

	• Selector lever cable damaged	• CHECK the selector lever cable for damage. If necessary, INSTALL a new selector lever cable. REFER to: Selector Lever Assembly (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).
	• Internal transmission components damaged	• CHECK the manual control lever and internal transmission components for damage. REFER to: Main Control Valve Body - Vehicles With: Column Shift (307-01C Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R80 MHT, Overhaul).
• Brake shift interlock override does not release the selector lever	• Brake shift interlock override damaged	• INSPECT the selector lever for damage. If necessary, INSTALL a new selector lever. REFER to: Selector Lever Assembly (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).
• Vibration â€” a high frequency (20-80 Hz) that is felt through the seat or selector lever. Changes with engine speed	• Selector lever cable incorrectly routed, grounded out or loose	• CHECK the selector lever cable. REFER to: Selector Lever Cable (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission â€“ 10R80, Removal and Installation).
• The ignition key cannot be returned to the OFF position or the ignition key can be turned to the OFF position when the selector lever is not in P	• Selector lever cable binding at the transmission	• VERIFY the selector lever cable is fully seated in the cable bracket on the transmission.
	• Selector lever cable binding at the selector lever	• VERIFY the selector lever cable is fully seated in the cable bracket at the front of the selector lever.
	• Selector lever cable incorrectly routed	• VERIFY the selector lever cable is properly routed and all retaining clips are present and secure.

	- Wiring, terminals or connectors - Ignition lock cylinder - Key removal inhibit solenoid (part of the ignition switch) - Park detect switch (part of the selector lever) - Selector lever cable - Mechanical damage to the selector lever, selector lever cable or selector lever knob	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing). REFER to: Selector Lever Assembly (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission “ 10R80, Removal and Installation). REFER to: Selector Lever Cable Adjustment (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission “ 10R80, General Procedures).
The PRNDL indicator does not illuminate P	Selector lever cable binding at the transmission	VERIFY the selector lever cable is fully seated in the cable bracket on the transmission.
	Selector lever cable binding at the selector lever	VERIFY the selector lever cable is fully seated in the cable bracket at the front of the selector lever.
	Selector lever cable incorrectly routed	VERIFY the selector lever cable is properly routed and all retaining clips are present and secure.
	- Wiring, terminals or connectors - TCM - IPC - Park detect switch (part of the selector lever assembly)	REFER to: Selector Lever Cable Adjustment (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission “ 10R80, General Procedures). REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).

Pinpoint Tests

PINPOINT TEST A : DTCS B1319:11, B1319:15 (COLUMN SHIFT)

Refer to Wiring Diagrams Cell [37](#) for schematic and connector information.

Normal Operation and Fault Conditions

The BCM provides power to the Brake Shift Interlock Actuator (BSIA). When the BCM receives a brake pedal applied input, voltage is applied to the brake shift interlock actuator. When the actuator is energized, the plunger is pulled inward allowing the selector lever to move from the park position. There is a manual shifter release button on the side of the steering column that allows the shifter to release without the brake pedal being pressed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCMC B1319:11	Shift Interlock (BSI) Output Circuit: Circuit Short To Ground	Short to ground in the Brake Shift Interlock Actuator (BSIA) circuitry.
BCMC B1319:15	Shift Interlock (BSI) Output Circuit: Circuit Short To Battery Or Open	Short to power or open in the Brake Shift Interlock Actuator (BSIA) circuitry.

Possible Sources

- Connectors damaged or pushed-out terminals, corrosion, loose wires and missing or damaged seals
- Brake Shift Interlock Actuator (BSIA)
- BCM

A1 CHECK THE STOPLAMPS

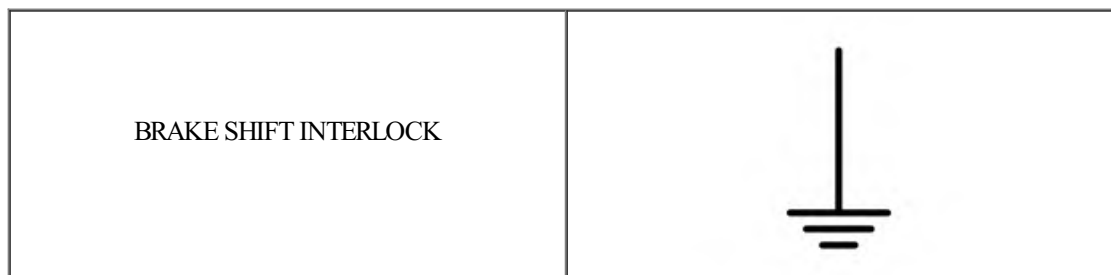
- Apply the brake pedal and observe the stoplamps.

Do the stoplamps illuminate?

Yes	GO to A2
No	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).

A2 CHECK THE BRAKE SHIFT INTERLOCK ACTUATOR POWER CIRCUIT FOR VOLTAGE

- Disconnect Brake Shift Interlock Solenoid [C2008](#) .
- Ignition ON.
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C2008-4		Ground

Is the voltage greater than 11 volts with the brake pedal applied and 0 volts with the brake pedal not applied?

Yes	GO to A5
No	If the voltage was greater than 11 volts with the brake pedal applied or not applied, REPAIR the circuit for a short to power. Otherwise, GO to A3

A3 CHECK THE BRAKE SHIFT INTERLOCK ACTUATOR POWER CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect BCM [C2280B](#).
- Inspect for damaged or pushed-out terminals.
- Measure:

BRAKE SHIFT INTERLOCK	BODY CONTROL MODULE (BCM)
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Positive Lead	Measurement / Action	Negative Lead
C2008-4	Ω	C2280B-46

Is the resistance less than 3 ohms?

Yes	GO to A4
No	REPAIR the circuit.

A4 CHECK THE BRAKE SHIFT INTERLOCK ACTUATOR POWER CIRCUIT FOR SHORT TO GROUND

- Measure:

BRAKE SHIFT INTERLOCK	
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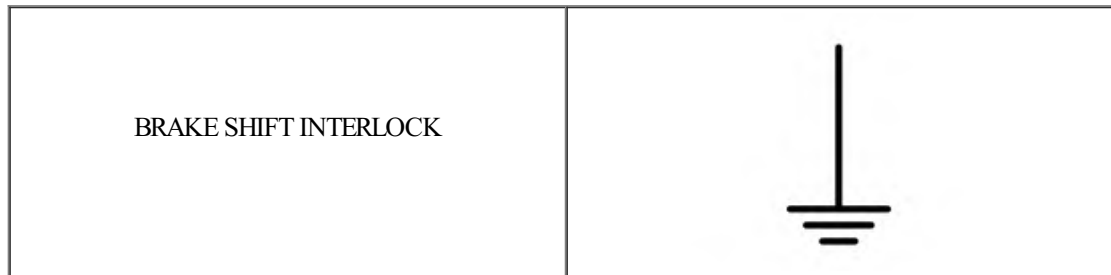
Positive Lead	Measurement / Action	Negative Lead
C2008-4	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to A6
No	REPAIR the circuit.

A5 CHECK THE BRAKE SHIFT INTERLOCK ACTUATOR GROUND CIRCUIT FOR AN OPEN

- Measure:



Positive Lead	Measurement / Action	Negative Lead
C2008-1	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new the Brake Shift Interlock Actuator (BSIA). REFER to: Brake Shift Interlock Actuator (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission “10R80, Removal and Installation).
No	REPAIR the circuit.

A6 CHECK FOR CORRECT BCM OPERATION

- Ignition OFF.
- Disconnect and inspect all BCM connectors.
- Check for the following:
 - 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
- Connect all BCM connectors. Make sure they seat and latch correctly.
- Operate the system and verify the concern is still present.

Is the concern still present?

Yes	INSTALL a new BCM. Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

General Procedures

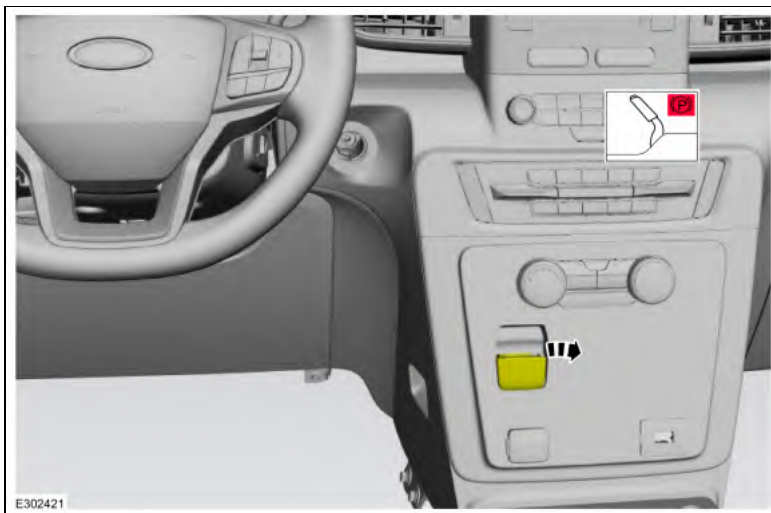
Brake Shift Interlock Actuator Manual Override

Activation

NOTE: If it is necessary to use the brake shift interlock actuator override procedure to move the selector lever out of the PARK position, it is possible that a fuse has blown and the brake lights are not operational. Before driving the vehicle, verify the brake lights are working.

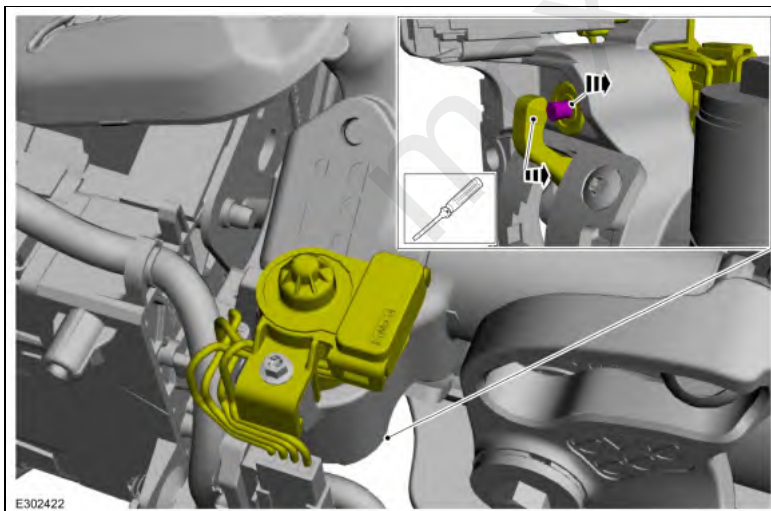
This vehicle is equipped with a brake shift interlock actuator feature that prevents the selector lever from being moved out of the PARK position when the ignition is in the ON position until the brake pedal is applied. If the selector lever cannot be moved out of the PARK position when the ignition is in the ON position and the brake pedal is applied:

1. Apply the parking brake.



2. Remove the steering column shrouds.
Refer to: Steering Column Shrouds (501-05 Interior Trim and Ornamentation, Removal and Installation).
3. **NOTICE: To avoid a pinched finger, use a screwdriver to move the plunger.**

Move the brake shift interlock actuator spindle inward, apply the brake pedal and position the selector lever into N.



4. Start the vehicle.