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Document ID# 710121  
2001 Cadillac Seville

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## DTC C0615, C0620, C0625 or C0630

### Circuit Description

The Continuously Variable Road Sensing Suspension (CVRSS) module supplies a 5.0 volt reference signal to the suspension position sensor. The suspension position sensor supplies an analog voltage (0.35-4.75 volts) back to the CVRSS module which represents the position between the body and the wheel. The sensor is also grounded through the CVRSS module.

### Conditions for Running the DTC

The ignition is ON.

### Conditions for Setting the DTC

- The DTC is set when the CVRSS module measures the position sensor signal voltage below 0.35 volts or above 4.75 volts for more than 1.0 second.
- The fault is detected during three consecutive ignition cycles, or during the same ignition cycle after clearing the DTC with a scan tool.

### Action Taken When the DTC Sets

- The CVRSS module will enter the Speed Dependent damping mode.
- Both Left and Right Normal Force outputs will be set to the default output states.
- The SERVICE SUSPENSION SYS message will be displayed.

### Conditions for Clearing the MIL/DTC

- The scan tool can be used to clear the DTC.
- The DTC is saved as history when the CVRSS module no longer sees voltage outside the normal range. The DTC will clear if the fault does not return during 50 consecutive ignition cycles.

### Diagnostic Aids

- If this fault condition is set along with DTC C0696, diagnose DTC C0696 first.
- If the DTC is a history DTC, the fault may be intermittent. Refer to [Testing for Intermittent and Poor Connections](#) in Wiring Systems.

### Test Description

The numbers below refer to the step numbers on the diagnostic table.

3. Tests for the proper operation of the circuit in the low voltage range.
4. Tests for the proper operation of the circuit in the high voltage range. If the fuse in the jumper opens when you perform this test, the signal circuit is shorted to ground.

5. Tests for a short to voltage in the 5 volt reference circuit.
6. Tests for a high resistance or an open in the ground circuit.

Step	Action	Value (s)	Yes	No
<i>Schematic Reference:</i> <a href="#">Suspension Controls Schematics</a>				
1	Did you perform the Road Sensing Suspension Diagnostic System Check?	--	Go to <a href="#">Step 2</a>	Go to <a href="#">Diagnostic System Check - Road Sensing Suspension</a>
2	<ol style="list-style-type: none"> <li>1. Install a scan tool.</li> <li>2. Turn ON the ignition, with the engine OFF.</li> <li>3. With the scan tool, observe the position sensor data parameter in the CVRSS module data list.</li> </ol> <p>Does the scan tool indicate that the position sensor data parameter is within the specified range?</p>	0.35 - 4.75 V	Go to Diagnostic Aids	Go to <a href="#">Step 3</a>
<a href="#">3</a>	<ol style="list-style-type: none"> <li>1. Turn OFF the ignition.</li> <li>2. Disconnect the position sensor.</li> <li>3. Turn ON the ignition, with the engine OFF.</li> <li>4. With a scan tool, observe the position sensor data parameter.</li> </ol> <p>Does the scan tool indicate that the position sensor data parameter is less than the specified value?</p>	0.35 V	Go to <a href="#">Step 4</a>	Go to <a href="#">Step 10</a>
<a href="#">4</a>	<ol style="list-style-type: none"> <li>1. Turn OFF the ignition.</li> <li>2. Connect a 3 amp fused jumper wire between the 5 volt reference circuit of the position sensor and the signal circuit of the position sensor.</li> <li>3. Turn ON the ignition, with the engine OFF.</li> <li>4. With a scan tool, observe the position sensor data parameter.</li> </ol> <p>Does the scan tool indicate that the position sensor data parameter is greater than the specified value?</p>	4.75 V	Go to <a href="#">Step 5</a>	Go to <a href="#">Step 8</a>
<a href="#">5</a>	<ol style="list-style-type: none"> <li>1. Disconnect the fused jumper wire.</li> <li>2. Measure the voltage between the 5 volt reference circuit of the position sensor and the low reference circuit of the position sensor.</li> </ol> <p>Does the voltage measure less than the specified value?</p>	5 V	Go to <a href="#">Step 6</a>	Go to <a href="#">Step 7</a>

6	<ol style="list-style-type: none"> <li>1. Turn OFF the ignition.</li> <li>2. Measure the resistance from the low reference circuit of the position sensor to a good ground.</li> </ol> <p>Does the resistance measure less than the specified value?</p>	5 ohms	Go to <a href="#">Step 12</a>	Go to <a href="#">Step 11</a>
7	<p>Test the 5 volt reference circuit of the position sensor for a short to voltage. Refer to <a href="#">Circuit Testing</a> and <a href="#">Wiring Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 13</a>
8	<p>Test the 5 volt reference circuit of the position sensor for a short to ground, a high resistance, or an open. Refer to <a href="#">Circuit Testing</a> and <a href="#">Wiring Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 9</a>
9	<p>Test the signal circuit of the position sensor for a short to ground, a high resistance, or an open. Refer to <a href="#">Circuit Testing</a> and <a href="#">Wiring Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 13</a>
10	<p>Test the signal circuit of the position sensor for a short to voltage. Refer to <a href="#">Circuit Testing</a> and <a href="#">Wiring Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 13</a>
11	<ol style="list-style-type: none"> <li>1. Disconnect the CVRSS module.</li> <li>2. Test the low reference circuit of the position sensor for a high resistance or an open. Refer to <a href="#">Circuit Testing</a> and <a href="#">Wiring Repairs</a> in Wiring Systems.</li> </ol> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 13</a>
12	<p>Inspect for poor connections at the harness connector of the position sensor. Refer to <a href="#">Testing for Intermittent and Poor Connections</a> and <a href="#">Connector Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 14</a>
13	<p>Inspect for poor connections at the harness connector of the CVRSS module. Refer to <a href="#">Testing for Intermittent and Poor Connections</a> and <a href="#">Connector Repairs</a> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to <a href="#">Step 16</a>	Go to <a href="#">Step 15</a>
	<p>Replace the position sensor. Refer to <a href="#">Front Position Sensor Replacement - Electronic Suspension</a> or <a href="#">Rear Position Sensor</a></p>			

14	<a href="#">Replacement - Electronic Suspension</a> . Did you complete the replacement?	--	Go to <a href="#">Step 16</a>	--
15	<b>Important</b> Perform the set up procedure for the CVRSS module . Replace the CVRSS module. Refer to <a href="#">Electronic Suspension Control Module Replacement</a> . Did you complete the replacement?	--	Go to <a href="#">Step 16</a>	--
16	1. Use the scan tool in order to clear the DTCs. 2. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text. Does the DTC reset?	--	Go to <a href="#">Step 2</a>	System OK

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