


Horn: Testing and Inspection

Test A: Horn Does Not Sound

DIAGNOSIS AND TESTING (Continued)

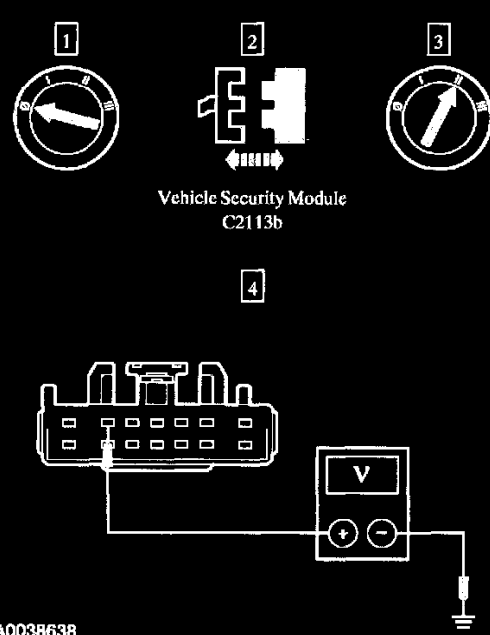
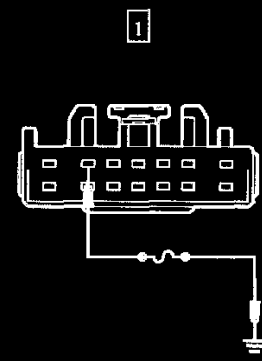

PINPOINT TEST A: THE HORN DOES NOT SOUND

CONDITIONS	DETAILS/RESULTS/ACTIONS
A1 RETRIEVE THE DIAGNOSTIC TROUBLE CODES	
	<p>2 Using the recorded results from vehicle security module self-test.</p> <ul style="list-style-type: none"> • Are any DTCs recorded? <p>→ Yes If DTC B1217 is retrieved, GO to A3. If any other DTC is retrieved, REFER to Multifunction Electronic Control Module (General Module).</p> <p>→ No GO to A2.</p>
A2 CHECK THE INOPERATIVE HORN FUNCTION	
	<p>1 Depress the horn switch.</p> <ul style="list-style-type: none"> • Does the horn sound? <p>→ Yes GO to A3.</p> <p>→ No GO to A6.</p>
A3 CHECK THE VEHICLE SECURITY MODULE OUTPUT	
	<p>1 Trigger the vehicle security module active command HORN OUTPUT ON on the diagnostic tool.</p> <ul style="list-style-type: none"> • Does the horn sound? <p>→ Yes GO to A17.</p> <p>→ No GO to A4.</p>

(Continued)

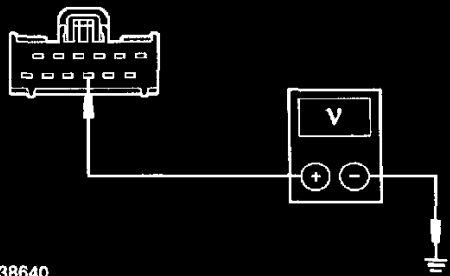

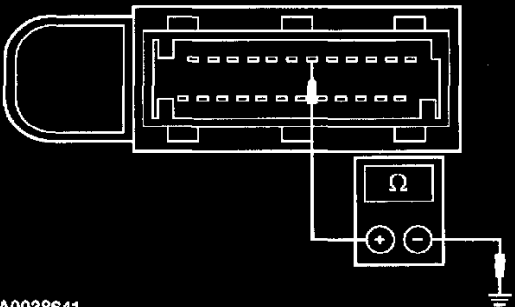

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)

CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A4 CHECK THE CENTRAL JUNCTION BOX FOR SHORT TO POWER</p>  <p>1</p> <p>2</p> <p>3</p> <p>Vehicle Security Module C2113b</p> <p>4</p> <p>A0038638</p>	<p>4 Measure the voltage between vehicle security module C2113b pin 6 (harness side), and ground.</p> <ul style="list-style-type: none"> • Is voltage present? → Yes REPAIR or INSTALL a new CJB. TEST the system for normal operation. → No GO to A5.
<p>A5 CHECK THE CENTRAL JUNCTION BOX FOR SHORT TO POWER</p>  <p>1</p> <p>A0038639</p>	<p>1 Connect a fused (10A) jumper wire between vehicle security module C2113b pin 6 (harness side), and ground.</p> <ul style="list-style-type: none"> • Does the horn sound? → Yes GO to A17. → No REPAIR or INSTALL a new CJB. TEST the system for normal operation.
<p>A6 CHECK CIRCUIT 6 (YE/LG) FOR AN OPEN</p>  <p>1</p> <p>2</p> <p>CJB C270h</p>	

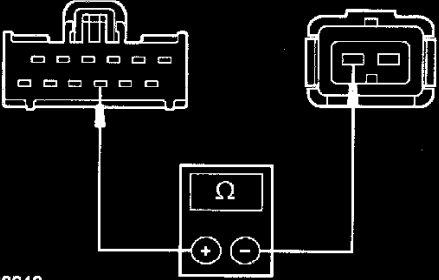
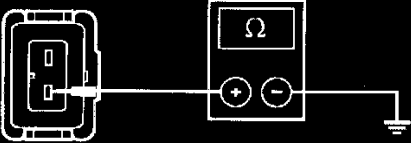

(Continued)

DIAGNOSIS AND TESTING (Continued)**PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)**

CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A6 CHECK CIRCUIT 6 (YE/LG) FOR AN OPEN (Continued)</p> <p style="text-align: center;">3</p>  <p>A0038640</p>	<p>3 Measure the voltage between CJB C270h pin 9, circuit 6 (YE/LG), harness side, and ground.</p> <ul style="list-style-type: none"> • Is the voltage greater than 10 volts? <p>→ Yes GO to A7.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>
<p>A7 CHECK THE HORN SWITCH CIRCUITRY</p> <p style="text-align: center;">1</p>  <p style="text-align: center;">CJB C270a</p> <p style="text-align: center;">2</p>  <p>A0038641</p>	<p>2 Measure the resistance between CJB C270a pin 19, circuit 1 (DB), harness side and ground, while depressing and releasing the horn switch.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms with the horn switch depressed and greater than 10,000 ohms with the horn switch released? <p>→ Yes GO to A8.</p> <p>→ No GO to A11.</p>
<p>A8 CHECK CIRCUIT 6 (YE/LG) FOR AN OPEN</p> <p style="text-align: center;">1</p>  <p style="text-align: center;">Horn C131</p>	

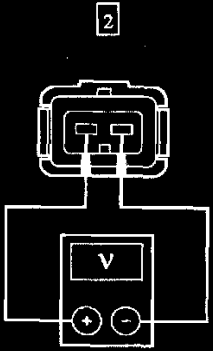
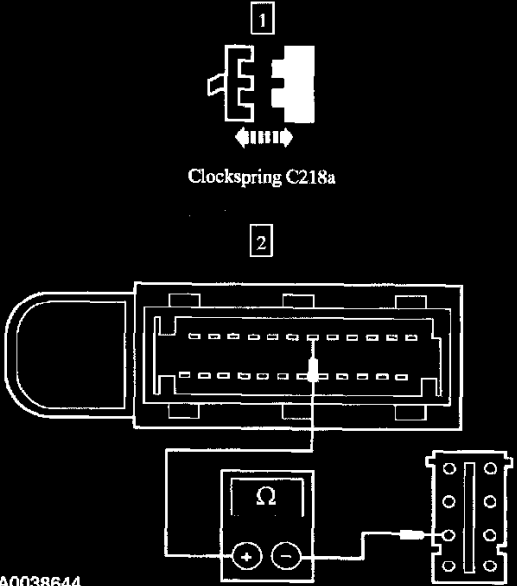
(Continued)

DIAGNOSIS AND TESTING (Continued)**PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)**

CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A8 CHECK CIRCUIT 6 (YE/LG) FOR AN OPEN (Continued)</p> <p style="text-align: center;">2</p>  <p>A0038642</p>	<p>2 Measure the resistance between CJB C270h pin 9, circuit 6 (YE/LG), harness side, and horn C131, circuit 6 (YE/LG), harness side.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? <p>→ Yes GO to A9.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>
<p>A9 CHECK CIRCUIT 57 (BK) FOR AN OPEN AT THE HORN CONNECTOR</p> <p style="text-align: center;">1</p>  <p>GK8185-A</p>	<p>1 Measure the resistance between horn C131, circuit 57 (BK), harness side, and ground.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? <p>→ Yes GO to A10.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>
<p>A10 CHECK THE VOLTAGE TO THE HORN</p> <p style="text-align: center;">1</p>  <p>CJB C270a and C270h</p>	

(Continued)

DIAGNOSIS AND TESTING (Continued)**PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)**

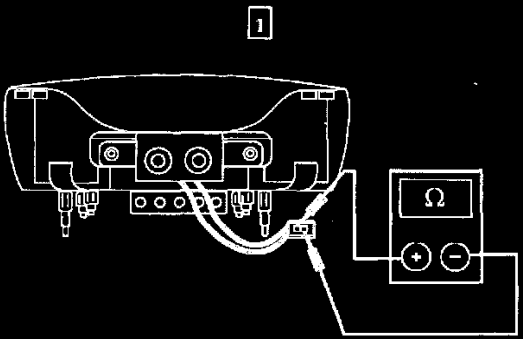
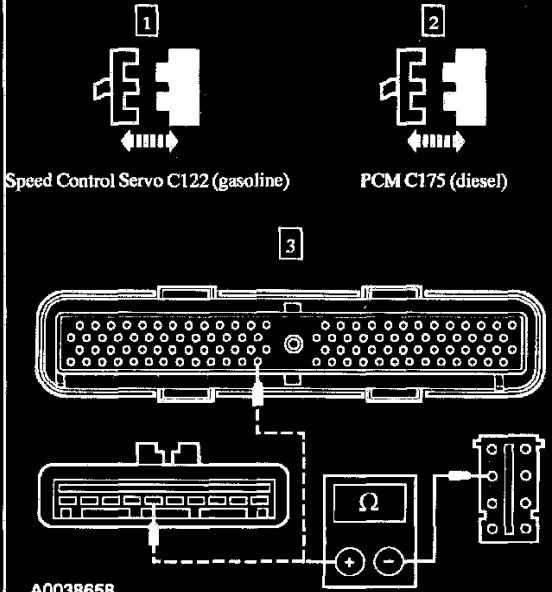
CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A10 CHECK THE VOLTAGE TO THE HORN (Continued)</p> <p style="text-align: center;">2</p>  <p>A0038643</p>	<p>2 Measure the voltage between horn C131, circuit 6 (YE/LG), harness side, and horn C131, circuit 57 (BK), harness side, while depressing the horn switch.</p> <ul style="list-style-type: none"> • Is the voltage greater than 10 volts? <p>→ Yes INSTALL a new horn. TEST the system for normal operation.</p> <p>→ No INSTALL a new CJB. TEST the system for normal operation.</p>
<p>A11 CHECK CIRCUIT 1 (DB) FOR AN OPEN</p> <p style="text-align: center;">1</p>  <p>Clockspring C218a</p> <p>A0038644</p>	<p>2 Measure the resistance between CJB C270a pin 19, circuit 1 (DB), harness side, and clockspring C218a, circuit 1 (DB), harness side.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? <p>→ Yes GO to A12.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>

(Continued)

A10 - A11

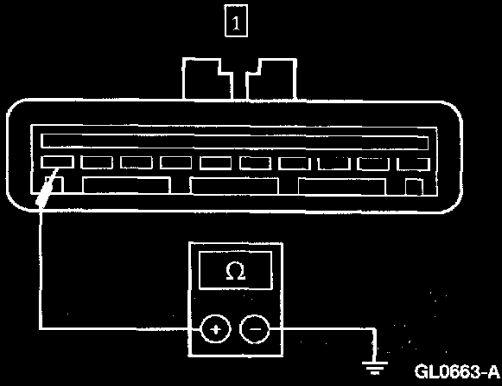
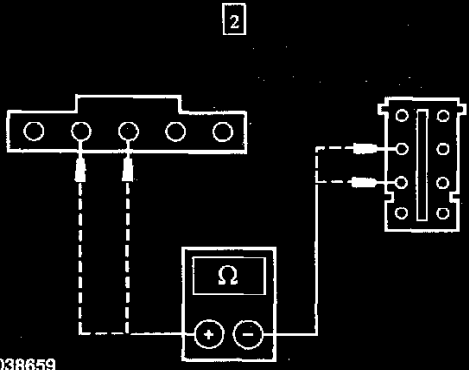
DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)

CONDITIONS	DETAILS/RESULTS/ACTIONS						
<p>A12 CHECK THE HORN SWITCH CIRCUITRY</p>  <p style="text-align: center;">K26006-A</p>	<p>1 Measure the resistance between the horn pad switch connector pins under the following conditions:</p> <table border="1" data-bbox="857 411 1344 600"> <thead> <tr> <th>Steering Wheel Pad Horn Switch Position</th> <th>Resistance</th> </tr> </thead> <tbody> <tr> <td>Pressed</td> <td>Less than 5 Ohms</td> </tr> <tr> <td>Released</td> <td>Greater than 10,000 Ohms</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Are the resistances correct? <p>→ Yes GO to A13.</p> <p>→ No INSTALL a new driver side air bag module. TEST the system for normal operation.</p>	Steering Wheel Pad Horn Switch Position	Resistance	Pressed	Less than 5 Ohms	Released	Greater than 10,000 Ohms
Steering Wheel Pad Horn Switch Position	Resistance						
Pressed	Less than 5 Ohms						
Released	Greater than 10,000 Ohms						
<p>A13 CHECK CIRCUIT 848 (DG/OG) GASOLINE OR CIRCUIT 359 (LG/BK) DIESEL FOR AN OPEN</p>  <p style="text-align: center;">A0038658</p>	<p>3 Measure the resistance between clockspring C218a, circuit 848 (DG/OG), harness side, and speed control servo C122 pin 6, circuit 848 (DG/OG) or clockspring C218a, circuit 359 (DG/OG) and PCM C175 pin 91, circuit 359 (LG/BK), harness side.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? <p>→ Yes GO to A14.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>						

(Continued)





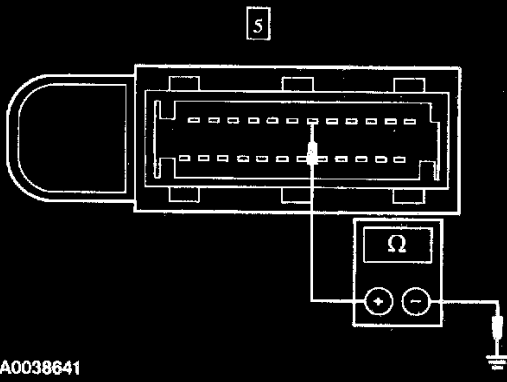
DIAGNOSIS AND TESTING (Continued)**PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)**

CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A14 CHECK CIRCUIT 57 (BK) FOR AN OPEN</p>  <p style="text-align: right;">GL0663-A</p>	<p>1 Measure the resistance between speed control servo C122 or jumper C176 pin 10, circuit 57 (BK), harness side, and ground.</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? <p>→ Yes INSTALL a new speed control servo. TEST the system for normal operation.</p> <p>→ No REPAIR the circuit. TEST the system for normal operation.</p>
<p>A15 CHECK CLOCKSPRING</p>  <p>A0038659</p>	<p>1 Remove the driver side air bag.</p> <p>2 Measure the resistance between upper clockspring connector circuit 848 (component side), and lower clockspring connector circuit 848 (component side); and upper clockspring connector circuit 1 (component side), and lower clockspring connector circuit 1 (component side).</p> <ul style="list-style-type: none"> • Are the resistances less than 5 ohms? <p>→ Yes GO to GO to A16.</p> <p>→ No INSTALL a new clockspring. TEST the system for normal operation.</p>

(Continued)

A14 - A15

DIAGNOSIS AND TESTING (Continued)**PINPOINT TEST A: THE HORN DOES NOT SOUND (Continued)**

CONDITIONS	DETAILS/RESULTS/ACTIONS
<p>A16 CHECK THE HORN SWITCH</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>1</p>  <p>Speed Control Servo C122 (gasoline)</p> </div> <div style="text-align: center;"> <p>2</p>  <p>PCM C175 (diesel)</p> </div> <div style="text-align: center;"> <p>3</p>  <p>Clockspring</p> </div> <div style="text-align: center;"> <p>4</p>  <p>Horn Switch</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>5</p>  </div> <p>A0038641</p>	<p>5 Measure the resistance between CJB C276 pin 19, circuit 1 (DB), harness side, and ground, while depressing and releasing the horn switch.</p> <ul style="list-style-type: none"> • Is resistance less than 5 ohms when the horn switch is depressed and greater than 10,000 ohms with the horn switch released? <p>→ Yes GO to A17.</p> <p>→ No INSTALL a new horn switch. TEST the system for normal operation.</p>
<p>A17 CHECK FOR CORRECT MODULE OPERATION</p>	<p>1 Check for:</p> <ul style="list-style-type: none"> • corrosion • pushed-out pins <p>2 Connect any disconnected connectors making sure they are seated correctly.</p> <p>3 Make sure all other system connectors are fully seated.</p> <p>4 Operate the system and verify the concern is still present.</p> <ul style="list-style-type: none"> • Is the concern still present? <p>→ Yes INSTALL a new vehicle security module. CLEAR the DTCs. REPEAT the self-test.</p> <p>→ No The system is operating correctly at this time. Concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.</p>