

Turn Signal and Hazard Lamps

DTC Chart: BCM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

BCM DTC Chart

DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
B123A:11	Left Front Turn Indicator: Circuit Short to Ground	- For halogen headlamps, GO to Pinpoint Test B - For LED headlamps, GO to Pinpoint Test C
B123A:15	Left Front Turn Indicator: Circuit Short to Battery or Open	- For halogen headlamps, GO to Pinpoint Test B - For LED headlamps, GO to Pinpoint Test C
B123B:11	Right Front Turn Indicator: Circuit Short to Ground	- For halogen headlamps, GO to Pinpoint Test B - For LED headlamps, GO to Pinpoint Test C
B123B:15	Right Front Turn Indicator: Circuit Short to Battery or Open	- For halogen headlamps, GO to Pinpoint Test B - For LED headlamps, GO to Pinpoint Test C
B1247:11	Left Rear Turn Indicator: Circuit Short To Ground	GO to Pinpoint Test D
B1247:15	Left Rear Turn Indicator: Circuit Short To Battery or Open	GO to Pinpoint Test D
B1248:11	Right Rear Turn Indicator: Circuit Short To Ground	GO to Pinpoint Test D
B1248:15	Right Rear Turn Indicator: Circuit Short To Battery or Open	GO to Pinpoint Test D
B1265:01	Left Rear Turn Lamp Feedback: General Electrical Failure	GO to Pinpoint Test G
B1266:01	Right Rear Turn Lamp Feedback: General Electrical Failure	GO to Pinpoint Test G
B1497:01	Left Front Turn Lamp Feedback: General Electrical Failure	GO to Pinpoint Test G
B1498:01	Right Front Turn Lamp Feedback: General Electrical Failure	GO to Pinpoint Test G
B1D35:11	Hazard Switch: Circuit Short to Ground	GO to Pinpoint Test F
For other BCM Diagnostic Trouble Codes (DTCs)	-	REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).

DTC Chart: DDM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

DDM DTC Chart

DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
B1D06:11	Left Turn Indicator: Circuit Short To Ground	GO to Pinpoint Test B
For other DDM Diagnostic Trouble Codes (DTCs)	-	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

DTC Chart: PDM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

PDM DTC Chart

DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
B1D07:11	Right Turn Indicator: Circuit Short To Ground	GO to Pinpoint Test B
For other PDM Diagnostic Trouble Codes (DTCs)	-	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

DTC Chart: SCCM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

SCCM DTC Chart

DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
B1D36:09	Turn Indicator Switch: Component Failure	INSTALL a new LH steering column multifunction switch. REFER to: Steering Column Multifunction Switch LH (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). CLEAR the Diagnostic Trouble Codes (DTCs). Run the SCCM self-test. If the DTC returns, INSTALL a new SCCM. For vehicles without adaptive steering, REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). For vehicles with adaptive steering, REFER to: Steering Column Control Module (SCCM) - Vehicles With: Adaptive Steering (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
For other SCCM Diagnostic Trouble Codes (DTCs)	-	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).

Symptom Chart(s)

Symptom Chart: Turn Signal and Hazard Lamps

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Symptom Chart

Condition	Possible Sources	Actions
A module does not respond to the diagnostic scan tool	• Fuse • Wiring, terminals or connectors • Module	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
The turn signal does not cancel and the LH steering column multifunction switch does not return to the neutral position	• LH steering column multifunction switch • Clockspring (vehicles without adaptive steering) • SCCM (vehicles with adaptive steering)	• INSTALL a new LH steering column multifunction switch. REFER to: Steering Column Multifunction Switch LH (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). TEST the system for normal operation. If the condition is still present, • For vehicles without adaptive steering, INSTALL a new clockspring. REFER to: Clockspring (501-20B Supplemental Restraint System, Removal and Installation). • For vehicles with adaptive steering, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) - Vehicles With: Adaptive Steering (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
The turn signal function is inoperative or always on	Refer to the Pinpoint Test	GO to Pinpoint Test A
One front turn signal lamp is inoperative or always on - halogen headlamps	Refer to the Pinpoint Test	GO to Pinpoint Test B
One front turn signal lamp is inoperative or always on - LED headlamps	Refer to the Pinpoint Test	GO to Pinpoint Test C
One rear turn signal lamp is inoperative or always on	Refer to the Pinpoint Test	GO to Pinpoint Test D
One exterior mirror turn signal lamp is inoperative or always on	Refer to the Pinpoint Test	GO to Pinpoint Test E
The hazard lamp function is inoperative or always on	Refer to the Pinpoint Test	GO to Pinpoint Test F
The turn signal indicator flashes fast when no turn signal lamps are inoperative or does not flash fast when a turn signal lamp is inoperative - LED headlamps or LED rear lamps	Refer to the Pinpoint Test	GO to Pinpoint Test G
The turn signal indicator flashes fast when no turn signal lamps are inoperative - halogen headlamps turn signal lamp	Refer to the Pinpoint Test	GO to Pinpoint Test H

PINPOINT TEST A : THE TURN SIGNAL FUNCTION IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

Possible Sources

- LH steering column multifunction switch
- SCCM
- BCM

A1 CHECK THE SCCM (STEERING COLUMN CONTROL MODULE) TURN SIGNAL PARAMETER IDENTIFICATIONS (PIDS)

- Ignition ON.
- Using a diagnostic scan tool, view SCCM Parameter Identifications (PIDs) below while placing the LH steering column multifunction switch in the left and right turn positions.
 - Access the SCCM and monitor the TRN_SIG_SW_L (0) PID
 - Access the SCCM and monitor the TRN_SIG_SW_R (0) PID

Do the Parameter Identifications (PIDs) match the LH steering column multifunction switch position?

Yes	GO to A2
No	INSTALL a new LH steering column multifunction switch. REFER to: Steering Column Multifunction Switch LH (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). TEST the system for normal operation. If the concern is still present, GO to A3

A2 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals “clean module pins)
 - damaged or bent pins “install new terminals/pins
 - pushed-out pins “install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

A3 CHECK FOR CORRECT SCCM (STEERING COLUMN CONTROL MODULE) OPERATION

- Disconnect and inspect all SCCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect the SCCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new SCCM. For vehicles without adaptive steering, REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). For vehicles with adaptive steering, REFER to: Steering Column Control Module (SCCM) - Vehicles With: Adaptive Steering (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST B : ONE FRONT TURN SIGNAL LAMP IS INOPERATIVE OR ALWAYS ON - HALOGEN HEADLAMPS

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B123A:11	Left Front Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH front turn lamp voltage supply circuit.
BCM B123A:15	Left Front Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the LH front turn lamp voltage supply circuit.
BCM B123B:11	Right Front Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the RH front turn lamp voltage supply circuit.
BCM B123B:15	Right Front Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the RH front turn lamp voltage supply circuit.

Possible Sources

- Bulb
- Wiring, terminals or connectors
- BCM

B1 DETERMINE IF ANY TURN LAMP IS ALWAYS ON

- Ignition ON.
- Activate the hazard lamp function.
- Observe the front turn lamps.

Is any turn lamp continuously illuminated (not flashing)?

Yes	GO to B2
No	GO to B3

B2 CHECK THE FRONT TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect BCM [C2280F](#) .
- Ignition ON.

Does the turn lamp in question continue to illuminate?

Yes	REPAIR the affected circuit.
No	GO to B8

B3 CHECK FOR VOLTAGE TO THE FRONT TURN LAMP

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect LH Front Park/Turn Lamp [C1023](#) or RH Front Park/Turn Lamp [C1043](#) .
- Ignition ON.
- Activate the hazard flasher lamp function.
- Measure:

PARK/TURN LAMP, LEFT FRONT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1023-3		Ground

PARK/TURN LAMP, RIGHT FRONT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1043-3		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	GO to B5
No	GO to B4

B4 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE FRONT TURN LAMP

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).
- Measure:

PARK/TURN LAMP, LEFT FRONT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1023-3		Ground

PARK/TURN LAMP, RIGHT FRONT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1043-3		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	INSTALL a new front park/turn lamp bulb. REFER to: Front Turn Signal Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	GO to B6

B5 CHECK THE HEADLAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

PARK/TURN LAMP, LEFT FRONT

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1023-3		C1023-1

PARK/TURN LAMP, RIGHT FRONT

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1043-3		C1043-1

Does the voltage alternate from 0 to greater than 11 volts?

Yes	INSTALL a new front park/turn lamp bulb. REFER to: Front Turn Signal Lamp Bulb (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

B6 CHECK THE FRONT TURN LAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Deactivate the hazard flasher lamp function.
- Ignition OFF.
- Disconnect BCM [C2280F](#) .
- Measure:

PARK/TURN LAMP, LEFT FRONT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1023-3	Ω	Ground

PARK/TURN LAMP, RIGHT FRONT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1043-3	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to B7

No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
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B7 CHECK THE FRONT TURN LAMP SUPPLY CIRCUIT FOR AN OPEN

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- Measure:

PARK/TURN LAMP, LEFT FRONT	BODY CONTROL MODULE (BCM)
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1023-3	Ω	C2280F-39

PARK/TURN LAMP, RIGHT FRONT	BODY CONTROL MODULE (BCM)
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1043-3	Ω	C2280F-38

Is the resistance less than 3 ohms?

Yes	GO to B8
No	REPAIR the circuit.

B8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€“ clean module pins)
 - damaged or bent pins â€“ install new terminals/pins
 - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

☐ **PINPOINT TEST C : ONE FRONT TURN SIGNAL LAMP IS INOPERATIVE OR ALWAYS ON - LED (LIGHT EMITTING DIODE) HEADLAMPS**

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B123A:11	Left Front Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH front turn lamp voltage supply circuit.
BCM B123A:15	Left Front Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the LH front turn lamp voltage supply circuit.
BCM B123B:11	Right Front Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the RH front turn lamp voltage supply circuit.
BCM B123B:15	Right Front Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the RH front turn lamp voltage supply circuit.

Possible Sources

- Headlamp assembly
- Wiring, terminals or connectors
- BCM

C1 DETERMINE IF ANY TURN LAMP IS ALWAYS ON

- Ignition ON.
- Activate the hazard lamp function.
- Observe the front and the rear turn lamps.

Is any turn lamp continuously illuminated (not flashing)?

Yes	GO to C2
No	GO to C3

C2 CHECK THE FRONT TURN LAMP OR EXTERIOR MIRROR TURN VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect BCM [C2280F](#) .
- Ignition ON.

Does the turn lamp in question continue to illuminate?

Yes	REPAIR the affected circuit.
No	For all other turn lamps, GO to C8

C3 CHECK FOR VOLTAGE TO THE FRONT TURN LAMP

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect LH Headlamp [C1284](#) or RH Headlamp [C1285](#) .
- Ignition ON.
- Activate the hazard flasher lamp function.
- Measure:

HEADLAMP, LEFT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-1		Ground

HEADLAMP, RIGHT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-1		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	GO to C5
No	GO to C4

C4 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE FRONT TURN LAMP

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).
- Measure:

HEADLAMP, LEFT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-1		Ground

HEADLAMP, RIGHT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-1		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	INSTALL a new headlamp assembly. REFER to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to C6

C5 CHECK THE HEADLAMP GROUND CIRCUIT FOR AN OPEN

- Measure:

HEADLAMP, LEFT

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-1		C1284-7

HEADLAMP, RIGHT

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-1		C1285-7

Does the voltage alternate from 0 to greater than 11 volts?

Yes	INSTALL a new headlamp assembly. REFER to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

C6 CHECK THE FRONT TURN LAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Deactivate the hazard flasher lamp function.
- Ignition OFF.
- Disconnect BCM [C2280F](#) .
- Measure:

HEADLAMP, LEFT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-1	Ω	Ground

HEADLAMP, RIGHT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to C7
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

C7 CHECK THE FRONT TURN LAMP SUPPLY CIRCUIT FOR AN OPEN

- Measure:

HEADLAMP, LEFT	BODY CONTROL MODULE (BCM)
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-1	Ω	C2280F-39

HEADLAMP, RIGHT	BODY CONTROL MODULE (BCM)
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-1	Ω	C2280F-38

Is the resistance less than 3 ohms?

Yes	GO to C8
No	REPAIR the circuit.

C8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST D : ONE REAR TURN SIGNAL LAMP IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1247:11	Left Rear Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the LH rear turn lamp voltage supply circuit.
BCM B1247:15	Left Rear Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the LH rear turn lamp voltage supply circuit.
BCM B1248:11	Right Rear Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the RH rear turn lamp voltage supply circuit.
BCM B1248:15	Right Rear Turn Indicator: Circuit Short To Battery Or Open	A continuous memory and on-demand DTC that sets when the BCM detects an open or short to voltage from the RH rear turn lamp voltage supply circuit.

Possible Sources

- Bulb
- Rear lamp assembly
- Wiring, terminals or connectors
- BCM

D1 DETERMINE IF ANY TURN LAMP IS ALWAYS ON

- Ignition ON.
- Activate the hazard lamp function.
- Observe the rear turn lamps.

Is any turn lamp continuously illuminated (not flashing)?

Yes	GO to D2
No	GO to D3

D2 CHECK THE FRONT TURN LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect BCM [C2280E](#) .
- Ignition ON.

Does the turn lamp in question continue to illuminate?

Yes	REPAIR the affected circuit.
No	GO to D8

D3 CHECK FOR VOLTAGE TO THE REAR TURN LAMP

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect For incandescent rear lamps without pickup bed, inoperative LH Rear Lamp [C423](#) or RH Rear Lamp [C422](#) .
- Disconnect For incandescent rear lamps without BLIS, inoperative LH Rear Turn Lamp [C413](#) or RH Rear Turn Lamp [C419](#) .
- Disconnect For incandescent rear lamps with BLIS, inoperative LH Rear Lamp assembly [C451](#) or RH Rear Lamp assembly [C461](#) .
- Disconnect For LED rear lamps, inoperative LH Rear Lamp assembly [C4483](#) or RH Rear Lamp assembly [C4484](#) .
- Ignition ON.
- Activate the hazard flasher lamp function.
- For incandescent rear lamps without pickup bed, measure:

REAR LAMP, LEFT	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C423-4		Ground

REAR LAMP, RIGHT	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C422-4		Ground

- For incandescent rear lamps without BLIS, measure:

TURN LAMP, LEFT REAR	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C413-3		Ground

TURN LAMP, RIGHT REAR	
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RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C419-3		Ground

- For incandescent rear lamps with BLIS, measure:

REAR LAMP ASSEMBLY LH	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C451-5		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C461-5		Ground

- For LED rear lamps, measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-7		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-7		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	GO to D5
No	GO to D4

D4 REPEAT THE ON-DEMAND SELF-TEST AND CHECK FOR VOLTAGE TO THE REAR TURN LAMP

- Using a diagnostic scan tool, perform the BCM self-test.
- Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver if DTC U1000:00 is present).

- For incandescent rear lamps without pickup bed, measure:

REAR LAMP, LEFT	
-----------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C423-4		Ground

REAR LAMP, RIGHT	
------------------	---

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C422-4		Ground

- For incandescent rear lamps without BLIS, measure:

TURN LAMP, LEFT REAR	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C413-3		Ground

TURN LAMP, RIGHT REAR	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C419-3		Ground

- For incandescent rear lamps with BLIS, measure:

REAR LAMP ASSEMBLY LH	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C451-5		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C461-5		Ground

- For LED rear lamps, measure:

REAR LAMP ASSEMBLY LH	
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LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-7		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C4484-7		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	For incandescent rear lamps, INSTALL a new rear turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation). For LED rear lamps, INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to D6

D5 CHECK THE REAR LAMP GROUND CIRCUIT FOR AN OPEN

- For incandescent rear lamps without pickup bed, measure:

REAR LAMP, LEFT

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C423-4		C423-2

REAR LAMP, RIGHT

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C422-4		C422-2

- For incandescent rear lamps without BLIS, measure:

TURN LAMP, LEFT REAR

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C413-3		C413-1

TURN LAMP, RIGHT REAR

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C419-3		C419-1

- For incandescent rear lamps with BLIS, measure:

REAR LAMP ASSEMBLY LH

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C451-5		C451-1

REAR LAMP ASSEMBLY RH

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C461-5		C461-1

- For LED rear lamps, measure:

REAR LAMP ASSEMBLY LH

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C4483-7		C4483-8

REAR LAMP ASSEMBLY RH

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-7		C4484-8

Does the voltage alternate from 0 to greater than 11 volts?

Yes	For incandescent rear lamps, INSTALL a new rear turn lamp bulb. REFER to: Rear Lamp Bulb (417-01 Exterior Lighting, Removal and Installation). For LED rear lamps, INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the circuit.

D6 CHECK THE REAR TURN LAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Deactivate the hazard flasher lamp function.
- Ignition OFF.
- Disconnect BCM [C2280E](#) .
- For incandescent rear lamps without pickup bed, measure:

REAR LAMP, LEFT	
-----------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C423-4	Ω	Ground

REAR LAMP, RIGHT	
------------------	---

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C422-4	Ω	Ground

- For incandescent rear lamps without BLIS, measure:

TURN LAMP, LEFT REAR	
----------------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C413-3	Ω	Ground

TURN LAMP, RIGHT REAR	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C419-3	Ω	Ground

- For incandescent rear lamps with BLIS, measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C451-5	Ω	Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C461-5	Ω	Ground

- For LED rear lamps, measure:

REAR LAMP ASSEMBLY LH	
-----------------------	---

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-7	Ω	Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead

Positive Lead	Measurement / Action	Negative Lead
C4484-7	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to D7
No	REPAIR the circuit. After the repair: If no Diagnostic Trouble Codes (DTCs) are present, TEST the system for normal operation. If DTC U1000:00 is present, CLEAR the Diagnostic Trouble Codes (DTCs) and REPEAT the self-test (required to enable the lamp output driver if DTC U1000:00 is present). If DTC U3000:49 is present, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).

D7 CHECK THE REAR TURN LAMP SUPPLY CIRCUIT FOR AN OPEN

- For incandescent rear lamps without pickup bed, measure:

REAR LAMP, LEFT	BODY CONTROL MODULE (BCM)
-----------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C423-4	Ω	C2280E-26

REAR LAMP, RIGHT	BODY CONTROL MODULE (BCM)
------------------	---------------------------

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C422-4	Ω	C2280E-52

- For incandescent rear lamps without BLIS, measure:

TURN LAMP, LEFT REAR	BODY CONTROL MODULE (BCM)
----------------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C413-3	Ω	C2280E-26

TURN LAMP, RIGHT REAR	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C419-3	Ω	C2280E-52

- For incandescent rear lamps with BLIS, measure:

REAR LAMP ASSEMBLY LH	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C451-5	Ω	C2280E-26

REAR LAMP ASSEMBLY RH	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C461-5	Ω	C2280E-52

- For LED rear lamps, measure:

REAR LAMP ASSEMBLY LH	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-7	Ω	C2280E-26

REAR LAMP ASSEMBLY RH

BODY CONTROL MODULE (BCM)

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-7	Ω	C2280E-52

Is the resistance less than 3 ohms?

Yes	GO to D8
No	REPAIR the circuit.

D8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

[PINPOINT TEST E : ONE EXTERIOR MIRROR TURN SIGNAL LAMP IS INOPERATIVE OR ALWAYS ON](#)

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
DDM B1D06:11	Left Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the DDM detects an open or short to voltage from the LH exterior mirror turn lamp voltage supply circuit.
PDM B1D07:11	Right Turn Indicator: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the PDM detects an open or short to voltage from the RH exterior mirror turn lamp voltage supply circuit.

Possible Sources

- Exterior mirror
- Wiring terminals or connectors
- DDM
- PDM

E1 DETERMINE IF ANY TURN LAMP IS ALWAYS ON

- Ignition ON.
- Activate the hazard lamp function.
- Observe the front and the rear turn lamps.

Is any turn lamp continuously illuminated (not flashing)?

Yes	GO to E2
No	GO to E3

E2 CHECK THE EXTERIOR MIRROR TURN VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO VOLTAGE

- Deactivate the hazard lamp function.
- Ignition OFF.
- Disconnect DDM [C501A](#) (LH exterior mirror lamp).
- Disconnect PDM [C652A](#) (RH exterior mirror lamp).
- Ignition ON.

Does the turn lamp in question continue to illuminate?

Yes	REPAIR the affected circuit.
No	For the LH exterior mirror turn lamp, GO to E7 For the RH exterior mirror turn lamp, GO to E8

E3 CHECK FOR VOLTAGE TO THE EXTERIOR MIRROR

- Deactivate the hazard flasher lamp function.
- Ignition OFF.

- Disconnect LH Exterior Mirror [C521](#) or RH Exterior Mirror [C622](#) .
- Ignition ON.
- Activate the hazard flasher lamp function.
- Measure:

EXTERIOR MIRROR LH	
--------------------	--

LH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C521-7		Ground

EXTERIOR MIRROR RH	
--------------------	--

RH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C622-7		Ground

Does the voltage alternate from 0 to greater than 11 volts?

Yes	GO to E4
No	GO to E5

E4 CHECK THE EXTERIOR MIRROR TURN LAMP GROUND

- Measure:

EXTERIOR MIRROR LH

LH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C521-7		C521-8

EXTERIOR MIRROR RH

RH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C622-7		C622-8

Does the voltage alternate from 0 to greater than 11 volts?

Yes	CHECK the exterior mirror jumper harness between the vehicle harness and the turn lamp for open circuits and damaged or pushed-out pins. If the jumper harness is OK, INSTALL a new exterior mirror turn lamp. If the harness cannot be repaired, INSTALL a new exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation).
No	REPAIR the circuit.

E5 CHECK THE EXTERIOR MIRROR TURN LAMP SUPPLY CIRCUIT FOR A SHORT TO GROUND

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- Deactivate the hazard flasher lamp function.
- Ignition OFF.
- Disconnect DDM [C501A](#) (LH exterior mirror lamp).
- Disconnect PDM [C652A](#) (RH exterior mirror lamp).
- Measure:

EXTERIOR MIRROR LH	
--------------------	--

LH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C521-7	Ω	Ground

EXTERIOR MIRROR RH	
--------------------	--

RH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C622-7	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to E6
No	REPAIR the circuit.

E6 CHECK THE MIRROR TURN LAMP SUPPLY CIRCUIT FOR AN OPEN

- Measure:

EXTERIOR MIRROR LH	DRIVER DOOR MODULE (DDM)
--------------------	--------------------------

LH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C521-7	Ω	C501A-4

EXTERIOR MIRROR RH	PASSENGER DOOR MODULE (PDM)
--------------------	-----------------------------

RH Exterior Mirror Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C622-7	Ω	C652A-4

Is the resistance less than 3 ohms?

Yes	For the LH exterior mirror turn lamp, GO to E7 For the RH exterior mirror turn lamp, GO to E8
No	REPAIR the circuit.

E7 CHECK FOR CORRECT DDM (DRIVER DOOR MODULE) OPERATION

- Disconnect and inspect all DDM connectors.
- Repair:
 - corrosion (install new connector or terminals & clean module pins)
 - damaged or bent pins & install new terminals/pins
 - pushed-out pins & install new pins as necessary
- Reconnect the DDM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new DDM. REFER to: Driver Door Module (DDM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

E8 CHECK FOR CORRECT PDM (PASSENGER DOOR MODULE) OPERATION

- Disconnect and inspect all PDM connectors.
- Repair:
 - corrosion (install new connector or terminals & clean module pins)
 - damaged or bent pins & install new terminals/pins
 - pushed-out pins & install new pins as necessary
- Reconnect the PDM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new PDM. REFER to: Passenger Door Module (PDM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST F : THE HAZARD LAMP FUNCTION IS INOPERATIVE OR ALWAYS ON

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1D35:11	Hazard Switch: Circuit Short To Ground	A continuous memory and on-demand DTC that sets when the BCM detects a short to ground from the hazard lamp function input circuit.

Possible Sources

- Wiring, terminals or connectors
- Hazard flasher switch
- BCM

F1 CHECK FOR BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Using a diagnostic scan tool, perform the BCM self-test.

Is DTC B1D35:11 present?

Yes	GO to F2
No	GO to F4

F2 ISOLATE THE HAZARD FLASHER SWITCH

- Ignition OFF.
- Disconnect Hazard/Hill Descent Switch [C3394](#) .
- Ignition ON.
- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs) and repeat the BCM self-test.

Is DTC B1D35:11 retrieved again?

Yes	GO to F3
No	INSTALL a new hazard/hill descent switch.

F3 CHECK THE HAZARD FLASHER SWITCH INPUT CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect BCM [C2280B](#).
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C3394-4	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to F7
No	REPAIR the circuit.

F4 CHECK FOR A VOLTAGE SIGNAL TO THE HAZARD FLASHER SWITCH

- Ignition OFF.
- Disconnect Hazard/Hill Descent Switch [C3394](#) .
- Ignition ON.
- Measure:

HAZARD/HILL DESCENT SWITCH	
----------------------------	--

Positive Lead	Measurement / Action	Negative Lead
C3394-4		Ground

Is the voltage greater than 11 volts?

Yes	GO to F5
No	GO to F6

F5 CHECK THE HAZARD FLASHER SWITCH GROUND CIRCUIT

- Measure:

HAZARD/HILL DESCENT SWITCH	
----------------------------	--

Positive Lead	Measurement / Action	Negative Lead
C3394-4		C4280-3

Is the voltage greater than 11 volts?

Yes	INSTALL a new hazard/hill descent switch.
No	REPAIR the circuit.

F6 CHECK THE HAZARD FLASHER SWITCH INPUT CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BCM [C2280B](#).
- Measure:

HAZARD/HILL DESCENT SWITCH	BODY CONTROL MODULE (BCM)
----------------------------	---------------------------

Positive Lead	Measurement / Action	Negative Lead
C3394-4	Ω	C2280B-19

Is the resistance less than 3 ohms?

Yes	GO to F7
No	REPAIR the circuit.

F7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals “clean module pins)
 - damaged or bent pins “install new terminals/pins
 - pushed-out pins “install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1265:01	Left Rear Turn Lamp Feedback: General Electrical Failure	A continuous memory DTC that sets when the BCM detects an electrical failure from the LH rear turn lamp outage circuit when the turn lamp is activated.
BCM B1266:01	Right Rear Turn Lamp Feedback: General Electrical Failure	A continuous memory DTC that sets when the BCM detects an electrical failure from the RH rear turn lamp outage circuit when the turn lamp is activated.
BCM B1497:01	Left Front Turn Lamp Feedback: General Electrical Failure	A continuous memory DTC that sets when the BCM detects an electrical failure from the LH front turn lamp outage circuit when the turn lamp is activated.
BCM B1498:01	Right Front Turn Lamp Feedback: General Electrical Failure	A continuous memory DTC that sets when the BCM detects an electrical failure from the RH front turn lamp outage circuit when the turn lamp is activated.

Possible Sources

- Wiring, terminals or connectors
- BCM

G1 DETERMINE IF THE VEHICLE IS EQUIPPED WITH A TRM (TRAILER MODULE) OR TBM (TRAILER BRAKE CONTROL MODULE)

- Using a diagnostic scan tool, perform a network test.

Does the test indicate the presence of a TRM or TBM and pass the network test?

Yes	GO to G2
No	If a TRM or TBM is present and did not pass the network test, DIAGNOSE no communication with the TRM or TBM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing). If a TRM or TBM is not present, GO to G5

G2 CHECK THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE BCM (BODY CONTROL MODULE) , TBM (TRAILER BRAKE CONTROL MODULE) AND TRM (TRAILER MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the BCM, TBM and TRM self-test.

Are any communication Diagnostic Trouble Codes (DTCs) present?

Yes	DIAGNOSE the communication Diagnostic Trouble Codes (DTCs) first. For BCM Diagnostic Trouble Codes (DTCs), REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing). For TRM Diagnostic Trouble Codes (DTCs), REFER to: Trailer Lamps (417-01 Exterior Lighting, Diagnosis and Testing). For TBM Diagnostic Trouble Codes (DTCs), REFER to: Auxiliary Brake System - Vehicles With: Trailer Brake Control (206-10 Auxiliary Brake System, Diagnosis and Testing).
No	Check if Light Emitting Diodes (LEDs) are installed in place of incandescent bulbs. If Light Emitting Diodes (LEDs) are installed, CONFIGURE (programmable parameters) the front turn lamp outage configuration off. TEST the system for normal operation. If the turn lamps still fast flash or Light Emitting Diodes (LEDs) are not installed in place of incandescent bulbs: If only equipped with a TRM or if equipped with a TRM and TBM, GO to G3 If only equipped with a TBM, GO to G4

G3 ISOLATE THE TRM (TRAILER MODULE)

- Ignition OFF.
- Disconnect TRM [C2498A](#) .
- Disconnect TRM [C2498B](#) .
- Disconnect TRM [C2498C](#) .
- Ignition ON.
- Activate the suspect turn lamps.

Do the turn lamps operate correctly?

Yes	GO to G17
No	If only equipped with a TRM, GO to G5 If also equipped with a TBM, GO to G4

G4 ISOLATE THE TBM (TRAILER BRAKE CONTROL MODULE)

- Ignition OFF.
- Disconnect TBM [C2142](#) .
- Ignition ON.
- Activate the suspect turn lamps.

Do the turn lamps operate correctly?

Yes	GO to G16
No	GO to G5

G5 DETERMINE IF A TURN LAMP IS INOPERATIVE

- While observing the front and the rear turn lamps, place the LH steering column multifunction switch in the left and right turn positions.

Is any turn lamp inoperative?

Yes	For a front turn lamp, GO to G6 For a rear turn lamp, GO to G11
No	For a front turn lamp, GO to G8 For a rear turn lamp, GO to G13

G6 CHECK THE FRONT TURN LAMP

- Ignition OFF.
- Disconnect LH Headlamp [C1284](#) or RH Headlamp [C1285](#) .
- Ignition ON.
- While observing the front turn lamps, place the LH steering column multifunction switch in the inoperative turn position.

Does the turn signal indicator flash fast?

Yes	INSTALL a new headlamp assembly. REFER to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to G7

G7 CHECK THE FRONT TURN LAMP OUTAGE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM [C2280F](#) .
- Ignition ON.
- Measure:

HEADLAMP, LEFT	
----------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-2		Ground

HEADLAMP, RIGHT	
-----------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-2		Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to G18

G8 CHECK THE FRONT TURN LAMP OUTAGE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

- Disconnect LH Headlamp [C1284](#) or RH Headlamp [C1285](#) .
- Disconnect BCM [C2280F](#) .
- Measure:

HEADLAMP, LEFT	
----------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-2	Ω	Ground

HEADLAMP, RIGHT	
-----------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to G9
No	REPAIR the circuit.

G9 CHECK THE FRONT TURN LAMP OUTAGE CIRCUIT FOR AN OPEN

- Measure:

HEADLAMP, LEFT	BODY CONTROL MODULE (BCM)
----------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1284-2	Ω	C2280F-6

HEADLAMP, RIGHT	BODY CONTROL MODULE (BCM)
-----------------	---------------------------

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C1285-2	Ω	C2280F-17

Is the resistance less than 3 ohms?

Yes	GO to G10
No	REPAIR the circuit.

G10 CHECK THE HEADLAMP ASSEMBLY

- REMOVE the suspect headlamp assembly.
REFER to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
- Substitute the known good headlamp assembly from the opposite headlamp.
- CLEAR the Diagnostic Trouble Codes (DTCs), REPEAT the BCM self-test (required to enable the lamp output driver) and cycle the ignition OFF and ON. TEST the system for normal operation.

Does the suspect turn signal lamp and indicator operate correctly?

Yes	REMOVE the known good headlamp assembly. INSTALL a new headlamp assembly. REFER to: Headlamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to G18

G11 CHECK THE REAR TURN LAMP

- Ignition OFF.
- Disconnect Inoperative LH Rear Lamp [C4483](#) or RH Rear Lamp [C4484](#) .
- Ignition ON.
- While observing the rear turn lamps, place the LH steering column multifunction switch in the inoperative turn position.

Does the turn signal indicator flash fast?

Yes	INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to G12

G12 CHECK THE REAR TURN LAMP OUTAGE CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM [C2280E](#) .
- Ignition ON.
- Measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-10		Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-10		Ground

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to G18

G13 CHECK THE REAR TURN LAMP OUTAGE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

- Disconnect Inoperative LH Rear Lamp [C4483](#) or RH Rear Lamp [C4484](#) .
- Disconnect BCM [C2280E](#) .
- Measure:

REAR LAMP ASSEMBLY LH	
-----------------------	--

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-10	Ω	Ground

REAR LAMP ASSEMBLY RH	
-----------------------	--

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-10	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to G14
No	REPAIR the circuit.

G14 CHECK THE REAR TURN LAMP OUTAGE CIRCUIT FOR AN OPEN

- Measure:

REAR LAMP ASSEMBLY LH	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

LH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4483-10	Ω	C2280E-31

REAR LAMP ASSEMBLY RH	BODY CONTROL MODULE (BCM)
-----------------------	---------------------------

RH Turn Lamp

Positive Lead	Measurement / Action	Negative Lead
C4484-10	Ω	C2280E-44

Is the resistance less than 3 ohms?

Yes	GO to G15
No	REPAIR the circuit.

G15 CHECK THE REAR LAMP ASSEMBLY

- REMOVE the suspect rear lamp assembly.
REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
- Substitute the known good rear lamp assembly from the rear lamp headlamp.
- CLEAR the Diagnostic Trouble Codes (DTCs), REPEAT the BCM self-test (required to enable the lamp output driver) and cycle the ignition OFF and ON. TEST the system for normal operation.

Does the suspect turn signal lamp and indicator operate correctly?

Yes	INSTALL a new rear lamp assembly. REFER to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
No	GO to G18

G16 CHECK FOR CORRECT TBM (TRAILER BRAKE CONTROL MODULE) OPERATION

- Disconnect and inspect all TBM connectors.
- Repair:
 - corrosion (install new connector or terminals â€œ clean module pins)
 - damaged or bent pins â€œ install new terminals/pins
 - pushed-out pins â€œ install new pins as necessary
- Reconnect the TBM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TBM. REFER to: Trailer Brake Control Module (TBM) (206-10 Auxiliary Brake System, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

G17 CHECK FOR CORRECT TRM (TRAILER MODULE) OPERATION

- Disconnect and inspect all TRM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect the TRM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TRM. REFER to: Trailer Module (TRM) (417-01 Exterior Lighting, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

G18 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST H : THE TURN SIGNAL INDICATOR FLASHES FAST WHEN NO TURN SIGNAL LAMPS ARE INOPERATIVE - HALOGEN HEADLAMPS TURN SIGNAL LAMP

Refer to Wiring Diagrams Cell [90](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Exterior Lighting - Overview (417-01 Exterior Lighting, Description and Operation).

REFER to: Exterior Lighting - System Operation and Component Description (417-01 Exterior Lighting, Description and Operation).

Possible Sources

- Module communication concern
- TRM
- TBM
- BCM

H1 DETERMINE IF THE VEHICLE IS EQUIPPED WITH A TRM (TRAILER MODULE) OR TBM (TRAILER BRAKE CONTROL MODULE)

- Using a diagnostic scan tool, perform a network test.

Does the test indicate the presence of a TRM or TBM and pass the network test?

Yes	GO to H2
No	If a TRM or TBM is present and did not pass the network test, DIAGNOSE no communication with the TRM or TBM. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing). If a TRM or TBM is not present, GO to H7

H2 CHECK THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCs) FROM THE BCM (BODY CONTROL MODULE) , TBM (TRAILER BRAKE CONTROL MODULE) AND TRM (TRAILER MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the BCM, TBM and TRM self-test.

Are any communication Diagnostic Trouble Codes (DTCs) present?

Yes	DIAGNOSE the communication Diagnostic Trouble Codes (DTCs) first. For BCM Diagnostic Trouble Codes (DTCs), REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing). For TRM Diagnostic Trouble Codes (DTCs), REFER to: Trailer Lamps (417-01 Exterior Lighting, Diagnosis and Testing). For TBM Diagnostic Trouble Codes (DTCs), REFER to: Auxiliary Brake System - Vehicles With: Trailer Brake Control (206-10 Auxiliary Brake System, Diagnosis and Testing).
No	If only equipped with a TRM or if equipped with a TRM and TBM, GO to H3 If only equipped with a TBM, GO to H4

H3 ISOLATE THE TRM (TRAILER MODULE)

- Ignition OFF.
- Disconnect TRM [C2498A](#) .
- Disconnect TRM [C2498B](#) .
- Disconnect TRM [C2498B](#) .
- Ignition ON.
- Activate the suspect turn lamps.

Do the turn lamps operate correctly?

Yes	GO to H6
No	If only equipped with a TRM, GO to H7 If also equipped with a TBM, GO to H4

H4 ISOLATE THE TBM (TRAILER BRAKE CONTROL MODULE)

- Ignition OFF.
- Disconnect [C2142](#) .
- Ignition ON.
- Activate the suspect turn lamps.

Do the turn lamps operate correctly?

Yes	GO to H5
No	GO to H7

H5 CHECK FOR CORRECT TBM (TRAILER BRAKE CONTROL MODULE) OPERATION

- Disconnect and inspect all TBM connectors.
- Repair:
 - corrosion (install new connector or terminals & clean module pins)
 - damaged or bent pins & install new terminals/pins
 - pushed-out pins & install new pins as necessary
- Reconnect the TBM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TBM. REFER to: Trailer Brake Control Module (TBM) (206-10 Auxiliary Brake System, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

H6 CHECK FOR CORRECT TRM (TRAILER MODULE) OPERATION

- Disconnect and inspect all TRM connectors.
- Repair:
 - corrosion (install new connector or terminals & clean module pins)
 - damaged or bent pins & install new terminals/pins
 - pushed-out pins & install new pins as necessary
- Reconnect the TRM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new TRM. REFER to: Trailer Module (TRM) (417-01 Exterior Lighting, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

H7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€“ clean module pins)
 - damaged or bent pins â€“ install new terminals/pins
 - pushed-out pins â€“ install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

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