

Section 7 Trouble Shooting

- 7.1 If the doors will not operate when the shoe contacts the 3rd rail, make the following checks in the sequence listed. Do not perform any work on the car until the safety precautions included in this manual have been read and fully understood.
- 7.2 If the doors will not operate:
 - 7.2.1 Clean rust and moisture from the shoe and the 3rd rail.
 - 7.2.2 Check the integrity of electrical connections between:
 - 7.2.2.1 the wire and the shoe
 - 7.2.2.2 the ground wire and the car body
 - 7.2.2.3 the car body and the rail (through trucks)
 - 7.2.3 Operate the spool valve manually. (See operating instructions and safety precautions). If the doors operate manually, proceed to step 7.4.
- 7.3 If the doors will not operate electrically or manually:
 - 7.3.1 Check the hopper doors and mechanism for damage that could restrict operation.
 - 7.3.2 Make sure angle cocks are open and adequate air pressure is being supplied to the system, min. 90 psi. Inspect for and repair any leaks found in the system. Also check for air restrictions that may occur in the pipes, filter and/or valves.
 - 7.3.3 Inspect the secondary lock at the air cylinder for damage or a jammed condition. Be sure to stand away from the air cylinder and lock when attempting to operate the doors.
 - 7.3.4 Disconnect external air supply to the car and release the air pressure in the system. Carefully remove the hoses from the front and rear port of the cylinder. Connect shop air through a valve directly to the rear port of the cylinder. Supply pressure must be at least 90 psi and no greater than 130 psi. If shop air, applied directly to the cylinder will operate the doors: Inspect the control valve and piping, make repairs as necessary. If shop air, applied directly to the cylinder, will not operate the door properly, either the Cylinder is inoperative or the linkage is jammed.
- 7.4 If the doors operate manually but not electrically:
 - 7.4.1 Check the polarity of the operating source voltage. Positive to 3rd rail shoe and negative to car body ground should open the doors. (See operating instructions).
 - 7.4.2 Open the control valve box and check continuity of the wire entering the box from each of the 3rd rail shoes.
 - 7.4.3 Check diode package for continuity.
- 7.5 If doors operate, but mechanism will not lock over center:
 - 7.5.1 Check air pressure to cylinder, See section 5.10.1
 - 7.5.2 Check for door pan or lever interference (bent, dirty, etc.)