

C0899 low voltage condition prevents the system from operating properly

Circuit Description

The EBCM monitors the voltage level available for system operation. A low voltage condition prevents the system from operating properly.

Conditions for Running the DTC

- The vehicle speed is greater than 8 km/h (5 mph).
- The system relay is commanded ON.

Conditions for Setting the DTC

One of the following conditions exists for 0.72 seconds:

- During initialization or when the system is inactive, the system voltage is less than 10.8 volts.
- During the system operation, the system voltage is less than 9.0 volts.

Action Taken When the DTC Sets

If equipped, the following actions occur:

- The EBCM disables the ABS/ACC/VES/VSES for the duration of the ignition cycle.
- The ABS indicator turns ON.
- The traction control indicator turns ON.
- The DIC displays the Service Stabilitrak and Service ABS messages.
- DRP and TCS are degraded.

Conditions for Clearing the DTC

- The condition for the DTC is no longer present and the DTC is cleared with a scan tool.
- The EBCM automatically clears the history DTC when a current DTC is not

detected in 100 consecutive drive cycles.

Diagnostic Aids

- Test the charging system. Refer to Diagnostic System Check - ABS.
- Possible causes of this DTC are the following conditions:
 - A charging system malfunction
 - An excessive battery draw
 - A weak battery
 - A faulty system ground

Test Description

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

2. Use the scan tool in order to inspect the voltage to the EBCM.
3. Use the scan tool in order to inspect the voltage to the body control module (BCM). A low voltage value in multiple modules indicates a concern in the charging system.
5. Verifies that the condition is still present.

Step	Action	Values	Yes	No
Schematic Reference: ABS Schematics Connector End View Reference: ABS Connector End Views				
1	Did you perform the Diagnostic System Check – ABS?	—	Go to Step 2	Go to Diagnostic System Check -ABS
2	1. Install a scan tool. 2. Start the engine. 3. With a scan tool, observe the Switched System Battery Voltage parameter in the ABS data list. Does the scan tool indicate the voltage is greater than the specified value?	10.5 V	Go to Diagnostic Aids	Go to Step 3

Step	Action	Values	Yes	No
3	With a scan tool, observe the Battery Volts parameter in the body control module data list. Does the scan tool indicate the voltage is greater than the specified value?	10.5 V	Go to Step 4	Go to Diagnostic System Check -ABS
4	<ol style="list-style-type: none"> Turn OFF the ignition. Disconnect the EBCM harness connector. Install the J 39700 Universal Pinout Box using the J 39700-300 Cable Adaptor to the EBCM harness connector only. Test the ground circuits of the EBCM including the EBCM ground for a high resistance or an open. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition? 	—	Go to Step 7	Go to Step 5
5	<ol style="list-style-type: none"> Connect the EBCM harness connector. Turn ON the ignition, with the engine OFF. Use the scan tool in order to clear the DTCs. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text. Does the DTC reset?	—	Go to Step 6	Go to Diagnostic Aids
6	Replace the EBCM. Refer to Electronic Brake Control Module (EBCM) Replacement. Did you complete the repair?	—	Go to Step 7	—
7	<ol style="list-style-type: none"> Use the scan tool in order to clear the DTCs. 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