

Component Procedures: Dome Lamp

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Component Procedures: Dome Lamp

Parts and Labor (itype_189)

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	Interior Bulb	C	0.2	0.0

Dome and Reading Lamp Lens Replacement (Article 10385)

Callout Component Name

1 Dome and Reading Lamp Lens Procedure Use appropriate tool to release the lens.

Procedure

Use appropriate tool to release the lens.

Dome Lamps Malfunction (Article 10309)

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.

Diagnostic Fault Information

Circuit Short to Ground Open/High Resistance Short to Voltage Signal Performance

Dome Lamp Control B2615 02 2 2 —

Reading Lamp Control 1 1 1 —

Dome Lamp Defeat Signal 2 2 2 —

Dome/Reading Lamps Ground — 1, 2 — —

Dome/Reading Lamps - Rear Ground — 1, 2 — —

1. Courtesy Lamps Malfunction 2. Dome Lamps Malfunction

Circuit/System Description

When any door is opened, the door ajar switch contacts close and the body control module (BCM) receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge.

Reference Information

Schematic Reference

Interior Lights Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Interior Lighting Systems 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 Door Ajar Switch parameter changes between Active and Inactive while opening and closing each vehicle door.
- If the parameter does not change Refer to Door Ajar Indicator Malfunction .
- If the parameter changes
- Verify the scan tool Interior/ Courtesy Light ing Master Switch parameter changes between Active and Inactive while turning the dome lamp defeat switch ON and OFF.
- If the parameter does not change Refer to Dome Lamp Switch Malfunction.
- Verify the dome lamp turns ON and OFF while commanding the Courtesy Lamp s Duty Cycle Command ON and OFF with a scan tool.

- If the dome lamp does not turn ON and OFF Refer to Dome Lamp Malfunction.
- If the dome lamp turns ON and OFF
- All OK.

Circuit/System Testing

Dome Lamp Switch Malfunction

- Ignition OFF, scan tool disconnected, all doors closed, all accessories OFF, disconnect the harness connector at the E37A dome/reading lamps. It may take up to 2 minutes for all vehicle systems to power down.
- Test for less than 10 Ω between the ground circuit terminal 6 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
- Verify the scan tool Interior/Courtesy Lighting Master Switch parameter is Inactive.
- If Active
- Ignition OFF, disconnect the X1 harness connector at the K9 body control module.
- Test for infinite resistance between the signal circuit terminal 4 and ground.
- If less than infinite resistance, repair the short to ground on the circuit.
- If infinite resistance, replace the K9 body control module.
- If Inactive
- Install a 3 A fused jumper wire between the signal circuit terminal 4 and the ground circuit terminal 6.
- Verify the scan tool Interior/Courtesy Lighting Master Switch parameter is Active.
- If not Active
- Ignition OFF, disconnect the X1 harness connector at the K9 body control module, ignition ON.
- Test for less than 1 V between the signal circuit and ground.
- If 1 V or greater, repair the short to voltage on the circuit.
- If less than 1 V
- Test for less than 2 Ω in the signal circuit end to end.
- If less than 2 Ω , replace the K9 body control module.
- Test or replace the E37A dome/reading lamps.

Dome Lamp Malfunction

- Ignition OFF, all doors closed, all accessories OFF, disconnect the harness connector at the E37A dome/reading lamps. It may take up to 2 minutes for all vehicle systems to power down.
- Connect a test lamp between the control circuit terminal 2 and ground.
- Verify the test lamp turns ON and OFF when commanding the Courtesy Lamps Duty Cycle Command ON and OFF with a scan tool.
- If the test lamp is always OFF
- Ignition OFF, disconnect the X7 harness connector at the K9 body control module.
- Test for infinite resistance between the control circuit and ground.
- If infinite resistance
- Test for less than 2 Ω in the control circuit end to end.
- If the test lamp is always ON
- Ignition OFF, disconnect the X7 harness connector at the K9 body control module, ignition ON.
- Test for less than 1 V between the control circuit terminal and ground.
- If less than 1 V, replace the K9 body control module.
- If the test lamp turns ON and OFF
- Test or replace the inoperative E37A dome/reading lamps.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Dome Lamp Bulb Replacement
- Courtesy Lamp Replacement
- Control Module References for BCM replacement, programming, and setup