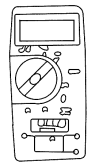
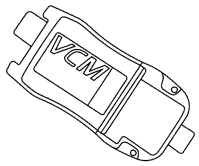
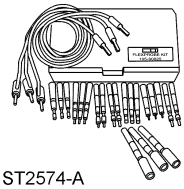
DIAGNOSIS AND TESTING

Turn Signal and Hazard Lamps

Special Tool(s)

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

Inspection and Verification

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

Visual Inspection Chart

Mechanical	Electrical
• Multifunction switch • Hazard flasher switch	• Circuitry • Bulbs • 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.

NOTE: Make sure the headlamp switch is in the OFF position.

NOTE: Make sure the multifunction switch is in the LOW BEAM position.

4. **NOTE:** Make sure to use the latest scan tool software release.

   If the cause is not visually evident, connect the scan tool to the data link connector (DLC).

5. **NOTE:** The vehicle communication module (VCM) LED prove-out confirms power and ground from the DLC are provided to the VCM.

   If the scan tool does not communicate with the VCM:

   - Check the VCM connection to the vehicle.
   - Check the scan tool connection to the VCM.
   - Refer to Section 418-00, No Power To The Scan Tool, to diagnose no communication with the scan tool.

6. If the scan tool does not communicate with the vehicle:

   - Verify the ignition key is in the ON position.
   - Verify the scan tool operation with a known good vehicle.
   - Refer to Section 418-00 to diagnose no response from the powertrain control module (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.
9. If the DTCs retrieved are related to the concern, go to the Smart Junction Box (SJB) Diagnostic Trouble Code (DTC) Index. For all other DTCs, refer to Section 419-10.
10. If no DTCs related to the concern are retrieved, GO to Symptom Chart.

DIAGNOSIS AND TESTING (Continued)

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

DTC	Description	Action
B1342	ECU is Faulted	REPAIR all other DTCs first. CLEAR the DTCs. RETRIEVE the DTCs. If DTC B1342 is retrieved again, INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation.
B1499	Lamp Turn Signal Left Circuit Failure	GO to Pinpoint Test K.
B1502	Lamp Turn Signal Left Circuit Short to Ground	GO to Pinpoint Test K.
B1503	Lamp Turn Signal Right Circuit Failure	GO to Pinpoint Test K.
B1506	Lamp Turn Signal Right Circuit Short to Ground	GO to Pinpoint Test K.
B2048	Left Rear Turn Lamp Circuit Short to Ground	REFER to Stoplamps in this section to continue diagnosis.
B2049	Left Rear Turn Lamp Circuit Open	REFER to Stoplamps in this section to continue diagnosis.
B2050	Right Rear Turn Lamp Circuit Short to Ground	REFER to Stoplamps in this section to continue diagnosis.
B2051	Right Rear Turn Lamp Circuit Open	REFER to Stoplamps in this section to continue diagnosis.
B2071	Hazard Switch Signal Short to Ground	If the hazard lamps are inoperative, GO to Pinpoint Test L. If the hazard lamps are always on, GO to Pinpoint Test M.
B2281	Right Turn Switch Short to Ground	GO to Pinpoint Test J.
B2282	Left Turn Switch Short to Ground	GO to Pinpoint Test J.
B2529	Left Rear Turn Lamp Circuit Failure	REFER to Stoplamps in this section to continue diagnosis.
All other DTCs	—	REFER to Section 419-10.

Symptom Chart

Symptom Chart

Condition	Possible Sources	Action
• No communication with the smart junction box (SJB)	• Circuitry • SJB	• REFER to Section 418-00.
• The turn signal lamps are inoperative	• Circuitry • Multifunction switch • SJB	• GO to Pinpoint Test I.
• The turn signal lamps are always on	• Circuitry • Multifunction switch • SJB	• GO to Pinpoint Test J.
• One turn signal lamp is inoperative/always on	• Circuitry • Bussed electrical center (BEC) • SJB	• GO to Pinpoint Test K.
• The hazard lamps are inoperative/always on	• Circuitry • Hazard flasher switch • SJB	• GO to Pinpoint Test L.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Tests

Pinpoint Test I: The Turn Signal Lamps Are Inoperative

Refer to Wiring Diagrams Cell 90, Turn Signal/Stop/Hazard Lamps for schematic and connector information.

Normal Operation

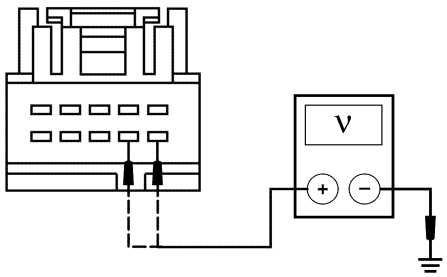
The smart junction box (SJB) sends a voltage reference signal to the multifunction switch through circuit 1393 (LB/RD) (LH turn signal) and circuit 1392 (LG/OG) (RH turn signal). When the multifunction switch is placed in the LH or RH TURN position, the signal is routed to ground through the SJB.

Possible Causes

- Circuit 1392 (LG/OG) open or short to voltage
- Circuit 1393 (LB/RD) open or short to voltage
- Multifunction switch
- SJB

PINPOINT TEST I: THE TURN SIGNAL LAMPS ARE INOPERATIVE

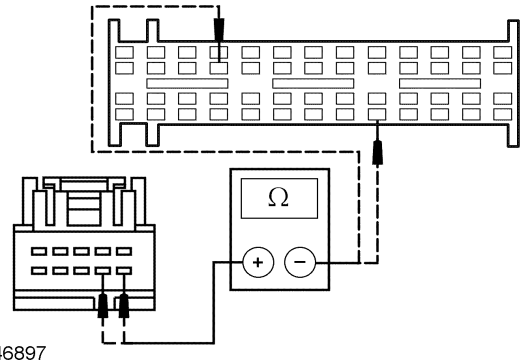
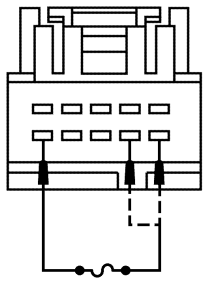
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
I1	**CHECK THE HIGH BEAM OPERATION**	
	• Key in ON position. • Place the headlamp switch in the HEADLAMPS ON position. • Place the multifunction switch in the HIGH BEAM position. • **Do the high beams operate correctly?**	**Yes** GO to I2. **No** REFER to Headlamps in this section.
I2	**CHECK CIRCUIT 1393 (LB/RD) OR CIRCUIT 1392 (LG/OG) FOR A SHORT TO VOLTAGE**	
	• Key in OFF position. • Disconnect: Multifunction Switch C202. • Disconnect: SJB C2280b. • Key in ON position. • Measure the voltage between the multifunction switch C202-6 (LH turn signal), circuit 1393 (LB/RD), harness side and ground; and between the multifunction switch C202-7 (RH turn signal), circuit 1392 (LG/OG), harness side and ground.  N0046896 • **Is any voltage present?**	**Yes** REPAIR the circuit in question. TEST the system for normal operation. **No** GO to I3.
I3	**CHECK CIRCUIT 1393 (LB/RD) OR CIRCUIT 1392 (LG/OG) FOR AN OPEN**	
	• Key in OFF position.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST I: THE TURN SIGNAL LAMPS ARE INOPERATIVE (Continued)

Test Step		Result / Action to Take
I3	**CHECK CIRCUIT 1393 (LB/RD) OR CIRCUIT 1392 (LG/OG) FOR AN OPEN (Continued)**	
	• Measure the resistance between the multifunction switch C202-6 (LH turn signal), circuit 1393 (LB/RD) and the SJB C2280b-48, circuit 1393 (LB/RD), harness side; and between the multifunction switch C202-7 (RH turn signal), circuit 1392 (LG/OG) and the SJB C2280b-17, circuit 1392 (LG/OG), harness side.  N0046897 • **Is the resistance less than 5 ohms?**	**Yes** GO to I4. **No** REPAIR the circuit in question. TEST the system for normal operation.
I4	**CHECK THE MULTIFUNCTION SWITCH**	
	• Connect: SJB C2280b. • Connect a fused (5A) jumper wire between the multifunction switch C202-6 (LH turn signal), circuit 1393 (LB/RD) and the multifunction switch C202-10, circuit 1396 (VT/WH), harness side; or between the multifunction switch C202-7 (RH turn signal), circuit 1392 (LG/OG) and the multifunction switch C202-10, circuit 1396 (VT/WH), harness side.  N0046898 • Key in ON position. • **Does the LH or RH turn signal operate?**	**Yes** INSTALL a new multifunction switch. REFER to Section 211-05. TEST the system for normal operation. **No** REMOVE the jumper wire. GO to I5.
I5	**CHECK FOR CORRECT SJB OPERATION**	
	• Key in OFF position. • Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test J: The Turn Signal Lamps Are Always On

Refer to Wiring Diagrams Cell 90, Turn Signal/Stop/Hazard Lamps for schematic and connector information.

Normal Operation

The smart junction box (SJB) sends a voltage reference signal to the multifunction switch through circuit 1393 (LB/RD) (LH turn signal) and circuit 1392 (LG/OG) (RH turn signal). When the multifunction switch is placed in the LH or RH TURN position, the signal is routed to ground through the SJB.

DTC B2281 — sets when the SJB detects a short to ground from the RH turn signal input circuit.

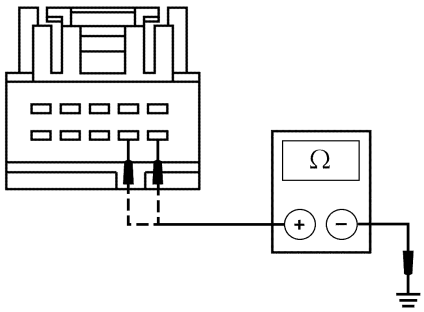
DTC B2282 — sets when the SJB detects a short to ground from the LH turn signal input circuit.

Possible Causes

- Circuit 1392 (LG/OG) short to ground
- Circuit 1393 (LB/RD) short to ground
- Multifunction switch
- SJB

PINPOINT TEST J: THE TURN SIGNAL LAMPS ARE ALWAYS ON

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

Test Step		Result / Action to Take
J1	**CHECK THE MULTIFUNCTION SWITCH**	
	• Key in OFF position. • Disconnect: Multifunction Switch C202. • Key in ON position. • **Do the turn signal lamps continue to flash on and off?**	**Yes** GO to J2. **No** INSTALL a new multifunction switch. REFER to Section 211-05. CLEAR the DTCs. REPEAT the self-test.
J2	**CHECK CIRCUIT 1393 (LB/RD) OR CIRCUIT 1392 (LG/OG) FOR A SHORT TO GROUND**	
	• Key in OFF position. • Disconnect: SJB C2280b. • Measure the resistance between the multifunction switch C202-6 (LH turn signal), circuit 1393 (LB/RD), harness side and ground; and between the multifunction switch C202-7 (RH turn signal), circuit 1392 (LG/OG), harness side and ground.  N0046900 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to J3. **No** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.
J3	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test K: One Turn Signal Lamp Is Inoperative/Always On

Refer to Wiring Diagrams Cell 90, Turn Signal/Stop/Hazard Lamps for schematic and connector information.

Normal Operation

When the smart junction box (SJB) detects a request for the LH or RH turn signal, the SJB provides voltage, through the bussed electrical center (BEC), to the front turn lamps through circuit 1342 (GY/BK) (LH front turn lamp) or circuit 1341 (DB/OG) (RH front turn lamp). The turn lamps are grounded through circuit 1205 (BK) through the BEC.

DTC B1499 — sets when the SJB detects an open or short to voltage from the LH front turn signal voltage supply circuit.

DTC B1502 — sets when the SJB detects a short to ground from the LH front turn signal voltage supply circuit.

DTC B1503 — sets when the SJB detects an open or short to voltage from the RH front turn signal voltage supply circuit.

DTC B1506 — sets when the SJB detects a short to ground from the RH front turn signal voltage supply circuit.

Possible Causes

- Circuit 1341 (DB/OG) open, short to ground or voltage
- Circuit 1342 (GY/BK) open, short to ground or voltage
- Circuit 1205 (BK) open
- BEC
- SJB

PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON

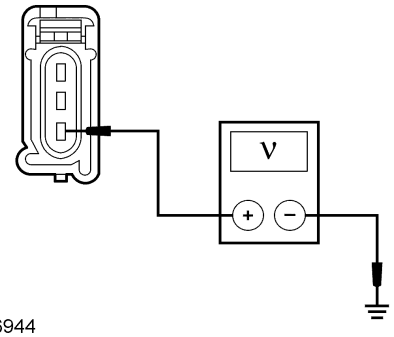
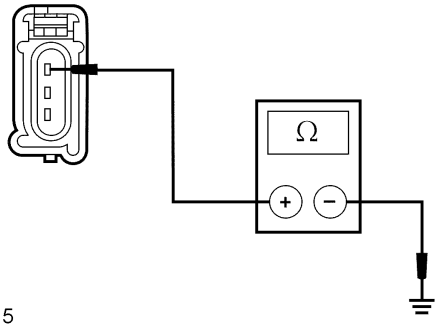
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
K1	**CHECK THE STOPLAMPS**	**Yes** GO to K2. **No** REFER to Stoplamps in this section.
	• Key in ON position. • Apply and release the brake pedal, while observing the stoplamps. • **Do the stoplamps operate correctly?**	
K2	**DETERMINE IF A LAMP IS ALWAYS ON**	**Yes** GO to K3. **No** GO to K6.
	NOTE: Make sure the multifunction switch is in the NEUTRAL position. • Observe the front turn lamps. • **Is either turn lamp illuminated?**	
K3	**CHECK THE TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE**	**Yes** GO to K4. **No** GO to K15.
	• Key in OFF position. • Disconnect: SJB 2280d. • Key in ON position. • **Does either turn lamp continue to illuminate?**	
K4	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO VOLTAGE (SJB TO BEC)**	**Yes** GO to K5. **No** REPAIR circuit 1342 (GY/BK) (LH turn signal) or circuit 1341 (DB/OG) (RH turn signal). CLEAR the DTCs. REPEAT the self-test.
	• Key in OFF position. • Disconnect: BEC C1035a. • Key in ON position. • **Does either turn lamp continue to illuminate?**	
K5	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO VOLTAGE (BEC TO TURN LAMP)**	
	• Key in OFF position. • Disconnect: BEC C1035c.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

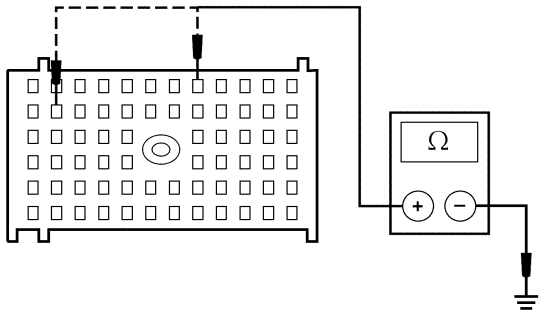
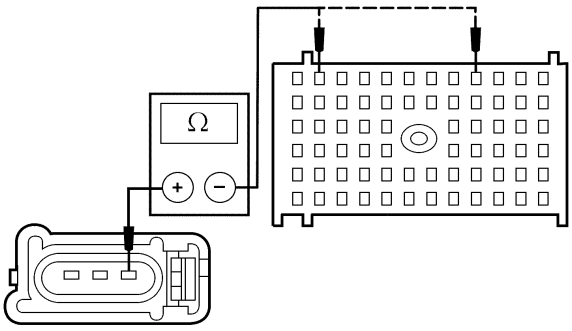
PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
K5	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO VOLTAGE (BEC TO TURN LAMP) (Continued)**	
	• Disconnect: Always On Lamp. • Key in ON position. • Measure the voltage between the LH front turn lamp C1023-3, circuit 1342 (GY/BK), harness side and ground; or between the RH front turn lamp C1043-3, circuit 1341 (DB/OG), harness side and ground.  N0046944 • **Is any voltage present?**	**Yes** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test. **No** INSTALL a new BEC. CLEAR the DTCs. REPEAT the self-test.
K6	**CHECK THE TURN LAMP GROUND CIRCUIT FOR AN OPEN**	
	• Key in OFF position. • Disconnect: Inoperative Turn Lamp. • Measure the resistance between the LH turn lamp C1023-1, circuit 1205 (BK), harness side and ground; or between the RH turn lamp C1043-1, circuit 1205 (BK), harness side and ground.  A0074015 • **Is the resistance less than 5 ohms?**	**Yes** GO to **K9**. **No** GO to **K7**.
K7	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN (BEC TO GROUND)**	
	• Key in OFF position. • Disconnect: BEC C1035c.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

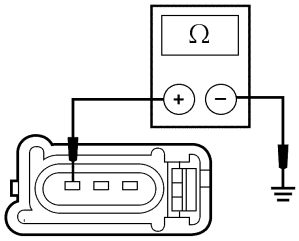
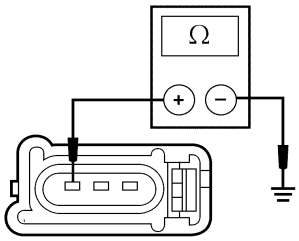
PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
K7	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN (BEC TO GROUND) (Continued)**	
	• Measure the resistance between the BEC C1035c-F5 (LH turn lamp), circuit 1205 (BK), harness side and ground; or between the BEC C1035c-E11 (RH turn lamp), circuit 1205 (BK), harness side and ground.  N0046899 • **Is the resistance less than 5 ohms?**	**Yes** GO to **K8**. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
K8	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN (TURN LAMP TO BEC)**	
	• Measure the resistance between the LH front turn lamp C1023-1, circuit 1205 (BK), harness side and the BEC C1035c-F4, circuit 1205 (BK), harness side; or between the RH front turn lamp C1043-1, circuit 1205 (BK), harness side and the BEC C1035c-F11, circuit 1205 (BK), harness side.  N0046901 • **Is the resistance less than 5 ohms?**	**Yes** INSTALL a new BEC. CLEAR the DTCs. REPEAT the self-test. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
K9	**CHECK THE TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND**	
	• Disconnect: SJB C2280d.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

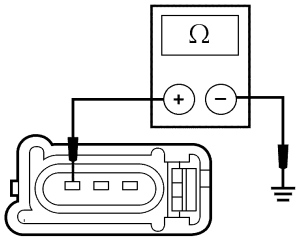
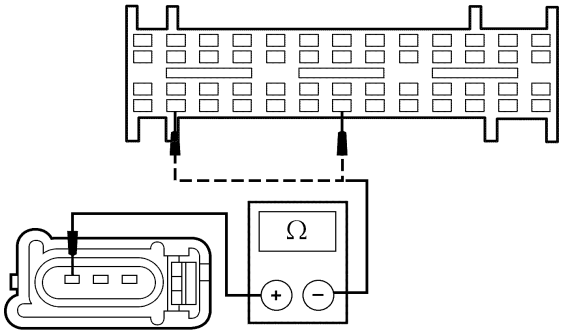
PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
K9	**CHECK THE TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND (Continued)**	
	• Measure the resistance between the LH turn lamp C1023-3, circuit 1342 (GY/BK), harness side and ground; or between the RH turn lamp C1043-3, circuit 1341 (DB/OG), harness side and ground.  N0046902 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to **K12**. **No** GO to **K10**.
K10	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO GROUND (SJB TO BEC)**	
	• Disconnect: BEC C1035a. • Measure the resistance between the LH turn lamp C1023-3, circuit 1342 (GY/BK), harness side and ground; or between the RH turn lamp C1043-3, circuit 1341 (DB/OG), harness side and ground.  N0046902 • **Is the resistance greater than 10,000 ohms?**	**Yes** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test. **No** GO to **K11**.
K11	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO GROUND (BEC TO TURN LAMP)**	
	• Disconnect: BEC C1035c.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

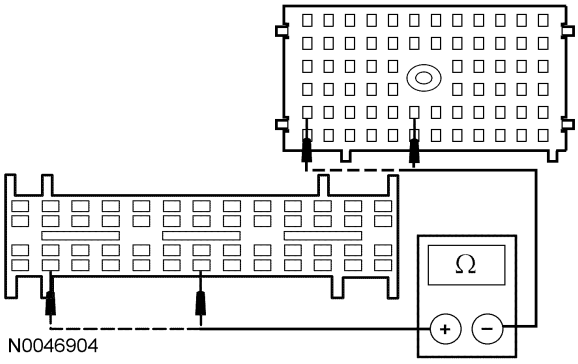
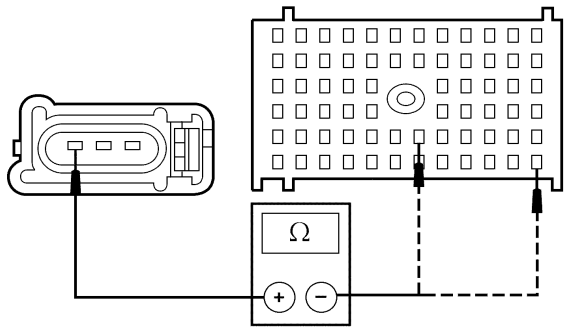
PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
K11	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR A SHORT TO GROUND (BEC TO TURN LAMP) (Continued)**	
	• Measure the resistance between the LH turn lamp C1023-3, circuit 1342 (GY/BK), harness side and ground; or between the RH turn lamp C1043-3, circuit 1341 (DB/OG), harness side and ground.  N0046902 • **Is the resistance greater than 10,000 ohms?**	**Yes** INSTALL a new BEC. CLEAR the DTCs. REPEAT the self-test. **No** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.
K12	**CHECK THE TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR AN OPEN**	
	• Measure the resistance between the LH front turn lamp C1023-3, circuit 1342 (GY/BK), harness side and the SJB C2280d-46, circuit 1342 (GY/BK), harness side; or between the RH front turn lamp C1043-3, circuit 1341 (DB/OG), harness side and the SJB C2280d-41, circuit 1341 (DB/OG), harness side.  N0046903 • **Is the resistance less than 5 ohms?**	**Yes** GO to **K15**. **No** GO to **K13**.
K13	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR AN OPEN (SJB TO BEC)**	
	• Disconnect: BEC C1035a.	

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST K: ONE TURN SIGNAL LAMP IS INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
K13	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR AN OPEN (SJB TO BEC) (Continued)**	
	• Measure the resistance between the SJB C2280d-46 (LH turn lamp), circuit 1342 (GY/BK), harness side and the BEC C1035a-E1, circuit 1342 (GY/BK), harness side; or between the SJB C2280d-41 (RH turn lamp), circuit 1341 (DB/OG), harness side and the BEC C1035a-E6, circuit 1341 (DB/OG), harness side.  N0046904 • **Is the resistance less than 5 ohms?**	**Yes** GO to **K14**. **No** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.
K14	**CHECK CIRCUIT 1341 (DB/OG) OR CIRCUIT 1342 (GY/BK) FOR AN OPEN (BEC TO TURN LAMP)**	
	• Disconnect: BEC C1035c. • Measure the resistance between the LH turn lamp C1023-3, circuit 1342 (GY/BK), harness side and the BEC C1035c-A1, circuit 1342 (GY/BK), harness side; or between the RH turn lamp C1043-3, circuit 1341 (DB/OG), harness side and the BEC C1035c-B6, circuit 1341 (DB/OG), harness side.  N0046905 • **Is the resistance less than 5 ohms?**	**Yes** INSTALL a new BEC. CLEAR the DTCs. REPEAT the self-test. **No** REPAIR the circuit in question. CLEAR the DTCs. REPEAT the self-test.
K15	**CHECK FOR CORRECT SJB OPERATION**	
	• Key in OFF position. • Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.

DIAGNOSIS AND TESTING (Continued)

Pinpoint Test L: The Hazard Lamps Are Inoperative/Always On

Refer to Wiring Diagrams Cell 90, Turn Signal/Stop/Hazard Lamps for schematic and connector information.

Normal Operation

The smart junction box (SJB) sends a voltage reference signal to the hazard flasher switch through circuit 1689 (RD/WH). When the hazard flasher switch is pressed, the signal is routed to ground through circuit 1205 (BK).

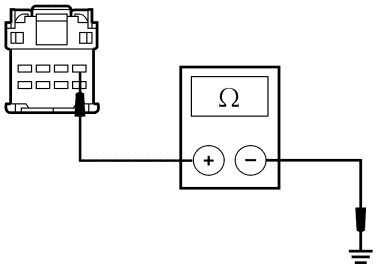
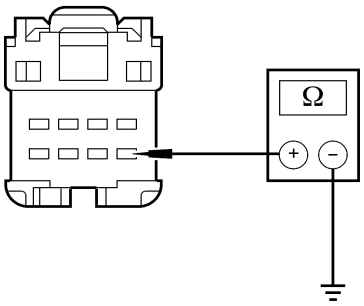
DTC B2071 — sets when the SJB detects a short to ground from the hazard lamp switch input circuit.

Possible Causes

- Circuit 1205 (BK) open
- Circuit 1689 (RD/WH) open or short to ground
- Hazard flasher switch
- SJB

PINPOINT TEST L: THE HAZARD LAMPS ARE INOPERATIVE/ALWAYS ON

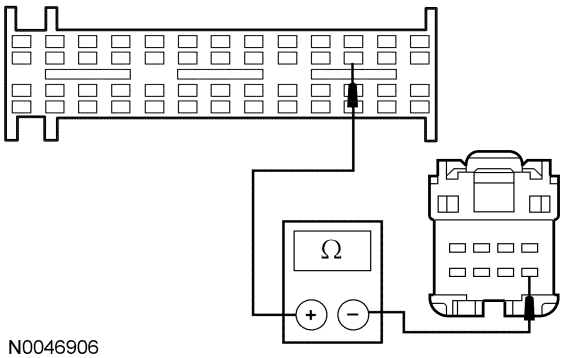
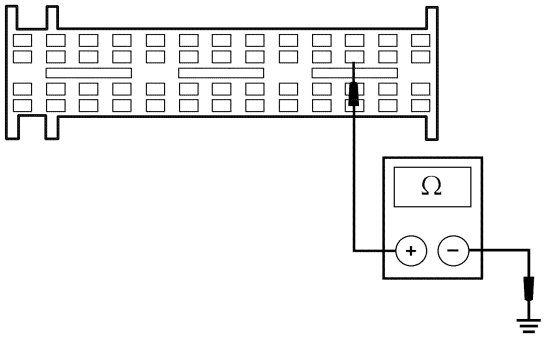
⚠ CAUTION: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

Test Step		Result / Action to Take
L1	**CHECK CIRCUIT 1205 (BK) FOR AN OPEN**	
	• Key in OFF position. • Disconnect: Hazard Flasher Switch C2039. • Measure the resistance between the hazard flasher switch C2039-1, circuit 1205 (BK), harness side and ground.  N0038814 • **Is the resistance less than 5 ohms?**	**Yes** GO to L2. **No** REPAIR the circuit. TEST the system for normal operation.
L2	**CHECK CIRCUIT 1689 (RD/WH) FOR SHORT TO GROUND**	
	• Disconnect: SJB C2280b. • Measure the resistance between the hazard flasher switch C2039-5, circuit 1689 (RD/WH), harness side and ground.  N0010906 • **Is the resistance greater than 10,000 ohms?**	**Yes** GO to L3. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.

(Continued)

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST L: THE HAZARD LAMPS ARE INOPERATIVE/ALWAYS ON (Continued)

Test Step		Result / Action to Take
L3	**CHECK CIRCUIT 1689 (RD/WH) FOR AN OPEN**	
	• Measure the resistance between the SJB C2280b-24, circuit 1689 (RD/WH), harness side and the hazard flasher switch C2039-5, circuit 1689 (RD/WH), harness side.  N0046906 • **Is resistance less than 5 ohms?**	**Yes** GO to L4. **No** REPAIR the circuit. CLEAR the DTCs. REPEAT the self-test.
L4	**CHECK THE HAZARD FLASHER SWITCH**	
	• Connect: Hazard Flasher Switch C2039. • While pressing and releasing the hazard flasher switch, measure the resistance between the SJB C2280b-24, circuit 1689 (RD/WH), harness side and ground.  N0046907 • **Is the resistance less than 5 ohms with the hazard flasher switch pressed and greater than 10,000 ohms with the hazard flasher switch released?**	**Yes** GO to L5. **No** INSTALL a new hazard flasher switch. CLEAR the DTCs. REPEAT the self-test.
L5	**CHECK FOR CORRECT SJB OPERATION**	
	• Disconnect all the SJB connectors. • Check for: — corrosion — damaged pins — pushed-out pins • Connect all the SJB connectors and make sure they seat correctly. • Operate the system and verify the concern is still present. • **Is the concern still present?**	**Yes** INSTALL a new SJB. REFER to Section 419-10. TEST the system for normal operation. **No** The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. CLEAR the DTCs. REPEAT the self-test.