




Interior Lighting

Special Tool(s)

	Fluke 77-IV Digital Multimeter FLU77-4 or equivalent
	Vehicle Communication Module (VCM) and Integrated Diagnostic System (IDS) software with appropriate hardware, or equivalent scan tool
	Flex Probe Kit NUD105-R025D or equivalent

Principles of Operation

The Smart Junction Box (SJB) supplies voltage to the interior lighting system. The interior lighting system illuminates the courtesy lamp to enhance visibility of the interior. When a vehicle door is ajar and the vehicle speed is less than 15 km/h (9 mph), or the instrument panel dimmer switch is in the DOME LAMP position, the SJB provides voltage to the courtesy lamp circuit. The SJB controls all interior lighting functions and timing by monitoring inputs from the door ajar switches, the instrument panel dimmer switch, and vehicle speed.

The instrument panel dimmer switch receives a voltage signal from the SJB. The instrument panel dimmer switch provides variable resistance for backlighting the Instrument Panel Cluster (IPC) and a toggle on/off function for the courtesy lamp.

The Remote Keyless Entry (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 lamp.

Interior Lamp Arbitrator

The SJB chooses between the interior lighting, dome defeat, interior lighting delay, illuminated entry, illuminated exit and battery saver to determine which feature has precedence of activating and deactivating the interior lamps.

Ambient Lighting

The Body Control Module B (BCM-B) monitors the door courtesy lighting, courtesy lighting delay and illuminated exit requests. When a door is opened, the BCM-B turns on all 3 zones of the ambient lighting system. Zone 3 (door scuff plate LEDs) are turned off when any door is closed, or the illuminated entry request is detected by the BCM-B. The other 2 zones are turned off at the same time as the courtesy lighting by the BCM-B if the key is not activated in the ignition switch. The ambient lighting is reactivated when the ignition is placed in the accessory ON or RUN position.

The color of the LEDs always defaults to the last setting in the memory. There are 125 different color combinations that are achieved by adjusting the 3 primary (red, green and blue) colors.

Field-Effect Transistor (FET) Protection

Field-Effect Transistor (FET) is a type of transistor that when used with module software can be used to monitor and control current flow on module outputs. The FET protection strategy is used to prevent module damage in the event of excessive current flow.

The SJB utilizes an FET protective circuit strategy for many of its outputs (for example, a headlamp output circuit). Output loads (current level) are monitored for excessive current (typically short circuits) and are shut down (turns off the voltage or ground provided by the module) when a fault event is detected. A continuous DTC is stored at the fault event and a cumulative counter is started.

When the demand for the output is no longer present, the module resets the FET circuit protection to allow the circuit to function. The next time the driver requests a circuit to activate that has been shut down by a previous short (FET protection) and the circuit remains shorted, the FET protection shuts off the circuit again and the cumulative counter advances.

When the excessive circuit load occurs often enough, the module shuts down the output until a repair procedure is carried out. Each FET protected circuit has 3 predefined levels of short circuit tolerance based on the harmful effect of each circuit fault on the FET and the ability of the FET to withstand it. A module lifetime level of fault events is established based upon the durability of the FET. If the total tolerance level is determined to be 600 fault events, the 3 predefined levels would be 200, 400 and 600 fault events.

When each tolerance level is reached, the continuous DTC that was stored on the first failure cannot be cleared by a command to clear the continuous DTCs. The module does not allow this code to be cleared or the circuit restored to normal operation until a successful

self-test proves that the fault has been repaired. After the self-test has successfully completed (no on-demand DTCs present), DTC B106E and the associated continuous DTC (the DTC related to the shorted circuit) automatically clears and the circuit function returns.

When the first or second level is reached, the continuous DTC (associated with the short circuit) sets along with DTC B106E. These DTCs can be cleared using the module on-demand self-test, then the Clear DTC operation on the scan tool (if the on-demand test shows the fault corrected). The module never resets the fault event counter to zero and continues to advance the fault event counter as short circuit fault events occur.

If the number of short circuit fault events reach the third level, then DTCs B106F and B1342 set along with the associated continuous DTC. This DTC cannot be cleared and the module must be replaced.

The BCM-B utilizes a similar strategy.

The SJB FET protected output circuits for the interior lighting system is the courtesy lamp output circuit.

The BCM-B FET protected output circuits for the interior lighting system are the ambient lighting output circuits.

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"> • Luggage compartment lid ajar switch (part of the luggage compartment lid latch) 	<ul style="list-style-type: none"> • Smart Junction Box (SJB) fuse(s): <ul style="list-style-type: none"> ▪ 9 (15A) (courtesy lamp) ▪ 25 (10A) (demand lamp) • Wiring, terminals or connectors • Bulbs • Instrument panel dimmer switch • Dome/map lamp • Vanity mirror lamp • Luggage compartment lamp • <u>SJB</u>

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 for one or more modules, 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 and the Body Control Module B (BCM-B) .

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

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices. Refer to Diagnostic Methods in [Section 100-00](#) for information about these practices.

Smart Junction Box (SJB) DTC Chart

DTC	Description	Action
B106E	Solid State Driver Disabled Due to Short Circuit	The module has temporarily disabled an output because an excessive current draw exists (such as a short to ground). The Smart Junction Box (SJB) cannot enable the output until the cause of the short is corrected. ADDRESS all other DTCs first. After the cause of the concern is corrected, CLEAR the DTCs. REPEAT the self-test.
B106F	Module Disabled Due to External Fault	The module has permanently disabled an output because an excessive current draw fault (such as a short to ground) has exceeded the limits that the <u>SJB</u> can withstand. The cause of the excessive current draw MUST be corrected before a new <u>SJB</u> is installed. ADDRESS all other DTCs first. After the cause of the concern is corrected, INSTALL a new <u>SJB</u> . REFER to Section 419-10 . TEST the system for normal operation.
B1320	Driver Door Ajar Circuit Open	GO to Pinpoint Test D.
B1328	Passenger Door Ajar Circuit Open	GO to Pinpoint Test D.
B1331	Decklid Ajar Rear Door Circuit Failure	GO to Pinpoint Test F.
B1688	Lamp Dome Input Circuit Short to Ground	GO to Pinpoint Test D.
B2A35	Interior Lighting Output Circuit Open	If the interior courtesy lamp is inoperative, GO to Pinpoint Test C. If the interior courtesy lamp stays on continuously, GO to Pinpoint Test D.
B2A36	Interior Lighting Output Circuit Short to Ground	GO to Pinpoint Test C.
B2A38	Floor Lamp Circuit Short to Ground	DIAGNOSE all other DTCs and symptoms first. If no other DTCs or symptoms are present, INSPECT the <u>SJB</u> and <u>C2280A</u> for bent pins, loose or corroded connections. If no concerns are found, INSTALL a new <u>SJB</u> . REFER to Section 419-10 . TEST the system for normal operation.
B2A39	Puddle Lamp Output Circuit Open	If the pony projection lights are inoperative, GO to Pinpoint Test J. If the pony projection lights are always on, GO to Pinpoint Test K.
B2A3A	Puddle Lamp Output Circuit Short to Ground	GO to Pinpoint Test J.
All other DTCs	—	REFER to the Diagnostic Trouble Code (DTC) Chart in Section 419-10 .

Body Control Module B (BCM-B) DTC Chart

DTC	Description	Action
B127B:11	Ambient Lighting Zone 1 Output Red LED Circuit Short To Ground	GO to Pinpoint Test H.
B127B:15	Ambient Lighting Zone 1 Output Red LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B127C:11	Ambient Lighting Zone 2 Output Red LED Circuit Short To Ground	GO to Pinpoint Test H.
B127C:15	Ambient Lighting Zone 2 Output Red LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B127D:11	Ambient Lighting Zone 3 Output Red LED Circuit Short To Ground	GO to Pinpoint Test H.
B127D:15	Ambient Lighting Zone 3 Output Red LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B127E:11	Ambient Lighting Zone 1 Output Green LED Circuit Short To Ground	GO to Pinpoint Test H.
B127E:15	Ambient Lighting Zone 1 Output Green LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B127F:11	Ambient Lighting Zone 2 Output Green LED Circuit Short To Ground	GO to Pinpoint Test H.
B127F:15	Ambient Lighting Zone 2 Output Green LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B1280:11	Ambient Lighting Zone 3 Output Green LED Circuit Short To Ground	GO to Pinpoint Test H.
B1280:15	Ambient Lighting Zone 3 Output Green LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B1281:11	Ambient Lighting Zone 1 Output Blue LED Circuit Short To Ground	GO to Pinpoint Test H.
B1281:15	Ambient Lighting Zone 1 Output Blue LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B1282:11	Ambient Lighting Zone 2 Output Blue LED Circuit Short To Ground	GO to Pinpoint Test H.
B1282:15	Ambient Lighting Zone 2 Output Blue LED Circuit Short To Battery or Open	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.
B1283:11	Ambient Lighting Zone 3 Output Blue LED Circuit Short To Ground	GO to Pinpoint Test H.
B1283:15	Ambient Lighting Zone 3 Output Blue LED Circuit	If the ambient lighting is inoperative, GO to Pinpoint Test I. If the ambient lighting does not cycle through all colors, GO to Pinpoint Test H.

DTC	Description	Action
	Short To Battery or Open	
U1000:00	Solid State Drive Protection Activated-Driver Disabled: No Sub Type Information	The module has temporarily disabled an output because an excessive current draw exists (such as a short to ground). The Body Control Module B (BCM-B) cannot enable the output until the cause of the short is corrected. ADDRESS all other DTCs first. After the cause of the concern is corrected, CLEAR the DTCs. REPEAT the self-test.
U3000:49	Control Module: Internal Electronic Failure	The module has permanently disabled an output because an excessive current draw fault (such as a short to ground) has exceeded the limits that the <u>BCM-B</u> <u>BCM-B</u> can withstand. The cause of the excessive current draw MUST be corrected before a new <u>BCM-B</u> is installed. ADDRESS all other DTCs first. After the cause of the concern is corrected, INSTALL a new <u>BCM-B</u> . REFER to Section 419-10 . TEST the system for normal operation.
All other DTCs	—	REFER to the Diagnostic Trouble Code (DTC) Chart in Section 419-10 .

Symptom Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices. Refer to Diagnostic Methods in [Section 100-00](#) for information about these practices.

Symptom Chart

Condition	Possible Sources	Action
• The courtesy lamp flashes on and off	<ul style="list-style-type: none"> Smart Junction Box (SJB) is not configured correctly 	<ul style="list-style-type: none"> CONFIGURE the <u>SJB</u> . REFER to Section 418-01. TEST the system for normal operation.
• The courtesy lamp does not turn on with a door open	<ul style="list-style-type: none"> Wiring, terminals or connectors Door ajar switch <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test A.
• The courtesy lamp is inoperative from the instrument panel dimmer switch	<ul style="list-style-type: none"> Wiring, terminals or connectors Instrument panel dimmer switch <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test B.
• The interior courtesy lamp is inoperative	<ul style="list-style-type: none"> Fuse Wiring, terminals or connectors Overhead console <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test C.
• The pony projection light(s) are inoperative	<ul style="list-style-type: none"> Wiring, terminals or connectors Exterior mirror 	<ul style="list-style-type: none"> GO to Pinpoint Test J.
• The interior courtesy lamp stays on continuously	<ul style="list-style-type: none"> Wiring, terminals or connectors Door ajar switch Instrument panel dimmer switch <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test D.
• The pony projection lights stay on continuously	<ul style="list-style-type: none"> Wiring, terminals or connectors <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test K.
• One or more demand lamp is inoperative	<ul style="list-style-type: none"> Wiring, terminals or connectors Overhead console Sun visor (vanity mirror lamp) <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test E.

<ul style="list-style-type: none"> The luggage compartment lamp is inoperative/always on 	<ul style="list-style-type: none"> Wiring, terminals or connectors Luggage compartment lamp Luggage compartment lid latch <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test F.
<ul style="list-style-type: none"> The battery saver does not deactivate after time-out 	<ul style="list-style-type: none"> Wiring, terminals or connectors <u>SJB</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test G.
<ul style="list-style-type: none"> The ambient lighting does not cycle through all color combinations (single LED or zone) 	<ul style="list-style-type: none"> Wiring, terminals or connectors Ambient lighting harness Body Control Module B (BCM-B) 	<ul style="list-style-type: none"> GO to Pinpoint Test H.
<ul style="list-style-type: none"> An individual LED is inoperative 	<ul style="list-style-type: none"> Wiring, terminals or connectors Ambient lighting harness 	<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 <u>BCM-B</u> 	<ul style="list-style-type: none"> GO to Pinpoint Test I.

Pinpoint Tests

Pinpoint Test A: The Courtesy Lamp Does Not Turn On With A Door Open

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

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry And Alarm for schematic and connector information.

Normal Operation

The Smart Junction Box (SJB) sends a voltage signal to the door ajar switches. When the door is closed, the voltage signal is routed to ground. When the door is opened, the signal to ground is interrupted indicating an open door to the SJB.

When any door is opened, or an unlock request from a programmed Remote Keyless Entry (RKE) transmitter is detected, the SJB provides voltage to the courtesy lamp.

This pinpoint test is intended to diagnose the following:

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

PINPOINT TEST A : THE COURTESY LAMP DOES NOT TURN ON WITH A DOOR OPEN

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

A1 CHECK THE COURTESY LAMP OPERATION USING THE INSTRUMENT PANEL DIMMER SWITCH

- Operate the courtesy lamp using the instrument panel dimmer switch.

Does the courtesy lamp illuminate using the instrument panel dimmer switch?

Yes	GO to A2 .
No	GO to Pinpoint Test C.

A2 CHECK THE DOOR AJAR SWITCH OPERATION

- Ignition OFF.
- Disconnect: Suspect Door Ajar Switch.

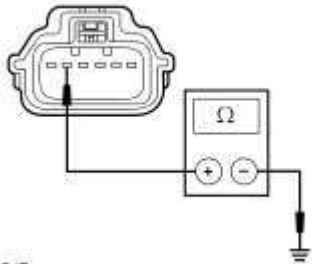
Do the interior lamps illuminate?

Yes	INSTALL a new door latch in question. REFER to Section 501-14 . TEST the system for normal operation.
No	GO to A3 .

A3 CHECK THE AJAR SWITCH CIRCUIT FOR A SHORT TO GROUND

- Disconnect: [SJB C2280C](#) .
- Measure the resistance between the suspect door ajar switch, harness side and ground as follows:

Location	Connector-Pin	Circuit
LH front door	C501 Pin 5	CPL26 (GN/VT)
RH front door	C603 Pin 5	CPL31 (WH)



Is the resistance greater than 10,000 ohms?

Yes	GO to A4 .
No	REPAIR the circuit in question for a short to ground. TEST the system for normal operation.

A4 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.

Pinpoint Test B: The Courtesy Lamp Is Inoperative From 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 to determine if the courtesy lamp is requested. Based on the instrument panel dimmer switch status, the SJB supplies voltage to the courtesy lamp.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Instrument panel dimmer switch
- SJB

PINPOINT TEST B : THE COURTESY LAMP IS INOPERATIVE FROM 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.

B1 CHECK THE DIMMABLE BACKLIGHTING OPERATION

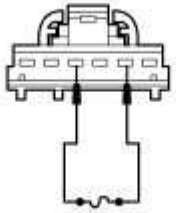
- Place the headlamp switch in the PARKLAMP position.
- Monitor the instrument panel dimmable backlighting while rotating the instrument panel dimmer switch from full on to full off.

Does the dimmable backlighting intensity change with the instrument panel dimmer switch position?

Yes	GO to B2 .
No	REFER to Section 413-00 .

B2 CHECK THE INSTRUMENT PANEL DIMMER SWITCH

- Ignition OFF.
- Disconnect: Instrument Panel Dimmer Switch [C2298](#) .
- Connect a fused jumper wire between the instrument panel dimmer switch [C2298](#) Pin 2, circuit CLN28 (GN/BU), harness side and the instrument panel dimmer switch [C2298](#) Pin 4, circuit RLN29 (WH/OG), harness side.



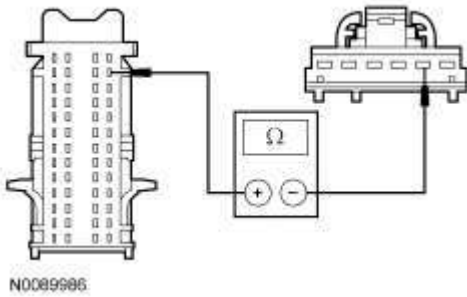
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Does the courtesy lamp illuminate?

Yes	REMOVE the jumper wire. INSTALL a new instrument panel dimmer switch. REFER to Section 413-00 . TEST the system for normal operation.
No	REMOVE the jumper wire. GO to B3 .

B3 CHECK THE DOME LAMP REQUEST INPUT CIRCUIT FOR AN OPEN

- Disconnect: SJB [C2280B](#) .
- Measure the resistance between the SJB [C2280B](#) Pin 51, circuit CLN28 (GN/BU), harness side and the instrument panel dimmer switch [C2298](#) Pin 2, circuit CLN28 (GN/BU), harness side.



Is the resistance less than 3 ohms?

Yes	GO to B4 .
No	REPAIR circuit CLN28 (GN/BU) for an open. 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 <u>SJB</u> . 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.

Pinpoint Test C: The Interior Courtesy Lamp Is Inoperative

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

Normal Operation

Voltage is supplied to the courtesy lamp by the Smart Junction Box (SJB) fuse 9 (15A). Based on the input status, the SJB supplies voltage to the courtesy lamp.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> • B106E — Solid State Driver Disabled Due to Short Circuit 	A continuous DTC that sets when the <u>SJB</u> has temporarily shut down the output driver. The module has temporarily disabled the courtesy lamp output because an excessive current draw exists (such as a short to ground). The <u>SJB</u> cannot enable the courtesy lamp output until the cause of the short is corrected, the DTCs have been cleared and a successful self-test is run.
<ul style="list-style-type: none"> • B106F — Module Disabled Due to External Fault 	A continuous DTC that sets when the <u>SJB</u> has permanently shut down the output driver. The module has permanently disabled the courtesy lamp output because an excessive current draw fault (such as a short to ground) has exceeded the limits that the <u>SJB</u> can withstand. The cause of the excessive current draw MUST be corrected before a new <u>SJB</u> is installed.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> B2A35 — Interior Lighting Output Circuit Open 	An on-demand DTC that sets when the <u>SJB</u> detects an open from the courtesy lighting output circuit.
<ul style="list-style-type: none"> B2A36 — Interior Lighting Output Circuit Short To Ground 	A continuous and on-demand DTC that sets when the <u>SJB</u> detects a short to ground from the courtesy lighting output circuit.

This pinpoint test is intended to diagnose the following:

- Fuse
- Wiring, terminals or connectors
- Overhead console
- SJB

PINPOINT TEST C : THE INTERIOR COURTESY 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.

C1 CHECK THE OPERATION OF THE COURTESY LAMP FROM THE DOOR AND THE INSTRUMENT PANEL DIMMER SWITCH

- Ignition OFF.
- Open and close a door.
- Rotate the instrument panel dimmer switch to the DOME LAMP position and then to the OFF position.

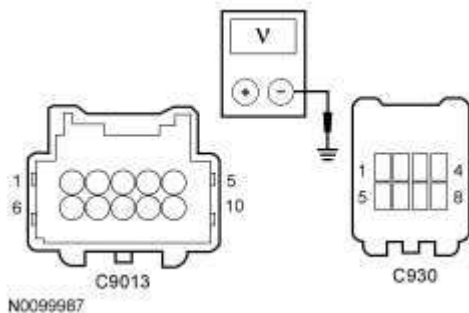
Is the courtesy lamp inoperative from the door and the instrument panel dimmer switch?

Yes	<p>VERIFY the <u>SJB</u> fuse 9 (15A) is OK. If OK, GO to <u>C2</u>. If not OK, REFER to the Wiring Diagrams Manual to identify the possible causes of the circuit short. After the repair, if no DTCs are present, TEST the system for normal operation. If DTC B106E is present, CLEAR the DTCs and REPEAT the self-test (required to enable the courtesy lamp output driver if DTC B106E is present). TEST the system for normal operation. If DTC B106F is present, INSTALL a new <u>SJB</u> . REFER to <u>Section 419-10</u>. TEST the system for normal operation.</p>
No	<p>If inoperative from the door, <u>GO to Pinpoint Test A</u>. If inoperative from the instrument panel dimmer switch, <u>GO to Pinpoint Test B</u>.</p>

C2 CHECK FOR VOLTAGE TO THE INTERIOR LAMP

- Disconnect: Interior Lamp.
- Rotate the instrument panel dimmer switch to the DOME LAMP position.
- Measure the voltage between the interior lamp, harness side and ground as follows:

Location	Connector-Pin	Circuit
Front interior/map lamp (with convertible top)	<u>C9013</u> Pin 4	VLN33 (GY/VT)
Front interior/map lamp (without convertible top)	<u>C930</u> Pin 4	VLN33 (GY/VT)



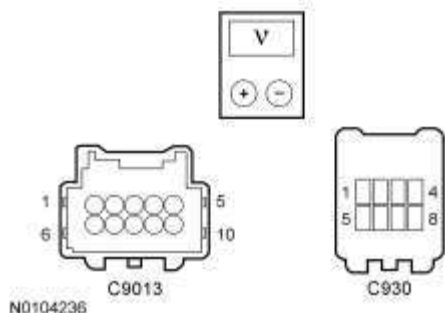
Is the voltage greater than 11 volts?

Yes	GO to C3 .
No	GO to C4 .

C3 CHECK FOR VOLTAGE TO THE INTERIOR LAMP USING THE CONNECTOR GROUND

- Measure the voltage between the interior lamp, harness side as follows:

Location	Connector-Pin/ Circuit	Connector-Pin/ Circuit
Front interior/map lamp (with convertible top)	C9013 Pin 4 VLN33 (GY/VT)	C9013 Pin 5 GD139 (BK/YE)
Front interior/map lamp (without convertible top)	C930 Pin 4 VLN33 (GY/VT)	C930 Pin 5 GD139 (BK/YE)

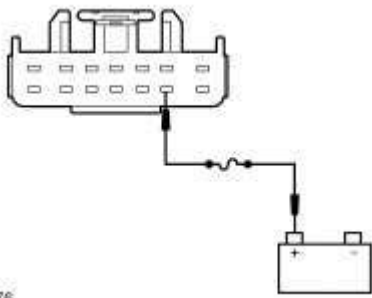


Is the voltage greater than 11 volts?

Yes	INSTALL a new overhead console. REFER to Section 501-12 . TEST the system for normal operation.
No	REPAIR circuit GD139 (BK/YE) for an open. TEST the system for normal operation.

C4 BYPASS THE SJB

- Connect: Interior Lamp.
 - Disconnect: [SJB C2280A](#).
 - NOTE:** If the jumper wire fails, refer to the *Wiring Diagrams Manual* to identify the possible causes of the circuit short. After the repair, if no DTCs are present, test the system for normal operation. If DTC B106E is present, clear the DTCs **and** repeat the self-test (**required to enable the courtesy lamp output driver if DTC B106E is present**). Test the system for normal operation. If DTC B106F is present, install a new [SJB](#). Refer to [Section 419-10](#). TEST the system for normal operation.
- Connect a fused jumper wire between the [SJB C2280A](#) Pin 9, circuit VLN33 (GY/VT), harness side and battery positive.



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Does the courtesy lamp illuminate?

Yes	REMOVE the jumper wire. GO to C5 .
No	REMOVE the jumper wire. REPAIR circuit VLN33 (GY/VT) for an open. CLEAR the DTCs. REPEAT the self-test.

C5 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 <u>SJB</u> . 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.

Pinpoint Test D: The Interior Courtesy Lamp Stays On Continuously

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

Refer to Wiring Diagrams Cell [117](#), Remote Keyless Entry And Alarm for schematic and connector information.

Normal Operation

The Smart Junction Box (SJB) sends a voltage signal to the door ajar switches. When the door is closed, the voltage signal is routed to ground. When the door is opened, the signal to ground is interrupted indicating an open door to the SJB .

The SJB also monitors the instrument panel dimmer switch status to determine if the courtesy lamp is requested. When the instrument panel dimmer switch is rotated to the DOME LAMP position, ground is supplied to DOME LAMP request input circuit.

When the request from the instrument panel dimmer switch is detected, any door is opened, or an unlock request from a programmed Remote Keyless Entry (RKE) transmitter is detected, the SJB supplies voltage to the courtesy lamp.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> • B1320 — Driver Door Ajar Circuit Open 	An on-demand DTC that sets when the <u>SJB</u> detects an open from the LH front door ajar input circuit.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> B1328 — Passenger Door Ajar Circuit Open 	An on-demand DTC that sets when the <u>SJB</u> detects an open from the RH front door ajar input circuit.
<ul style="list-style-type: none"> B1688 — Lamp Dome Input Circuit Short To Ground 	An on-demand DTC that sets when the <u>SJB</u> detects a short to ground from the instrument panel dimmer switch circuit.
<ul style="list-style-type: none"> B2A35 — Interior Lighting Output Circuit Open 	An on-demand DTC that sets when the <u>SJB</u> detects a short to voltage from the courtesy lamp output 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 INTERIOR COURTESY 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.

D1 CHECK THE RECORDED DTCS FROM THE SJB SELF-TEST

- Check the recorded results from the SJB self-test.

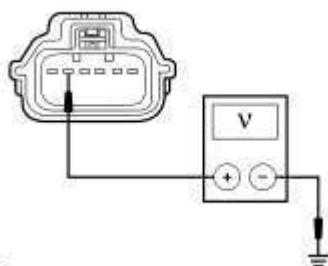
Is DTC B1320, B1328, B1688 or B2A35 present?

Yes	For DTC B1320 or DTC B1328, GO to D2 . For DTC B1688, GO to D5 . For DTC B2A35, GO to D7 .
No	GO to D7 .

D2 CHECK FOR VOLTAGE TO THE DOOR AJAR SWITCH

- Ignition OFF.
- Disconnect: Suspect Door Ajar Switch.
- Measure the voltage between the suspect door ajar switch, harness side and ground as follows:

Suspect Door Ajar Switch	Connector-Pin	Circuit
LH front	C501 Pin 5	CPL26 (GN/VT)
RH front	C603 Pin 5	CPL31 (WH)



N0090555

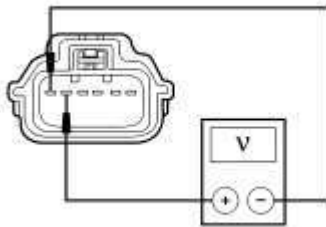
Is the voltage greater than 11 volts?

Yes	GO to D3 .
No	GO to D4 .

D3 CHECK FOR VOLTAGE TO THE DOOR AJAR SWITCH USING THE CONNECTOR GROUND

- Measure the voltage between the suspect ajar switch, harness side as follows:

Suspect Door Ajar Switch	Connector-Pin	Circuit
LH front	C501 Pin 5 CPL26 (GN/VT)	C501 Pin 6 GD133 (BK)
RH front	C603 Pin 5 CPL31 (WH)	C603 Pin 6 GD139 (BK/YE)



N0090557

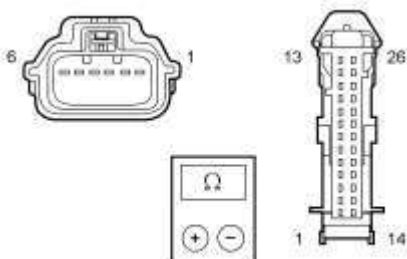
Is the voltage greater than 11 volts?

Yes	INSTALL a new door latch for the ajar switch in question. REFER to Section 501-14 . CLEAR the DTCs. REPEAT the self-test.
No	REPAIR the ground circuit in question for an open. CLEAR the DTCs. REPEAT the self-test.

D4 CHECK THE DOOR AJAR SWITCH INPUT CIRCUIT FOR AN OPEN

- Disconnect: [SJB C2280C](#) .
- Measure the resistance between the suspect door ajar switch, harness side and the [SJB](#) , harness side as follows:

Suspect Door Ajar Switch Connector-Pin	SJB Connector-Pin	Circuit
LH front C501 Pin 5	C2280C Pin 14	CPL26 (GN/VT)
RH front C603 Pin 5	C2280C Pin 2	CPL31 (WH)



N0104237

Is the resistance less than 3 ohms?

Yes	GO to D8 .
No	REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.

D5 CHECK THE INSTRUMENT PANEL DIMMER SWITCH

NOTE: Make sure the doors are closed for correct test results.

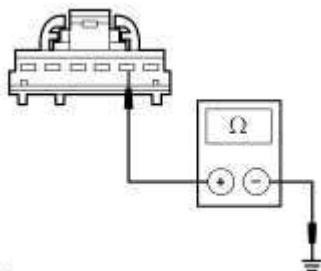
- Disconnect: Instrument Panel Dimmer Switch [C2298](#) .
- Wait 30 seconds and observe the courtesy lamp.

Does the courtesy lamp continue to illuminate?

Yes	GO to D6 .
No	INSTALL a new instrument panel dimmer switch. REFER to Section 413-00 . TEST the system for normal operation.

D6 CHECK THE INSTRUMENT PANEL DIMMER SWITCH DOME LAMP REQUEST INPUT CIRCUIT FOR A SHORT TO GROUND

- Disconnect: [SJB C2280B](#) .
- Measure the resistance between the instrument panel dimmer switch [C2298](#) Pin 2, circuit CLN28 (GN/BU), harness side and ground.



Is the resistance greater than 10,000 ohms?

Yes	GO to D8 .
No	REPAIR circuit CLN28 (GN/BU) for a short to ground. CLEAR the DTCs. REPEAT the self-test.

D7 CHECK THE SJB COURTESY LAMP OUTPUT CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: [SJB C2280A](#) .
- Ignition ON.
- Observe the courtesy lamp.

Does the courtesy lamp continue to illuminate?

Yes	REPAIR circuit VLN33 (GY/VT) for a short to voltage. CLEAR the DTCs. REPEAT the self-test.
No	GO to D8 .

D8 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 <u>SJB</u> . 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: One Or More Demand Lamp Is Inoperative

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

Normal Operation

The Smart Junction Box (SJB) supplies voltage to the demand lamps using the battery saver relay. The overhead console map lamp shares ground with the courtesy lamp.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Overhead console
- Sun visor (vanity mirror lamp)
- Glove compartment lamp
- SJB

PINPOINT TEST E : ONE OR MORE DEMAND 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.

E1 CHECK THE COURTESY LAMP OPERATION

- Ignition OFF.
- Attempt to turn the courtesy lamp on by opening a door or using the instrument panel dimmer switch.

Does the courtesy lamp turn on?

Yes	GO to E2 .
No	GO to Pinpoint Test C .

E2 CHECK THE OPERATION OF ALL THE DEMAND LAMPS

- Ignition ON.
- Check the operation of both map lamps and, if equipped, both vanity mirror lamps.

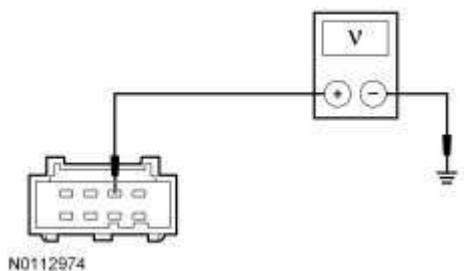
Are all the demand lamps inoperative?

Yes	VERIFY the <u>SJB</u> fuse 25 (10A) is OK. If OK, GO to E5 . If not OK, REFER to the Wiring Diagrams Manual to identify the possible cause of the circuit short.
No	GO to E3 .

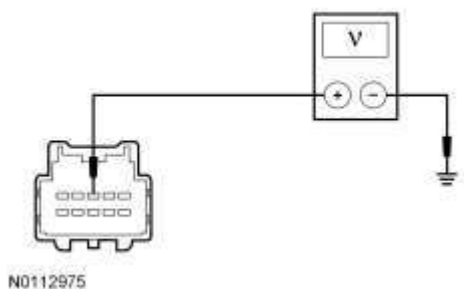
E3 CHECK FOR VOLTAGE TO THE DEMAND LAMP

- Ignition OFF.

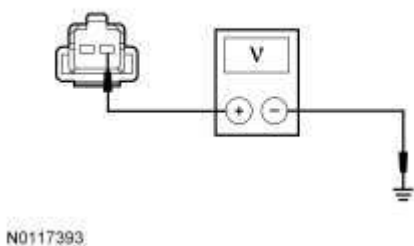
- Disconnect: Inoperative Demand Lamp.
- For the overhead console on vehicles without a convertible top, measure the voltage between the overhead console [C930](#) Pin 3, circuit CLN09 (YE/GN), harness side and ground.



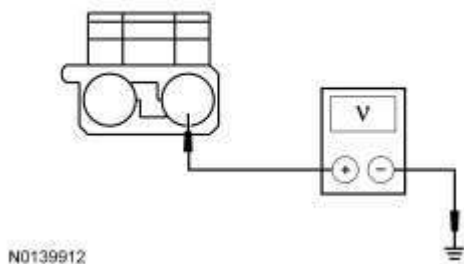
- For the overhead console on vehicles with a convertible top, measure the voltage between the overhead console [C9013](#) Pin 3, circuit CLN09 (YE/GN), harness side and ground.



- For a vanity mirror lamp, measure the voltage between the LH vanity mirror [C906](#) Pin 1, circuit CLN09 (YE/GN), harness side and ground; or between the RH vanity mirror [C907](#) Pin 1, circuit CLN09 (YE/GN), harness side and ground.



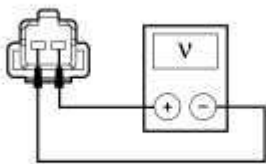
- For a glove compartment lamp, measure the voltage between the glove compartment lamp [C254](#) Pin 1, circuit CLN09 (YE/GN), harness side and ground



Is the voltage greater than 11 volts?

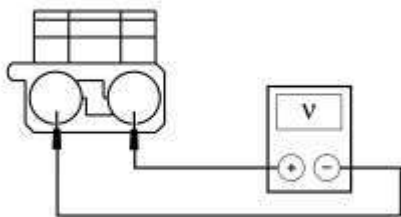
Yes	For the overhead console, INSTALL a new overhead console. REFER to Section 501-12 . TEST the system for normal operation. For a glove compartment lamp and vanity mirror, GO to E4 .
No	REPAIR circuit CLN09 (YE/GN) for an open. TEST the system for normal operation.

- For a vanity mirror lamp, measure the voltage between the LH vanity mirror [C906](#) Pin 1, circuit CLN09 (YE/GN), harness side and the LH vanity mirror [C906](#) Pin 2, circuit GD139 (BK/YE), harness side; or between the RH vanity mirror [C907](#) Pin 1, circuit CLN09 (YE/GN), harness side and the RH vanity mirror [C907](#) Pin 2, circuit GD139 (BK/YE), harness side.



N0117394

- For a glove compartment lamp, measure the voltage between the glove compartment lamp [C254](#) Pin 1, circuit CLN09 (YE/GN), harness side and glove compartment lamp [C254](#) Pin 1, circuit GD114 (BK/BU), harness side.



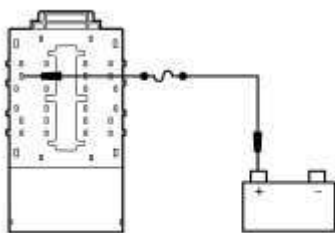
N0139913

Is the voltage greater than 11 volts?

Yes	INSTALL a new sun visor. TEST the system for normal operation.
No	REPAIR circuit GD139 (BK/YE) or GD114 (BK/BU) for an open. TEST the system for normal operation.

E5 BYPASS THE SJB

- Disconnect: [SJB C2280D](#) .
- Connect a fused jumper wire between the [SJB C2280D](#) Pin 21, circuit CLN09 (YE/GN), harness side and battery positive.



N0056178

- Switch on a demand lamp, such as a map light.

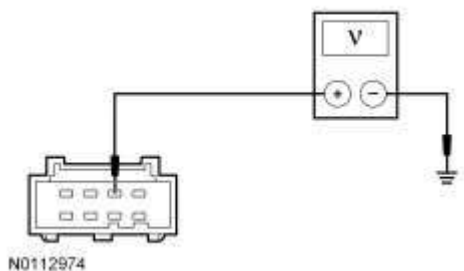
Does the demand lamp illuminate?

Yes	REMOVE the jumper wire. GO to E7 .
No	If equipped with vanity mirror lamps, REMOVE the jumper wire. REPAIR circuit CLN09 (YE/GN) for an open. TEST the system for normal operation. If not equipped with vanity mirror lamps, LEAVE the jumper wire connected. GO to E6 .

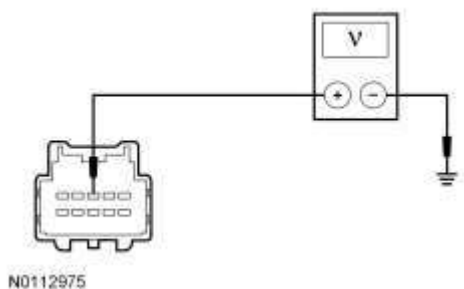
E6 CHECK THE DEMAND LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Disconnect: Overhead Console [C930](#) (Without Convertible Top).

- Disconnect: Overhead Console [C9013](#) (With Convertible Top).
- For the overhead console on vehicles without a convertible top, measure the voltage between the overhead console [C930](#) Pin 3, circuit CLN09 (YE/GN), harness side and ground.



- For the overhead console on vehicles with a convertible top, measure the voltage between the overhead console [C9013](#) Pin 3, circuit CLN09 (YE/GN), harness side and ground.



Is the voltage greater than 11 volts?

Yes	REMOVE the jumper wire. INSTALL a new overhead console. REFER to Section 501-12 . TEST the system for normal operation.
No	REMOVE the jumper wire. REPAIR circuit CLN09 (YE/GN) for an open. TEST the system for normal operation.

E7 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 F: The Luggage Compartment Lamp Is Inoperative/Always On

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

Normal Operation

Power is supplied to the luggage compartment lamp from the demand lighting circuit. Ground for the luggage compartment lamp is controlled by the luggage compartment lid latch. When the luggage compartment lid is opened, a switch inside the latch closes and completes the path to ground.

- DTC B1331 (Decklid Ajar Rear Door Circuit Failure) — an on-demand DTC that sets when the Smart Junction Box (SJB) detects an open from the luggage compartment lid ajar input 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/ALWAYS ON

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

NOTE: Make sure the map lamps operate correctly before continuing diagnostics.

F1 CHECK THE LUGGAGE COMPARTMENT LATCH

- Open the luggage compartment using the Integrated Keyhead Transmitter (IKT) or the luggage compartment release switch on the instrument panel.

Does the luggage compartment open?

Yes	GO to F2 .
No	REFER to Section 501-14 .

F2 CHECK THE LUGGAGE COMPARTMENT AJAR PID

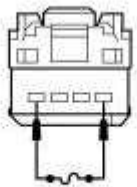
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: SJB DataLogger.
- Monitor the SJB luggage compartment ajar switch PID (DECKLID) while opening and closing the luggage compartment.

Does the luggage compartment ajar switch PID value agree with the luggage compartment positions?

Yes	GO to F5 .
No	GO to F3 .

F3 CHECK THE LUGGAGE COMPARTMENT AJAR SWITCH

- Disconnect: Luggage Compartment Lid Latch [C430](#) .
- Enter the following diagnostic mode on the scan tool: SJB DataLogger .
- Monitor the SJB luggage compartment ajar switch PID (DECKLID).
- Connect a jumper wire between the luggage compartment lid latch [C430](#) Pin 1, circuit CPL58 (GY/OG), harness side, and the luggage compartment lid latch [C430](#) Pin 4, circuit GD110 (BK/WH), harness side.



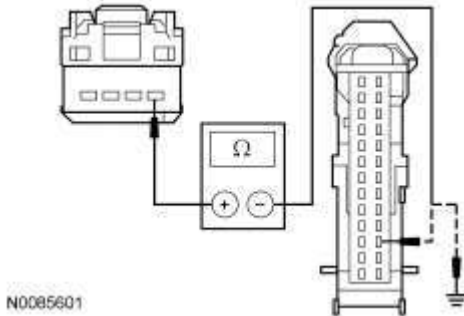
N0068773

Does the luggage compartment ajar switch PID indicate ajar with the jumper wire removed and closed with the jumper wire connected?

Yes	REMOVE the jumper wire. INSTALL a new luggage compartment lid latch. REFER to Section 501-14 . TEST the system for normal operation.
No	REMOVE the jumper wire. GO to F4 .

F4 CHECK CIRCUIT CPL58 (GY/OG) FOR AN OPEN AND SHORT TO GROUND

- Ignition OFF.
- Disconnect: [SJB C2280C](#) .
- Measure the resistance between the luggage compartment lid latch [C430](#) Pin 1, circuit CPL58 (GY/OG), harness side and the [SJB C2280C](#) Pin 16, circuit CPL58 (GY/OG), harness side; and between the luggage compartment lid latch [C430](#) Pin 1, circuit CPL58 (GY/OG), harness side and ground.

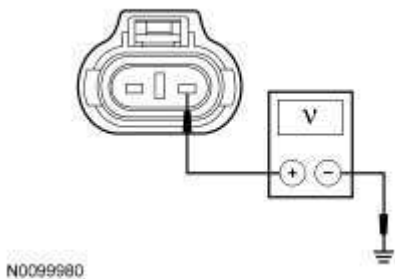


Is the resistance less than 3 ohms between the luggage compartment lid latch and the [SJB](#) , and greater than 10,000 ohms between the luggage compartment lid latch and ground?

Yes	GO to F8 .
No	REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

F5 CHECK CIRCUIT CLN09 (YE/GN) FOR AN OPEN

- Disconnect: Luggage Compartment Lamp [C428](#) .
- Ignition ON.
- Measure the voltage between the luggage compartment lamp [C428](#) Pin 1, circuit CLN09 (YE/GN), harness side and ground.

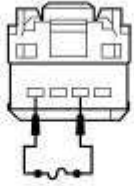


Is the voltage greater than 11 volts?

Yes	GO to F6 .
No	REPAIR the circuit. TEST the system for normal operation.

F6 CHECK THE LUGGAGE COMPARTMENT LATCH

- Disconnect: Luggage Compartment Lid Latch [C430](#) .
- Connect: Luggage Compartment Lamp [C428](#) .
- Monitor the luggage compartment lamp.
- Connect a jumper wire between the luggage compartment lid latch [C430](#) Pin 2, circuit CLN13 (WH/BU), harness side, and the luggage compartment lid latch [C430](#) Pin 4, circuit GD110 (BK/WH), harness side.



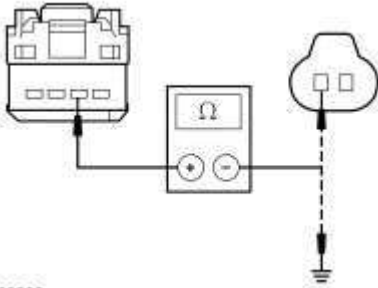
N0068886

Is the luggage compartment lamp illuminated with the jumper wire connected and off with it disconnected?

Yes	REMOVE the jumper wire. INSTALL a new luggage compartment lid latch. REFER to Section 501-14 . TEST the system for normal operation.
No	REMOVE the jumper wire. GO to F7 .

F7 CHECK CIRCUIT CLN13 (WH/BU) FOR AN OPEN AND SHORT TO GROUND

- Ignition OFF.
- Disconnect: Luggage Compartment Lamp [C428](#) .
- Measure the resistance between the luggage compartment lid latch [C430](#) Pin 2, circuit CLN13 (WH/BU), harness side and the luggage compartment lamp [C428](#) Pin 2, circuit CLN13 (WH/BU), harness side; and between the luggage compartment lid latch [C430](#) Pin 2, circuit CLN13 (WH/BU), harness side and ground.



N0099990

Is the resistance less than 3 ohms between the luggage compartment lid latch and the luggage compartment lamp, and greater than 10,000 ohms between the luggage compartment lid latch and ground?

Yes	INSTALL a new luggage compartment lamp. TEST the system for normal operation.
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. TEST the system for normal operation.

Pinpoint Test G: The Battery Saver Does Not Deactivate After Time-Out

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

Normal Operation

The Smart Junction Box (SJB) controls the battery saver function. The battery saver function provides automatic shutoff of the interior lamps (courtesy and demand lamps) after 10 minutes have elapsed in order to save battery power.

This pinpoint test is intended to diagnose the following:

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

PINPOINT TEST G : THE BATTERY SAVER DOES NOT DEACTIVATE AFTER TIME-OUT

G1 CHECK THE SJB IGNITION SWITCH PIDS

- Ignition ON.
- Enter the following diagnostic mode on the scan tool: [SJB](#) DataLogger.
- Monitor the [SJB](#) ignition switch PIDs (IGN_A_ECU, IGN_O_ECU, IGN_R_ECU and IGN_S_ECU) while rotating the ignition switch through all positions.

Do the ignition switch PIDs agree with the ignition switch positions?

Yes	GO to G2 .
No	REFER to Section 211-05 .

G2 CHECK THE DEMAND LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: [SJB C2280A](#) .
- Ignition ON.
- Operate the demand lamp.

Does the demand lamp illuminate?

Yes	REPAIR the circuit. TEST the system for normal operation.
No	GO to G3 .

G3 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.

Pinpoint Test H: The Ambient Lighting Does Not Cycle Through All Color Variations (Single LED or Zone)

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

Normal Operation

The Body Control Module B (BCM-B) supplies voltage and ground to the LEDs located in the floor console cup holders, console storage bin, driver and passenger scuff plates, both door map pockets and the front and rear footwells. The message center is used to cycle through the 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.

The BCM-B has a built-in self-test that cycles through red, green and blue colors for each zone separately. Using this test may help diagnose a single color failure.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none">B127B:11 — Ambient Lighting Zone 1 Output Red LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 1 red circuit.
<ul style="list-style-type: none">B127E:11 — Ambient Lighting Zone 1 Output Green LED: Circuit Short To Battery or Open	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 1 green circuit.
<ul style="list-style-type: none">B1281:11 — Ambient Lighting Zone 1 Output Blue LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 1 blue circuit.
<ul style="list-style-type: none">B127C:11 — Ambient Lighting Zone 2 Output Red LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 2 red circuit.
<ul style="list-style-type: none">B127F:11 — Ambient Lighting Zone 2 Output Green LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 2 green circuit.
<ul style="list-style-type: none">B1282:11 — Ambient Lighting Zone 2 Output Blue LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 2 blue circuit.
<ul style="list-style-type: none">B127D:11 — Ambient Lighting Zone 3 Output Red LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 3 red circuit.
<ul style="list-style-type: none">B1280:11 — Ambient Lighting Zone 3 Output Green LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 3 green circuit.
<ul style="list-style-type: none">B1283:11 — Ambient Lighting Zone 3 Output Blue LED: Circuit Short To Ground	A continuous DTC that sets when the <u>BCM-B</u> detects a short to ground from the ambient lighting zone 3 blue circuit.
<ul style="list-style-type: none">B127B:15 — Ambient Lighting Zone 1 Output Red LED: Circuit Short To Battery or Open	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 1 red circuit.
<ul style="list-style-type: none">B127E:15 — Ambient Lighting Zone 1 Output Green LED: Circuit Short To Battery or Open	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 1 green circuit.

DTC Description	Fault Trigger Conditions
<ul style="list-style-type: none"> B1281:15 — Ambient Lighting Zone 1 Output Blue LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 1 blue circuit.
<ul style="list-style-type: none"> B127C:15 — Ambient Lighting Zone 2 Output Red LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 2 red circuit.
<ul style="list-style-type: none"> B127F:15 — Ambient Lighting Zone 2 Output Green LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 2 green circuit.
<ul style="list-style-type: none"> B1282:11 — Ambient Lighting Zone 2 Output Blue LED: Circuit Short To Ground 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 2 blue circuit.
<ul style="list-style-type: none"> B127D:15 — Ambient Lighting Zone 3 Output Red LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 3 red circuit.
<ul style="list-style-type: none"> B127F:15 — Ambient Lighting Zone 3 Output Green LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 3 green circuit.
<ul style="list-style-type: none"> B1283:15 — Ambient Lighting Zone 3 Output Blue LED: Circuit Short To Battery or Open 	A continuous DTC that sets when the <u>BCM-B</u> detects a short to battery or open from the ambient lighting zone 3 blue circuit.

This pinpoint test is intended to diagnose the following:

- Wiring, terminals or connectors
- Ambient lighting harness
- BCM-B

PINPOINT TEST H : THE AMBIENT LIGHTING DOES NOT CYCLE THROUGH ALL COLOR VARIATIONS (SINGLE LED OR ZONE)

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

H1 CHECK THE BCM-B AMBIENT LIGHTING SWITCH PIDS

- Ignition ON.
- Place the headlamp switch in the PARKING LAMPS ON position.

Is the concern with an individual lamp?

Yes	For an individual floor console lamp, REPAIR or INSTALL a new ambient lighting harness. TEST the system for normal operation. For all other lamps, GO to H4 .
No	If all floor console lamps are the concern, GO to H4 . If a independent zone is the concern, GO to H2 .

H2 CHECK THE AMBIENT LIGHTING HARNESS

- Ignition OFF.
- Place the headlamp switch in the OFF position.
- Disconnect: BCM-B [C4368A](#) .
- Disconnect: BCM-B [C4368B](#) .