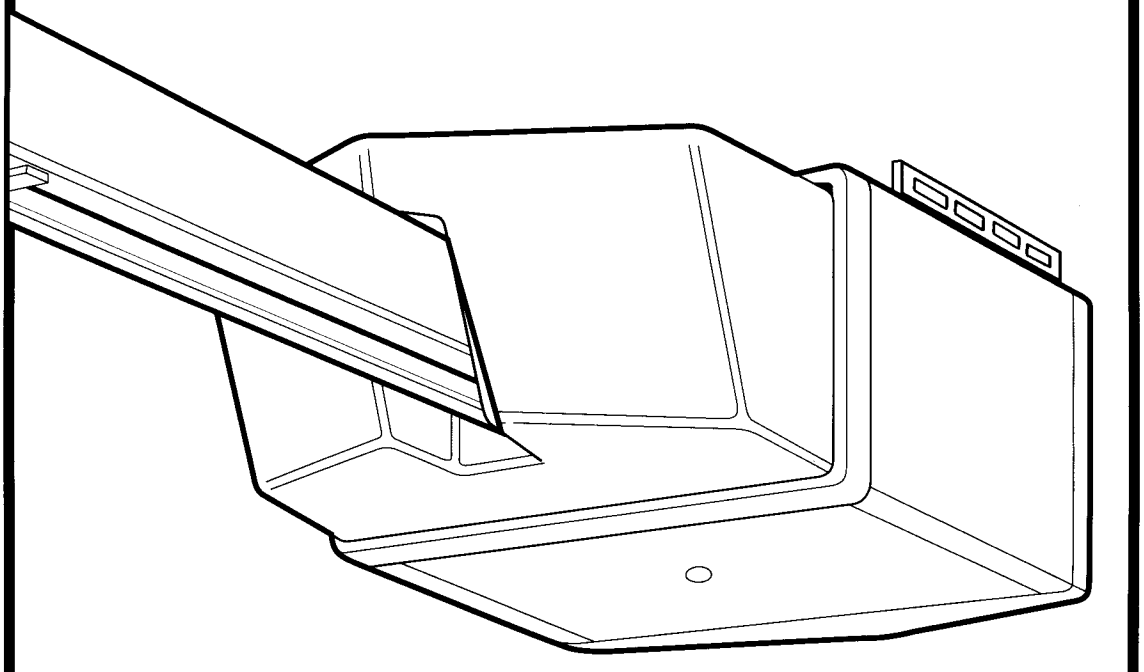
$1.50

Homeowner'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.



Screw-drive garage door operator

Models Z150 Series Operators

WARNING

To reduce the risk of injury to persons - Use this operator with:
SECTIONAL DOOR IF CHANNEL BOX SHOWS "SS" or "Z"
ONE PIECE JAMB DOOR IF CHANNEL BOX SHOWS "SJ" or "ZJ"

MOORE-O-MATIC

Quality Garage Door Operators with Linear Radios

MODEL Z150
INSTALLATION MANUAL

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
Waupaca, WI 54981
(800) 826-1313

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

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.

⚠ 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!

SAFETY PRECAUTIONS

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

- Door Preparation: Before installing your garage door operator, disable the lock so that the door cannot be locked by accident. Also, remove the rope used for closing the door manually. Failure to do so may be hazardous.
- Hanger straps must be secured to the ceiling joists or to a header-plate (such as a 2"x6") which also must be attached to ceiling joists.
- All permanent wiring should be installed in accordance with local electrical codes.
- Do not permit children to play in the door area.
- Do not operate door unless it is visible, properly adjusted, and free from obstructions.
- For operators installed on fiberglass or metal doors, a reinforcement kit should be used. This kit is available from your local dealer. It should be in place before you begin to install your operator.
- The torque-sensing (door pressure) mechanism must be in working order at all times. This is to ensure that the garage door will reverse its direction if an obstruction is encountered during downward travel. The system should be checked periodically.

SPECIFICATIONS

Door Size and Type: The Model Z150 will open **sectional and one-piece track type** doors up to 7 ft. high. Channel assemblies for 8 ft. high doors are also available.

The Model Z150 is for use on **one-piece jamb hardware** (no track) type doors up to 8 ft. high.

Required Headroom: 2-3/4" above maximum high-rise point of door.

Travel Time Per Second: Approximately 8" for sectional doors and 5" for one-piece doors.

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

Motor: 1/2 HPR Split Capacitor, 1500 RPM
1/2 HPR Split Capacitor, 900 RPM

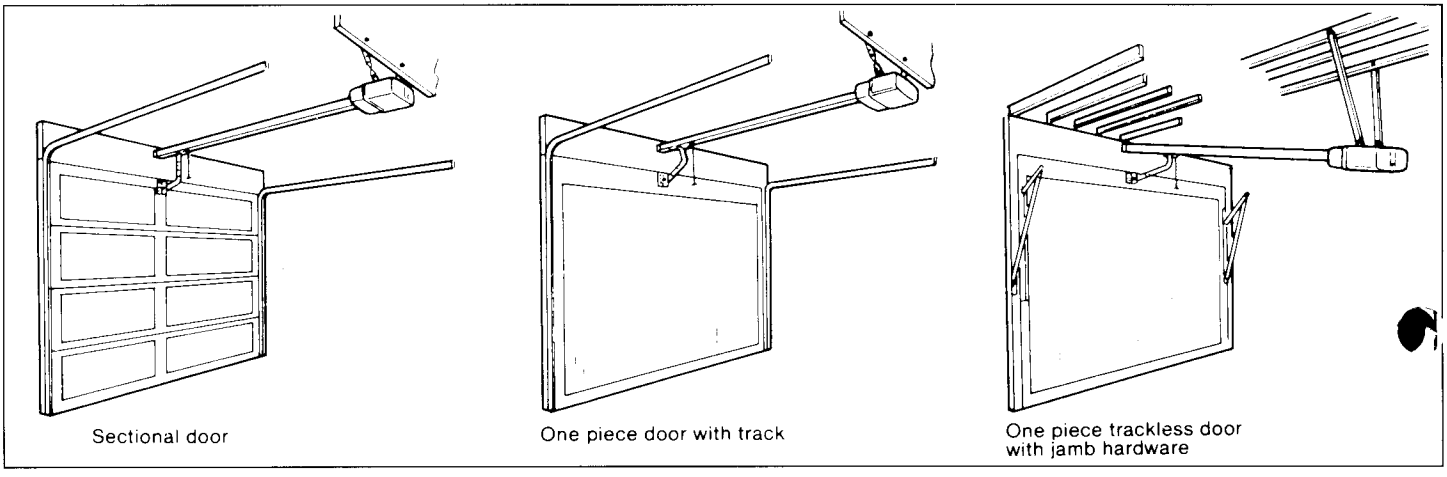
Power: 120 VAC 60 Hz
240 VAC 50 Hz

FUNCTIONS

- Reverses automatically when an obstacle is encountered.
- Stops automatically when an obstacle is encountered during upward travel.
- Automatically returns to fully-open position if obstacle/ "Down Limit" switching system fails.
- 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 home owner.

⚠ WARNING

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



Sectional door

One piece door with track

One piece trackless door with jamb hardware

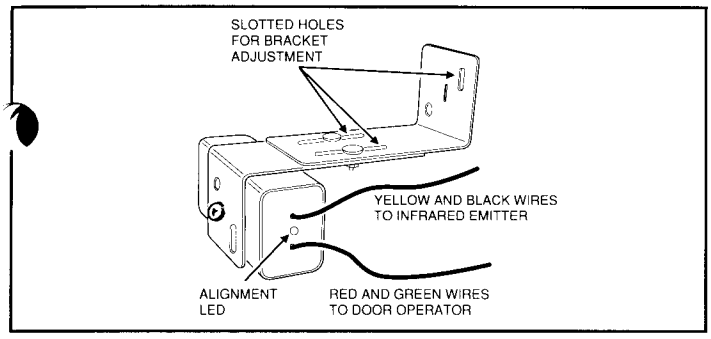


Figure 24

Step 46: Run the yellow and black wires attached to the detector up and over the door to the terminals on the emitter. Attach wires to emitter terminals by color as shown on label. (See Figure 24 and 25) Use insulated staples to fasten wires to walls surrounding garage door.

Step 47: Run the 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 Obstacle" - (see Figure 25). Attach the three (3) wire ties provided to each end and the center of the top side of the channel assembly. Slide wire into wire clip to hold wire away from any moving parts of channel or door.

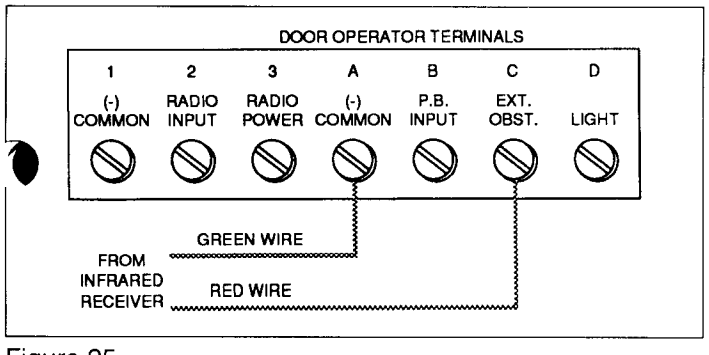


Figure 25

Step 48: 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 screw and rotate detector. If red lamp glows, retighten mounting screw. 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 yellow/black or red/green wires. These can occur under staples or at screw terminals.
3. Incorrect wiring of detector to emitter.

Step 49: 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.

Note:

If, in the process of adjusting the door's travel limits the door will not move, or if it begins to move and stops, or reverses direction, those actions indicate that more "door pressure" is required. In that event, increase the pressure by two or three turns and operate the transmitter again (see Figure 27) for door pressure adjustment. If required, continue this procedure, two turns at a time, until the door moves easily.

Adjusting Door Travel

Up-Down Travel Adjustment

Note that both the up and down travel limits are adjusted in the following sequence of steps.

Step 50: To adjust the up-down limits, depress the transmitter button and observe the door's direction of travel and where it stops.

Having followed the instructions described at the beginning of this step, assume that when the transmitter was activated, the first direction of door travel was down—and that the door stopped before it reached the fully-closed position. Note: If the first direction of travel was up, reverse the procedure by first adjusting the "Up Limit" screw drive in the direction indicated, (step 52).

Step 51: To increase the "down" distance, turn the slotted "Down Limit" screw in the clockwise direction (see Figure 26). Note that each turn is equal to approximately one inch of door travel. Then estimate the number of turns required.

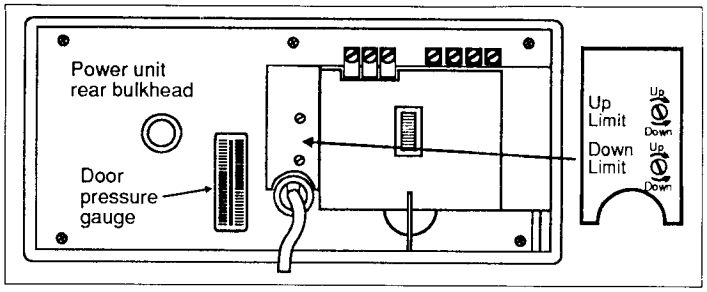


Figure 26

Step 52: Activate the transmitter again. The door will open to the point where the "Up Limit" switch is set. If more upward travel is required, estimate the additional distance needed, and adjust the "Up Limit" screw in the counterclockwise direction.

Step 53: Activate the transmitter again and the door will travel downward to the newly set "Down Limit."

Step 54: Continue the procedure described in Steps 51, 52 and 53 until the desired fully closed and fully open limits are reached.

Note:

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

Step 55: 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.

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. Factory setting is at mid-range.

Step 56: Activate the transmitter to raise the door to the open position.

Step 57: Place a sturdy obstruction of approximately 12 inches in height in the center of the doorway and in a position where it will obstruct the door's downward travel.

Step 58: 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.

NOTE: If the door does not reverse automatically, activate the transmitter to stop the door. Then activate the transmitter again so that it will raise the door and clear the obstruction.

If the door does not automatically reverse, it indicates that the pressure is too great and should be reduced.

Step 59: When the door clears the obstruction, turn the Door Pressure screw counterclockwise in the **"DECREASE"** direction. See Figure 27. Observe the door pressure indicator scale while making this adjustment.

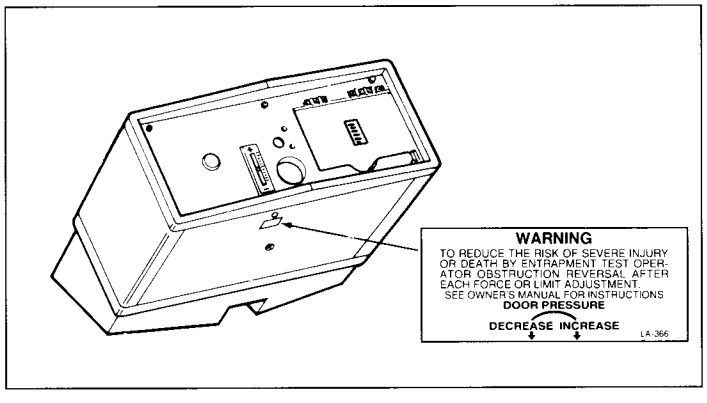


Figure 27

Step 60: Activate the transmitter and repeat Step 59 until the sensing mechanism functions properly. If, during the process of adjustment, the door pressure becomes too sensitive, slowly turn the adjustment screw in the **"INCREASE"** direction (clockwise).

WARNING

The door, door hardware, and equipment should be checked often, at least monthly to ensure that door and operator are functioning properly.

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 28. 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.

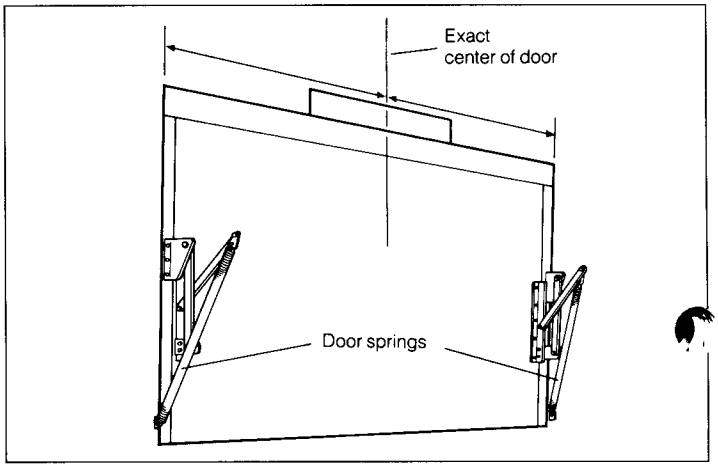


Figure 28

Attaching The Header Bracket

Step 61: Establish the exact center of the door and mark that location on the header above the door as shown in Figure 28.

Step 62: Establish the high-rise point of the door. That is its highest point of travel when it opens or closes **(see Figure 29).** 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 63: Having calculated the door rise, refer to the chart shown in Figure 30. With reference to the high-rise point, the chart shows the distance above the door where the header bracket should be installed.

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 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 or closes.

TROUBLE SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	REMEDY
Door will not close using the transmitter. Will only close with constant pressure to push button.	Photo Relay is out of alignment, there is a short in the yellow/black wires (can occur under staples or at screw terminals, or the wiring from the detector to the emitter is incorrect).	Recheck Photo Relay wiring and alignment.
Starts without apparent cause (Phantom operation)	Unwanted radio signal from unknown source Intermittent short in wall switch wiring Receiver decoding clip bad	Change digital code Remove cause of short Replace or repair receiver
Works from wall switch but not from radio control	Dead battery in transmitter Faulty radio receiver or transmitter	Replace battery Repair or replace radio set
Works from radio control but not from wall switch	Defective or "open" wall switch or wall switch wiring	Locate "open" and repair
Does not run, no sound when button is pushed	Faulty control board Loose connector or broken wire	Refer to dealer
Will not shut off at limit(s)	"Open" in limit switch circuit— loose connection or broken wire Channel assembly out of phase with head	Refer to dealer
Won't reverse on obstruction	Defective circuit	Refer to dealer
Lights won't come on	Faulty control board Bad splice connection	Refer to dealer
Lights won't go off	Faulty control board	Refer to dealer
Operator runs sluggishly even if disconnected from door	Faulty motor capacitor	Refer to dealer

HOW TO OBTAIN REPLACEMENT PARTS AND SERVICE

Contact retail store, dealer, or installer from whom the operator was purchased. If you are unable to obtain parts or service required, however, you may write to:

Moore-O-Matic, Inc.

Central Repair Center
419 Oak Street
Waupaca, WI 54981

Western Repair Center
2580 Pioneer Avenue, Ste. C
Vista, CA 92083

NOTE

Replacement parts will be made available at current prices. If requested, prices will be quoted in advance. When parts are ordered by mail, you will be responsible for shipping charges.

If you require parts or assistance, be prepared to provide the following:

1. Model, serial number and all of the other data shown on the data plate.

2. The date and the establishment from which you purchased your operator.

3. Brief description of your problem or requirement.