

Rear Seats

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
B14B6:12	Snow Plow Output: Circuit Short to Battery	REFER to: Snow Plow Package (419-10) .
B14B6:14	Snow Plow Output: Circuit Short to Ground or Open	REFER to: Snow Plow Package (419-10) .
All other Diagnostic Trouble Codes (DTCs)	-	REFER to: BCM (419-10 Multifunction Electronic Modules).

Symptom Chart(s)

Symptom Chart: Rear Seats

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REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).

Symptom Chart

Condition	Possible Sources	Actions
Both heated rear seats are inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test A

The left heated rear seat is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test B
The right heated rear seat is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test C
The left heated rear seat heats correctly but the indicator does not illuminate when activated	Refer to the Pinpoint Test	GO to Pinpoint Test D
The right heated rear seat heats correctly but the indicator does not illuminate when activated	Refer to the Pinpoint Test	GO to Pinpoint Test E
The left heated rear seat indicator is always on	- Wiring, terminals or connectors - Heated seat module	- DISCONNECT the heated rear seat module electrical connector. - If the left heated rear seat indicator turns off when the heated rear seat module is disconnected, INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation). - If the left heated rear seat indicator remains on when the heated rear seat module is disconnected, REPAIR the left heated rear seat module indicator circuits for a short to voltage.
The right heated rear seat indicator is always on	- Wiring, terminals or connectors - Heated seat module	- DISCONNECT the heated rear seat module electrical connector. - If the right heated rear seat indicator turns off when the heated rear seat module is disconnected, INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation). - If the right heated rear seat indicator remains on when the heated rear seat module is disconnected, REPAIR the right heated rear seat module indicator circuits for a short to voltage.

Pinpoint Tests

Both Heated Rear Seats are Inoperative

Refer to Wiring Diagrams Cell 119 for schematic and connector information.

Normal Operation and Fault Conditions

If equipped with the snowplow feature and the snowplow mode is inactive, the rear heated seat module receives power through the normally closed contacts of the snowplow relay (integral to the BJB). When the LH or RH heated rear seat control switch is activated with the ignition ON, a momentary ground signal is supplied to the heated seat module to operate the system. The system cycles through high heat mode, low heat mode or OFF, each time the switch is pressed. The heated seat module supplies voltage to the LH or RH rear seat cushion and backrest heater mats, which are connected in series. Seat temperature is maintained by the heated seat module using a sensor contained within

each cushion heater mat. The heated seat module supplies a reference voltage to the temperature sensor and monitors the return signal from the temperature sensor for controlling current flow to the heater mats. The heated seat module remains ON, heating the seat and maintaining temperature until switched OFF or the ignition voltage is switched OFF.

Possible Sources

- Fuse(s)
- Wiring, terminals or connectors
- Heated seat module
- BJB

Visual Inspection and Diagnostic Pre-checks

- If equipped with the snowplow feature, verify that snowplow mode is not active. For information about snowplow mode, refer to the Owner's Literature.
- Verify BCM fuse 36 (15A) and BJB fuse 94 (15A) (without snowplow feature) or 104 (15A) (with snowplow feature) are OK.

PINPOINT TEST A : BOTH HEATED REAR SEATS ARE INOPERATIVE

A1 CHECK FOR VOLTAGE TO THE HEATED REAR SEAT MODULE	
• Ignition OFF. • Disconnect Heated Rear Seat Module C3304B. • Ignition ON.	
Is the voltage greater than 11 volts?	
Yes	GO to A2
No	If equipped with the snowplow feature, VERIFY BJB fuse 104 (15A) is OK. If OK, GO to A7 If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. If not equipped with the snowplow feature, VERIFY BJB fuse 94 (15A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.
A2 CHECK FOR IGNITION VOLTAGE TO THE HEATED REAR SEAT MODULE	

Is the voltage greater than 11 volts?

Yes	GO to A3
No	VERIFY BCM fuse 36 (15A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.

A3 CHECK THE HEATED REAR SEAT MODULE GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.

Is the resistance less than 3 ohms?

Yes	GO to A4
No	REPAIR the circuit.

A4 VERIFY THE HEATED REAR SEAT SWITCH IS PROVIDING A GROUND INPUT SIGNAL TO THE HEATED SEAT MODULE

- Disconnect Heated Rear Seat Module C3304A.

Is the resistance less than 3 ohms when the switch is pressed and greater than 10,000 ohms when released?

Yes	GO to A6
No	GO to A5

A5 CHECK THE HEATED REAR SEAT SWITCH GROUND CIRCUIT FOR AN OPEN

- Disconnect Heated Rear Seat Switch C3182.

Is the resistance less than 3 ohms?

Yes	INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	REPAIR the circuit.

A6 CHECK THE TEMPERATURE SENSOR RETURN CIRCUIT FOR AN OPEN

Is the resistance between 300 and 300K ohms?

Yes	INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	REPAIR the circuit.

A7 CHECK THE BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

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

Was DTC B14B6:12 or B14B6:14 retrieved?

Yes	REFER to: Snow Plow Package (419-10) .
No	GO to A8

A8 CHECK THE HEATED REAR SEAT MODULE VOLTAGE FEED CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: BJB C1035D.

Is the resistance less than 3 ohms?

Yes	INSPECT C1035D for corrosion or damaged and/or pushed-out pins. REPAIR as necessary. If OK, INSTALL a new BJB.
No	REPAIR the circuit.

The Left Heated Rear Seat is Inoperative

Refer to Wiring Diagrams Cell 119 for schematic and connector information.

Normal Operation and Fault Conditions

When the LH heated rear seat control switch is activated with the ignition ON, a ground signal is supplied to the heated seat module from the switch. When commanded ON, voltage is supplied to the heated seat switch from the heated seat module to illuminate the switch indicator. The heated seat module also supplies voltage to the LH rear seat cushion and backrest heater mats, which are connected in series. Temperature is maintained by the heated seat module using a sensor contained within the cushion heater mat.

The heated seat module supplies a reference voltage to the temperature sensor and monitors the return signal from the temperature sensor for controlling current flow to the heater mats. The heated seat module remains ON, heating the seat and maintaining temperature until switched OFF or the ignition voltage is switched OFF.

Possible Sources

- Wiring, terminals or connectors
- Heater mat
- Heated seat switch
- Heated seat module

PINPOINT TEST B : THE LEFT HEATED REAR SEAT IS INOPERATIVE

B1 CHECK THE HEATED SEAT SWITCH INPUT	
• Ignition OFF. • Disconnect Heated Rear Seat Module C3304A.	
Is the resistance less than 3 ohms when the switch is pressed and greater than 10,000 ohms when released?	
Yes	GO to B3
No	GO to B2
B2 CHECK THE HEATED SEAT SWITCH CIRCUIT FOR AN OPEN OR SHORT TO GROUND	
• Disconnect Heated Rear Seat Switch C3182.	
Are the resistances less than 3 ohms between C3182-2 and C3304A-2, and greater than 10,000 ohms between C3182-2 and ground?	
Yes	INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	REPAIR the circuit.
B3 CHECK FOR VOLTAGE TO THE HEATED SEAT MODULE	

- Disconnect Heated Rear Seat Module C3304B.

Is the voltage greater than 11 volts?

Yes	GO to B4
No	REPAIR the circuit.

B4 CHECK THE HEATER CIRCUITS AND HEATER MATS FOR AN OPEN

Is the resistance between 2.5 and 4.5 ohms?

Yes	GO to B9
No	GO to B5

B5 CHECK THE HEATER MAT GROUND CIRCUIT FOR AN OPEN

- Disconnect Left Rear Backrest Heater Mat C3168.

Is the resistance less than 3 ohms?

Yes	GO to B6
No	REPAIR the circuit.

B6 CHECK THE HEATER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

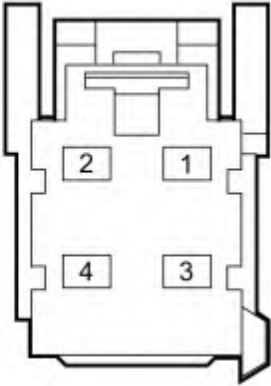
- Disconnect Left Rear Cushion Heater Mat C3167.

Are the resistances less than 3 ohms between C3304B-4 and C3167-1, and greater than 10,000 ohms between C3304B-4 and ground?

Yes	GO to B7
No	REPAIR the circuit.

B7 CHECK THE CUSHION HEATER MAT FOR AN OPEN

- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E190244 C3167-1, Component Side		C3167-4, Component Side

Is the resistance between 1.5 and 2.5 ohms?

Yes	GO to B8
No	INSTALL a new cushion heater mat.

B8 CHECK FOR AN OPEN OR A SHORT TO GROUND BETWEEN THE HEATER MATS

Are the resistances less than 3 ohms between C3167-4 and C3168-1, and greater than 10,000 ohms between C3167-4 and ground?

Yes	INSTALL a new backrest heater mat.
No	REPAIR the circuit.

B9 CHECK THE TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to B10

B10 CHECK THE TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

Is the resistance greater than 10,000 ohms?

Yes	GO to B11
No	REPAIR the circuit.

B11 CHECK THE TEMPERATURE SENSOR AND CIRCUITS FOR AN OPEN

Is the resistance between 300 and 300K ohms?

Yes	INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	GO to B12

B12 CHECK THE TEMPERATURE SENSOR FOR AN OPEN WITH THE HEATER MAT DISCONNECTED

- Disconnect Left Rear Cushion Heater Mat C3167.

Are the resistances less than 3 ohms?

Yes	INSTALL a new cushion heater mat.
No	REPAIR the circuit in question.

The Right Heated Rear Seat is Inoperative

Refer to Wiring Diagrams Cell 119 for schematic and connector information.

Normal Operation and Fault Conditions

When the RH heated rear seat control switch is activated with the ignition ON, a ground signal is supplied to the heated seat module from the switch. When commanded ON, voltage is supplied to the heated seat switch from the heated seat module to illuminate the switch indicator. The heated seat module also supplies voltage to the RH rear seat cushion and backrest heater mats, which are connected in series. Temperature is maintained by the heated seat module using a sensor contained within the cushion heater mat. The heated seat module supplies a reference voltage to the temperature sensor and monitors the return signal from the temperature sensor for controlling current flow to the heater mats. The heated seat module remains ON, heating the seat and maintaining temperature until switched OFF or the ignition voltage is switched OFF.

Possible Sources

- Wiring, terminals or connectors
- Heater mat
- Heated seat switch
- Heated seat module

PINPOINT TEST C : THE RIGHT HEATED REAR SEAT IS INOPERATIVE

C1 CHECK THE HEATED SEAT SWITCH INPUT

- Ignition OFF.
- Disconnect Heated Rear Seat Module C3304A.

Is the resistance less than 3 ohms when the switch is pressed and greater than 10,000 ohms when released?

Yes	GO to C3
No	GO to C2

C2 CHECK THE HEATED SEAT SWITCH CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Disconnect Rear Seat Heated Seat Switch C3182.

Are the resistances less than 3 ohms between C3182-3 and C3304A-8, and greater than 10,000 ohms between C3182-3 and ground?

Yes	INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	REPAIR the circuit.

C3 CHECK FOR VOLTAGE TO THE HEATED SEAT MODULE

- Disconnect Heated Rear Seat Module C3304B.

Is the voltage greater than 11 volts?

Yes	GO to C4
No	REPAIR the circuit.

C4 CHECK THE HEATER CIRCUITS AND HEATER MATS FOR AN OPEN

Is the resistance between 2.5 and 4.5 ohms?

Yes	GO to C9
No	GO to C5

C5 CHECK THE HEATER MAT GROUND CIRCUIT FOR AN OPEN

- Disconnect Right Rear Backrest Heater Mat C3170.

Is the resistance less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit.

C6 CHECK THE HEATER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

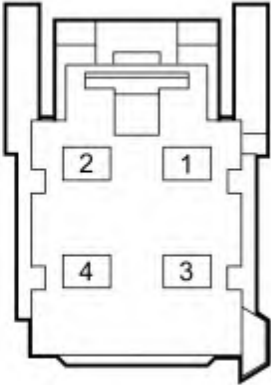
- Disconnect Right Rear Cushion Heater Mat C3169.

Are the resistances less than 3 ohms between C3304B-6 and C3169-1, and greater than 10,000 ohms between C3304B-6 and ground?

Yes	GO to C7
No	REPAIR the circuit.

C7 CHECK THE CUSHION HEATER MAT FOR AN OPEN

- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E190244		

C3169-1, Component Side

C3169-4, Component Side

Is the resistance between 1.5 and 2.5 ohms?

Yes	GO to C8
No	INSTALL a new cushion heater mat.

C8 CHECK FOR AN OPEN OR A SHORT TO GROUND BETWEEN THE HEATER MATS

Are the resistances less than 3 ohms between C3169-4 and C3170-1, and greater than 10,000 ohms between C3169-4 and ground?

Yes	INSTALL a new backrest heater mat.
No	REPAIR the circuit.

C9 CHECK THE TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.

Is any voltage present?

Yes	REPAIR the circuit.
No	GO to C10

C10 CHECK THE TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.

Is the resistance greater than 10,000 ohms?

Yes	GO to C11
No	REPAIR the circuit.

C11 CHECK THE TEMPERATURE SENSOR AND CIRCUITS FOR AN OPEN

Is the resistance between 300 and 300K ohms?

Yes	INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	GO to C12

C12 CHECK THE TEMPERATURE SENSOR FOR AN OPEN WITH THE HEATER MAT DISCONNECTED

- Disconnect Right Rear Cushion Heater Mat C3169.

Are the resistances less than 3 ohms?

Yes	INSTALL a new backrest heater mat.
No	REPAIR the circuit in question.

Refer to Wiring Diagrams Cell 119 for schematic and connector information.

Normal Operation and Fault Conditions

With the ignition and heated seat on, the heated seat module supplies voltage to the indicator circuit(s) to illuminate the appropriate switch indicator. The first button press puts the seat heater on low. A second button press operates the seat heater on high. The heated seat and indicator deactivates with a third button press.

Possible Sources

- Wiring, terminals or connectors
- Heated rear seat switch
- Heated rear seat module

Visual Inspection and Diagnostic Pre-checks

- Inspect for a damaged heated rear seat switch.

PINPOINT TEST D : THE LEFT HEATED REAR SEAT HEATS CORRECTLY BUT THE INDICATOR DOES NOT ILLUMINATE WHEN ACTIVATED

D1 CHECK THE HEATED SEAT INDICATOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect Heated Rear Seat Module C3304A.
- Disconnect Heated Rear Seat Switch C3182.

Are the resistances greater than 10,000 ohms?

Yes	GO to D2
No	REPAIR the circuit in question.

D2 CHECK THE HEATED SEAT INDICATOR CIRCUITS FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to D3
No	REPAIR the circuit in question.

D3 CHECK THE HIGH HEAT INDICATOR

- Disconnect Heated Rear Seat Module C3304B.
- Connect Heated Rear Seat Switch C3182.

Does the indicator illuminate?

Yes	Remove the fused jumper wire. GO to D4
No	Remove the fused jumper wire. INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).

D4 CHECK THE LOW HEAT INDICATOR

Does the indicator illuminate?

Yes	Remove the fused jumper wire. INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	Remove the fused jumper wire. INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).

The Right Heated Rear Seat Heats Correctly But The Indicator Does Not Illuminate When Activated

Refer to Wiring Diagrams Cell 119 for schematic and connector information.

Normal Operation and Fault Conditions

With the ignition and heated seat on, the heated seat module supplies voltage to the indicator circuit(s) to illuminate the appropriate switch indicator. The first button press puts the seat heater on low. A second button press operates the seat heater on high. The heated seat and indicator deactivates with a third button press.

Possible Sources

- Wiring, terminals or connectors
- Heated rear seat switch
- Heated rear seat module

Visual Inspection and Diagnostic Pre-checks

- Inspect for a damaged heated rear seat switch.

PINPOINT TEST E : THE RIGHT HEATED REAR SEAT HEATS CORRECTLY BUT THE INDICATOR DOES NOT ILLUMINATE WHEN ACTIVATED

E1 CHECK THE HEATED SEAT INDICATOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect Heated Rear Seat Module C3304A.
- Disconnect Heated Rear Seat Switch C3182.

Are the resistances greater than 10,000 ohms?

Yes	GO to E2
No	REPAIR the circuit in question.

E2 CHECK THE HEATED SEAT INDICATOR CIRCUITS FOR AN OPEN

Are the resistances less than 3 ohms?

Yes	GO to E3
No	REPAIR the circuit in question.

E3 CHECK THE HIGH HEAT INDICATOR

- Disconnect Heated Rear Seat Module C3304B.
- Connect Heated Rear Seat Switch C3182.

Does the indicator illuminate?

Yes	Remove the fused jumper wire. GO to E4
No	Remove the fused jumper wire. INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).

E4 CHECK THE LOW HEAT INDICATOR

Does the indicator illuminate?

Yes	Remove the fused jumper wire. INSTALL a new heated rear seat module. REFER to: Heated Rear Seat Module - SuperCrew (501-10B Rear Seats, Removal and Installation).
No	Remove the fused jumper wire. INSTALL a new heated rear seat switch. REFER to: Heated Rear Seat Switch - SuperCrew (501-10B Rear Seats, Removal and Installation).