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2003 CHEVROLET Celta - 5 doors OEM Service and Repair Workshop Manual

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Engine Controls Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Throttle Actuator Control (TAC) System Description

Electrical Information Reference

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- 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 for scan tool information

Circuit/System Verification

1. Ignition ON.
2. Verify DTC P0697 or P06A3 is not set.
    - **If any of the DTCs are set**

      Refer to DTC P0641, P0651, P0697, or P06A3 for further diagnosis.
    - **If none of the DTCs are set**
3. Verify the APP Sensor 1 Circuit Status and APP Sensor 2 Circuit Status displays OK.
    - **If OK is not displayed**

      Refer to Circuit/System Testing.
    - **If OK is displayed**
4. Verify the scan tool APP Sensor 1 and 2 Agree/Disagree parameter displays Agree while performing the tests listed below:
    - Rapidly depress the accelerator pedal from the rest position to the wide open throttle position (WOT) and release pedal. Repeat the procedure several times.

3. Ignition ON.

4. Test for 4.8–5.2 V between each 5 V reference circuit terminal listed below and ground.

- APP sensor 1, 5 V reference circuit terminal 6
- APP sensor 2, 5 V reference circuit terminal 1

- **If less than 4.8 V**

1. Ignition OFF, disconnect the harness connector at the K20 Engine Control Module.
2. Test for infinite resistance between the 5 V reference circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance
3. Test for less than 2 Ω in the 5 V reference circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K20 Engine Control Module.

- **If greater than 5.2 V**

1. Ignition OFF, disconnect the harness connector at the K20 Engine Control Module, ignition ON.
2. Test for less than 1 V between the 5 V reference 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 between 4.8–5.2 V**

5. Verify each APP sensor voltage parameter is less than 0.2 V.

- **If 0.2 V or greater**

1. Ignition OFF, disconnect the harness connector at the K20 Engine Control Module, ignition ON.
2. Test for less than 1 V between the signal circuit terminal listed below and ground.

- APP sensor 1 signal circuit terminal 5
- APP sensor 2 signal circuit terminal 2

- If 1 V or greater, repair the short to voltage on the circuit.
- If less than 1 V, replace the K20 Engine Control Module.

YOUR CURRENT VEHICLE

DTC P2147, P2148, P2150, P2151, P2153, P2154, P2156, P2157, P216B, P216C, P216E, P216F, P217B, P217C, P217E, or P217F

DTC P2147, P2148, P2150, P2151, P2153, P2154, P2156, P2157, P216B, P216C, P216E, P216F, P217B, P217C, P217E, or P217F

Diagnostic Instructions

- Perform the Diagnostic System Check - Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

DTC Descriptors

DTC P2147	Cylinder 1 Injector High Control Circuit Low Voltage
DTC P2148	Cylinder 1 Injector High Control Circuit High Voltage
DTC P2150	Cylinder 2 Injector High Control Circuit Low Voltage
DTC P2151	Cylinder 2 Injector High Control Circuit High Voltage
DTC P2153	Cylinder 3 Injector High Control Circuit Low Voltage
DTC P2154	Cylinder 3 Injector High Control Circuit High Voltage
DTC P2156	Cylinder 4 Injector High Control Circuit Low Voltage
DTC P2157	Cylinder 4 Injector High Control Circuit High Voltage
DTC P216B	Cylinder 5 Injector High Control Circuit Low Voltage

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
High Control Cylinder 5	P216B	P0205	P216C	P124C
Low Control Cylinder 6	P0276	P0206	P0277	P124D
High Control Cylinder 6	P216E	P0206	P216F	P124D
Low Control Cylinder 7	P0279	P0207	P0280	P124E
High Control Cylinder 7	P217B	P0207	P217C	P124E
Low Control Cylinder 8	P0282	P0208	P0283	P124F
High Control Cylinder 8	P217E	P0208	P217F	P124F
DTC P0300 may also be present for all fault conditions				

Circuit/System Description

The engine control module (ECM) supplies voltage to each fuel injector on the high control circuits. The ECM energizes each fuel injector by grounding the low control circuit of the fuel injector. The ECM monitors the status of the fuel injector circuits. When a fuel injector circuit condition is detected by the ECM, the affected fuel injector(s) is disabled.

Conditions for Running the DTC

- DTC P062B is not present.
- Engine is running.
- Ignition voltage is greater than 11 V.
- The DTCs run continuously when the above conditions are met.