

# **C0896 The ESC module monitors the supplied voltage to determine if it is within a valid operating range**

## **Circuit Description**

Voltage is supplied to the electronic suspension control (ESC) module in the battery positive voltage circuit and the ignition voltage circuit. The ESC module monitors the supplied voltage to determine if it is within a valid operating range.

## **Conditions for Running the DTC**

The ignition is ON.

## **Conditions for Setting the DTC**

- The DTC is set when the battery voltage is outside the normal range of 9 to 15.5 volts.
- The fault is detected during three consecutive ignition cycles, or during the same ignition cycle after clearing the DTC with the scan tool.

## **Action Taken When the DTC Sets**

DTC C0896 disables the ability to set most other ESC DTCs.

## **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 battery voltage outside the normal range of 9 to 15.5 volts. The DTC will clear if the fault does not return after 50 consecutive ignition cycles.

## **Diagnostic Aids**

DTC C0896 may set when the vehicle is placed on a battery charger, on fast charge, for a long period of time. It may also be set by an intermittent charging system malfunction.

## Test Description

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

1. This test determines whether the malfunction is in the supply voltage or the ESC module.
2. Checks for high resistance, a short to ground, or an open in the battery positive voltage circuit.

### DTC C0896

Step	Action	Value(s)	Yes	No
<b>Schematic Reference: Suspension Controls Schematics</b>				
1	Measure the voltage in the ESC module battery positive voltage circuit.  Does the voltage the measure within the specified values?	9–15.5 V	Go to Step 3	Go to Step 2
2	Test for high resistance, a short to ground or an open in the battery positive voltage circuit of the ESC module. 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 7	Go to Diagnostic System Check -Engine Electrical on page 6-1108
3	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 4	Go to Step 6
4	Inspect for poor connections at the harness connector of the ESC module. Refer to Testing for Intermittent and Poor Connections on page 8-1187 and Connector Repairs on page 8-1198 in Wiring Systems. Did you find and correct the condition?	—	Go to Step 7	Go to Step 5

Step	Action	Value(s)	Yes	No
5	Replace the ESC module. Refer to Electronic Suspension Control Module Replacement on page 3-167. Did you complete the replacement?	—	Go to Step 7	—
6	Inspect for poor connections at the harness connector of the ESC module. Refer to Testing for Intermittent and Poor Connections on page 8-1187 and Connector Repairs on page 8-1198 in Wiring Systems. Did you find and correct the condition?	—	Go to Step 7	Go to Diagnostic Aids
7	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