

DIAGNOSIS AND TESTING (Continued)

**PINPOINT TEST A: DIAGNOSTIC TROUBLE CODES: 621, 622 AND 641 SOLENOID CIRCUIT FAILURES; 645, 646, 647 and 648 INCORRECT GEAR RATIO OBTAINED (Continued)**

ACTION TO TAKE	TEST STEP	RESULT	ACTION TO TAKE												
<b>A8</b>	<b>CHECK INTERNAL AXODE (AX4S) HARNESS (CONTINUITY)</b>														
	<ul style="list-style-type: none"> <li>● Disconnect the internal harness from the solenoid assemblies.</li> </ul> <p><b>CAUTION: Do not probe into connector terminals, as this will cause a loss of spring tension and possible failure.</b></p> <ul style="list-style-type: none"> <li>● For SS-1, connect positive lead from an ohmmeter to tester jack SS-1 and negative lead at the Orange wire of the SS-1 wire connector.</li> <li>● Record resistance.</li> <li>● <b>Is resistance less than 0.5 ohm?</b></li> <li>● For SS-2, connect positive lead from an ohmmeter to tester jack SS-2 negative lead at the Pink wire of the SS-2 wire connector.</li> <li>● Record resistance.</li> <li>● <b>Is resistance less than 0.5 ohm?</b></li> <li>● For SS-3, connect positive lead from an ohmmeter to tester SS-3 jack and negative lead at the Yellow wire of the SS-3 wire connector.</li> <li>● Record resistance.</li> <li>● <b>Is resistance less than 0.5 ohm?</b></li> <li>● For SS-1, SS-2, and SS-3 VPWR, connect the positive lead from an ohmmeter to the appropriate lead for VPWR and negative lead to the Red wire for SS-1 VPWR, Red wire for SS-2 VPWR or Red wire for SS-3 VPWR.</li> <li>● Record resistance.</li> <li>● <b>Is resistance less than 0.5 ohm?</b></li> </ul>	<p>Yes</p> <p>No</p>	<p>▶ <b>GO to A9.</b></p> <p>▶ <b>REPLACE internal harness. GO to A10.</b></p>												
<b>A9</b>	<p><b>CHECK INTERNAL AXODE (AX4S) HARNESS (SHORTS TO GROUND)</b></p> <ul style="list-style-type: none"> <li>● Check for continuity between BAT- jack (engine ground) and appropriate wire with an ohmmeter or other low current tester (less than 200 milliamps).</li> </ul> <table border="1" data-bbox="167 1209 837 1355"> <thead> <tr> <th>Solenoid</th> <th>Signal</th> <th>VPWR</th> </tr> </thead> <tbody> <tr> <td>SS-1</td> <td>Orange</td> <td>Red</td> </tr> <tr> <td>SS-2</td> <td>Pink</td> <td>Red</td> </tr> <tr> <td>SS-3</td> <td>Yellow</td> <td>Red</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>● Connection should show infinite resistance (no continuity).</li> <li>● <b>Is there continuity?</b></li> </ul>	Solenoid	Signal	VPWR	SS-1	Orange	Red	SS-2	Pink	Red	SS-3	Yellow	Red	<p>Yes</p> <p>No</p>	<p>▶ <b>REPLACE internal harness. GO to A10.</b></p> <p>▶ <b>GO to A10.</b></p>
Solenoid	Signal	VPWR													
SS-1	Orange	Red													
SS-2	Pink	Red													
SS-3	Yellow	Red													
<b>A10</b>	<p><b>CHECK SOLENOID RESISTANCE AT SOLENOID</b></p> <ul style="list-style-type: none"> <li>● Check solenoid resistance by connecting an ohmmeter at the terminals of the solenoid assembly.</li> <li>● Measure and record resistance for each solenoid. (SS-1, SS-2, SS-3)</li> <li>● <b>Is resistance between 15-25 ohms?</b></li> </ul>	<p>Yes</p> <p>No</p>	<p>▶ <b>GO to A11.</b></p> <p>▶ <b>REPLACE shift solenoid.</b></p>												