	A8536	CHAIN 106.5" - (8')	1
21A	A6791	CHAIN 54.5" (JAMB)	1
22	A6753	CHAIN 15.5" (SHIPPED WITH HEAD)	1
23	8526-000	MASTER LINK	4
*24	7800-000	1/4" FLAT WASHER (JAMB ONLY)	2
25	210490	5/16-18 x 1" HEX BOLT	3
*26	A6487	25" STRAIGHT ARM	1
*27	210087	CHANNEL SECT. (JAMB), 90" HEMMED	2
28	A7975	T-BOLT	1
*29	A7566	DOOR BRACKET, JAMB (RIVETED)	1
30	A6706	IDLER SPROCKET RETAINER	1
31	210494	5/16-18 KEPS NUT	2
32	210492	LAG SCREWS (JAMB ONLY)	2
33	210108	CLEVIS PIN - DUAL HOLE	1
34	210109	WAVE WASHER	2
35	210116	FLAT WASHER	1
36	210489	SEMS BOLT 1/4-20 x 1/2"	1