

< - Back

Forward ->

Document ID# 707311
2001 Chevrolet/Geo Blazer - 4WD

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DTC P0200

Circuit Description

The powertrain control module (PCM) enables the appropriate fuel injector on the intake stroke for each cylinder. An ignition voltage is supplied to the fuel injectors. The PCM controls each fuel injector by grounding the control circuit via a solid state device called a driver. The PCM monitors the status of each driver. If the PCM detects an incorrect voltage for the commanded state of the driver, a fuel injector control diagnostic trouble code (DTC) sets.

Conditions for Running the DTC

- The engine is running.
- The ignition voltage is between 6-18 volts.

Conditions for Setting the DTC

- The PCM detects an incorrect voltage on the fuel injector control circuit.
- The condition exists for 5 seconds.

Action Taken When the DTC Sets

- The control module illuminates the malfunction indicator lamp (MIL) on the second consecutive ignition cycle that the diagnostic runs and fails.
- The control module records the operating conditions at the time the diagnostic fails. The first time the diagnostic fails, the control module stores this information in the Failure Records. If the diagnostic reports a failure on the second consecutive ignition cycle, the control module records the operating conditions at the time of the failure. The control module writes the operating conditions to the Freeze Frame and updates the Failure Records.

Conditions for Clearing the MIL/DTC

- The control module turns OFF the malfunction indicator lamp (MIL) after 3 consecutive ignition cycles that the diagnostic runs and does not fail.
- A current DTC, Last Test Failed, clears when the diagnostic runs and passes.
- A history DTC clears after 40 consecutive warm-up cycles, if no failures are reported by this or any other emission related diagnostic.
- Clear the MIL and the DTC with a scan tool.

Diagnostic Aids

- Performing the Fuel Injector Coil test may help isolate an intermittent condition. Refer to [Fuel Injector Coil Test](#).
- For an intermittent condition refer to [Intermittent Conditions](#).

Test Description

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

4. This step tests for voltage at the fuel injector harness connector. The ECM1 fuse supplies power to the coil side of the fuel injector harness connector. If the fuse is open, a short to ground on the ignition 1 voltage supply circuit of the fuel injector is indicated.
5. This step verifies that the PCM is able to control the fuel injector. If the test lamp flashes, the PCM and wiring are OK.
6. This step tests if a ground is constantly being applied to the fuel injector.

Step	Action	Yes	No
<i>Schematic Reference: Engine Controls Schematics</i>			
1	Did you perform the Diagnostic System Check-Engine Controls?	Go to Step 2	Go to Diagnostic System Check - Engine Controls
2	<ol style="list-style-type: none"> 1. Clear the DTCs with a scan tool. 2. Idle the engine at the normal operating temperature. 3. Monitor the Misfire Current counters with a scan tool. Are any of the counters incrementing?	Go to Step 4	Go to Step 3
3	<ol style="list-style-type: none"> 1. Observe the Freeze Frame/Failure Records data for this DTC. 2. Turn OFF the ignition for 30 seconds. 3. Start the engine. 4. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text or as close to the Freeze Frame/Failure Records data that you observed. Does the DTC fail this ignition?	Go to Step 4	Go to Diagnostic Aids
4	<ol style="list-style-type: none"> 1. Turn OFF the ignition. 2. Disconnect the fuel injector harness connector. Refer to Engine Wiring, LH Side (Electrical) in Wiring Systems. 3. Turn ON the ignition, with the engine OFF. 4. Probe the ignition 1 voltage supply circuit of the appropriate fuel injector with a test lamp that is connected to a good ground. Does the test lamp illuminate?	Go to Step 5	Go to Step 11
5	<ol style="list-style-type: none"> 1. Connect the J 34730-375 Fuel Injector Test Lamp between the control circuit and the ignition 1 voltage supply circuit of the appropriate fuel injector. 2. Crank the engine. Does the test lamp flash?	Go to Step 9	Go to Step 6

6	Does the test lamp remain illuminated at all times?	Go to Step 8	Go to Step 7
7	Test the control circuit of the fuel injector for an open and for a short to voltage. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	Go to Step 14	Go to Step 10
8	Test the control circuit of the fuel injector for a short to ground. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	Go to Step 14	Go to Step 13
9	Inspect for poor connections at the harness connector of the fuel injector. Refer to Testing for Intermittent and Poor Connections and Repairing Connector Terminals in Wiring Systems. Did you find and correct the condition?	Go to Step 14	Go to Step 12
10	Inspect for poor connections at the harness connector of the PCM. Refer to Testing for Intermittent and Poor Connections and Repairing Connector Terminals in Wiring Systems. Did you find and correct the condition?	Go to Step 14	Go to Step 13
11	Repair the ignition 1 voltage supply circuit of the fuel injector for an open or for a short to ground. Refer to Wiring Repairs in Wiring Systems. Did you complete the repair?	Go to Step 14	--
12	Replace the fuel injector. Refer to Fuel Injector Replacement . Did you complete the replacement?	Go to Step 14	--
13	Replace the PCM. Refer to Powertrain Control Module (PCM) Replacement . Did you complete the replacement?	Go to Step 14	--
14	<ol style="list-style-type: none"> 1. Use the scan tool in order to clear the DTCs. 2. Turn OFF the ignition for 30 seconds. 3. Start the engine. 4. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text. Does the DTC run and pass?	Go to Step 15	Go to Step 2
15	With a scan tool, observe the stored information, Capture Info. Does the scan tool display any DTCs that you have not diagnosed?	Go to Diagnostic Trouble Code (DTC) List	System OK

< - Back

Forward ->

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Print