

DTC C0711

Circuit Description

The air suspension pressure sensor sends a voltage signal to the air suspension module that corresponds to a pressure within the range of 30-180 psi. The air suspension module also uses this signal to verify that the proper amount of pressure is achieved in the air dryer within 23 seconds prior to opening of the inlet valves for inflation of the air springs.

DTC Descriptor

This diagnostic procedure supports the following DTC:

DTC C0711 Level Control Air Pressure Sensor Circuit

Conditions for Running the DTC

The ignition is ON.

Conditions for Setting the DTC

The air suspension module detects that the rate of height change, central air camber pressure or the signal from the air pressure sensor is out of limits.

Action Taken When the DTC Sets

- Air Suspension functionality is suspended.
- SERVICE AIR SUSPENSION message is displayed.

Conditions for Clearing the DTC

- The DTC will be active when the vehicle is moving, but then it will go to history when the vehicle is not moving.
- DTCs can be cleared with scan tool.

Diagnostic Aids

Repair all other DTCs before C0711.

This DTC is set when:

- The pneumatic status of the air suspension system is out of limits.
- When excessive amounts of time have elapsed when inflating the air springs.
- When there is a air leak in the system.
- When vehicle speed is greater than 3 km/h (1.8 mph) and rate of height change is out of

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limits which may be caused by a damaged LR or RR air suspension sensor.

- When the 60-amp compressor fuse is open.
- When the compressor relay is defective.
- When there is an intermittent or permanent loss of continuity between the compressor and the compressor supply voltage during an upwards leveling event.

Test Description

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

2. Test for the proper operation of the compressor and compressor relay.
3. Tests for open circuits in the compressor battery positive voltage circuit and compressor ground circuit.
4. Tests for voltage in the 5-volt reference circuit.
5. Tests for a high resistance or for an open in the low reference circuit.
10. Check for open or high resistance in the sensor ground circuit.
14. The replacement suspension module calibration must be checked and calibrated if necessary.

Step	Action	Values	Yes	No
<i>Schematic Reference:</i> Suspension Controls Schematics				
1	Did you perform the Diagnostic System Check - Vehicle?	--	Go to Step 2	Go to Diagnostic System Check - Vehicle in Vehicle DTC Information
2	<p>Important: Be sure all doors are closed and engine is running for this test.</p> <ol style="list-style-type: none"> 1. Install a scan tool. 2. Turn ON ignition, with the engine ON. 3. With a scan tool, activate compressor test in scan tool output controls. <p>Does the compressor run and rear of vehicle raise?</p>	--	Go to Diagnostic Aids	Go to Step 3
3	<ol style="list-style-type: none"> 1. Turn OFF the ignition. 2. Check for open in 60-amp ECAS fuse. 3. Check for defective air suspension relay. 4. Check for open or poor connections in compressor battery positive voltage circuit. 5. Check for open or poor connections in compressor ground circuit. 6. Check for a damaged air suspension sensor LR or RR. 	--	Go to	

	Did you find and correct the condition?		Step 15	Go to Step 4
4	<ol style="list-style-type: none"> 1. Turn ON the ignition. 2. Disconnect the air suspension pressure sensor. 3. Measure the voltage between the 5-volt reference circuit of the air pressure sensor and the low reference circuit of the air pressure sensor. <p>Is the voltage less than the specified value?</p>	5 V	Go to Step 5	Go to Step 6
5	<ol style="list-style-type: none"> 1. Turn OFF the ignition. 2. Measure the resistance from the low reference circuit of the air pressure sensor to a good ground. <p>Is the resistance less than the specified value?</p>	5 ohms	Go to Step 7	Go to Step 10
6	<p>Test the 5-volt reference circuit of the air pressure sensor for a short to voltage. Refer to Circuit Testing and Testing for a Short to Voltage in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 12
7	<p>Test the 5-volt reference circuit of the air pressure sensor for one of the following conditions:</p> <ul style="list-style-type: none"> • A short to ground • A high resistance • An open <p>Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 12
8	<p>Test the signal circuit of the air pressure sensor for one of the following conditions:</p> <ul style="list-style-type: none"> • A short to ground • A high resistance • An open <p>Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 9
9	<p>Test the signal circuit of the air pressure sensor for a short to voltage. Refer to Testing for a Short to Voltage and Wiring Repairs in Wiring Systems.</p>	--		

	Did you find and correct the condition?		Go to Step 15	Go to Step 12
10	<ol style="list-style-type: none"> 1. Disconnect the air suspension module. 2. Test the low reference circuit of the air pressure sensor for a high resistance or for an open. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 12
11	<p>Inspect for poor connections at the harness connector of the air pressure sensor. Refer to Testing for Intermittent Conditions and Poor Connections and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 13
12	<p>Inspect for poor connections at the harness connector of the air suspension module. Refer to Testing for Intermittent Conditions and Poor Connections and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 15	Go to Step 14
13	<p>Replace the air suspension pressure sensor. Refer to Valve Automatic Level Control Solenoid Replacement .</p> <p>Did you complete the replacement?</p>	--	Go to Step 15	--
14	<ol style="list-style-type: none"> 1. Replace the air suspension module. Refer to Control Module References in Computer/Integrating Systems for replacement, setup, and programming. 2. Perform the trim height calibration procedure for the air suspension module if necessary after check trim height procedure. <p>Did you complete the replacement?</p>	--	Go to Step 15	--
15	<ol style="list-style-type: none"> 1. Use the scan tool in order to clear the DTCs. 2. Operate the vehicle within the Conditions for Running the DTC. <p>Does the DTC reset?</p>	--	Go to Step 2	System OK