Front Seats

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
B1C03:23	Memory #1 Switch: Signal Stuck Low	GO to Pinpoint Test D
B1C04:23	Memory #2 Switch: Signal Stuck Low	GO to Pinpoint Test D
B1C05:23	Memory #3 Switch: Signal Stuck Low	GO to Pinpoint Test D
All other Diagnostic Trouble Codes (DTCs)	-	REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

DTC Chart: SCME

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).

SCME DTC Chart

DTC	Description	Action
B103B	Thermoelectric Driver Overcurrent Low	GO to Pinpoint Test L
B103C	Thermoelectric Driver Open Load	GO to Pinpoint Test M
B103D	Blower Driver Overtemperature	GO to Pinpoint Test N
B1111	Driver Thermal Electric Device Control Overtemperature Fault	GO to Pinpoint Test L
B1113	Passenger Thermal Electric Device Control Overtemperature Fault	GO to Pinpoint Test O
B111B	Passenger Thermoelectric Driver Overcurrent Low	GO to Pinpoint Test O
B111C	Passenger Thermoelectric Driver Open Load	GO to Pinpoint Test P
B111D	Passenger Blower Driver Overtemperature	GO to Pinpoint Test Q
B1342	ECU is Faulted	INSTALL a new SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation).
B19A1	Passenger Seat Cushion Blower Speed Short to Battery	GO to Pinpoint Test R

DTC	Description	Action
B19A2	Passenger Seat Back Blower Speed Short to Battery	GO to Pinpoint Test S
B19A3	Driver Seat Cushion Blower Speed Short to Battery	GO to Pinpoint Test T
B19A4	Driver Seat Back Blower Speed Short to Battery	GO to Pinpoint Test U
B19A5	Passenger Seat Cushion Blower Speed Short to Ground	GO to Pinpoint Test V
B19A6	Passenger Seat Back Blower Speed Short to Ground	GO to Pinpoint Test W
B19A7	Driver Seat Cushion Blower Speed Short to Ground	GO to Pinpoint Test X
B19A8	Driver Seat Back Blower Speed Short to Ground	GO to Pinpoint Test Y
B2477	Module Configuration Failure	**NOTE:** *This DTC indicates PMI has not been done to a newly installed module or configuration data has been lost.* Using a diagnostic scan tool, CARRY OUT PMI on the SCME . REPEAT the self-test. If PMI is successful, the DTC will not be present.
B2486	Climate Control Seat Module Voltage Out of Range	GO to Pinpoint Test K
B2729	Cushion Over-Temp Detected	GO to Pinpoint Test AF
B272A	Passenger Cushion Over-Temp Detected	GO to Pinpoint Test Z
B272B	Passenger Back Over-Temp Detected	GO to Pinpoint Test AA
B272C	Driver Differential Temperature Fault	GO to Pinpoint Test AB
B272D	Passenger Differential Temperature Fault	GO to Pinpoint Test AC
B272E	Driver Ignition Run/Blower Circuit Short to Ground	GO to Pinpoint Test AD
B272F	Passenger Ignition Run/Blower Circuit Short to Ground	GO to Pinpoint Test AE
B2730	Back Over-Temp Detected	GO to Pinpoint Test AG
U2050	No Application Present	INSTALL a new SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation).

DTC Chart: DSM

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).

DSM DTC Chart

DTC	Description	Action
B1317	Battery Voltage High	GO to Pinpoint Test G
B1318	Battery Voltage Low	GO to Pinpoint Test H
B1663	Seat Driver Front Up/Down Motor Stalled	If the motor does not operate, GO to Pinpoint Test C If the motor operates in one second intervals, GO to Pinpoint Test D
B1664	Seat Driver Rear Up/Down Motor	If the motor does not operate, GO to Pinpoint Test C If the motor operates in one

DTC	Description	Action
	Stalled	second intervals, GO to Pinpoint Test D
B1665	Seat Driver Forward/Backward Motor Stalled	If the motor does not operate, GO to Pinpoint Test C If the motor operates in one second intervals, GO to Pinpoint Test D
B1711	Seat Driver Front Up Switch Circuit Short To Battery	GO to Pinpoint Test C
B1715	Seat Driver Front Down Switch Circuit Short To Battery	GO to Pinpoint Test C
B1719	Seat Driver Forward Switch Circuit Short To Battery	GO to Pinpoint Test C
B1723	Seat Driver Rearward Switch Circuit Short To Battery	GO to Pinpoint Test C
B1727	Seat Driver Rear Up Switch Circuit Short To Battery	GO to Pinpoint Test C
B1731	Seat Driver Rear Down Switch Circuit Short To Battery	GO to Pinpoint Test C
B1952	Seat Rear Up/Down Position Feedback Circuit Short To Battery	GO to Pinpoint Test D
B1953	Seat Rear Up/Down Position Feedback Circuit Short To Ground	GO to Pinpoint Test D
B1956	Seat Front Up/Down Position Feedback Circuit Short To Battery	GO to Pinpoint Test D
B1957	Seat Front Up/Down Position Feedback Circuit Short To Ground	GO to Pinpoint Test D
B1964	Seat Horizontal Forward/Rearward Position Feedback Circuit Short To Battery	GO to Pinpoint Test D
B1965	Seat Horizontal Forward/Rearward Position Feedback Circuit Short To Ground	GO to Pinpoint Test D
B2477	Module Configuration Failure	**NOTE:** *This DTC indicates PMI has not been carried out on a newly installed module or configuration data has been lost. Presence of this DTC alone does not prevent basic seat operation from the seat control switch.* Using a diagnostic scan tool, CARRY OUT PMI on the DSM . REPEAT the self-test and VERIFY successful PMI . CLEAR the Diagnostic Trouble Codes (DTCs).
U0140	Lost Communication With Body Control Module (GEM)	GO to Pinpoint Test I
U2050	No Application Present	INSTALL a new DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

Symptom Chart(s)

Symptom Chart: Front Seats

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
No communication with the DSM	• Refer to the Pinpoint Test	• REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No communication with the DDM	• Refer to the Pinpoint Test	• REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No communication with the FCIM	• Refer to the Pinpoint Test	• REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No communication with the SCME	• Refer to the Pinpoint Test	• REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
The power seat is inoperative or does not operate correctly — driver, without memory	• Refer to the Pinpoint Test	• GO to Pinpoint Test F
The power seat is inoperative or does not operate correctly — passenger	• Refer to the Pinpoint Test	• GO to Pinpoint Test A
The power lumbar is inoperative — driver	• Refer to the Pinpoint Test	• GO to Pinpoint Test B
The memory seat does not operate horizontally/vertically using the seat control switch	• Refer to the Pinpoint Test	• GO to Pinpoint Test C
The memory seat does not operate using the memory SET switch	• Refer to the Pinpoint Test	• GO to Pinpoint Test D
The memory seat moves in one-second intervals	• Refer to the Pinpoint Test	• CARRY OUT the DSM self-test and RETRIEVE the Diagnostic Trouble Codes (DTCs). REFER to the DSM DTC Chart.
The memory seat does not move to the correct memory position	• Refer to the Pinpoint Test	• CARRY OUT the DSM self-test and RETRIEVE the Diagnostic Trouble Codes (DTCs). REFER to the DSM DTC Chart.
The memory seat does not operate when using the RKE transmitter	• Refer to the Pinpoint Test	• VERIFY the RKE transmitter is operating correctly and is associated to a memory position. REFER to the Owner's Literature for information on associating a RKE transmitter. CARRY OUT the DSM self-test and REFER to the DSM DTC Chart to diagnose any Diagnostic Trouble Codes (DTCs) retrieved.
Easy entry/easy exit is inoperative/does not operate correctly	• Refer to the Pinpoint Test	• GO to Pinpoint Test E
One or both climate controlled seats are inoperative	• Refer to the Pinpoint Test	• GO to Pinpoint Test J

Condition	Possible Sources	Actions
A single climate controlled seat does not operate correctly — exhibits poor airflow or performance	• Excessive sunload or extreme cabin temperatures • Incorrectly installed backrest or cushion blower motor • Airflow blockage • Disconnected air duct	• CARRY OUT the SCME self-test and retrieve any Diagnostic Trouble Codes (DTCs). ▪ If any Diagnostic Trouble Codes (DTCs) are present, REFER to the SCME DTC Chart. ▪ If no Diagnostic Trouble Codes (DTCs) are present, CHECK the affected seat cushion or backrest for correct installation of the climate controlled seat components (backrest or cushion blower motor, air duct and foam pad) and CHECK for airflow restrictions (backrest or cushion blower motor inlets and outlets, filters and ducts) and REPAIR as needed. RETEST the system for normal operation.

Pinpoint Test(s)

The Power Seat is Inoperative or Does Not Operate Correctly — Passenger

Refer to Wiring Diagrams Cell 120for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

Possible Causes

- Fuse
- Wiring, terminals or connectors
- Seat control switch
- Horizontal motor
- Seat track

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 13 (30A) is OK.

PINPOINT TEST A: THE POWER SEAT IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY — PASSENGER

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

A1 CHECK THE SEAT OPERATION

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Attempt to operate the seat in all directions.

Is the seat inoperative in all directions?

Yes	GO to A2
No	If only the horizontal motor is inoperative, GO to A4 If only the front height motor is inoperative, GO to A6 If only the rear height motor is inoperative, GO to A8

A2 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- Disconnect: Passenger Seat Control Switch C3190.

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3190 Pin 8	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to A3
No	VERIFY BJB fuse 13 (30A) 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. GO to A10

A3 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3190 Pin 10	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new passenger seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to A10
No	REPAIR the circuit. GO to A10

A4 CHECK FOR VOLTAGE TO THE SEAT HORIZONTAL MOTOR

- Disconnect: Passenger Seat Horizontal Motor C332.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*
  While pushing the horizontal switch forward and rearward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C332 Pin 1	V	C332 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to A10
No	GO to A5

A5 CHECK THE SEAT HORIZONTAL MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch C3190.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3190 Pin 1	Ω	C332 Pin 3
C3190 Pin 2	Ω	C332 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new passenger seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to A10
No	REPAIR the circuit in question. GO to A10

A6 CHECK FOR VOLTAGE TO THE SEAT FRONT HEIGHT MOTOR

- Disconnect: Passenger Seat Front Height Motor C3074.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*
  While pushing the front height switch upward and downward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3074 Pin 1	V	C3074 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new passenger seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to A10
No	GO to A7

A7 CHECK THE SEAT FRONT HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch C3190.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3190 Pin 6	Ω	C3074 Pin 3
C3190 Pin 5	Ω	C3074 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new passenger seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to A10
No	REPAIR the circuit in question. GO to A10

A8 CHECK FOR VOLTAGE TO THE SEAT REAR HEIGHT MOTOR

- Disconnect: Passenger Seat Rear Height Motor C3075.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*

  While pushing the rear height switch upward and downward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3075 Pin 1	V	C3075 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new passenger seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to A10
No	GO to A9

A9 CHECK THE SEAT REAR HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch C3190.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3190 Pin 9	Ω	C3075 Pin 3
C3190 Pin 7	Ω	C3075 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new passenger seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to A10
No	REPAIR the circuit in question. GO to A10

A10 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

The Power Lumbar is Inoperative — Driver

Refer to Wiring Diagrams Cell 120for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

Possible Causes

- Wiring, terminals or connectors
- Seat control switch
- Front seat power lumbar assembly

PINPOINT TEST B: THE POWER LUMBAR IS INOPERATIVE — DRIVER

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

B1 CHECK FOR VOLTAGE TO THE SEAT LUMBAR MOTOR

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Driver Seat Lumbar Motor C3215.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*

  While pushing the lumbar switch in both directions, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3215 Pin A	V	C3215 Pin B

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new driver seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation). GO to B3
No	GO to B2

B2 CHECK THE SEAT LUMBAR MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Control Switch C352.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 4	Ω	C3215 Pin B
C352 Pin 3	Ω	C3215 Pin A

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to B3
No	REPAIR the circuit in question. GO to B3

B3 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Driver Side Airbag In-line C3206.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

The Memory Seat Does Not Operate Horizontally/Vertically Using the Seat Control Switch

Refer to Wiring Diagrams Cell 123for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1663	Seat Driver Front Up/Down Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.
B1664	Seat Driver Rear Up/Down Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.
B1665	Seat Driver Forward/Backward Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.
B1711	Seat Driver Front Up Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1715	Seat Driver Front Down Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1719	Seat Driver Forward Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1723	Seat Driver Rearward Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.

DTC	Description	Fault Trigger Conditions
B1727	Seat Driver Rear Up Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1731	Seat Driver Rear Down Switch Circuit Short to Battery	If voltage is sensed on the switch input circuit during the DSM self-test, the DTC is set. If voltage is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.

Possible Causes

- Fuse
- Wiring, terminals or connectors
- Seat control switch
- Horizontal motor
- Seat track
- DSM

Visual Inspection and Diagnostic Pre-checks

- Verify BCM fuse 2 (7.5A) is OK.
- Verify BJB fuse 12 (30A) is OK.

PINPOINT TEST C: THE MEMORY SEAT DOES NOT OPERATE HORIZONTALLY/VERTICALLY USING THE SEAT CONTROL SWITCH

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

C1 RETRIEVE THE DSM (DRIVER FRONT SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Ignition ON.
- Activate the seat control switch in all directions.
- Using a diagnostic scan tool, perform DSM self-test. If the diagnostic scan tool does not communicate with the DSM , REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Are any DSM Diagnostic Trouble Codes (DTCs) present?

Yes	If Diagnostic Trouble Codes (DTCs) B1663, B1664, and B1665 are all retrieved, GO to C10 For DTC B1711, B1715, B1719, B1723, B1727 or B1731, GO to C3 For DTC B1663, GO to C18 For DTC B1664, GO to C21 For DTC B1665, GO to C24 For all other Diagnostic Trouble Codes (DTCs), REFER to the DSM DTC Chart. GO to C28
No	GO to C2

C2 CHECK THE DSM (DRIVER FRONT SEAT MODULE) SEAT CONTROL SWITCH PARAMETER IDENTIFICATIONS (PIDS)

- While operating the seat control switch in all positions, monitor the following DSM seat control switch Parameter Identifications (PIDs) using a diagnostic scan tool:
  - Driver Power Seat Front Up/Down Switch (SFNT_SW)
  - Driver Power Seat Forward/Backward Switch (SFWD_SW)
  - Driver Power Seat Rear Up/Down Switch (SREARSW)

Do the PID states agree with the switch positions?

Yes	GO to C9

No	VERIFY BJB fuse 12 (30A) is OK. If OK, GO to C3 If not OK or fails while operating the seat control switch, DISCONNECT the seat control switch C3387 and GO to C7

C3 CHECK THE SEAT CONTROL SWITCH

- Ignition OFF.
- Remove the driver seat control switch.
  REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).
- Carry out the seat control switch component test.
  Refer to Wiring Diagrams Cell 149for schematic and connector information.

Is the seat control switch OK?

Yes	GO to C4
No	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to C28

C4 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 9	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to C5
No	REPAIR the circuit. GO to C28

C5 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 7	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit. GO to C28

C6 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO VOLTAGE

- Disconnect: DSM C341B.
- Ignition ON.

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 8	V	Ground
C352 Pin 1	V	Ground
C352 Pin 5	V	Ground
C352 Pin 2	V	Ground
C352 Pin 6	V	Ground
C352 Pin 10	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to C28
No	GO to C7

C7 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 8	Ω	Ground
C352 Pin 1	Ω	Ground
C352 Pin 5	Ω	Ground
C352 Pin 2	Ω	Ground
C352 Pin 6	Ω	Ground
C352 Pin 10	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C8
No	REPAIR the circuit in question. GO to C28

C8 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 8	Ω	C341B Pin 17
C352 Pin 1	Ω	C341B Pin 18

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 5	Ω	C341B Pin 16
C352 Pin 2	Ω	C341B Pin 6
C352 Pin 6	Ω	C341B Pin 15
C352 Pin 10	Ω	C341B Pin 5

Are the resistances less than 3 ohms?

Yes	GO to C27
No	REPAIR the circuit in question. GO to C28

C9 CHECK THE SEAT TRACK OPERATION USING DSM (DRIVER FRONT SEAT MODULE) ACTIVE COMMANDS AND PARAMETER IDENTIFICATIONS (PIDS)

- Toggle the following DSM active commands ON and OFF using a diagnostic scan tool while monitoring the seat movement:
  - Front Motor Up (FRONT_UP)
  - Front Motor Down (FRONT_DWN)
  - Rear Motor Up (REAR_UP)
  - Rear motor down (REAR_DWN)
  - Horizontal Motor Forward (HORZ_FWD)
  - Horizontal Motor Backward (HORZ_BWD)

Does the driver seat operate correctly?

Yes	The condition may be intermittent. CHECK for causes of an intermittent concern, particularly the pins and terminals of electrical connectors that were disconnected. **Do not install any new components at this time. Components should only be installed when directed to do so in the pinpoint test.** REPAIR any intermittent wiring, terminal or connector concerns found. GO to C28
No	If no seat movement, GO to C10 If no front vertical seat movement, GO to C18 If no rear vertical seat movement, GO to C21 If no horizontal seat movement, GO to C24

C10 CHECK FOR VOLTAGE TO THE DSM (DRIVER FRONT SEAT MODULE)

- Ignition OFF.
- Disconnect: DSM C341A and C341B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341A Pin 1	V	Ground

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 1	V	Ground

Are the voltages greater than 11 volts?

Yes	GO to C11
No	VERIFY BJB fuse 12 (30A) and BCM fuse 2 (7.5A) are OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. GO to C28

C11 CHECK THE DSM (DRIVER FRONT SEAT MODULE) GROUND CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341A Pin 2	Ω	Ground

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 24	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to C12
No	REPAIR the circuit in question. GO to C28

C12 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 23	Ω	Ground
C341B Pin 11	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C14
No	GO to C13

C13 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

- Disconnect: Driver Seat Front Height Motor C382.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 23	Ω	Ground
C341B Pin 11	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to C28
No	REPAIR the circuit in question. GO to C28

C14 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 22	Ω	Ground
C341B Pin 10	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C16
No	GO to C15

C15 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

- Disconnect: Driver Seat Rear Height Motor C363.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 22	Ω	Ground
C341B Pin 10	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to C28
No	REPAIR the circuit in question. GO to C28

C16 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO GROUND

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 9	Ω	Ground
C341B Pin 12	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C27
No	GO to C17

C17 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

- Disconnect: Driver Seat Horizontal Motor C362.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 9	Ω	Ground
C341B Pin 12	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to C28
No	REPAIR the circuit in question. GO to C28

C18 CHECK THE FRONT HEIGHT MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

- Ignition OFF.
- Disconnect: Driver Seat Front Height Motor C382.
- Ignition ON.
- Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):
  - Front Motor Up (FRONT_UP)
  - Front Motor Down (FRONT_DWN)
- **NOTE:** *During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.*

  Using a diagnostic scan tool, toggle the active commands FRONT_UP and FRONT_DOWN on and off and measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 1	V	C382 Pin 3

Is the voltage greater than 11 volts when commanded ON in both directions and 0 volt when commanded OFF?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to C28
No	GO to C19

C19 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.

- Disconnect: DSM C341B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 23	V	Ground
C341B Pin 11	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to C28
No	GO to C20

C20 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 23	Ω	C382 Pin 3
C341B Pin 11	Ω	C382 Pin 1

Are the resistances less than 3 ohms?

Yes	GO to C27
No	REPAIR the circuit in question. GO to C28

C21 CHECK THE REAR HEIGHT MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

- Ignition OFF.
- Disconnect: Driver Seat Rear Height Motor C363.
- Ignition ON.
- Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):
  - Rear Motor Up (REAR_UP)
  - Rear motor down (REAR_DWN)
- **NOTE:** *During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.*

  Using a diagnostic scan tool, toggle the active commands REAR_UP and REAR_DOWN on and off and measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C363 Pin 1	V	C363 Pin 3

Is the voltage greater than 11 volts when commanded ON in both directions and 0 volt when commanded OFF?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation).

	GO to C28
No	GO to C22

C22 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: DSM C341B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 22	V	Ground
C341B Pin 10	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to C28
No	GO to C23

C23 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 22	Ω	C363 Pin 3
C341B Pin 10	Ω	C363 Pin 1

Are the resistances less than 3 ohms?

Yes	GO to C27
No	REPAIR the circuit in question. GO to C28

C24 CHECK THE HORIZONTAL MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

- Ignition OFF.
- Disconnect: Driver Seat Horizontal Motor C362.
- Ignition ON.
- Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):
  - Horizontal Motor Forward (HORZ_FWD)
  - Horizontal Motor Backward (HORZ_BWD)
- **NOTE:** *During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.*

  Using a diagnostic scan tool, toggle the active commands HORZ_FWD and HORZ_BWD on and off and measure:

  Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C362 Pin 1	V	C362 Pin 3

Is the voltage greater than 11 volts when commanded ON in both directions and 0 volt when commanded OFF?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to C28
No	GO to C25

C25 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect: DSM C341B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 9	V	Ground
C341B Pin 12	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to C28
No	GO to C26

C26 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 9	Ω	C362 Pin 3
C341B Pin 12	Ω	C362 Pin 1

Are the resistances less than 3 ohms?

Yes	GO to C27
No	REPAIR the circuit in question. GO to C28

C27 CHECK THE DSM (DRIVER FRONT SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the DSM connectors.
- Repair:

- corrosion (install new connector or terminals - clean module pins)
- damaged or bent pins - install new terminals/pins as necessary
- pushed-out pins - install new pins as necessary

- Reconnect the DSM connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to C28
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. GO to C28

C28 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

The Memory Seat Does Not Operate Using the Memory SET Switch

Refer to Wiring Diagrams Cell 123for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

DSM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1663	Seat Driver Front Up/Down Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.
B1664	Seat Driver Rear Up/Down Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.

DTC	Description	Fault Trigger Conditions
B1665	Seat Driver Forward/Backward Motor Stalled	During self-test, the DSM attempts to operate the appropriate seat track motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM will retry motor operation on the next activation of the seat control switch. If no movement continues to be monitored after 250 milliseconds, the DSM disables the output.
B1952	Seat Rear Up/Down Position Feedback Circuit Short to Battery	If a short to voltage or an open condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.
B1953	Seat Rear Up/Down Position Feedback Circuit Short to Ground	If a short to ground condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.
B1956	Seat Front Up/Down Position Feedback Circuit Short to Battery	If a short to voltage or an open condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.
B1957	Seat Front Up/Down Position Feedback Circuit Short to Ground	If a short to ground condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.
B1964	Seat Horizontal Forward/Rearward Position Feedback Circuit Short to Battery	If a short to voltage or an open condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.
B1965	Seat Horizontal Forward/Rearward Position Feedback Circuit Short to Ground	If a short to ground condition is present on the affected motor's position sensor (Hall-effect) feedback circuit, the DTC is set. After a DTC is set, a memory recall is not possible but the seat control switch can operate the associated motor in one-second increments.

DDM DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1C03:23	Memory #1 Switch: Signal Stuck Low	If a short to ground is sensed on the switch input circuit during the DDM self-test, the DTC is set. If activity is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1C04:23	Memory #2 Switch: Signal Stuck Low	If a short to ground is sensed on the switch input circuit during the DDM self-test, the DTC is set. If activity is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.
B1C05:23	Memory #3 Switch: Signal Stuck Low	If a short to ground is sensed on the switch input circuit during the DDM self-test, the DTC is set. If activity is sensed on the input circuit for greater than 2 minutes, the DTC is set as continuous. With the DTC set, any input signal on the circuit is ignored.

Possible Causes

- Wiring, terminals or connectors
- Memory SET switch
- Missing ignition status information
- Horizontal motor
- Seat track
- DSM

PINPOINT TEST D: THE MEMORY SEAT DOES NOT OPERATE USING THE MEMORY SET SWITCH

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could

result in serious personal injury from an accidental deployment.

D1 CHECK THE DSM (DRIVER FRONT SEAT MODULE) IGNITION SWITCH STATUS PID (PARAMETER IDENTIFICATION) STATES

- Ignition ON.
- Using a diagnostic scan tool, monitor the DSM IGN_SW PID while operating the ignition.

Do the PID states agree?

Yes	GO to D2
No	To diagnose no power in run, REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).

D2 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCS)

- Operate the memory seat in all directions through the full range of travel.
- Place the memory seat in the middle of each range of travel.
- Using a diagnostic scan tool, perform self-test on the DSM and DDM . If the diagnostic scan tool does not communicate to the DSM and/or DDM ,
  REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	For DTC B1C03:23, B1C04:23 or B1C05:23, GO to D4 If Diagnostic Trouble Codes (DTCs) B1952, B1956 and B1964 are all retrieved, GO to D9 If Diagnostic Trouble Codes (DTCs) B1953, B1957 and B1965 are all retrieved, GO to D9 For DTC B1663 or B1956, GO to D10 For DTC B1957, GO to D11 For DTC B1664 or B1952, GO to D13 For DTC B1953, GO to D14 For DTC B1665 or B1964, GO to D16 For DTC B1965, GO to D17 For all other Diagnostic Trouble Codes (DTCs), REFER to the DSM or DDM DTC Chart(s).
No	GO to D3

D3 MONITOR DSM (DRIVER FRONT SEAT MODULE) PARAMETER IDENTIFICATIONS (PIDS) AND CHECK FOR CORRECT MEMORY SET SWITCH INPUTS

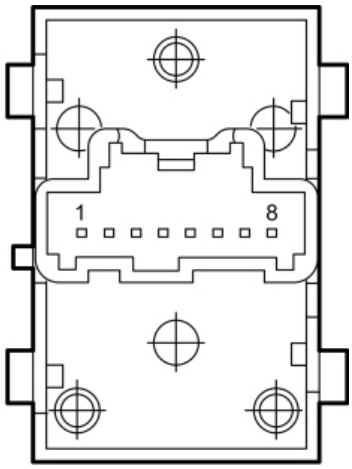
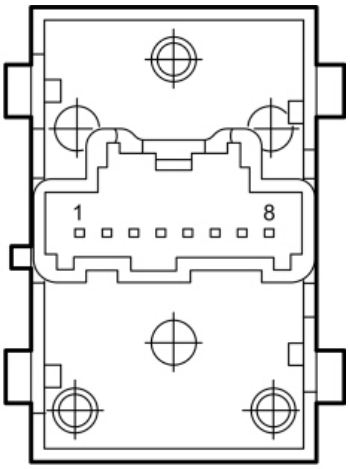
- While activating the memory recall 1, 2 and 3 buttons, monitor the following DSM memory recall switch status Parameter Identifications (PIDs) using a diagnostic scan tool:
  - Memory 1 recall switch status (MEM_1).
  - Memory 2 recall switch status (MEM_2).
  - Memory 3 recall switch status (MEM_3).

Do the PID values agree with the switch button positions?

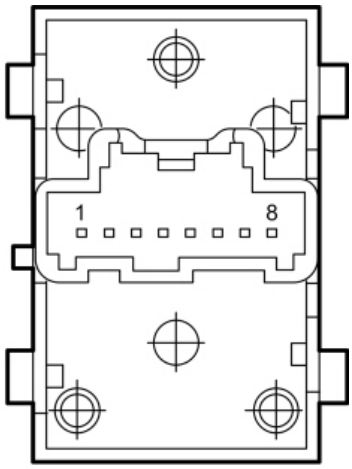
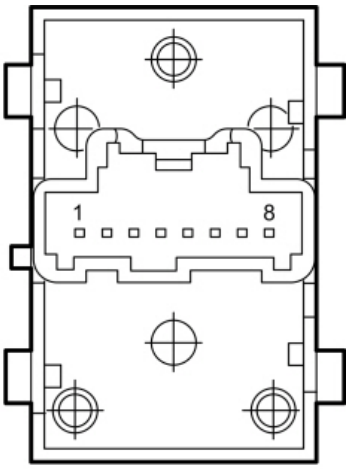
Yes	GO to D9
No	GO to D4

D4 CHECK THE MEMORY SET SWITCH

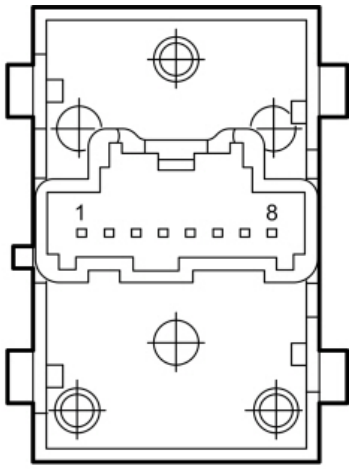
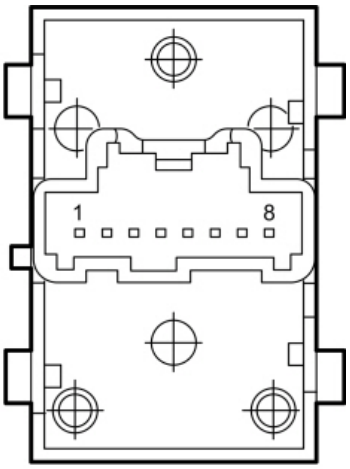
- Ignition OFF.
- Disconnect: Driver Door Lock Control Switch C541.
- While pressing and releasing the indicated memory recall button 1, measure the **component side resistance** of the driver door lock control switch using the following table:

Positive Lead	Measurement / Action	Negative Lead
 A0074536 C541, pin 5, Component Side	Ω	 A0074536 C541, pin 3, Component Side

- While pressing and releasing the indicated memory recall button 2, measure the **component side resistance** of the driver door lock control switch using the following table:

Positive Lead	Measurement / Action	Negative Lead
 A0074536 C541, pin 6, Component Side	Ω	 A0074536 C541, pin 3, Component Side

- While pressing and releasing the indicated memory recall button 3, measure the **component side resistance** of the driver door lock control switch using the following table:

Positive Lead	Measurement / Action	Negative Lead
 A0074536 C541, pin 7, Component Side	Ω	 A0074536 C541, pin 3, Component Side

Are the resistances less than 20 ohms with the switch buttons pressed and greater than 10,000 ohms with the switch buttons released?

Yes	GO to D5
No	INSTALL a new door lock control switch. REFER to: Door Lock Control Switch (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

D5 CHECK THE MEMORY SET SWITCH GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C541 Pin 3	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to D6
No	REPAIR the circuit.

D6 CHECK THE MEMORY SET CIRCUITS FOR A SHORT TO VOLTAGE

- Disconnect: DDM C501B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C541 Pin 5	V	Ground
C541 Pin 6	V	Ground

Positive Lead	Measurement / Action	Negative Lead
C541 Pin 7	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to D7

D7 CHECK THE MEMORY SET SWITCH CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C541 Pin 5	Ω	Ground
C541 Pin 6	Ω	Ground
C541 Pin 7	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to D8
No	REPAIR the circuit in question.

D8 CHECK THE MEMORY SET SWITCH CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C541 Pin 5	Ω	C501B Pin 1
C541 Pin 6	Ω	C501B Pin 3
C541 Pin 7	Ω	C501B Pin 2

Are the resistances less than 3 ohms?

Yes	GO to D20
No	REPAIR the circuit in question.

D9 CHECK THE DSM (DRIVER FRONT SEAT MODULE) SENSOR PARAMETER IDENTIFICATIONS (PIDS)

- While operating the seat control switch in all positions, monitor the following DSM seat control switch Parameter Identifications (PIDs) using a diagnostic scan tool:
  - Driver Power Seat Front Up/Down Switch (SFNT_MT)
  - Driver Power Seat Forward/Backward Switch (SFWD_MT)
  - Driver Power Seat Rear Up/Down Switch (SREARMT)

Does each PID indicate the sensor is operational throughout each motor's full range of travel?

Yes	GO to D19
No	If the PID indicates driver seat front vertical position sensor is not present, GO to D10 If the PID indicates driver seat rear vertical position sensor is not present, GO to D13 If the PID indicates driver seat horizontal position sensor is not present, GO to D16

D10 CHECK THE FRONT HEIGHT SENSOR CIRCUITS FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: DSM C341B.
- Disconnect: Driver Seat Front Height Motor C382.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 2	V	Ground
C382 Pin 4	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to D21
No	GO to D11

D11 CHECK THE FRONT HEIGHT SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 2	Ω	Ground
C382 Pin 4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to D12
No	REPAIR the circuit in question. GO to D21

D12 CHECK THE FRONT HEIGHT SENSOR CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 2	Ω	C341B Pin 8

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 4	Ω	C341B Pin 4

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to D21
No	REPAIR the circuit in question. GO to D21

D13 CHECK THE REAR HEIGHT SENSOR CIRCUITS FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: DSM C341B.
- Disconnect: Driver Seat Rear Height Motor C363.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C363 Pin 2	V	Ground
C363 Pin 4	V	Ground

Is any voltage present on any circuits?

Yes	REPAIR the circuit in question. GO to D21
No	GO to D14

D14 CHECK THE REAR HEIGHT SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C363 Pin 2	Ω	Ground
C363 Pin 4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to D15
No	REPAIR the circuit in question. GO to D21

D15 CHECK THE REAR HEIGHT SENSOR CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C363 Pin 2	Ω	C341B Pin 3
C363 Pin 4	Ω	C341B Pin 8

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to D21
No	REPAIR the circuit in question. GO to D21

D16 CHECK THE HORIZONTAL SENSOR CIRCUITS FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: DSM C341B.
- Disconnect: Driver Seat Horizontal Motor C362.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C362 Pin 2	V	Ground
C362 Pin 4	V	Ground

Is any voltage present on any circuits?

Yes	REPAIR the circuit in question. GO to D21
No	GO to D17

D17 CHECK THE HORIZONTAL SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C362 Pin 2	Ω	Ground
C362 Pin 4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to D18

No	REPAIR the circuit in question. GO to D21

D18 CHECK THE HORIZONTAL SENSOR CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C362 Pin 2	Ω	C341B Pin 8
C362 Pin 4	Ω	C341B Pin 14

Are the resistances less than 3 ohms?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to D21
No	REPAIR the circuit in question. GO to D21

D19 CHECK THE DSM (DRIVER FRONT SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the DSM connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the DSM connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to D21
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. GO to D21

D20 CHECK THE DDM (DRIVER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the DDM connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the DDM connectors. Make sure they seat and latch correctly.
- Connect: Driver Door Lock Control Switch C541.
- Ignition ON.
- 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.

D21 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Driver Side Airbag In-line C3206.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

Easy Entry/Easy Exit is Inoperative/Does Not Operate Correctly

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

Possible Causes

- Easy entry/exit feature is not enabled
- Missing ignition status information - communication bus message
- DSM

PINPOINT TEST E: EASY ENTRY/EASY EXIT IS INOPERATIVE/DOES NOT OPERATE CORRECTLY

E1 CHECK THE DRIVER POWER SEAT OPERATION

- Ignition ON.
- Check the message center to verify the easy entry/exit feature is turned on.
- Using the seat control switch, verify the driver power seat operates fully forward and backward.
- Using a diagnostic scan tool, perform the DSM self-test.

Are any Diagnostic Trouble Codes (DTCs) received?

Yes	REFER to the DSM DTC Chart.
No	If disabled, ENABLE the easy entry/exit feature through the message center. REFER to the Owner's Literature. TEST the system for normal operation. If OK, INSTRUCT the customer on correct system operation. Otherwise, GO to E2

E2 CHECK THE DSM (DRIVER FRONT SEAT MODULE) IGNITION SWITCH STATUS PID (PARAMETER IDENTIFICATION) STATES

- Ignition ON.
- Using a diagnostic scan tool, monitor the DSM IGN_SW PID while operating the ignition.

Do the PID states agree with ignition mode?

Yes	INSTALL a new DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).
No	DIAGNOSE the ignition status concern. REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).

The Power Seat is Inoperative or Does Not Operate Correctly — Driver, Without Memory

Refer to Wiring Diagrams Cell 120for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

Possible Causes

- Fuse
- Wiring, terminals or connectors
- Seat control switch
- Horizontal motor
- Seat track

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 12 (30A) is OK.

PINPOINT TEST F: THE POWER SEAT IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY — DRIVER, WITHOUT MEMORY

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

F1 CHECK THE SEAT OPERATION

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Attempt to operate the seat in all directions.

Is the seat inoperative in all directions?

Yes	GO to F2
No	If only the horizontal motor is inoperative, GO to F4 If only the front height motor is inoperative, GO to F6 If only the rear height motor is inoperative, GO to F8

F2 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- Disconnect: Driver Seat Control Switch C352.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 9	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to F3
No	VERIFY BJB fuse 12 (30A) 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. GO to F10

F3 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 7	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to F10
No	REPAIR the circuit. GO to F10

F4 CHECK FOR VOLTAGE TO THE SEAT HORIZONTAL MOTOR

- Disconnect: Driver Seat Horizontal Motor C362.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*
  While pushing the horizontal switch forward and rearward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C362 Pin 1	V	C362 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to F10
No	GO to F5

F5 CHECK THE SEAT HORIZONTAL MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch C352.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 6	Ω	C362 Pin 3
C352 Pin 5	Ω	C362 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to F10
No	REPAIR the circuit in question. GO to F10

F6 CHECK FOR VOLTAGE TO THE SEAT FRONT HEIGHT MOTOR

- Disconnect: Driver Seat Front Height Motor C382.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*
  While pushing the front height switch upward and downward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C382 Pin 1	V	C382 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to F10
No	GO to F7

F7 CHECK THE SEAT FRONT HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch C352.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 1	Ω	C382 Pin 3
C352 Pin 2	Ω	C382 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to F10
No	REPAIR the circuit in question. GO to F10

F8 CHECK FOR VOLTAGE TO THE SEAT REAR HEIGHT MOTOR

- Disconnect: Driver Seat Rear Height Motor C363.
- **NOTE:** *The voltage being measured changes polarity depending upon which direction the seat control switch is activated.*

  While pushing the rear height switch upward and downward, measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C363 Pin 1	V	C363 Pin 3

Is the voltage greater than 11 volts when the seat control switch is operated in both directions?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to F10
No	GO to F9

F9 CHECK THE SEAT REAR HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch C352.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C352 Pin 8	Ω	C363 Pin 3
C352 Pin 10	Ω	C363 Pin 1

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to F10
No	REPAIR the circuit in question. GO to F10

F10 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Driver Side Airbag In-line C3206.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC: B1317

Refer to Wiring Diagrams Cell 123for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1317	Battery Voltage High	**NOTE:** *DTC B1317 may be stored in the module memory due to previous battery charging or vehicle jump starting events.* The DSM continuously monitors the input voltage for correct operation. If the DSM detects input voltage above 15 volts, it stores DTC B1317 in memory. If DTC B1317 is set, the DSM disables the memory system outputs for the driver seat memory operation.

Possible Causes

- Wiring, terminals or connectors
- DSM

PINPOINT TEST G: DTC: B1317

G1 CHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) B1317, B1676 OR P0563 SET IN OTHER MODULES

- Ignition ON.
- Using a diagnostic scan tool, retrieve the Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC B1317, B1676 or P0563 set in more than one module?

Yes	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.
No	GO to G2

G2 CHECK THE BATTERY VOLTAGE

- Turn off all interior/exterior lights and accessories.
- Start and run the engine at approximately 2,000 rpm for 3 minutes while monitoring the battery voltage

Does the battery voltage rise to 15 volts or higher?

Yes	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.
No	GO to G3

G3 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) B1317

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, clear the Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Using a diagnostic scan tool, perform the DSM self-test.

Is DTC B1317 present?

Yes	INSTALL a new DSM .

	REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).
No	The system is operating normally at this time. The DTC may have been set previously during battery charging or while jump starting the vehicle.

DTC: B1318

Refer to Wiring Diagrams Cell 123for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Front Seats - System Operation and Component Description (501-10A Front Seats, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1318	Battery Voltage Low	The DSM continuously monitors the input voltage for correct operation. If the DSM detects input voltage below 10 volts, it stores DTC B1318 in memory. If DTC B1318 is set, the DSM disables the memory system outputs for the driver seat memory operation.

Possible Causes

- Wiring, terminals or connectors
- DSM

PINPOINT TEST H: DTC: B1318

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

H1 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) B1318

- Ignition ON.
- Using a diagnostic scan tool, clear the Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Using a diagnostic scan tool, repeat the DSM self-test.

Is DTC B1318 still present?

Yes	GO to H2
No	The system is operating normally at this time. The DTC may have been set previously due to a discharged battery condition.

H2 CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCS) IN THE PCM (POWERTRAIN CONTROL MODULE)

- Using a diagnostic scan tool, retrieve the Continuous Memory Diagnostic Trouble Codes (CMDTCs) from the PCM .

Are any charging system Diagnostic Trouble Codes (DTCs) present?

Yes	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.
No	GO to H3

H3 CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Ignition OFF.
- Check the battery condition and verify the battery is fully charged.
  REFER to: Battery (414-01 Battery, Mounting and Cables) .

Is the battery OK and fully charged?

Yes	GO to H4
No	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.

H4 CHECK THE DSM (DRIVER FRONT SEAT MODULE) VOLTAGE SUPPLY

- Measure and record the voltage at the battery.

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: DSM C341A and C341B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341A Pin 1	V	Ground

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 1	V	Ground

Are the voltages greater than 11 volts?

Yes	GO to H5
No	REPAIR the circuit. CLEAR the DTC . GO to H7

H5 CHECK THE DSM (DRIVER FRONT SEAT MODULE) GROUND CIRCUIT

- Ignition OFF.
- Disconnect: Negative Battery Cable.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341A Pin 2	Ω	Ground

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C341B Pin 24	Ω	Ground

Are the resistances less than 3 ohms?

Yes	CONNECT the negative battery cable. GO to H6
No	REPAIR the circuit. CONNECT the negative battery cable. GO to H7

H6 CHECK THE DSM (DRIVER FRONT SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the DSM connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the DSM connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to H7
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. GO to H7

H7 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC: U0140

Refer to Wiring Diagrams Cell 14for schematic and connector information.

Normal Operation and Fault Conditions

The DSM and the BCM communicate using the MS-CAN .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0140	Lost Communication With Body Control Module (GEM)	Set by the DSM whenever it has lost communication to the BCM for 15 seconds or longer while DSM input is between 10 and 15 volts.

Possible Causes

- Module communication
- DSM
- BCM

PINPOINT TEST I: DTC: U0140

I1 VERIFY CUSTOMER CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to I2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

I2 CHECK THE COMMUNICATION NETWORK

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

Does the DSM pass the network test?

Yes	GO to I3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

I3 RETRIEVE THE RECORDED DIAGNOSTIC TROUBLE CODES (DTCS) FROM THE SELF-TEST

- Check for recorded DSM Diagnostic Trouble Codes (DTCs) from the self-test.

Is DTC B1317 or B1318 recorded?

Yes	For DTC B1317, GO to Pinpoint Test G For DTC B1318, GO to Pinpoint Test H
No	GO to I4

I4 RECHECK THE DSM (DRIVER FRONT SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during PMI or the PMI may not have been carried out.*

- Using a diagnostic scan tool, clear the Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Using a diagnostic scan tool, repeat the DSM self-test.

Is DTC U0140 still present?

Yes	GO to I5
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

I5 CHECK FOR DTC U0140/U0140:00 IN OTHER MODULES

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during PMI or the PMI may not have been carried out.*

- Using a diagnostic scan tool, clear the Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, retrieve the Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Is DTC U0140/U0140:00 set in other modules?

Yes	**VIN required to access Guided Routine (BCM)**
No	INSTALL a new DSM . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

One or Both Single Climate Controlled Seats are Inoperative

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

Normal Operation and Fault Conditions

The SCME is supplied voltage at all times, but the climate controlled seat system only operates with the engine running. The system can be operated with the ignition ON engine OFF by using a diagnostic scan tool to bypass the climate controlled seat buttons on the touchscreen and FCIM . When commanding a heat or cool mode operation in this manner, it only operates in 15 second intervals.

Both voltage supply circuits are spliced together internal to the SCME , so if one circuit becomes open, both seats can still be operated. However, if a fault occurs setting a DTC specific to either climate controlled seat, only the affected seat is disabled by the SCME .

Possible Causes

- Wiring, terminals or connectors
- FDIM
- FCIM
- SCME

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 14 (30A) is OK.

PINPOINT TEST J: ONE OR BOTH CLIMATE CONTROLLED SEATS ARE INOPERATIVE

J1 CHECK FOR SCME (FRONT SEAT CLIMATE CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

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

Were any Diagnostic Trouble Codes (DTCs) retrieved?

Yes	GO to the SCME DTC Chart.
No	If the diagnostic scan tool did not communicate to the SCME , REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing). Otherwise, GO to J2

J2 CHECK OPERATION OF THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) USING PARAMETER IDENTIFICATIONS (PIDS)

NOTE: *This step verifies the SCME is able to receive and process inbound command messages from the network and demonstrates if the SCME is operational. If the SCME is functioning correctly, this indicates the FDIM or FCIM may not be sending the commands correctly.*

- Using a diagnostic scan tool, view the SCME Parameter Identifications (PIDs):

  Driver Seat
  - Seat cushion thermal electric device temperature (CSHTEMP)
  - Seat back thermal electric device temperature (BKTMP)
  - Climate-controlled seat heat command (TED_HEAT_D)

  Front Passenger Seat
  - Passenger Cushion Thermal Electric Device (TED) Temperature (PCSHTMP)
  - Passenger Back (TED) Temperature (PBKTMP)
  - Passenger (TED) Heat Mode (TED_HEAT_P)
- **NOTE:** *The SCME active commands TED_HEAT_D (driver seat) and TED_HEAT_P (passenger seat) are limited to 15 seconds in the ON state.*

  Operate the affected climate controlled seat using the active command while monitoring the appropriate Parameter Identifications (PIDs) for that seat.
  - When the command is in process, the blower motor temperature Parameter Identifications (PIDs) on the affected seat should momentarily increase. If no temperature increase is noted, remove the cushion blower filter and repeat the active command while physically monitoring the cushion blower for fan movement.

Do the PID states or cushion blower movement indicate climate controlled seat operation when using the active command?

Yes	GO to J3
No	INSTALL a new SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation).

J3 USE THE FCIM (FRONT CONTROLS INTERFACE MODULE) BUTTONS AND MONITOR THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) PID (PARAMETER IDENTIFICATION) FOR A RESPONSE

- Using a diagnostic scan tool, view the SCME Parameter Identifications (PIDs):
  - Driver State Seat Mode (DCCSMOD) (driver seat)
  - Passenger State Seat Mode (PCCSMOD) (passenger seat)
- Start the engine.
- **NOTE:** *Operation of the climate controlled seats repeatedly on and off or repeatedly switching between heat and cool modes may cause SCME Diagnostic Trouble Codes (DTCs) to set, disabling one or both seat system and may require Diagnostic Trouble Codes (DTCs) to be cleared before seat operation may continue. It is recommended to allow time between modes for seat temperatures to return toward ambient temperatures before continuing.*

  Attempt to operate the affected climate controlled seat in all modes using the appropriate buttons on the FCIM while monitoring the SCME PID DCCSMOD (driver seat) or PCCSMOD (passenger seat).

Do all the PID states match the climate controlled seat settings selected on the FCIM ?

Yes	To diagnose the inoperative touchscreen button(s), REFER to: Information and Entertainment System (415-00B Information and Entertainment System - General Information - Vehicles With: SYNC 2/SYNC 3, Diagnosis and Testing).
No	If only the climate seat functionality is inoperative,  **VIN required to access Guided Routine (FCIM)** If other features of the FCIM are also inoperative, DIAGNOSE the FCIM concern.

	REFER to: Climate Control System - Vehicles With: Dual Automatic Temperature Control (DATC) (412-00 Climate Control System - General Information, Diagnosis and Testing).

DTC B2486

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

Refer to Wiring Diagrams Cell 123for schematic and connector information.

Normal Operation and Fault Conditions

The SCME monitors the input voltage for correct operation. If the SCME detects input voltage below 10 volts or above 15 volts, it stores DTC B2486 in memory. If DTC B2486 is set, the SCME enters a standby mode and suspends operation of both seats until system voltage between 10 and 15 volts is restored and a climate controlled seat switch button is selected on.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B2486	Climate Control Seat Module Voltage Out of Range	**NOTE:** *DTC B2486 can be set if the vehicle has been recently jump started, the battery has been recently charged or the battery has been discharged. The battery may become discharged due to excessive load(s) on the charging system from aftermarket accessories or if the battery has been left unattended with the accessories on.* If the SCME detects voltage below 10 volts or greater than 15 volts, the DTC is set.

Possible Causes

- Wiring, terminals or connectors
- SCME

PINPOINT TEST K: DTC B2486

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

K1 RETRIEVE ALL CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS) IN ALL MODULES

- Ignition ON.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.

Are any charging system related Diagnostic Trouble Codes (DTCs) retrieved from the PCM ?

Yes	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.
No	GO to K2

K2 CHECK BATTERY CONDITION

- Ignition OFF.
- Carry out the Battery Condition Test.
  REFER to: Battery (414-01 Battery, Mounting and Cables) .

Did the battery pass the condition test?

Yes	If the battery passed the condition test but required a recharge, DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure. CLEAR all Diagnostic Trouble Codes (DTCs). TEST the system for normal operation. If the battery passed the condition test and did not require a recharge, GO to K3
No	INSTALL a new battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

K3 CHECK CHARGING SYSTEM VOLTAGE

NOTE: *Do not allow the engine speed to increase above 2,000 rpm while performing this step or the generator may self-excite and result in default charging system output voltage. If engine speed goes above 2,000 rpm, shut the vehicle OFF and restart the engine before performing this step.*

- Start the engine.
- Measure the voltage of the battery with and without a load on the charging system as follows:
  - Turn off all accessories and run the engine at 1,500 rpm for a minimum of 2 minutes while measuring battery voltage.
  - Turn on headlights and HVAC fan on high and run engine at 1,500 rpm for a minimum of 2 minutes while measuring battery voltage.

Was the battery voltage between 13 and 15.2 volts?

Yes	GO to K4
No	DIAGNOSE the charging system concern. Refer to the appropriate section in Group 414for the procedure.

K4 CHECK VOLTAGE AT THE SCME (FRONT SEAT CLIMATE CONTROL MODULE)

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin E	V	Ground
C3265A Pin F	V	Ground

Are the voltages greater than 11 volts?

Yes	GO to K5
No	REPAIR the circuit in question. GO to K7

K5 CHECK SCME (FRONT SEAT CLIMATE CONTROL MODULE) GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin M	Ω	Ground

- Repeat this measurement while wiggling the harness.

Is the resistance less than 3 ohms?

Yes	GO to K6
No	REPAIR the circuit. GO to K7

K6 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to K7
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. GO to K7

K7 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTCs B103B and B1111

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

Normal Operation and Fault Conditions

The SCME monitors the backrest and cushion blower motor circuits. If a short to ground or voltage on any of these circuits is detected, the Diagnostic Trouble Codes (DTCs) will be set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B103B	Thermoelectric Driver Overcurrent Low	If SCME outputs to the driver seat backrest or cushion blower motor (circuit pins G, H, J or K at the SCME connector) or any components within these circuit loops are shorted to ground or a blower motor resistance of less than 0.9 ohm is sensed, the SCME shuts down the driver seat system and sets this DTC .
B1111	Driver Thermal Electric Device Control Overtemperature Fault	If the SCME blower motor driver integrated circuit temperature exceeds 175° C (347° F), the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST L: DTCS B103B AND B1111

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

L1 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	Ground
C3265A Pin H	Ω	Ground
C3265A Pin J	Ω	Ground
C3265A Pin K	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to L2
No	If the resistance of C3265A Pin G and C3265A Pin H to ground is **not** greater than 10,000 ohms to ground, GO to L6 If the resistance of C3265A Pin J and C3265A Pin K to ground is **not** greater than 10,000 ohms to ground, GO to L7

L2 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	V⎓	Ground
C3265A Pin H	V⎓	Ground
C3265A Pin J	V⎓	Ground
C3265A Pin K	V⎓	Ground

Is any voltage present?

Yes	If voltage is present at C3265A Pin G and/or C3265A Pin H, GO to L8 If voltage is present at C3265A Pin J and/or C3265A Pin K, GO to L9
No	GO to L3

L3 CHECK THE RESISTANCE OF THE BLOWER MOTOR AND WIRING

- Ignition OFF.
- Measure:

Click to display connectors

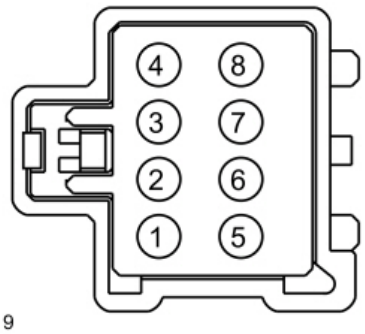
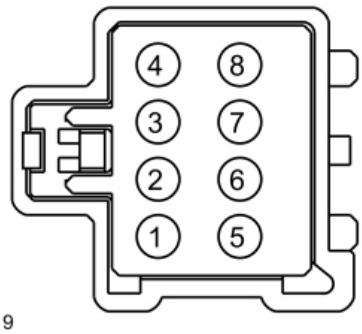
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	C3265A Pin H
C3265A Pin J	Ω	C3265A Pin K

Are the resistances between 0.9 and 10 ohms?

Yes	GO to L10
No	If the resistance between C3265A Pin G and C3265A Pin H is **not** between 0.9 and 10 ohms, GO to L5 If the resistance between C3265A Pin J and C3265A Pin K is **not** between 0.9 and 10 ohms, GO to L4

L4 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE RESISTANCE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

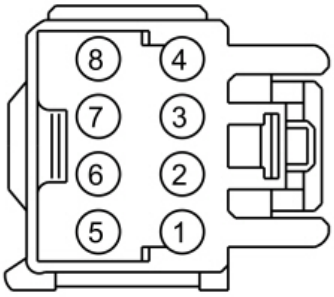
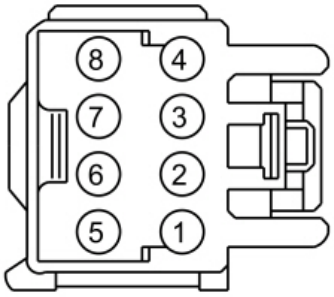
Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-1, Component Side	Ω	 E160219 C3034-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to L11
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11

L5 CHECK CUSHION BLOWER MOTOR RESISTANCE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-1, Component Side	Ω	 E160218 C3035-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to L11
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11

L6 CHECK THE CUSHION BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	Ground
C3265A Pin H	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11
No	REPAIR the circuit in question. GO to L11

L7 CHECK THE BACKREST BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	Ω	Ground
C3265A Pin K	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11
No	REPAIR the circuit in question. GO to L11

L8 CHECK THE CUSHION BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	V	Ground
C3265A Pin H	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to L11

No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11

L9 CHECK THE BACKREST BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	V	Ground
C3265A Pin K	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to L11
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to L11

L10 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to L11
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. GO to L11

L11 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B103C

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

Normal Operation and Fault Conditions

The SCME monitors the backrest and cushion blower motor circuits. If an open on any of these circuits is detected, the DTC will be set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B103C	Thermoelectric Driver Open Load	If SCME outputs to the driver seat backrest or cushion blower motor (circuit pins G, H, J or K at the SCME connector) or any components within these circuit loops are open, disconnected or a blower motor resistance greater than 90,000 ohms is sensed, the SCME continues normal operation and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST M: DTC B103C

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

M1 CHECK BLOWER MOTOR CIRCUITS FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	C3035 Pin 1
C3265A Pin H	Ω	C3035 Pin 2

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	Ω	C3034 Pin 1
C3265A Pin K	Ω	C3034 Pin 2

Are the resistances less than 3 ohms?

Yes	GO to M2
No	REPAIR the circuit(s) in question. GO to M5

M2 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

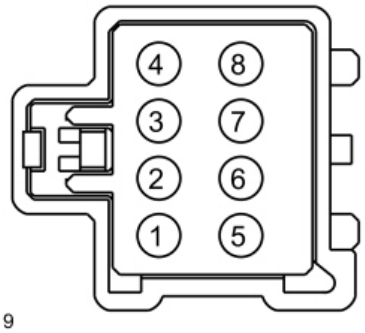
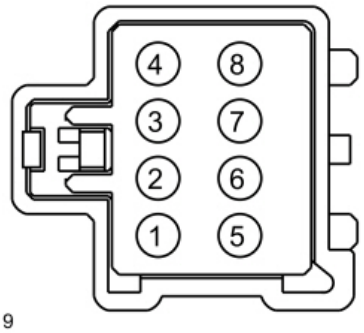
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	V	Ground
C3265A Pin H	V	Ground
C3265A Pin J	V	Ground
C3265A Pin K	V	Ground

Is any voltage present?

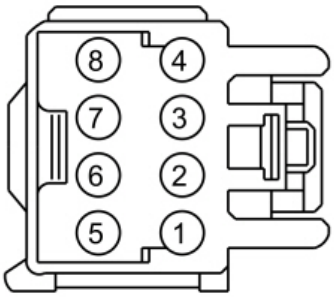
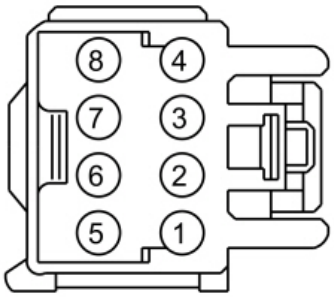
Yes	REPAIR the circuit(s) in question. GO to M5
No	GO to M3

M3 CHECK BACKREST AND CUSHION BLOWER MOTOR RESISTANCES

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

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-1, Component Side	Ω	 E160219 C3034-2, Component Side

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

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-1, Component Side	Ω	 E160218 C3035-2, Component Side

Are the resistances between 0.9 and 10 ohms?

Yes	GO to M4
No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to M5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to M5

M4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to M5
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. GO to M5

M5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B103D

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

Normal Operation and Fault Conditions

The SCME is supplied voltage at all times, but the climate controlled seat system only operates with the engine running. The system can be operated with the ignition ON engine OFF by using a diagnostic scan tool to bypass the climate controlled seat switches on the touchscreen and FCIM . When commanding a heat or cool mode operation in this manner, the climate controlled seat system only operates in 15 second intervals.

Both voltage supply circuits are spliced together internal to the SCME , so if one circuit becomes open, both seats can still be operated. However, if a fault occurs setting a DTC specific to either climate controlled seat, only the affected seat is disabled by the SCME .

Cabin air is drawn through and distributed to each of the blower motors located in the seat cushion and backrest. The blower motors then heat or cool the air. The air is then directed into the foam pad where it is distributed along the surface of the cushion and backrest of the seat. Once the system is activated, the SCME uses a set of flexible algorithms to control the heating/cooling modes and the blower speed dependant on the commanded climate controlled seat settings.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B103D	Blower Driver Overtemperature	If the SCME outputs to the driver seat blower or any components within these circuit loops are shorted to ground or cause an excessive current draw, the SCME overheats, shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST N: DTC B103D

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.
N1 CHECK THE BLOWER MOTOR FEED CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to N2
No	REPAIR the circuit. GO to N5

N2 CHECK THE BLOWER MOTOR FEED CIRCUITS FOR A SHORT TOGETHER

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3265C Pin 15

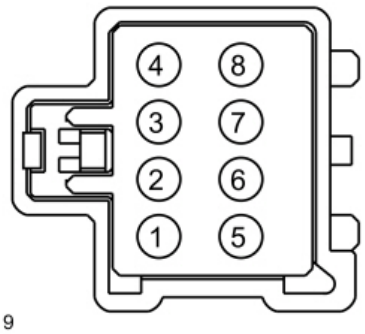
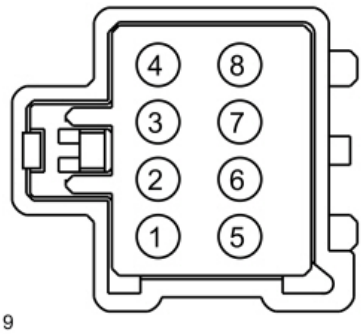
Is the resistance greater than 10,000 ohms?

Yes	GO to N3
No	REPAIR the circuits. GO to N5

N3 CHECK THE BACKREST BLOWER AND CUSHION BLOWER RESISTANCES

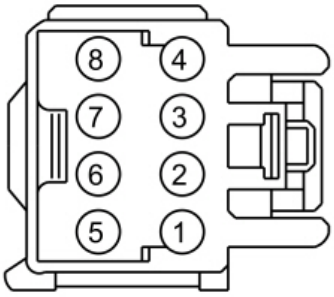
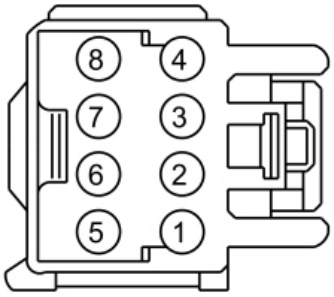
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-3, Component Side	Ω	 E160219 C3034-4, Component Side

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-3, Component Side	Ω	 E160218 C3035-4, Component Side

Are the resistances between 4000 and 10,000 ohms?

Yes	GO to N4
No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to N5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to N5

N4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary

- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to N5
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. GO to N5

N5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B1113 and B111B

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

Normal Operation and Fault Conditions

The SCME monitors the backrest and cushion blower motor circuits. If a short to ground or voltage on any of these circuits is detected, the Diagnostic Trouble Codes (DTCs) will be set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1113	Passenger Thermal Electric Device Control Overtemperature Fault	If the SCME blower motor driver integrated circuit temperature exceeds 175° C (347° F), the SCME shuts down the driver seat system and sets this DTC .
B111B	Passenger Thermo-Electric Driver Overcurrent Low	If SCME outputs to the driver seat backrest or cushion blower motor (circuit pins A, B, C or D at the SCME connector) or any components within these circuit loops are shorted to ground or a blower motor resistance of less than 0.9 ohm is sensed, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST O: DTC B1113 AND B111B

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

O1 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	Ground
C3265A Pin B	Ω	Ground
C3265A Pin C	Ω	Ground
C3265A Pin D	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to O2
No	If the resistance of C3265A Pin A and C3265A Pin B to ground is **not** greater than 10,000 ohms to ground, GO to O6 If the resistance of C3265A Pin C and C3265A Pin D to ground is **not** greater than 10,000 ohms to ground, GO to O7

O2 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	V	Ground
C3265A Pin B	V	Ground
C3265A Pin C	V	Ground
C3265A Pin D	V	Ground

Is any voltage present?

Yes	If voltage is present at C3265A Pin A and/or C3265A Pin B, GO to O8 If voltage is present at C3265A Pin C and/or C3265A Pin D, GO to O9

No	GO to O3

O3 CHECK THE RESISTANCE OF THE BLOWER MOTOR AND WIRING

- Ignition OFF.
- Measure:

Click to display connectors

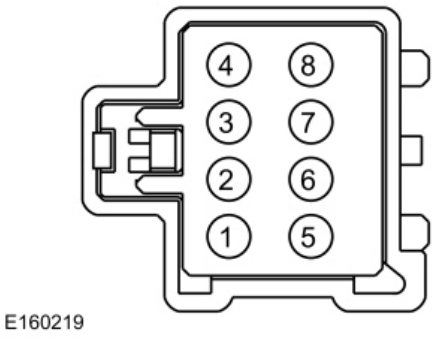
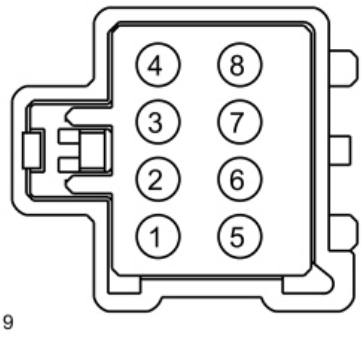
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	C3265A Pin B
C3265A Pin C	Ω	C3265A Pin D

Are the resistances between 0.9 and 10 ohms?

Yes	GO to O10
No	If the resistance between C3265A Pin A and C3265A Pin B is **not** between 0.9 and 10 ohms, GO to O5 If the resistance between C3265A Pin C and C3265A Pin D is **not** between 0.9 and 10 ohms, GO to O4

O4 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE RESISTANCE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-1, Component Side	Ω	 E160219 C3039-2, Component Side

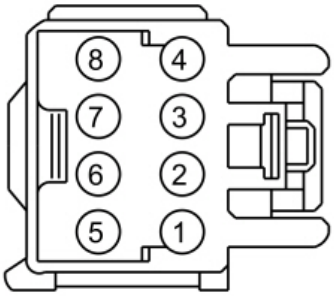
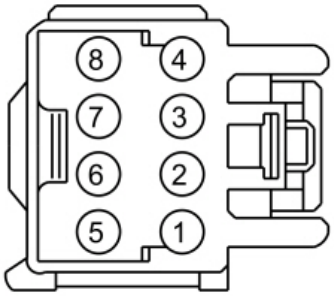
Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to O11
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11

O5 CHECK CUSHION BLOWER MOTOR RESISTANCE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.

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

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-1, Component Side	Ω	 E160218 C3040-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to O11
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11

O6 CHECK THE CUSHION BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	Ground
C3265A Pin B	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11
No	REPAIR the circuit in question. GO to O11

O7 CHECK THE BACKREST BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	Ω	Ground

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin D	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11
No	REPAIR the circuit in question. GO to O11

O8 CHECK THE CUSHION BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	V	Ground
C3265A Pin B	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to O11
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11

O9 CHECK THE BACKREST BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	V	Ground
C3265A Pin D	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to O11
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to O11

O10 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to O11
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. GO to O11

O11 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B111C

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

Normal Operation and Fault Conditions

The SCME monitors the backrest and cushion blower motor circuits. If an open on any of these circuits is detected, the DTC will be set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B111C	Passenger Thermoelectric Driver Open Load	If SCME outputs to the passenger seat backrest or cushion blower motor (circuit pins A, B, C or D at the SCME connector) or any components within these circuit loops are open, disconnected or a blower motor resistance greater than 90,000 ohms is sensed, the SCME continues normal operation and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST P: DTC B111C

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

P1 CHECK BLOWER MOTOR CIRCUITS FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Passenger Side Backrest Blower Motor C3039.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	C3040 Pin 1
C3265A Pin B	Ω	C3040 Pin 2

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	Ω	C3039 Pin 1
C3265A Pin D	Ω	C3039 Pin 2

Are the resistances less than 3 ohms?

Yes	GO to P2
No	REPAIR the circuit(s) in question. GO to P5

P2 CHECK BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

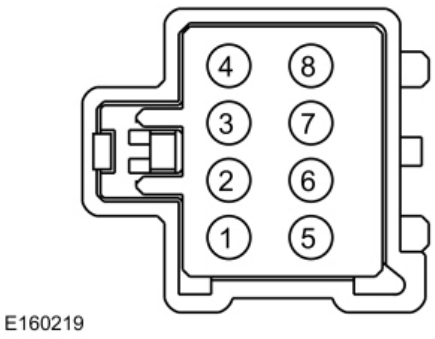
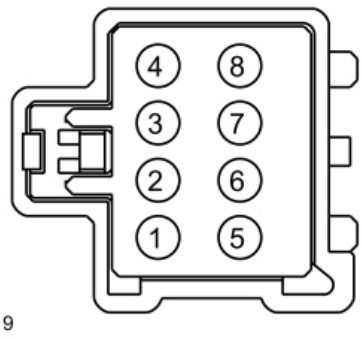
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	V	Ground
C3265A Pin B	V	Ground
C3265A Pin C	V	Ground
C3265A Pin D	V	Ground

Is any voltage present?

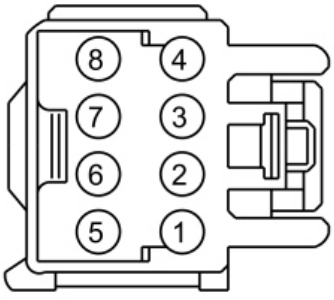
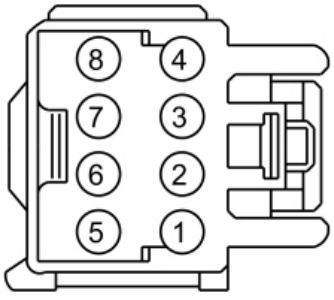
Yes	REPAIR the circuit(s) in question. GO to P5
No	GO to P3

P3 CHECK BACKREST AND CUSHION BLOWER MOTOR RESISTANCES

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-1, Component Side	Ω	 E160219 C3039-2, Component Side

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

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-1, Component Side	Ω	 E160218 C3040-2, Component Side

Are the resistances between 0.9 and 10 ohms?

Yes	GO to P4
No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to P5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor.

	REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to P5

P4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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, SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to P5
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. GO to P5

P5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B111D

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

Normal Operation and Fault Conditions

The SCME is supplied voltage at all times, but the climate controlled seat system only operates with the engine running. The system can be operated with the ignition ON engine OFF by using a diagnostic scan tool to bypass the climate controlled seat switches on the touchscreen and FCIM . When commanding a heat or cool mode operation in this manner, the climate controlled seat system only operates in 15 second intervals. Both voltage supply circuits are spliced together internal to the SCME , so if one circuit becomes open, both seats can still be operated. However, if a fault occurs setting a DTC specific to either climate controlled seat, only the affected seat is disabled by the SCME .

Cabin air is drawn through and distributed to each of the blower motors located in the seat cushion and backrest. The blower motors then heat or cool the air. The air is then directed into the foam pad where it is distributed along the surface of the cushion and backrest of the seat. Once the system is activated, the SCME uses a set of flexible algorithms to control the heating/cooling modes and the blower speed dependant on the commanded climate controlled seat settings.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B111D	Passenger Blower Driver Overtemperature	If the SCME outputs to the passenger seat blower or any components within these circuit loops are shorted to ground or cause an excessive current draw, the SCME overheats, shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- Cushion blower motor
- SCME

PINPOINT TEST Q: DTC B111D

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

Q1 CHECK THE BLOWER MOTOR FEED CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to Q2
No	REPAIR the circuit. GO to Q5

Q2 CHECK THE BLOWER MOTOR FEED CIRCUITS FOR A SHORT TOGETHER

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 7	Ω	C3265C Pin 8

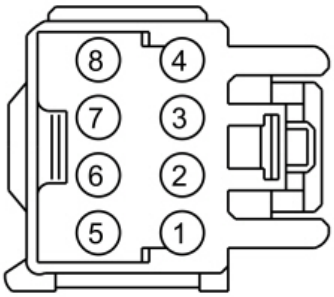
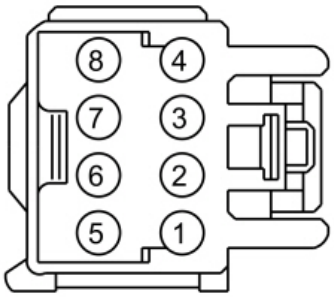
Is the resistance greater than 10,000 ohms?

Yes	GO to Q3
No	REPAIR the circuits. GO to Q5

Q3 CHECK THE BACKREST BLOWER AND CUSHION BLOWER RESISTANCES

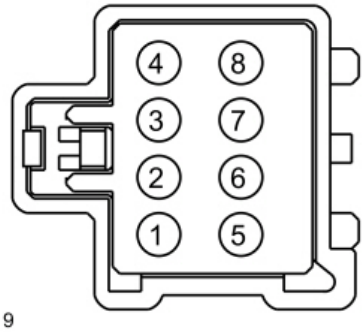
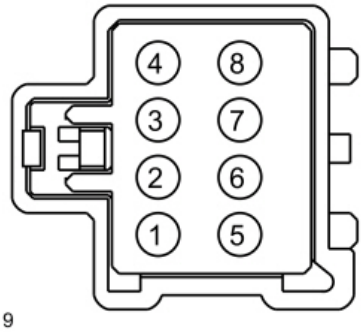
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-3, Component Side	Ω	 E160218 C3040-4, Component Side

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-3, Component Side	Ω	 E160219 C3039-4, Component Side

Are the resistances between 4000 and 10,000 ohms?

Yes	GO to Q4

No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to Q5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Q5

Q4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to Q5
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. GO to Q5

Q5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A1

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the passenger seat cushion backrest and cushion blower motors. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A1	Passenger Seat Cushion Blower Speed Short to Battery	If the passenger seat cushion blower speed circuit is shorted to voltage, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Cushion blower motor
- SCME

PINPOINT TEST R: DTC B19A1

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

R1 CHECK CUSHION BLOWER MOTOR BLOWER SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	V	Ground

Is any voltage present?

Yes	GO to R2
No	GO to R3

R2 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE WITH THE CIRCUIT ISOLATED

- Ignition OFF.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to R6

No	GO to R3

R3 CHECK CUSHION BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR A SHORT TOGETHER

- Ignition OFF.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure:

Click to display connectors

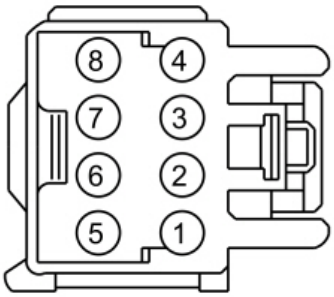
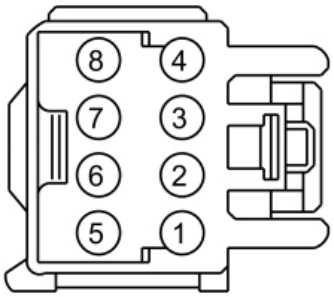
Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	Ω	C3265C Pin 8

Is the resistance greater than 10,000 ohms?

Yes	GO to R4
No	REPAIR the circuits. GO to R6

R4 CHECK CUSHION BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR AN INTERNAL SHORT TOGETHER

- Ignition OFF.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-3, Component Side	Ω	 E160218 C3040-7, Component Side

Is the resistance greater than 2M ohms?

Yes	GO to R5
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to R6

R5 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.

- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to R6
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. GO to R6

R6 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A2

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the passenger seat backrest blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A2	Passenger Seat Back Blower Speed Short to Battery	If the passenger seat backrest blower speed circuit is shorted to voltage, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- SCME

PINPOINT TEST S: DTC B19A2

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

S1 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	V	Ground

Is any voltage present?

Yes	GO to S2
No	GO to S3

S2 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE WITH THE CIRCUIT ISOLATED

- Ignition OFF.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to S6
No	GO to S3

S3 CHECK BACKREST BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR A SHORT TOGETHER

- Ignition OFF.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure:

Click to display connectors

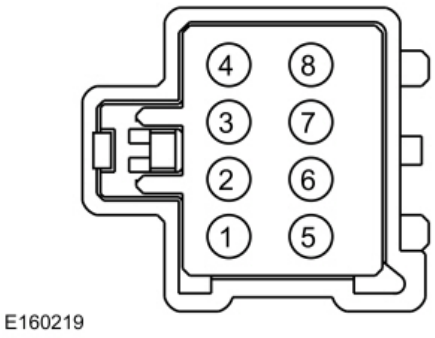
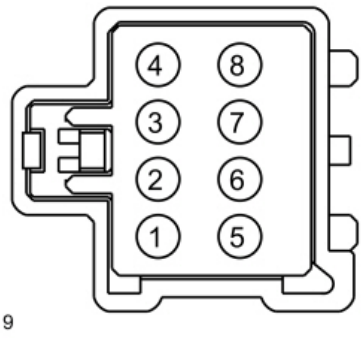
Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	Ω	C3265C Pin 8

Is the resistance greater than 10,000 ohms?

Yes	GO to S4
No	REPAIR the circuits. GO to S6

S4 CHECK BACKREST BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR AN INTERNAL SHORT TOGETHER

- Ignition OFF.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-3, Component Side	Ω	 E160219 C3039-7, Component Side

Is the resistance greater than 2M ohms?

Yes	GO to S5
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to S6

S5 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to S6
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. GO to S6

S6 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A3

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the driver seat cushion blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A3	Driver Seat Cushion Blower Speed Short to Battery	If the driver seat cushion blower speed circuit is shorted to voltage, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Cushion blower motor
- SCME

PINPOINT TEST T: DTC B19A3

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

T1 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	V	Ground

Is any voltage present?

Yes	GO to T2
No	GO to T3

T2 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE WITH THE CIRCUIT ISOLATED

- Ignition OFF.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to T6
No	GO to T3

T3 CHECK CUSHION BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR A SHORT TOGETHER

- Ignition OFF.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	Ω	C3265C Pin 16

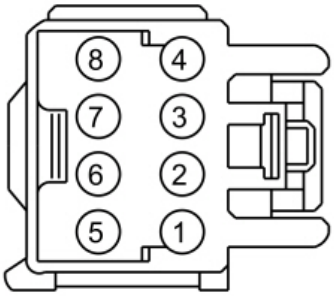
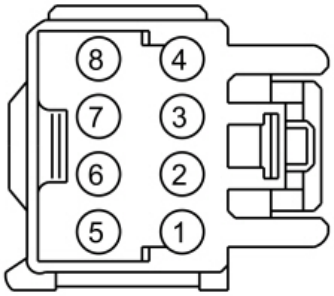
Is the resistance greater than 10,000 ohms?

Yes	GO to T4

No	REPAIR the circuits. GO to T6

T4 CHECK CUSHION BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR AN INTERNAL SHORT TOGETHER

- Ignition OFF.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-3, Component Side	Ω	 E160218 C3035-7, Component side

Is the resistance greater than 2M ohms?

Yes	GO to T5
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to T6

T5 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to T6
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. GO to T6

T6 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A4

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the driver seat backrest blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A4	Driver Seat Back Blower Speed Short to Battery	If the driver seat backrest blower speed circuit is shorted to voltage, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- SCME

PINPOINT TEST U: DTC B19A4

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

U1 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	V	Ground

Is any voltage present?

Yes	GO to U2
No	GO to U3

U2 CHECK BACKREST BLOWER MOTOR BLOWER SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE WITH THE CIRCUIT ISOLATED

- Ignition OFF.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to U6
No	GO to U3

U3 CHECK BACKREST BLOWER MOTOR BLOWER SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR A SHORT TOGETHER

- Ignition OFF.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure:

Click to display connectors

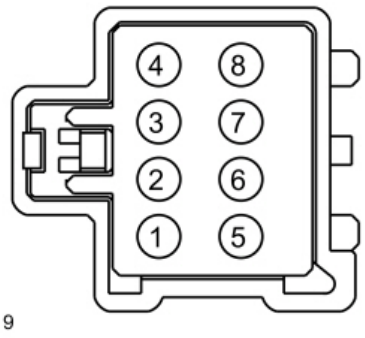
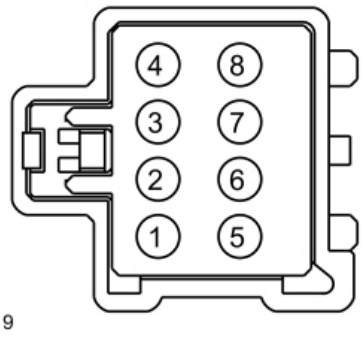
Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	Ω	C3265C Pin 16

Is the resistance greater than 10,000 ohms?

Yes	GO to U4
No	REPAIR the circuits. GO to U6

U4 CHECK BACKREST BLOWER MOTOR SPEED CONTROL AND BLOWER OUTPUT CIRCUITS FOR AN INTERNAL SHORT TOGETHER

- Ignition OFF.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-3, Component Side	Ω	 E160219 C3034-7, Component Side

Is the resistance greater than 2M ohms?

Yes	GO to U5
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to U6

U5 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to U6
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. GO to U6

U6 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A5

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the passenger seat cushion blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A5	Passenger Seat Cushion Blower Speed Short to Ground	If the passenger seat cushion blower speed circuit is shorted to ground, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Cushion blower motor
- SCME

PINPOINT TEST V: DTC B19A5

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

V1 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to V2
No	REPAIR the circuit. GO to V5

V2 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT AND BLOWER GROUND CIRCUIT FOR A SHORT TOGETHER

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	Ω	C3265C Pin 7

Is the resistance greater than 10,000 ohms?

Yes	GO to V3
No	REPAIR the circuits. GO to V5

V3 DETERMINE CUSHION BLOWER MOTOR OR SCME (FRONT SEAT CLIMATE CONTROL MODULE) FAILURE

- Remove the cushion blower motor from the passenger seat.
  REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).
- Remove the cushion blower motor from the driver seat and install it on the passenger seat.
- Connect: Passenger Seat Cushion Blower Motor C3040.
- Connect: SCME C3265C.
- Start the engine and check operation of the passenger seat climate controlled seat system.

Does the seat operate with the cushion blower motor from the other seat installed?

Yes	INSTALL a new seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to V5
No	GO to V4

V4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to V5
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. GO to V5

V5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A6

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the passenger seat backrest blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A6	Passenger Seat Back Blower Speed Short to Ground	If the passenger seat backrest blower speed circuit is shorted to ground, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- SCME

PINPOINT TEST W: DTC B19A6

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

W1 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to W2
No	REPAIR the circuit. GO to W5

W2 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT AND BLOWER GROUND CIRCUIT FOR A SHORT TOGETHER

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	Ω	C3265C Pin 7

Is the resistance greater than 10,000 ohms?

Yes	GO to W3
No	REPAIR the circuits. GO to W5

W3 DETERMINE BACKREST BLOWER MOTOR OR SCME (FRONT SEAT CLIMATE CONTROL MODULE) FAILURE

- Remove the backrest blower motor from the passenger seat.
  REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation).
- Remove the backrest blower motor from the driver seat and install it on the passenger seat.
- Connect: Passenger Seat Backrest Blower Motor C3039.
- Connect: SCME C3265C.
- Start the engine and check operation of the passenger seat climate controlled seat system.

Does the seat operate with the backrest blower motor from the other seat installed?

Yes	INSTALL a new seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to W5
No	GO to W4

W4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to W5
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. GO to W5

W5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A7

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the driver seat cushion blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A7	Driver Seat Cushion Blower Speed Short to Ground	If the driver seat cushion blower speed circuit is shorted to ground, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Cushion blower motor
- SCME

PINPOINT TEST X: DTC B19A7

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

X1 CHECK CUSHION BLOWER MOTOR BLOWER SPEED CONTROL CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to X2
No	REPAIR the circuit. GO to X5

X2 CHECK CUSHION BLOWER MOTOR SPEED CONTROL CIRCUIT AND BLOWER GROUND CIRCUIT FOR A SHORT TOGETHER

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	Ω	C3265C Pin 15

Is the resistance greater than 10,000 ohms?

Yes	GO to X3
No	REPAIR the circuits. GO to X5

X3 DETERMINE CUSHION BLOWER MOTOR OR SCME (FRONT SEAT CLIMATE CONTROL MODULE) FAILURE

- Remove the cushion blower motor from the passenger seat.
  REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).
- Remove the cushion blower motor from the passenger seat and install it on the driver seat.
- Connect: Driver Seat Cushion Blower Motor C3035.
- Connect: SCME C3265C.
- Start the engine and check operation of the driver seat climate controlled seat system.

Does the seat operate with the cushion blower motor from the other seat installed?

Yes	INSTALL a new seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to X5
No	GO to X4

X4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.

- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to X5
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. GO to X5

X5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B19A8

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the driver seat backrest blower motor. The SCME also sends a speed control voltage signal to the blower motor to control blower speed.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B19A8	Driver Seat Back Blower Speed Short to Ground	If the driver seat backrest blower speed circuit is shorted to ground, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Backrest blower motor
- SCME

PINPOINT TEST Y: DTC B19A8

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

Y1 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Disconnect: SCME C3265C.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to Y2
No	REPAIR the circuit. GO to Y5

Y2 CHECK BACKREST BLOWER MOTOR SPEED CONTROL CIRCUIT AND BLOWER GROUND CIRCUIT FOR A SHORT TOGETHER

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	Ω	C3265C Pin 15

Is the resistance greater than 10,000 ohms?

Yes	GO to Y3
No	REPAIR the circuits. GO to Y5

Y3 DETERMINE BACKREST BLOWER MOTOR OR SCME (FRONT SEAT CLIMATE CONTROL MODULE) FAILURE

- Remove the backrest blower motor from the driver seat.
  REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation).
- Remove the backrest blower motor from the passenger seat and install it on the driver seat.
- Connect: Driver Seat Backrest Blower Motor C3034.
- Connect: SCME C3265C.
- Start the engine and check operation of the driver seat climate controlled seat system.

Does the seat operate with the backrest blower motor from the other seat installed?

Yes	INSTALL a new seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to Y5
No	GO to Y4

Y4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to Y5
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. GO to Y5

Y5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272A

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

Normal Operation and Fault Conditions

The SCME monitors seat cushion temperature while it supplies voltage and ground to both blower motors. The SCME also supplies a variable voltage signal to control the blower speed. Cabin air enters the blower through a filter attached to the blower motor housing. Heated or cooled air exits the blower motor and flows through a duct to the foam pad.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272A	Passenger Cushion Over-Temp Detected	If the passenger seat cushion blower motor temperature exceeds 70° C (158° F) in cool mode or 85° C (185° F) in heat mode for more than 4 seconds, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter
- Crushed or restricted cushion foam pad
- Cushion blower motor
- SCME

PINPOINT TEST Z: DTC B272A

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

Z1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)

- Start the vehicle and set the passenger seat to HIGH heat.
- Using a diagnostic scan tool, perform the SCME self-test.

Was DTC B272A retrieved on-demand during the self-test?

Yes	GO to Z2
No	GO to Z5

Z2 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR THERMISTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	Ω	Ground
C3265B Pin 3	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to Z3
No	REPAIR the circuit in question. GO to Z22

Z3 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR THERMISTOR AND WIRING

- Connect: Passenger Seat Cushion Blower Motor C3040.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	Ω	C3265B Pin 3

- Compare the measured resistance value with the following table:

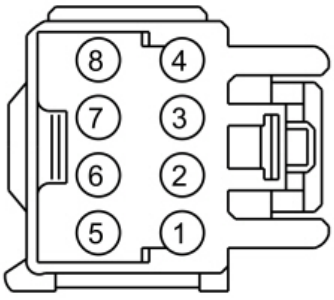
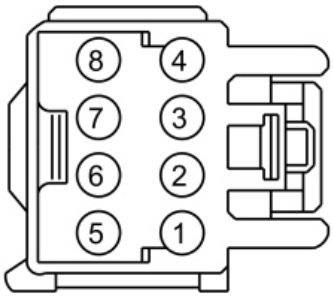
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to Z18
No	GO to Z4

Z4 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR THERMISTOR

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-5, Component Side	Ω	 E160218 C3040-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms

Ambient Temperature	Resistance
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS27 (WH/OG) or RHS10 (BU/OG) for an open or high resistance. GO to Z22
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z5 CONFIRM THE FAULT WHILE MONITORING THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) SEAT BACK THERMO-ELECTRIC DEVICE TEMPERATURE (PBKTEMP) AND SEAT CUSHION THERMO-ELECTRIC DEVICE TEMPERATURE (PCSHTEMP) PARAMETER IDENTIFICATIONS (PIDS)

- Set the passenger seat to OFF.
- Using a diagnostic scan tool, clear the SCME Diagnostic Trouble Codes (DTCs).
- Using a diagnostic scan tool, monitor the SCME PBKTEMP and PCSHTEMP Parameter Identifications (PIDs).
- **NOTE:** *A crushed seat cushion foam pad may be the cause of the fault, making it necessary to occupy the seat to recreate and identify the fault.*

  Attempt to recreate the fault. Start the vehicle and set the passenger seat to HIGH heat for at least 15 minutes while occupying the seat.

Do the Parameter Identifications (PIDs) increase incrementally (gradually) and stay within 15° C (27° F) of each other?

Yes	Fault not present at this time. Fault may have been set due to a past failure, incorrect use of the climate controlled seat system by repeated switching between heat and cool modes or due to excessive passenger compartment temperature.
No	If the PCSHTEMP PID increases incrementally and is greater than 15° C (27° F) of the PBKTEMP PID , GO to Z6 If the PCSHTEMP PID increases quickly (temperature "jumps" and does not increase incrementally) and is greater than 15° C (27° F) of the PBKTEMP PID , GO to Z16

Z6 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS

- With the engine running, set both front seats to HIGH cool.
- Note the airflow exhausting from the passenger seat cushion blower motor and compare it to the airflow exhausting from the driver seat cushion blower motor.
- Carry out a wiggle test of the wire harnesses between the SCME and the passenger seat cushion blower motor while monitoring blower operation. The blower should operate consistently and not change speeds.

Is the airflow exhausting from the passenger seat cushion blower motor comparable to the airflow exhausting from the driver seat cushion blower motor with no change in operation when carrying out the wiggle test?

Yes	GO to Z7
No	If the airflow exhausting from the passenger seat cushion blower motor is not comparable to the airflow exhausting from the driver seat cushion blower motor, GO to Z8 If the passenger seat cushion blower motor operation changed while carrying out the wiggle test, IDENTIFY and REPAIR the wiring fault.

Z7 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS WHILE OCCUPIED

- Note the airflow exhausting from the passenger seat cushion blower motor with the passenger seat occupied and compare it to the airflow exhausting from the driver seat cushion blower motor with the driver seat occupied.

Is the airflow exhausting from the passenger seat cushion blower motor comparable to the airflow exhausting from the driver seat cushion blower motor?

Yes	GO to Z16
No	INSTALL a new passenger seat cushion foam pad.

Z8 CHECK THE PASSENGER SEAT CUSHION BLOWER FOR AN OBSTRUCTION OR RESTRICTED FILTER

- Ignition OFF.
- Inspect the blower of the passenger seat cushion blower motor assembly for an obstruction or for a restricted filter.

Is the blower obstructed or the filter restricted?

Yes	REMOVE the obstruction or INSTALL a passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).
No	GO to Z9

Z9 CHECK THE PASSENGER SEAT CUSHION BLOWER SPEED CONTROL CIRCUIT FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	Ω	C3040 Pin 7

Is the resistance less than 3 ohms?

Yes	GO to Z10
No	REPAIR the circuit. GO to Z22

Z10 CHECK THE PASSENGER SEAT CUSHION BLOWER CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 7	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to Z22
No	GO to Z11

Z11 CHECK THE PASSENGER SEAT CUSHION BLOWER CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to Z12
No	REPAIR the circuit. GO to Z22

Z12 CHECK THE PASSENGER SEAT CUSHION BLOWER CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	C3040 Pin 3
C3265C Pin 7	Ω	C3040 Pin 4

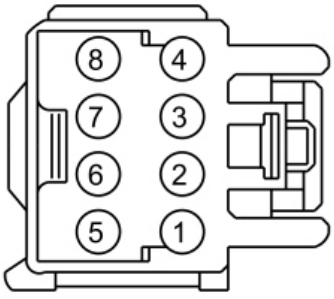
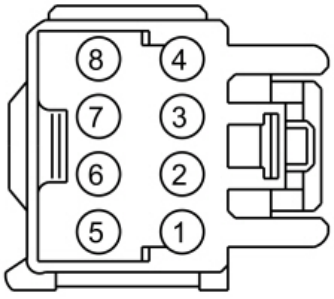
Are the resistances less than 3 ohms?

Yes	GO to Z13
No	REPAIR the circuit in question. GO to Z22

Z13 CHECK THE PASSENGER SEAT CUSHION BLOWER RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-3, Component Side	Ω	 E160218 C3040-4, Component Side

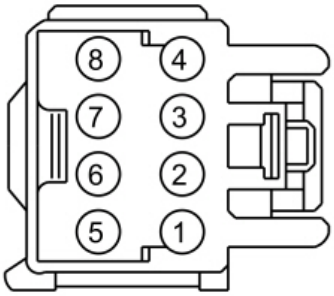
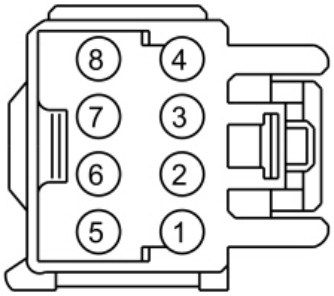
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to Z14
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z14 CHECK THE PASSENGER SEAT CUSHION BLOWER SPEED CONTROL RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-7, Component Side	Ω	 E160218 C3040-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	GO to Z15
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z15 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR INSTALLATION AND FOR CRUSHED SEAT CUSHION

- Ignition OFF.
- Remove the passenger seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the passenger seat cushion cover.
  REFER to: Front Seat Cushion Cover (501-10A Front Seats, Removal and Installation).
- Inspect the passenger seat cushion for the following:
  - Blower motor correctly installed
  - Cushion foam pad crushed or restricted

Is the passenger seat cushion blower motor correctly installed and are there no signs of damage to the foam pad?

Yes	INSTALL the passenger seat cushion cover and seat. GO to Z18

No	CORRECTLY install the passenger seat cushion blower motor or INSTALL a new passenger seat cushion foam pad. GO to Z22

Z16 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR THERMISTOR AND WIRING

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	Ω	C3265B Pin 3

- Compare the measured resistance value with the following table:

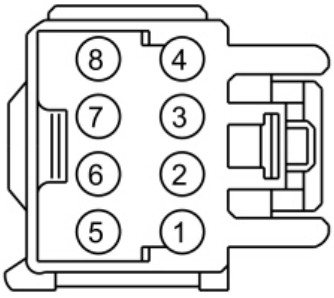
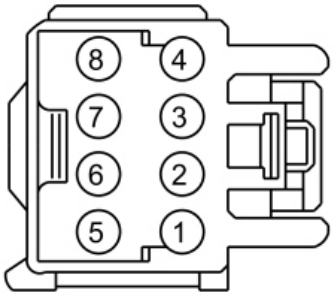
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to Z18
No	GO to Z17

Z17 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR THERMISTOR

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-5, Component Side	Ω	 E160218 C3040-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS27 (WH/OG) or RHS10 (BU/OG) for an open or high resistance. GO to Z22
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z18 CHECK THE PASSENGER SEAT CUSHION BLOWER MOTOR HEATING/COOLING CIRCUITRY CURRENT DRAW

- Connect all SCME , blower motor and Body Harness-to-Seat Harness Connectors.
- **NOTICE: It may be necessary to open the seat wire harness conduit to allow placing the inductive current probe around the circuit as described in the following step. Care must be taken when opening up the wire harness so as not to damage any wiring or connectors. Do not damage any wiring or induce stress on any wiring or connectors. Close up the wire harness once repairs to the seat are complete.**

  NOTE: *Use a commercially available inductive current probe (such as Electronic Specialties Current Probe/Multimeter 685 or a Fluke I410 [used with a digital multimeter]) or the low current probe from the VMM available for use with IDS . If these are unavailable, the inductive current probe feature from a battery tester may be substituted.*

  Place an inductive current probe around circuit CHS07 (GY/BU) near SCME C3265A Pin A and monitor the current draw.
- Start the engine and set the passenger seat to HIGH heat.

Is the current draw less than 11 amps?

Yes	GO to Z19
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z19 CHECK RESISTANCE OF THE PASSENGER SEAT CUSHION BLOWER MOTOR AND WIRING

- Ignition OFF.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	C3265A Pin B

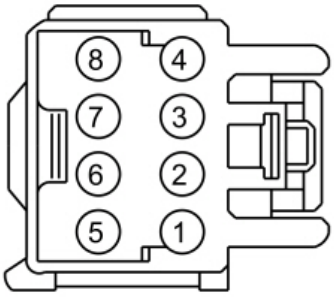
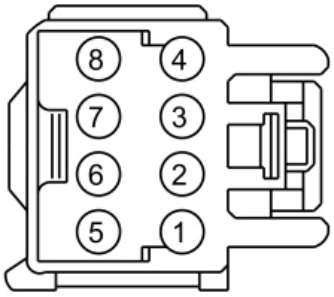
Is the resistance between 0.9 and 10 ohms?

Yes	GO to Z21

No	GO to Z20

Z20 CHECK THE RESISTANCE OF THE PASSENGER SEAT CUSHION BLOWER MOTOR

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-1, Component Side	Ω	 E160218 C3040-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR circuit CHS07 (GY/BU) or RHS07 (BU) for an open or high resistance. GO to Z22
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to Z22

Z21 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to Z22
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. GO to Z22

Z22 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY
REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures). • Connect: Passenger Side Airbag In-line C219. • Connect all previously disconnected connectors. REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures). **Did the SRS prove out successfully?**

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272B

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

Normal Operation and Fault Conditions

The SCME monitors seat backrest temperature while it supplies voltage and ground to both blower motors. The SCME also supplies a variable voltage signal to control the blower speed. Cabin air enters the blower through a filter attached to the blower motor housing. Heated or cooled air exits the blower motor and flows through the foam pad.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272B	Passenger Back Over-Temp Detected	If the passenger seat backrest blower motor temperature exceeds 70° C (158° F) in cool mode or 85° C (185° F) in heat mode for more than 4 seconds, the SCME shuts down the passenger seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter
- Crushed or restricted backrest foam pad
- Backrest blower motor
- SCME

PINPOINT TEST AA: DTC B272B

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.
AA1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)
• Start the vehicle and set the passenger seat to HIGH heat. • Using a diagnostic scan tool, perform the SCME self-test. **Was DTC B272B retrieved on-demand during the self-test?**

Yes	GO to AA2

No	GO to AA5

AA2 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	Ω	Ground
C3265B Pin 5	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AA3
No	REPAIR the circuit in question. GO to AA22

AA3 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

- Connect: Passenger Seat Backrest Blower Motor C3039.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	Ω	C3265B Pin 5

- Compare the measured resistance value with the following table:

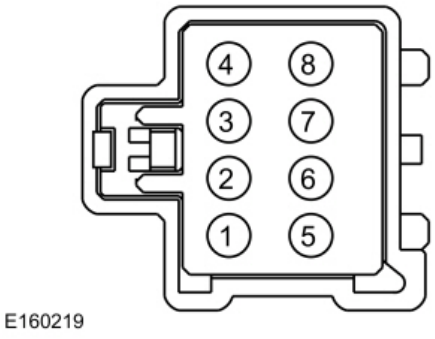
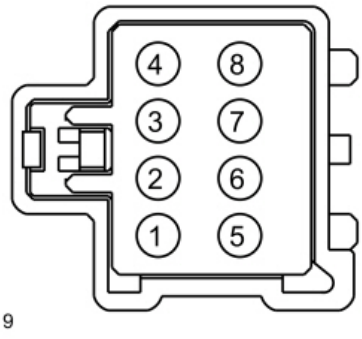
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AA18
No	GO to AA4

AA4 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-5, Component Side	Ω	 E160219 C3039-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS36 (YE/BU) or RHS20 (GN/BU) for an open or high resistance. GO to AA22
No	INSTALL a new passenger seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA5 CONFIRM THE FAULT WHILE MONITORING THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) SEAT BACK THERMO-ELECTRIC DEVICE TEMPERATURE (PBKTEMP) AND SEAT CUSHION THERMO-ELECTRIC DEVICE TEMPERATURE (PCSHTEMP) PARAMETER IDENTIFICATIONS (PIDS)

- Set the passenger seat to OFF.
- Using a diagnostic scan tool, clear the SCME Diagnostic Trouble Codes (DTCs).
- Using a diagnostic scan tool, monitor the SCME PBKTEMP and PCSHTEMP Parameter Identifications (PIDs).
- **NOTE:** *A crushed seat backrest foam pad may be the cause of the fault, making it necessary to occupy the seat to recreate and identify the fault.*

  Attempt to recreate the fault. Start the vehicle and set the passenger seat to HIGH heat for at least 15 minutes while occupying the seat.

Do the Parameter Identifications (PIDs) increase incrementally (gradually) and stay within 15° C (27° F) of each other?

Yes	Fault not present at this time. Fault may have been set due to a past failure, incorrect use of the climate controlled seat system by repeated switching between heat and cool modes or due to excessive passenger compartment temperature.

No	If the PBKTEMP PID increases incrementally and is greater than 15° C (27° F) of the PCSHTEMP PID , GO to AA6 If the PBKTEMP PID increases quickly (temperature "jumps" and does not increase incrementally) and is greater than 15° C (27° F) of the PCSHTEMP PID , GO to AA16

AA6 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS

- With the engine running, set both front seats to HIGH cool.
- Note the airflow exhausting from the passenger seat backrest blower motor and compare it to the airflow exhausting from the driver seat backrest blower motor.
- Carry out a wiggle test of the wire harnesses between the SCME and the passenger seat backrest blower motor while monitoring blower operation. The blower should operate consistently and not change speeds.

Is the airflow exhausting from the passenger seat backrest blower motor comparable to the airflow exhausting from the driver seat backrest blower motor with no change in operation when carrying out the wiggle test?

Yes	GO to AA7
No	If the airflow exhausting from the passenger seat backrest blower motor is not comparable to the airflow exhausting from the driver seat backrest blower motor, GO to AA8 If the passenger seat backrest blower motor blower operation changed while carrying out the wiggle test, IDENTIFY and REPAIR the wiring fault.

AA7 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS WHILE OCCUPIED

- Note the airflow exhausting from the passenger seat backrest blower motor with the passenger seat occupied and compare it to the airflow exhausting from the driver seat backrest blower motor with the driver seat occupied.

Is the airflow exhausting from the passenger seat backrest blower motor comparable to the airflow exhausting from the driver seat backrest blower motor?

Yes	GO to AA16
No	INSTALL a new passenger seat backrest foam pad.

AA8 CHECK THE PASSENGER SEAT BACKREST BLOWER FOR AN OBSTRUCTION OR RESTRICTED FILTER

- Ignition OFF.
- Inspect the blower of the passenger seat backrest blower motor assembly for an obstruction or for a restricted filter.

Is the blower obstructed or the filter restricted?

Yes	REMOVE the obstruction or INSTALL a new passenger seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation).
No	GO to AA9

AA9 CHECK THE PASSENGER SEAT BACKREST BLOWER SPEED CONTROL CIRCUIT FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	Ω	C3039 Pin 7

Is the resistance less than 3 ohms?

Yes	GO to AA10
No	REPAIR the circuit. GO to AA22

AA10 CHECK THE PASSENGER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 7	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AA22
No	GO to AA11

AA11 CHECK THE PASSENGER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AA12
No	REPAIR the circuit. GO to AA22

AA12 CHECK THE PASSENGER SEAT BACKREST BLOWER CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	C3039 Pin 3
C3265C Pin 7	Ω	C3039 Pin 4

Are the resistances less than 3 ohms?

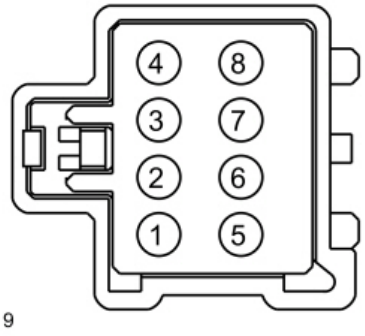
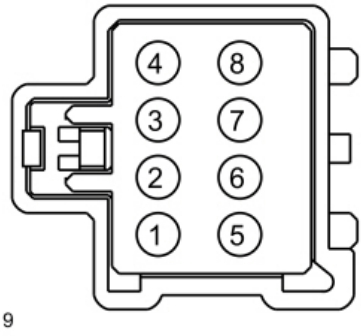
Yes	GO to AA13

No	REPAIR the circuit in question. GO to AA22

AA13 CHECK THE PASSENGER SEAT BACKREST BLOWER RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-3, Component Side	Ω	 E160219 C3039-4, Component Side

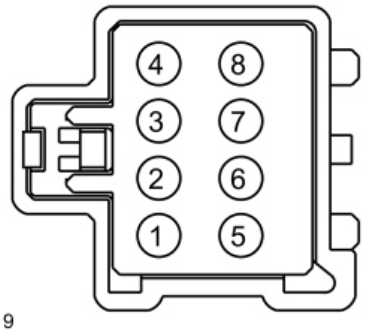
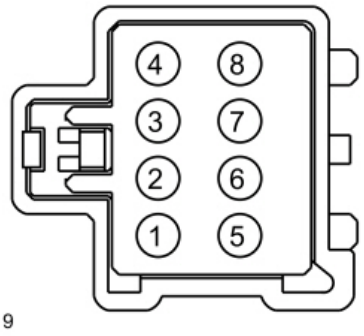
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AA14
No	INSTALL a new passenger seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA14 CHECK THE PASSENGER SEAT BACKREST BLOWER SPEED CONTROL RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219	Ω	 E160219

Positive Lead	Measurement / Action	Negative Lead
C3039-7, Component Side		C3039-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	GO to AA15
No	INSTALL a new passenger seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA15 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR INSTALLATION AND FOR CRUSHED SEAT BACKREST

- Ignition OFF.
- Remove the passenger seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the passenger seat backrest cover.
  REFER to: Front Seat Backrest Cover (501-10A Front Seats, Removal and Installation).
- Inspect the passenger seat backrest for the following:
  - Blower motor correctly installed
  - Backrest foam pad crushed or restricted

Is the passenger seat backrest blower motor correctly installed and are there no signs of damage to the foam pad?

Yes	INSTALL the passenger seat backrest cover and seat. GO to AA18
No	CORRECTLY install the passenger seat backrest blower motor or INSTALL a new passenger seat backrest foam pad. GO to AA22

AA16 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	Ω	C3265B Pin 5

- Compare the measured resistance value with the following table:

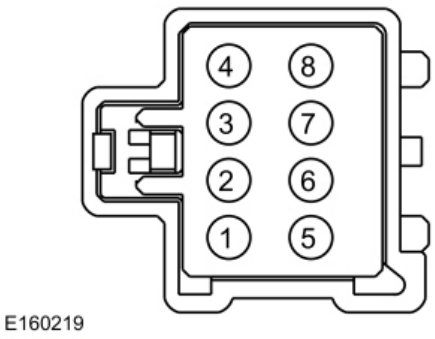
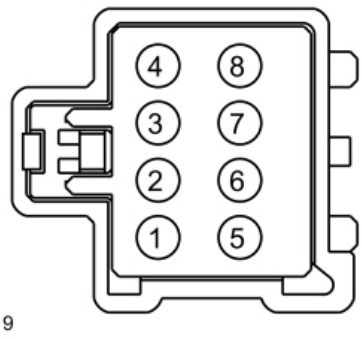
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AA18
No	GO to AA17

AA17 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-5, Component Side	Ω	 E160219 C3039-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS35 (VT/OG) or RHS15 (GY/BN) for an open or high resistance. GO to AA22
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA18 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR HEATING/COOLING CIRCUITRY CURRENT DRAW

- Connect all SCME , blower motor and Body Harness-to-Seat Harness Connectors.
- **NOTICE: It may be necessary to open the seat wire harness conduit to allow placing the inductive current probe around the circuit as described in the following step. Care must be taken when opening up the wire harness so as not to damage any wiring or connectors. Do not damage any wiring or induce stress on any wiring or connectors. Close up the wire harness once repairs to the seat are complete.**

NOTE: *Use a commercially available inductive current probe (such as Electronic Specialties Current Probe/Multimeter 685 or a Fluke I410 [used with a digital multimeter]) or the low current probe from the VMM available for use with IDS . If these are unavailable, the inductive current probe feature from a battery tester may be substituted.*

Place an inductive current probe around circuit CHS06 (BU/BN) near SCME C3265A Pin C and monitor the current draw.

- Start the engine and set the passenger seat to HIGH heat.

Is the current draw less than 11 amps?

Yes	GO to AA19
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA19 CHECK RESISTANCE OF THE PASSENGER SEAT BACKREST BLOWER MOTOR AND WIRING

- Ignition OFF.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

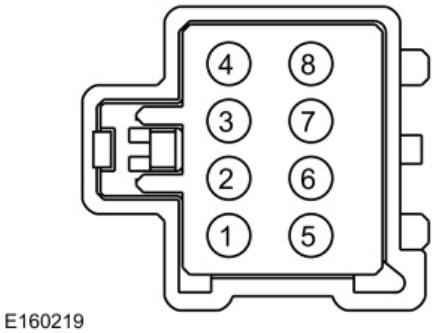
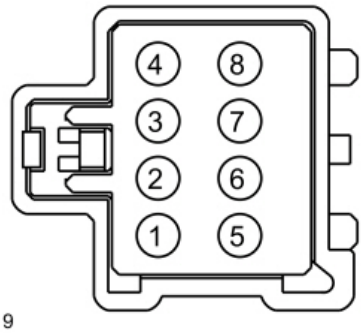
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	Ω	C3265A Pin D

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AA21
No	GO to AA20

AA20 CHECK THE RESISTANCE OF THE PASSENGER SEAT BACKREST BLOWER MOTOR

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3039-1, Component Side	Ω	 C3039-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR circuit CHS01 (GY/VT) or RHS01 (WH/VT) for an open or high resistance. GO to AA22

No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AA22

AA21 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AA22
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. GO to AA22

AA22 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272C

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

Normal Operation and Fault Conditions

The SCME is supplied voltage at all times, but the climate controlled seat system only operates with the engine running. The system can be operated with the ignition ON engine OFF by using a diagnostic scan tool to bypass the climate controlled seat buttons on the touchscreen and FCIM . When commanding a heat or cool mode operation in this manner, the climate controlled seat system only operates in 15 second intervals.

Both voltage supply circuits are spliced together internal to the SCME , so if one circuit becomes open, both seats can still be operated. However, if a fault occurs setting a DTC specific to either climate controlled seat, only the affected seat is disabled by the SCME .

Cabin air is drawn through and distributed to each of the blower motors located in the seat cushion and backrest. The blower motors then heat or cool the air. The air is then directed into the foam pad where it is distributed along the surface of the cushion and backrest of the seat. Once the system is activated, the SCME uses a set of flexible algorithms to control the heating/cooling modes and the blower speed dependant on the commanded climate controlled seat settings.

A differential fault occurs when the cushion and backrest blower motors on an affected seat are reporting very different temperatures to the SCME . This may result from an airflow restriction or a circuit fault of either blower motor area. If a blower motor is clear of obstruction and is operational, check the other blower motor and circuitry on the seat. It is important to note that a blower motor with a higher temperature may be operating correctly and not the area of concern. The other blower motor may be indicating a much lower temperature, causing the DTC to set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272C	Driver Differential Temperature Fault	If there is a temperature differential between the driver backrest and cushion blower motor of 60° C (108° F) or more for more than 4 seconds, or if the blower motor is disconnected or the duct is blocked, this DTC sets. When this happens for the first time in a key cycle, the SCME puts the driver seat system into recovery mode (see principles of operation). If the system is able to recover, it returns to normal function. If the system is able to recover and it occurs a second time in the same key cycle, the SCME shuts down the driver seat system.

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter
- Crushed or restricted backrest foam pad
- Cushion or backrest blower motor
- SCME

PINPOINT TEST AB: DTC B272C

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

AB1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)

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

Was DTC B2729 or B2730, retrieved on-demand during the self-test?

Yes	For DTC B2729, GO to Pinpoint Test AF For DTC B2730, GO to Pinpoint Test AG
No	GO to AB2

AB2 MONITOR SCME (FRONT SEAT CLIMATE CONTROL MODULE) BLOWER MOTOR TEMPERATURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, monitor the following SCME Parameter Identifications (PIDs):
  - Passenger Cushion Thermal Electric Device (TED) Temperature (PCSHTMP)
  - Passenger Back (TED) Temperature (PBKTMP)
  - Seat cushion thermal electric device temperature (CSHTEMP)
  - Seat back thermal electric device temperature (BKTMP)
- **NOTE:** *Make sure the temperature of the climate controlled seats has stabilized before monitoring the Parameter Identifications (PIDs). Not allowing stabilization can cause incorrect readings and lead to incorrect identification of components that are not faulty.*

  Monitor blower motor temperature Parameter Identifications (PIDs) with the climate controlled seats OFF. Compare the PID values of the driver seat to those of the front passenger seat, this can help identify if there is a concern with the driver seat

cushion or backrest PID value readings.

Are both driver seat blower motor temperature Parameter Identifications (PIDs) within 10° C (18° F) of the ambient temperature?

Yes	GO to AB3
No	If the driver seat cushion PID varies 10° C (18° F) or more from ambient temperature, GO to AB16 If the driver seat backrest PID varies 10° C (18° F) or more from ambient temperature, GO to AB32

AB3 CONFIRM THE FAULT IS IN THE SEAT CUSHION OR THE BACKREST

- Ignition OFF.
- Start the engine.
- **NOTE:** *A crushed seat cushion foam pad may be the cause of the fault. It may be necessary to sit on the seat or place something of reasonable size and weight on the seat to recreate the fault.*

  After cycling the ignition and with the engine running, set the driver seat to high heat. Allow the seat to heat for at least 15 minutes while monitoring the blower motor temperature Parameter Identifications (PIDs) of the driver seat.

Do the driver seat cushion blower motor and backrest blower motor Parameter Identifications (PIDs) vary more than 60° C (108° F) from each other?

Yes	If the driver seat cushion PID is 60° C (108° F) hotter than the backrest PID , GO to AB5 If the driver seat backrest PID is 60° C (108° F) hotter than the cushion PID , GO to AB20
No	GO to AB4

AB4 CHECK THE BLOWER MOTOR COOLING PERFORMANCE

- Check the blower motors cooling performance on the affected seat. Refer to Component Test — Blower Motor Cooling Performance in this section.

Did the blower motors pass the component test?

Yes	The DTC may have been set by extreme cabin temperatures or excessive sunload on the seat causing the system to enter recovery mode. Occupant size and weight characteristics can also be a factor. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. TEST the system for normal operation. If a concern cannot be found or duplicated, RETURN the vehicle to the customer.
No	CHECK the affected seat cushion or backrest for correct installation of the climate controlled seat components (blower motor, air ducts and foam pad). CHECK for airflow restrictions (blower motor inlets and outlets, filters and ducts) and REPAIR as needed. CHECK for an intermittent wiring fault. REPAIR as needed. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test.

AB5 CHECK FOR CORRECT BLOWER MOTOR INSTALLATION AND FOR CRUSHED FOAM

- Ignition OFF.
- Remove the seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the seat cushion trim cover.
  REFER to: Front Seat Cushion Cover (501-10A Front Seats, Removal and Installation).
- Inspect the driver seat cushion for the following:
  - Cushion blower obstructed
  - Blower filter restricted or plugged
  - Blower motor correctly installed
  - Seat cushion foam pad crushed or restricted

Is the blower motor correctly installed and the foam pad OK?

Yes	GO to AB6
No	Correctly INSTALL the cushion blower motor or INSTALL a new seat cushion foam pad.

AB6 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Position the driver seat in the vehicle and connect the seat-to-floor connectors.
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin K	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AB36
No	GO to AB7

AB7 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AB8
No	REPAIR the circuit. GO to AB36

AB8 CHECK THE RESISTANCE OF THE BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE AND WIRING

- Measure:

Click to display connectors

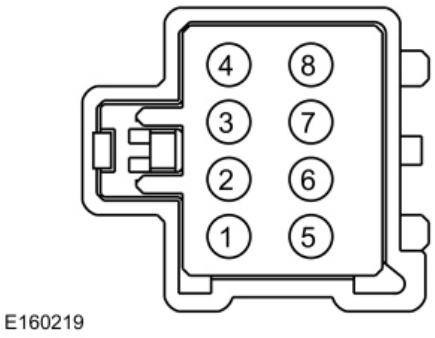
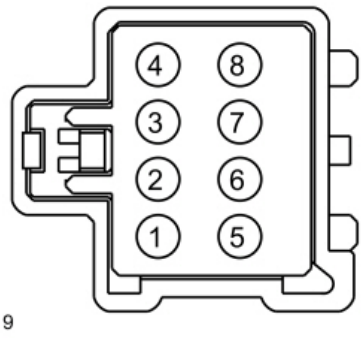
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	Ω	C3265A Pin K

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AB10
No	GO to AB9

AB9 CHECK THE RESISTANCE OF THE BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-1, Component Side	Ω	 E160219 C3034-2, Component Side

Is the resistance less than 3 ohms?

Yes	REPAIR circuit CHS01 (GY/VT) or RHS01 (WH/VT) for an open or high resistance. GO to AB36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB10 CHECK BLOWER CIRCUIT AND SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	V	Ground
C3265C Pin 11	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AB36
No	GO to AB11

AB11 CHECK BLOWER AND SPEED CONTROL CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	Ground
C3265C Pin 11	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AB12
No	REPAIR the circuit in question. GO to AB36

AB12 CHECK THE BLOWER AND WIRING

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 16 and the negative lead to pin 15 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure:

  Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3265C Pin 15

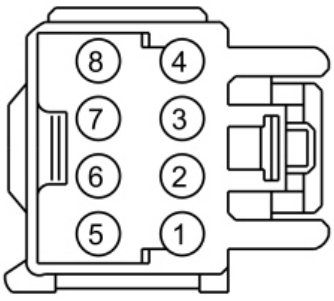
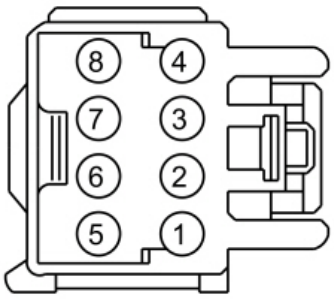
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AB14
No	GO to AB13

AB13 CHECK THE BLOWER RESISTANCE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-3, Component Side	Ω	 E160218 C3035-4, Component Side

Is the resistance between 4,000 and 10,000 ohms?

Yes	REPAIR the circuit in question. GO to AB36
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB14 CHECK THE BLOWER SPEED CONTROL AND CIRCUIT RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 11 and the negative lead to pin 15 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure:

  Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	Ω	C3265C Pin 15

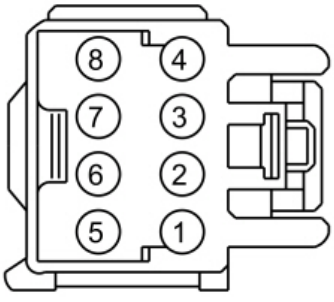
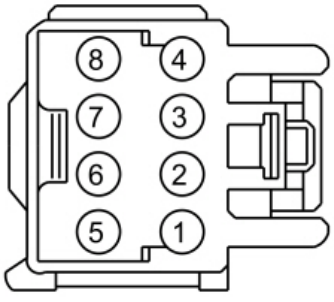
Is the resistance between 240K and 400K ohms?

Yes	GO to AB16
No	GO to AB15

AB15 CHECK THE BLOWER SPEED CONTROL RESISTANCE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-7, Component Side	Ω	 E160218 C3035-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	REPAIR the circuit in question. GO to AB36

No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB16 CHECK THERMISTOR CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AB36
No	GO to AB17

AB17 CHECK THERMISTOR CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AB18
No	REPAIR the circuit. GO to AB36

AB18 CHECK THE BLOWER MOTOR THERMISTOR AND WIRING RESISTANCE AT THE SCME (FRONT SEAT CLIMATE CONTROL MODULE)

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	Ω	C3265B Pin 8

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms

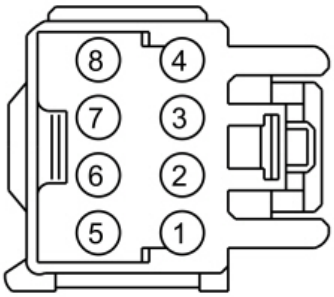
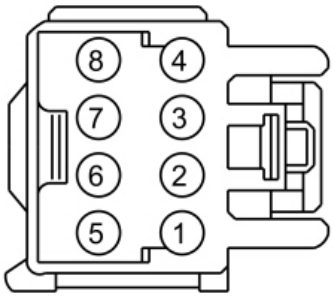
Ambient Temperature	Resistance
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AB35
No	GO to AB19

AB19 CHECK THE BLOWER MOTOR THERMISTOR RESISTANCE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-5, Component Side	Ω	 E160218 C3035-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR the circuit(s) in question. GO to AB36
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB20 CHECK FOR CORRECT BLOWER MOTOR INSTALLATION AND FOR CRUSHED FOAM

- Ignition OFF.
- Remove the driver seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the driver seat backrest cover.
  REFER to: Front Seat Backrest Cover (501-10A Front Seats, Removal and Installation).
- Inspect the driver seat backrest for the following:
  - Backrest blower obstructed
  - Blower filter restricted or plugged
  - Blower motor correctly installed
  - Seat backrest foam pad crushed or restricted

Is the blower motor correctly installed and the foam pad OK?

Yes	GO to AB21
No	Correctly INSTALL the backrest blower motor or INSTALL a new seat backrest foam pad. INSTALL the seat. GO to AB36

AB21 CHECK CUSHION BLOWER MOTOR CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Position the driver seat in the vehicle and connect the seat-to-floor connectors.
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin H	V⎓	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AB36
No	GO to AB22

AB22 CHECK CUSHION BLOWER MOTOR + CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AB23

No	REPAIR the circuit. GO to AB36

AB23 CHECK THE RESISTANCE OF THE CUSHION BLOWER MOTOR AND WIRING

- Measure:

Click to display connectors

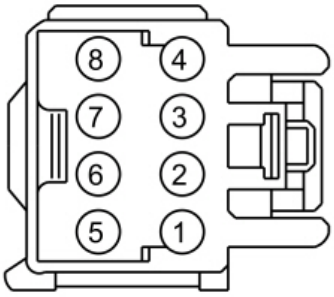
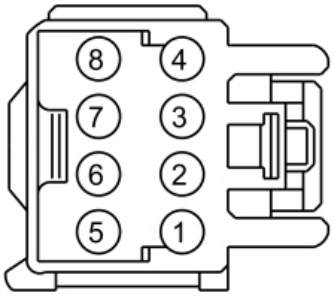
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	C3265A Pin H

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AB25
No	GO to AB24

AB24 CHECK THE CUSHION BLOWER MOTOR RESISTANCE

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-1, Component Side	Ω	 E160218 C3035-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to AB36
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB25 CHECK BLOWER CIRCUIT AND SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	V	Ground
C3265C Pin 12	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AB36
No	GO to AB26

AB26 CHECK BLOWER AND SPEED CONTROL CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	Ground
C3265C Pin 12	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AB27
No	REPAIR the circuit in question. GO to AB36

AB27 CHECK THE BLOWER AND WIRING RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 16 and the negative lead to pin 15 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3265C Pin 15

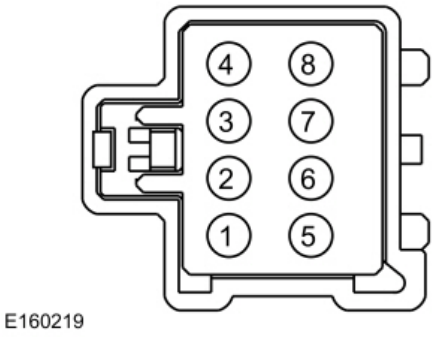
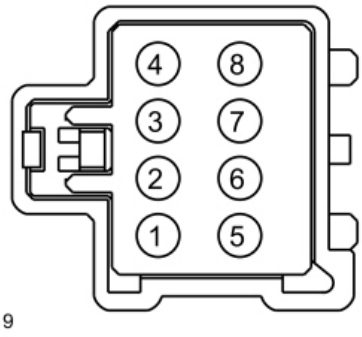
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AB29
No	GO to AB28

AB28 CHECK THE BLOWER RESISTANCE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-3, Component Side	Ω	 E160219 C3034-4, Component Side

Is the resistance between 4,000 and 10,000 ohms?

Yes	REPAIR the circuit(s) in question. GO to AB36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB29 CHECK THE BLOWER SPEED CONTROL AND CIRCUIT RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 12 and the negative lead to pin 15 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure:

  Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	Ω	C3265C Pin 15

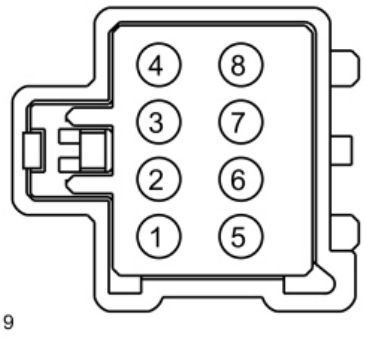
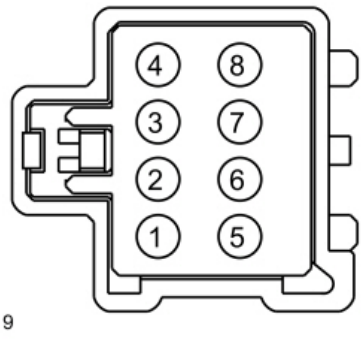
Is the resistance between 240K and 400K ohms?

Yes	GO to AB31
No	GO to AB30

AB30 CHECK THE BLOWER SPEED CONTROL RESISTANCE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-7, Component Side	Ω	 E160219 C3034-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	REPAIR the circuit(s) in question. GO to AB36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB31 CHECK THERMISTOR CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AB36
No	GO to AB32

AB32 CHECK THERMISTOR CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AB33
No	REPAIR the circuit. GO to AB36

AB33 CHECK THE BLOWER MOTOR THERMISTOR AND WIRING RESISTANCE

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	Ω	C3265B Pin 10

- Compare the measured resistance value with the following table:

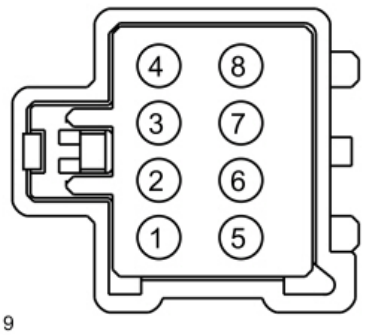
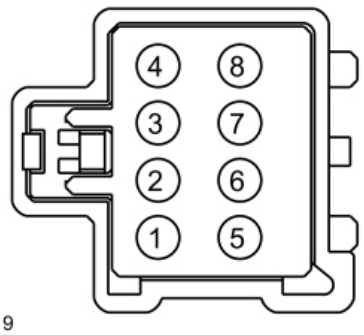
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AB35
No	GO to AB34

AB34 CHECK THE BLOWER MOTOR THERMISTOR RESISTANCE

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-5, Component Side	Ω	 E160219 C3034-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR the circuit(s) in question. GO to AB36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AB36

AB35 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AB36
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. GO to AB36

AB36 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.

No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272D

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

Normal Operation and Fault Conditions

The SCME is supplied voltage at all times, but the climate controlled seat system only operates with the engine running. The system can be operated with the ignition ON engine OFF by using a diagnostic scan tool to bypass the climate controlled seat buttons on the touchscreen and FCIM . When commanding a heat or cool mode operation in this manner, the climate controlled seat system only operates in 15 second intervals.

Both voltage supply circuits are spliced together internal to the SCME , so if one circuit becomes open, both seats can still be operated. However, if a fault occurs setting a DTC specific to either climate controlled seat, only the affected seat is disabled by the SCME .

Cabin air is drawn through and distributed to each of the blower motors located in the seat cushion and backrest. The blower motors then heat or cool the air. The air is then directed into the foam pad where it is distributed along the surface of the cushion and backrest of the seat. Once the system is activated, the SCME uses a set of flexible algorithms to control the heating/cooling modes and the blower speed dependant on the commanded climate controlled seat settings.

A differential fault occurs when the cushion and backrest blower motors on an affected seat are reporting very different temperatures to the SCME . This may result from an airflow restriction or a circuit fault of either blower motor area. If a blower motor is clear of obstruction and is operational, check the other blower motor and circuitry on the seat. It is important to note that a blower motor with a higher temperature may be operating correctly and not the area of concern. The other blower motor may be indicating a much lower temperature, causing the DTC to set.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272D	Passenger Differential Temperature Fault	If there is a temperature differential between the passenger backrest and cushion blower motor of 60° C (108° F) or more for more than 4 seconds, or if the blower motor is disconnected or the duct is blocked, this DTC sets. When this happens for the first time in a key cycle, the SCME puts the passenger seat system into recovery mode (see principles of operation). If the system is able to recover, it returns to normal function. If the system is able to recover and it occurs a second time in the same key cycle, the SCME shuts down the passenger seat system.

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter
- Crushed or restricted backrest foam pad
- Cushion or backrest blower motor
- SCME

PINPOINT TEST AC: DTC B272D

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.
AC1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)
• Using a diagnostic scan tool, perform the SCME self-test.

Was DTC B272A or B272B, retrieved on-demand during the self-test?

Yes	For DTC B272A, GO to Pinpoint Test Z For DTC B272B, GO to Pinpoint Test AA
No	GO to AC2

AC2 MONITOR SCME (FRONT SEAT CLIMATE CONTROL MODULE) BLOWER MOTOR TEMPERATURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, monitor the following SCME Parameter Identifications (PIDs):
  - Passenger Cushion Thermal Electric Device (TED) Temperature (PCSHTMP)
  - Passenger Back (TED) Temperature (PBKTMP)
  - Seat cushion thermal electric device temperature (CSHTEMP)
  - Seat back thermal electric device temperature (BKTMP)
- **NOTE:** *Make sure the temperature of the climate controlled seats has stabilized before monitoring the Parameter Identifications (PIDs). Not allowing stabilization can cause incorrect readings and lead to incorrect identification of components that are not faulty.*

  Monitor blower motor temperature Parameter Identifications (PIDs) with the limate controlled seats OFF. Compare the PID values of the driver seat to those of the front passenger seat, this can help identify if there is a concern with the passenger seat cushion or backrest PID value readings.

Are both passenger seat blower motor temperature Parameter Identifications (PIDs) within 10° C (18° F) of the ambient temperature?

Yes	GO to AC3
No	If the passenger seat cushion PID varies 10° C (18° F) or more from ambient temperature, GO to AC16 If the passenger seat backrest PID varies 10° C (18° F) or more from ambient temperature, GO to AC32

AC3 CONFIRM THE FAULT IS IN THE SEAT CUSHION OR THE BACKREST

- Ignition OFF.
- Start the engine.
- **NOTE:** *A crushed seat cushion foam pad may be the cause of the fault. It may be necessary to sit on the seat or place something of reasonable size and weight on the seat to recreate the fault.*

  After cycling the ignition and with the engine running, set the passenger seat to high heat. Allow the seat to heat for at least 15 minutes while monitoring the blower motor temperature Parameter Identifications (PIDs) of the passenger seat.

Do the passenger seat cushion blower motor and backrest blower motor Parameter Identifications (PIDs) vary more than 60° C (108° F) from each other?

Yes	If the passenger seat cushion PID is 60° C (108° F) hotter than the backrest PID , GO to AC5 If the passenger seat backrest PID is 60° C (108° F) hotter than the cushion PID , GO to AC20
No	GO to AC4

AC4 CHECK THE BLOWER MOTOR COOLING PERFORMANCE

- Check the blower motor cooling performance on the affected seat. Refer to Component Test — Blower Motor Cooling Performance in this section.

Did the blower motors pass the component test?

Yes	The DTC may have been set by extreme cabin temperatures or excessive sunload on the seat causing the system to enter recovery mode. Occupant size and weight characteristics can also be a factor. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. TEST the system for normal operation. If a concern cannot be found or duplicated, RETURN the vehicle to the customer.
No	CHECK the affected seat cushion or backrest for correct installation of the climate controlled seat components (blower motor, air ducts and foam pad). CHECK for airflow restrictions (blower motor inlets and

	outlets, filters and ducts) and REPAIR as needed. CHECK for an intermittent wiring fault. REPAIR as needed. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test.

AC5 CHECK FOR CORRECT BLOWER MOTOR INSTALLATION AND FOR CRUSHED FOAM

- Ignition OFF.
- Remove the seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the seat cushion trim cover.
  REFER to: Front Seat Cushion Cover (501-10A Front Seats, Removal and Installation).
- Inspect the seat cushion for the following:
  - Cushion blower obstructed
  - Blower filter restricted or plugged
  - Blower motor correctly installed
  - Seat cushion foam pad crushed or restricted

Is the blower motor correctly installed and the foam pad OK?

Yes	GO to AC6
No	Correctly INSTALL the cushion blower motor or INSTALL a new seat cushion foam pad.

AC6 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Position the passenger seat in the vehicle and connect the seat-to-floor connectors.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin D	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AC36
No	GO to AC7

AC7 CHECK BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AC8

No	REPAIR the circuit. GO to AC36

AC8 CHECK THE RESISTANCE OF THE BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE AND WIRING

- Measure:

Click to display connectors

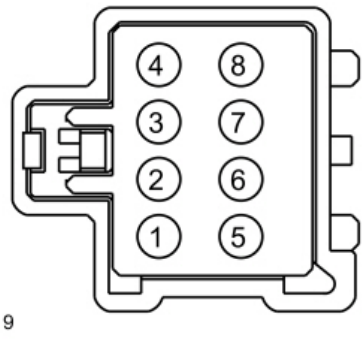
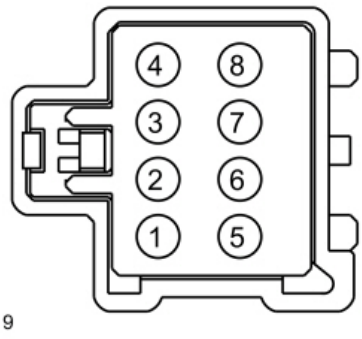
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin C	Ω	C3265A Pin D

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AC10
No	GO to AC9

AC9 CHECK THE RESISTANCE OF THE BACKREST BLOWER MOTOR THERMO ELECTRIC DEVICE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-1, Component Side	Ω	 E160219 C3039-2, Component Side

Is the resistance less than 3 ohms?

Yes	REPAIR circuit CHS06 (BU/BN) or RHS06 (WH) for an open or high resistance. GO to AC36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC10 CHECK BLOWER CIRCUIT AND SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	V	Ground
C3265C Pin 3	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AC36
No	GO to AC11

AC11 CHECK BLOWER AND SPEED CONTROL CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	Ground
C3265C Pin 3	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AC12
No	REPAIR the circuit in question. GO to AC36

AC12 CHECK THE BLOWER AND WIRING

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 8 and the negative lead to pin 7 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

  Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	C3265C Pin 7

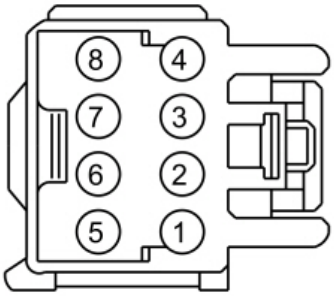
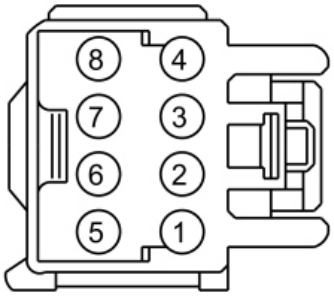
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AC14
No	GO to AC13

AC13 CHECK THE BLOWER RESISTANCE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-3, Component Side	Ω	 E160218 C3040-4, Component Side

Is the resistance between 4,000 and 10,000 ohms?

Yes	REPAIR the circuit in question. GO to AC36
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC14 CHECK THE BLOWER SPEED CONTROL AND CIRCUIT RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 7 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure:

  Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 3	Ω	C3265C Pin 7

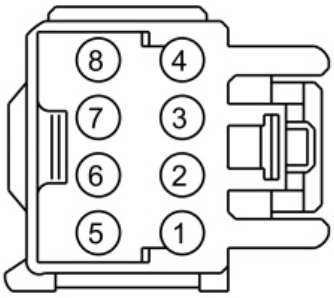
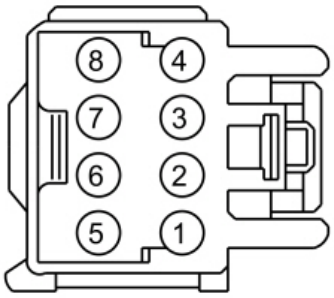
Is the resistance between 240K and 400K ohms?

Yes	GO to AC16
No	GO to AC15

AC15 CHECK THE BLOWER SPEED CONTROL RESISTANCE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-7, Component Side	Ω	 E160218 C3040-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	REPAIR the circuit in question. GO to AC36
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC16 CHECK THERMISTOR CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AC36
No	GO to AC17

AC17 CHECK THERMISTOR CIRCUIT FOR A SHORT TO GROUND
- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AC18
No	REPAIR the circuit. GO to AC36

AC18 CHECK THE BLOWER MOTOR THERMISTOR AND WIRING RESISTANCE AT THE SCME (FRONT SEAT CLIMATE CONTROL MODULE)

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 2	Ω	C3265B Pin 3

- Compare the measured resistance value with the following table:

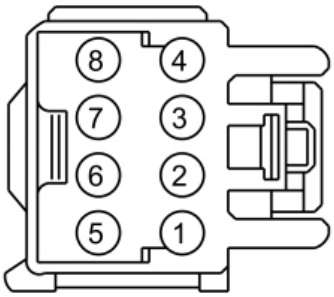
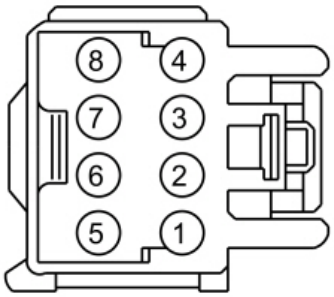
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AC35
No	GO to AC19

AC19 CHECK THE BLOWER MOTOR THERMISTOR RESISTANCE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-5, Component Side	Ω	 E160218 C3040-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR the circuit(s) in question. GO to AC36
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC20 CHECK FOR CORRECT BLOWER MOTOR INSTALLATION AND FOR CRUSHED FOAM

- Ignition OFF.
- Remove the passenger seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the passenger seat backrest cover.
  REFER to: Front Seat Backrest Cover (501-10A Front Seats, Removal and Installation).
- Inspect the passenger seat backrest for the following:
  - Backrest blower obstructed
  - Blower filter restricted or plugged
  - Blower motor correctly installed
  - Seat backrest foam pad crushed or restricted

Is the blower motor correctly installed and the foam pad OK?

Yes	GO to AC21
No	Correctly INSTALL the backrest blower motor or INSTALL a new seat backrest foam pad. INSTALL the seat. GO to AC36

AC21 CHECK CUSHION BLOWER MOTOR CIRCUIT FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Position the passenger seat in the vehicle and connect the seat-to-floor connectors.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265A.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin B	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AC36
No	GO to AC22

AC22 CHECK CUSHION BLOWER MOTOR + CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AC23
No	REPAIR the circuit. GO to AC36

AC23 CHECK THE RESISTANCE OF THE CUSHION BLOWER MOTOR AND WIRING

- Measure:

Click to display connectors

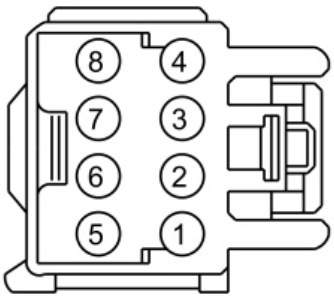
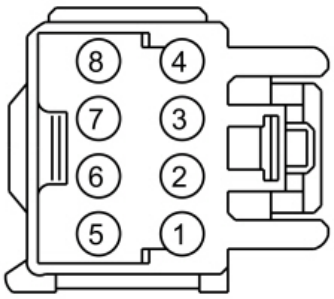
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin A	Ω	C3265A Pin B

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AC25
No	GO to AC24

AC24 CHECK THE CUSHION BLOWER MOTOR RESISTANCE

- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218	Ω	 E160218

Positive Lead	Measurement / Action	Negative Lead
C3040-1, Component Side		C3040-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR the circuit(s) in question. GO to AC36
No	INSTALL a new passenger seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC25 CHECK BLOWER CIRCUIT AND SPEED CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265C.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	V	Ground
C3265C Pin 4	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AC36
No	GO to AC26

AC26 CHECK BLOWER AND SPEED CONTROL CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	Ground
C3265C Pin 4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AC27
No	REPAIR the circuit in question. GO to AC36

AC27 CHECK THE BLOWER AND WIRING RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 8 and the negative lead to pin 7 when measuring. Ohmmeter leads incorrectly connected will result in false readings and lead to incorrect identification of components that are not faulty.*

Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	C3265C Pin 7

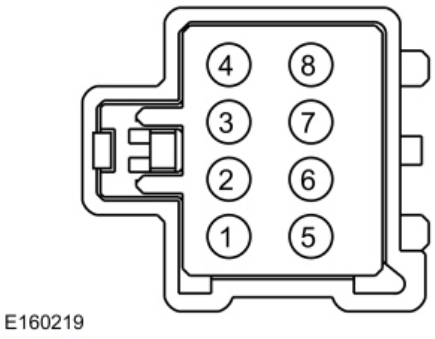
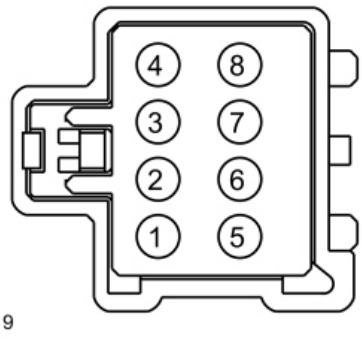
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AC29
No	GO to AC28

AC28 CHECK THE BLOWER RESISTANCE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-3, Component Side	Ω	 E160219 C3039-4, Component Side

Is the resistance between 4,000 and 10,000 ohms?

Yes	REPAIR the circuit(s) in question. GO to AC36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC29 CHECK THE BLOWER SPEED CONTROL AND CIRCUIT RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 4 and the negative lead to pin 7 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 4	Ω	C3265C Pin 7

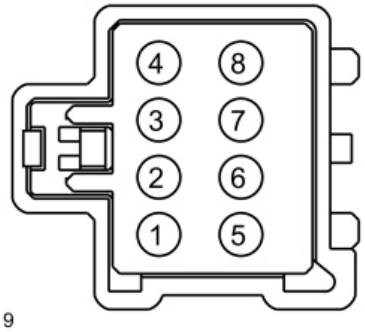
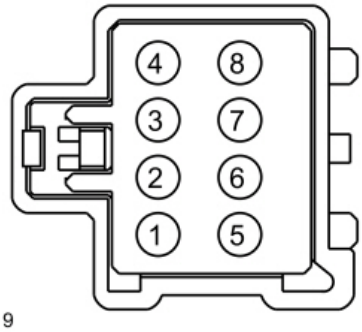
Is the resistance between 240K and 400K ohms?

Yes	GO to AC31
No	GO to AC30

AC30 CHECK THE BLOWER SPEED CONTROL RESISTANCE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-7, Component Side	Ω	 E160219 C3039-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	REPAIR the circuit(s) in question. GO to AC36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC31 CHECK THERMISTOR CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCME C3265B.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AC36
No	GO to AC32

AC32 CHECK THERMISTOR CIRCUIT FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AC33
No	REPAIR the circuit. GO to AC36

AC33 CHECK THE BLOWER MOTOR THERMISTOR AND WIRING RESISTANCE

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 4	Ω	C3265B Pin 5

- Compare the measured resistance value with the following table:

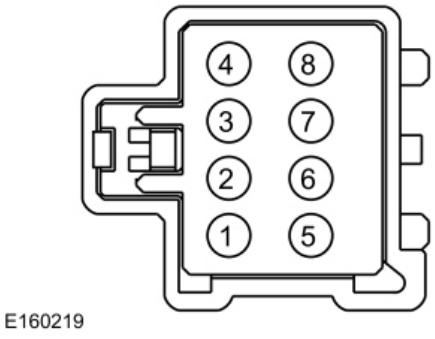
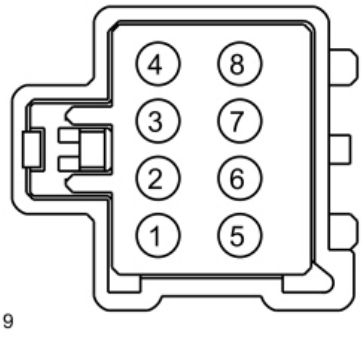
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AC35
No	GO to AC34

AC34 CHECK THE BLOWER MOTOR THERMISTOR RESISTANCE

- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-5, Component Side	Ω	 E160219 C3039-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR the circuit(s) in question. GO to AC36
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AC36

AC35 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AC36
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. GO to AC36

AC36 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272E

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the backrest and cushion blower motors. The blower motors are independently controlled by separate speed control circuits from the SCME .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272E	Driver Ignition Run/Blower Circuit Short to Ground	If either the blower voltage supply or return circuits are open (to both cushion or backrest blowers) or shorted to voltage, the DTC is set and after 4-6 seconds the SCME disables outputs to the driver seat. The DTC also sets if the blower voltage supply or return circuit is open to only one blower when SCME supply voltage is less than 12 volts.

Possible Causes

- Wiring, terminals or connectors
- Cushion or backrest blower motor
- SCME

PINPOINT TEST AD: DTC B272E

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

AD1 CHECK THE BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	V	Ground
C3265C Pin 15	V	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AD5
No	GO to AD2

AD2 CHECK THE BLOWER MOTOR CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3035 Pin 3
C3265C Pin 15	Ω	C3035 Pin 4

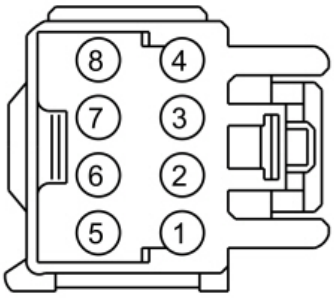
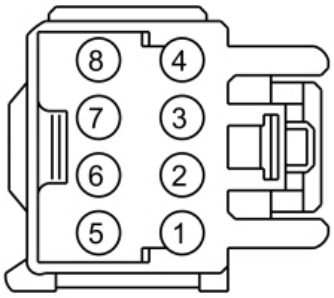
Are the resistances less than 3 ohms?

Yes	GO to AD3
No	REPAIR the circuit in question. GO to AD5

AD3 CHECK THE RESISTANCE OF THE CUSHION AND BACKREST BLOWER MOTORS

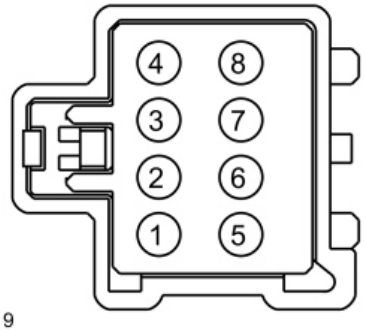
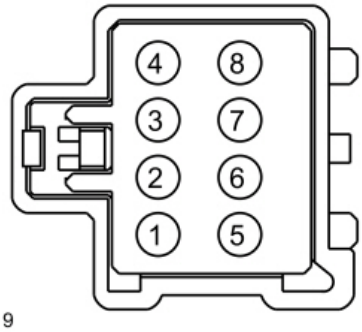
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-3, Component Side	Ω	 E160218 C3035-4, Component Side

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-3, Component Side	Ω	 E160219 C3034-4, Component Side

Are the resistances between 4,000 and 10,000 ohms?

Yes	GO to AD4
No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AD5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AD5

AD4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary

- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AD5
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. GO to AD5

AD5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B272F

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

Normal Operation and Fault Conditions

The SCME supplies voltage and ground to the backrest and cushion blower motors. The blower motors are independently controlled by separate speed control circuits from the SCME .

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B272F	Passenger Ignition Run/Blower Circuit Short to Ground	If either the blower voltage supply or return circuits are open (to both cushion or backrest blowers) or shorted to voltage, the DTC is set and after 4-6 seconds the SCME disables outputs to the passenger seat. The DTC also sets if the blower voltage supply or return circuit is open to only one blower when SCME supply voltage is less than 12 volts.

Possible Causes

- Wiring, terminals or connectors

- Cushion or backrest blower motor
- SCME

PINPOINT TEST AE: DTC B272F

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

AE1 CHECK THE BLOWER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Passenger Seat Cushion Blower Motor C3040.
- Disconnect: Passenger Seat Backrest Blower Motor C3039.
- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	V⎓	Ground
C3265C Pin 7	V⎓	Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to AE5
No	GO to AE2

AE2 CHECK THE BLOWER MOTOR CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 8	Ω	C3040 Pin 3
C3265C Pin 7	Ω	C3040 Pin 4

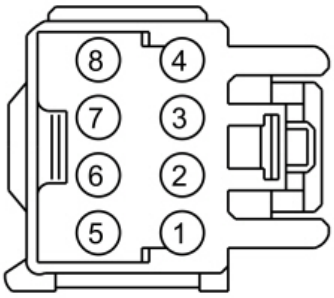
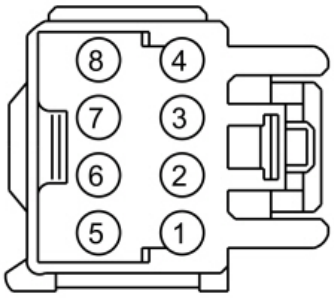
Are the resistances less than 3 ohms?

Yes	GO to AE3
No	REPAIR the circuit in question. GO to AE5

AE3 CHECK THE RESISTANCE OF THE CUSHION AND BACKREST BLOWER MOTORS

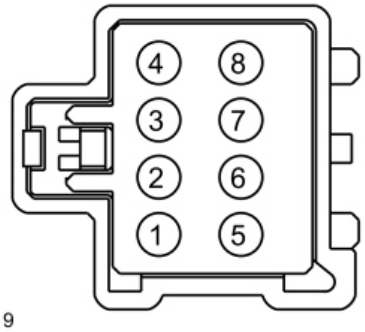
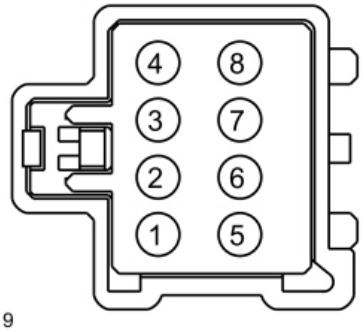
- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3040-3, Component Side	Ω	 E160218 C3040-4, Component Side

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3039-3, Component Side	Ω	 E160219 C3039-4, Component Side

Are the resistances between 4,000 and 10,000 ohms?

Yes	GO to AE4
No	If the backrest blower motor resistance measurement failed, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AE5 If the cushion blower motor resistance measurement failed, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AE5

AE4 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary

- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AE5
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. GO to AE5

AE5 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B2729

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

Normal Operation and Fault Conditions

The SCME monitors seat cushion temperature while it supplies voltage and ground to both blower motors. The SCME also supplies a variable voltage signal to control the blower speed. Cabin air enters the blower through a filter attached to the blower motor housing. Heated or cooled air exits the blower motor and flows through a duct to the foam pad.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B2729	Cushion Over-Temp Detected	If the driver seat cushion blower motor temperature exceeds 70° C (158° F) in cool mode or 85° C (185° F) in heat mode for more than 4 seconds, the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter

- Crushed or restricted cushion foam pad
- Cushion blower motor
- SCME

PINPOINT TEST AF: DTC B2729

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

AF1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)

- Start the vehicle and set the driver seat to HIGH heat.
- Using a diagnostic scan tool, perform the SCME self-test.

Was DTC B2729 retrieved on-demand during the self-test?

Yes	GO to AF2
No	GO to AF5

AF2 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR THERMISTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	Ω	Ground
C3265B Pin 8	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AF3
No	REPAIR the circuit in question. GO to AF22

AF3 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR THERMISTOR AND WIRING

- Connect: Driver Seat Cushion Blower Motor C3035.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	Ω	C3265B Pin 8

- Compare the measured resistance value with the following table:

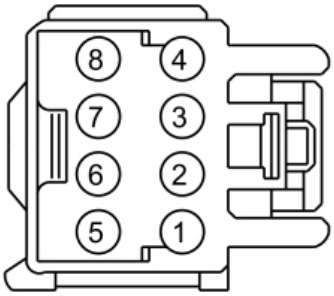
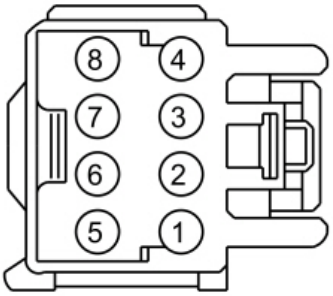
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AF18
No	GO to AF4

AF4 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR THERMISTOR

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-5, Component Side	Ω	 E160218 C3035-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS26 (VT) or RHS05 (YE/VT) for an open or high resistance. GO to AF22
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).

	GO to AF22

AF5 CONFIRM THE FAULT WHILE MONITORING THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) SEAT BACK THERMAL ELECTRIC DEVICE TEMPERATURE (BKTMP) AND SEAT CUSHION THERMAL ELECTRIC DEVICE TEMPERATURE (CSHTEMP) PARAMETER IDENTIFICATIONS (PIDS)

- Set the driver seat to OFF.
- Using a diagnostic scan tool, clear the SCME Diagnostic Trouble Codes (DTCs).
- Using a diagnostic scan tool, monitor the SCME BKTMP and CSHTEMP Parameter Identifications (PIDs).
- **NOTE:** *A crushed seat cushion foam pad may be the cause of the fault, making it necessary to occupy the seat to recreate and identify the fault.*

  Attempt to recreate the fault. Start the vehicle and set the driver seat to HIGH heat for at least 15 minutes while occupying the seat.

Do the Parameter Identifications (PIDs) increase incrementally (gradually) and stay within 15° C (27° F) of each other?

Yes	Fault not present at this time. Fault may have been set due to a past failure, incorrect use of the climate controlled seat system by repeated switching between heat and cool modes or due to excessive passenger compartment temperature.
No	If the CSHTEMP PID increases incrementally and is greater than 15° C (27° F) of the BKTMP PID , GO to AF6 If the CSHTEMP PID increases quickly (temperature "jumps" and does not increase incrementally) and is greater than 15° C (27° F) of the BKTMP PID , GO to AF16

AF6 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS

- With the engine running, set both front seats to HIGH cool.
- Note the airflow exhausting from the driver seat cushion blower motor and compare it to the airflow exhausting from the driver seat cushion blower motor.
- Carry out a wiggle test of the wire harnesses between the SCME and the driver seat cushion blower motor while monitoring blower operation. The blower should operate consistently and not change speeds.

Is the airflow exhausting from the driver seat cushion blower motor comparable to the airflow exhausting from the driver seat cushion blower motor with no change in operation when carrying out the wiggle test?

Yes	GO to AF7
No	If the airflow exhausting from the driver seat cushion blower motor is not comparable to the airflow exhausting from the passenger seat cushion blower motor, GO to AF8 If the driver seat cushion blower motor blower operation changed while carrying out the wiggle test, IDENTIFY and REPAIR the wiring fault.

AF7 COMPARE OPERATION OF THE DRIVER AND DRIVER SEATS WHILE OCCUPIED

- Note the airflow exhausting from the driver seat cushion blower motor with the driver seat occupied and compare it to the airflow exhausting from the passenger seat cushion blower motor with the passenger seat occupied.

Is the airflow exhausting from the driver seat cushion blower motor comparable to the airflow exhausting from the passenger seat cushion blower motor?

Yes	GO to AF16
No	INSTALL a new driver seat cushion foam pad.

AF8 CHECK THE DRIVER SEAT CUSHION BLOWER FOR AN OBSTRUCTION OR RESTRICTED FILTER

- Ignition OFF.
- Inspect the driver seat cushion blower motor assembly for an obstruction or for a restricted filter.

Is the blower motor obstructed or the filter restricted?

Yes	REMOVE the obstruction or INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).
No	GO to AF9

AF9 CHECK THE DRIVER SEAT CUSHION BLOWER SPEED CONTROL CIRCUIT FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 11	Ω	C3035 Pin 7

Is the resistance less than 3 ohms?

Yes	GO to AF10
No	REPAIR the circuit. GO to AF22

AF10 CHECK THE DRIVER SEAT CUSHION BLOWER CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 15	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AF22
No	GO to AF11

AF11 CHECK THE DRIVER SEAT CUSHION BLOWER CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AF12
No	REPAIR the circuit. GO to AF22

AF12 CHECK THE DRIVER SEAT CUSHION BLOWER CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3035 Pin 3
C3265C Pin 15	Ω	C3035 Pin 4

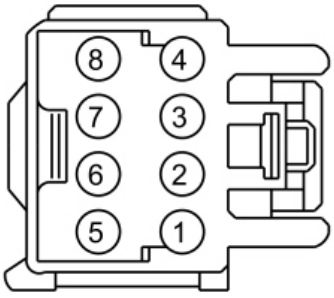
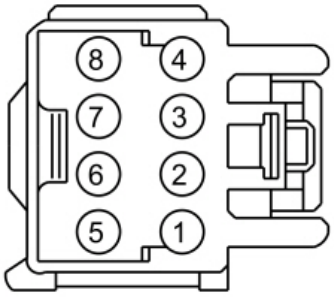
Are the resistances less than 3 ohms?

Yes	GO to AF13
No	REPAIR the circuit in question. GO to AF22

AF13 CHECK THE DRIVER SEAT CUSHION BLOWER RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-3, Component Side	Ω	 E160218 C3035-4, Component Side

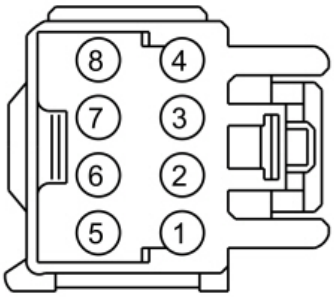
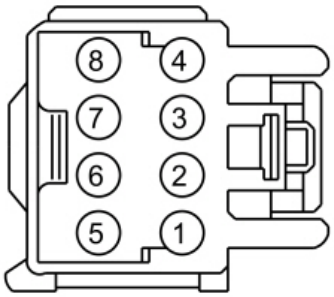
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AF14
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AF22

AF14 CHECK THE DRIVER SEAT CUSHION BLOWER SPEED CONTROL RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-7, Component Side	Ω	 E160218 C3035-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	GO to AF15
No	INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AF22

AF15 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR INSTALLATION AND FOR CRUSHED SEAT CUSHION

- Ignition OFF.
- Remove the driver seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the driver seat cushion cover.
  REFER to: Front Seat Cushion Cover (501-10A Front Seats, Removal and Installation).
- Inspect the driver seat cushion for the following:
  - Blower motor correctly installed
  - Seat cushion foam pad crushed or restricted

Is the driver seat cushion blower motor correctly installed and are there no signs of damage to the foam pad?

Yes	INSTALL the driver seat cushion cover and seat. GO to AF18
No	CORRECTLY install the driver seat cushion blower motor or INSTALL a new driver seat cushion foam pad. GO to AF22

AF16 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR THERMISTOR AND WIRING

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 7	Ω	C3265B Pin 8

- Compare the measured resistance value with the following table:

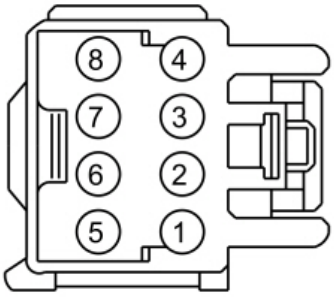
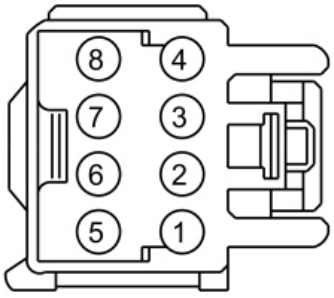
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AF18
No	GO to AF17

AF17 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR THERMISTOR

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-5, Component Side	Ω	 E160218 C3035-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS26 (VT) or RHS05 (YE/VT) for an open or high resistance. GO to AF22
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AF22

AF18 CHECK THE DRIVER SEAT CUSHION BLOWER MOTOR HEATING/COOLING CIRCUITRY CURRENT DRAW

- Connect all SCME , blower motor and Body Harness-to-Seat Harness Connectors.
- **NOTICE: It may be necessary to open the seat wire harness conduit to allow placing the inductive current probe around the circuit as described in the following step. Care must be taken when opening up the wire harness so as not to damage any wiring or connectors. Do not damage any wiring or induce stress on any wiring or connectors. Close up the wire harness once repairs to the seat are complete.**

  NOTE: *Use a commercially available inductive current probe (such as Electronic Specialties Current Probe/Multimeter 685 or a Fluke I410 [used with a digital multimeter]) or the low current probe from the VMM available for use with IDS . If these are unavailable, the inductive current probe feature from a battery tester may be substituted.*

  Place an inductive current probe around circuit CHS02 (YE/BU) near SCME C3265A Pin G and monitor the current draw.
- Start the engine and set the driver seat to HIGH heat.

Is the current draw less than 11 amps?

Yes	GO to AF19
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AF22

AF19 CHECK RESISTANCE OF THE DRIVER SEAT CUSHION BLOWER MOTOR AND WIRING

- Ignition OFF.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

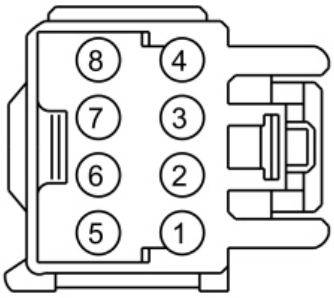
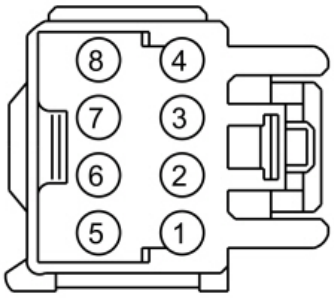
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin G	Ω	C3265A Pin H

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AF21
No	GO to AF20

AF20 CHECK THE RESISTANCE OF THE DRIVER SEAT CUSHION BLOWER MOTOR

- Disconnect: Driver Seat Cushion Blower Motor C3035.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160218 C3035-1, Component Side	Ω	 E160218 C3035-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR circuit CHS02 (YE/BU) or RHS02 (BU/OG) for an open or high resistance. GO to AF22
No	INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to AF22

AF21 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AF22
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. GO to AF22

AF22 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

DTC B2730

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

Normal Operation and Fault Conditions

The SCME monitors seat backrest temperature while it supplies voltage and ground to both blower motors. The SCME also supplies a variable voltage signal to control the blower speed. Cabin air enters the blower through a filter attached to the blower motor housing. Heated or cooled air exits the blower motor and flows through the foam pad.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B2730	Back Over-Temp Detected	If the driver seat backrest blower motor temperature exceeds 70° C (158° F) in cool mode or 85° C (185° F) in heat mode for more than 4 seconds the SCME shuts down the driver seat system and sets this DTC .

Possible Causes

- Wiring, terminals or connectors
- Restricted blower motor filter
- Crushed or restricted backrest foam pad
- Backrest blower motor
- SCME

PINPOINT TEST AG: DTC B2730

WARNING: Incorrect repair techniques or actions can cause an accidental Supplemental Restraint System (SRS) deployment. Never compromise or depart from these instructions. Failure to precisely follow all instructions could result in serious personal injury from an accidental deployment.

AG1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)

- Start the vehicle and set the driver seat to HIGH heat.
- Using a diagnostic scan tool, perform the SCME self-test.

Was DTC B2730 retrieved on-demand during the self-test?

Yes	GO to AG2
No	GO to AG5

AG2 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.

- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	Ω	Ground
C3265B Pin 10	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to AG3
No	REPAIR the circuit in question. GO to AG22

AG3 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

- Connect: Driver Seat Backrest Blower Motor C3034.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	Ω	C3265B Pin 10

- Compare the measured resistance value with the following table:

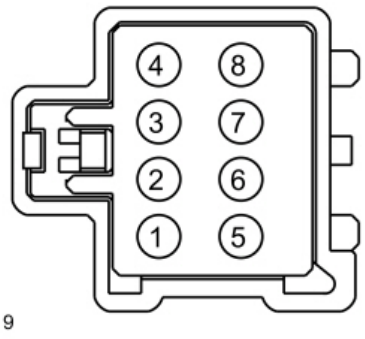
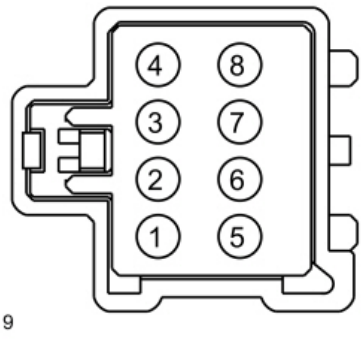
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AG18
No	GO to AG4

AG4 CHECK THE PASSENGER SEAT BACKREST BLOWER MOTOR THERMISTOR

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-5, Component Side	Ω	 E160219 C3034-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS35 (VT/OG) or RHS15 (GY/BN) for an open or high resistance. GO to AG22
No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG5 CONFIRM THE FAULT WHILE MONITORING THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) SEAT BACK THERMAL ELECTRIC DEVICE TEMPERATURE (BKTMP) AND SEAT CUSHION THERMAL ELECTRIC DEVICE TEMPERATURE (CSHTEMP) PARAMETER IDENTIFICATIONS (PIDS)

- Set the passenger seat to OFF.
- Using a diagnostic scan tool, clear the SCME Diagnostic Trouble Codes (DTCs).
- Using a diagnostic scan tool, monitor the SCME BKTMP and CSHTEMP Parameter Identifications (PIDs).
- **NOTE:** *A crushed seat backrest foam pad may be the cause of the fault, making it necessary to occupy the seat to recreate and identify the fault.*

  Attempt to recreate the fault. Start the vehicle and set the driver seat to HIGH heat for at least 15 minutes while occupying the seat.

Do the Parameter Identifications (PIDs) increase incrementally (gradually) and stay within 15° C (27° F) of each other?

Yes	Fault not present at this time. Fault may have been set due to a past failure, incorrect use of the climate controlled seat system by repeated switching between heat and cool modes or due to excessive passenger compartment temperature.
No	If the BKTMP PID increases incrementally and is greater than 15° C (27° F) of the CSHTEMP PID , GO to AG6 If the BKTMP PID increases quickly (temperature "jumps" and does not increase incrementally) and is greater than 15° C (27° F) of the CSHTEMP PID , GO to AG16

AG6 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS

- With the engine running, set both front seats to HIGH cool.
- Note the airflow exhausting from the driver seat backrest blower motor and compare it to the airflow exhausting from the passenger seat backrest blower motor.
- Carry out a wiggle test of the wire harnesses between the SCME and the driver seat backrest blower motor while monitoring blower operation. The blower should operate consistently and not change speeds.

Is the airflow exhausting from the driver seat backrest blower motor comparable to the airflow exhausting from the passenger seat backrest blower motor with no change in operation when carrying out the wiggle test?

Yes	GO to AG7
No	If the airflow exhausting from the driver seat backrest blower motor is not comparable to the airflow exhausting from the passenger seat backrest blower motor, GO to AG8 If the driver seat backrest blower motor operation changed while carrying out the wiggle test, IDENTIFY and REPAIR the wiring fault.

AG7 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS WHILE OCCUPIED

- Note the airflow exhausting from the driver seat backrest blower motor with the driver seat occupied and compare it to the airflow exhausting from the passenger seat backrest blower motor with the passenger seat occupied.

Is the airflow exhausting from the driver seat backrest blower motor comparable to the airflow exhausting from the passenger seat backrest blower motor?

Yes	GO to AG16
No	INSTALL a new driver seat backrest foam pad.

AG8 CHECK THE DRIVER SEAT BACKREST BLOWER FOR AN OBSTRUCTION OR RESTRICTED FILTER

- Ignition OFF.
- Inspect the blower of the driver seat backrest blower motor assembly for an obstruction or for a restricted filter.

Is the blower obstructed or the filter restricted?

Yes	REMOVE the obstruction or INSTALL a new driver seat cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation).
No	GO to AG9

AG9 CHECK THE DRIVER SEAT BACKREST BLOWER SPEED CONTROL CIRCUIT FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).

- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265C.
- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 12	Ω	C3034 Pin 7

Is the resistance less than 3 ohms?

Yes	GO to AG10
No	REPAIR the circuit. GO to AG22

AG10 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 15	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AG22
No	GO to AG11

AG11 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to AG12
No	REPAIR the circuit. GO to AG22

AG12 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUITS FOR AN OPEN

- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265C Pin 16	Ω	C3034 Pin 3
C3265C Pin 15	Ω	C3034 Pin 4

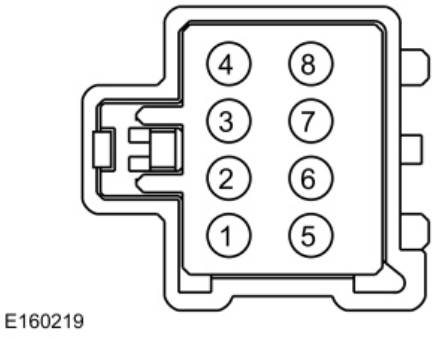
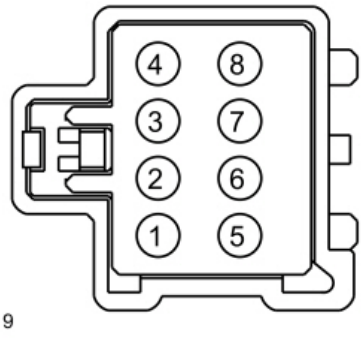
Are the resistances less than 3 ohms?

Yes	GO to AG13
No	REPAIR the circuit in question. GO to AG22

AG13 CHECK THE DRIVER SEAT BACKREST BLOWER RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 3 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3034-3, Component Side	Ω	 C3034-4, Component Side

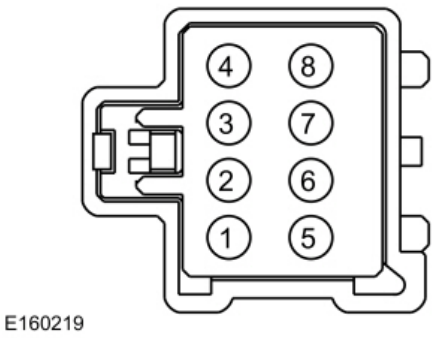
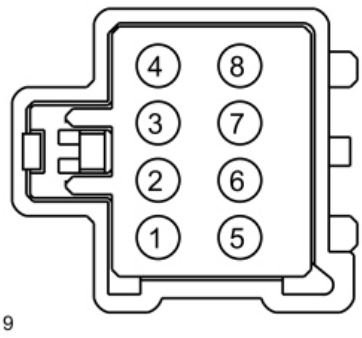
Is the resistance between 4,000 and 10,000 ohms?

Yes	GO to AG14
No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG14 CHECK THE DRIVER SEAT BACKREST BLOWER SPEED CONTROL RESISTANCE

- **NOTE:** *The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not damaged.*

  Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3034-7, Component Side	Ω	 C3034-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	GO to AG15
No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG15 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR INSTALLATION AND FOR CRUSHED SEAT BACKREST

- Ignition OFF.
- Remove the driver seat.
  REFER to: Front Seat (501-10A Front Seats, Removal and Installation).
- Remove the driver seat backrest cover.
  REFER to: Front Seat Backrest Cover (501-10A Front Seats, Removal and Installation).
- Inspect the driver seat backrest for the following:
  - Blower motor correctly installed
  - Backrest foam pad crushed or restricted

Is the driver seat backrest blower motor correctly installed and are there no signs of damage to the foam pad?

Yes	INSTALL the driver seat backrest cover and seat. GO to AG18
No	CORRECTLY install the driver seat backrest blower motor or INSTALL a new driver seat backrest foam pad. GO to AG22

AG16 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line C3206.
- Disconnect: Passenger Side Airbag In-line C219.
- Disconnect: SCME C3265B.
- Measure:

Click to display connectors

Positive Lead	Measurement / Action	Negative Lead
C3265B Pin 9	Ω	C3265B Pin 10

- Compare the measured resistance value with the following table:

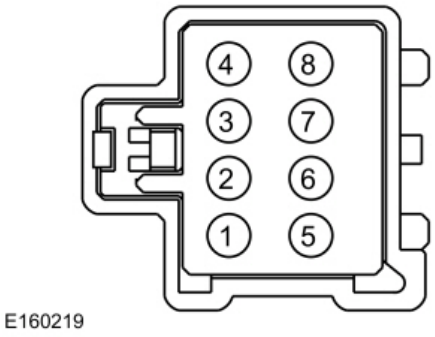
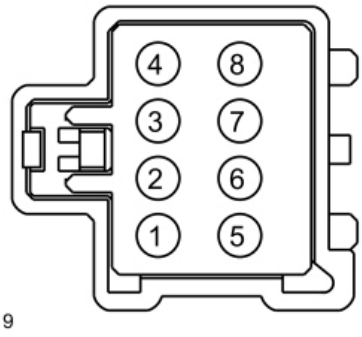
Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	GO to AG18
No	GO to AG17

AG17 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-5, Component Side	Ω	 E160219 C3034-8, Component Side

- Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10° C (32-50° F)	2,782-1,663 ohms
10-20° C (50-68° F)	1,837-1,140 ohms
20-30° C (68-86° F)	1,260-806 ohms
30-40° C (86-104° F)	893-570 ohms
40-50° C (104-122° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit VHS35 (VT/OG) or RHS15 (GY/BN) for an open or high resistance. GO to AG22
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG18 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR HEATING/COOLING CIRCUITRY CURRENT DRAW

- Connect all SCME , blower motor and Body Harness-to-Seat Harness Connectors.
- **NOTICE: It may be necessary to open the seat wire harness conduit to allow placing the inductive current probe around the circuit as described in the following step. Care must be taken when opening up the wire harness so as not to damage any wiring or connectors. Do not damage any wiring or induce stress on any wiring or connectors. Close up the wire harness once repairs to the seat are complete.**

  NOTE: *Use a commercially available inductive current probe (such as Electronic Specialties Current Probe/Multimeter 685 or a Fluke I410 [used with a digital multimeter]) or the low current probe from the VMM available for use with IDS . If these are unavailable, the inductive current probe feature from a battery tester may be substituted.*

  Place an inductive current probe around circuit CHS01 (GY/VT) near SCME C3265A Pin J and monitor the current draw.
- Start the engine and set the driver seat to HIGH heat.

Is the current draw less than 11 amps?

Yes	GO to AG19
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG19 CHECK RESISTANCE OF THE DRIVER SEAT BACKREST BLOWER MOTOR AND WIRING

- Ignition OFF.
- Disconnect: SCME C3265A.
- Measure:

Click to display connectors

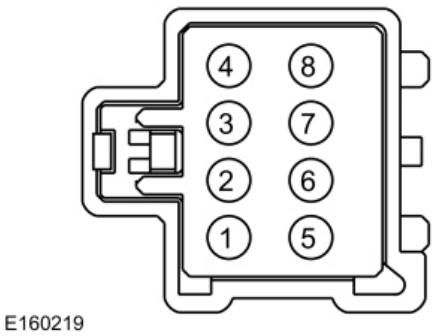
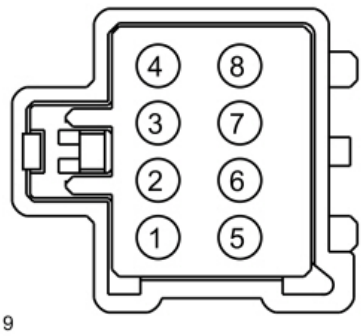
Positive Lead	Measurement / Action	Negative Lead
C3265A Pin J	Ω	C3265A Pin K

Is the resistance between 0.9 and 10 ohms?

Yes	GO to AG21
No	GO to AG20

AG20 CHECK THE RESISTANCE OF THE DRIVER SEAT BACKREST BLOWER MOTOR

- Disconnect: Driver Seat Backrest Blower Motor C3034.
- Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3034-1, Component Side	Ω	 C3034-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR circuit CHS01 (GY/VT) or RHS01 (WH/VT) for an open or high resistance. GO to AG22
No	INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to AG22

AG21 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the SCME connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCME connectors. Make sure they seat and latch correctly.
- **NOTE:** *Do not reconnect Driver Side Airbag In-line C3206 or Passenger Side Airbag In-line C219 at this time.*

  Reconnect all previously disconnected connectors.
- Ignition ON.
- 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 SCME . REFER to: Front Seat Climate Control Module [SCME] (501-10A Front Seats, Removal and Installation). GO to AG22
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. GO to AG22

AG22 VERIFY THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PROVES OUT SUCCESSFULLY

REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line C3206.
- Connect: Passenger Side Airbag In-line C219.
- Connect all previously disconnected connectors.

REFER to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).

Did the SRS prove out successfully?

Yes	Repair is complete. RETURN the vehicle to the customer.
No	REFER to: Airbag Supplemental Restraint System (SRS) (501-20 Supplemental Restraint System) .

Component Test(s)

Blower Motor Cooling Performance

NOTE: *This test is intended to check the cooling mode performance of an operational climate controlled seat backrest or cushion blower motor and verify it is cooling inlet air at the blower motor (ambient cabin air) between 6-8° C (10-14° F).*

NOTE: *Make sure the vehicle is out of direct sunlight and is in an area with a stable air temperature when testing the climate controlled seat system.*

NOTE: *For correct temperature measurements, the seat being tested should be occupied.*

1. Using a diagnostic scan tool, monitor the following SCME Parameter Identifications (PIDs):
   - Seat cushion thermal electric device temperature (CSHTEMP)
   - Seat back thermal electric device temperature (BKTMP)
   - Passenger Cushion Thermal Electric Device (TED) Temperature (PCSHTMP)
   - Passenger Back (TED) Temperature (PBKTMP)
   - Driver State Seat Mode (DCCSMOD)
   - Passenger State Seat Mode (PCCSMOD)

2. Any initial PID value of greater than 205° C (401° F) or less than 2° C (36° F) indicates a system hardware failure. Do not proceed with this test. GO to Symptom Chart or SCME DTC Chart for diagnostic direction.

3. Gain access to the seat cushion and backrest blower motors and use a suitable thermocouple temperature measuring device to monitor the air inlet temperature.
    - Place the temperature probe near each blower motor air filter.

4. **NOTE:** *The engine must be running to operate the climate controlled seat system and carry out this test.*

    Operate system in high cool mode and measure the temperature at the cushion blower motor filter using the thermocouple device.
    - Secure the temperature probe at the cushion blower motor and record the air inlet temperature.

5. Use a diagnostic scan tool to measure the cushion blower motor PID temperature and record the value.
    - Monitor the MODE PID and verify the system is operating. If during testing, the PID value changes to Blower Only state, the system has entered into recovery mode and voltage to the blower motors are disabled. If this occurs, the seat has failed the test. Do not continue. Return to the diagnostic routine.

6. Subtract the cushion blower motor PID temperature from the cushion air inlet temperature and record the temperature difference value.

7. Continue to operate the system in high cool mode and use the thermocouple device to measure the temperature at the backrest blower motor filter.
    - Secure the temperature probe at the backrest blower motor and close the backrest trim cover before measuring and recording the air inlet temperature.

8. Use a diagnostic scan tool to measure the backrest blower motor PID temperature and record the value.
    - Monitor the MODE PID and verify the system is operating. If during testing, the PID value changes to Blower Only state, the system has entered into recovery mode and voltage to the blower motors is disabled. If this occurs, the seat has failed the test. Do not continue. Return to the diagnostic routine.

9. Subtract the backrest blower motor PID temperature from the backrest air inlet temperature and record the value.

10. Compare the cushion and backrest calculated temperature values. The temperature difference should be between 6-8° C (10-14° F).

11. If the calculated temperature values are not within these specifications, check the climate controlled seat components for air duct or filter restrictions, blockages, duct or electrical disconnections and for incorrect assembly. Repair as needed. If OK, carry out the SCME self-test and if any Diagnostic Trouble Codes (DTCs) are retrieved, go to SCME DTC Chart for diagnostic direction. Return to the diagnostic routine.

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