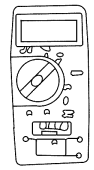
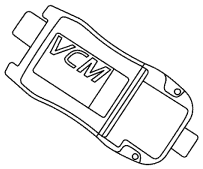
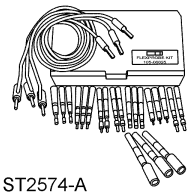
DIAGNOSIS AND TESTING

Interior Lighting

Special Tool(s)

 ST1137-A	73III Automotive Meter 105-R0057 or equivalent
 ST2834-A	Vehicle Communications Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent scan tool
 ST2574-A	Flex Probe Kit 105-R025C or equivalent

Principles of Operation

NOTE: The smart junction box (SJB) is also known as the generic electronic module (GEM).

When the SJB detects a request for lighting, it turns on the interior lamps by supplying power and ground to the lamps. The request for lighting can be an open door signal from a door ajar switch, an interior lighting on command from the instrument panel dimmer switch or an unlock command from a remote keyless entry (RKE) transmitter.

The SJB monitors input from the door ajar switches and the luggage compartment lid ajar switch. The switches are normally closed when the doors/luggage compartment lid are closed. When the door/luggage compartment lid is opened, the ajar switch opens signalling the SJB. The ajar switches receive a voltage signal from the SJB and each has its own ground circuit.

The instrument panel dimmer switch receives a voltage signal from the SJB. The instrument panel dimmer switch provides variable resistance for backlighting the instrument cluster and a toggle on/off function for the courtesy lamps.

The RKE receiver is contained inside the SJB. When the SJB receives an unlock request from a RKE transmitter, it unlocks the doors and turns on the courtesy lamps.

Ambient Lighting

The ambient lighting feature provides illumination of the cup holders in the center floor console and to the front and rear footwell areas. There are a total of 5 LED lighting locations. The ambient lighting feature is only available when the ignition key is in the run or accessory position.

The ambient lighting module provides voltage and ground to the LEDs. There are 3 different color (red, blue and green) LEDs housed within each LED assembly. By illuminating various color combinations, the LEDs are able to produce 7 different colors of ambient light. The ambient lighting switch is an input to the ambient lighting module. With each press of the ambient lighting switch, the ambient lighting module cycles through a different color variation or turns the ambient lighting feature off. The module retains the last color setting between uses.

Inspection and Verification

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical and electrical damage.

DIAGNOSIS AND TESTING (Continued)

Visual Inspection Chart

Mechanical	Electrical
• Door ajar switch(es) • Luggage compartment lid ajar switch	• Smart junction box (SJB) fuse 7 (10A) (ambient lighting if equipped) • Bussed electrical center (BEC) fuse(s): — 59 (30A) — 67 (30A) • Wiring, terminals or connectors • Illumination dimmer switch • Dome/map lamp • Luggage compartment lamp • Ambient lighting switch (if equipped) • Ambient lighting module (if equipped) • SJB

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.
4. **NOTE:** Make sure to use the latest scan tool release software.

   If the cause is not visually evident, connect the scan tool to the data link connector (DLC).
5. **NOTE:** The vehicle communication module (VCM) LED prove-out confirms power and ground from the DLC are provided to the VCM.

   If the scan tool does not communicate with the VCM:
   - Check the VCM connection to the vehicle.
   - Check the scan tool connection to the VCM.
   - Refer to Section 418-00, No Power To The Scan Tool, to diagnose no communication with the scan tool.
6. If the scan tool does not communicate with the vehicle:
   - Verify the ignition key is in the ON position.
   - Verify the scan tool operation with a known good vehicle.
   - Refer to Section 418-00 to diagnose no response from the PCM.
7. Carry out the network test.
   - If the scan tool responds with no communication with the SJB, refer to Section 418-00.
   - If the network test passes, retrieve and record the continuous memory DTCs.
8. Clear the continuous DTCs and carry out the self-test diagnostics for the SJB.
9. If the DTCs retrieved are related to the concern, go to DTC Charts. For all other DTCs, refer to Section 419-10.
10. If no DTCs related to the concern are retrieved, GO to Symptom Chart.

DTC Charts

Smart Junction Box (SJB) DTC Chart

DTC	Description	Action
B1084	Trunk Lamp Circuit Failure	If the luggage compartment lamp is inoperative, GO to Pinpoint Test F. If the luggage compartment lamp is always on, GO to Pinpoint Test G.
B1319	Driver Door Ajar Circuit Failure	GO to Pinpoint Test D.
B1327	Passenger Door Ajar Circuit Failure	GO to Pinpoint Test D.
B2021	Dome Lamp Output Return Circuit Failure	GO to Pinpoint Test A.

DIAGNOSIS AND TESTING (Continued)

Smart Junction Box (SJB) DTC Chart (Continued)

DTC	Description	Action
B2550	Dome Lamp Output Circuit Short to Ground	GO to Pinpoint Test A.
B2554	Dome Lamp Output Circuit Failure	If the interior lamps are inoperative, GO to Pinpoint Test A. If the interior lamps are always on, GO to Pinpoint Test D. If the battery saver does not deactivate, GO to Pinpoint Test H.

Symptom Chart

Symptom Chart

Condition	Possible Sources	Action
• No communication with the smart junction box (SJB)	• Wiring, terminals or connectors • SJB	• REFER to Section 418-00.
• The courtesy lamps are inoperative	• Fuse • Wiring, terminals or connectors • Interior lamp • SJB	• GO to Pinpoint Test A.
• The courtesy lamps do not turn on with one door open	• Wiring, terminals or connectors • Door ajar switch • Power window motor • SJB	• GO to Pinpoint Test B.
• The courtesy lamps are inoperative — using the dimmer switch	• Wiring, terminals or connectors • Dimmer switch • SJB	• GO to Pinpoint Test C.
• The courtesy lamps stay on continuously	• Wiring, terminals or connectors • Door ajar switch • Dimmer switch • SJB	• GO to Pinpoint Test D.
• The demand lamps are inoperative	• Wiring, terminals or connectors • Interior lamp	• GO to Pinpoint Test E.
• The luggage compartment lamp is inoperative	• Wiring, terminals or connectors • Luggage compartment lamp • Luggage compartment lid ajar switch • SJB	• GO to Pinpoint Test F.
• The luggage compartment lamp stays on continuously	• Wiring, terminals or connectors • Luggage compartment lid ajar switch • SJB	• GO to Pinpoint Test G.
• The battery saver does not deactivate after timeout	• Wiring, terminals or connectors • SJB	• GO to Pinpoint Test H.

DIAGNOSIS AND TESTING (Continued)

Symptom Chart (Continued)

Condition	Possible Sources	Action
• The illuminated entry is inoperative when using the remote keyless entry (RKE) transmitter	• RKE system • SJB	• Using the RKE transmitter, lock and unlock the doors. — If the doors lock and unlock correctly, INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. — If the doors do not lock and unlock correctly, REFER to Section 501-14 to continue diagnosis of the RKE system.
• The ambient lighting is inoperative	• Wiring, terminals or connectors • Ambient lighting harness • Ambient lighting switch • Ambient lighting module	• GO to Pinpoint Test I.
• An individual ambient light emitting diode (LED) is inoperative/does not operate correctly	• LED	• INSTALL a new LED assembly following the instructions within the repair kit. TEST the system for normal operation.
• The ambient lighting does not operate correctly — does not cycle through all color combinations	• Wiring, terminals or connectors • Ambient lighting harness • Ambient lighting switch • Ambient lighting module	• GO to Pinpoint Test J.

Pinpoint Tests

Pinpoint Test A: The Courtesy Lamps Are Inoperative

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

Voltage is supplied to the smart junction box (SJB) through the bussed electrical center (BEC) fuse 67 (30A) to the SJB. When a door is opened, the ajar switch opens, signaling the SJB. The SJB monitors the ajar circuits, and based on the ajar status, the SJB supplies voltage to the courtesy lamps on circuit 53 (BK/LB). Ground for the courtesy lamps is controlled by the SJB through circuit 54 (LG/YE).

- DTC B2021 (Dome Lamp Output Return Circuit Failure) — is a continuous and on-demand DTC that sets when the SJB detects a short to voltage on the dome lamp return circuit.
- DTC B2550 (Dome Lamp Output Circuit Short to Ground) — is a continuous and on-demand DTC that sets when the SJB detects a short to ground on the dome lamp output supply circuit.
- DTC B2554 (Dome Lamp Output Circuit Failure) — is a on-demand DTC that sets when the SJB detects an open on the dome lamp supply or return circuits.

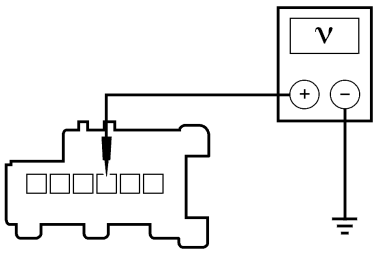
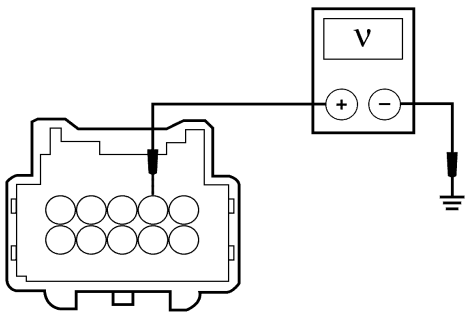
This pinpoint test is intended to diagnose the following:

- Fuse
- Wiring, terminals or connectors
- Interior lamp
- SJB

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE

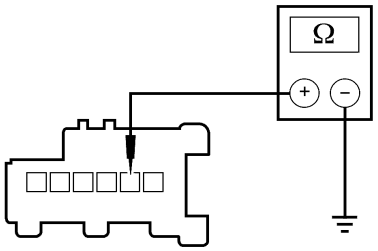
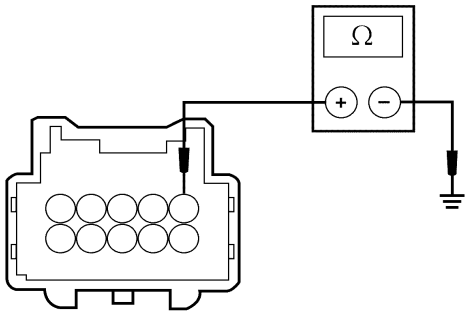
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
A1	**CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST**	
	• Check the recorded results from the SJB self-test. • **Is DTC B2021, B2250 or B2554 present?**	**Yes** For DTC B2021, GO to **A2**. For DTC B2550, GO to **A4**. For DTC B2554, GO to **A6**. **No** GO to **A10**.
A2	**CHECK THE INTERIOR LAMP (DTC B2021)**	
	• Key in OFF position. • Disconnect: Overhead Console C930. • Disconnect: Overhead Console (With Convertible Top) C9013. • Key in ON position. • Enter the following diagnostic mode on the scan tool: SJB Self-Test. • **NOTE:** DTC B2254 may be present and should be ignored. Clear the SJB DTCs and REPEAT the self-test. • **Is DTC B2021 retrieved again?**	**Yes** GO to **A3**. **No** INSTALL a new interior lamp. Clear the SJB DTCs. REPEAT the self-test.
A3	**CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position. • Disconnect: SJB C2280f. • Key in ON position. • For vehicles without a convertible top, measure the voltage between the overhead console C930-4, circuit 54 (LG/YE), harness side and ground.  N0014696 • For vehicles with a convertible top, measure the voltage between the overhead console C9013-4, circuit 54 (LG/YE), harness side and ground.  N0053562 • **Is any voltage present?**	**Yes** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test. **No** GO to **A11**.

(Continued)

DIAGNOSIS AND TESTING (Continued)

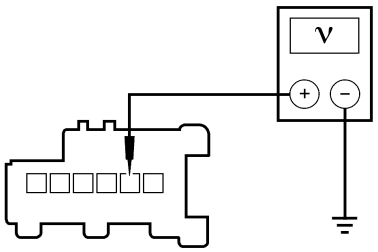
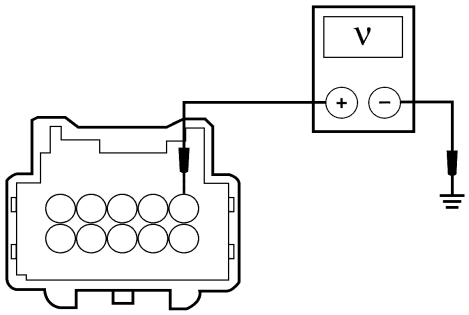
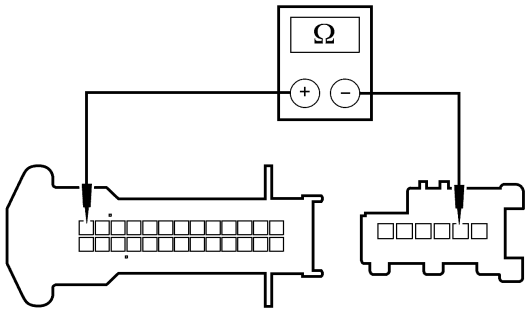
PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
A4	**CHECK THE INTERIOR LAMP (DTC B2250)**	
	• Key in OFF position. • Disconnect: Overhead Console C930. • Disconnect: Overhead Console (With Convertible Top) C9013. • Key in ON position. • Enter the following diagnostic mode on the scan tool: SJB Self-Test. • **NOTE:** DTC B2254 may be present and should be ignored. Clear the SJB DTCs and REPEAT the self-test. • **Is DTC B2050 retrieved again?**	**Yes** GO to **A5**. **No** INSTALL a new interior lamp. Clear the SJB DTCs. REPEAT the self-test.
A5	**CHECK CIRCUIT 53 (BK/LB) FOR A SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280f. • For vehicles without a convertible top, measure the resistance between the overhead console C930-5, circuit 53 (BK/LB), harness side and ground.  N0014697 • For vehicles with a convertible top, measure the resistance between the overhead console C9013-5, circuit 53 (BK/LB), harness side and ground.  N0053563 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **A11**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
A6	**CHECK CIRCUIT 53 (BK/LB) FOR VOLTAGE**	
	• Key in OFF position. • Disconnect: Overhead Console C930. • Disconnect: Overhead Console (With Convertible Top) C9013. • Key in ON position.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

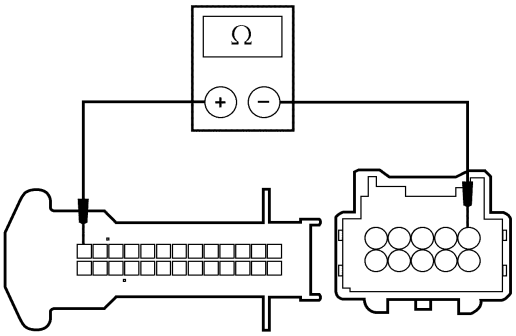
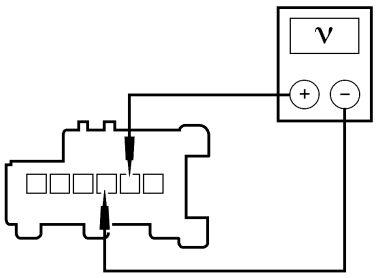
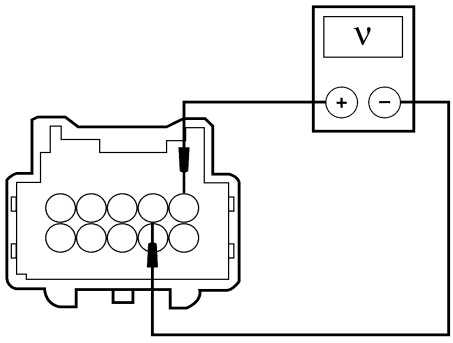
PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
A6	CHECK CIRCUIT 53 (BK/LB) FOR VOLTAGE (Continued)	
	• For vehicles without a convertible top, measure the voltage between the overhead console C930-5, circuit 53 (BK/LB), harness side and ground.  N0014699 • For vehicles with a convertible top, measure the voltage between the overhead console C9013-5, circuit 53 (BK/LB), harness side and ground.  N0053564 • **Is the voltage greater than 10 volts?**	**Yes** GO to **A8**. **No** GO to **A7**.
A7	CHECK CIRCUIT 53 (BK/LB) FOR AN OPEN	
	• Key in OFF position. • Disconnect: SJB C2280f. • For vehicles without a convertible top, measure the resistance between the overhead console C930-5, circuit 53 (BK/LB), harness side and the SJB C2280f-26, circuit 53 (BK/LB), harness side.  N0014700	

(Continued)

DIAGNOSIS AND TESTING (Continued)

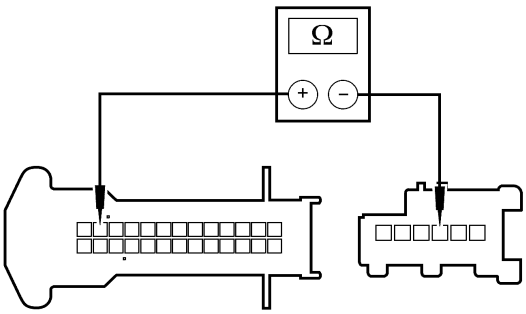
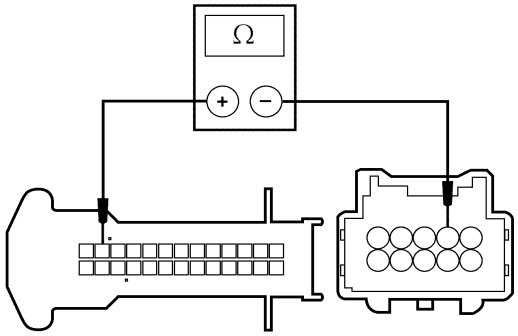
PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
A7	**CHECK CIRCUIT 53 (BK/LB) FOR AN OPEN (Continued)**	
	• For vehicles with a convertible top, measure the resistance between the overhead console C9013-5, circuit 53 (BK/LB), harness side and the SJB C2280f-26, circuit 53 (BK/LB), harness side.  N0053565 • **Is the resistance less than 5 ohms?**	**Yes** GO to **A11**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
A8	**CHECK THE GROUND CIRCUIT TO THE OVERHEAD CONSOLE**	
	• For vehicles without a convertible top, measure the voltage between the overhead console C930-5, circuit 53 (BK/LB), harness side and the overhead console C930-4, circuit 54 (LG/YE), harness side.  N0014701 • For vehicles with a convertible top, measure the voltage between the overhead console C9013-5, circuit 53 (BK/LB), harness side and the overhead console C930-4, circuit 54 (LG/YE), harness side.  N0053566 • **Is the voltage greater than 10 volts?**	**Yes** INSTALL a new interior lamp. CLEAR the DTCs. REPEAT the self-test. **No** GO to **A9**.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
A9	**CHECK CIRCUIT 54 (LG/YE) FOR AN OPEN**	
	• Key in OFF position. • Disconnect: SJB C2280f. • For vehicles without a convertible top, measure the resistance between the overhead console C930-4, circuit 54 (LG/YE), harness side and the SJB C2280f-25, circuit 54 (LG/YE), harness side.  N0014702 • For vehicles with a convertible top, measure the resistance between the overhead console C9013-4, circuit 54 (LG/YE), harness side and the SJB C2280f-25, circuit 54 (LG/YE), harness side.  N0053567 • **Is the resistance less than 5 ohms?**	**Yes** GO to **A11**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
A10	**CHECK THE SJB DOOR AJAR AND THE DIMMER SWITCH PIDs**	
	• Enter the following diagnostic mode on the scan tool: SJB DataLogger. • Monitor the SJB door ajar switch PIDs (D_DR_SW, P_DR_SW) while opening and each door. • Monitor the SJB dome lamp switch PID (DOMELM__SW) while operating the dimmer switch in the interior lamp ON positions. • **Do the SJB door ajar and dome lamp switch PIDs correspond?**	**Yes** GO to **A11**. **No** For a door ajar switch, GO to Pinpoint Test B. For the dome lamp switch, GO to Pinpoint Test C.
A11	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test B: The Courtesy Lamps Do Not Turn On With One Door Open

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When a door is open, the ajar switch opens the circuit to the smart junction box (SJB). The SJB monitors the ajar circuits, and based on the ajar status, the SJB supplies voltage and ground to the courtesy lamps.

The SJB sends a voltage reference signal to the LH door ajar switch through circuit 1312 (LG/BK) and the RH door ajar switch through circuit 1314 (YE/LG). The door ajar switch routes the signal to ground through circuit 1205 (BK). When the door is opened, the door ajar switch opens the circuit, signalling the SJB a request for the courtesy lamps.

The power window motors also use this input for the short drop feature. For additional information, refer to Section 501-11.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Door ajar switch
- Power window motor
- SJB

PINPOINT TEST B: THE COURTESY LAMPS DO NOT TURN ON WITH ONE DOOR OPEN

⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
B1	**CHECK THE POWER WINDOW MOTOR FOR SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: Power Window Motor C518 (LH) or C623 (RH). • **Do the courtesy lamps turn on?**	**Yes** INSTALL a new power window motor. REFER to Section 501-11. TEST the system for normal operation. **No** GO to **B2**.
B2	**CHECK THE DOOR AJAR SWITCH**	
	• Disconnect: Suspect Door Ajar Switch. • **Do the courtesy lamps turn on?**	**Yes** INSTALL a new door ajar switch for the switch in question. REFER to Section 501-14. TEST the system for normal operation. **No** GO to **B3**.
B3	**CHECK THE DOOR AJAR SWITCH SIGNAL CIRCUIT FOR A SHORT TO GROUND**	
	• Disconnect: SJB C2280e. • Measure the resistance between the LH door ajar switch C526-2, circuit 1312 (LG/BK), harness side and ground; or between the RH door ajar switch C602-2, circuit 1314 (YE/LG), harness side and ground. • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **B4**. **No** REPAIR the circuit in question. TEST the system for normal operation.
B4	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test C: The Courtesy Lamps Are Inoperative — Using The Dimmer Switch

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

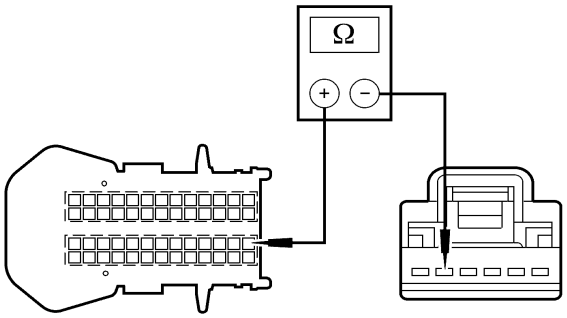
The smart junction box (SJB) monitors the dimmer switch status on circuit 2085 (VT/YE) to determine if the courtesy lamps are requested. Based on the dimmer switch status, the SJB supplies voltage and ground to the courtesy lamps.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Dimmer switch
- SJB

PINPOINT TEST C: THE COURTESY LAMPS ARE INOPERATIVE — USING THE DIMMER SWITCH

⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
C1	**RETRIEVE THE SJB DTCs FROM BOTH THE CONTINUOUS AND THE ON-DEMAND SELF-TESTS**	
	• Check the recorded results from the SJB self-test. • **Are any DTCs present?**	**Yes** REFER to Section 419-10. **No** GO to **C2**.
C2	**CHECK THE DIMMER SWITCH**	
	• Key in OFF position. • Disconnect: Dimmer Switch C2298. • Carry out the dimmer switch component test. Refer to Wiring Diagrams Cell 149 for component testing. • **Is the dimmer switch OK?**	**Yes** GO to **C3**. **No** INSTALL a new dimmer switch. TEST the system for normal operation.
C3	**CHECK CIRCUIT 2085 (VT/YE) FOR AN OPEN**	
	• Disconnect: SJB C2280b. • Measure the resistance between the SJB C2280b-14, circuit 2085 (VT/YE), harness side and the dimmer switch C2298-5, circuit 2085 (VT/YE), harness side.  N0014704 • **Is the resistance less than 5 ohms?**	**Yes** GO to **C4**. **No** REPAIR the circuit. TEST the system for normal operation.
C4	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test D: The Courtesy Lamps Stay On Continuously

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When a door is opened, the door ajar input from circuit 1312 (LG/BK) or circuit 1314 (YE/GN) to the smart junction box (SJB) opens. When the SJB identifies that the circuit is open, the SJB provides voltage and ground to the courtesy lamps through circuit 53 (BK/LB) and 54 (LG/YE). The door ajar switches are grounded through circuit 1205 (BK).

When the dimmer switch is rotated to the interior lamps ON position, the SJB receives a signal through circuit 2085 (VT/YE), requesting the courtesy lamps.

- DTC B1319 (Driver Door Ajar Circuit Failure) — is a on-demand DTC that sets when the SJB detects an open on the driver door ajar switch circuit.
- DTC B1327 (Passenger Door Ajar Circuit Failure) — is a on-demand DTC that sets when the SJB detects an open on the passenger door ajar switch circuit.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Door ajar switch
- Dimmer switch
- SJB

PINPOINT TEST D: THE COURTESY LAMPS STAY ON CONTINUOUSLY

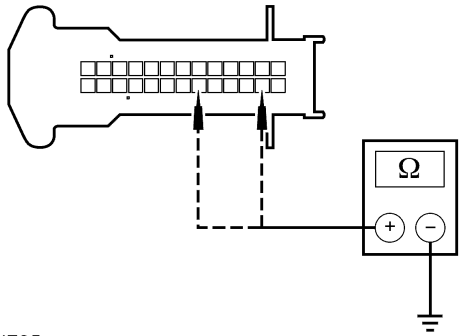
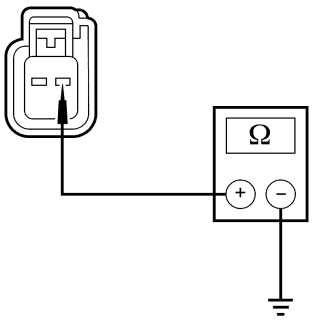
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

<table>
<tr><th colspan="2">Test Step</th><th>Result / Action to Take</th></tr>
<tr><td>D1</td><td>CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST
• Check the recorded results from the SJB self-test.
• Is DTC B1319 or B1327 present?</td><td>Yes
GO to D2.
No
GO to D5.</td></tr>
<tr><td>D2</td><td>CHECK THE AJAR SIGNAL CIRCUIT FOR GROUND
• Key in OFF position.
• Disconnect: SJB C2280e.
• NOTE: Make sure the doors are closed.
Measure the resistance between the SJB, harness side and ground as follows:
<table><tr><th>DTC</th><th>Location</th><th>Connector-Pin/ Circuit</th></tr><tr><td>B1319</td><td>LH door</td><td>C2280e-2
1312 (LG/BK)</td></tr><tr><td>B1327</td><td>RH door</td><td>C2280e-6
1314 (YE/LG)</td></tr></table></td><td></td></tr>
</table>

(Continued)

DIAGNOSIS AND TESTING (Continued)

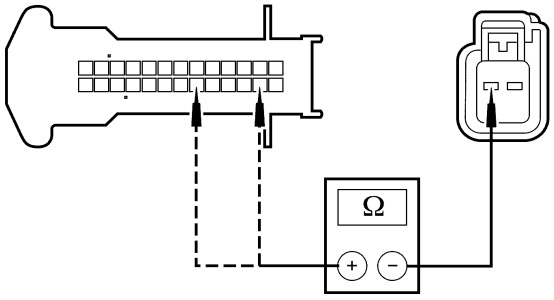
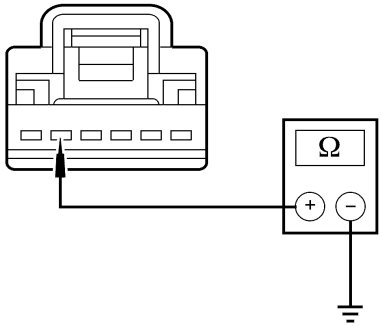
PINPOINT TEST D: THE COURTESY LAMPS STAY ON CONTINUOUSLY (Continued)

Test Step		Result / Action to Take
D2	CHECK THE AJAR SIGNAL CIRCUIT FOR GROUND (Continued)	
	 N0014705 • **Is the resistance less than 5 ohms?**	**Yes** GO to **D9**. **No** GO to **D3**.
D3	CHECK CIRCUIT 1205 (BK) FOR AN OPEN	
	• Disconnect: Suspect Door Ajar Switch. • Measure the resistance between the suspect door ajar switch, harness side and ground as follows: DTC: B1319 — Location: LH door — Connector-Pin/Circuit: C526-1 1205 (BK) DTC: B1327 — Location: RH door — Connector-Pin/Circuit: C602-1 1205 (BK)  N0014706 • **Is the resistance less than 5 ohms?**	**Yes** GO to **D4**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
D4	CHECK THE DOOR AJAR SIGNAL CIRCUIT FOR AN OPEN	
	• Measure the resistance between the suspect door ajar switch, harness side and the SJB, harness side as follows: DTC: B1319 — Location: LH door — SJB Connector-Pin/Circuit: C2280e-2 1312 (LG/BK) — Ajar Switch Connector-Pin/Circuit: C526-2 1312 (LG/BK) DTC: B1327 — Location: RH door — SJB Connector-Pin/Circuit: C2280e-6 1314 (YE/LG) — Ajar Switch Connector-Pin/Circuit: C602-2 1314 (YE/LG)	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST D: THE COURTESY LAMPS STAY ON CONTINUOUSLY (Continued)

Test Step		Result / Action to Take
D4	**CHECK THE DOOR AJAR SIGNAL CIRCUIT FOR AN OPEN (Continued)**	
	 N0014708 • **Is the resistance less than 5 ohms?**	**Yes** INSTALL a new ajar switch in question. CLEAR the DTCs. REPEAT the self-test. **No** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.
D5	**CHECK THE DIMMER SWITCH**	
	• Key in OFF position. • Disconnect: Dimmer Switch C2298. • **Does the dome lamp turn off?**	**Yes** INSTALL a new dimmer switch. TEST the system for normal operation. **No** GO to **D6**.
D6	**CHECK CIRCUIT 2085 (VT/YE) FOR A SHORT TO GROUND**	
	• Disconnect: SJB C2280b. • Measure the resistance between the dimmer switch C2298-5, circuit 2085 (VT/YE), harness side and ground.  N0014709 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **D7**. **No** REPAIR the circuit. TEST the system for normal operation.
D7	**CHECK THE DOME LAMP CONTROL GROUND CIRCUIT FOR A SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280f. • Measure the resistance between the SJB C2280f-25, circuit 54 (LG/YE), harness side and ground. • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **D9**. **No** GO to **D8**.
D8	**CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO GROUND**	
	• Disconnect: Overhead Console C930. • Disconnect: Overhead Console (With Convertible Top) C9013. • Measure the resistance between the SJB C2280f-25, circuit 54 (LG/YE), harness side and ground. • **Is the resistance greater than 10,000 ohms?**	**Yes** INSTALL a new overhead console. TEST the system for normal operation. **No** REPAIR the circuit. TEST the system for normal operation.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST D: THE COURTESY LAMPS STAY ON CONTINUOUSLY (Continued)

Test Step		Result / Action to Take
D9	CHECK FOR CORRECT SJB OPERATION	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. TEST the system for normal operation.

Pinpoint Test E: The Demand Lamps Are Inoperative

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

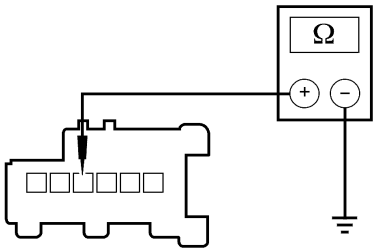
The smart junction box (SJB) provides voltage to the demand lamps through circuit 53 (BK/LB). Ground for the demand lamps is provided through circuit 1205 (BK).

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Interior lamp

PINPOINT TEST E: THE DEMAND LAMPS ARE INOPERATIVE

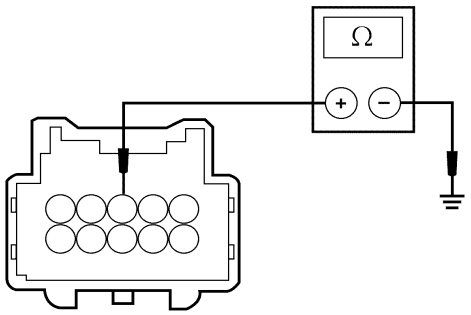
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
E1	CHECK THE COURTESY LAMP OPERATION	
	• Key in OFF position. • Attempt to turn the courtesy lamps on by opening the doors and using the dimmer switch. • **Does the courtesy lamp turn on?**	**Yes** GO to **E2**. **No** GO to Symptom Chart for correct diagnosis.
E2	CHECK CIRCUIT 1205 (BK) FOR AN OPEN	
	• Key in OFF position. • Disconnect: Overhead Console C930. • Disconnect: Overhead Console (With Convertible Top) C9013. • For vehicles without a convertible top, measure the resistance between the overhead console C930-3, circuit 1205 (BK), harness side and ground.  N0014703	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST E: THE DEMAND LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
E2	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN (Continued)**	
	• For vehicles with a convertible top, measure the resistance between the overhead console C9013-3, circuit 1205 (BK), harness side and ground.  N0053570 • **Is the resistance less than 5 ohms?**	**Yes** INSTALL a new overhead console. TEST the system for normal operation. **No** REPAIR the circuit. TEST the system for normal operation.

Pinpoint Test F: The Luggage Compartment Lamp Is Inoperative

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When the luggage compartment lid is open, circuit 1351 (TN) to the smart junction box (SJB) opens. When the SJB identifies that the circuit is open, the SJB provides voltage to the luggage compartment lamp through circuit 707 (WH/YE). The luggage compartment lid ajar switch and the luggage compartment lamp are grounded through circuit 1205 (BK).

- DTC B1084 (Trunk Lamp Circuit Failure) — is a continuous and on-demand DTC that sets when the SJB detects an open or short to ground on the luggage compartment lamp supply circuit.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Luggage compartment lamp
- Luggage compartment lid ajar switch
- SJB

PINPOINT TEST F: THE LUGGAGE COMPARTMENT LAMP IS INOPERATIVE

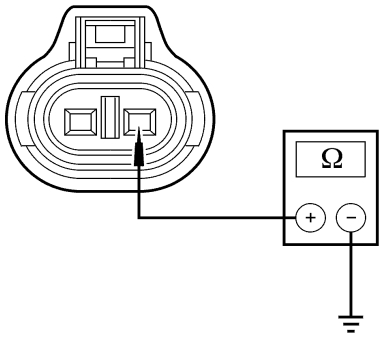
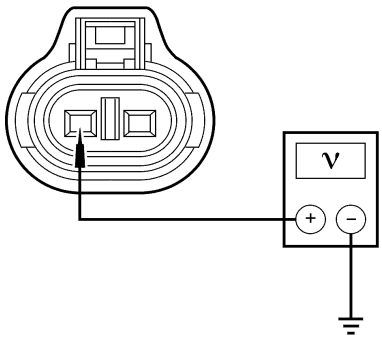
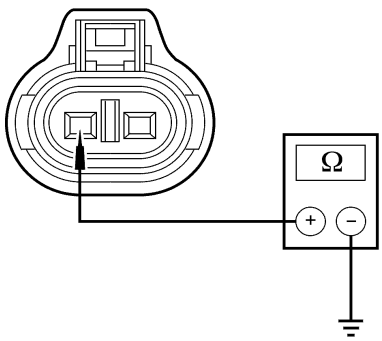
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
F1	**CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST**	
	• Check the recorded results from the SJB self-test. • **Is DTC B1084 present?**	**Yes** GO to **F2**. **No** GO to **F6**.
F2	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN**	
	• Key in OFF position. • Disconnect: Luggage Compartment Lamp C428.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

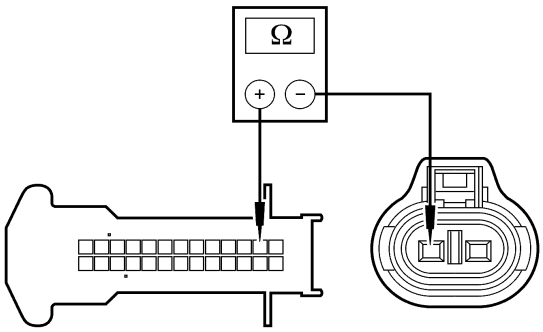
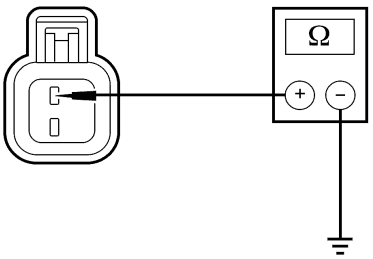
PINPOINT TEST F: THE LUGGAGE COMPARTMENT LAMP IS INOPERATIVE (Continued)

Test Step		Result / Action to Take
F2	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN (Continued)**	
	• Measure the resistance between the luggage compartment lamp C428-2, circuit 1205 (BK), harness side and ground.  N0014711 • **Is the resistance less than 5 ohms?**	**Yes** GO to **F3**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
F3	**CHECK CIRCUIT 707 (WH/YE) FOR VOLTAGE**	
	• Key in ON position. • Measure the voltage between the luggage compartment lamp C428-1, circuit 707 (WH/YE), harness side and ground.  N0014712 • **Is the voltage greater than 10 volts?**	**Yes** INSTALL a new luggage compartment lamp. CLEAR the DTCs. REPEAT the self-test. **No** GO to **F4**.
F4	**CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280e. • Measure the resistance between the luggage compartment lamp C428-1, circuit 707 (WH/YE), harness side and ground.  N0014713 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **F5**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST F: THE LUGGAGE COMPARTMENT LAMP IS INOPERATIVE (Continued)

Test Step		Result / Action to Take
F5	**CHECK CIRCUIT 707 (WH/YE) FOR AN OPEN**	
	• Measure the resistance between the luggage compartment lamp C428-1, circuit 707 (WH/YE), harness side and the SJB C2280e-15, circuit 707 (WH/YE), harness side.  N0014714 • **Is the resistance less than 5 ohms?**	**Yes** GO to **F8**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
F6	**CHECK THE SJB LUGGAGE COMPARTMENT LID AJAR SWITCH**	
	• Key in OFF position. • Disconnect: Luggage Compartment Lid Ajar Switch C429. • Key in ON position. • **Does the luggage compartment lamp turn on?**	**Yes** INSTALL a new luggage compartment lid ajar switch. REFER to Section 501-14. TEST the system for normal operation. **No** GO to **F7**.
F7	**CHECK CIRCUIT 1351 (TN) FOR A SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280c. • Measure the resistance between the luggage compartment lid ajar switch C429-1, circuit 1351 (TN), harness side and ground.  N0014715 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **F8**. **No** REPAIR the circuit. TEST the system for normal operation.
F8	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test G: The Luggage Compartment Lamp Stays On Continuously

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When the luggage compartment lid is open, circuit 1351 (TN) to the smart junction box (SJB) opens. When the SJB identifies that the circuit is open, the SJB provides voltage to the luggage compartment lamp through circuit 707 (WH/YE). The luggage compartment lid ajar switch is grounded through circuit 1205 (BK).

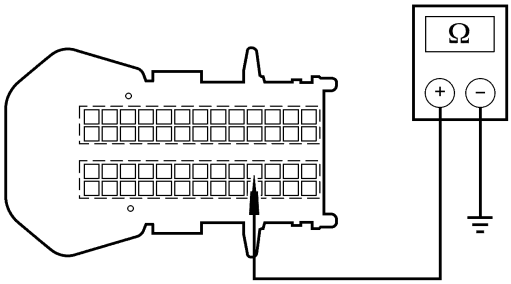
- DTC B1084 (Trunk Lamp Circuit Failure) — is a continuous and on-demand DTC that sets when the SJB detects a short to voltage on the luggage compartment lamp supply circuit.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Luggage compartment lid ajar switch
- SJB

PINPOINT TEST G: THE LUGGAGE COMPARTMENT LAMP STAYS ON CONTINUOUSLY

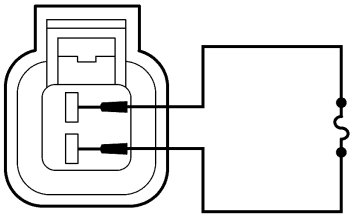
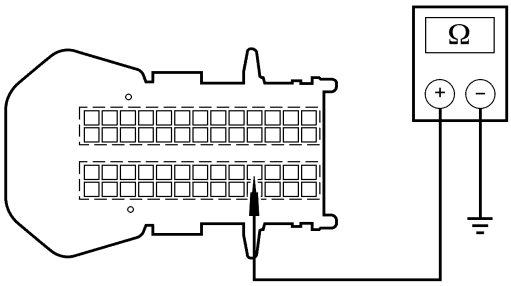
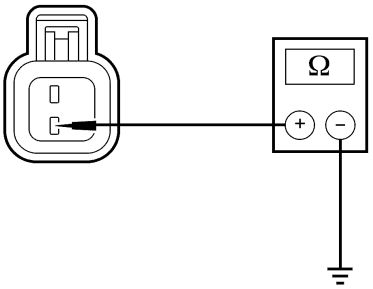
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
G1	**CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST**	
	• Check the recorded results from the SJB self-test. • **Is DTC B1084 present?**	**Yes** GO to **G2**. **No** GO to **G3**.
G2	**CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position. • Disconnect: SJB C2280e. • Key in ON position. • **Does the luggage compartment lamp continue to illuminate?**	**Yes** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test. **No** GO to **G6**.
G3	**CHECK THE AJAR SIGNAL CIRCUIT FOR GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280c. • **NOTE:** The luggage compartment lid must be closed. Measure the resistance between the SJB C2280c-17, circuit 1351 (TN), harness side and ground.  N0014716 • **Is the resistance less than 5 ohms?**	**Yes** GO to **G6**. **No** GO to **G4**.
G4	**CHECK THE LUGGAGE COMPARTMENT LID AJAR SWITCH**	
	• Disconnect: Luggage Compartment Lid Ajar Switch C429.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST G: THE LUGGAGE COMPARTMENT LAMP STAYS ON CONTINUOUSLY (Continued)

Test Step		Result / Action to Take
G4	**CHECK THE LUGGAGE COMPARTMENT LID AJAR SWITCH (Continued)**	
	• Connect a fused (5A) jumper between the luggage compartment lid ajar switch C429-2, circuit 1205 (BK), harness side and the luggage compartment lid ajar switch C429-1, circuit 1351 (TN), harness side.  A0062632 • Measure the resistance between the SJB C2280c-17, circuit 1351 (TN), harness side and ground.  N0014716 • **Is the resistance less than 5 ohms?**	**Yes** REMOVE the jumper wire. INSTALL a new luggage compartment lid ajar switch. REFER to Section 501-14. TEST the system for normal operation. **No** REMOVE the jumper wire. GO to **G5**.
G5	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN**	
	• Measure the resistance between the luggage compartment lid ajar switch C429-2, circuit 1205 (BK), harness side and ground.  N0014717 • **Is the resistance less than 5 ohms?**	**Yes** REPAIR circuit 1351 (TN) for an open. TEST the system for normal operation. **No** REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST G: THE LUGGAGE COMPARTMENT LAMP STAYS ON CONTINUOUSLY (Continued)

Test Step		Result / Action to Take
G6	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

Pinpoint Test H: The Battery Saver Does Not Deactivate After Timeout

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

The smart junction box (SJB) controls the battery saver feature. The SJB provides voltage to circuit 53 (BK/LB). When the battery saver activates, the SJB stops providing voltage on circuit 53 (BK/LB) to the demand lamps.

- DTC B2554 (Dome Lamp Output Circuit Failure) — is a on-demand DTC that sets when the SJB detects a short to voltage on the dome lamp output supply circuit.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- SJB

PINPOINT TEST H: THE BATTERY SAVER DOES NOT DEACTIVATE AFTER TIMEOUT

Test Step		Result / Action to Take
H1	**CHECK CIRCUIT 53 (BK/LB) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position. • Disconnect: SJB C2280f. • Key in ON position. • Turn the interior lamp on using the demand switch. • **Does the demand lighting illuminate?**	**Yes** REPAIR the circuit. TEST the system for normal operation. **No** GO to **H2**.
H2	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

Pinpoint Test I: The Ambient Lighting Is Inoperative

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When the ignition key is in the run or accessory position, the ambient lighting module supplies voltage and ground to the light emitting diodes (LEDs) located in the floor console cup holders and the front and rear footwells. The ambient lighting switch is used to cycle through the 7 color combinations or to turn the ambient lighting feature off. There are 3 different color (red, blue and green) LEDs housed within each LED assembly.

DIAGNOSIS AND TESTING (Continued)

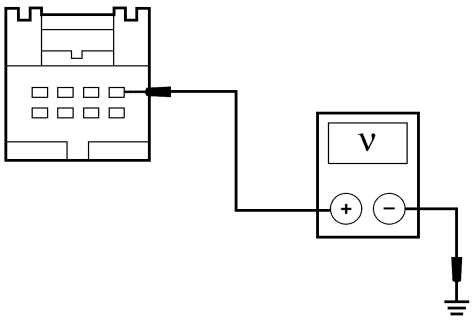
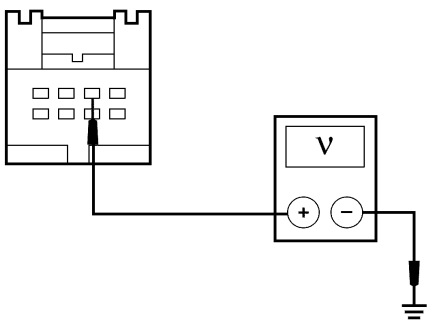
When the ignition key is in the run or accessory position, the ambient lighting switch and the ambient lighting module receives voltage through circuit CLN46 (BU) (shared with the electrochromatic mirror voltage supply circuit). Ground for the ambient lighting module is provided through circuit GD908 (BK). When the ambient lighting switch is pressed, voltage is routed to the ambient lighting module through circuit CLN54 (BN/YE), indicating a request for the module to cycle the ambient lighting to the next setting.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Ambient lighting harness
- Ambient lighting switch
- Ambient lighting module

PINPOINT TEST I: THE AMBIENT LIGHTING IS INOPERATIVE

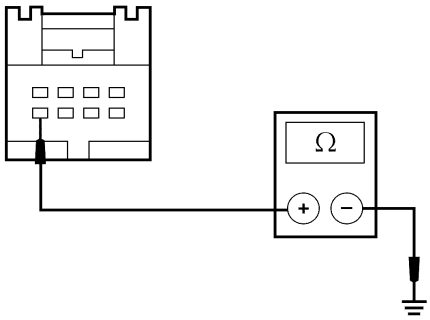
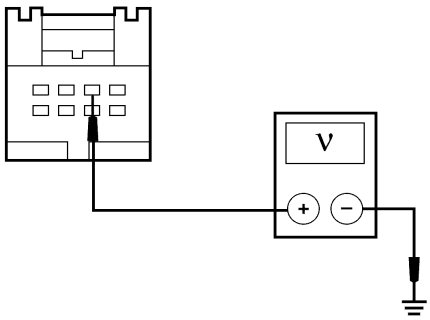
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
I1	**CHECK CIRCUIT CBX07 (GN/RD) FOR AN OPEN (TO AMBIENT LIGHTING MODULE)**	
	• Key in OFF position. • Disconnect: Ambient Lighting Module C3347. • Key in ON position. • Measure the voltage between the ambient lighting module C3347-1, circuit CBX07 (GN/RD), harness side and ground.  N0064678 • **Is the voltage greater than 10 volts?**	**Yes** GO to I2. **No** VERIFY the SJB fuse 7 (10A) is OK. If OK, REPAIR the circuit. TEST the system for normal operation.
I2	**CHECK THE INPUT FROM CIRCUIT CLN54 (BN/YE)**	
	• While pressing and releasing the ambient lighting switch, measure the voltage between the ambient lighting module C3347-2, circuit CLN54 (BN/YE), harness side and ground.  N0064679 • **Is the voltage greater than 10 volts with the switch pressed and 0 volts with the switch released?**	**Yes** GO to I3. **No** If voltage is always present, GO to I4. If no voltage is present, GO to I5.

(Continued)

DIAGNOSIS AND TESTING (Continued)

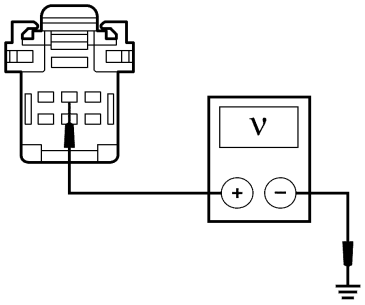
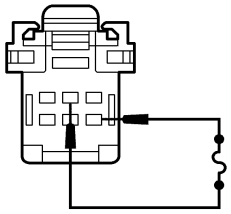
PINPOINT TEST I: THE AMBIENT LIGHTING IS INOPERATIVE (Continued)

Test Step		Result / Action to Take
I3	**CHECK CIRCUIT GD908 (BK) FOR AN OPEN**	
	• Key in OFF position. • Measure the resistance between the ambient lighting module C3347-8, circuit GD908 (BK), harness side and ground.  N0064680 • **Is the resistance less than 5 ohms?**	**Yes** GO to **I7**. **No** REPAIR the circuit. TEST the system for normal operation.
I4	**CHECK CIRCUIT CLN54 (BN/YE) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position. • Disconnect: Ambient Lighting Switch C3348. • Key in ON position. • Measure the voltage between the ambient lighting module C3347-2, circuit CLN54 (BN/YE), harness side and ground.  N0064679 • **Is any voltage present?**	**Yes** REPAIR the circuit. TEST the system for normal operation. **No** INSTALL a new ambient lighting switch. REFER to Ambient Lighting Switch in this section. TEST the system for normal operation.
I5	**CHECK CIRCUIT CBX07 (GN/RD) FOR AN OPEN (TO AMBIENT LIGHTING SWITCH)**	
	• Key in OFF position. • Connect: Ambient Lighting Module C3347. • Disconnect: Ambient Lighting Switch C3348. • Key in ON position.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST I: THE AMBIENT LIGHTING IS INOPERATIVE (Continued)

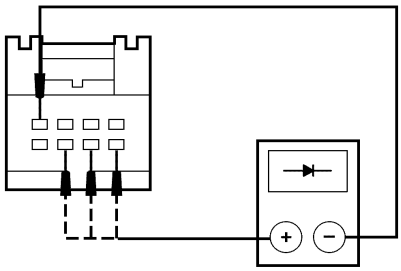
Test Step		Result / Action to Take
I5	**CHECK CIRCUIT CBX07 (GN/RD) FOR AN OPEN (TO AMBIENT LIGHTING SWITCH) (Continued)**	
	• Measure the voltage between the ambient lighting switch C3348-2, circuit CBX07 (GN/RD), harness side and ground.  N0072739 • **Is the voltage greater than 10 volts?**	**Yes** GO to **I6**. **No** REPAIR the circuit. TEST the system for normal operation.
I6	**CHECK THE AMBIENT LIGHTING SWITCH**	
	• Connect and remove a fused (5A) jumper wire between the ambient lighting switch C3348-2, circuit CBX07 (GN/RD), harness side and the ambient lighting switch C3348-6, circuit CLN54 (BN/YE), harness side.  N0072740 • **Do the ambient LEDs illuminate and cycle through a color change each time the jumper wire is connected and removed?**	**Yes** INSTALL a new ambient lighting switch. REFER to Ambient Lighting Switch in this section. TEST the system for normal operation. **No** REPAIR circuit CLN54 (BN/YE) for an open. TEST the system for normal operation.
I7	**CHECK THE AMBIENT LIGHTING HARNESS**	
	• Key in OFF position. • Check any of the diode circuits between the ambient lighting module, harness side as follows:	

Connector-Pin/ Circuit	Connector-Pin/ Circuit
C3347-5 CLN45 (GN)	C3347-4 RLN44 (BN)
C3347-6 CLN46 (BU)	C3347-4 RLN44 (BN)
C3347-7 CLN44 (OG)	C3347-4 RLN44 (BN)

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST I: THE AMBIENT LIGHTING IS INOPERATIVE (Continued)

Test Step		Result / Action to Take
I7	CHECK THE AMBIENT LIGHTING HARNESS (Continued)	
	 N0064681 • **Does the meter indicate the circuit is good?**	**Yes** GO to I8. **No** REPAIR or INSTALL a new ambient lighting harness. TEST the system for normal operation.
I8	CHECK FOR CORRECT AMBIENT LIGHTING MODULE OPERATION	
	• Disconnect the ambient lighting module connector. • Check for: — corrosion — damaged pins — pushed-out pins • Connect the ambient lighting module connector and make sure it seats correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new ambient lighting module. REFER to Ambient Lighting Module in this section. TEST the system for normal operation. If the concern is still present, INSTALL the original ambient lighting module. INSTALL a new ambient lighting harness. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

Pinpoint Test J: The Ambient Lighting Does Not Operate Correctly — Does Not Cycle Through Color Variations

Refer to Wiring Diagrams Cell 89, Interior Lamps for schematic and connector information.

Normal Operation

When the ignition key is in the run or accessory position, the ambient lighting module supplies voltage and ground to the light emitting diodes (LEDs) located in the floor console cup holders and the front and rear footwells. The ambient lighting switch is used to cycle through the 7 color combinations or to turn the ambient lighting feature off. There are 3 different color (red, blue and green) LEDs housed within each LED assembly.

When the ignition key is in the run or accessory position, the ambient lighting switch and the ambient lighting module receives voltage through the circuit CLN46 (BU) (shared with the electrochromatic mirror voltage supply circuit). Ground for the ambient lighting module is provided through circuit GD908 (BK). When the ambient lighting switch is pressed, voltage is routed to the ambient lighting module through circuit CLN54 (BN/YE), indicating a request for the module to cycle the ambient lighting to the next setting.

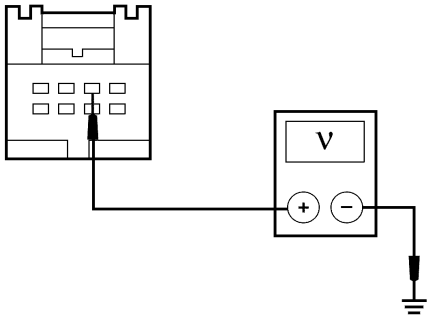
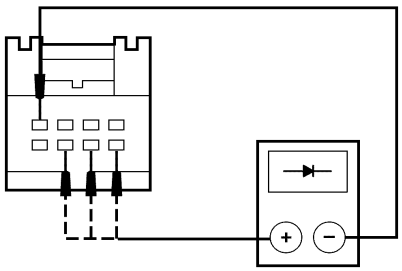
This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Ambient lighting switch
- Ambient lighting harness
- Ambient lighting module

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST J: THE AMBIENT LIGHTING DOES NOT OPERATE CORRECTLY — DOES NOT CYCLE THROUGH ALL COLOR VARIATIONS

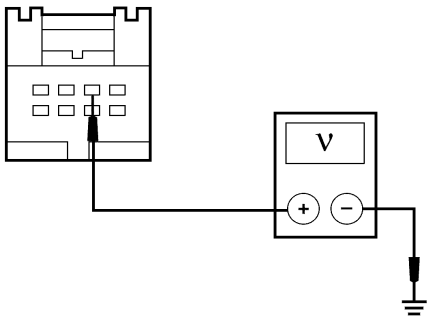
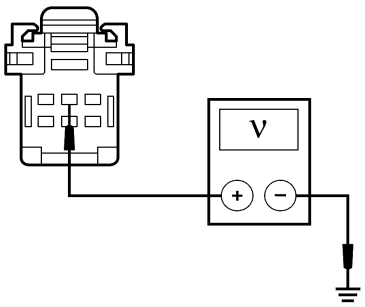
CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
J1	**CHECK THE INPUT FROM CIRCUIT CLN54 (BN/YE)**	
	• Key in OFF position. • Disconnect: Ambient Lighting Module C3347. • Key in ON position. • While pressing and releasing the ambient lighting switch, measure the voltage between the ambient lighting module C3347-2, circuit CLN54 (BN/YE), harness side and ground.  N0064679 • **Is the voltage greater than 10 volts with the switch pressed and 0 volts with the switch released?**	**Yes** GO to J2. **No** If voltage is always present, GO to J3. If no voltage is present, GO to J4.
J2	**CHECK THE AMBIENT LIGHTING HARNESS**	
	• Key in OFF position. • Check the diode circuits between the ambient lighting module, harness side as follows: C3347-5 CLN45 (GN) — C3347-4 RLN44 (BN) C3347-6 CLN46 (BU) — C3347-4 RLN44 (BN) C3347-7 CLN44 (OG) — C3347-4 RLN44 (BN)  N0064681 • **Does the meter indicate good for each circuit check?**	**Yes** GO to J6. **No** REPAIR or INSTALL a new ambient lighting harness. TEST the system for normal operation.
J3	**CHECK CIRCUIT CLN54 (BN/YE) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

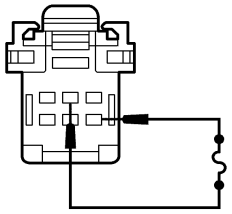
PINPOINT TEST J: THE AMBIENT LIGHTING DOES NOT OPERATE CORRECTLY — DOES NOT CYCLE THROUGH ALL COLOR VARIATIONS (Continued)

Test Step		Result / Action to Take
J3	**CHECK CIRCUIT CLN54 (BN/YE) FOR A SHORT TO VOLTAGE (Continued)**	
	• Disconnect: Ambient Lighting Switch C3348. • Key in ON position. • Measure the voltage between the ambient lighting module C3347-2, circuit CLN54 (BN/YE), harness side and ground.  N0064679 • **Is any voltage present?**	**Yes** REPAIR the circuit. TEST the system for normal operation. **No** INSTALL a new ambient lighting switch. REFER to Ambient Lighting Switch in this section. TEST the system for normal operation.
J4	**CHECK CIRCUIT CBX07 (GN/RD) FOR AN OPEN (TO AMBIENT LIGHTING SWITCH)**	
	• Key in OFF position. • Connect: Ambient Lighting Module C3347. • Disconnect: Ambient Lighting Switch C3348. • Key in ON position. • Measure the voltage between the ambient lighting switch C3348-2, circuit CBX07 (GN/RD), harness side and ground.  N0072739 • **Is the voltage greater than 10 volts?**	**Yes** GO to **J5**. **No** REPAIR the circuit. TEST the system for normal operation.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST J: THE AMBIENT LIGHTING DOES NOT OPERATE CORRECTLY — DOES NOT CYCLE THROUGH ALL COLOR VARIATIONS (Continued)

Test Step		Result / Action to Take
J5	**CHECK THE AMBIENT LIGHTING SWITCH**	
	• Connect and remove a fused (5A) jumper wire between the ambient lighting switch C3347-2, circuit CBX07 (GN/RD), harness side and the ambient lighting switch C3347-6, circuit CLN54 (BN/YE), harness side.  N0072740 • **Do the ambient LEDs illuminate and cycle through a color change each time the jumper wire is connected and removed?**	**Yes** INSTALL a new ambient lighting switch. REFER to Ambient Lighting Switch in this section. TEST the system for normal operation. **No** REPAIR circuit CLN54 (BN/YE) for an open. TEST the system for normal operation.
J6	**CHECK FOR CORRECT AMBIENT LIGHTING MODULE OPERATION**	
	• Disconnect the ambient lighting module connector. • Check for: — corrosion — damaged pins — pushed-out pins • Connect the ambient lighting module connector and make sure it seats correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new ambient lighting module. REFER to Ambient Lighting Module in this section. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.