




Interior Lighting

Special Tool(s)

 ST1137-A	73III Automotive Meter 105-R0057 or equivalent
 ST2834-A	Vehicle Communication 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 can only be turned on when the ignition key is in the RUN or ACC 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.

Visual Inspection Chart

Mechanical	Electrical
<ul style="list-style-type: none"> ● Door ajar switch(es) ● Luggage compartment lid ajar switch (part of the luggage compartment lid latch) 	<ul style="list-style-type: none"> ● Smart Junction Box (SJB) fuse 7 (10A) (ambient lighting, if equipped) ● Bussed Electrical Center (BEC) fuse(s): <ul style="list-style-type: none"> ■ 59 (30A) ■ 67 (30A) ● Wiring, terminals or connectors ● Instrument panel 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 power to 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 the Diagnostic Trouble Code (DTC) Chart in [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.
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
<ul style="list-style-type: none"> No communication with the Smart Junction Box (SJB) 	<ul style="list-style-type: none"> Wiring, terminals or connectors SJB 	<ul style="list-style-type: none"> REFER to Section 418-00.
<ul style="list-style-type: none"> The courtesy lamps are inoperative 	<ul style="list-style-type: none"> Fuse Wiring, terminals or connectors Interior lamp SJB 	<ul style="list-style-type: none"> GO to Pinpoint Test A.
<ul style="list-style-type: none"> The courtesy lamps do not turn on with one door open 	<ul style="list-style-type: none"> Wiring, terminals or connectors Door ajar switch Power window motor SJB 	<ul style="list-style-type: none"> GO to Pinpoint Test B.
<ul style="list-style-type: none"> The courtesy lamps are inoperative — using the Instrument panel dimmer switch 	<ul style="list-style-type: none"> Wiring, terminals or connectors Instrument panel dimmer switch SJB 	<ul style="list-style-type: none"> GO to Pinpoint Test C.
<ul style="list-style-type: none"> The courtesy lamps stay on continuously 	<ul style="list-style-type: none"> Wiring, terminals or connectors Door ajar switch Instrument panel dimmer 	<ul style="list-style-type: none"> GO to Pinpoint Test D.

	<ul style="list-style-type: none"> switch • SJB 	
<ul style="list-style-type: none"> • The demand lamps are inoperative 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Interior lamp 	<ul style="list-style-type: none"> • GO to Pinpoint Test E.
<ul style="list-style-type: none"> • The luggage compartment lamp is inoperative 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Luggage compartment lamp • Luggage compartment lid latch • SJB 	<ul style="list-style-type: none"> • GO to Pinpoint Test F.
<ul style="list-style-type: none"> • The luggage compartment lamp stays on continuously 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Luggage compartment lid latch • SJB 	<ul style="list-style-type: none"> • GO to Pinpoint Test G.
<ul style="list-style-type: none"> • The battery saver does not deactivate after timeout 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • SJB 	<ul style="list-style-type: none"> • GO to Pinpoint Test H.
<ul style="list-style-type: none"> • The ambient lighting is inoperative 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Ambient lighting harness • Ambient lighting switch • Ambient lighting module 	<ul style="list-style-type: none"> • GO to Pinpoint Test I.
<ul style="list-style-type: none"> • The ambient lighting does not operate correctly — does not cycle through all color combinations 	<ul style="list-style-type: none"> • Wiring, terminals or connectors • Ambient lighting harness • Ambient lighting switch • Ambient lighting module 	<ul style="list-style-type: none"> • GO to Pinpoint Test J.
<ul style="list-style-type: none"> • The illuminated entry is inoperative when using the Remote Keyless Entry (RKE) transmitter 	<ul style="list-style-type: none"> • RKE system • SJB 	<ul style="list-style-type: none"> • Using the RKE transmitter, lock and unlock the doors. <ul style="list-style-type: none"> ■ 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.

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](#). The [SJB](#) monitors the dome lamp request and the ajar circuits. Based on the status, the [SJB](#) supplies voltage and ground to the courtesy lamps through circuits 53 (BK/LB) and 54 (LG/YE).

- DTC B2021 (Dome Lamp Output Return Circuit Failure) — 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) — 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) — a on-demand DTC that sets when the [SJB](#) detects an open on the dome lamp supply or return circuits.

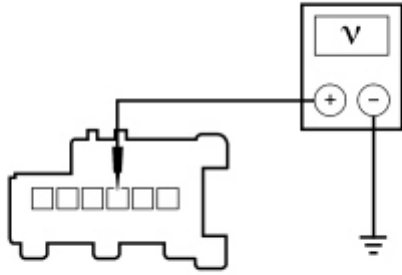
This pinpoint test is intended to diagnose the following:

- Fuse
- Wiring, terminals or connectors
- Interior lamp
- [SJB](#)

PINPOINT TEST A: THE COURTESY LAMPS ARE INOPERATIVE

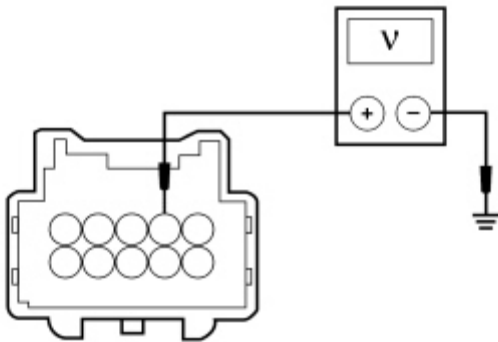
NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step	Result / Action to Take
A1 CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST <ul style="list-style-type: none"> • Check the recorded results from the SJB self-test. • Is DTC B2021, B2550 or B2554 present? 	<p>Yes For DTC B2021, GO to A2. For DTC B2550, GO to A4. For DTC B2554, GO to A6.</p> <p>No GO to A10.</p>
A2 CHECK THE INTERIOR LAMP (DTC B2021) <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Overhead Console C930 (Without Convertible Top). • Disconnect: Overhead Console C9013 (With Convertible Top). • Ignition ON. • 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? 	<p>Yes GO to A3.</p> <p>No INSTALL a new interior lamp. CLEAR the DTCs. REPEAT the self-test.</p>
A3 CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO VOLTAGE <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: SJB C2280f. • Ignition ON. • For vehicles without a convertible top, measure the voltage between the overhead console C930-4, circuit 54 (LG/YE), harness side and ground. 	<p>Yes REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.</p> <p>No GO to A11.</p>



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- For vehicles with a convertible top, measure the voltage between the overhead console C9013-4, circuit 54 (LG/YE), harness side and ground.



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- **Is any voltage present?**

A4 CHECK THE INTERIOR LAMP (DTC B2250)

- Ignition OFF.
- Disconnect: Overhead Console C930 (Without Convertible Top).
- Disconnect: Overhead Console C9013 (With Convertible Top).
- Ignition ON.
- 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 B2550 retrieved again?**

Yes
GO to [A5](#).

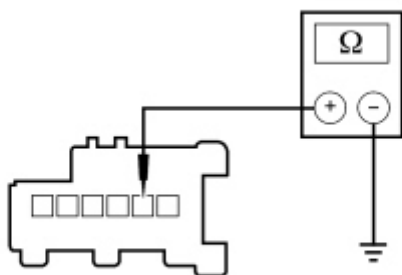
No
INSTALL a new interior lamp. CLEAR the DTCs. REPEAT the self-test.

A5 CHECK CIRCUIT 53 (BK/LB) FOR A SHORT TO GROUND

- Ignition OFF.
- 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.

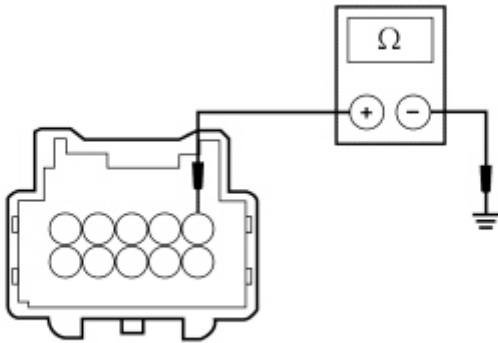
Yes
GO to [A11](#).

No
REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.



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- For vehicles with a convertible top, measure the resistance between the overhead console C9013-5, circuit 53 (BK/LB), harness side and ground.



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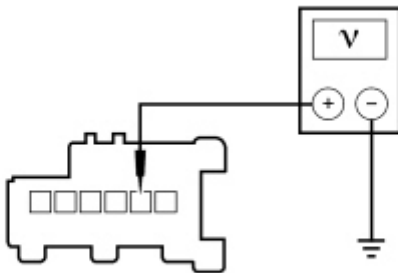
- Is the resistance greater than 10,000 ohms?

A6 CHECK CIRCUIT 53 (BK/LB) FOR VOLTAGE

- Ignition OFF.
- Disconnect: Overhead Console C930 (Without Convertible Top).
- Disconnect: Overhead Console C9013 (With Convertible Top).
- Ignition ON.
- For vehicles without a convertible top, measure the voltage between the overhead console C930-5, circuit 53 (BK/LB), harness side and ground.

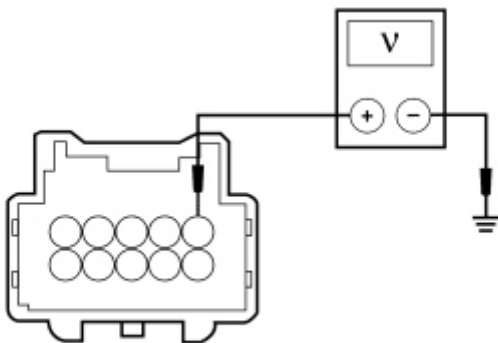
Yes
GO to [A8](#).

No
GO to [A7](#).



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- For vehicles with a convertible top, measure the voltage between the overhead console C9013-5, circuit 53 (BK/LB), harness side and ground.



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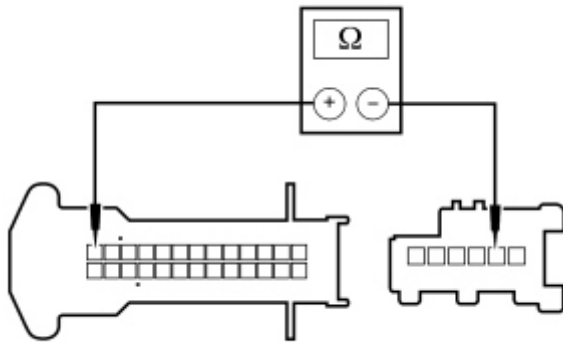
- Is the voltage greater than 10 volts?

A7 CHECK CIRCUIT 53 (BK/LB) FOR AN OPEN

- Ignition OFF.

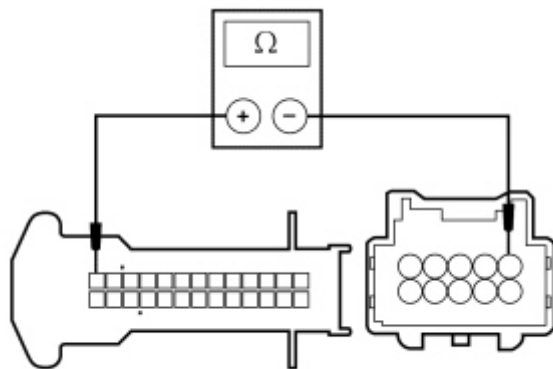
Yes
GO to [A11](#).

- 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.



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- 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.



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- Is the resistance less than 5 ohms?

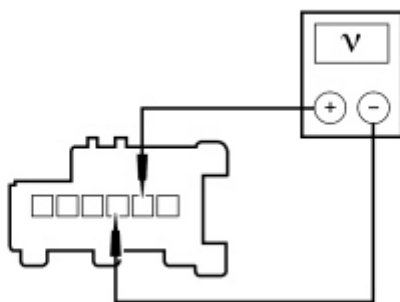
No
REPAIR the circuit.
CLEAR the DTCs.
REPEAT the self-test.

A8 CHECK THE GROUND CIRCUIT TO THE OVERHEAD CONSOLE

- Open a door or place the instrument panel dimmer switch in the DOME position.
- 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.

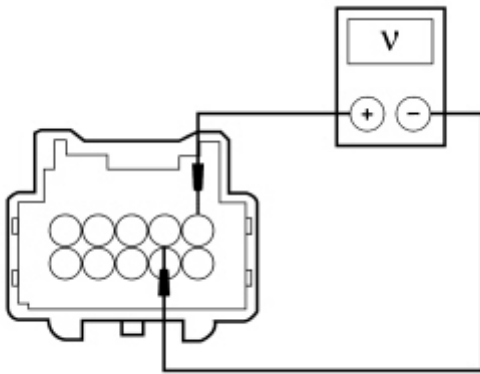
Yes
INSTALL a new interior lamp. CLEAR the DTCs.
REPEAT the self-test.

No
GO to [A9](#).



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- 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 C9013-4, circuit 54 (LG/YE), harness side.

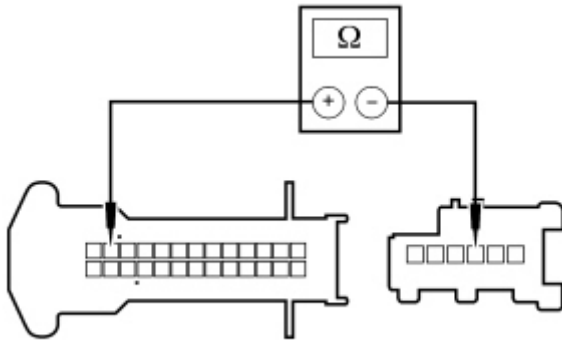


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- Is the voltage greater than 10 volts?

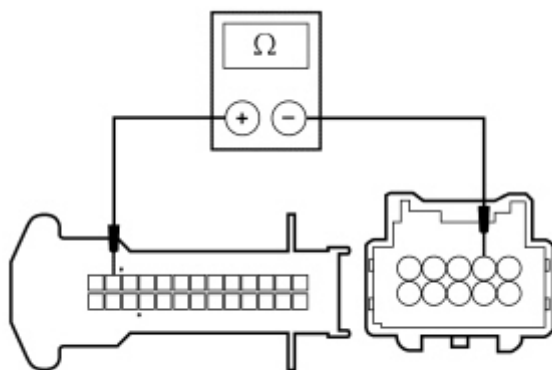
A9 CHECK CIRCUIT 54 (LG/YE) FOR AN OPEN

- Ignition OFF.
- 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.



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- 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.



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- Is the resistance less than 5 ohms?

A10 CHECK THE [SJB](#) DOOR AJAR AND THE INSTRUMENT PANEL 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](#) instrument panel dimmer switch PID (DOMELM_SW) while operating the instrument panel dimmer switch in the interior lamp ON positions.

Yes
GO to [A11](#).

No
REPAIR the circuit.
CLEAR the DTCs.
REPEAT the self-test.

Yes
GO to [A11](#).

No
For a door ajar switch, [GO to Pinpoint Test B](#). For the instrument panel dimmer

<ul style="list-style-type: none"> Do the SJB door ajar and instrument panel dimmer switch PIDs correspond? 	switch, GO to Pinpoint Test C .
A11 CHECK FOR CORRECT SJB OPERATION	
<ul style="list-style-type: none"> Disconnect all the SJB connectors. Check for: <ul style="list-style-type: none"> 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? 	<p>Yes INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation.</p> <p>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.</p>

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, signaling the **SJB** a request for the courtesy lamps.

The power window motors also use this input for the short drop feature.

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

NOTICE: 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 DOOR AJAR SWITCH	
<ul style="list-style-type: none"> Ignition OFF. Disconnect: Suspect Door Ajar Switch. Do the courtesy lamps turn on? 	<p>Yes INSTALL a new door ajar switch for the switch in question. REFER to Section 501-14. TEST the system for normal operation.</p> <p>No GO to B2.</p>
B2 CHECK THE POWER WINDOW MOTOR FOR SHORT TO GROUND	

<ul style="list-style-type: none"> • Disconnect: Corresponding Power Window Motor C518 (LH) or C623 (RH). • Do the courtesy lamps turn on? 	<p>Yes INSTALL a new power window motor. REFER to Section 501-11. TEST the system for normal operation.</p> <p>No GO to B3.</p>
<p>B3 CHECK THE DOOR AJAR SWITCH SIGNAL CIRCUIT FOR A SHORT TO GROUND</p>	
<ul style="list-style-type: none"> • 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? 	<p>Yes GO to B4.</p> <p>No REPAIR the circuit in question. TEST the system for normal operation.</p>
<p>B4 CHECK FOR CORRECT SJB OPERATION</p>	
<ul style="list-style-type: none"> • Disconnect all the SJB connectors. • Check for: <ul style="list-style-type: none"> ▪ 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? 	<p>Yes INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation.</p> <p>No The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.</p>

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

Refer to Wiring Diagrams Cell [89](#), Interior Lamps for schematic and connector information.

Normal Operation

The Smart Junction Box (SJB) monitors the instrument panel dimmer switch status on circuit 2085 (VT/YE) to determine if the courtesy lamps are requested. Based on the instrument panel dimmer switch status, the [SJB](#) supplies voltage and ground to the courtesy lamps.

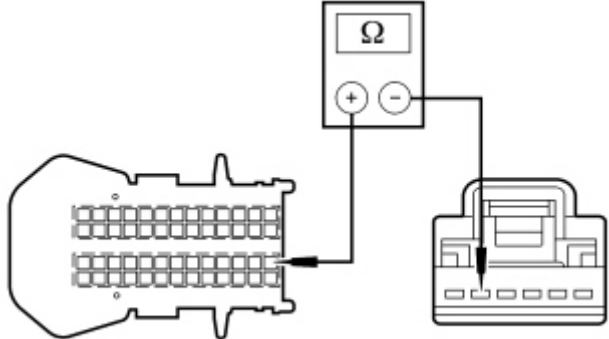
This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Instrument panel dimmer switch
- [SJB](#)

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

NOTICE: 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
<p>C1 CHECK THE INSTRUMENT PANEL DIMMER SWITCH</p>	
<ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Instrument Panel Dimmer Switch C2298. • Carry out the instrument panel dimmer switch component test. <p>Refer to Wiring Diagrams Cell 149 for component testing.</p>	<p>Yes GO to C2.</p> <p>No INSTALL a new instrument panel dimmer</p>

<ul style="list-style-type: none"> • Is the instrument panel dimmer switch OK? 	switch. TEST the system for normal operation.
C2 CHECK CIRCUIT 2085 (VT/YE) FOR AN OPEN	
<ul style="list-style-type: none"> • Disconnect: SJB C2280b. • Measure the resistance between the SJB C2280b-14, circuit 2085 (VT/YE), harness side and the instrument panel dimmer switch C2298-5, circuit 2085 (VT/YE), harness side.  <p style="text-align: center;">N0014704</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? 	<p>Yes GO to C3.</p> <p>No REPAIR the circuit. TEST the system for normal operation.</p>
C3 CHECK FOR CORRECT SJB OPERATION	
<ul style="list-style-type: none"> • Disconnect all the SJB connectors. • Check for: <ul style="list-style-type: none"> ■ 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? 	<p>Yes INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation.</p> <p>No The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.</p>

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 circuits 53 (BK/LB) and 54 (LG/YE). The door ajar switches are grounded through circuit 1205 (BK).

When the instrument panel 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) — an 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) — an on-demand DTC that sets when the [SJB](#) detects an open on the passenger door ajar switch circuit.
- DTC B2254 (The Courtesy Lamp Ground Control Circuit Failure) — an on-demand DTC that sets when the [SJB](#) detects a short to ground on the courtesy lamp ground control circuit.

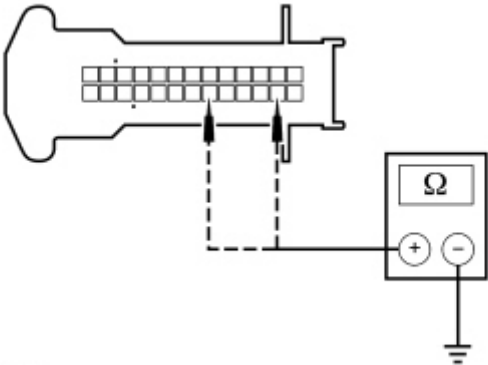
This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Door ajar switch

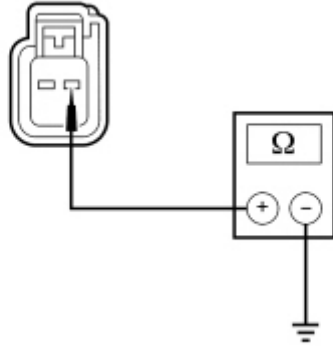
- Instrument panel dimmer switch
- [SJB](#)

PINPOINT TEST D: THE COURTESY LAMPS STAY ON CONTINUOUSLY

NOTICE: 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									
<p>D1 CHECK THE RECORDED DTCs FROM THE SJB SELF-TEST</p> <ul style="list-style-type: none"> • Check the recorded results from the SJB self-test. • Is DTC B1319 or B1327 present? 	<p>Yes GO to D2.</p> <p>No GO to D5.</p>									
<p>D2 CHECK THE AJAR SIGNAL CIRCUIT FOR GROUND</p> <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Negative Battery Cable. • Disconnect: SJB C2280e. • NOTE: Make sure the doors are closed. • Measure the resistance between the SJB, harness side and ground as follows: <table border="1" data-bbox="220 987 743 1240"> <thead> <tr> <th>DTC</th> <th>Location</th> <th>Connector-Pin/ Circuit</th> </tr> </thead> <tbody> <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> </tbody> </table>  <p>N0014705</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? 	DTC	Location	Connector-Pin/ Circuit	B1319	LH door	C2280e-2 1312 (LG/BK)	B1327	RH door	C2280e-6 1314 (YE/LG)	<p>Yes GO to D9.</p> <p>No GO to D3.</p>
DTC	Location	Connector-Pin/ Circuit								
B1319	LH door	C2280e-2 1312 (LG/BK)								
B1327	RH door	C2280e-6 1314 (YE/LG)								
<p>D3 CHECK CIRCUIT 1205 (BK) FOR AN OPEN</p> <ul style="list-style-type: none"> • Disconnect: Suspect Door Ajar Switch. • Measure the resistance between the suspect door ajar switch, harness side and ground as follows: <table border="1" data-bbox="220 1973 743 2128"> <thead> <tr> <th>DTC</th> <th>Location</th> <th>Connector-Pin/ Circuit</th> </tr> </thead> <tbody> <tr> <td>B1319</td> <td>LH door</td> <td>C526-1 1205 (BK)</td> </tr> </tbody> </table>	DTC	Location	Connector-Pin/ Circuit	B1319	LH door	C526-1 1205 (BK)	<p>Yes GO to D4.</p> <p>No REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.</p>			
DTC	Location	Connector-Pin/ Circuit								
B1319	LH door	C526-1 1205 (BK)								

B1327	RH door	C602-1
		1205 (BK)



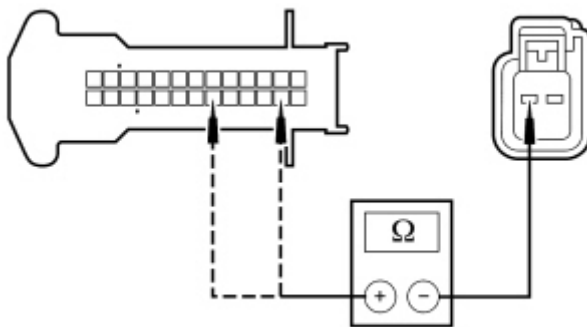
N0014706

- Is the resistance less than 5 ohms?

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	Location	SJB Connector-Pin/Circuit	Ajar Switch Connector-Pin/Circuit
B1319	LH door	C2280e-2	C526-2
		1312 (LG/BK)	1312 (LG/BK)
B1327	RH door	C2280e-6	C602-2
		1314 (YE/LG)	1314 (YE/LG)



N0014708

- Is the resistance less than 5 ohms?

Yes

INSTALL a new ajar switch in question. REFER to [Section 501-14](#). CLEAR the DTCs. REPEAT the self-test.

No

REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.

D5 CHECK THE INSTRUMENT PANEL DIMMER SWITCH

- Ignition OFF.
- Disconnect: Instrument Panel Dimmer Switch C2298.
- Do the courtesy lamps turn off?

Yes

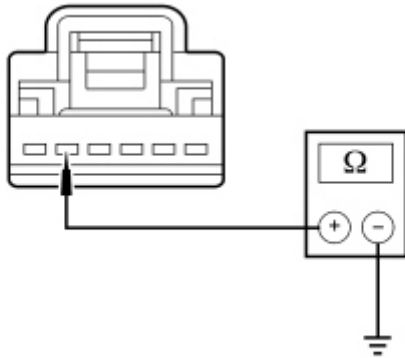
INSTALL a new instrument panel dimmer switch. TEST the system for normal operation.

No

GO to [D6](#).

D6 CHECK CIRCUIT 2085 (VT/YE) FOR A SHORT TO GROUND

- Disconnect: [SJB_C2280b](#).
- Measure the resistance between the instrument panel dimmer switch C2298-5, circuit 2085 (VT/YE), harness side and ground.



N0014709

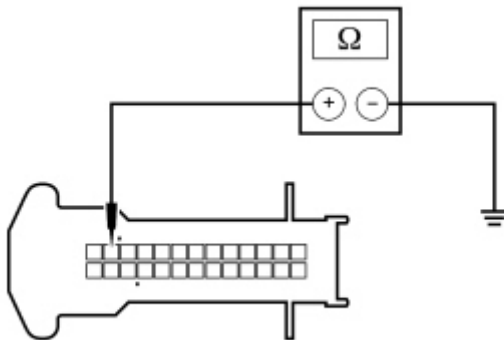
- Is the resistance greater than 10,000 ohms?

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

- Disconnect: [SJB_C2280f](#).
- Measure the resistance between the [SJB_C2280f-25](#), circuit 54 (LG/YE), harness side and ground.



N0084072

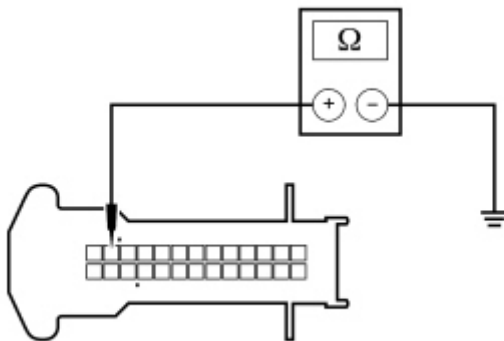
- Is the resistance greater than 10,000 ohms?

Yes
GO to [D9](#).

No
GO to [D8](#).

D8 CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO GROUND

- Disconnect: Overhead Console C930 (Without Convertible Top).
- Disconnect: Overhead Console C9013 (With Convertible Top).
- Measure the resistance between the [SJB_C2280f-25](#), circuit 54 (LG/YE), harness side and ground.



N0084072

- 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.

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).

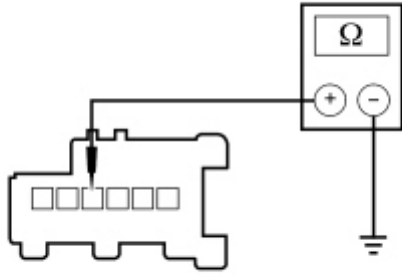
This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Interior lamp

PINPOINT TEST E: THE DEMAND LAMPS ARE INOPERATIVE

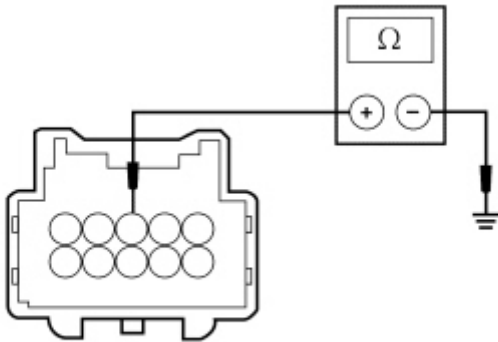
NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step	Result / Action to Take
E1 CHECK THE COURTESY LAMP OPERATION	
<ul style="list-style-type: none"> • Ignition OFF. • Attempt to turn the courtesy lamps on by opening the doors and using the instrument panel dimmer switch. • Does the courtesy lamp turn on? 	<p>Yes GO to E2.</p> <p>No GO to Symptom Chart for correct diagnosis.</p>
E2 CHECK CIRCUIT 1205 (BK) FOR AN OPEN	
<ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Negative Battery Cable. • Disconnect: Overhead Console C930 (Without Convertible Top). • Disconnect: Overhead Console C9013 (With Convertible Top). • For vehicles without a convertible top, measure the resistance between the overhead console C930-3, circuit 1205 (BK), harness side and ground. 	<p>Yes INSTALL a new overhead console. TEST the system for normal operation.</p> <p>No REPAIR the circuit. TEST the system for normal operation.</p>



N0014703

- 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?

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) — 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.

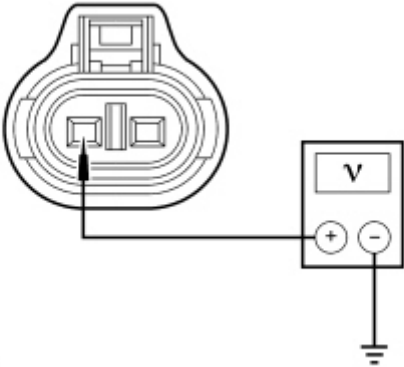
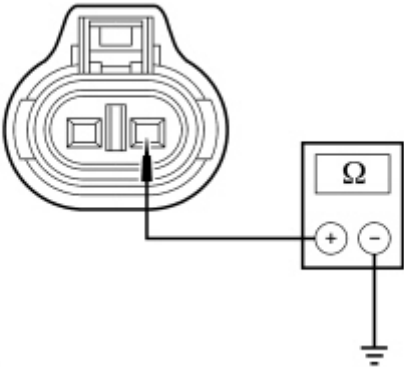
This pinpoint test is intended to diagnose the following:

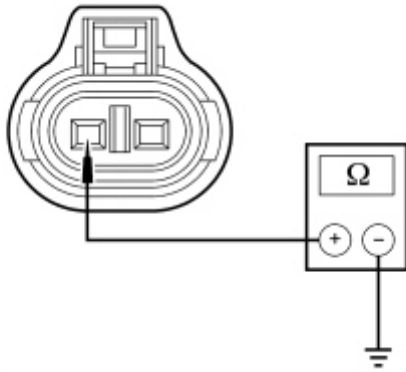
- Wiring, terminals or connectors
- Luggage compartment lamp
- Luggage compartment lid latch
- [SJB](#)

PINPOINT TEST F: THE LUGGAGE COMPARTMENT LAMP IS INOPERATIVE

NOTICE: 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
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<p>F1 CHECK THE RECORDED DTCs FROM THE <u>SJB</u> SELF-TEST</p> <ul style="list-style-type: none"> • Check the recorded results from the <u>SJB</u> self-test. • Is DTC B1084 present? 	<p>Yes GO to F2.</p> <p>No GO to F6.</p>
<p>F2 CHECK CIRCUIT 707 (WH/YE) FOR VOLTAGE</p> <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Luggage Compartment Lamp C428. • Ignition ON. • Measure the voltage between the luggage compartment lamp C428-1, circuit 707 (WH/YE), harness side and ground.  <p>N0014712</p> <ul style="list-style-type: none"> • Is the voltage greater than 10 volts? 	<p>Yes GO to F3.</p> <p>No GO to F4.</p>
<p>F3 CHECK CIRCUIT 1205 (BK) FOR AN OPEN</p> <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Negative Battery Cable. • Measure the resistance between the luggage compartment lamp C428-2, circuit 1205 (BK), harness side and ground.  <p>N0014711</p> <ul style="list-style-type: none"> • Is the resistance less than 5 ohms? 	<p>Yes INSTALL a new luggage compartment lamp. CLEAR the DTCs. REPEAT the self-test.</p> <p>No REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.</p>
<p>F4 CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO GROUND</p> <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: <u>SJB</u> C2280e. • Measure the resistance between the luggage compartment lamp C428-1, circuit 707 (WH/YE), harness side and ground. 	<p>Yes GO to F5.</p> <p>No REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.</p>

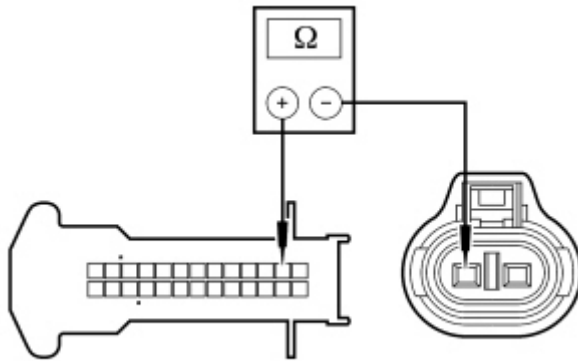


N0014713

- Is the resistance greater than 10,000 ohms?

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?

F6 CHECK THE [SJB](#) LUGGAGE COMPARTMENT LID AJAR SWITCH

- Disconnect: Luggage Compartment Lid Latch C430.
- Does the luggage compartment lamp turn on?

Yes
GO to [F8](#).

No
REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

Yes
INSTALL a new luggage compartment lid ajar switch. REFER to [Section 501-14](#). TEST the system for normal operation.

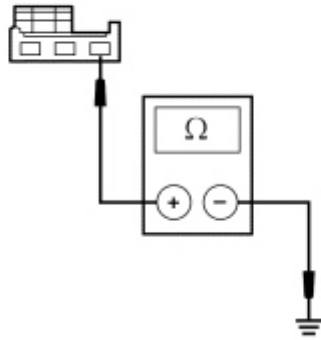
No
GO to [F7](#).

F7 CHECK CIRCUIT 1351 (TN) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: [SJB C2280c](#).
- Measure the resistance between the luggage compartment lid latch C430-1, circuit 1351 (TN), harness side and ground.

Yes
GO to [F8](#).

No
REPAIR the circuit. TEST the system for normal operation.



N0084250

- Is the resistance greater than 10,000 ohms?

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.

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) — 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:

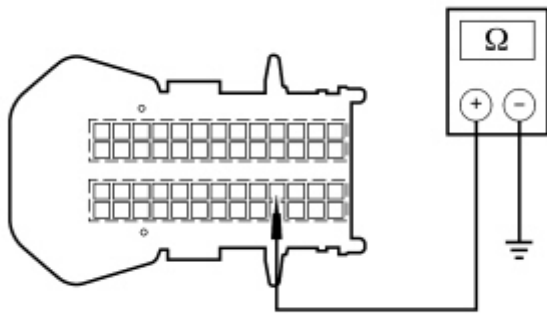
- Wiring, terminals or connectors
- Luggage compartment lid latch
- **SJB**

PINPOINT TEST G: THE LUGGAGE COMPARTMENT LAMP STAYS ON CONTINUOUSLY

NOTICE: 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	
<ul style="list-style-type: none"> • Check the recorded results from the SJB self-test. 	Yes

<ul style="list-style-type: none"> • Is DTC B1084 present? 	<p>GO to G2.</p> <p>No GO to G3.</p>
<p>G2 CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO VOLTAGE</p>	
<ul style="list-style-type: none"> • Ignition OFF. • Disconnect: SJB C2280e. • Ignition ON. • Does the luggage compartment lamp continue to illuminate? 	<p>Yes REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.</p> <p>No GO to G6.</p>
<p>G3 CHECK THE LUGGAGE COMPARTMENT LID LATCH</p>	
<ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Luggage Compartment Lid Latch C430. • Connect a fused jumper between the luggage compartment lid latch C430-3, circuit 1205 (BK), harness side and the luggage compartment lid latch C430-1, circuit 1351 (TN), harness side. <div data-bbox="470 907 630 1075" data-label="Diagram"> </div> <p data-bbox="231 1142 343 1176">N0044453</p> <ul style="list-style-type: none"> • Does the luggage compartment lamp continue to illuminate? 	<p>Yes REMOVE the jumper wire. GO to G4.</p> <p>No REMOVE the jumper wire. INSTALL a new luggage compartment lid latch. REFER to Section 501-14. TEST the system for normal operation.</p>
<p>G4 CHECK THE LUGGAGE COMPARTMENT AJAR INPUT CIRCUIT FOR VOLTAGE</p>	
<ul style="list-style-type: none"> • Measure the voltage between the luggage compartment lid latch C430-1, circuit 1351 (TN), harness side and ground. <div data-bbox="295 1433 734 1792" data-label="Diagram"> </div> <p data-bbox="231 1780 343 1814">N0084074</p> <ul style="list-style-type: none"> • Is the voltage greater than 10 volts? 	<p>Yes GO to G5.</p> <p>No REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.</p>
<p>G5 CHECK CIRCUIT 1351 (TN) FOR AN OPEN</p>	
<ul style="list-style-type: none"> • Disconnect: SJB C2280c. • Measure the resistance between the SJB C2280c-17, circuit 1351 (TN), harness side and the luggage compartment lid latch C430-1, circuit 1351 (TN), harness side. 	<p>Yes GO to G6.</p> <p>No REPAIR the circuit. TEST the system for normal operation.</p>



N0014716

- Is the resistance less than 5 ohms?

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) — an 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	
<ul style="list-style-type: none"> • Ignition OFF. • Disconnect: SJB C2280f. • Ignition ON. • Turn the interior lamp on using the demand switch. • Does the demand lighting 	<p>Yes REPAIR the circuit. TEST the system for normal operation.</p> <p>No GO to H2.</p>

illuminate?	
H2 CHECK FOR CORRECT <u>SJB</u> OPERATION	
<ul style="list-style-type: none"> ● Disconnect all the <u>SJB</u> connectors. ● Check for: <ul style="list-style-type: none"> ■ corrosion ■ damaged pins ■ pushed-out pins ● Connect all the <u>SJB</u> connectors and make sure they seat correctly. ● Operate the system and verify the concern is still present. ● Is the concern still present? 	<p>Yes INSTALL a new <u>SJB</u>. REFER to Section 419-10. TEST the system for normal operation.</p> <p>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.</p>

Pinpoint Test I: The Ambient Lighting Is Inoperative

Refer to Wiring Diagrams Cell [89](#), Interior Lamps for schematic and connector information.

Normal Operation

The ambient lighting module supplies voltage and ground to the 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 ACC position, the ambient lighting switch and the ambient lighting module receives voltage through circuit CBX07 (GN/RD). 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.

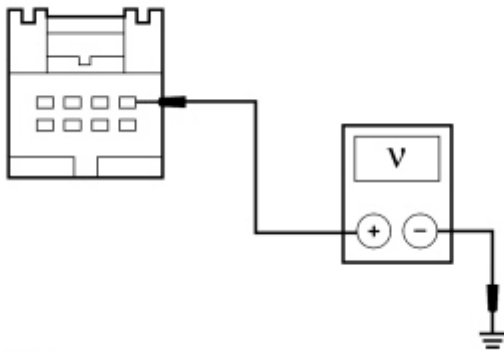
This pinpoint test is intended to diagnose the following:

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

PINPOINT TEST I: THE AMBIENT LIGHTING IS INOPERATIVE

NOTICE: 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)	
<ul style="list-style-type: none"> ● Ignition OFF. ● Disconnect: Ambient Lighting Module C3347. ● Ignition ON. ● Measure the voltage between the ambient lighting module C3347-1, circuit CBX07 (GN/RD), harness side and ground. 	<p>Yes GO to I2.</p> <p>No VERIFY the <u>SJB</u> fuse 7 (10A) is OK. If OK, REPAIR the circuit. TEST the system for normal operation. If not OK, REFER to the Wiring Diagrams Manual to identify the possible causes of the</p>



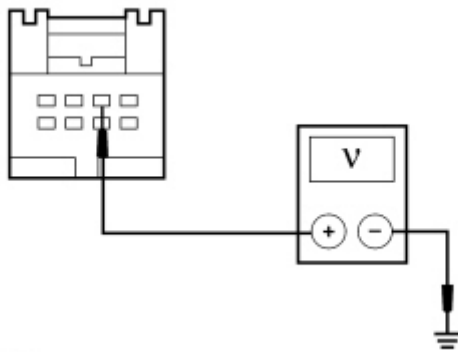
N0064678

- Is the voltage greater than 10 volts?

circuit short.

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?

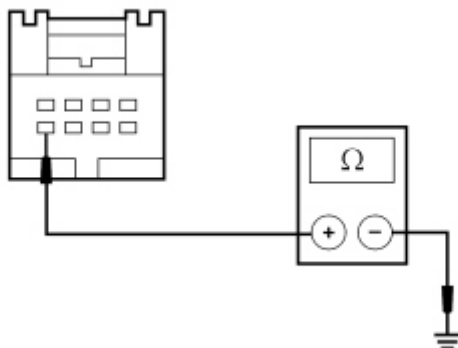
Yes
GO to [I3](#).

No
If voltage is always present, GO to [I4](#).

If no voltage is present, GO to [I5](#).

I3 CHECK CIRCUIT GD908 (BK) FOR AN OPEN

- Ignition OFF.
- Disconnect: Negative Battery Cable.
- 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
CONNECT the negative battery cable. GO to [I7](#).

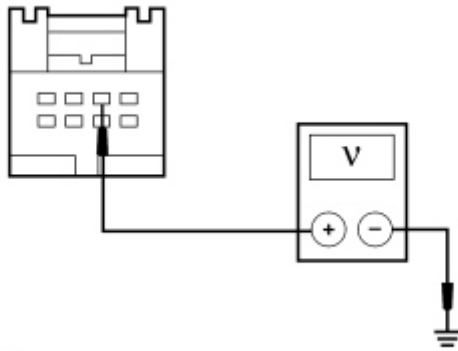
No
REPAIR the circuit. TEST the system for normal operation.

I4 CHECK CIRCUIT CLN54 (BN/YE) FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Ambient Lighting Switch C3348.
- Ignition ON.
- Measure the voltage between the ambient lighting module C3347-2,

Yes
REPAIR the circuit. TEST the system for normal operation.

circuit CLN54 (BN/YE), harness side and ground.



N0064679

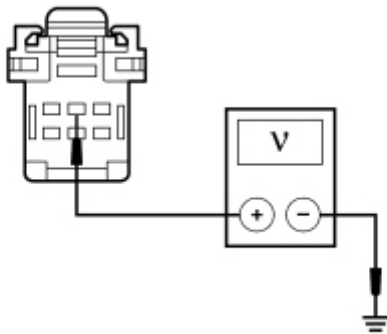
- Is any voltage present?

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)

- Ignition OFF.
- Connect: Ambient Lighting Module C3347.
- Disconnect: Ambient Lighting Switch C3348.
- Ignition ON.
- 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

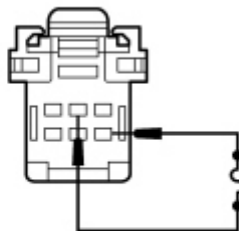
GO to [I6](#).

No

REPAIR the circuit. TEST the system for normal operation.

I6 CHECK THE AMBIENT LIGHTING SWITCH

- Connect and remove a fused 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

REMOVE the jumper wire. INSTALL a new ambient lighting switch. REFER to [Ambient Lighting Switch](#) in this section. TEST the system for normal operation.

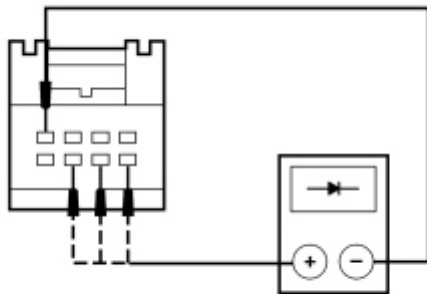
No

REMOVE the jumper wire. REPAIR circuit CLN54 (BN/YE) for an open. TEST the system for normal operation.

17 CHECK THE AMBIENT LIGHTING HARNESS

- Ignition OFF.
- 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)



N0064681

- Does the meter indicate the circuit is good?

Yes
GO to [18](#).

No
REPAIR or INSTALL a new ambient lighting harness. TEST the system for normal operation.

18 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

The ambient lighting module supplies voltage and ground to the 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.

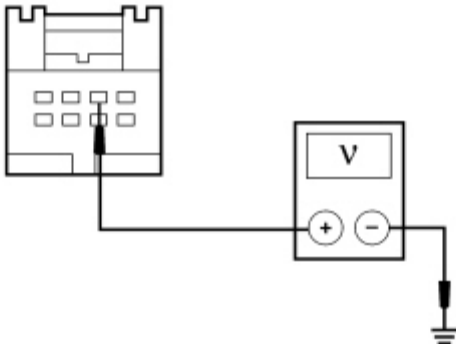
When the ignition key is in the RUN or ACC position, The ambient lighting switch and the ambient lighting module receives voltage through the circuit CBX 07 (GN/RD). Ground for the ambient lighting module is provided through circuit GD908 (BK). When the ambient lighting switch is pressed, voltage is 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:

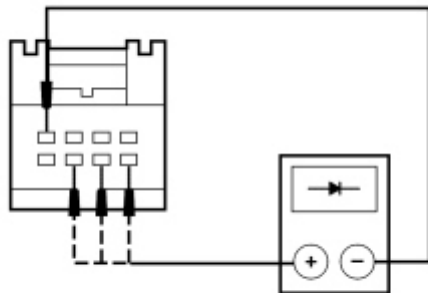
- Wiring, terminals or connectors
- Ambient lighting switch
- Ambient lighting harness
- Ambient lighting module

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

NOTICE: 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				
<p>J1 CHECK THE INPUT FROM CIRCUIT CLN54 (BN/YE)</p> <ul style="list-style-type: none"> • Ignition OFF. • Disconnect: Ambient Lighting Module C3347. • Ignition ON. • 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.  <p>N0064679</p> <ul style="list-style-type: none"> • Is the voltage greater than 10 volts with the switch pressed and 0 volts with the switch released? 	<p>Yes GO to J2.</p> <p>No If voltage is always present, GO to J3.</p> <p>If no voltage is present, GO to J4.</p>				
<p>J2 CHECK THE AMBIENT LIGHTING HARNESS</p> <ul style="list-style-type: none"> • Ignition OFF. • Check the diode circuits between the ambient lighting module, harness side as follows: <table border="1" data-bbox="220 1982 807 2132"> <thead> <tr> <th>Connector-Pin/Circuit</th> <th>Connector-Pin/Circuit</th> </tr> </thead> <tbody> <tr> <td>C3347-5</td> <td>C3347-4</td> </tr> </tbody> </table>	Connector-Pin/Circuit	Connector-Pin/Circuit	C3347-5	C3347-4	<p>Yes GO to J6.</p> <p>No REPAIR or INSTALL a new ambient lighting harness. TEST the system for normal operation.</p>
Connector-Pin/Circuit	Connector-Pin/Circuit				
C3347-5	C3347-4				

CLN45 (GN)	RLN44 (BN)
C3347-6	C3347-4
CLN46 (BU)	RLN44 (BN)
C3347-7	C3347-4
CLN44 (OG)	RLN44 (BN)

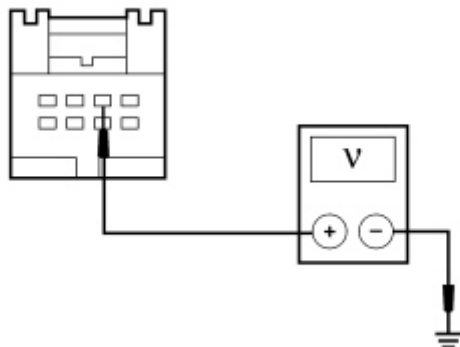


N0064681

- Does the meter indicate good for each circuit check?

J3 CHECK CIRCUIT CLN54 (BN/YE) FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Ambient Lighting Switch C3348.
- Ignition ON.
- 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.

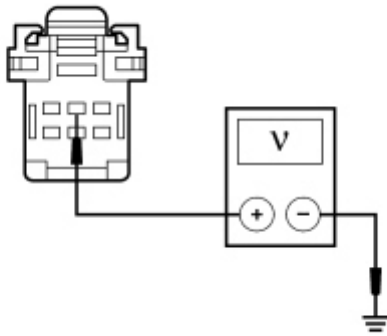
No
INSTALL a new ambient lighting switch. REFER to [Ambient Lighting Switch](#) in this section. TEST the system for normal operation.

J4 CHECK CIRCUIT CBX07 (GN/RD) FOR AN OPEN (TO AMBIENT LIGHTING SWITCH)

- Ignition OFF.
- Connect: Ambient Lighting Module C3347.
- Disconnect: Ambient Lighting Switch C3348.
- Ignition ON.
- Measure the voltage between the ambient lighting switch C3348-2, circuit CBX07 (GN/RD), harness side and ground.

Yes
GO to [J5](#).

No
REPAIR the circuit. TEST the system for normal operation.

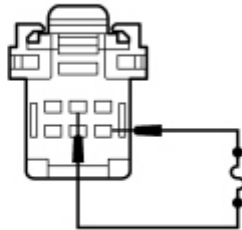


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- Is the voltage greater than 10 volts?

J5 CHECK THE AMBIENT LIGHTING SWITCH

- Connect and remove a fused 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
REMOVE the jumper wire. INSTALL a new ambient lighting switch. REFER to [Ambient Lighting Switch](#) in this section. TEST the system for normal operation.

No
REMOVE the jumper wire. 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.

