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2008 CHEVROLET TrailBlazer OEM Service and Repair Workshop Manual

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# YOUR CURRENT VEHICLE

# DTC P0711-P0713

# DTC P0711-P0713

# **Diagnostic Instructions**

- Perform the Diagnostic System Check prior to using this diagnostic procedure: Diagnostic System Check Vehicle
- Review the description of Strategy Based Diagnosis: Strategy Based Diagnosis
- An overview of each diagnostic category can be found here: Diagnostic Procedure Instructions

# **DTC Descriptor**

DTC P0711	Transmission Fluid Temperature Sensor Performance			
DTC P0712	Transmission Fluid Temperature Sensor Circuit Low Voltage			
DTC P0713	Transmission Fluid Temperature Sensor Circuit High Voltage			

# **Diagnostic Fault Information**

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Signal	P0712	P0713	P0713*	P0711
Low Reference	_	P0713	P0713*	P0711

<sup>\*</sup>Internal control module or component damage may occur if the circuit shorts to B+.

The sensor is an input to the control module K71. The input signal is used to determine the temperature of the fluid: Transmission

# **Conditions for Running the DTC**

## P0711Condition 1

- DTC P0712, P0713, P2818 = Not set
- DTCs related to the following system/component = Not Set
  - B14A Transmission Output Shaft Speed Sensor/B115 Vehicle Speed Sensor
  - B26 Crankshaft Position Sensor
  - B34 Engine Coolant Temperature Sensor
  - B74 Manifold Absolute Pressure Sensor
  - B75 Mass Air Flow Sensor
  - B107 Accelerator Pedal Position Sensor
  - Q17 Fuel Injector
  - Engine Misfire
  - Fuel Trim System
- Accelerator Pedal Position Sensor=Greater than 4%
- Battery Voltage=Greater than 9 V
- Engine Coolant Temperature=-40 to 130 °C (-40 to 266 °F)
- Engine Speed=Greater than 500 RPM
- Engine Torque=Greater than 50 Nm (37 lb ft)
- Ignition=On
- Ignition Voltage=Greater than 9 V
- Transmission Fluid Temperature=-40 to 130 °C (-40 to 266 °F)
- Vehicle Speed=Greater than 10 km/h (7 MPH)

Frequency the DTC runs=Continuously—After the running conditions are met

#### **Reference Information**

## **Schematic Reference**

**Automatic Transmission Controls Schematics** 

## **Connector End View Reference**

- Component Connector End Views
- Inline Harness Connector End Views

## **Electrical Information Reference**

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

# **DTC Type Reference**

Powertrain Diagnostic Trouble Code (DTC) Type Definitions

## **Scan Tool Reference**

**Control Module References** 

## **Circuit/System Verification**

- 1. Ignition » On / Vehicle » In Service Mode
- 2. Verify the scan tool parameter:Transmission Fluid Temperature=-39 to 129 °C (-38 to 264 °F)
  - If not between −39 and 129 °C (−38 and 264 °F)

Refer to: Circuit/System Testing

- If between −39 and 129 °C (−38 and 264 °F)
- 3. Verify DTC P0711 is not set.
  - If the DTC is set
  - 1. Verify the condition does not exist:Incorrect fluid level or condition »Refer to: Transmission Fluid Level and Condition Check
    - If a condition exists » Repair or replace as necessary
    - If no condition exists

Disconnect the electrical connector:X175Inline Harness Connector@T12 Automatic Transmission Assembly

## 3. NOTE

## Note

Testing for steps 3 to 7 is performed on the control module K71 side of the harness connector.

Test for less than  $10\,\Omega$  between the test points:Low Reference circuit terminal 11@X175Inline Harness Connector&Ground

- $\circ$  If 10  $\Omega$  or greater
- 1. Disconnect the electrical connector:K71 Transmission Control Module
- 2. Test for less than  $2\Omega$  between the test points:Low Reference circuit terminal 11@X175Inline Harness Connector&The other end of the circuit@Control module harness
  - If  $2\Omega$  or greater » Repair the open/high resistance in the circuit.
  - If less than  $2\Omega$  » Replace the component: K71 Transmission Control Module
- $\circ$  If less than 10  $\Omega$
- 4. Ignition » On / Vehicle » In Service Mode
- 5. Verify the scan tool parameter:Transmission Fluid Temperature=Colder than -39 °C (-38 °F)
  - If -39 °C (-38 °F) or warmer
  - 1. Ignition/Vehicle » Off
  - 2. Disconnect the electrical connector: K71 Transmission Control Module
  - 3. Test for infinite resistance between the test points: Signal circuit terminal 12@X175Inline Harness Connector&Ground
    - If less than infinite resistance » Repair the short to ground on the circuit.
    - If infinite resistance » Replace the component:K71 Transmission Control Module
  - If colder than -39 °C (-38 °F)
- 6. Connect a 3 A fused jumper wire between the test points: Signal circuit terminal 12&Low Reference circuit terminal 11@X175Inline Harness Connector
- 7. Verify the scan tool parameter:Transmission Fluid Temperature=Warmer than 129 °C (264 °F)