

C0113-C0115 The EBCM controls the pump motor by grounding the control circuit

Circuit Description

The system relay is energized when the ignition is ON. The system relay supplies voltage to the solenoid valves and the pump motor. This voltage is referred to as the system voltage. The EBCM controls each solenoid valve by grounding the solenoid. The EBCM controls the pump motor by grounding the control circuit. The pump serves 2 purposes:

- Transfers brake fluid from the brake calipers to the master cylinder reservoir during pressure decrease events.
- Transfers brake fluid from the master cylinder reservoir to the brake calipers during pressure increase events.

Conditions for Running the DTC

- The pump motor is commanded ON.
- The system voltage is greater than 8 volts.

Conditions for Setting the DTC

One of the following conditions exists for 0.5 seconds:

- With the commanded pump motor voltage less than the system voltage, the actual pump motor voltage is 3 volts less than the commanded voltage.
- With the commanded pump motor voltage greater than the system voltage, the actual pump motor voltage is less than 8 volts.

Action Taken When the DTC Sets

If equipped, the following actions occur:

- The EBCM disables the ABS/TCS/VSES for the duration of the ignition cycle.
- The DRP does not function optimally.
- The ABS indicator turns ON.
- The Traction Control indicator turns ON.
- The DIC displays the Service Stability System message.

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

The pump motor is integral to the BPMV. The pump motor is not serviceable.

Test Description

The number below refers to the step number on the diagnostic table.

3. Tests the ability of the EBCM to control the pump motor. If the test lamp illuminates, the pump motor circuit within the EBCM is good.

Step	Action	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. Turn ON the ignition, with the engine OFF. 3. Use the scan tool in order to clear the DTCs. 4. With the scan tool, perform the Automated Test. Does the DTC reset?	Go to Step 3	Go to Testing for Intermittent and Poor Connections in Wiring Systems

Step	Action	Yes	No
3	1. Turn OFF the ignition. 2. Disconnect the pump motor harness pigtail connector of the BPMV. 3. Connect a test lamp between the pump motor circuits at the pump motor connector of the EBCM using the J 35616-C connector test adapter kit. 4. Use the scan tool in order to clear the DTCs. 5. With the scan tool, perform the Pump Motor Test. Does the test lamp illuminate?	Go to Step 5	Go to Step 4
4	1. Turn OFF the ignition. 2. Disconnect the EBCM harness connector. 3. Connect the J 39700 universal pinout box using the J 39700-300 cable adapter to the EBCM harness connector only. 4. Test both ground circuits of the EBCM, including the EBCM ground for a high resistance or an open. Refer to Circuit Testing in Wiring Systems. Did you find and correct the condition?	Go to Step 9	Go to Step 6
5	Inspect for poor connections at the pump motor harness pigtail connector of the BPMV. Refer to Testing for Intermittent and Poor Connections in Wiring Systems. Did you find and correct the condition?	Go to Step 9	Go to Step 7
6	Inspect for poor connections at the harness connector of the EBCM. Refer to Testing for Intermittent and Poor Connections in Wiring Systems. Did you find and correct the condition?	Go to Step 9	Go to Step 8
7	Replace the BPMV. Refer to Brake Pressure Modulator Valve (BPMV) Replacement Did you complete the repair?	Go to Step 9	—

Step	Action	Yes	No
8	<p>Important: Perform the setup procedure for the EBCM. An unprogrammed EBCM will result in the following conditions:</p> <ul style="list-style-type: none">• Inoperative or poorly functioning system operations• The EBCM sets DTC C0281 and DTC C0550 Replace the EBCM. Refer to Electronic Brake Control Module (EBCM) Replacement. <p>Did you complete the repair?</p>	Go to Step 9	—
9	<p>1. Use the scan tool in order to clear the DTCs.</p> <p>2. With the scan tool, perform the Automated Test.</p> <p>Does the DTC reset?</p>	Go to Step 2	System OK

LAUNCH