C0696 The ESC module also monitors this voltage supply for a fault condition which prevents proper regulation

Circuit Description

The electronic suspension control (ESC) module provides a regulated 5 volts to each of the position sensors. The ESC module also monitors this voltage supply for a fault condition which prevents proper regulation.

Conditions for Running the DTC

The ignition is ON.

Conditions for Setting the DTC

• The position sensor supply voltage is outside the valid range of 3.75 to 5.625 volts.
• The fault is detected for 1 second or more 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 ESC 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 ESC module no longer sees a position sensor supply voltage outside the valid range of 3.75 to 5.625 volts. The DTC will clear if the fault does not return after 50 consecutive ignition cycles.

Diagnostic Aids

Refer to Testing for Intermittent and Poor Connections on page 8-1187 in Wiring Systems.

Test Description

The numbers below refer to the step numbers on the diagnostic table.
2. Determines if the fault is due to a short to ground.
3. Determines if the fault is due to a short to voltage.
4. Checks for a short to ground in the position sensor supply circuits.
5. Checks for a short between the position sensor supply and ground circuits.
6. Checks for a short to voltage in the position sensor supply circuits.

DTC C0696

Step	Action	Value(s)	Yes	No
Schematic Reference:Suspension Controls Schematics on page 3-133				
1	Did you perform the Electronic Suspension Control (ESC) Diagnostic System Check?	—	Go to Step 2	Go to Diagnostic System Check - Electronic Suspension Control on page 3-143
2	1. Turn ON the ignition, with the engine OFF. 2. Measure the voltage from the 5 V reference circuit of the ESC module to the left rear position sensor by backprobing the ESC module connector. Does the voltage measure less than the specified value?	3.75 V	Go to Step 4	Go to Step 3
3	Does the voltage measure greater than the specified value?	5.625 V	Go to Step 6	Go to Step 7

Step	Action	Value(s)	Yes	No
4	Test the 5 V reference circuit of each position sensor for a short to ground. Refer to Circuit Testing on page 8-1184 and Wiring Repairs on page 8-1189 in Wiring Systems. Did you find and correct the condition?	—	Go to Step 8	Go to Step 5
5	Test for a short between the 5 V reference circuit and the ground circuit of each position sensor. Refer to Circuit Testing on page 8-1184 and Wiring Repairs on page 8-1189 in Wiring Systems. Did you find and correct the condition?	—	Go to Step 8	Go to Step 7
6	Test the 5 V reference circuit of each position sensor for a short to voltage. Refer to Circuit Testing on page 8-1184 and Wiring Repairs on page 8-1189 in Wiring Systems. Did you find and correct the condition?	—	Go to Step 8	Go to Step 7
7	Replace the ESC module. Refer to Electronic Suspension Control Module Replacement on page 3-167. Did you complete the replacement?	—	Go to Step 8	—
8	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 Step 2	System OK