Interior Lighting

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

Special Tool(s)

 ST1137-A	73III Automotive Meter 105-R0057 or equivalent
 ST2332-A	Worldwide Diagnostic System (WDS) Vehicle Communication Module (VCM) with appropriate adapters, or equivalent diagnostic tool

Principles of Operation

When the SJB detects a request for lighting, it turns on the interior lamps by supplying power 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 door ajar switches are hard-wired directly to the SJB. The 2 door ajar switches are normally closed when the doors are closed. The decklid ajar switch is normally closed when the decklid is closed. All door ajar switches receive voltage from the SJB and each has its own ground circuit.

The instrument panel dimmer switch receives a ground 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 interior lights.

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

Inspection and Verification

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

Visual Inspection Chart

Electrical
• Fuse(s) • Circuitry open/shorted • Loose or corroded connections • Lamp(s) • Dimmer switch • Door ajar switches • Smart junction box (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. If the cause is not visually evident, connect the diagnostic tool to the data link connector and select the vehicle to be tested from the diagnostic tool menu. If the diagnostic tool does not communicate with the vehicle:
   - check that the program card is correctly installed.
   - check the connections to the vehicle.
   - check the ignition switch position.
5. If the diagnostic tool still does not communicate with the vehicle, refer to the diagnostic tool operating manual.
6. Carry out the diagnostic tool data link test. If the diagnostic tool responds with:
   - SCP, ISO, CAN or UBP circuits fault; all electronic control units no response/not equipped, refer to Section 418-00.
   - No response/not equipped for SJB, REFER to Section 419-10.
   - System passed, retrieve and record the continuous diagnostic trouble codes (DTCs), erase the continuous DTCs and carry out self-test diagnostics for the SJB.
7. If the DTCs retrieved are related to the concern, go to the Smart Junction Box (SJB) Diagnostic Trouble Code (DTC) Index.
8. If no DTCs related to the concern are retrieved, GO to Symptom Chart.

Smart Junction Box (SJB) Diagnostic Trouble Code (DTC) Index

DTC	Description	Action
B1084	Trunk Lamp Circuit Failure	If the trunk lamp is inoperative, GO to Pinpoint Test E. If the trunk lamp is always ON, GO to Pinpoint Test F.
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 Input 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	GO to Pinpoint Test D.

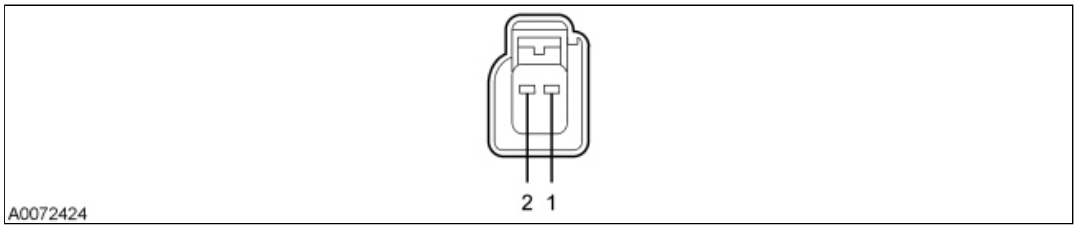
Symptom Chart

Symptom Chart

Condition	Possible Causes	Action
• The courtesy lamps are inoperative	• Fuse(s). • Circuitry open/shorted. • Door ajar switch. • Lamp. • Smart junction box (SJB).	• GO to Pinpoint Test A.
• The demand lamps are inoperative	• Fuse(s). • Circuitry open. • Lamp.	• GO to Pinpoint Test B.
• The interior lamps are inoperative using the dimmer control	• Circuitry open. • Dimmer control. • Smart junction box (SJB).	• GO to Pinpoint Test C.
• The interior lamps stay ON continuously	• Door ajar switch. • Dimmer control. • Circuitry open/shorted. • Smart junction box (SJB).	• GO to Pinpoint Test D.
• The trunk lamp is inoperative	• Circuitry open/shorted. • Lamp. • Decklid ajar switch. • Smart junction box (SJB).	• GO to Pinpoint Test E.
• The trunk lamp stays ON continuously	• Circuitry open/shorted. • Decklid ajar switch. • Smart junction box (SJB).	• GO to Pinpoint Test F.
• The illuminated entry is inoperative when using the remote keyless entry (RKE) transmitter/keyless entry keypad	• Smart junction box (SJB).	• GO to Pinpoint Test G.

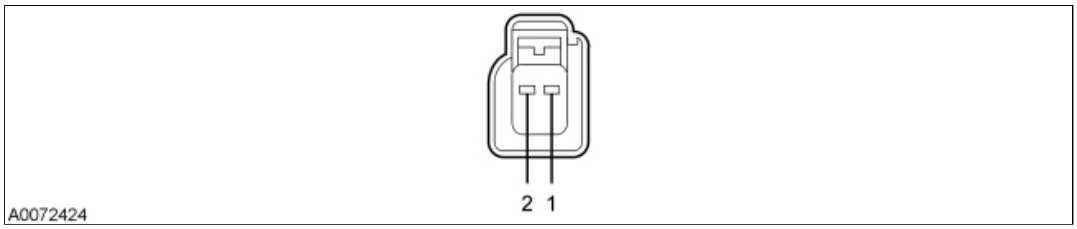
Connector Circuit Reference

Driver Door Ajar Switch C526



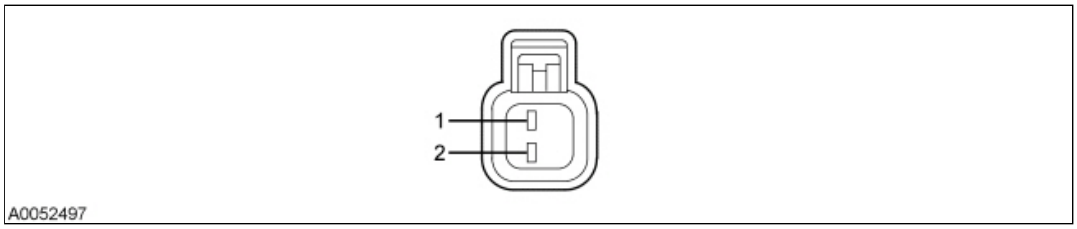
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
1	1205 (BK) Driver door ajar switch ground	Resistance of less than 5 ohms to chassis ground.
2	1312 (LG/BK) driver door ajar switch to SJB	Greater than 10 volts at all times.

Passenger Door Ajar Switch C602



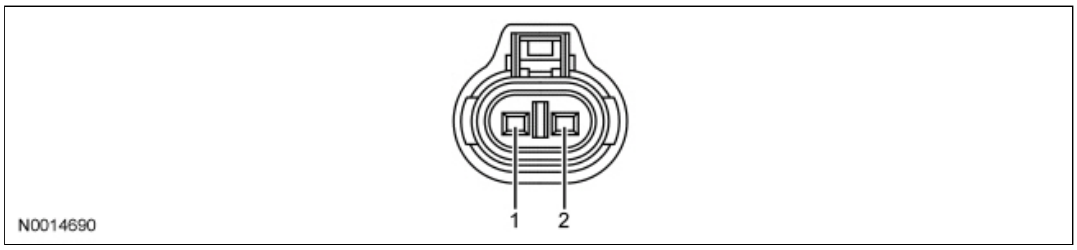
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
1	1205 (BK) passenger door ajar switch ground	Resistance of less than 5 ohms to chassis ground.
2	1314 (YE/LG) passenger door ajar switch to SJB	Greater than 10 volts at all times.

Decklid Ajar Switch C429



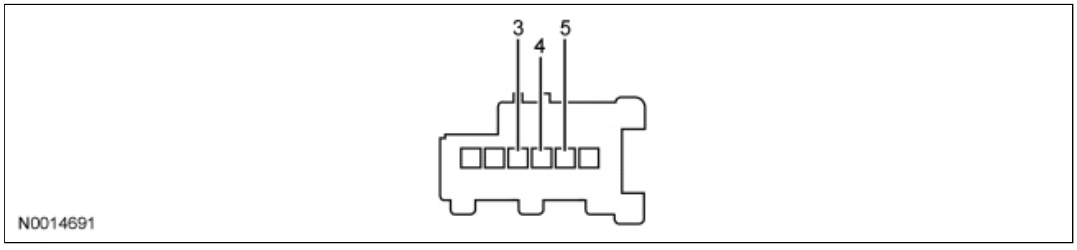
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
1	1351 (TN) decklid ajar switch to SJB	Greater than 10 volts at all times.
2	1205 (BK) decklid ajar switch ground	Resistance of less than 5 ohms to chassis ground.

Trunk Lamp C428



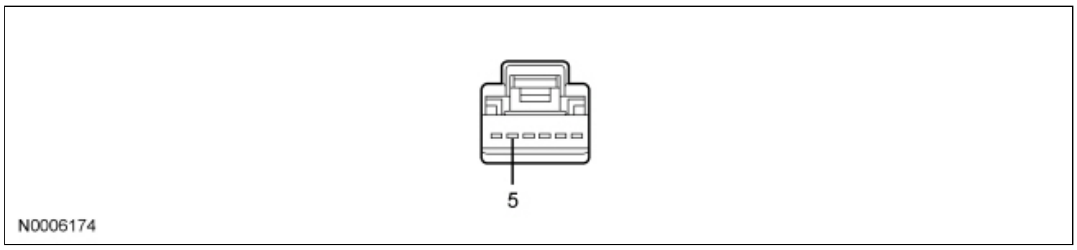
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
1	707 (WH/YE) trunk lamp voltage from the SJB	Greater than 10 volts when interior lamps are commanded ON.
2	1205 (BK) trunk lamp ground	Resistance of less than 5 ohms to chassis ground.

Overhead Console C930



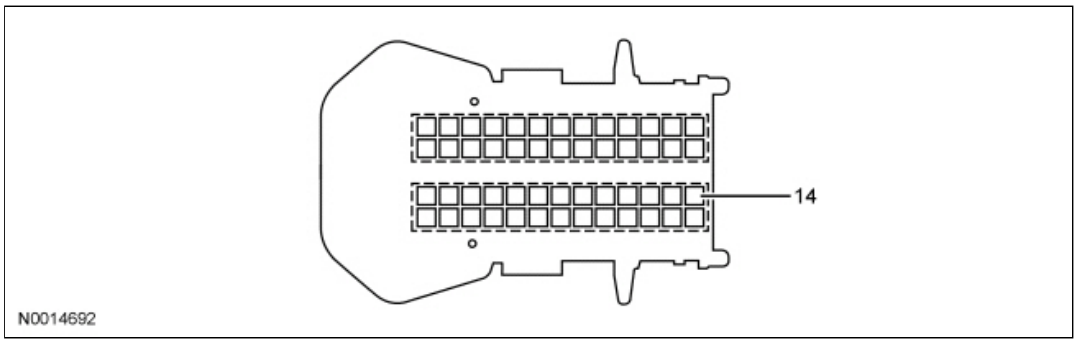
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
3	1205 (BK) overhead console map lamp ground	Resistance of less than 5 ohms to chassis ground.
4	54 (LG/YE) overhead console courtesy/dome lamp switched ground	Resistance of less than 5 ohms to chassis ground when the courtesy lamps are commanded ON.
5	53 (BK/LB) overhead console dome/map lamp power	Greater than 10 volts when interior lamps are commanded ON.

Dimmer Control Switch C2298



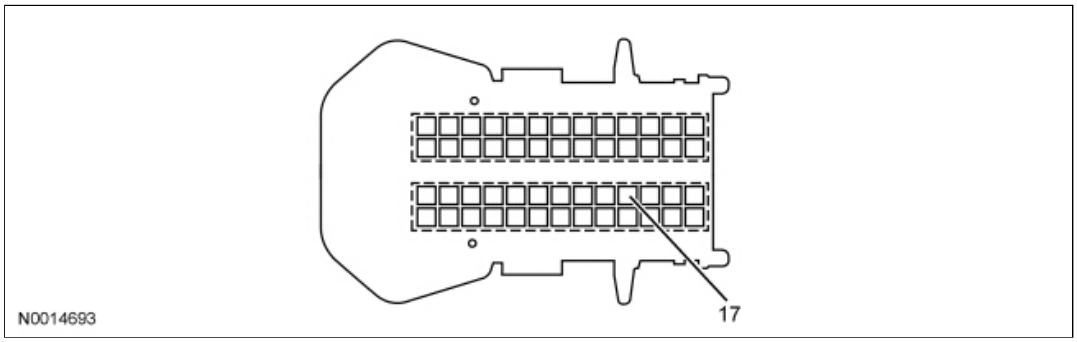
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
5	2085 (VT/YE) dimmer switch interior lamp override to SJB	Greater than 10 volts with the ignition ON.

SJB C2280b



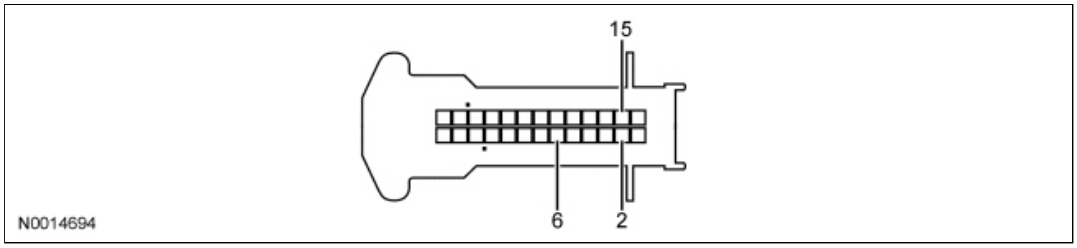
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
14	2085 (VT/YE) dimmer switch interior lamp override to SJB	Less than 5 ohms to chassis ground when the dimmer control is in the interior lamp position.

SJB C2280c



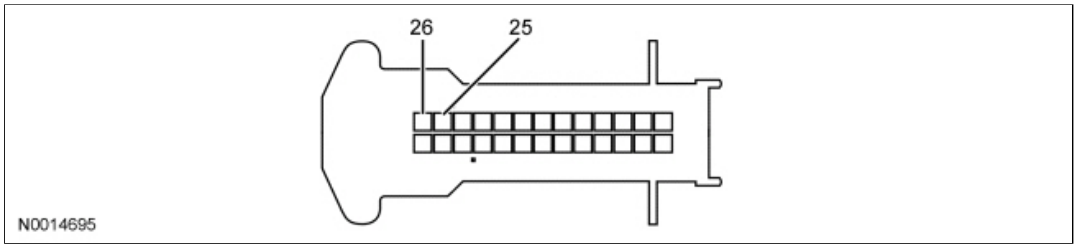
Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
17	1351 (TN) decklid ajar switch to SJB	Less than 5 ohms to chassis ground with the liftgate or decklid closed.

SJB C2280e



Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
2	1312 (LG/BK) driver door ajar switch to SJB	Less than 5 ohms to chassis ground with the door closed.
6	1314 (YE/LG) passenger door ajar switch to SJB	Less than 5 ohms to chassis ground with the door closed.
15	707 (WH/YE) trunk lamp power	Less than 100 ohms to chassis ground.

SJB 2280f



Pin Number(s)	Circuit Designation/Description	Normal Condition/Measurement
25	54 (LG/YE) overhead console courtesy/dome lamp switched ground	Greater than 10,000 ohms to chassis ground and 0 volts.
26	53 (BK/LB) overhead console dome/map lamp power	Greater than 10,000 ohms to chassis ground and 0 volts.

Pinpoint Tests

Pinpoint Test A: The Courtesy Lamps Are Inoperative

Normal Operation

Under normal operation, ground for the ajar switches is provided through circuit 1205 (BK). When any door is ajar, ground to the smart junction box (SJB) is interrupted. The SJB provides voltage to the lamps through circuit 53 (BK/LB). When any door is closed, ground is provided to the SJB through the circuits below.

- Driver door ajar switch, circuit 1312 (LG/BK).
- Passenger door ajar switch, circuit 1314 (YE/LG).

Possible Causes

- An open in circuit 53 (BK/LB) or 54 (LG/YE)
- A short to ground in circuit 53 (BK/LB), 1312 (LG/BK) or 1314 (YE/LG)
- A short to voltage in circuit 54 (LG/YE)
- Door ajar switch
- Lamp
- Smart junction box (SJB)

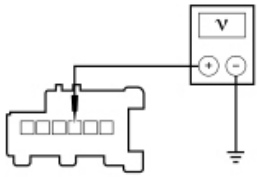
PINPOINT TEST A : THE COURTESY LAMPS ARE INOPERATIVE

A1 CHECK SMART JUNCTION BOX (SJB) DTCS
• Ignition ON. • Check the SJB for DTCs. **Was DTC B2021 or B2550 present?**

Yes	If DTC B2021, GO to A2. If DTC B2550, GO to A3.
No	GO to A4.

A2 CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Overhead Console C930.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Ignition ON.
- Measure the voltage between overhead console C930 Pin 4, circuit 54 (LG/YE) and ground.



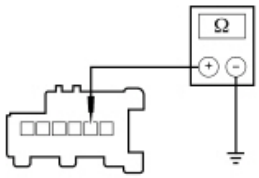
N0014696

Is voltage present?

Yes	REPAIR circuit 54 (LG/YE) for a short to voltage. TEST the system for normal operation.
No	GO to A11.

A3 CHECK CIRCUIT 53 (BK/LB) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Overhead Console C930.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Measure the resistance between overhead console C930 Pin 5, circuit 53 (BK/LB) and ground.



N0014697

Is the resistance greater than 10,000 ohms?

Yes	GO to A11.
No	REPAIR circuit 53 (BK/LB) for a short to ground. TEST the system for normal operation.

A4 CHECK THE DOOR AJAR SJB PIDS

- Enter the following diagnostic mode on the scan tool: Door Ajar SJB PIDs.
- Open all doors.

Do the door ajar PIDs read open?

Yes	GO to A7.
No	GO to A5.

A5 CHECK THE DOOR AJAR SJB PIDS

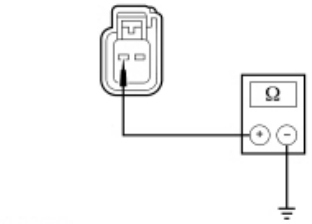
- Ignition OFF.
- Disconnect: Door Ajar Switch (Driver) C526 or (Passenger) C602.
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: Door Ajar SJB PIDs.
- Monitor the door ajar PIDs.

Do the door ajar PIDs read open?

Yes	INSTALL a new door ajar switch. TEST the system for normal operation.
No	GO to A6.

A6 CHECK THE AJAR SIGNAL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280e.
- Disconnect: Door Ajar Switch (Driver) C526 or (Passenger) C602.
- Measure the resistance between ground and the:
  - (driver door ajar switch indicated closed) driver front door ajar switch C526 Pin 2 , circuit 1312 (LG/BK).
  - (passenger door ajar switch indicated closed) passenger front door ajar switch C602 Pin 2, circuit 1314 (YE/LG).



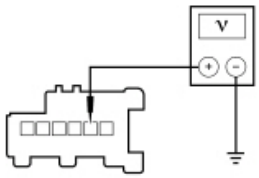
N0014698

Is the resistance greater than 10,000 ohms?

Yes	GO to A11.
No	REPAIR circuit 1312 (LG/BK) or 1314 (YE/LG) for a short to ground. TEST the system for normal operation.

A7 CHECK CIRCUIT 53 (BK/LB) FOR VOLTAGE

- Ignition OFF.
- Disconnect: Overhead Console C930.
- Ignition ON.
- Measure the voltage between overhead console C930 Pin 5, circuit 53 (BK/LB) and ground.



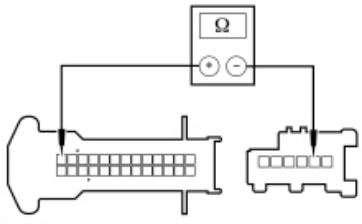
N0014699

Is the voltage greater than 10 volts?

Yes	GO to A9.
No	GO to A8.

A8 CHECK CIRCUIT 53 (BK/LB) FOR AN OPEN

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Measure the resistance between overhead console C930 Pin 5, circuit 53 (BK/LB) and SJB C2280F Pin 26, circuit 53 (BK/LB).



N0014700

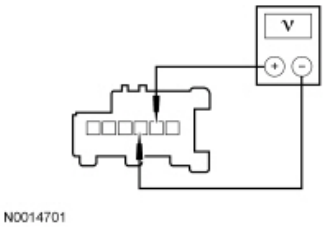
Is the resistance less than 5 ohms?

Yes	GO to A11.

No	REPAIR circuit 53 (BK/LB) for an open. TEST the system for normal operation.

A9 CHECK GROUND TO THE LAMP

- Measure the voltage between overhead console C930 Pin 5, circuit 53 (BK/LB) and overhead console C930 Pin 4, circuit 54 (LG/YE).



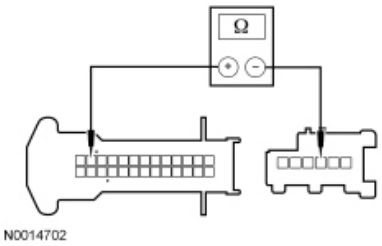
N0014701

Is the voltage greater than 10 volts?

Yes	INSTALL a new lamp. TEST the system for normal operation.
No	GO to A10.

A10 CHECK CIRCUIT 54 (LG/YE) FOR AN OPEN

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Measure the resistance between overhead console C930 Pin 4, circuit 54 (LG/YE) and SJB C2280F Pin 25, circuit 54 (LG/YE).



N0014702

Is the resistance less than 5 ohms?

Yes	GO to A11.
No	REPAIR circuit 54 (LG/YE) for an open. TEST the system for normal operation.

A11 CHECK THE SJB PINS AND CONNECTORS

- Disconnect all SJB module connectors. Check for:
  - corrosion
  - pushed-out pins
- Connect all SJB module 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 Demand Lamps Are Inoperative

Normal Operation

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

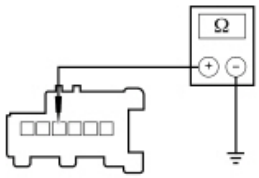
Possible Causes

- An open in circuit 1205 (BK)
- Lamp

PINPOINT TEST B : THE DEMAND LAMPS ARE INOPERATIVE

B1 CHECK CIRCUIT 1205 (BK) FOR AN OPEN

- Ignition OFF.
- Disconnect: Overhead Console C930.
- Measure the resistance between overhead console C930 Pin 3, circuit 1205 (BK) and ground.



N0014703

Is the resistance less than 5 ohms?

Yes	If the courtesy lamps are also inoperative, GO to Pinpoint Test A. If the courtesy lamps operate correctly, INSTALL a new lamp. TEST the system for normal operation.
No	REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.

Pinpoint Test C: The Interior Lamps Are Inoperative Using The Dimmer Control

Normal Operation

Under normal operation, when the dimmer control is rotated to the interior lamp detent position, ground is provided to the smart junction box (SJB) through circuit 2085 (VT/YE).

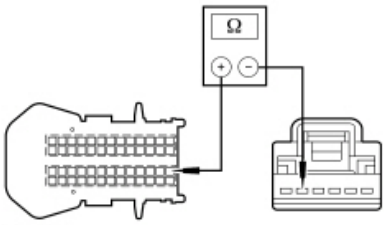
Possible Causes

- An open in circuit 2085 (VT/YE)
- Smart junction box (SJB)
- Dimmer control switch

PINPOINT TEST C : THE INTERIOR LAMPS ARE INOPERATIVE USING THE DIMMER CONTROL

C1 CHECK CIRCUIT 2085 (VT/YE) FOR AN OPEN

- Ignition OFF.
- Disconnect: Dimmer Control Switch C2298.
- Disconnect: Smart Junction Box (SJB) C2280b.
- Measure the resistance between SJB C2280B Pin 14, circuit 2085 (VT/YE) and dimmer control switch C2298 Pin 5, circuit 2085 (VT/YE).



N0014704

Is the resistance less than 5 ohms?

Yes	CARRY OUT the dimmer control/interior lamp switch component test. If OK, GO to C2.
No	REPAIR circuit 2085 (VT/YE) for an open. TEST the system for normal operation.

C2 CHECK THE SJB PINS AND CONNECTORS

- Disconnect all SJB module connectors. Check for:
  - corrosion
  - pushed-out pins
- Connect all SJB module 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 D: The Interior Lamps Stay On Continuously

Normal Operation

Under normal operation, ground for the ajar switches is provided through circuit 1205 (BK). When any door is ajar, ground to the smart junction box (SJB) is interrupted. The SJB provides voltage to the lamps through circuit 53 (BK/LB). When the dimmer control is rotated to the interior lamp detent position, ground is provided to the smart junction box (SJB) through circuit 2085 (VT/YE). When any door is closed, ground is provided to the SJB through the circuits below.

- Driver door ajar switch, circuit 1312 (LG/BK).
- Passenger door ajar switch, circuit 1314 (YE/LG).

Possible Causes

- An open in circuit 1205 (BK), 1312 (LG/BK) or 1314 (YE/LG)
- A short to ground in circuit 2085 (VT/YE) or 54 (LG/YE)
- A short to voltage in circuit 53 (BK/LB), 1312 (LG/BK) or 1314 (YE/LG)
- Door ajar switch
- Dimmer control switch
- Smart junction box (SJB)

PINPOINT TEST D : THE INTERIOR LAMPS STAY ON CONTINUOUSLY

D1 CHECK THE SMART JUNCTION BOX (SJB) DTCS

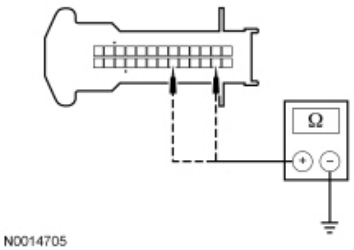
- Ignition ON.
- Check the SJB for DTCs.

Was DTC B1319, B1327 or B2554 present?

Yes	If DTC B1319 or B1327, GO to D2. If DTC B2554, GO to D6.
No	GO to D7.

D2 CHECK THE AJAR SIGNAL CIRCUITS FOR GROUND

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280e.
- Measure the resistance between ground and:
  - For DTC B1319: SJB C2280E Pin 2, circuit 1312 (LG/BK).
  - For DTC B1327: SJB C2280E Pin 6, circuit 1314 (YE/LG).

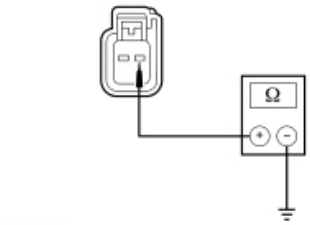


Is the resistance less than 5 ohms?

Yes	GO to D10.
No	GO to D3.

D3 CHECK CIRCUIT 1205 (BK) FOR AN OPEN

- Ignition OFF.
- Disconnect: Door Ajar Switch (Driver) C526 or (Passenger) C602.
- Measure the resistance between ground and:
  - For DTC B1319: driver door ajar switch C526 Pin 1, circuit 1205 (BK).
  - For DTC B1327: passenger door ajar switch C602 Pin 1, circuit 1205 (BK).

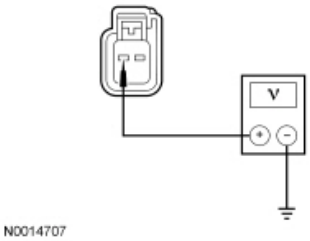


Is the resistance less than 5 ohms?

Yes	GO to D4.
No	REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.

D4 CHECK THE AJAR SIGNAL CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure the voltage between ground and:
  - For DTC B1319: driver door ajar switch C526 Pin 2, circuit 1312 (LG/BK).
  - For DTC B1327: passenger door ajar switch C602 Pin 2, circuit 1314 (YE/LG).

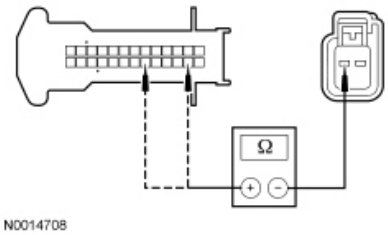


Is voltage present?

Yes	REPAIR circuit 1312 (LG/BK) or 1314 (YE/LG) for a short to voltage. TEST the system for normal operation.
No	GO to D5.

D5 CHECK THE DOOR AJAR SIGNAL CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure the resistance between:
  - For DTC B1319: SJB C2280E Pin 2, circuit 1312 (LG/BK) and driver front door ajar switch C526 Pin 2 , circuit 1312 (LG/BK).
  - For DTC B1327: SJB C2280E Pin 6, circuit 1314 (YE/LG) and passenger front door ajar switch C602 Pin 2, circuit 1314 (YE/LG).

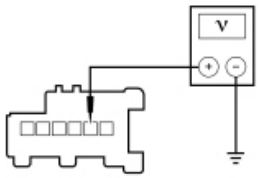


Is the resistance less than 5 ohms?

Yes	INSTALL a new door ajar switch. TEST the system for normal operation.
No	REPAIR circuit 1312 (LG/BK) or 1314 (YE/LG) for an open. TEST the system for normal operation.

D6 CHECK CIRCUIT 53 (BK/LB) FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Disconnect: Overhead Console C930.
- Ignition ON.
- Measure the voltage between overhead console C930 Pin 5, circuit 53 (BK/LB) and ground.



N0014699

Is voltage present?

Yes	REPAIR circuit 53 (BK/LB) for a short to voltage. TEST the system for normal operation.
No	GO to D10.

D7 CHECK THE DOME LAMP SWITCH AJAR SJB PID

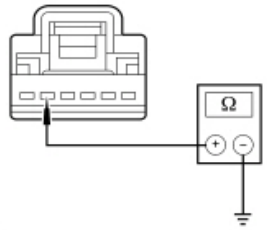
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: Dome Lamp Switch SJB PID.
- Close all doors and disengage the dome lamp override switch.

Does the dome lamp switch PID read active?

Yes	GO to D8.
No	GO to D9.

D8 CHECK CIRCUIT 2085 (VT/YE) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Dimmer Control C2298.
- Disconnect: Smart Junction Box (SJB) C2280b.
- Measure the resistance between the dimmer control C2298 Pin 5, circuit 2085 (VT/YE) and ground.



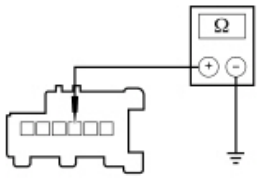
N0014709

Is the resistance greater than 10,000 ohms?

Yes	CARRY out the dimmer control/interior lamp switch component test. If OK, GO to D10.
No	REPAIR circuit 2085 (VT/YE) for a short to ground. TEST the system for normal operation.

D9 CHECK CIRCUIT 54 (LG/YE) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Overhead Console C930.
- Disconnect: Smart Junction Box (SJB) C2280f.
- Measure the resistance between overhead console C930 Pin 4, circuit 54 (LG/YE) and ground.



N0014710

Is the resistance greater than 10,000 ohms?

Yes	GO to D10.

No	REPAIR circuit 54 (LG/YE) for a short to ground. TEST the system for normal operation.

D10 CHECK THE SJB PINS AND CONNECTORS

- Disconnect all SJB module connectors. Check for:
  - corrosion
  - pushed-out pins
- Connect all SJB module 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 E: The Trunk Lamp Is Inoperative

Normal Operation

Under normal operation, ground for the ajar switches is provided through circuit 1205 (BK). When the decklid is ajar, ground to the smart junction box (SJB) is interrupted. The SJB provides voltage to the lamps through circuit 707 (WH/YE). When any door is closed, ground is provided to the SJB through the circuit 1351 (TN).

Possible Causes

- An open in circuit 1205 (BK) or 707 (WH/YE)
- A short to ground in circuit 1351 (TN) or 707 (WH/YE)
- Decklid ajar switch
- Smart junction box (SJB)

PINPOINT TEST E : THE TRUNK LAMP IS INOPERATIVE

E1 CHECK SMART JUNCTION BOX (SJB) DTCS

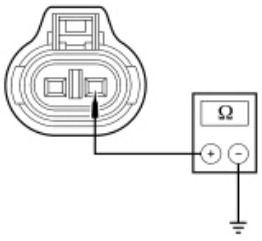
- Ignition ON.
- Check the SJB for DTCs.

Was DTC B1084 present?

Yes	GO to E2.
No	GO to E6.

E2 CHECK CIRCUIT 1205 (BK) FOR AN OPEN

- Ignition OFF.
- Disconnect: Trunk Lamp C428.
- Measure the resistance between trunk lamp C428 Pin 2, circuit 1205 (BK) and ground.

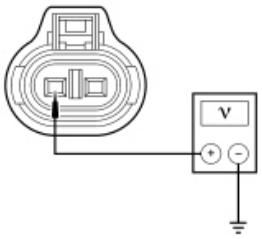


Is the resistance less than 5 ohms?

Yes	GO to E3.
No	REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.

E3 CHECK CIRCUIT 707 (WH/YE) FOR VOLTAGE

- Ignition ON.
- Measure the voltage between trunk lamp C428 Pin 1, circuit 707 (WH/YE) and ground.



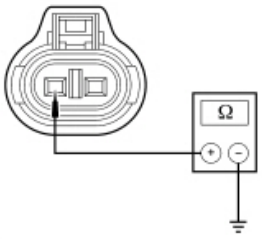
N0014712

Is the voltage greater than 10 volts?

Yes	INSTALL a new lamp. TEST the system for normal operation.
No	GO to E4.

E4 CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280e.
- Measure the resistance between trunk lamp C428 Pin 1, circuit 707 (WH/YE) and ground.



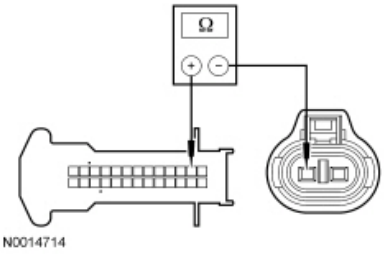
N0014713

Is the resistance greater than 10,000 ohms?

Yes	GO to E5.
No	REPAIR circuit 707 (WH/YE) for a short to ground. TEST the system for normal operation.

E5 CHECK CIRCUIT 707 (WH/YE) FOR AN OPEN

- Measure the resistance between trunk lamp C428 Pin 1, circuit 707 (WH/YE) and SJB C2280E Pin 15, circuit 707 (WH/YE).



N0014714

Is the resistance less than 5 ohms?

Yes	GO to E9.
No	REPAIR circuit 707 (WH/YE) for an open. TEST the system for normal operation.

E6 CHECK THE DECKLID AJAR SJB PID

- Enter the following diagnostic mode on the scan tool: Decklid Ajar SJB PID.
- Open the decklid.

Does the decklid ajar PID read open?

Yes	GO to E9.
No	GO to E7.

E7 CHECK THE DOOR AJAR SJB PIDS

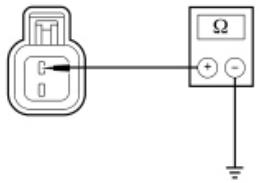
- Ignition OFF.
- Disconnect: Decklid Ajar Switch C429.
- Ignition ON.
- Enter the following diagnostic mode on the scan tool: Decklid Ajar SJB PID.
- Monitor the decklid ajar PID.

Does the decklid ajar PID read open?

Yes	INSTALL a new decklid ajar switch. TEST the system for normal operation.
No	GO to E8.

E8 CHECK THE AJAR SIGNAL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280c.
- Measure the resistance between ground and decklid ajar switch C429 Pin 1, circuit 1351 (TN).



N0014715

Is the resistance greater than 10,000 ohms?

Yes	GO to E9.
No	REPAIR circuit 1351 (TN) for a short to ground. TEST the system for normal operation.

E9 CHECK THE SJB PINS AND CONNECTORS

- Disconnect all SJB module connectors. Check for:
  - corrosion
  - pushed-out pins
- Connect all SJB module 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 F: The Trunk Lamp Stays On Continuously

Normal Operation

Under normal operation, ground for the ajar switches is provided through circuit 1205 (BK). When the decklid is ajar, ground to the smart junction box (SJB) is interrupted. The SJB provides voltage to the lamps through circuit 707 (WH/YE). When any door is closed, ground is provided to the SJB through the circuit 1351 (TN).

Possible Causes

- An open in circuit 1205 (BK) or 1351 (TN)
- A short to voltage in circuit 707 (WH/YE)
- Decklid ajar switch
- Smart junction box (SJB)

PINPOINT TEST F : THE TRUNK LAMP STAYS ON CONTINUOUSLY

F1 CHECK THE SMART JUNCTION BOX (SJB) DTCS

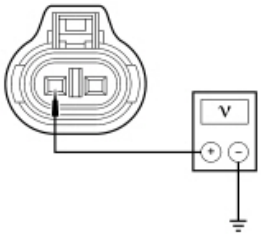
- Ignition ON.
- Check the SJB for DTCs.

Was DTC B1084 present?

Yes	GO to F2.
No	GO to F3.

F2 CHECK CIRCUIT 707 (WH/YE) FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280e.
- Disconnect: Trunk Lamp C428.
- Ignition ON.
- Measure the voltage between trunk lamp C428 Pin 1, circuit 707 (WH/YE) and ground.



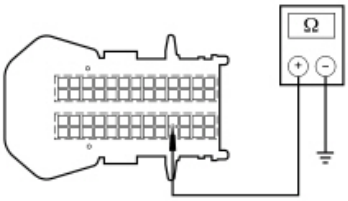
N0014712

Is voltage present?

Yes	REPAIR circuit 707 (WH/YE) for a short to voltage. TEST the system for normal operation.
No	GO to F7.

F3 CHECK THE AJAR SIGNAL CIRCUIT FOR GROUND

- Ignition OFF.
- Disconnect: Smart Junction Box (SJB) C2280c.
- Measure the resistance between SJB C2280C Pin 17, circuit 1351 (TN) and ground.



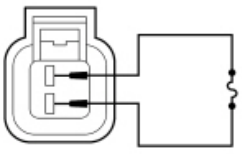
N0014716

Is the resistance less than 5 ohms?

Yes	GO to F7.
No	GO to F4.

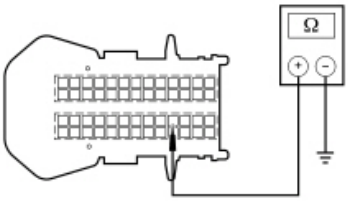
F4 CHECK THE DECKLID AJAR SWITCH

- Disconnect: Decklid Ajar Switch C429.
- Place a fused jumper between decklid ajar switch C429 Pin 2 , circuit 1205 (BK) and decklid ajar switch C429 Pin 1, circuit 1351 (TN).



A0062632

- Measure the resistance between SJB C2280C Pin 17, circuit 1351 (TN) and ground.



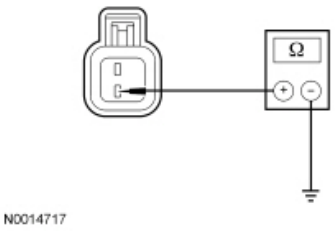
N0014716

Is the resistance less than 5 ohms?

Yes	INSTALL a new ajar switch. TEST the system for normal operation.
No	GO to F5.

F5 CHECK CIRCUIT 1205 (BK) FOR AN OPEN

- Measure the resistance between decklid ajar switch C429 Pin 2, circuit 1205 (BK) and ground.

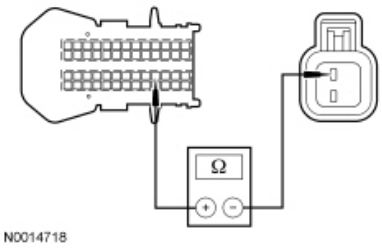


Is the resistance less than 5 ohms?

Yes	GO to F6.
No	REPAIR circuit 1205 (BK) for an open. TEST the system for normal operation.

F6 CHECK THE AJAR SIGNAL CIRCUIT FOR AN OPEN

- Measure the resistance between SJB C2280C Pin 17, circuit 1351 (TN) and decklid ajar switch C429 Pin 1, circuit 1351 (TN).



Is the resistance less than 5 ohms?

Yes	GO to F7.
No	REPAIR circuit 1351 (TN) for an open. TEST the system for normal operation.

F7 CHECK THE SJB PINS AND CONNECTORS

- Disconnect all SJB module connectors. Check for:
  - corrosion
  - pushed-out pins
- Connect all SJB module 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 G: The Illuminated Entry is Inoperative

Normal Operation

Under normal operation, when the smart junction box (SJB) turns ON the interior lamps, it provides voltage to the courtesy lamps through circuit 53 (BK/LB). Ground for the lamps is provided through circuit 1205 (BK).

Possible Causes

- SJB

PINPOINT TEST G : THE ILLUMINATED ENTRY IS INOPERATIVE

G1 CHECK THE VEHICLE EQUIPMENT

- Check to see if the vehicle is equipped with remote keyless entry (RKE) and keyless entry keypad.

Is the vehicle equipped with remote keyless entry (RKE)?

Yes	GO to G2.
No	INSTALL a new SJB. TEST the system for normal operation.

G2 CHECK THE RKE TRANSMITTER

- Using the RKE transmitter, lock and unlock the doors.

Do the doors lock and unlock?

Yes	INSTALL a new SJB. TEST the system for normal operation.
No	REFER to Section 501-14 to continue diagnosis of the RKE system.