DTC B3006 Hood Ajar Circuit Plausibility Failure

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 Descriptor

DTC B3006 5A: Hood Ajar Circuit Plausibility Failure

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Hood Ajar Switch Signal	B3006 5A	B3006 5A	B3006 5A	—
Hood Closed Switch Signal	B3006 5A	B3006 5A	B3006 5A	—
Ground	B3006 5A	B3006 5A	—	—

Circuit/System Description

The body control module (BCM) monitors the voltageinput of the hood open switch signal circuit andthe hood open closed switch signal circuit. With the hood open, the hood ajar portion of the switch isclosed, grounding the hood ajar switch signal circuit from the BCM, and the hood closed portion of the switch is open. With the hood closed, the hood closed portion of the switch is closed, grounding the hood closed switch signal circuit from the BCM, and the hood ajar portion of the switch is open. During proper operation, the two separate voltage signals at the BCM should never be at the same voltage.

Conditions for Running the DTC

The BCM continuously monitors for this DTC

Conditions for Setting the DTC

Both the hood open switch signal circuit and the hood closed switch signal circuit are simultaneously in an active or inactive state.

Action Taken When the DTC Sets

- Remote start functions will be disabled.
- The hood ajar switch inputs will be ignored by content theft deterrent (CTD).

Conditions for Clearing the DTC

- A current DTC will clear when the conditions for setting are no longer present.
- A history DTC will clear after 40 malfunction free ignition cycles.

Reference Information

Schematic Reference

- Immobilizer Schematics
- Remote Function Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Keyless Entry System Description and Operation (Without Accessory 2 Way Remote) or Keyless Entry System Description and Operation (With Accessory 2 Way Remote)

Electrical Information Reference

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

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

Ignition ON, observe the scan tool BCM Hood Open Switch and Hood Closed

Switch parameters. With the hood open, the Hood Open Switch parameter should read Active and the Hood Closed Switch parameter should read Inactive. With the hood closed, the Hood Open Switch parameter should read Inactive and the Hood Closed Switch parameter should read Active.

Circuit/System Testing

1). Ignition OFF, disconnect the harness connector at the hood ajar switch.
2). Ignition OFF, test for less than 5 ohms between the ground circuit terminal C and ground.If greater than the specified range, test the ground circuit for an open/high resistance.
3). Ignition ON, test for 11.5–12.0 volts between the signal circuit terminal A and ground. If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM. If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
4). Ignition ON, test for 11.5–12.0 volts between the signal circuit terminal B and ground.If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM.If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
5). If all circuits test normal, test or replace the hood ajar switch.

Component Testing

Hood Ajar Switch

1). Ignition OFF, disconnect the harness connector at the hood ajar switch.
2). With the switch in the hood closed position, testfor infinite resistance between the ground terminal C and the signal terminal A.If not infinite, replace the hood ajar switch.
3). Test for less than 2.0 ohms between the ground terminal C and the signal terminal B. If greater than the specified range, replace the hood ajar switch.
4). With the switch in the hood open position, test for infinite resistance between the ground terminal C and the signal terminal B. If not infinite, replace the hood ajar switch.
5). Test for less than 2.0 ohms between the ground terminal C and the signal terminal A.If greater than the specified range, replace the hood ajar switch.

Repair Instructions

Perform the Diagnostic Repair Verification on page 6-86 after completing the diagnostic procedure.

- Hood Primary and Secondary Latch Replacement
- Control Module Reference for BCM replacement, programming and setup