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2003 Chevrolet Blazer - 4WD

DTC P0452

Circuit Description

The fuel tank pressure (FTP) sensor measures the difference between the air pressure or vacuum in the evaporative emission (EVAP) system, and the outside air pressure. The control module supplies a 5-volt reference and a low reference circuit to the FTP sensor. The FTP sensor signal circuit voltage varies depending on EVAP system pressure or vacuum. If the FTP sensor signal voltage goes below a calibrated value, this DTC sets.

The following table illustrates the relationship between the FTP sensor signal voltage and the EVAP system pressure/vacuum.

FTP Sensor Signal Voltage	Fuel Tank Pressure
High, Approximately 1.5 Volts or More	Negative Pressure/Vacuum
Low, Approximately 1.5 Volts or Less	Positive Pressure

Conditions for Running the DTC

The engine is running.

Conditions for Setting the DTC

- The FTP sensor voltage is less than 0.1 volts.
- All conditions are present for more than 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.

Test Description

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

5. This step tests for the proper operation of the circuit in the high voltage range.
6. The 5-volt reference circuit for the FTP is routed through connector C152. This area may provide a good test point for diagnosing concerns with this circuit.
7. The FTP sensor signal circuit is routed through connector C152. This area may provide a good test point for diagnosing concerns with this circuit.

Step	Action	Value (s)	Yes	No
Schematic Reference: Engine Controls Schematics *Connector End View Reference: Engine Controls Connector End Views or Powertrain Control Module (PCM) Connector End Views*				
1	Did you perform the Diagnostic System Check-Engine Controls?	--	Go to Step 2	Go to Diagnostic System Check - Engine Controls
2	1. Idle the engine for 1 minute. 2. Monitor the diagnostic trouble code (DTC) information with a scan tool. Did DTC P0641 or P0651 fail this ignition?	--	Go to Diagnostic Trouble Code (DTC) List	Go to Step 3
3	Observe the fuel tank pressure sensor voltage with the scan tool. Does the scan tool indicate that fuel tank pressure sensor parameter is less than the specified value?	0.1 V	Go to Step 5	Go to Step 4
4	1. Observe the Freeze Frame/Failure Records for this DTC. 2. Turn OFF the ignition for 30 seconds. 3. Turn ON the ignition, with the engine OFF. 4. Operate the vehicle within the Conditions for Running the DTC. You may also operate the vehicle within the conditions that you observed from the Freeze Frame/Failure Records. Did the DTC fail this ignition?	--	Go to Step 5	Go to Intermittent Conditions
	1. Turn OFF the ignition. 2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in General Information. 3. Disconnect the fuel tank wiring harness at the			

5	fuel tank harness connector. 4. Connect a 3-amp fused jumper wire between the 5-volt reference circuit of the FTP sensor and the signal circuit of the FTP sensor. 5. Turn ON the ignition, with the engine OFF. 6. Observe the fuel tank pressure sensor voltage with a scan tool. Does the scan tool indicate that the fuel tank pressure sensor parameter is near the specified value?	5 V	Go to Step 8	Go to Step 6
6	Test the 5-volt reference circuit of the FTP sensor for an open between the fuel tank harness connector and the control module. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 12	Go to Step 7
7	Test the signal circuit of the FTP sensor for a short to ground, or an open between the fuel tank harness connector and the control module. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 12	Go to Step 9
8	1. Remove the fuel tank. Refer to Fuel Tank Replacement . 2. Inspect the fuel tank wiring harness for the following: ○ Damaged wiring ○ Poor connections ○ Broken wires inside the insulation-- Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 12	Go to Step 10
9	Inspect for poor connections at the harness connector of the control module. Refer to Testing for Intermittent and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 12	Go to Step 11
10	Replace the FTP sensor. Refer to Fuel Tank Pressure Sensor Replacement . Did you complete the replacement?	--	Go to Step 12	--
11	Replace the control module. Refer to Powertrain Control Module (PCM) Replacement . Did you complete the replacement?	--	Go to Step 12	--
	1. Observe the Freeze Frame/Failure Records for			

12	this DTC. 2. Turn OFF the ignition for 30 seconds. 3. Turn ON the ignition, with the engine OFF. 4. Operate the vehicle within the Conditions for Running the DTC. You may also operate the vehicle within the conditions that you observed from the Freeze Frame/Failure Records. Did the DTC fail this ignition?	--	Go to Step 2	Go to Step 13
13	Observe the Capture Info with a scan tool. Are there any DTCs that have not been diagnosed?	--	Go to Diagnostic Trouble Code (DTC) List	System OK