Turn Signal and Hazard Lamps

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

Special Tool(s)

 ST1137-A	73III Automotive Meter 105-R0057 or equivalent

Principles of Operation

The mirrors are equipped with a bulb that will illuminate when the turn signal lamps operate. The signal mirrors are intended to give other drivers additional warning for turns or lane changes.

Inspection and Verification

1. Verify the customer concern by operating the turn signal/hazard lamps.
2. Visually inspect the following for obvious signs of mechanical and electrical damage.

Visual Inspection Chart

Mechanical	Electrical

• Multifunction switch	• Central junction box (CJB) fuse:
	  ▪ 13 (20A)
	  ▪ 23 (10A)
	• Wiring harness
	• Loose or corroded connections
	• Electronic flasher
	• Turn signal/hazard lamp

3. If the concern is not visually evident, determine the symptom and proceed to the Symptom Chart.

Symptom Chart

NOTE: Refer to the Wiring Diagrams for connector numbers stated in the pinpoint test.

Symptom Chart

Condition	Possible Sources	Action

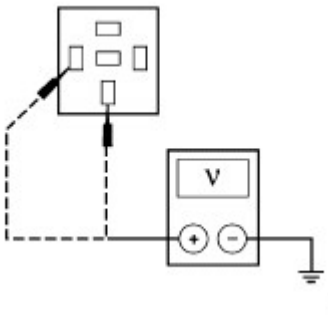
• The turn signal lamps are never on	• Central junction box (CJB) fuse:
	  ▪ 13 (20A).
	  ▪ 23 (10A).
	• Circuitry.
	• Multifunction switch.
	• Electronic flasher.
		• GO to Pinpoint Test K .

• The hazard flasher lamps are never on	• CJB Fuse 23 (10A). • Circuitry. • Multifunction switch. • Electronic flasher.	• GO to Pinpoint Test L .
• One turn signal/hazard lamp is never on	• Turn signal/hazard flasher lamp. • Circuitry.	• GO to Pinpoint Test M .
• The turn signal lamps are always on	• Multifunction switch.	• INSTALL a new multifunction switch; REFER to Section 211-05 . TEST the system for normal operation.
• The hazard flasher lamps are always on	• Multifunction switch.	• INSTALL a new multifunction switch; REFER to Section 211-05 . TEST the system for normal operation.

Pinpoint Tests

PINPOINT TEST K: THE TURN SIGNAL LAMPS ARE NEVER ON

CONDITIONS	DETAILS/RESULTS/ACTIONS
K1 CHECK THE VOLTAGE TO THE ELECTRONIC FLASHER	
1  Electronic Flasher 2  3	3 Measure the voltage between the following electronic flasher connector circuits, and ground.



- pin 2, circuit 294 (WH/LB)
- pin 3, Circuit 383 (RD/WH)

- **Are the voltages greater than 10 volts?**

→ **Yes**
GO to K2.

→ **No**
REPAIR the circuit in question. TEST the system for normal operation.

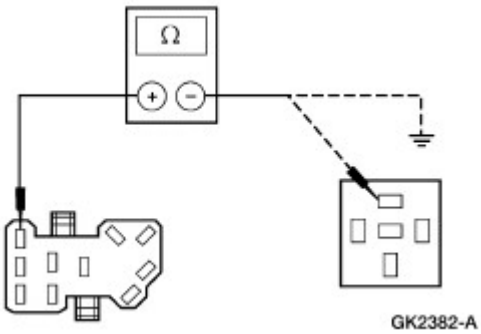
K2 CHECK CIRCUIT 44 (LB)

1

2

Multifunction Switch C202a

3



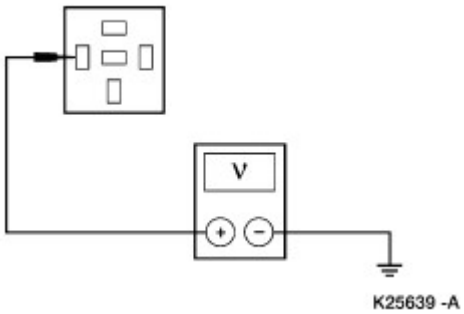
3 Measure the resistance between multifunction switch C202a pin 44, circuit 44 (LB), harness side, and electronic flasher connector pin 1, circuit 44 (LB), harness side; and between multifunction switch C202a pin 44, circuit 44 (LB), harness side, and ground.

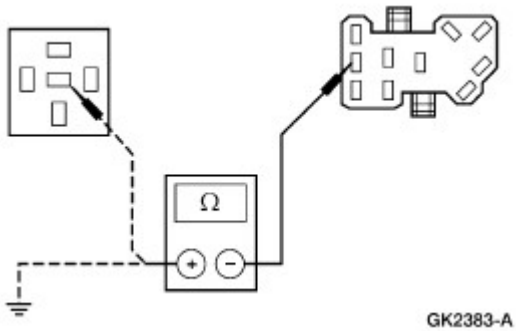
- **Is the resistance less than 5 ohms between the multifunction switch and the electronic flasher, and greater than 10,000 ohms between the multifunction switch and ground?**

→ **Yes**
GO to K3.

	→ **No** REPAIR the circuit. TEST the system for normal operation.
K3 CHECK THE MULTIFUNCTION SWITCH	
	1 Carry out the multifunction switch component test; Refer to Wiring Diagrams Cell 149 for schematic and connector information. . • **Is the multifunction switch OK?** → **Yes** INSTALL a new electronic flasher. TEST the system for normal operation. → **No** INSTALL a new multifunction switch; REFER to Section 211-05 . TEST the system for normal operation.

PINPOINT TEST L: THE HAZARD FLASHER LAMPS ARE NEVER ON

CONDITIONS	DETAILS/RESULTS/ACTIONS
L1 CHECK THE VOLTAGE TO THE ELECTRONIC FLASHER	
1  Electronic Flasher 2  K25639 -A	2 Measure the voltage between electronic flasher connector pin 3, circuit 383 (RD/WH), harness side, and ground. • **Is the voltage greater than 10 volts?** → **Yes**

	GO to L2 . → **No** REPAIR the circuit. TEST the system for normal operation.
L2 CHECK CIRCUIT 385 (WH/RD)	
1  Multifunction Switch C202a 2  	2 Measure the resistance between multifunction switch C202a pin 385, circuit 385 (WH/RD), harness side, and electronic flasher connector pin 4, circuit 385 (WH/RD), harness side; and between multifunction switch C202a pin 385, circuit 385 (WH/RD), harness side, and ground. • **Is the resistance less than 5 ohms between the multifunction switch and the electronic flasher, and greater than 10,000 ohms between the multifunction switch and ground?** → **Yes** GO to L3 . → **No** REPAIR the circuit. TEST the system for normal operation.
L3 CHECK THE CONTINUITY OF THE MULTIFUNCTION SWITCH	
	1 Carry out the multifunction switch component test; Refer to Wiring Diagrams Cell 149 for schematic and connector information. . • **Is the multifunction switch OK?** → **Yes** INSTALL a new electronic flasher. TEST the system for normal operation.

	→ **No** INSTALL a new multifunction switch; REFER to Section 211-05 . TEST the system for normal operation.

PINPOINT TEST M: ONE TURN SIGNAL/HAZARD LAMP IS NEVER ON

CONDITIONS	DETAILS/RESULTS/ACTIONS
M1 CHECK THE VOLTAGE TO THE INOPERATIVE LAMP	
1  2  Inoperative Turn Signal/Hazard Flasher Lamp	3 Place the hazard flasher lamp switch in the ON position. 4 Measure the voltage between lamp connector pin 1, or exterior rear view mirror pin 7, harness side, and ground: ■ LF circuit 3 (LG/WH) ■ RF circuit 2 (WH/LB) ■ LR circuit 9 (LG/OG) ■ RR circuit 5 (OG/LB) ■ LF exterior rear view mirror circuit 3 (LG/WH) (if equipped) ■ RF exterior rear view mirror circuit 2 (WH/LB) (if equipped). • **Does the voltage alternate between less than 1 volt and greater than 10 volts?** → **Yes** REPAIR circuit 57 (BK). TEST the system for normal operation. → **No** REPAIR the circuit in question. TEST the system for normal operation.