

HOMEOWNER'S INSTRUCTIONS

IMPORTANT SAFETY NOTES

Please read the instructions carefully! This garage door opener is designed to provide safe and reliable service if installed and tested as described in these instructions. 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 opener.

THE FOLLOWING FORMATS ARE USED FOR SAFETY NOTES IN THESE INSTRUCTIONS.

WARNING

This type of warning note is used to indicate possible mechanical 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 opener.

IMPORTANT USER SAFETY INSTRUCTIONS

WARNING

**A MOVING GARAGE DOOR CAN CAUSE INJURY OR DEATH!
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 inch object (or a 2x4 board laid flat at the center of the door) on the floor. If adjusting either the force or the limit of travel, re-test the door opener. Failure to adjust the opener properly may cause severe injury or death.
5. If possible, use the red emergency release handle 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 Garage Door Opener Maintenance) An improperly balanced door could cause severe injury or death. Have a qualified service person make repairs to cables, spring assembly and other hardware.
7. **SAVE THESE INSTRUCTIONS.**

1 Using the Garage Door Opener

Opening the Door

1. With the door in view, press the wall station's UP/DOWN ARROW button or the button on the remote control.
2. When the opener is activated, the opener's light will turn on and the door will begin to open.
3. The door will open until the open limit is reached. If an obstacle is encountered (opener's light flashes four times) while the door is opening, the door will stop.
4. The opener's light will stay on for about five minutes after the door stops.

Closing the Door

1. With the door in view, press the wall station's UP/DOWN ARROW button or the button on the remote control.
2. When the opener is activated, the opener's light will turn on and the door will begin to close.
3. The door will close until the close limit is reached. If an obstacle is encountered (opener's light flashes four times), or the safety beam is interrupted (opener's light flashes three times) during closing, the door will stop, then re-open.
4. The opener's light will stay on for about five minutes after the door stops.

Stopping the Door Mid-travel

1. The door can be stopped immediately at any time by pressing the wall station's UP/DOWN ARROW button or the remote control's pushbutton.
2. The next time the opener is activated, the door will move in the opposite direction.

Vacation Lock for Additional Security

1. Slide the wall station's LOCK switch to the locked position to prevent remote controls from opening the door after the door is completely closed. The remotes can close the door, but not open it. The door can still be opened or closed by using the wall station's UP/DOWN ARROW pushbutton.

NOTE: To signal that the vacation switch is locked, the opener's light will flash five times if a remote is activated in an attempt to open the door.

2. Slide the wall station's LOCK switch to the unlocked position to return the opener to normal operation.

Controlling the Opener's Light

1. The opener's light can be lit by pushing the wall station's LIGHT button. The light will remain on until the LIGHT button is pressed again or the opener is cycled.
2. If the opener's light is on, pushing the wall station's LIGHT button will turn the opener's light off.

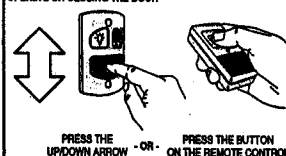
Automatic Courtesy Light

1. The opener's light will turn on for five minutes whenever the safety beam at the base of the door opening is interrupted.
2. The Automatic Courtesy Light feature can be turned off or on by sliding the wall station's LOCK switch to the locked position, then press and hold the LIGHT button for five seconds. The opener's light will flash seven times to signal the feature change. After making the change, set the LOCK switch to the desired position.

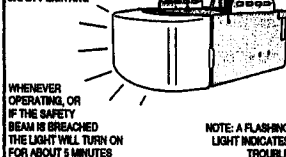
Disconnecting the Door from the Opener

1. With the door in any position (preferably closed), carefully pull the red release handle. **USE CAUTION IF THE DOOR IS OPEN, THE DOOR MAY DROP.**
2. The disconnected door can be opened or closed manually.
3. To reconnect the opener, flip the release lever up. Raise or lower the door manually until the opener reconnects.

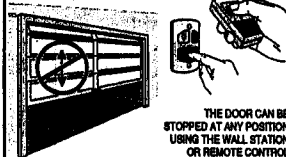
OPENING OR CLOSING THE DOOR



SAFETY LIGHTING



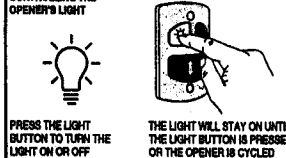
STOPPING THE DOOR



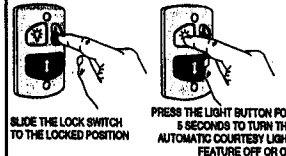
PREVENTING REMOTES FROM OPENING THE DOOR



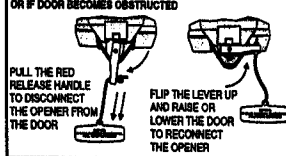
CONTROLLING THE OPENER'S LIGHT



AUTOMATIC COURTESY LIGHT FEATURE OFF/ON



IN CASE OF POWER FAILURE OR IF DOOR BECOMES OBSTRUCTED



2 Remote Controls

This opener is supplied with one remote control. Additional remote controls can be purchased. An unlimited number of remote controls can be used with this opener. The short white wire on the back of the opener serves as an antenna for the remote controls. Do not cut off the white wire or the remote controls will not operate well.

WARNING

Children operating or playing with a garage door opener can injure themselves or others. The garage door could cause serious injury or death. Do not allow children to operate the remote control(s) or the wall station. A moving garage door could injure or kill someone under it. Activate the opener only when the door is clearly visible, free of obstructions and adjusted properly.

Entering the Remote Control Code

1. Set the eight ON/OFF switches in the remote to a unique code pattern. All remotes used with this opener must be set to the same code pattern. Avoid setting the switches all ON, all OFF, or alternating ON/OFF.
2. Press the opener's LEARN button or the wall station's LAMP button (with the LOCK switch unlocked) for five seconds. The red LEARN light will glow. The red light will stay on for about 15 seconds. A remote control code must be entered while the red LEARN light is still on.
3. Press the remote's button. The red LEARN light and the opener's light will flash once indicating that the opener has accepted the remote control code.

Removing the Remote Control Code

1. Press and hold the opener's LEARN button for ten seconds or more.
2. Release the LEARN button. The red LEARN light will blink three times signaling that the remote control code has been erased. The red LEARN light will turn off, then turn on for 15 seconds. A remote control code can be entered during this time using Step 3 above.

Testing

1. Before testing the remote control, straighten out the white antenna wire so it points up.
2. Stand clear of the door, press the remote control's button and verify that the opener starts.

Adding Additional Remote Controls

1. Examine the code set in the existing remote control.
2. Match that exact code in any additional remote controls.

Replacing a Remote Control's Battery

When the red light on the remote glows dimly, or fails to light at all when the remote is activated, the battery needs replacing.

1. Remove the battery/code access door.
2. Replace old battery with a fresh 9-volt battery.
3. Replace the battery/code access door.

3 Garage Door Opener Maintenance

Weather conditions may affect the door operation which could require some re-setting of the opener's adjustments. Doors may swell and become heavier during wet periods, door hinges and rollers might bind during cold periods. To insure safe operation of the door, perform the following tests, including any additional test steps described.

Every Month

1. With the door closed, pull the red release handle to disconnect the opener from the door.
2. From outside the garage, slowly open the door manually all the way, and then close it all the way. Notice if there is any binding, sticking or rubbing. The door should move smoothly in both directions.
3. Raise the garage door about halfway up. Carefully release the door and see if the door balances. It should stay in place. Close the door.

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

4. To reconnect the opener, flip the release lever up. Raise the door manually until the opener reconnects.
5. Perform the Safety Beam Test (Section 4).
6. Perform the Safety Reversal System Test as described in Steps 4-6 in Section 6.

After Servicing the Opener

1. Perform the Safety Beam Test (Section 4).
2. Perform the Open and Close Limit Adjustments (Section 5).
3. Perform the entire Door Force Safety System Test (Section 6).

WARNING

Always perform the entire Door Force Safety System Test (see Section 6) after making any adjustments to the opener.

Every 6 Months

Check the chain tension. The turnbuckle should be slightly above the rail. Adjust the chain if necessary.

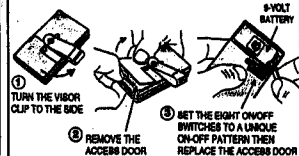
NOTE: Too much or too little chain tension will cause excessive sprocket noise.

1. Hold the turnbuckle with a flat blade screwdriver and loosen the two locknuts with a 7/16" end wrench.
2. Twist the turnbuckle to adjust the chain tension. Adjust the chain until the turnbuckle is slightly above the rail.
3. Hold the turnbuckle with a flat blade screwdriver and tighten the two locknuts with a 7/16" end wrench.

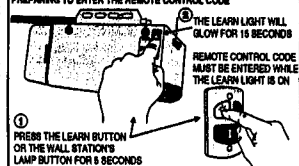
Every Year

Check the door hardware for lubrication needs. Lubricate door hinges, rollers and bearings according to door manufacturer's recommended procedures.

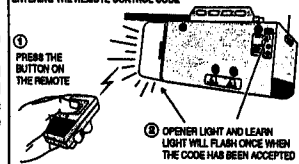
SETTING THE REMOTE CONTROL'S CODE



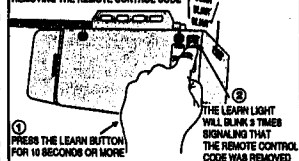
PREPARING TO ENTER THE REMOTE CONTROL CODE



ENTERING THE REMOTE CONTROL CODE



REMOVING THE REMOTE CONTROL CODE



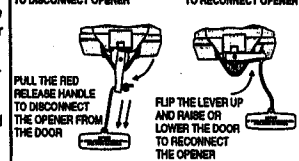
WARNING

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. CALL A QUALIFIED GARAGE DOOR INSTALLATION PROFESSIONAL!

WARNING

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

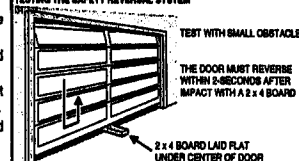
TO DISCONNECT OPENER TO RECONNECT OPENER



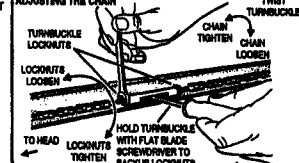
CHECKING THE DOOR BALANCE



TESTING THE SAFETY REVERSAL SYSTEM



ADJUSTING THE CHAIN



4 Testing the Infrared Safety Beam

The safety beam has two components, a sender and a receiver. The sender produces a narrow infrared beam that travels across the bottom of the door opening to the infrared receiver. If an object blocks the infrared beam while the door is closing, the door will stop, then reverse and fully open (the opener's light will flash three times). As a safety feature, the opener will ignore signals from all remote controls if the door is open and the infrared safety beam is blocked or out of alignment. In this case, the door can be forced closed by pressing and holding the wall station's up/down arrow pushbutton (be sure the door area is in clear view).

WARNING

With the door closed, disengage the trolley from the chain during these alignment tests by pulling the red release handle.

Safety Beam Test

- 1 Check that the opener has power. The green lights on the sender and receiver should be lit.
- 2 If the receiver's green light is on, but the red light is off, the receiver has power but is not detecting the infrared beam from the sender. The red light might flash when the beam is partially blocked. This can be caused by misalignment or something blocking the beam. Adjust the safety beam sender and receiver while watching the receiver's red light (stay out of the beam while aligning it). When the red light stays on, the beam is aligned.

SAFETY BEAM INDICATOR TABLE	
GREEN ON	POWER ON
GREEN OFF	POWER OFF
RED ON	BEAM OK - NO BLOCKAGE
RED OFF	BEAM BLOCKED OR MIS-ALIGNED
RED FLASHING	BEAM ALIGNED POORLY

NOTE: If the receiver's red light remains off, check for: 1) Dirt on the receiver's lens, 2) Sunlight shining into the receiver's lens, 3) A short in the safety beam wiring (from staples or at the opener terminals).

- 3 With the door closed and the opener disengaged from the door, press the wall station's UP/DOWN ARROW button to move the chain traveler (the plastic block connected to the chain) to the up position (away from the door).

- 4 Push the wall station's UP/DOWN ARROW button again. While the chain traveler is moving to the down position (toward the door), block the safety beam. THE CHAIN TRAVELER MUST STOP, THEN REVERSE TO THE UP POSITION. The opener's light should flash three times.

- 5 Place an object in the path of the safety beam. Check that constant pressure is required on the wall station's UP/DOWN ARROW button to cause the chain traveler to move toward the down position. Release the pushbutton before the opener stops; check that the chain traveler returns to the up position.

NOTE: The garage door opener will not respond to a CLOSE command from a radio transmitter if the safety beam is blocked.

- 6 To reconnect the opener, flip the release lever up. Raise the door manually until the opener reconnects.

NOTE: If the Automatic Courtesy Light feature is enabled, the opener's light will turn on for five minutes whenever the safety beam is interrupted. This feature can be disabled (see Section 1).

5 Adjusting the Open and Close Limits

The limit adjustments that control how far the door will open or close are located on the side of the opener. The limits should be adjusted so the door opens just short of any door stops, and closes right at the floor level. Each full turn of a limit adjustment equals about 2-1/2" of door travel.

CAUTION

Set the open and close limits carefully. Setting the limits beyond the distance that the door can travel could cause damage to the door, the door hardware, or opener.

- 1 Start with the door in the closed position.
- 2 Activate the remote control. Wait while the door moves to the open position and stops.

- 3 Examine the position of the door.
 - If the door needs to open more, turn the OPEN LIMIT adjustment clockwise 1/4-turn (towards UP on the label) to raise the open limit.
 - If the door needs to open less, turn the OPEN LIMIT adjustment counterclockwise 1/4-turn (towards DOWN on the label) to lower the open limit.

- 4 Activate the remote control. Wait for the door to move down a few feet, then activate the remote control again to stop the door.

- 5 Repeat Steps 2-4 until the open limit is properly adjusted.

- 6 Activate the remote control. Wait while the door moves to the closed position and stops.

- 7 Examine the position of the door.
 - If the door needs to close more, turn the CLOSE LIMIT adjustment counterclockwise 1/4-turn (towards DOWN on the label) to lower the close limit.
 - If the door needs to close less, turn the CLOSE LIMIT adjustment clockwise 1/4-turn (towards UP on the label) to raise the close limit.

- 8 Activate the remote control. Wait for the door to move up a few feet, then activate the remote control again to stop the door.

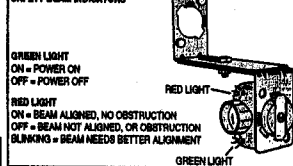
- 9 Repeat Steps 6-8 until the close limit is properly adjusted.

NOTE: If the door stops during opening or reverses during closing before reaching the limits, the door force adjustment needs to be set. Change the adjustment as described in the next section then return to this step to finish setting the limits.

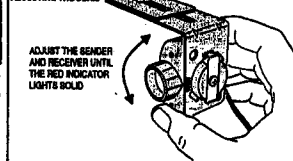
WARNING

Serious injury or death from a closing garage door may result because of failure to test and adjust safety reverse system. Repeat this test monthly and adjust as needed.

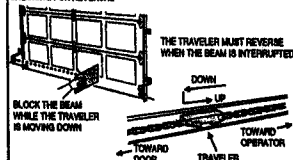
SAFETY BEAM INDICATORS



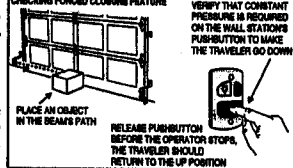
ADJUSTING THE BEAM



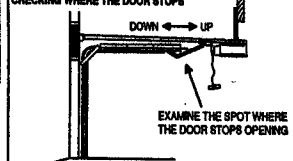
CHECKING FOR REVERSAL



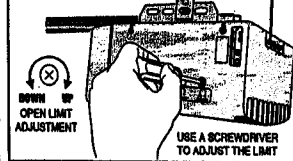
CHECKING FORCED CLOSING FEATURE



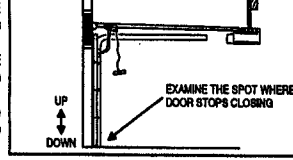
CHECKING WHERE THE DOOR STOPS



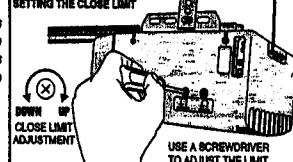
SETTING THE OPEN LIMIT



CHECKING WHERE THE DOOR STOPS



SETTING THE CLOSE LIMIT



6 Testing and Adjusting the Door Force Safety System

The door force adjustments are located on the side of the opener. The door force adjustments must be properly set at all times. The CLOSE FORCE adjustment controls how much force is required to cause the door to reverse direction if an obstruction is encountered during closing. The OPEN FORCE adjustment controls how much force is required to stop the door if an obstruction is encountered during opening.

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. A closing door might not reverse properly when required and someone could be pinned under it. An 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. PERFORM THE SAFETY REVERSAL SYSTEM TEST (STEP 4-5) MONTHLY.

NOTE: Read the following directions carefully before changing the door force adjustments.

WARNING

Always perform the Door Force Safety System Test after making any adjustments to the opener.

Door Force Safety System Test

- 1 Start with the door open. Use the remote control to cycle the door during this test.

Adjusting the Close Force

- 2 Turn the CLOSE FORCE adjustment 1/8-turn at a time in the DECREASE direction (counterclockwise) until the door stops and reverses mid travel while going down.
- 3 Turn the CLOSE FORCE adjustment 1/8-turn at a time in the INCREASE direction (clockwise) until the door fully closes without reversing.

Safety Reversal System Test

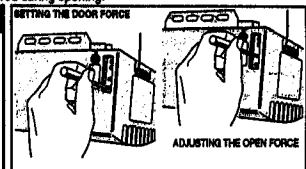
- 4 Lay a 2 x 4 board flat on the floor where it will be struck by the center of the door as it closes.
- 5 Verify that the door reverses when it strikes the board. The door must reverse within two seconds after striking the board.

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

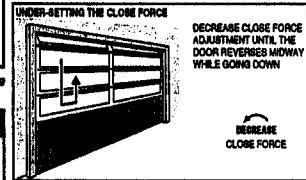
- 6 Repeat the Safety Reversal System Test until the door reverses within two seconds of striking the board.

Adjusting the Open Force

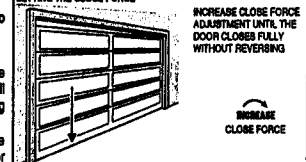
- 7 Turn the OPEN FORCE adjustment 1/8-turn at a time in the DECREASE direction (counterclockwise) until the door stops mid travel while going up.
- 8 Turn the OPEN FORCE adjustment 1/8-turn at a time in the INCREASE direction (clockwise) until the door fully opens without stopping.



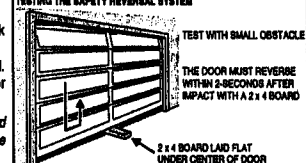
UNDER-SETTING THE CLOSE FORCE



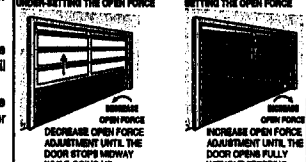
SETTING THE CLOSE FORCE



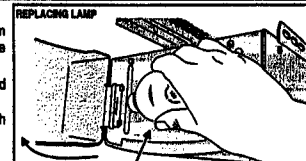
TESTING THE SAFETY REVERSAL SYSTEM



UNDER-SETTING THE OPEN FORCE



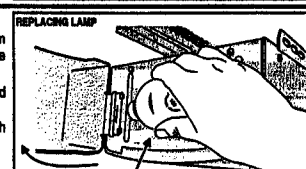
SETTING THE OPEN FORCE



7 Replacing the Opener's Lamp

If the opener's safety lamp fails to light manually or when the opener is cycled, the light bulb needs replacing. Use the following steps to replace the light bulb.

- 1 Swing the light cover open to expose the light bulb and lamp socket.
- 2 Replace the light bulb with a 100 watt maximum rough service bulb (sometimes called a garage door bulb).
- 3 Swing the light cover closed, snapping it shut.
- 4 Press the wall station's lamp button to test the lamp.



8 Troubleshooting

PROBLEM (FLASHER CODE)	CAUSE	SOLUTION	TEST
1 FLASH	No problem	Remote control code entered into memory	Test remote control for operation
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 wires.
3 FLASHES	Door won't close	Safety beam obstacle	Check for obstacles. Align the safety beam (Step 4)
4 FLASHES	Door reverses or won't open or close	Open or Close force exceeded, or motor thermal shutdown	Check for binding or un-balanced door. Adjust the door force (Step 6). If motor had thermal shutdown, wait 30 minutes and retry.
5 FLASHES	Door won't open from transmitter	Remote was activated while vacation switch was locked	Unlock vacation switch on wall station
6 FLASHES	Motor ran longer than 30 seconds	Mechanical or electronic failure	Call your local garage door professional
7 FLASHES	No problem	Automatic Courtesy Light feature switched on or off	Walk through the safety beam. If the feature is on, the opener's light will go on.

FCC NOTICE

Changes or modifications not expressly described in this manual or approved by the manufacturer could void the user's authority to operate the equipment. This device complies with FCC Part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

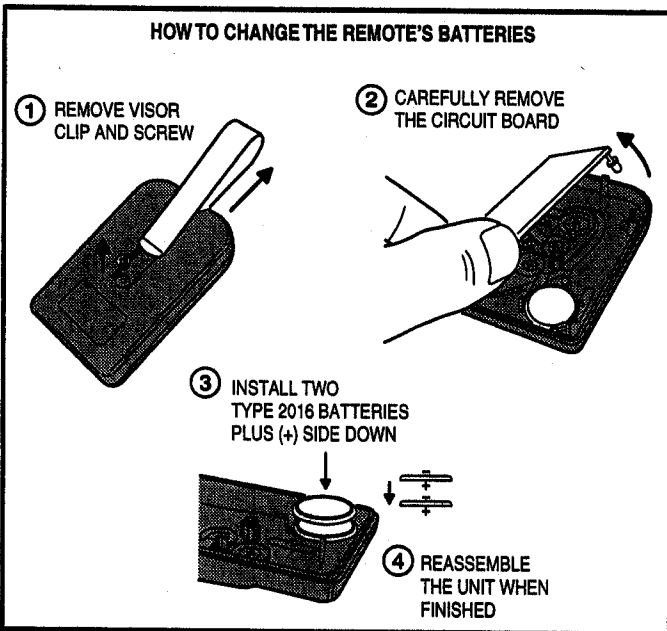
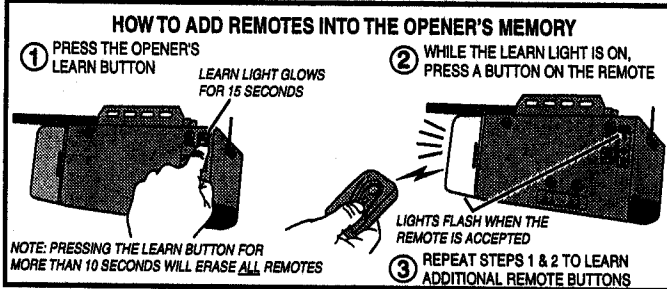
LIMITED WARRANTY

The Linear product is warranted against defects in material and workmanship for:

MODEL	ELECTRONICS	DRIVE TRAIN	MOTOR
NEWB	1 year	2 years	8 years
NEWB	1 year	2 years	10 years

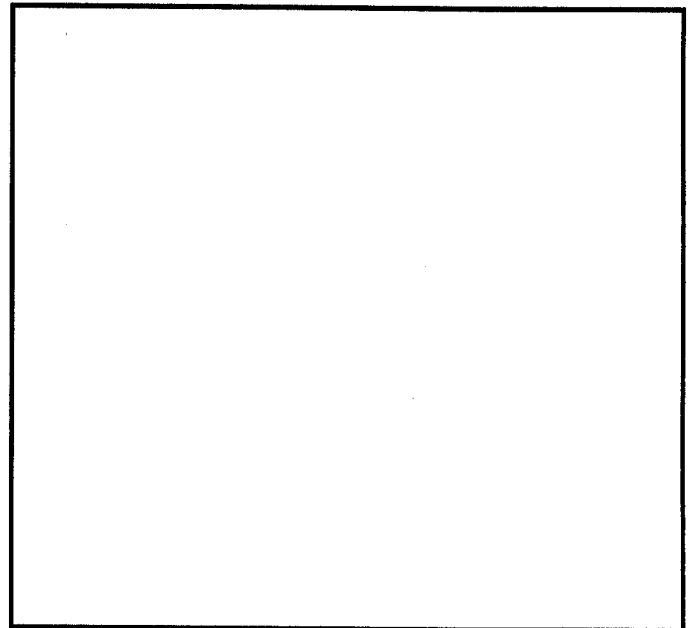
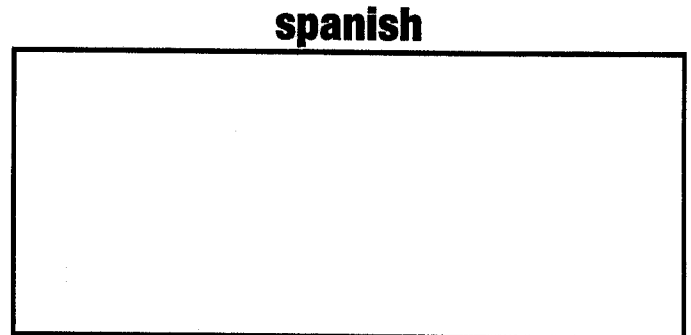
This warranty extends only to wholesale customers who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. There are no obligations or liabilities on the part of Linear Corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are void only for one (1) year. This Linear Corporation Warranty is in lieu of all other warranties express or implied.

3-Button Handheld Remote Control



LIMITED WARRANTY

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FCC Notice: Changes or modifications not expressly described in this manual or approved the by manufacturer could void the user's authority to operate the equipment. This device complies with Part 15. Operation is subject to the following two conditions: (1.) This device may not cause harmful interference and (2.) this device must accept any interference received, including interference that may cause undesired operation.