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2003 CHEVROLET Cavalier OEM Service and Repair Workshop Manual

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All OK.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Ride Control Switch Replacement for S48E Multifunction Switch–Center Console replacement.
- Control Module References for control module replacement, programming, and setup.

- Intake air temperature is greater than −10°C (14°F).
- The engine has been running for greater than 2 m.
- Barometric pressure is greater than 70 kPa.
- Vehicle is not in a low fuel state.
- DTC P163A runs continuously when the above conditions are met.

Conditions for Setting the DTC

This diagnostic applies to internal microprocessor integrity conditions within the engine control module (ECM). The ECM monitors the current required to control fuel pressure regulator 1 and compares the current value to calibrated low and high thresholds.

Action Taken When the DTC Sets

DTC P163A is a Type B DTC.

Conditions for Clearing the DTC

DTC P163A is a Type B DTC.

Reference Information

Schematic Reference

Engine Controls Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Fuel System Description

Electrical Information Reference

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

2. Test for less than 1 V between the high control circuit and ground.
    - If 1 V or greater, repair the short to voltage on the circuit.
    - If less than 1 V, replace the K20 Engine Control Module.

- **If the test lamp does not illuminate**

4. Verify that a test lamp does not illuminate between the low control circuit terminal 2 and ground.

- **If the test lamp illuminates**

1. Ignition OFF, remove the test lamp, disconnect the X3 harness connector at the K20 Engine Control Module, ignition ON.
2. Test for less than 1 V between the low control circuit and ground.
    - If 1 V or greater, repair the short to voltage on the circuit.
    - If less than 1 V, replace the K20 Engine Control Module.

- **If the test lamp does not illuminate**

5. Verify that a test lamp does not illuminate between the high control circuit terminal 1 and B+.

- **If the test lamp illuminates**

1. Ignition OFF, remove the test lamp, disconnect the X3 harness connector at the K20 Engine Control Module.
2. Test for infinite resistance between the high control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, replace the K20 Engine Control Module.

- **If the test lamp does not illuminate**

6. Verify that a test lamp does not illuminate between the low control circuit terminal 2 and B+.

- **If the test lamp illuminates**

1. Ignition OFF, remove the test lamp, disconnect the X3 harness connector at the K20 Engine Control Module.
2. Test for infinite resistance between the low control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, replace the K20 Engine Control Module.

- **If the test lamp does not illuminate**

The DMM and test leads must be calibrated to 0 Ω in order to prevent misdiagnosis.

Test for 0.3 – 0.7 Ω at 20°C (68°F) between the low control circuit terminal 2 and the high control circuit terminal 1.

- **If not within the specified range**

  Replace the G18 High Pressure Fuel Pump.

- **If within the specified range**

3. Test for infinite resistance between each terminal and the G18 High Pressure Fuel Pump housing.
   - **If less than infinite resistance**

     Replace the G18 High Pressure Fuel Pump.

   - **If infinite resistance**

4. All OK.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Fuel Pump Removal for G18 High Pressure Fuel Pump replacement
- Control Module References for K20 Engine Control Module replacement, programming, and setup
- **NOTE**

  Note

  Some vehicles do not support the Fuel Rail Pressure Relief Valve Reset procedure. Applications not supporting this procedure will return an error message stating “Parameter ID not supported. Check for proper vehicle selection.”

  Perform the Fuel Rail Pressure Relief Valve Reset procedure.