

**P0403 - EGR CONTROL CIRCUIT**

**When Monitored and Set Condition:**

**P0403 - EGR CONTROL CIRCUIT**

When Monitored: Engine running. Battery voltage greater than 10 volts.

Set Condition: The EGR solenoid control circuit is not in the expected state when requested to operate by the PCM. One Trip Fault.

**Possible Causes**

- GOOD TRIP EQUAL TO ZERO
- EGR SOLENOID ASSEMBLY
- EGR SOLENOID GROUND CIRCUIT OPEN
- EGR SOLENOID CONTROL CIRCUIT SHORTED TO VOLTAGE
- EGR SOLENOID CONTROL CIRCUIT SHORT TO GND
- EGR SOLENOID CONTROL CIRCUIT SHORTED TO SENSOR GROUND CIRCUIT
- EGR SOLENOID CONTROL CIRCUIT OPEN
- PCM

**Diagnostic Procedure**

**DIAGNOSTIC PROCEDURES CHART - P0403 - EGR CONTROL CIRCUIT**

TEST	ACTION	APPLICABILITY
1	Ignition on, engine not running. With the DRBIII®, read DTCs and record the related Freeze Frame data. Is the Good Trip displayed and equal to zero? Yes --> Go To 2 No --> Refer to the <b><u>INTERMITTENT CONDITION</u></b> symptom in the Driveability category. Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b>	All
2	Turn the ignition off. Disconnect the EGR Solenoid harness connector. Turn the ignition on. Turn all accessories off. Using a 12 volt Test Light	All

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	<p>connected to the EGR Solenoid ground circuit, probe the EGR Solenoid Control circuit.                  With the DRB, select Engine, System Test, EGR System Test and then FLOW to actuate the EGR solenoid.                  Does the 12-volt test light flash on and off?                  Yes --&gt; Replace the EGR Solenoid Assembly.                  Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b>                  No --&gt; Go To 3</p>	
<p align="center">3</p>	<p>Turn the ignition off.                  Disconnect the EGR Solenoid harness connector. Disconnect the PCM harness connector.                  Using a 12-volt Test Light connected to the EGR Solenoid ground circuit, probe the EGR Solenoid Control circuit in the EGR Solenoid harness connector.                  Does the test light illuminate?                  Yes --&gt; Go To 4                  No --&gt; Repair the open in the EGR Solenoid ground circuit.                  Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b></p>	<p align="center">All</p>
<p align="center">4</p>	<p>Turn the ignition off.                  Disconnect the EGR Solenoid harness connector. Disconnect the PCM harness connector.                  Turn the ignition on.                  Measure the voltage on the EGR Solenoid Control circuit in the EGR Solenoid connector.                  Is the voltage above 1.0 volt?                  Yes --&gt; Repair the short to voltage in the EGR Solenoid Control circuit.                  Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b>                  No --&gt; Go To 5</p>	<p align="center">All</p>

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5	<p>Turn the ignition off.                      Disconnect the PCM harness connector. Disconnect the EGR Solenoid harness connector. Measure the resistance between ground and the EGR Solenoid Control circuit at the EGR Solenoid harness connector. Is the resistance below 100 ohms?                      Yes --&gt; Repair the short to ground in the EGR Solenoid Control circuit.                      Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b>                      No --&gt; Go To 6</p>	All
6	<p>Turn the ignition off.                      Disconnect the PCM harness connector. Disconnect the EGR Solenoid harness connector. Measure the resistance between the EGR Solenoid Control circuit and Sensor ground circuit at the EGR Solenoid connector. Is the resistance below 5.0 ohms?                      Yes --&gt; Repair the short to Sensor ground in the EGR Solenoid Control circuit.                      Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b>                      No --&gt; Go To 7</p>	All
7	<p>Turn the ignition off.                      Disconnect the PCM harness connector. Disconnect the EGR Solenoid harness connector.</p> <p><b>CAUTION:</b>  <b>DO NOT PROBE THE PCM HARNESS CONNECTORS. PROBING THE PCM HARNESS CONNECTORS WILL DAMAGE THE PCM TERMINALS RESULTING IN POOR TERMINAL TO PIN CONNECTION. INSTALL MILLER SPECIAL TOOL #8815 TO PERFORM DIAGNOSIS.</b></p>	All

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	<p>Measure the resistance of the EGR Solenoid Control circuit from the EGR Solenoid harness connector to the appropriate terminal of special tool #8815.                  Is the resistance below 5.0 ohms?                  Yes --&gt; Go To 8                  No --&gt; Repair the open in the EGR Solenoid Control circuit.                  Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b></p>	
<p align="center">8</p>	<p><b>NOTE:</b>  <b>Before continuing, check the PCM harness connector terminals for corrosion, damage, or terminal push out. Repair as necessary.</b></p> <p>If there are no possible causes remaining, view repair.RepairReplace and program the Powertrain Control Module in accordance with the Service Information.Perform <b><u>POWERTRAIN VERIFICATION TEST VER - 5.</u></b></p>	<p align="center">All</p>