Maintenance Instructions

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING

TO REDUCE THE RISK OF SEVERE INJURY OR DEATH TO PERSONS:

- Inspections, service and repairs should be performed anytime a malfunction is observed or suspected.
- Only qualified persons should perform maintenance on a door operator and all safety precautions should be taken into consideration.
- When servicing, always disconnect operator from main power supply.
- KEEP DOORS PROPERLY OPERATED AND BALANCED.
- See Door Manufacturer's Owner Manual. An improperly operated or balanced door can cause severe injury or death. Have qualified door system technicians perform repairs to cables, spring assemblies and other hardware.

1 Preventative Maintenance Schedule

1.1 Mechanical Inspection

The door area should always be kept clear of dirt, rocks or any other substances in order to insure proper operation. Maintenance of the door operator should be performed according to the schedule in Table 10 and Table 11.

Table 10 - Mechanical Inspection Schedule (Part 1)

Time Frame	Inspection
Every Month	• Test the door's safety features. • Verify the brake function (if applicable). • After adjusting either the clutch or the limit's travel, retest the operator's safety features. • Verify gear reducer's oil level (if applicable).
Every 3 Months	• Verify and adjust the clutch if necessary.
Every 6 Months	• Lubricate all moving parts. Bushings are oil impregnated and are lubricated for life. • Verify that all mechanical parts function properly. • Inspect the V-belt and adjust or replace if necessary. • Manually operate the door. If the door does not open or close freely, correct the cause of the malfunction.

Table 11 - Mechanical Inspection Schedule (Part 2)

Time Frame	Inspection

Once a Year	• Run the operator a few cycles:
	  ○ Make sure that the door rollers are rolling smoothly on the track.
	  ○ Listen to the motor: The motor should hum quietly and smoothly.
	  ○ Verify that the limits operate quietly and smoothly: investigate any unusual noise.
	• Verify that the mounting bolts are holding the unit securely.
	• Inspect the unit for evidence of corrosion.
	• Change the gear reducer's oil, at the very least, after every **2500 hours** of operation or once a year (if applicable).

1.2 Electrical Inspection

It is recommended that the electrical maintenance inspections be performed at the same intervals as the mechanical maintenance inspections.

Table 12 - Electrical Inspection

Time Frame	Inspection
Every Month	• Inspect the unit for evidence of corrosion on electrical wires and connectors. • Inspect the wiring compartment and remove any dirt from the control units. • Verify all the grounding wires and terminals for corrosion. Be particularly careful to verify the ground wires. • Verify the terminal strips to insure that all the screws are tightened. • Verify that the pneumatic edge or other entrapment protection devices installed on the operator are fully operational. • Verify the voltage at the input terminals while the operator is running. The voltage must not drop more than 10% momentarily. If the voltage drop is too deep when running, the relays may chatter and the contact points will wear prematurely and may eventually seize. Verify the power terminals for corrosion. • Verify the current consumption of the unit with an amp-meter. The current value should be consistent with the nameplate specifications. Investigate any anomaly.

1.3 Band Brake Maintenance

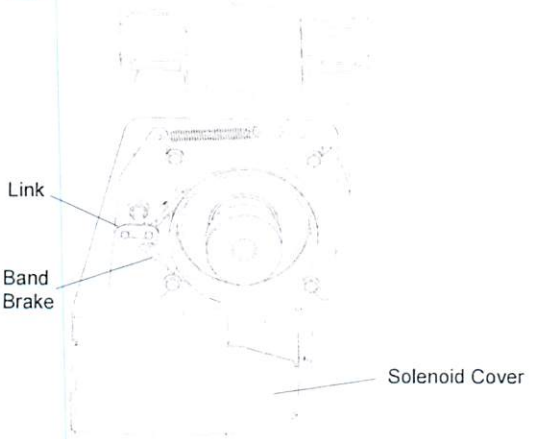
⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH to persons:
- Be sure that the main power is OFF before performing any changes on the operator.

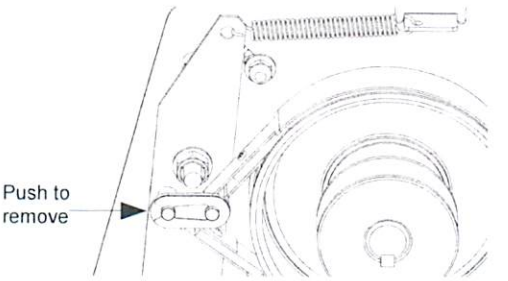
1.3.1 Changing a Brake Band

The brake band is preformed at the factory. Please insert the brake band carefully around the brake drum.

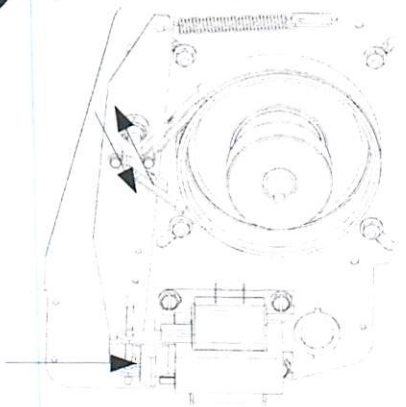
1 Remove solenoid cover



2 Remove link and used band brake

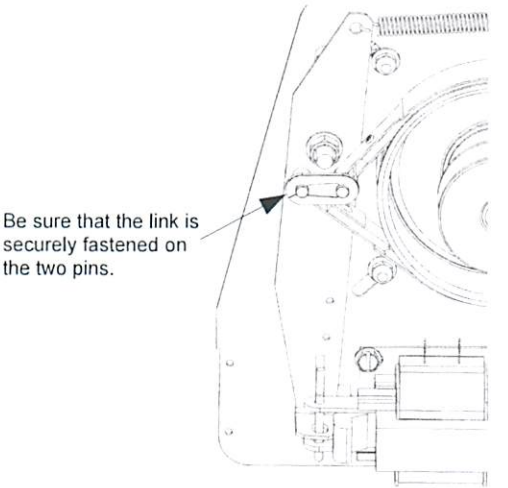


3 Replace band brake



Push solenoid plunger to reduce tension when removing or installing the band brake.

4 Place the link

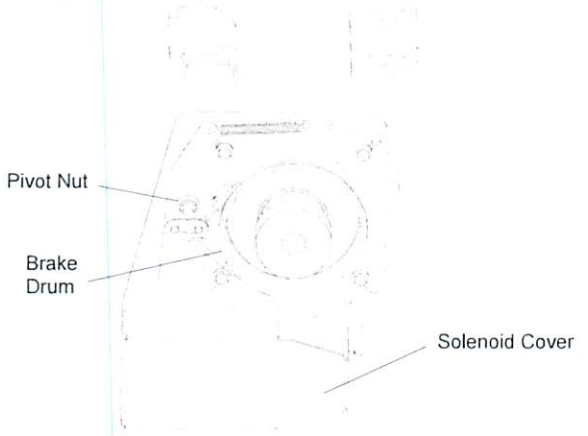


5 See brake adjustment on next page

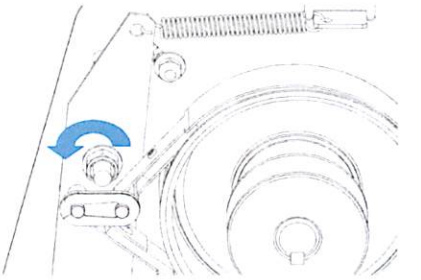
1.3.2 *Brake Adjustment*

The brake is factory set, however, after extensive use the brake may need to be adjusted.

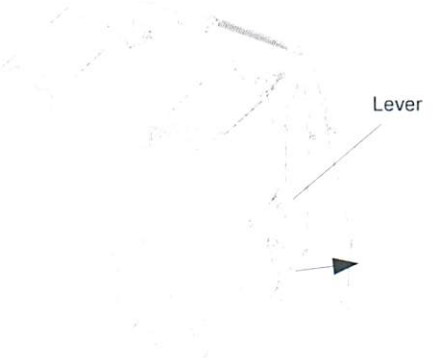
1 Remove solenoid cover



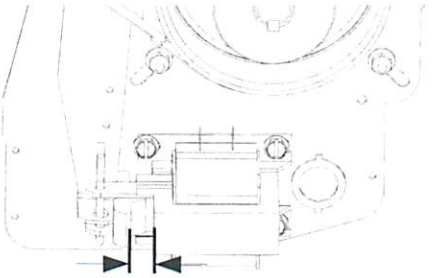
2 Loosen pivot nut



3 Adjust solenoid gap

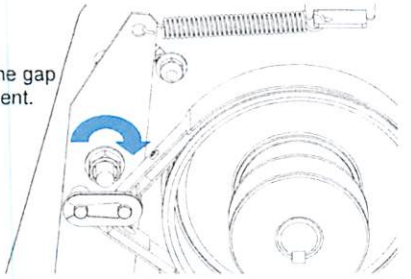


Pull the lever to adjust the gap between the plunger and solenoid body.



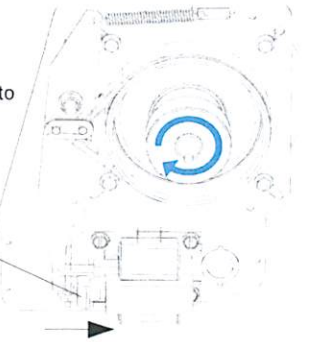
Gap must be between 1/4"and 3/8".

4 Tighten pivot nut



5 Check brake adjustment

Manually push the plunger onto the solenoid body, and verify that the brake drum rotates easily by hand.



6 Re-install solenoid cover

2 Troubleshooting Guide

The electronic control board LEDs help with wiring and troubleshooting diagnostics. Every LED indicates the status of the door. The electronic control board has a non-volatile memory and the LEDs return to their initial state after a power interruption.

Easy Fix: **Before starting any intervention, verify the LED's monitoring status and refer to Table 4, p.21 for a proper diagnosis.**

Table 13 - Troubleshooting Guide - Part 1

Symptom	Probable Cause	Suggested Action
Door doesn't respond to any command	◆ Chain hoist is in engaged position, if applicable. (LED D9 is OFF)	→ Return the chain to its neutral position (electrical mode). Refer to p.10 for further details.
	◆ Disconnect chain is in engaged position, if applicable . (LED D9 is OFF)	→ Release tension from the disconnect chain and secure the chain keeper. Refer to p.10 for further details.
	◆ "Stop" button is stuck. (LED D9 is OFF)	→ Press and release any "Stop" button.
	◆ Control station is not connected or is wired incorrectly. (LED D9 is OFF)	→ Verify and correct wiring.
	◆ No power supply. (LED D2 is OFF)	→ Verify the incoming power line from the main breaker, making sure it has not tripped or blown a fuse.
Operator is not operating as expected	◆ Selector switch is not set on the desired mode.	→ Set switch on desired mode, refer to p.23 for further details.
Timer to Close doesn't close the door	◆ Timer to Close has been suspended accidentally for ONE cycle.	→ Timer to Close will return to normal after the door has been fully closed. Refer to p.24 for further details.
Door doesn't respond to any radio command	◆ No power supply. (Transmitter light is OFF)	→ Replace the transmitter's battery.
	◆ Transmitter is not properly programmed.	→ Reprogram the transmitter.
	◆ Photo cells are not properly aligned or are obstructed.	→ Clear the obstruction or re-align photo cells.
Door doesn't respond to "Open" command, but does respond to "Close" command	◆ Defective "Open" push-button or "Open" limit switch.	→ Replace push-button or limit switch.
	◆ Loose wire on "Open" push-button or "Open" limit switch.	→ Verify and correct wiring.
Door doesn't respond to "Close" command, but does respond to "Open" command	◆ Defective "Close" push-button or "Close" limit switch.	→ Replace push-button or limit switch.
	◆ Loose wire on "Close" push-button or "Close" limit switch.	→ Verify and correct wiring.

Table 14 - Troubleshooting Guide - Part 2

Symptom	Probable Cause	Suggested Action
"Stop" button doesn't stop the door	◆ Two 3-push button stations (or more) are connected in parallel.	→ Verify and correct wiring (Stop buttons in series, only Open & Close in parallel).
Door reverses to fully open position after the door closes and reaches the floor	◆ The "Close" limit switch is not being engaged by travelling cam.	→ The "Close" limit switch needs to be adjusted properly at the end of travel.
	◆ An "Open" command is being given.	→ Verify "Open" push-button or any opening device for short-circuit.
Door doesn't open or close, motor hums or blows the main breaker	◆ Mechanical door lock is engaged.	→ Release the door lock.
	◆ Door is jammed.	→ Verify manual operation of door.
	◆ Brake doesn't release, if applicable.	→ Verify and adjust brake tension.
	◆ Loose wire on solenoid brake, if applicable.	→ Verify and correct wiring.
	◆ Faulty solenoid brake, if applicable.	→ Replace.
Motor hums when "Open" or "Close" buttons are pressed	◆ Loose motor wires.	→ Verify and correct wiring.
	◆ Defective capacitor.	→ Replace.
Motor fails to shut off at fully closed or fully opened positions	◆ Defective limit switch.	→ Operate limit switch manually while door is moving. If door does not stop, replace the switch.
	◆ Limit cams are not adjusted.	→ Verify and adjust.
	◆ Limit drive chain is broken.	→ Replace.
	◆ Loose sprocket on limit shaft.	→ Tighten set screw.
	◆ Limit shaft does not rotate.	→ Verify and replace accordingly.
Motor turns but door does not move	◆ Sprocket key is missing.	→ Replace.
	◆ Drive chain is broken.	→ Replace.
	◆ Clutch is slipping.	→ Adjust clutch to proper tension.
Limit switches do not hold their settings	◆ Loose drive or limit chain.	→ Adjust chain to proper tension.
	◆ Limit cam retaining bracket is not engaging in the slots of the limit cams.	→ Be sure it is engaged in slots of both cams.
	◆ Limit cams are binding on shaft threads.	→ Lubricate shaft threads. Limit cams should turn freely.
	◆ Limit shaft has a slight "play".	→ Verify and adjust.
Poor radio range	◆ Transmitter battery is low.	→ Verify and replace battery.
	◆ Radio antenna is not properly positioned.	→ Make sure antenna cable is not bent. Cable should be passed through control box.
	◆ Ambient radio, environmental or building structure interference.	→ Check connection of plug-in antenna. If required, add an external antenna (socket on receiver available).