Component Procedures: Hood

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Hood Ajar Indicator (Article 10104)

Hood Ajar Switch
The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains high. When the hood is open, the switch is closed and the voltage is pulled low.
The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.
Hood Ajar Indicator/Message
When the hood is ajar, a message is displayed on the DIC or the hood ajar indicator will be illuminated.

Hood Replacement (Article 10128)

Callout Component Name
Preliminary Procedure Remove the hood strut rod. Refer to Hood Strut Replacement .
Preliminary Procedure
Remove the hood strut rod. Refer to Hood Strut Replacement .
1 Hood Hinge Nut (Qty: 4) Caution: Refer to Fastener Caution . Procedure Mark the location of the hinge to the hood with a grease pencil to aid in alignment. Tighten 25 Nm (18 lb ft)
Procedure
Mark the location of the hinge to the hood with a grease pencil to aid in alignment.
25 Nm (18 lb ft)
2 Hood Procedure Disconnect the wiper washer hoses from the hood.
Disconnect the wiper washer hoses from the hood.

Hood Ajar Indicator/Message Malfunction (Article 10106)

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
Hood Ajar Circuit
For symptom byte information, refer to Symptom Byte List .
Diagnostic Fault Information
Circuit Short to Ground Open/High Resistance Short to Voltage Signal Performance
Signal B3006 02 B3006 01, B3006 04 B3006 01 —
Ground — B3006 01, B3006 04 — —
Circuit/System Description
The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains high. When the hood is open, the switch is closed and the voltage is pulled low.
Conditions for Running the DTC
The BCM continuously monitors for this DTC
Conditions for Setting the DTC
B3006 01
The BCM detects that the hood ajar switch signal circuit is shorted to battery.
B3006 02
The BCM detects that the hood ajar switch signal circuit is shorted to ground.
B3006 04
The BCM detects that the hood ajar switch signal circuit is open.
Action Taken When the DTC Sets
- The hood ajar switch input will be ignored as a content theft deterrent trigger.
- Remote vehicle start (if equipped) will be disabled.

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

Reference Information
Schematic Reference
Immobilizer Schematics
Connector End View Reference

Master Electrical Component List
Description and Operation
Keyless Entry System Description and Operation
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.
- Verify the scan tool Hood Ajar Switch parameter is Open when the hood is open and Closed when the hood is closed.
- If the parameter does not change Refer to Circuit/System Testing.
- If the parameter changes
- All OK.
Circuit/System Testing
- Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the B55 Hood Ajar Switch. It may take up to 2 min for all vehicle systems to power down.
- Test for less than 10 Ω between the ground circuit terminal C and ground.
- If 10 Ω or greater
- Ignition OFF
- Test for less than 2 Ω in the ground circuit end to end.
- If 2 Ω or greater, repair the open/high resistance in the circuit.
- If less than 2 Ω, repair the open/high resistance in the ground connection.
- If less than 10 Ω
- Test for greater than 10 V between the signal circuit terminal B and ground.
- If 10 V or less
- Ignition OFF, disconnect the harness connector at the K9 Body Control Module.
- Test for infinite resistance between the signal circuit and ground.
- If less than infinite resistance, repair the short to ground on the circuit.
- If Infinite resistance.
- Test for less than 2 Ω in the signal circuit end to end.
- If less than 2 Ω, replace the K9 Body Control Module.
- If greater than 10 V
- Ignition OFF, disconnect the X4 and X7 harness connector at the K9 Body Control Module, ignition ON.
- Test for less than 1 V between the signal circuit terminal B and ground.
- If 1 V or greater Repair the short to voltage on the circuit.
- If less than 1 V
- Test or replace the B55 Hood Ajar Switch.
Component Testing
- Ignition OFF, disconnect the harness connector at the B55 Hood Ajar Switch.
- Test for 2738–3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the closed position.
- If not between 2738–3350 Ω Replace the B55 Hood Ajar Switch.
- If between 2738–3350 Ω
- Test for 658–806 Ω between the signal terminal A and the ground terminal C with the hood latch in the closed position.
- If not between 658–806 Ω Replace the B55 Hood Ajar Switch.
- If between 658–806 Ω
- Test for 2080–2545 Ω between the signal terminal B and the ground terminal C with the hood latch in the closed position.
- If not between 2080–2545 Ω Replace the B55 Hood Ajar Switch.
- If between 2080–2545 Ω
- Test for 2738–3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the open position.
- Test for 2080–2545 Ω between the signal terminal A and the ground terminal C with the hood latch in the open position.
- Test for 658–806 Ω between the signal terminal B and the ground terminal C with the hood latch in the open

position.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Hood Primary and Secondary Latch Replacement
- Control Module References for body control module replacement, programming, and setup.