

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 I
B1C04:23	Memory #2 Switch: Signal Stuck Low	GO to Pinpoint Test I
B1C05:23	Memory #3 Switch: Signal Stuck Low	GO to Pinpoint Test I
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: 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
B1298:24	Steering Column Adjust Up Switch: Signal Stuck High	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1299:24	Steering Column Adjust Down Switch: Signal Stuck High	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A1:24	Steering Column Adjust Out Switch: Signal Stuck High	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A2:24	Steering Column Adjust In Switch: Signal Stuck High	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A7:11	Steering Column Tilt Sensor A: Circuit Short To Ground	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A7:12	Steering Column Tilt Sensor A: Circuit Short To Battery	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A8:11	Steering Column Telescope Sensor A: Circuit Short To Ground	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B12A8:12	Steering Column Telescope Sensor A: Circuit Short To Battery	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1368:11	Adjustable Pedal Position Feedback Sensor: Circuit Short To Ground	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B1368:12	Adjustable Pedal Position Feedback Sensor: Circuit Short To Battery	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B1375:09	Steering Column Tilt Motor: Component Failure	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).

DTC	Description	Action
B1375:11	Steering Column Tilt Motor: Circuit Short To Ground	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1375:12	Steering Column Tilt Motor: Circuit Short To Battery	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1375:13	Steering Column Tilt Motor: Circuit Open	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1375:1A	Steering Column Tilt Motor: Circuit Resistance Below Threshold	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B1375:31	Steering Column Tilt Motor: No Signal	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137D:09	Pedal Adjustment Motor: Component Failure	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137D:11	Pedal Adjustment Motor: Circuit Short To Ground	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137D:12	Pedal Adjustment Motor: Circuit Short To Battery	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137D:13	Pedal Adjustment Motor: Circuit Open	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137D:1A	Pedal Adjustment Motor: Circuit Resistance Below Threshold	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137D:31	Pedal Adjustment Motor: No Signal	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B137E:09	Steering Column Telescope Motor: Component Failure	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137E:11	Steering Column Telescope Motor: Circuit Short To Ground	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137E:12	Steering Column Telescope Motor: Circuit Short To Battery	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137E:13	Steering Column Telescope Motor: Circuit Open	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137E:1A	Steering Column Telescope Motor: Circuit Resistance Below Threshold	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B137E:31	Steering Column Telescope Motor: No Signal	REFER to: Steering Column (211-04 Steering Column, Diagnosis and Testing).
B14C3:24	Seat Height Rear Down Switch: Signal Stuck High	GO to Pinpoint Test H
B14C4:24	Seat Height Rear Up Switch: Signal Stuck High	GO to Pinpoint Test H
B14C7:24	Adjustable Pedal Forward Switch: Signal Stuck High	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B14C8:24	Adjustable Pedal Rearward Switch: Signal Stuck High	REFER to: Hydraulic Brake Actuation (206-06 Hydraulic Brake Actuation, Diagnosis and Testing).
B14CB:11	Seat Height Rear Position Feedback: Circuit Short To Ground	GO to Pinpoint Test I
B14CB:12	Seat Height Rear Position Feedback: Circuit Short To Battery	GO to Pinpoint Test I
B14CE:09	Seat Horizontal Motor Output: Component Failure	GO to Pinpoint Test H
B14CE:11	Seat Horizontal Motor Output: Circuit Short To Ground	GO to Pinpoint Test H
B14CE:12	Seat Horizontal Motor Output: Circuit Short To Battery	GO to Pinpoint Test H
B14CE:14	Seat Horizontal Motor Output: Circuit Short To Ground or Open	GO to Pinpoint Test H
B14CE:15	Seat Horizontal Motor Output: Circuit Short To Battery or Open	GO to Pinpoint Test H

DTC	Description	Action
B14CE:1A	Seat Horizontal Motor Output: Circuit Resistance Below Threshold	GO to Pinpoint Test H
B14CE:31	Seat Horizontal Motor Output: No Signal	GO to Pinpoint Test I
B14CF:09	Seat Recline Motor Output: Component Failure	GO to Pinpoint Test H
B14CF:11	Seat Recline Motor Output: Circuit Short To Ground	GO to Pinpoint Test H
B14CF:12	Seat Recline Motor Output: Circuit Short To Battery	GO to Pinpoint Test H
B14CF:14	Seat Recline Motor Output: Circuit Short To Ground or Open	GO to Pinpoint Test H
B14CF:15	Seat Recline Motor Output: Circuit Short To Battery or Open	GO to Pinpoint Test H
B14CF:1A	Seat Recline Motor Output: Circuit Resistance Below Threshold	GO to Pinpoint Test H
B14CF:31	Seat Recline Motor Output: No Signal	GO to Pinpoint Test I
B14D0:09	Seat Height Front/Tilt Motor Output: Component Failure	GO to Pinpoint Test H
B14D0:11	Seat Height Front/Tilt Motor Output: Circuit Short To Ground	GO to Pinpoint Test H
B14D0:12	Seat Height Front/Tilt Motor Output: Circuit Short To Battery	GO to Pinpoint Test H
B14D0:14	Seat Height Front/Tilt Motor Output: Circuit Short To Ground or Open	GO to Pinpoint Test H
B14D0:15	Seat Height Front/Tilt Motor Output: Circuit Short To Battery or Open	GO to Pinpoint Test H
B14D0:1A	Seat Height Front/Tilt Motor Output: Circuit Resistance Below Threshold	GO to Pinpoint Test H
B14D0:31	Seat Height Front/Tilt Motor Output: No Signal	GO to Pinpoint Test I
B14D2:09	Seat Height Rear Motor Output: Component Failure	GO to Pinpoint Test H
B14D2:11	Seat Height Rear Motor Output: Circuit Short To Ground	GO to Pinpoint Test H
B14D2:12	Seat Height Rear Motor Output: Circuit Short To Battery	GO to Pinpoint Test H
B14D2:14	Seat Height Rear Motor Output: Circuit Short To Ground or Open	GO to Pinpoint Test H
B14D2:15	Seat Height Rear Motor Output: Circuit Short To Battery or Open	GO to Pinpoint Test H
B14D2:1A	Seat Height Rear Motor Output: Circuit Resistance Below Threshold	GO to Pinpoint Test H
B14D2:31	Seat Height Rear Motor Output: No Signal	GO to Pinpoint Test I
B1B89:11	Seat Slide Motor Speed/Position Sensor: Circuit Short To Ground	GO to Pinpoint Test I
B1B89:12	Seat Slide Motor Speed/Position Sensor: Circuit Short To Battery	GO to Pinpoint Test I
B1B91:11	Seat Tilt Motor Speed/Position Sensor: Circuit Short To Ground	GO to Pinpoint Test I
B1B91:12	Seat Tilt Motor Speed/Position Sensor: Circuit Short To Battery	GO to Pinpoint Test I
B1B93:11	Seat Recline Motor Speed/Position Sensor: Circuit Short To Ground	GO to Pinpoint Test I
B1B93:12	Seat Recline Motor Speed/Position Sensor: Circuit Short To Battery	GO to Pinpoint Test I

DTC	Description	Action
B1B96:24	Seat Slide Forward Switch: Signal Stuck High	GO to Pinpoint Test H
B1B97:24	Seat Slide Backward Switch: Signal Stuck High	GO to Pinpoint Test H
B1B98:24	Seat Tilt Up Switch: Signal Stuck High	GO to Pinpoint Test H
B1B99:24	Seat Tilt Down Switch: Signal Stuck High	GO to Pinpoint Test H
B1C00:24	Seat Recline Up Switch: Signal Stuck High	GO to Pinpoint Test H
B1C01:24	Seat Recline Down Switch: Signal Stuck High	GO to Pinpoint Test H
U0100:00	Lost Communication with ECM/PCM "A": No Sub Type Information	GO to Pinpoint Test T
U0140:00	Lost Communication with Body Control Module: No Sub Type Information	GO to Pinpoint Test V
U1000:00	Solid State Driver Protection Active -Driver Disabled: No Sub Type Information	DIAGNOSE any other related DSM Diagnostic Trouble Codes (DTCs) first. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If DTC U1000:00 returns, INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).
U2100:00	Initial Configuration Not Complete: No Sub Type Information	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).
U3000:49	Control Module: Internal Electronic Failure	INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

DTC Chart: FCIM

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).

FCIM DTC Chart

DTC	Description	Action
B1034:11	Left Front Seat Heater Element: Circuit Short To Ground	GO to Pinpoint Test L
B1034:15	Left Front Seat Heater Element: Circuit Short To Battery or Open	GO to Pinpoint Test L
B1036:11	Right Front Seat Heater Element: Circuit Short To Ground	GO to Pinpoint Test M
B1036:15	Right Front Seat Heater Element: Circuit Short To Battery or Open	GO to Pinpoint Test M
B1038:11	Left Front Seat Heater Sensor: Circuit Short To Ground	GO to Pinpoint Test L
B1038:15	Left Front Seat Heater Sensor: Circuit Short To Battery or Open	GO to Pinpoint Test L
B103A:11	Right Front Seat Heater Sensor: Circuit Short To Ground	GO to Pinpoint Test M
B103A:15	Right Front Seat Heater Sensor: Circuit Short To Battery or Open	GO to Pinpoint Test M
All other Diagnostic Trouble Codes (DTCs)	-	Refer to the appropriate section in Group 415 for the procedure.

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
B1151:4B	Passenger Seat Cushion: Over Temperature	GO to Pinpoint Test P
B1153:4B	Driver Seat Cushion: Over Temperature	GO to Pinpoint Test O
B1155:01	Passenger Seat: General Electrical Failure	GO to Pinpoint Test P
B1155:11	Passenger Seat: Circuit Short To Ground	GO to Pinpoint Test P
B1155:12	Passenger Seat: Circuit Short To Battery	GO to Pinpoint Test P
B1155:13	Passenger Seat: Circuit Open	GO to Pinpoint Test P
B1155:1A	Passenger Seat: Circuit Resistance Below Threshold	GO to Pinpoint Test P
B1156:01	Driver Seat: General Electrical Failure	GO to Pinpoint Test O
B1156:11	Driver Seat: Circuit Short To Ground	GO to Pinpoint Test O
B1156:12	Driver Seat: Circuit Short To Battery	GO to Pinpoint Test O
B1156:13	Driver Seat: Circuit Open	GO to Pinpoint Test O
B1156:1A	Driver Seat: Circuit Resistance Below Threshold	GO to Pinpoint Test O
B1208:01	Driver Seat Cushion Temperature Sensor: General Electrical Failure	GO to Pinpoint Test O
B1208:11	Driver Seat Cushion Temperature Sensor: Circuit Short To Ground	GO to Pinpoint Test O
B1208:15	Driver Seat Cushion Temperature Sensor: Circuit Short To Battery or Open	GO to Pinpoint Test O
B120A:01	Passenger Seat Cushion Temperature Sensor: General Electrical Failure	GO to Pinpoint Test P
B120A:11	Passenger Seat Cushion Temperature Sensor: Circuit Short To Ground	GO to Pinpoint Test P
B120A:15	Passenger Seat Cushion Temperature Sensor: Circuit Short To Battery or Open	GO to Pinpoint Test P
B14BD:11	Driver Seat Cushion Blower: Circuit Short To Ground	GO to Pinpoint Test R
B14BE:11	Driver Seat Back Blower: Circuit Short To Ground	GO to Pinpoint Test R
B14C0:11	Passenger Seat Cushion Blower: Circuit Short To Ground	GO to Pinpoint Test S
B14C2:11	Passenger Seat Back Blower: Circuit Short To Ground	GO to Pinpoint Test S
U0140:00	Lost Communication with Body Control Module: No Sub Type Information	GO to Pinpoint Test U
U0257:00	Lost Communication with Front Controls / Display Interface Module: No Sub Type Information	GO to Pinpoint Test W
U1000:00	Solid State Driver Protection Active -Driver Disabled: No Sub Type Information	DIAGNOSE any other DSM Diagnostic Trouble Codes (DTCs) first. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If DTC U1000:00 returns, INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).
U2100:00	Initial Configuration Not Complete: No Sub Type Information	NOTE: This DTC indicates PMI has not been carried out on a newly installed module or configuration data has been lost. Using a diagnostic scan tool, CARRY OUT PMI on the SCME.
U3000:49	Control Module: Internal Electronic Failure	INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

DTC Chart: SCMG

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).

SCMG DTC Chart

DTC	Description	Action
B146F:00	Back Bladder System Electropneumatic Failure: No Sub Type Information	GO to Pinpoint Test F
B146F:04	Back Bladder System Electropneumatic Failure: System Internal Failure	GO to Pinpoint Test F
B1470:00	Cushion Bladder System Electropneumatic Failure: No Sub Type Information	GO to Pinpoint Test F
B1470:04	Cushion Bladder System Electropneumatic Failure: System Internal Failure	GO to Pinpoint Test F
B1471:11	Multi-Contour Seat Switch Input: Circuit Short To Ground	GO to Pinpoint Test F
B1471:13	Multi-Contour Seat Switch Input: Circuit Open	GO to Pinpoint Test F
B1471:2A	Multi-Contour Seat Switch Input: Signal Stuck In Range	VERIFY there is no obstruction that may be causing the multi-contour seat switch to be stuck in a certain position. If OK, INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).
B1473:11	Pump Driver: Circuit Short To Ground	GO to Pinpoint Test F
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	GO to Pinpoint Test X
U0208:00	Lost Communication With "Seat Control Module A": No Sub Type Information	GO to Pinpoint Test Y
U0253:00	Lost Communication With Accessory Protocol Interface Module: No Sub Type Information	GO to Pinpoint Test AA
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	GO to Pinpoint Test AB
U0422:00	Invalid Data Received From Body Control Module: No Sub Type Information	GO to Pinpoint Test AC
U0455:82	Invalid Data Received From Restraints Occupant Classification System Module: Alive / Sequence Counter Incorrect / Not Updated	GO to Pinpoint Test AD
U1000:00	Solid State Driver Protection Activated - Driver Disabled: No Sub Type Information	DIAGNOSE any other related SCMG Diagnostic Trouble Codes (DTCs) first. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If DTC U1000:00 returns, INSTALL a new SCMG. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).
U2100:00	Initial Configuration Not Complete: No Sub Type Information	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 SCMG. REPEAT the self-test and VERIFY successful PMI. CLEAR the Diagnostic Trouble Codes (DTCs).
U3000:49	Control Module: Internal Electronic Failure	INSTALL a new SCMG. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation). REPEAT the self-test.

DTC Chart: SCMH

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).

SCMH DTC Chart

DTC	Description	Action
B146F:00	Back Bladder System Electropneumatic Failure: No Sub Type Information	GO to Pinpoint Test G
B146F:04	Back Bladder System Electropneumatic Failure: System Internal Failure	GO to Pinpoint Test G
B1470:00	Cushion Bladder System Electropneumatic Failure: No Sub Type Information	GO to Pinpoint Test G
B1470:04	Cushion Bladder System Electropneumatic Failure: System Internal Failure	GO to Pinpoint Test G
B1471:11	Multi-Contour Seat Switch Input: Circuit Short To Ground	GO to Pinpoint Test G
B1471:13	Multi-Contour Seat Switch Input: Circuit Open	GO to Pinpoint Test G
B1471:2A	Multi-Contour Seat Switch Input: Signal Stuck In Range	VERIFY there is no obstruction that may be causing the multi-contour seat switch to be stuck in a certain position. If OK, INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).
B1473:11	Pump Driver: Circuit Short To Ground	GO to Pinpoint Test G
U0140:00	Lost Communication With Body Control Module: No Sub Type Information	GO to Pinpoint Test X
U0208:00	Lost Communication With "Seat Control Module A": No Sub Type Information	GO to Pinpoint Test Y
U024B:00	Lost Communication with Seat Control Module "G": No Sub Type Information	GO to Pinpoint Test Z
U0253:00	Lost Communication With Accessory Protocol Interface Module: No Sub Type Information	GO to Pinpoint Test AA
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	GO to Pinpoint Test AB
U0422:00	Invalid Data Received From Body Control Module: No Sub Type Information	GO to Pinpoint Test AC
U0455:82	Invalid Data Received From Restraints Occupant Classification System Module: Alive / Sequence Counter Incorrect / Not Updated	GO to Pinpoint Test AD
U1000:00	Solid State Driver Protection Activated - Driver Disabled: No Sub Type Information	DIAGNOSE any other related SCMH Diagnostic Trouble Codes (DTCs) first. CLEAR the Diagnostic Trouble Codes (DTCs). REPEAT the self-test. If DTC U1000:00 returns, INSTALL a new SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).
U2100:00	Initial Configuration Not Complete: No Sub Type Information	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 SCMH. REPEAT the self-test and VERIFY successful PMI. CLEAR the Diagnostic Trouble Codes (DTCs).
U3000:49	Control Module: Internal Electronic Failure	INSTALL a new SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

Symptom Chart

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

Condition	Possible Sources	Actions
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 DSM	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).
No communication with the SCMG	Refer to the Pinpoint Test	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No communication with the SCMH	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 â€” driver, 8-way	Refer to the Pinpoint Test	GO to Pinpoint Test A
The power seat is inoperative or does not operate correctly â€” driver, 10-way	Refer to the Pinpoint Test	GO to Pinpoint Test B
The power seat is inoperative or does not operate correctly â€” passenger, 10-way	Refer to the Pinpoint Test	GO to Pinpoint Test C
The power lumbar is inoperative â€” driver, without multi-contour seats	Refer to the Pinpoint Test	GO to Pinpoint Test D
The power lumbar is inoperative â€” passenger, without multi-contour seats	Refer to the Pinpoint Test	GO to Pinpoint Test E
An individual multi-contour seat function is inoperative from the seat control switch â€” touchscreen control operates correctly	Seat control switch	Using a diagnostic scan tool, CARRY OUT self-test on the SCMG or SCMH. If any seat control switch related Diagnostic Trouble Codes (DTCs) are present, REFER to the SCMG or SCMH DTC Chart. If no seat control switch related Diagnostic Trouble Codes (DTCs) are present, INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).

Condition	Possible Sources	Actions
The multi-contour seat is inoperative/does not operate correctly â€” driver	Refer to the Pinpoint Test	GO to Pinpoint Test F
The multi-contour seat is inoperative/does not operate correctly â€” passenger	Refer to the Pinpoint Test	GO to Pinpoint Test G
The memory seat does not operate horizontally/vertically/recline using the seat control switch	Refer to the Pinpoint Test	GO to Pinpoint Test H
The memory seat does not operate using the memory SET switch	Refer to the Pinpoint Test	GO to Pinpoint Test I
The memory seat moves in two-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	- Easy entry/exit feature is not enabled - Refer to the Pinpoint Test	VERIFY the easy entry/exit feature is enabled in the message center. REFER to the Owner's Literature for information on programming vehicle settings in the message center. If the easy entry/exit feature is enabled but still does not operate correctly, GO to Pinpoint Test J
Both heated seats are inoperative â€” without heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test K
The driver heated seat is inoperative/does not operate correctly â€” without heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test L
The passenger heated seat is inoperative/does not operate correctly â€” without heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test M
Both heated seats are inoperative â€” with heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test N

Condition	Possible Sources	Actions
The driver heated seat is inoperative/does not operate correctly with heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test O
The passenger heated seat is inoperative/does not operate correctly with heated/ventilated seats	Refer to the Pinpoint Test	GO to Pinpoint Test P
Both ventilated seats are inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test Q
The driver ventilated seat is inoperative/does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test R
The passenger ventilated seat is inoperative/does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test S

Pinpoint Test(s)

The Power Seat is Inoperative or Does Not Operate Correctly with Driver, 8-way

Refer to Wiring Diagrams Cell [120](#) for 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
- Seat track

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 41 (30A) is OK.

PINPOINT TEST A : THE POWER SEAT IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY with DRIVER, 8-WAY

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

- 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

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Driver Seat Control Switch [C360](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C360-9		Ground

Is the voltage greater than 11 volts?

Yes	GO to A3
No	VERIFY BJB fuse 41 (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
C360-7	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 A10
No	REPAIR the circuit. GO to A10

A4 CHECK FOR VOLTAGE TO THE SEAT HORIZONTAL MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C362-1		C362-3

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: Driver Seat Control Switch [C360](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C360-6	Ω	C362-3
C360-5	Ω	C362-1

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 A10
No	REPAIR the circuit in question. GO to A10

A6 CHECK FOR VOLTAGE TO THE SEAT FRONT HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C382-1		C382-3

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 A10
No	GO to A7

A7 CHECK THE SEAT FRONT HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C360](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C360-1	Ω	C382-3
C360-2	Ω	C382-1

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 A10
No	REPAIR the circuit in question. GO to A10

A8 CHECK FOR VOLTAGE TO THE SEAT REAR HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C363-1		C363-3

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 A10
No	GO to A9

A9 CHECK THE SEAT REAR HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C360](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C360-8	Ω	C363-3
C360-10	Ω	C363-1

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 A10
No	REPAIR the circuit in question. GO to A10

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

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Power Seat is Inoperative or Does Not Operate Correctly – Driver, 10-way

Refer to Wiring Diagrams Cell [120](#) for 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
- Seat track

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 41 (30A) is OK.

PINPOINT TEST B : THE POWER SEAT IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY – DRIVER, 10-WAY

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 THE SEAT OPERATION

- Attempt to operate the seat in all directions.

Is the seat inoperative in all directions?

Yes	GO to B2
No	If only the recliner motor is inoperative, GO to B4 If only the horizontal motor is inoperative, GO to B6 If only the front height motor is inoperative, GO to B8 If only the rear height motor is inoperative, GO to B10

B2 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Driver Seat Control Switch [C3387](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-10		Ground

Is the voltage greater than 11 volts?

Yes	GO to B3
No	VERIFY BJB fuse 41 (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 B12

B3 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-11	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 B12
No	REPAIR the circuit. GO to B12

B4 CHECK FOR VOLTAGE TO THE SEAT RECLINER MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Driver Seat Recliner Motor [C3187](#).
- **NOTE:** The voltage being measured changes polarity depending upon which direction the seat control switch is activated.

While pushing the recline switch forward and rearward, measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-1		C3187-3

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

Yes	INSTALL a new driver front seat backrest frame. GO to B12
No	GO to B5

B5 CHECK THE SEAT RECLINER MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C3387](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-9	Ω	C3187-1
C3387-7	Ω	C3187-3

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 B12
No	REPAIR the circuit in question. GO to B12

B6 CHECK FOR VOLTAGE TO THE SEAT HORIZONTAL MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C362-1		C362-3

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 B12
No	GO to B7

B7 CHECK THE SEAT HORIZONTAL MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C3387](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-14	Ω	C362-3
C3387-15	Ω	C362-1

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 B12
No	REPAIR the circuit in question. GO to B12

B8 CHECK FOR VOLTAGE TO THE SEAT FRONT HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C382-1		C382-3

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 B12
No	GO to B9

B9 CHECK THE SEAT FRONT HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C3387](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-16	Ω	C382-3
C3387-17	Ω	C382-1

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 B12
No	REPAIR the circuit in question. GO to B12

B10 CHECK FOR VOLTAGE TO THE SEAT REAR HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- 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
C363-1		C363-3

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 B12
No	GO to B11

B11 CHECK THE SEAT REAR HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C3387](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-12	Ω	C363-3
C3387-13	Ω	C363-1

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 B12
No	REPAIR the circuit in question. GO to B12

B12 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Power Seat is Inoperative or Does Not Operate Correctly – Passenger, 10-way

Refer to Wiring Diagrams Cell [120](#) for 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
- Seat backrest

Visual Inspection and Diagnostic Pre-checks

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

PINPOINT TEST C : THE POWER SEAT IS INOPERATIVE OR DOES NOT OPERATE CORRECTLY – PASSENGER, 10-WAY

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 CHECK THE SEAT OPERATION

- Attempt to operate the seat in all directions.

Is the seat inoperative in all directions?

Yes	GO to C2
No	If only the recliner motor is inoperative, GO to C4 . If only the horizontal motor is inoperative, GO to C6 . If only the front height motor is inoperative, GO to C8 . If only the rear height motor is inoperative, GO to C10 .

C2 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Passenger Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-11		Ground

Is the voltage greater than 11 volts?

Yes	GO to C3
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 C12

C3 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-10	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 C12
No	REPAIR the circuit. GO to C12

C4 CHECK FOR VOLTAGE TO THE SEAT RECLINER MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Passenger Seat Recliner Motor [C3189](#).
- **NOTE:** The voltage being measured changes polarity depending upon which direction the seat control switch is activated.

While pushing the recline switch forward and rearward, measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3189-1		C3189-3

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

Yes	INSTALL a new passenger front seat backrest frame. GO to C12
No	GO to C5

C5 CHECK THE SEAT RECLINER MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Passenger Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-1	Ω	C3189-3
C3388-3	Ω	C3189-1

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 C12
No	REPAIR the circuit in question. GO to C12

C6 CHECK FOR VOLTAGE TO THE SEAT HORIZONTAL MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- 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
C332-1		C332-3

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 C12
No	GO to C7

C7 CHECK THE SEAT HORIZONTAL MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-17	Ω	C332-3
C3388-16	Ω	C332-1

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 C12
No	REPAIR the circuit in question. GO to C12

C8 CHECK FOR VOLTAGE TO THE SEAT FRONT HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- 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
C3074-1		C3074-3

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 C12
No	GO to C9

C9 CHECK THE SEAT FRONT HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-15	Ω	C3074-3
C3388-14	Ω	C3074-1

Are the resistances less than 3 ohms?

Yes	INSTALL a new passenger seat switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to C12
No	REPAIR the circuit in question. GO to C12

C10 CHECK FOR VOLTAGE TO THE SEAT REAR HEIGHT MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Passenger Seat Rear Height Motor [C330](#).
- **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
C330-1		C330-3

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 C12
No	GO to C11

C11 CHECK THE SEAT REAR HEIGHT MOTOR CIRCUIT FOR AN OPEN

- Disconnect: Passenger Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-18	Ω	C330-3
C3388-19	Ω	C330-1

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 C12
No	REPAIR the circuit in question. GO to C12

C12 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Power Lumbar is Inoperative â€” Driver, Without Multi-Contour Seats

Refer to Wiring Diagrams Cell [120](#) for 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 D : THE POWER LUMBAR IS INOPERATIVE â€” DRIVER, WITHOUT MULTI-CONTOUR SEATS

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 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 [C3051](#).
- 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-A		C3215-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 Lumbar Assembly (501-10A Front Seats, Removal and Installation). GO to D3
No	GO to D2

D2 CHECK THE SEAT LUMBAR MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Control Switch [C360](#) (8-way seat) or [C3387](#) (10-way seat).
- If equipped with 8-way seat, measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C360-4	Ω	C3215-B
C360-3	Ω	C3215-A

- If equipped with 10-way seat, measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-2	Ω	C3215-B
C3387-6	Ω	C3215-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 D3
No	REPAIR the circuit in question. GO to D3

D3 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Power Lumbar is Inoperative “Passenger, Without Multi-Contour Seats

Refer to Wiring Diagrams Cell [120](#) for 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 E : THE POWER LUMBAR IS INOPERATIVE "PASSENGER, WITHOUT MULTI-CONTOUR SEATS

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.

E1 CHECK FOR VOLTAGE TO THE SEAT LUMBAR MOTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Passenger Seat Lumbar Motor [C3216](#).
- **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
C3216-A		C3216-B

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

Yes	INSTALL a new passenger seat power lumbar assembly. REFER to: Front Seat Lumbar Assembly (501-10A Front Seats, Removal and Installation). GO to E3
No	GO to E2

E2 CHECK THE SEAT LUMBAR MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Passenger Seat Control Switch [C3388](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-20	Ω	C3216-B
C3388-2	Ω	C3216-A

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 E3
No	REPAIR the circuit in question. GO to E3

E3 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Multi-Contour Seat is Inoperative/ Does Not Operate Correctly – Driver

Refer to Wiring Diagrams Cell [123](#) for 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
B146F:00	Back Bladder System Electropneumatic Failure: No Sub Type Information	During self-test, the system inflates each of the bladders in the back of the seat, then monitors for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B146F:04	Back Bladder System Electropneumatic Failure: System Internal Failure	During self-test, the system inflates each of the bladders in the back of the seat, then monitors for a change in pressure. If the bladders successfully inflate, the system deflates the bladders while checking for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1470:00	Cushion Bladder System Electropneumatic Failure: No Sub Type Information	During self-test, the system inflates each of the bladders in the seat cushion, then monitors for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1470:04	Cushion Bladder System Electropneumatic Failure: System Internal Failure	During self-test, the system inflates each of the bladders in the seat cushion, then monitors for a change in pressure. If the bladders successfully inflate, the system deflates the bladders while checking for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1471:11	Multi-Contour Seat Switch Input: Circuit Short To Ground	This DTC sets when the seat control switch (multi-contour) input circuit is shorted to ground. This DTC may be set on-demand or in continuous memory.
B1471:13	Multi-Contour Seat Switch Input: Circuit Open	This DTC sets when the seat control switch (multi-contour) input circuit is open. This DTC may be set on-demand or in continuous memory.
B1473:11	Pump Driver: Circuit Short To Ground	This DTC sets when the current draw for the air pump driver is too high for a predetermined time period. This DTC may be set on-demand or in continuous memory.

Possible Sources

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

Visual Inspection and Diagnostic Pre-checks

- Verify all the hose connections to the SCMG are correctly seated and not leaking and/or check for any signs of restrictions (kinked or pinched hoses).

PINPOINT TEST F : THE MULTI-CONTOUR SEAT IS INOPERATIVE/ DOES NOT OPERATE CORRECTLY â€” 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.

F1 CHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- NOTE: If the diagnostic scan tool does not communicate to the SCMG,
REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
- Using a diagnostic scan tool, perform the SCMG self-test.

Were any Diagnostic Trouble Codes (DTCs) retrieved?

Yes	For B1471:11, GO to F3 For B1471:13, GO to F5 For B1473:11, GO to F2 If B146F:00 and B1470:00 are both present, GO to F7 For B146F:00 or B146F:04, GO to F13 For B1470:00 or B1470:04, GO to F17 For all other Diagnostic Trouble Codes (DTCs), REFER to the SCMG DTC Chart.
No	If the multi-contour seat is inoperative, GO to F7 If only the seat backrest bladder(s) are not operating correctly, GO to F13 If only the seat cushion bladder(s) are not operating correctly, GO to F17

F2 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED 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 [C3051](#).
- Disconnect: SCMG [C3385](#).
- Disconnect: Left Multi-Contour Seat Control Pump [C3383](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3383-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation). GO to F22
No	REPAIR the circuit. GO to F22

F3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH SEAT CONTROL SWITCH DISCONNECTED

- Ignition OFF.
- Disconnect: Driver Seat Control Switch [C3387](#).
- Ignition ON.
- Using a diagnostic scan tool, perform the SCMG self-test.

Was DTC B1471:13 retrieved?

Yes	INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).
No	GO to F4

F4 CHECK THE SEAT CONTROL SWITCH 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 [C3051](#).
- Disconnect: SCMG [C3385](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to F21
No	REPAIR the circuit. GO to F22

F5 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH JUMPER WIRE CONNECTED TO SEAT CONTROL SWITCH CONNECTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Driver Seat Control Switch [C3387](#).
- Connect a fused jumper wire:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-1		C3387-2

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

Was DTC B1471:11 retrieved?

Yes	REMOVE the fused jumper wire. INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to F22
No	REMOVE the fused jumper wire. GO to F6

F6 CHECK THE SEAT CONTROL SWITCH CIRCUITS FOR AN OPEN CIRCUIT

- Ignition OFF.
- Disconnect: SCMG [C3385](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-1	Ω	C3385-15
C3387-2	Ω	C3385-11

Are the resistances less than 3 ohms?

Yes	GO to F21
No	REPAIR the circuit in question. GO to F22

F7 VERIFY THE MULTI-CONTOUR SEAT CONTROL PUMP OPERATES

- Ignition OFF.
- Ignition ON.
- **NOTE:** When in *MASSAGE* mode, the multi-contour seat control pump operates continuously.
Using the seat control switch or touchscreen, place the multi-contour seat into the *MASSAGE* mode.
- Listen near the backrest to determine whether the multi-contour seat control pump is on.

Is the multi-contour seat control pump on?

Yes	GO to F11
No	GO to F8

F8 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP GROUND FOR AN OPEN CIRCUIT

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Left Multi-Contour Seat Control Pump [C3383](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3383-2	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to F9
No	REPAIR the circuit.

F9 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED FOR VOLTAGE

NOTICE: The following step uses a test light to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect:

Positive Lead	Measurement / Action	Negative Lead
C3383-1		C3383-2

- Ignition ON.
- Access the SCMG and control the SBLADR_PMP PID
- Toggle the PID on while observing the test light.

Does the test light illuminate?

Yes	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).
No	GO to F10

F10 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED FOR AN OPEN CIRCUIT

- Ignition OFF.
- Disconnect: SCMG [C3385](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3385-3	Ω	C3383-1

Is the resistance less than 3 ohms?

Yes	GO to F21
No	REPAIR the circuit. GO to F22

F11 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP HOSE FOR CORRECT INSTALLATION OR DAMAGE

- Ignition OFF.
- **NOTE:** The multi-contour seat control pump hose is the red hose located within the blue lock.

Visually inspect the multi-contour seat control pump hose for correct installation or damage and check the hose routing to make sure the entire length of the hose is not restricted, bent, kinked or damaged.

Is the multi-contour seat control pump hose installed correctly with no damage?

Yes	GO to F12
No	REPAIR the hose or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

F12 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP OUTPUT

- Disconnect the multi-contour seat control pump hose at the SCMG.
 - Remove the blue lock (with all 4 hoses)
 - Disconnect the red hose from the blue lock.
- Connect a suitable pressure gauge to the (red) multi-contour seat control pump hose.
- Ignition ON.
- **NOTE:** *When in MASSAGE mode, the multi-contour seat control pump operates continuously.*

Using the seat control switch or touchscreen, place the multi-contour seat into the MASSAGE mode while observing the pressure gauge. Note the highest pressure obtained.

- Ignition OFF.

Was the pressure equal to or greater than 169 kPa (24.5 psi)?

Yes	GO to F23
No	REPAIR the hose or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

F13 INFLATE THE SUSPECT BACKREST BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Ignition ON.
- Using a diagnostic scan tool, select and view the SCMG Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMG and control the UPPR_LUMB PID
 - Access the SCMG and control the MID_LUMB PID
 - Access the SCMG and control the LOW_LUMB PID
 - Access the SCMG and monitor the LUM_BLADR1 (kPa) PID
 - Access the SCMG and monitor the LUM_BLADR2 (kPa) PID
 - Access the SCMG and monitor the LUM_BLADR3 (kPa) PID

Output State Control PID	Pressure PID
Backrest Lumbar	
UPPR_LUMB (Upper Lumbar Inflate Status)	LUM_BLADR1 (Lumbar Bladder 1 Pressure)
MID_LUMB (Mid-Lumbar Bladder Inflate Status)	LUM_BLADR2 (Lumbar Bladder 2 Pressure)
LOW_LUMB (Lower Lumbar Bladder Inflate Status)	LUM_BLADR3 (Lumbar Bladder 3 Pressure)

- **NOTE:** *During this step, the multi-contour seat control pump is on continuously until the output state control PID is toggled back to the NONE mode (off).*

Toggle the suspected bladder(s) output state control PID to the INFLATE mode until the pressure PID reaches its highest pressure reading. Note the highest pressure achieved.

- Toggle the suspected bladder(s) output state control PID to the NONE mode.
- Continue to observe the pressure Parameter Identifications (PIDs) for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 169 kPa (24.5 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to F14
No	GO to F16

F14 VENT THE SUSPECT BACKREST BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, select and view the SCMG Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMG and control the UPPR_LUMB PID
 - Access the SCMG and control the MID_LUMB PID
 - Access the SCMG and control the LOW_LUMB PID
 - Access the SCMG and monitor the LUM_BLADR1 (kPa) PID
 - Access the SCMG and monitor the LUM_BLADR2 (kPa) PID
 - Access the SCMG and monitor the LUM_BLADR3 (kPa) PID

Output State Control PID	Pressure PID
Backrest Lumbar	
UPPR_LUMB (Upper Lumbar Inflate Status)	LUM_BLADR1 (Lumbar Bladder 1 Pressure)
MID_LUMB (Mid-Lumbar Bladder Inflate Status)	LUM_BLADR2 (Lumbar Bladder 2 Pressure)
LOW_LUMB (Lower Lumbar Bladder Inflate Status)	LUM_BLADR3 (Lumbar Bladder 3 Pressure)

- Toggle the suspected bladder(s) output state control PID to the VENT mode until the pressure PID reaches its lowest pressure reading.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.

Did the suspected bladder(s) pressure drop to approximately 100 kPa (14.5 psi)?

Yes	GO to F23
No	GO to F15

F15 CHECK THE BACKREST HOSE(S) FOR CORRECT INSTALLATION, RESTRICTION OR DAMAGE

- Ignition OFF.
- Visually inspect the backrest hose(s) for correct installation or damage and check the hose routing to make sure the entire length of the hose is not restricted, bent, kinked or damaged.

Blue lock:

- Yellow hose - Lumbar bladder 3 (lower)
- Transparent green hose - Lumbar bladder 2 (middle)
- Clear hose - Lumbar bladder 1 (upper)

Are the backrest hoses installed correctly with no damage or restrictions?

Yes	GO to F23
No	REPAIR the hose(s) or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

F16 CHECK THE BACKREST HOSES FOR LEAKS

- Ignition OFF.
- **NOTE:** *To disconnect the suspect hose(s), first remove the associated lock (with all the associated hoses) as an assembly. Once removed, individual hose(s) can be removed from the lock.*

Disconnect the suspect backrest hose(s) at the SCMG.

Blue lock:

- Yellow hose - Lumbar bladder 3 (lower)
 - Transparent green hose - Lumbar bladder 2 (middle)
 - Clear hose - Lumbar bladder 1 (upper)
 - Connect a suitable hand vacuum/pressure pump (with pressure gauge) to the suspect backrest hose.
 - **NOTICE:** **To prevent damage to the front seat power lumbar assembly, do not exceed 169 kPa (24.5 psi) during this step.**
- Pump the suspect backrest hose and bladder to 138 kPa (20 psi).
- Continue to observe the pressure gauge for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to 138 kPa (20 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to F23
No	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

F17 INFLATE THE SUSPECT CUSHION BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Ignition ON.
- Using a diagnostic scan tool, select and view the SCMG Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMG and control the SC_INFLAT1 PID
 - Access the SCMG and control the SC_INFLAT2 PID
 - Access the SCMG and control the SC_INFLAT3 PID
 - Access the SCMG and control the SC_INFLAT4 PID
 - Access the SCMG and monitor the SC_BLADDR1 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR2 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR3 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR4 (kPa) PID

Output State Control PID	Pressure PID
Seat Cushion	
SC_INFLAT1 (Seat Cushion Bladder Inflate Status 1)	SC_BLADDR1 (Seat Cushion Bladder 1)
SC_INFLAT2 (Seat Cushion Bladder Inflate Status 2)	SC_BLADDR2 (Seat Cushion Bladder 2)
SC_INFLAT3 (Seat Cushion Bladder Inflate Status 3)	SC_BLADDR3 (Seat Cushion Bladder 3)
SC_INFLAT4 (Seat Cushion Bladder Inflate Status 4)	SC_BLADDR4 (Seat Cushion Bladder 4)

- **NOTE:** During this step, the multi-contour seat control pump is on continuously until the output state control PID is toggled back to the NONE mode (off).
- Toggle the suspected bladder(s) output state control PID to the INFLATE mode until the pressure PID reaches its highest pressure reading. Note the highest pressure achieved.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.
 - Continue to observe the pressure Parameter Identifications (PIDs) for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 169 kPa (24.5 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to F18
No	GO to F20

F18 VENT THE SUSPECT CUSHION BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, select and view the SCMG Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMG and control the SC_INFLAT1 PID
 - Access the SCMG and control the SC_INFLAT2 PID
 - Access the SCMG and control the SC_INFLAT3 PID
 - Access the SCMG and control the SC_INFLAT4 PID
 - Access the SCMG and monitor the SC_BLADDR1 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR2 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR3 (kPa) PID
 - Access the SCMG and monitor the SC_BLADDR4 (kPa) PID

Output State Control PID	Pressure PID
Seat Cushion	
SC_INFLAT1 (Seat Cushion Bladder Inflate Status 1)	SC_BLADDR1 (Seat Cushion Bladder 1)
SC_INFLAT2 (Seat Cushion Bladder Inflate Status 2)	SC_BLADDR2 (Seat Cushion Bladder 2)
SC_INFLAT3 (Seat Cushion Bladder Inflate Status 3)	SC_BLADDR3 (Seat Cushion Bladder 3)
SC_INFLAT4 (Seat Cushion Bladder Inflate Status 4)	SC_BLADDR4 (Seat Cushion Bladder 4)

- Toggle the suspected bladder(s) output state control PID to the VENT mode until the pressure PID reaches its lowest pressure reading.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.

Did the suspected bladder(s) pressure drop to approximately 100 kPa (14.5 psi)?

Yes	GO to F23
No	GO to F19

F19 CHECK THE CUSHION HOSE(S) FOR CORRECT INSTALLATION, RESTRICTION OR DAMAGE

- Ignition OFF.
- Visually inspect the cushion hose(s) for correct installation or damage and check the hose routing to make sure the entire length of the hose are not restricted (bends, kinks, etc...).

Orange lock:

- Black hose - Seat cushion bladder 4 (RH front)
- Transparent blue hose - Seat cushion bladder 3 (RH rear)
- Blue hose - Seat cushion bladder 2 (LH rear)
- Green hose - Seat cushion bladder 1 (LH front)

Are the cushion hoses installed correctly with no damage or restrictions?

Yes	GO to F23
No	REPAIR the hose(s) or INSTALL a new front seat cushion adjuster. REFER to: Front Seat Cushion Adjuster - Vehicles With: Multi-Contour Seats (501-10A Front Seats, Removal and Installation).

F20 CHECK THE CUSHION HOSES FOR LEAKS

- Ignition OFF.
- **NOTE:** To disconnect the suspect hose(s), first remove the associated lock (with all the associated hoses) as an assembly. Once removed, individual hose(s) can be removed from the lock.

Disconnect the suspect cushion hose(s) at the SCMG.

Orange lock:

- Black hose - Seat cushion bladder 4 (RH front)
 - Transparent blue hose - Seat cushion bladder 3 (RH rear)
 - Blue hose - Seat cushion bladder 2 (LH rear)
 - Green hose - Seat cushion bladder 1 (LH front)
 - Connect a suitable hand vacuum/pressure pump (with pressure gauge) to the suspect cushion hose.
 - **NOTICE:** To prevent damage to the front seat cushion adjuster, do not exceed 169 kPa (24.5 psi) during this step.
- Carefully pump the suspect cushion hose to approximately 138 kPa (20 psi).
- Continue to observe the pressure gauge for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 138 kPa (20 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to F23
No	INSTALL a new front seat cushion adjuster. REFER to: Front Seat Cushion Adjuster - Vehicles With: Multi-Contour Seats (501-10A Front Seats, Removal and Installation).

F21 CHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
 - Disconnect and inspect the SCMG 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 SCMG connector. Make sure it seats and latches correctly.
 - **NOTE:** Do not reconnect Driver Side Airbag In-line [C3051](#) at this time.
- Reconnect all previously disconnected connectors and hoses.
- Ignition ON.
 - Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCMG. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation). GO to F22
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 F22

F22 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

F23 CHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the SCMG 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 SCMG connector. Make sure it seats and latches correctly.
- Reconnect all previously disconnected connectors and hoses.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCMG. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, 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.

The Multi-Contour Seat is Inoperative/ Does Not Operate Correctly â€” Passenger

Refer to Wiring Diagrams Cell [123](#) for 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
B146F:00	Back Bladder System Electropneumatic Failure: No Sub Type Information	During self-test, the system inflates each of the bladders in the back of the seat, then monitors for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.

DTC	Description	Fault Trigger Conditions
B146F:04	Back Bladder System Electropneumatic Failure: System Internal Failure	During self-test, the system inflates each of the bladders in the back of the seat, then monitors for a change in pressure. If the bladders successfully inflate, the system deflates the bladders while checking for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1470:00	Cushion Bladder System Electropneumatic Failure: No Sub Type Information	During self-test, the system inflates each of the bladders in the seat cushion, then monitors for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1470:04	Cushion Bladder System Electropneumatic Failure: System Internal Failure	During self-test, the system inflates each of the bladders in the seat cushion, then monitors for a change in pressure. If the bladders successfully inflate, the system deflates the bladders while checking for a change in pressure. If the pressure change is not within the allowed threshold, this DTC sets.
B1471:11	Multi-Contour Seat Switch Input: Circuit Short To Ground	This DTC sets when the seat control switch (multi-contour seat) input circuit is shorted to ground. This DTC may be set on-demand or in continuous memory.
B1471:13	Multi-Contour Seat Switch Input: Circuit Open	This DTC sets when the seat control switch (multi-contour seat) input circuit is open. This DTC may be set on-demand or in continuous memory.
B1473:11	Pump Driver: Circuit Short To Ground	This DTC sets when the current draw for the air pump driver is too high for a predetermined time period. This DTC may be set on-demand or in continuous memory.

Possible Sources

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

Visual Inspection and Diagnostic Pre-checks

- Verify all the hose connections to the SCMH are correctly seated and not leaking and/or check for any signs of restrictions (kinked or pinched hoses).

PINPOINT TEST G : THE MULTI-CONTOUR SEAT IS INOPERATIVE/ 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.

G1 CHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- NOTE: If the diagnostic scan tool does not communicate to the SCMH, REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
- Using a diagnostic scan tool, perform the SCMH self-test.

Were any Diagnostic Trouble Codes (DTCs) retrieved?

Yes	For B1471:11, GO to G3 For B1471:13, GO to G5 For B1473:11, GO to G2 If B146F:00 and B1470:00 are both present, GO to G7 For B146F:00 or B146F:04, GO to G13 For B1470:00 or B1470:04, GO to G17 For all other Diagnostic Trouble Codes (DTCs), REFER to the SCMH DTC Chart.
No	If the multi-contour seat is inoperative, GO to G7 If only the seat backrest bladder(s) are not operating correctly, GO to G13 If only the seat cushion bladder(s) are not operating correctly, GO to G17

G2 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED 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 [C3053](#).
- Disconnect: SCMH [C3386](#).
- Disconnect: Right Multi-Contour Seat Control Pump [C3384](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3384-1	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation). GO to G22
No	REPAIR the circuit. GO to G22

G3 RECHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH SEAT CONTROL SWITCH DISCONNECTED

- Ignition OFF.
- Disconnect: Passenger Seat Control Switch [C3388](#).
- Ignition ON.
- Using a diagnostic scan tool, perform the SCMH self-test.

Was DTC B1471:13 retrieved?

Yes	INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).
No	GO to G4

G4 CHECK THE SEAT CONTROL SWITCH 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 [C3053](#).
- Disconnect: SCMH [C3386](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-9	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to G21
No	REPAIR the circuit. GO to G22

G5 RECHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH JUMPER WIRE CONNECTED TO SEAT CONTROL SWITCH CONNECTOR

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Passenger Seat Control Switch [C3388](#).
- Connect a fused jumper wire:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-20		C3388-9

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

Was DTC B1471:11 retrieved?

Yes	REMOVE the fused jumper wire. INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation). GO to G22
No	REMOVE the fused jumper wire. GO to G6

G6 CHECK THE SEAT CONTROL SWITCH CIRCUITS FOR AN OPEN CIRCUIT

- Ignition OFF.
- Disconnect: SCMH [C3386](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3388-20	Ω	C3386-15
C3388-9	Ω	C3386-11

Are the resistances less than 3 ohms?

Yes	GO to G21
No	REPAIR the circuit in question. GO to G22

G7 VERIFY THE MULTI-CONTOUR SEAT CONTROL PUMP OPERATES

- Ignition OFF.
 - Ignition ON.
 - **NOTE:** *A person needs to be seated in the passenger seat in order for the massage mode to operate.*
- NOTE:** *When in MASSAGE mode, the multi-contour seat control pump operates continuously.*
- Using the seat control switch or touchscreen, place the multi-contour seat into the MASSAGE mode.
- Listen near the backrest to determine whether the multi-contour seat control pump is on.

Is the multi-contour seat control pump on?

Yes	GO to G11
No	GO to G8

G8 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP GROUND FOR AN OPEN CIRCUIT

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Right Multi-Contour Seat Control Pump [C3384](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3384-2	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to G9
No	REPAIR the circuit.

G9 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED FOR VOLTAGE

NOTICE: The following step uses a test light to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect:

Positive Lead	Measurement / Action	Negative Lead
C3384-1		C3384-2

- Ignition ON.
- Access the SCMH and control the SBLADR_PMP PID
- Toggle the PID on while observing the test light.

Does the test light illuminate?

Yes	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).
No	GO to G10

G10 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP FEED FOR AN OPEN CIRCUIT

- Ignition OFF.
- Disconnect: SCMH [C3386](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3386-3	Ω	C3384-1

Is the resistance less than 3 ohms?

Yes	GO to G21
No	REPAIR the circuit. GO to G22

G11 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP HOSE FOR CORRECT INSTALLATION OR DAMAGE

- Ignition OFF.
- **NOTE:** The multi-contour seat control pump hose is the red hose located within the blue lock.

Visually inspect the multi-contour seat control pump hose for correct installation or damage and check the hose routing to make sure the entire length of the hose is not restricted, bent, kinked or damaged.

Is the multi-contour seat control pump hose installed correctly with no damage?

Yes	GO to G12
No	REPAIR the hose or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

G12 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP OUTPUT

- Disconnect the multi-contour seat control pump hose at the SCMH.
 - Remove the blue lock (with all 4 hoses)
 - Disconnect the red hose from the blue lock.
- Connect a suitable pressure gauge to the (red) multi-contour seat control pump hose.
- Ignition ON.
- **NOTE:** *A person needs to be seated in the passenger seat in order for the massage mode to operate.*

NOTE: *When in MASSAGE mode, the multi-contour seat control pump operates continuously.*

Using the seat control switch or touchscreen, place the multi-contour seat into the MASSAGE mode while observing the pressure gauge. Note the highest pressure obtained.

- Ignition OFF.

Was the pressure equal to or greater than 169 kPa (24.5 psi)?

Yes	GO to G23
No	REPAIR the hose or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

G13 INFLATE THE SUSPECT BACKREST BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

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- Ignition ON.
- Using a diagnostic scan tool, select and view the SCMH Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMH and control the UPPR_LUMB PID
 - Access the SCMH and control the MID_LUMB PID
 - Access the SCMH and control the LOW_LUMB PID
 - Access the SCMH and monitor the LUM_BLADR1 (kPa) PID
 - Access the SCMH and monitor the LUM_BLADR2 (kPa) PID
 - Access the SCMH and monitor the LUM_BLADR3 (kPa) PID

Output State Control PID	Pressure PID
Backrest Lumbar	
UPPR_LUMB (Upper Lumbar Inflate Status)	LUM_BLADR1 (Lumbar Bladder 1 Pressure)
MID_LUMB (Mid-Lumbar Bladder Inflate Status)	LUM_BLADR2 (Lumbar Bladder 2 Pressure)
LOW_LUMB (Lower Lumbar Bladder Inflate Status)	LUM_BLADR3 (Lumbar Bladder 3 Pressure)

- **NOTE:** During this step, the multi-contour seat control pump is on continuously until the output state control PID is toggled back to the NONE mode (off).

Toggle the suspected bladder(s) output state control PID to the INFLATE mode until the pressure PID reaches its highest pressure reading. Note the highest pressure achieved.

- Toggle the suspected bladder(s) output state control PID to the NONE mode.
- Continue to observe the pressure Parameter Identifications (PIDs) for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 169 kPa (24.5 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to G14
No	GO to G16

G14 VENT THE SUSPECT BACKREST BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, select and view the SCMH Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:

- Access the SCMH and control the UPPR_LUMB PID
- Access the SCMH and control the MID_LUMB PID
- Access the SCMH and control the LOW_LUMB PID
- Access the SCMH and monitor the LUM_BLADR1 (kPa) PID
- Access the SCMH and monitor the LUM_BLADR2 (kPa) PID
- Access the SCMH and monitor the LUM_BLADR3 (kPa) PID

Output State Control PID	Pressure PID
Backrest Lumbar	
UPPR_LUMB (Upper Lumbar Inflate Status)	LUM_BLADR1 (Lumbar Bladder 1 Pressure)
MID_LUMB (Mid-Lumbar Bladder Inflate Status)	LUM_BLADR2 (Lumbar Bladder 2 Pressure)
LOW_LUMB (Lower Lumbar Bladder Inflate Status)	LUM_BLADR3 (Lumbar Bladder 3 Pressure)

- Toggle the suspected bladder(s) output state control PID to the VENT mode until the pressure PID reaches its lowest pressure reading.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.

Did the suspected bladder(s) pressure drop to approximately 100 kPa (14.5 psi)?

Yes	GO to G23
No	GO to G15

G15 CHECK THE BACKREST HOSE(S) FOR CORRECT INSTALLATION, RESTRICTION OR DAMAGE

- Ignition OFF.
- Visually inspect the backrest hose(s) for correct installation or damage and check the hose routing to make sure the entire length of the hose is not restricted, bent, kinked or damaged.

Blue lock:

- Yellow hose - Lumbar bladder 3 (lower)
- Transparent green hose - Lumbar bladder 2 (middle)
- Clear hose - Lumbar bladder 1 (upper)

Are the backrest hoses installed correctly with no damage or restrictions?

Yes	GO to G23
No	REPAIR the hose(s) or INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

G16 CHECK THE BACKREST HOSES FOR LEAKS

- Ignition OFF.
- **NOTE:** To disconnect the suspect hose(s), first remove the associated lock (with all the associated hoses) as an assembly. Once removed, individual hose(s) can be removed from the lock.

Disconnect the suspect backrest hose(s) at the SCMH.

Blue lock:

- Yellow hose - Lumbar bladder 3 (lower)
 - Transparent green hose - Lumbar bladder 2 (middle)
 - Clear hose - Lumbar bladder 1 (upper)
 - Connect a suitable hand vacuum/pressure pump (with pressure gauge) to the suspect backrest hose.
 - **NOTICE:** To prevent damage to the front seat power lumbar assembly, do not exceed 169 kPa (24.5 psi) during this step.
- Pump the suspect backrest hose and bladder to 138 kPa (20 psi).
- Continue to observe the pressure gauge for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to 138 kPa (20 psi) and hold pressure within 7 kPa (1 psi) for 2 minutes?

Yes	GO to G23
No	INSTALL a new front seat power lumbar assembly. REFER to: Front Seat Power Lumbar Assembly (501-10A Front Seats, Removal and Installation).

G17 INFLATE THE SUSPECT CUSHION BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Ignition ON.
- Using a diagnostic scan tool, select and view the SCMH Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMH and control the SC_INFLAT1 PID
 - Access the SCMH and control the SC_INFLAT2 PID
 - Access the SCMH and control the SC_INFLAT3 PID
 - Access the SCMH and control the SC_INFLAT4 PID
 - Access the SCMH and monitor the SC_BLADDR1 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR2 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR3 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR4 (kPa) PID

Output State Control PID	Pressure PID
Seat Cushion	
SC_INFLAT1 (Seat Cushion Bladder Inflate Status 1)	SC_BLADDR1 (Seat Cushion Bladder 1)
SC_INFLAT2 (Seat Cushion Bladder Inflate Status 2)	SC_BLADDR2 (Seat Cushion Bladder 2)
SC_INFLAT3 (Seat Cushion Bladder Inflate Status 3)	SC_BLADDR3 (Seat Cushion Bladder 3)
SC_INFLAT4 (Seat Cushion Bladder Inflate Status 4)	SC_BLADDR4 (Seat Cushion Bladder 4)

- **NOTE:** During this step, the multi-contour seat control pump is on continuously until the output state control PID is toggled back to the NONE mode (off).
- Toggle the suspected bladder(s) output state control PID to the INFLATE mode until the pressure PID reaches its highest pressure reading. Note the highest pressure achieved.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.
 - Continue to observe the pressure Parameter Identifications (PIDs) for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 169 kPa (24.5 psi) and hold pressure within 7 kPa (1 psi) over a time period of 2 minutes?

Yes	GO to G18
No	GO to G20

G18 VENT THE SUSPECT CUSHION BLADDER(S) WHILE MONITORING THE PRESSURE PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, select and view the SCMH Parameter Identifications (PIDs) for the suspected bladder(s) as indicated in the table below:
 - Access the SCMH and control the SC_INFLAT1 PID
 - Access the SCMH and control the SC_INFLAT2 PID
 - Access the SCMH and control the SC_INFLAT3 PID
 - Access the SCMH and control the SC_INFLAT4 PID
 - Access the SCMH and monitor the SC_BLADDR1 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR2 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR3 (kPa) PID
 - Access the SCMH and monitor the SC_BLADDR4 (kPa) PID

Output State Control PID	Pressure PID
Seat Cushion	
SC_INFLAT1 (Seat Cushion Bladder Inflate Status 1)	SC_BLADDR1 (Seat Cushion Bladder 1)
SC_INFLAT2 (Seat Cushion Bladder Inflate Status 2)	SC_BLADDR2 (Seat Cushion Bladder 2)
SC_INFLAT3 (Seat Cushion Bladder Inflate Status 3)	SC_BLADDR3 (Seat Cushion Bladder 3)
SC_INFLAT4 (Seat Cushion Bladder Inflate Status 4)	SC_BLADDR4 (Seat Cushion Bladder 4)

- Toggle the suspected bladder(s) output state control PID to the VENT mode until the pressure PID reaches its lowest pressure reading.
- Toggle the suspected bladder(s) output state control PID to the NONE mode.

Did the suspected bladder(s) pressure drop to approximately 100 kPa (14.5 psi)?

Yes	GO to G23
No	GO to G19

G19 CHECK THE CUSHION HOSE(S) FOR CORRECT INSTALLATION, RESTRICTION OR DAMAGE

- Ignition OFF.
- Visually inspect the cushion hose(s) for correct installation or damage and check the hose routing to make sure the entire length of the hose are not restricted (bends, kinks, etc...).

Orange lock:

- Black hose - Seat cushion bladder 4 (RH front)
- Transparent blue hose - Seat cushion bladder 3 (RH rear)
- Blue hose - Seat cushion bladder 2 (LH rear)
- Green hose - Seat cushion bladder 1 (LH front)

Are the cushion hoses installed correctly with no damage or restrictions?

Yes	GO to G23
No	REPAIR the hose(s) or INSTALL a new front seat cushion adjuster. REFER to: Front Seat Cushion Adjuster - Vehicles With: Multi-Contour Seats (501-10A Front Seats, Removal and Installation).

G20 CHECK THE CUSHION HOSES FOR LEAKS

- Ignition OFF.
- **NOTE:** To disconnect the suspect hose(s), first remove the associated lock (with all the associated hoses) as an assembly. Once removed, individual hose(s) can be removed from the lock.

Disconnect the suspect cushion hose(s) at the SCMH.

Orange lock:

- Black hose - Seat cushion bladder 4 (RH front)
 - Transparent blue hose - Seat cushion bladder 3 (RH rear)
 - Blue hose - Seat cushion bladder 2 (LH rear)
 - Green hose - Seat cushion bladder 1 (LH front)
 - Connect a suitable hand vacuum/pressure pump (with pressure gauge) to the suspect cushion hose.
 - **NOTICE:** To prevent damage to the front seat cushion adjuster, do not exceed 169 kPa (24.5 psi) during this step.
- Carefully pump the suspect cushion hose to approximately 138 kPa (20 psi).
- Continue to observe the pressure gauge for 2 minutes to check for system air leaks.

Did the suspected bladder(s) inflate to approximately 138 kPa (20 psi) and hold pressure within 7 kPa (1 psi) over a time period of 2 minutes?

Yes	GO to G23
No	INSTALL a new front seat cushion adjuster. REFER to: Front Seat Cushion Adjuster - Vehicles With: Multi-Contour Seats (501-10A Front Seats, Removal and Installation).

G21 CHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
 - Disconnect and inspect the SCMH 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 SCMH connector. Make sure it seats and latches correctly.
 - **NOTE:** Do not reconnect Passenger Side Airbag In-line [C3053](#) at this time.
- Reconnect all previously disconnected connectors and hoses.
- Ignition ON.
 - Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation). GO to G22
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 G22

G22 CHECK FOR SRS (SUPPLEMENTAL RESTRAINT SYSTEM) DIAGNOSTIC TROUBLE CODES (DTCS)

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

G23 CHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the SCMH 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 SCMH connector. Make sure it seats and latches correctly.
- Reconnect all previously disconnected connectors and hoses.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, 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.

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

Refer to Wiring Diagrams Cell [123](#) for 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
B14C3:24	Seat Height Rear Down Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or is active during the self-test, the DSM sets this DTC.

DTC	Description	Fault Trigger Conditions
B14C4:24	Seat Height Rear Up Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or is active during the self-test, the DSM sets this DTC.
B14CE:09	Seat Horizontal Motor Output: Component Failure	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CE:11	Seat Horizontal Motor Output: Circuit Short To Ground	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CE:12	Seat Horizontal Motor Output: Circuit Short To Battery	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CE:14	Seat Horizontal Motor Output: Circuit Short To Ground or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CE:15	Seat Horizontal Motor Output: Circuit Short To Battery or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CE:1A	Seat Horizontal Motor Output: Circuit Resistance Below Threshold	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:09	Seat Recline Motor Output: Component Failure	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:11	Seat Recline Motor Output: Circuit Short To Ground	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:12	Seat Recline Motor Output: Circuit Short To Battery	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:14	Seat Recline Motor Output: Circuit Short To Ground or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:15	Seat Recline Motor Output: Circuit Short To Battery or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14CF:1A	Seat Recline Motor Output: Circuit Resistance Below Threshold	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:09	Seat Height Front/Tilt Motor Output: Component Failure	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:11	Seat Height Front/Tilt Motor Output: Circuit Short To Ground	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:12	Seat Height Front/Tilt Motor Output: Circuit Short To Battery	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:14	Seat Height Front/Tilt Motor Output: Circuit Short To Ground or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:15	Seat Height Front/Tilt Motor Output: Circuit Short To Battery or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D0:1A	Seat Height Front/Tilt Motor Output: Circuit Resistance Below Threshold	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:09	Seat Height Rear Motor Output: Component Failure	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:11	Seat Height Rear Motor Output: Circuit Short To Ground	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:12	Seat Height Rear Motor Output: Circuit Short To Battery	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:14	Seat Height Rear Motor Output: Circuit Short To Ground or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:15	Seat Height Rear Motor Output: Circuit Short To Battery or Open	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B14D2:1A	Seat Height Rear Motor Output: Circuit Resistance Below Threshold	If the current sensed by the DSM is within a specified range, the DTC is set and the output is disabled.
B1B96:24	Seat Slide Forward Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.
B1B97:24	Seat Slide Backward Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.
B1B98:24	Seat Tilt Up Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.
B1B99:24	Seat Tilt Down Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.

DTC	Description	Fault Trigger Conditions
B1C00:24	Seat Recline Up Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.
B1C01:24	Seat Recline Down Switch: Signal Stuck High	If the seat control switch is active for greater than 2 minutes or was active during the self-test, the DSM sets this DTC.

Possible Causes

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

Visual Inspection and Diagnostic Pre-checks

- Verify BCM fuse 3 (7.5A) is OK.
- Verify BJB fuse 41 (30A) is OK.

PINPOINT TEST H : THE MEMORY SEAT DOES NOT OPERATE HORIZONTALLY/VERTICALLY/RECLINE 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.

H1 RETRIEVE THE DSM (DRIVER FRONT SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Attempt to 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	For DTC B14C3:24, B14C4:24, B1B96:24, B1B97:24, B1B98:24, B1B99:24, B1C00:24 or B1C01:24, GO to H3 For DTC B14CE:31, B14CF:31, B14D0:31 or B14D2:31, GO to Pinpoint Test I For DTC B14CE:XX, B14CF:XX, B14D0:XX or B14D2:XX, GO to H9 For all other Diagnostic Trouble Codes (DTCs), REFER to the DSM DTC Chart.
No	GO to H2

H2 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:

- Access the DSM and monitor the SEAT_TILT_DWN PID
- Access the DSM and monitor the SEAT_TILT_UP PID
- Access the DSM and monitor the SEAT_RECL_DWN PID
- Access the DSM and monitor the SEAT_RECL_UP PID
- Access the DSM and monitor the SEAT_HGT_DWN PID
- Access the DSM and monitor the SEAT_HGT_UP PID
- Access the DSM and monitor the SEAT_BCK_SW PID
- Access the DSM and monitor the SEAT_FW_SW PID

Do the PID states agree with the switch positions?

Yes	GO to H9
No	GO to H3

H3 CHECK THE SEAT CONTROL SWITCH

- Ignition OFF.
- Disconnect: Driver Seat Control Switch [C3387](#).
- Carry out the component test on the seat control switch.
Refer to Wiring Diagrams Cell [149](#) for schematic and connector information.

Did the seat control switch pass the component test?

Yes	GO to H4
No	INSTALL a new seat control switch. REFER to: Front Seat Control Switch (501-10A Front Seats, Removal and Installation).

H4 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-10		Ground

Is the voltage greater than 11 volts?

Yes	GO to H5
No	VERIFY BCM fuse 3 (7.5A) 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 H37

H5 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-11	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to H6
No	REPAIR the circuit. GO to H37

H6 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO VOLTAGE

- Disconnect: DSM [C341D](#) and [C341E](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-17		Ground
C3387-16		Ground
C3387-13		Ground
C3387-12		Ground
C3387-14		Ground
C3387-15		Ground
C3387-9		Ground
C3387-7		Ground

Is any voltage present?

Yes	REPAIR the affected circuit. GO to H37
No	GO to H7

H7 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-17	Ω	Ground
C3387-16	Ω	Ground
C3387-13	Ω	Ground
C3387-12	Ω	Ground
C3387-14	Ω	Ground
C3387-15	Ω	Ground
C3387-9	Ω	Ground
C3387-7	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to H8
No	REPAIR the affected circuit. GO to H37

H8 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
C3387-17	Ω	C341D-7
C3387-16	Ω	C341D-6
C3387-13	Ω	C341D-14
C3387-12	Ω	C341D-8
C3387-14	Ω	C341D-16
C3387-15	Ω	C341D-15

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3387-9	Ω	C341E-19
C3387-7	Ω	C341E-20

Are the resistances greater than 10,000 ohms?

Yes	GO to H36
No	REPAIR the affected circuit. GO to H37

H9 VERIFY THE SEAT OPERATION

- Using the seat control switch, attempt to operate the seat in the following directions:
 - Front height up and down
 - Rear height up and down
 - Horizontal forward and backward
 - Recline forward and backward

Does the driver seat operate correctly?

Yes	The condition is 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.
No	If no seat movement occurs, GO to H10 If no front vertical seat movement occurs, GO to H12 If no rear vertical seat movement occurs, GO to H18 If no horizontal seat movement occurs, GO to H24 If no recline seat movement occurs, GO to H30

H10 CHECK FOR VOLTAGE TO THE DSM (DRIVER FRONT SEAT MODULE)

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: DSM [C341B](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341B-10		Ground

Is the voltage greater than 11 volts?

Yes	GO to H11
No	VERIFY BJB fuse 41 (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 H37

H11 CHECK THE DSM (DRIVER FRONT SEAT MODULE) GROUND CIRCUIT FOR AN OPEN

- Disconnect: DSM [C341C](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-9	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to H36
No	REPAIR the circuit. GO to H37

H12 CHECK THE FRONT HEIGHT 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-10		Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341D-1		Ground
C341D-9		Ground

Are any voltages present?

Yes	GO to H13
No	GO to H14

H13 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE WITH THE MOTOR DISCONNECTED

- Ignition OFF.
- Disconnect: Driver Seat Front Height Motor [C382](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-10		Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341D-1		Ground
C341D-9		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to H37
No	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to H37

H14 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-10	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341D-1	Ω	Ground
C341D-9	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to H16
No	GO to H15

H15 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
C341C-10	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341D-1	Ω	Ground
C341D-9	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 H37
No	REPAIR the affected circuit. GO to H37

H16 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Front Height Motor [C382](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-10	Ω	C382-1

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341D-1	Ω	C382-3
C341D-9	Ω	C382-3

Are the resistances less than 3 ohms?

Yes	GO to H17
No	REPAIR the affected circuit. GO to H37

H17 CHECK FOR VOLTAGE TO THE FRONT HEIGHT MOTOR

NOTICE: The following step uses a test lamp to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Connect a 12-volt incandescent test light between:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C382-1		C382-3

- **NOTE:** Because the seat motor electrical connector is disconnected, the DSM may only activate the seat motor output for approximately 500 ms then turn off.

Activate the seat control switch (front height up and down) positions while observing the test light.

Does the test light momentarily illuminate when the seat control switch is activated in both positions?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to H37
No	GO to H36

H18 CHECK THE REAR HEIGHT 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-1		Ground
C341C-2		Ground

Are any voltages present?

Yes	GO to H19
No	GO to H20

H19 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE WITH THE MOTOR DISCONNECTED

- Ignition OFF.
- Disconnect: Driver Seat Rear Height Motor [C363](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-1		Ground
C341C-2		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to H37
No	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to H37

H20 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-1	Ω	Ground
C341C-2	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to H22
No	GO to H21

H21 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
C341C-1	Ω	Ground
C341C-2	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 H37
No	REPAIR the affected circuit. GO to H37

H22 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Rear Height Motor [C363](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-2	Ω	C363-1
C341C-1	Ω	C363-3

Are the resistances less than 3 ohms?

Yes	GO to H23
No	REPAIR the affected circuit. GO to H37

H23 CHECK FOR VOLTAGE TO THE REAR HEIGHT MOTOR

NOTICE: The following step uses a test lamp to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Connect a 12-volt incandescent test light between:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C363-1		C363-3

- **NOTE:** *Because the seat motor electrical connector is disconnected, the DSM may only activate the seat motor output for approximately 500 ms then turn off.*

Activate the seat control switch (rear height up and down) positions while observing the test light.

Does the test light momentarily illuminate when the seat control switch is activated in both positions?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track (501-10A Front Seats, Removal and Installation). GO to H37
No	GO to H36

H24 CHECK THE HORIZONTAL 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-5		Ground
C341C-6		Ground

Are any voltages present?

Yes	GO to H25
No	GO to H26

H25 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO VOLTAGE WITH THE MOTOR DISCONNECTED

- Ignition OFF.
- Disconnect: Driver Seat Horizontal Motor [C362](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-5		Ground
C341C-6		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to H37
No	INSTALL a new driver seat horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to H37

H26 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-5	Ω	Ground
C341C-6	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to H28
No	GO to H27

H27 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
C341C-5	Ω	Ground
C341C-6	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new driver seat horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to H37
No	REPAIR the affected circuit. GO to H37

H28 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Horizontal Motor [C362](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-5	Ω	C362-1
C341C-6	Ω	C362-3

Are the resistances less than 3 ohms?

Yes	GO to H29
No	REPAIR the affected circuit. GO to H37

H29 CHECK FOR VOLTAGE TO THE HORIZONTAL MOTOR

NOTICE: The following step uses a test lamp to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect: DSM [C341C](#) and [C341D](#).
- Ignition ON.
- Connect a 12-volt incandescent test light between:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C362-1		C362-3

- **NOTE:** Because the seat motor electrical connector is disconnected, the DSM may only activate the seat motor output for approximately 500 ms then turn off.

Activate the seat control switch (horizontal forward and backward) positions while observing the test light.

Does the test light momentarily illuminate when the seat control switch is activated in both positions?

Yes	INSTALL a new driver seat horizontal motor. REFER to: Front Seat Track Motor (501-10A Front Seats, Removal and Installation). GO to H37
No	GO to H36

H30 CHECK THE RECLINER 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 [C3051](#).
- Disconnect: DSM [C341C](#), [C341D](#) and [C341E](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-3		Ground
C341C-4		Ground

Are any voltages present?

Yes	GO to H31
No	GO to H32

H31 CHECK THE FRONT RECLINER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE WITH THE MOTOR DISCONNECTED

- Ignition OFF.
- Disconnect: Driver Seat Front Recliner Motor [C3187](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-3		Ground
C341C-4		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to H37
No	INSTALL a new driver seat backrest frame. GO to H37

H32 CHECK THE FRONT RECLINER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-3	Ω	Ground
C341C-4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to H34
No	GO to H33

H33 CHECK THE RECLINER MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

- Disconnect: Driver Seat Recliner Motor [C3187](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-3	Ω	Ground
C341C-4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new driver seat backrest frame. GO to H37
No	REPAIR the affected circuit. GO to H37

H34 CHECK THE RECLINER MOTOR CIRCUITS FOR AN OPEN

- Disconnect: Driver Seat Recliner Motor [C3187](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-3	Ω	C3187-3
C341C-4	Ω	C3187-1

Are the resistances less than 3 ohms?

Yes	GO to H35
No	REPAIR the affected circuit. GO to H37

H35 CHECK FOR VOLTAGE TO THE RECLINER MOTOR

NOTICE: The following step uses a test lamp to simulate normal circuit loads. Use only a Rotunda Test Lamp (SGT27000) or 250- 300mA incandescent bulb test lamp. To avoid connector terminal damage, use the Rotunda Flex Probe kit for the test lamp probe connection to the vehicle. Do not use the test lamp probe directly on any connector.

- Connect: DSM [C341C](#), [C341D](#) and [C341E](#).
- Ignition ON.
- Connect a 12-volt incandescent test light between:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-1		C3187-3

- **NOTE:** Because the seat motor electrical connector is disconnected, the DSM may only activate the seat motor output for approximately 500 ms then turn off.

Activate the seat control switch (recline forward and backward) positions while observing the test light.

Does the test light momentarily illuminate when the seat control switch is activated in both positions?

Yes	INSTALL a new driver seat backrest frame. GO to H37
No	GO to H36

H36 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 [C3051](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to H37
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 H37

H37 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Memory Seat Does Not Operate Using the Memory SET Switch

Refer to Wiring Diagrams Cell [123](#) for 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

DTC	Description	Fault Trigger Conditions
B14CB:11	Seat Height Rear 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 two-second increments.
B14CB:12	Seat Height Rear Position Feedback: Circuit Short To Battery	If a short to voltage 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 two-second increments.
B14CE:31	Seat Horizontal Motor Output: No Signal	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 retries motor operation on the next activation of the seat control switch. If no movement is detected after 250 milliseconds, the DSM disables the output.
B14CF:31	Seat Recline Motor Output: No Signal	During self-test, the DSM attempts to operate the appropriate seat motor and uses the motor's position sensor to monitor movement. If no motor movement is sensed, the DTC is set. The DSM retries motor operation on the next activation of the seat control switch. If no movement is detected after 250 milliseconds, the DSM disables the output.
B14D0:31	Seat Height Front/Tilt Motor Output: No Signal	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 retries motor operation on the next activation of the seat control switch. If no movement is detected after 250 milliseconds, the DSM disables the output.
B14D2:31	Seat Height Rear Motor Output: No Signal	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 retries motor operation on the next activation of the seat control switch. If no movement is detected after 250 milliseconds, the DSM disables the output.
B1B89:11	Seat Slide Motor Speed/Position Sensor: 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 two-second increments.
B1B89:12	Seat Slide Motor Speed/Position Sensor: Circuit Short To Battery	If a short to voltage 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 two-second increments.
B1B91:11	Seat Tilt Motor Speed/Position Sensor: 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 two-second increments.
B1B91:12	Seat Tilt Motor Speed/Position Sensor: Circuit Short To Battery	If a short to voltage 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 two-second increments.
B1B93:11	Seat Recline Motor Speed/Position Sensor: 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 two-second increments.
B1B93:12	Seat Recline Motor Speed/Position Sensor: Circuit Short To Battery	If a short to voltage 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 two-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
- Seat backrest
- DDM

PINPOINT TEST I : 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.

I1 CHECK THE DSM (DRIVER FRONT SEAT MODULE) IGNITION POSITION STATUS PID (PARAMETER IDENTIFICATION) STATES

- Ignition ON.
- Access the DSM and monitor the IGN_SW_STATE PID
- Using a diagnostic scan tool, monitor the PID while cycling the ignition from ON to OFF and back to ON.

Do the PID states agree?

Yes	GO to I2
No	To diagnose no power in ON, REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).

I2 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs)

- Attempt to operate the memory seat in all directions.
- 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 I4 For DTC B1B91:11, B1B91:12 or B14D0:31, GO to I10 For DTC B14CB:11, B14CB:12 or B14D2:31, GO to I13 For DTC B1B89:11, B1B89:12 or B14CE:31, GO to I16 For DTC B1B93:11, B1B93:12 or B14CF:31, GO to I19 For all other Diagnostic Trouble Codes (DTCs), REFER to the DSM or DDM DTC Chart(s) in this section.
No	GO to I3

I3 MONITOR DDM (DRIVER DOOR MODULE) PARAMETER IDENTIFICATIONS (PIDS) AND CHECK FOR CORRECT MEMORY SET SWITCH INPUTS

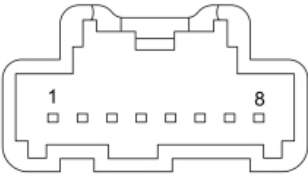
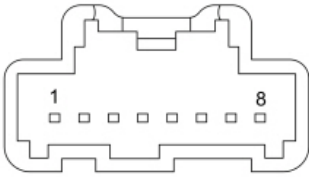
- While activating the memory recall 1, 2 and 3 buttons, monitor the following DDM memory recall switch status Parameter Identifications (PIDs) using a diagnostic scan tool:
 - Access the DDM and monitor the MEMORY_SW_1 PID
 - Access the DDM and monitor the MEMORY_SW_2 PID
 - Access the DDM and monitor the MEMORY_SW_3 PID

Do the PID values agree with the switch button positions?

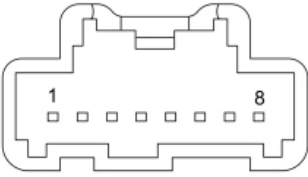
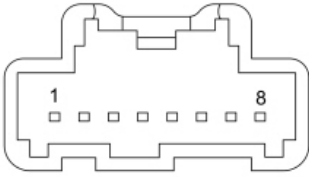
Yes	GO to I9
No	GO to I4

I4 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:

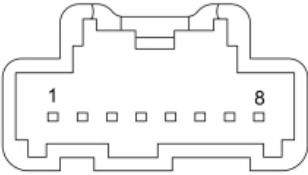
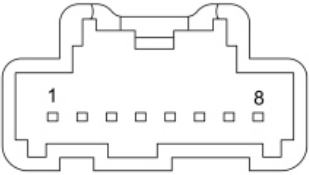
Positive Lead	Measurement / Action	Negative Lead
 E206990 C541, pin 5, Component Side	Ω	 E206990 C541, pin 6, Component Side

- 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
 E206990 C541, pin 4, Component Side	Ω	 E206990 C541, pin 6, 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
 E206990 C541, pin 3, Component Side	Ω	 E206990 C541, pin 6, 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 I5
No	INSTALL a new door lock control switch. REFER to: Front Door Lock Control Switch (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

I5 CHECK THE MEMORY SET SWITCH GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C541-6	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to I6
No	REPAIR the circuit.

I6 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
C541-3		Ground
C541-4		Ground
C541-5		Ground

Is any voltage present?

Yes	REPAIR the affected circuit.
No	GO to I7

I7 CHECK THE MEMORY SET SWITCH CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C541-3		Ground
C541-4	Ω	Ground
C541-5	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to I8
No	REPAIR the affected circuit.

I8 CHECK THE MEMORY SET SWITCH CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C541-3	Ω	C501B-2
C541-4	Ω	C501B-3
C541-5	Ω	C501B-1

Are the resistances less than 3 ohms?

Yes	GO to I22
No	REPAIR the affected circuit.

I9 VERIFY THE SEAT OPERATION

- Using the seat control switch, attempt to operate the seat in the following directions:
 - Front height up and down
 - Rear height up and down
 - Horizontal forward and backward
 - Recline forward and backward

Does the driver seat operate correctly?

Yes	The condition is 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.
No	DIAGNOSE the inoperative seat. GO to Pinpoint Test H

I10 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Disconnect: Driver Seat Front Height Motor [C382](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C382-2		Ground
C382-4		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to I23
No	GO to I11

I11 CHECK THE FRONT HEIGHT SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

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

Are the resistances greater than 10,000 ohms?

Yes	GO to I12
No	REPAIR the affected circuit. GO to I23

I12 CHECK THE FRONT HEIGHT SENSOR CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C382-4	Ω	C341D-11
C382-2	Ω	C341D-13

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 I23
No	REPAIR the affected circuit. GO to I23

I13 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Disconnect: Driver Seat Rear Height Motor [C363](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C363-2		Ground
C363-4		Ground

Are any voltages present on any circuits?

Yes	REPAIR the affected circuit. GO to I23
No	GO to I14

I14 CHECK THE REAR HEIGHT SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

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

Are the resistances greater than 10,000 ohms?

Yes	GO to I15
No	REPAIR the affected circuit. GO to I23

I15 CHECK THE REAR HEIGHT SENSOR CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C363-4	Ω	C341D-13
C363-2	Ω	C341D-12

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 I23
No	REPAIR the affected circuit. GO to I23

I16 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 [C3051](#).
- Disconnect: DSM [C341C](#) and [C341D](#).
- Disconnect: Driver Seat Horizontal Motor [C362](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C362-2		Ground
C362-4		Ground

Are any voltages present on any circuits?

Yes	REPAIR the affected circuit. GO to I23
No	GO to I17

I17 CHECK THE HORIZONTAL SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

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

Are the resistances greater than 10,000 ohms?

Yes	GO to I18
No	REPAIR the affected circuit. GO to I23

I18 CHECK THE HORIZONTAL SENSOR CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C362-4	Ω	C341D-10
C362-2	Ω	C341D-13

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 I23
No	REPAIR the affected circuit. GO to I23

I19 CHECK THE RECLINER 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 [C3051](#).
- Disconnect: DSM [C341C](#), [C341D](#) and [C341E](#).
- Disconnect: Driver Seat Recliner Motor [C3187](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-2		Ground
C3187-4		Ground

Are any voltages present?

Yes	REPAIR the affected circuit. GO to I23
No	GO to I20

I20 CHECK THE RECLINER SENSOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-2	Ω	Ground
C3187-4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to I21
No	REPAIR the affected circuit. GO to I23

I21 CHECK THE RECLINER SENSOR CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-2	Ω	C341E-11

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3187-4	Ω	C341D-13

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver seat backrest frame. GO to I23
No	REPAIR the affected circuit. GO to I23

I22 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.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new 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.

I23 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

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
- DSM

Visual Inspection and Diagnostic Pre-checks

- Verify the easy entry/exit feature is enabled in the message center. REFER to the Owner's Literature for information on programming vehicle settings in the message center.

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

J1 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. GO to J2

J2 CHECK THE DSM (DRIVER FRONT SEAT MODULE) IGNITION POSITION FINAL STATUS PID (PARAMETER IDENTIFICATION) STATES

- Ignition ON.
- Access the DSM and monitor the IGN_SW_STATE PID
- Using a diagnostic scan tool, monitor the PID while cycling the ignition from ON to OFF and back to ON.

Does the PID states match 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).

Both Heated Seats Are Inoperative “ Without Heated/Ventilated Seats

Refer to Wiring Diagrams Cell [119](#) for 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
- FCIM

Visual Inspection and Diagnostic Pre-checks

- Verify the BJB fuse 9 (30A) is OK.

PINPOINT TEST K : BOTH HEATED SEATS ARE INOPERATIVE “ WITHOUT HEATED/VENTILATED SEATS

K1 CHECK FOR FCIM (FRONT CONTROLS INTERFACE MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

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

Are any FCIM Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the FCIM DTC Chart.
No	GO to K2

K2 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: FCIM [C2402B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C2402B-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to K3
No	VERIFY BJB fuse 9 (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.

K3 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the FCIM 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 FCIM connectors. Make sure they seat and latch correctly.
- 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new FCIM. REFER to: Front Controls Interface Module (FCIM) (415-00 Information and Entertainment System - General Information, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

Refer to Wiring Diagrams Cell [119](#) for 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
B1034:11	Left Front Seat Heater Element: Circuit Short To Ground	Sets when the FCIM senses the left front heater element current draw has exceeded a specified threshold. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B1034:15	Left Front Seat Heater Element: Circuit Short To Battery or Open	Sets when the FCIM senses the left front heater circuit voltage is above a specified threshold when the driver is active or the left front heater element current draw is less than a specified threshold. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B1038:11	Left Front Seat Heater Sensor: Circuit Short To Ground	Sets when the FCIM senses the left front heater sensor voltage is out-of-range low. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B1038:15	Left Front Seat Heater Sensor: Circuit Short To Battery or Open	Sets when the FCIM senses the left front heater sensor voltage is out-of-range high. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.

Possible Causes

- Wiring, terminals or connectors
- Heater mat
- FCIM

PINPOINT TEST L : THE DRIVER HEATED SEAT IS INOPERATIVE/DOES NOT OPERATE CORRECTLY “WITHOUT HEATED/VENTILATED SEATS

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 FOR FCIM (FRONT CONTROLS INTERFACE MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

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

Are any FCIM Diagnostic Trouble Codes (DTCs) present?

Yes	For DTC B1034:11 or B1034:15, GO to L3 For DTC B1038:11 or B1038:15, GO to L5 For all other Diagnostic Trouble Codes (DTCs), REFER to the FCIM DTC Chart.
No	GO to L2

L2 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) DRIVER HEATED SEAT CONTROL SWITCH (CC_SW_D_HSEATS) PID (PARAMETER IDENTIFICATION)

- Ignition OFF.
- Ignition ON.
- Access the FCIM and monitor the CC_SW_D_HSEATS PID
- Using a diagnostic scan tool, monitor the PID while operating the driver heated seat switch.

Does the PID state change when the driver heated seat switch is pressed and released?

Yes	GO to L3
No	INSTALL a new FCIM. REFER to: Front Controls Interface Module (FCIM) (415-00 Information and Entertainment System - General Information, Removal and Installation).

L3 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: FCIM [C2402B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C2402B-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to L4
No	REPAIR the circuit.

L4 CHECK THE HEATER ELEMENT POWER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Left Front Seat Cushion Heater [C364](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-1	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-1	Ω	C2402B-16

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the FCIM?

Yes	GO to L8
No	REPAIR the circuit. GO to L14

L5 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: FCIM [C2402B](#).
- Disconnect: Left Front Seat Cushion Heater [C364](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-2	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-2	Ω	C2402B-30

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the FCIM?

Yes	GO to L6
No	REPAIR the circuit. GO to L14

L6 CHECK THE HEATED SEAT TEMPERATURE SENSOR RETURN CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Disconnect: FCIM [C2402A](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-3	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-3	Ω	C2402A-2

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the FCIM?

Yes	GO to L7
No	REPAIR the circuit. GO to L14

L7 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-2		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to L14
No	GO to L12

L8 CHECK THE HEATER ELEMENT GROUND CIRCUIT FOR AN OPEN

- Disconnect: Left Front Seat Backrest Heater [C365](#).
- Measure:

[Click to display connectors](#)

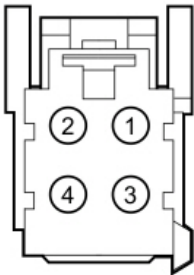
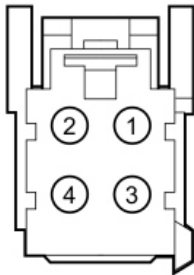
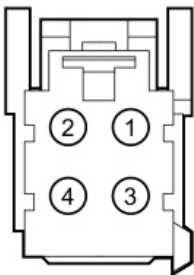
Positive Lead	Measurement / Action	Negative Lead
C365-2	Ω	Ground

Is the resistance less than 0.5 ohm?

Yes	GO to L9
No	REPAIR the circuit. GO to L14

L9 CHECK THE CUSHION HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

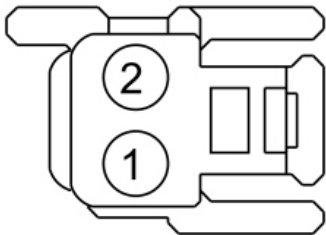
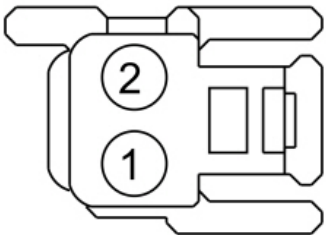
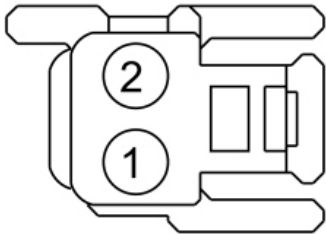
Positive Lead	Measurement / Action	Negative Lead
 E158484 C364-1, Component Side	Ω	 E158484 C364-4, Component Side
 E158484 C364-1, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 4; and greater than 10,000 ohms between pin 1 and ground?

Yes	GO to L10
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to L14

L10 CHECK THE BACKREST HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158488 C365-1, Component Side	Ω	 E158488 C365-2, Component Side
 E158488 C365-2, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 2; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to L11
No	INSTALL a new driver seat backrest heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to L14

L11 CHECK THE CIRCUIT BETWEEN THE CUSHION HEATER MAT AND BACKREST HEATER MAT FOR AN OPEN AND SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-4	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C364-4	Ω	C365-1

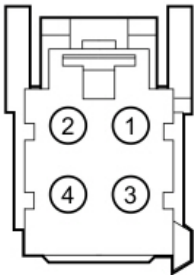
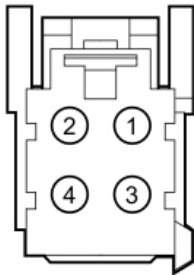
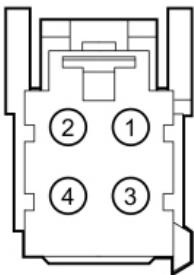
Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the backrest heater mat?

Yes	GO to L13
No	REPAIR the circuit. GO to L14

L12 CHECK THE HEATED SEAT TEMPERATURE SENSOR FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158484 C364-2, Component Side	Ω	 E158484 C364-3, Component Side
 E158484 C364-2, Component Side	Ω	Ground

Is the resistance between 300 and 300,000 ohms between pins 2 and 3; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to L13
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to L14

L13 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the FCIM 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 FCIM connectors. Make sure they seat and latch correctly.
- 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new FCIM. REFER to: Front Controls Interface Module (FCIM) (415-00 Information and Entertainment System - General Information, Removal and Installation). GO to L14
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 L14

L14 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Passenger Heated Seat Is Inoperative/Does Not Operate Correctly Without Heated/Ventilated Seats

Refer to Wiring Diagrams Cell [119](#) for 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

DTC	Description	Fault Trigger Conditions
B1036:11	Right Front Seat Heater Element: Circuit Short To Ground	Sets when the FCIM senses the right front heater element current draw has exceeded a specified threshold. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B1036:15	Right Front Seat Heater Element: Circuit Short To Battery or Open	Sets when the FCIM senses the right front heater circuit voltage is above a specified threshold when the driver is active or senses the right front heater element current draw is less than a specified threshold. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B103A:11	Right Front Seat Heater Sensor: Circuit Short To Ground	Sets when the FCIM senses the right front heater sensor voltage is out-of-range low. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.
B103A:15	Right Front Seat Heater Sensor: Circuit Short To Battery or Open	Sets when the FCIM senses the right front heater sensor voltage is out-of-range high. When this DTC sets, the FCIM disables the circuit until the ignition is cycled.

Possible Causes

- Wiring, terminals or connectors
- Heater mat
- FCIM

PINPOINT TEST M : THE PASSENGER HEATED SEAT IS INOPERATIVE/DOES NOT OPERATE CORRECTLY “ WITHOUT HEATED/VENTILATED SEATS

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 FOR FCIM (FRONT CONTROLS INTERFACE MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

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

Are any FCIM Diagnostic Trouble Codes (DTCs) present?

Yes	For DTC B1036:11 or B1036:15, GO to M3 For DTC B103A:11 or B103A:15, GO to M5 For all other Diagnostic Trouble Codes (DTCs), REFER to the FCIM DTC Chart.
No	GO to M2

M2 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) PASSENGER HEATED SEAT CONTROL SWITCH (CC_SW_P_HSEATS) PID (PARAMETER IDENTIFICATION)

- Ignition OFF.
- Ignition ON.
- Access the FCIM and monitor the CC_SW_P_HSEATS PID
- Using a diagnostic scan tool, monitor the PID while operating the passenger heated seat switch.

Does the PID state change when the passenger heated seat switch is pressed and released?

Yes	GO to M3
No	□ Click here to access Guided Routine (FCIM).

M3 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: FCIM [C2402B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C2402B-2		Ground

Is the voltage greater than 11 volts?

Yes	GO to M4
No	REPAIR the circuit.

M4 CHECK THE HEATER ELEMENT POWER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: Right Front Seat Cushion Heater [C334](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-1	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-1	Ω	C2402B-17

Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the FCIM?

Yes	GO to M8
No	REPAIR the circuit. GO to M14

M5 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: FCIM [C2402B](#).
- Disconnect: Right Front Seat Cushion Heater [C334](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-2	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-2	Ω	C2402B-15

Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the FCIM?

Yes	GO to M6
No	REPAIR the circuit. GO to M14

M6 CHECK THE HEATED SEAT TEMPERATURE SENSOR RETURN CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Disconnect: FCIM [C2402A](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-3	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-3	Ω	C2402A-2

Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the FCIM?

Yes	GO to M7
No	REPAIR the circuit. GO to M14

M7 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-2		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to M14
No	GO to M12

M8 CHECK THE HEATER ELEMENT GROUND CIRCUIT FOR AN OPEN

- Disconnect: Right Front Seat Backrest Heater [C335](#).
- Measure:

[Click to display connectors](#)

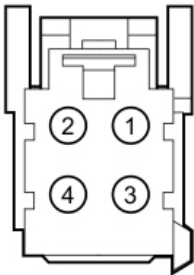
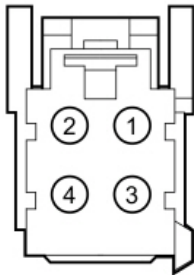
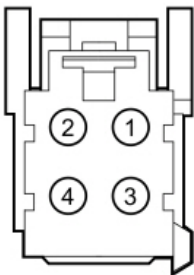
Positive Lead	Measurement / Action	Negative Lead
C335-2	Ω	Ground

Is the resistance less than 0.5 ohm?

Yes	GO to M9
No	REPAIR the circuit. GO to M14

M9 CHECK CUSHION HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

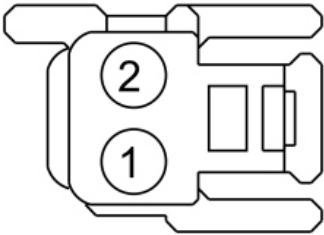
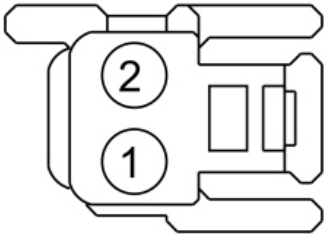
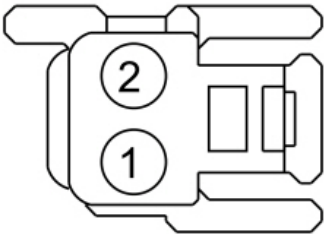
Positive Lead	Measurement / Action	Negative Lead
 E158484 C334-1, Component Side	Ω	 E158484 C334-4, Component Side
 E158484 C334-1, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 4; and greater than 10,000 ohms between pin 1 and ground?

Yes	GO to M10
No	INSTALL a new passenger seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to M14

M10 CHECK THE BACKREST HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158488 C335-1, Component Side	Ω	 E158488 C335-2, Component Side
 E158488 C335-2, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 2; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to M11
No	INSTALL a new passenger seat backrest heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to M14

M11 CHECK THE CIRCUIT BETWEEN THE CUSHION HEATER MAT AND BACKREST HEATER MAT FOR AN OPEN AND SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-4	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C334-4	Ω	C335-1

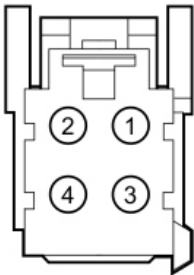
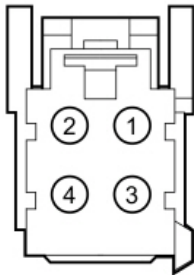
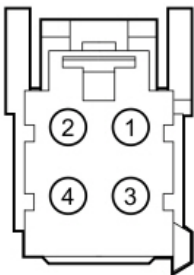
Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the backrest heater mat?

Yes	GO to M13
No	REPAIR the circuit. GO to M14

M12 CHECK THE HEATED SEAT TEMPERATURE SENSOR FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158484 C334-2, Component Side	Ω	 E158484 C334-3, Component Side
 E158484 C334-2, Component Side	Ω	Ground

Is the resistance between 300 and 300,000 ohms between pins 2 and 3; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to M13
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to M14

M13 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all of the FCIM 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 FCIM connectors. Make sure they seat and latch correctly.
- 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, Click here to access Guided Routine (FCIM) . GO to M14
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 M14

M14 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

Both Heated Seats are Inoperative – With Heated/Ventilated Seats

Refer to Wiring Diagrams Cell [119](#) for 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
- FCIM
- SCME

Visual Inspection and Diagnostic Pre-checks

- Verify the BJB fuse 9 (30A) is OK.

PINPOINT TEST N : BOTH HEATED SEATS ARE INOPERATIVE WITH HEATED/VENTILATED SEATS

N1 CHECK FOR SCME (FRONT SEAT CLIMATE CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform SCME self-test.

Are any SCME Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the SCME DTC Chart in this section.
No	GO to N2

N2 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUITS FOR AN OPEN

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: DSM Module [C341B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341B-8		Ground
C341B-9		Ground

Are the voltages greater than 11 volts?

Yes	GO to N3
No	VERIFY BJB fuse 9 (30A) is OK. If OK, REPAIR the circuit in question. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. GO to N5

N3 CHECK THE HEATED SEAT GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Disconnect: DSM Module [C341C](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-7	Ω	Ground
C341C-8	Ω	Ground
C341C-9	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to N4
No	REPAIR the circuit in question. 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.
- 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (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 SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Driver Heated Seat is Inoperative With Heated/Ventilated Seats

Refer to Wiring Diagrams Cell [119](#) for 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
B1153:4B	Driver Seat Cushion: Over Temperature	Sets when the SCME senses the driver front cushion temperature has exceeded 110°C (230°F) for more than 4 seconds. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1156:01	Driver Seat: General Electrical Failure	Sets when the SCME senses the driver front heater element current draw has exceeded a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1156:11	Driver Seat: Circuit Short To Ground	Sets when the SCME senses the driver front heater element current draw has exceeded a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1156:12	Driver Seat: Circuit Short To Battery	Sets when the SCME senses the driver front heater circuit voltage is above a specified threshold when the driver is active. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1156:13	Driver Seat: Circuit Open	Sets when the SCME senses the driver front heater element current draw is less than a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1156:1A	Driver Seat: Circuit Resistance Below Threshold	Sets when the SCME senses the driver front heater element current draw is more than a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1208:01	Driver Seat Cushion Temperature Sensor: General Electrical Failure	Sets when the SCME senses the driver front heater sensor voltage is out-of-range low or high. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1208:11	Driver Seat Cushion Temperature Sensor: Circuit Short To Ground	Sets when the SCME senses the driver front heater sensor voltage is out-of-range low. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1208:15	Driver Seat Cushion Temperature Sensor: Circuit Short To Battery or Open	Sets when the SCME senses the driver front heater sensor voltage is out-of-range high. When this DTC sets, the SCME disables the circuit until the ignition is cycled.

Possible Causes

- Wiring, terminals or connectors
- Heater mat
- FCIM
- SCME

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

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform SCME self-test.

Are any SCME Diagnostic Trouble Codes (DTCs) present?

Yes	For DTC B1156:01, B1156:11, B1156:12, B1156:13 or B1156:1A, GO to O4 For DTC B1153:4B, B1208:01, B1208:11 or B1208:15, GO to O6 For all other Diagnostic Trouble Codes (DTCs), REFER to the SCME DTC Chart.
No	GO to O2

O2 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUITS FOR AN OPEN

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: DSM [C341B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341B-8		Ground
C341B-9		Ground

Are the voltages greater than 11 volts?

Yes	GO to O3
No	REPAIR the affected circuit. GO to O15

O3 CHECK THE HEATED SEAT GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Disconnect: DSM Module [C341C](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-7	Ω	Ground
C341C-8	Ω	Ground
C341C-9	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to O4
No	REPAIR the circuit in question. GO to O15

O4 CHECK THE HEATER ELEMENT POWER 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 [C3051](#) (if not previously disconnected).
- Disconnect: DSM [C341A](#) and [C341B](#).
- Disconnect: Left Front Seat Cushion Heater [C3298](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-1		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to O15
No	GO to O5

O5 CHECK THE HEATER ELEMENT POWER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-1	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-1	Ω	C341B-2

Are the resistances greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the DSM?

Yes	GO to O9
No	REPAIR the affected circuit. GO to O15

O6 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: DSM [C341A](#) and [C341B](#).
- Disconnect: Left Front Seat Cushion Heater [C3298](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-2	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-2	Ω	C341A-12

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the DSM?

Yes	GO to O7
No	REPAIR the circuit. GO to O15

O7 CHECK THE HEATED SEAT TEMPERATURE SENSOR RETURN CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-3	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-3	Ω	C341A-9

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the DSM?

Yes	GO to O8
No	REPAIR the open circuit or REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. GO to O15

O8 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-2		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to O15
No	GO to O13

O9 CHECK THE HEATER ELEMENT GROUND CIRCUIT FOR AN OPEN

- Disconnect: Left Front Seat Backrest Heater [C3590](#).
- Measure:

[Click to display connectors](#)

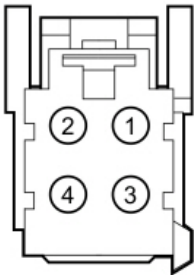
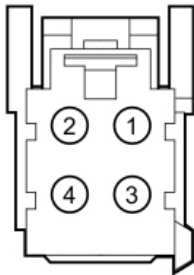
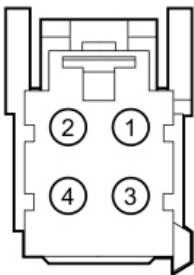
Positive Lead	Measurement / Action	Negative Lead
C3590-2	Ω	C341B-4

Are the resistances less than 3 ohms?

Yes	GO to O10
No	REPAIR the circuit in question. GO to O15

O10 CHECK THE CUSHION HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

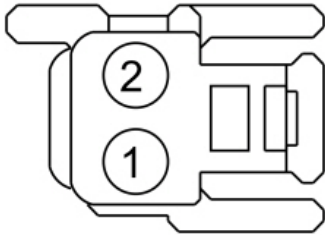
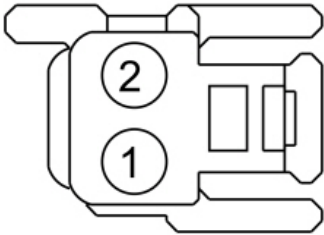
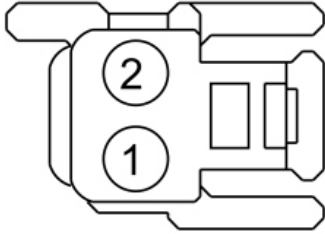
Positive Lead	Measurement / Action	Negative Lead
 E158484 C3298-1, Component Side	Ω	 E158484 C3298-4, Component Side
 E158484 C3298-1, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 4; and greater than 10,000 ohms between pin 1 and ground?

Yes	GO to O11
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to O15

O11 CHECK THE BACKREST HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158488 C3590-1, Component Side	Ω	 E158488 C3590-2, Component Side
 E158488 C3590-2, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 2; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to O12
No	INSTALL a new driver seat backrest heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to O15

O12 CHECK THE CIRCUIT BETWEEN THE CUSHION HEATER MAT AND BACKREST HEATER MAT FOR AN OPEN AND SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3298-4	Ω	Ground

- Measure:

[Click to display connectors](#)

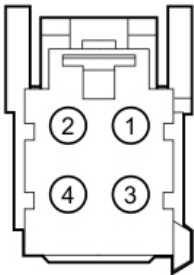
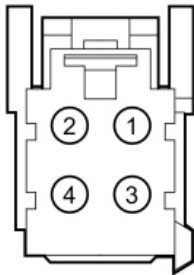
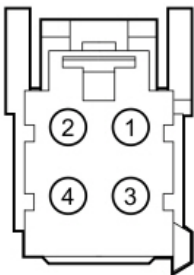
Positive Lead	Measurement / Action	Negative Lead
C3298-4	Ω	C3590-1

Is the resistance greater than 10,000 ohms between the driver seat cushion heater mat and ground; and less than 3 ohms between the driver seat cushion heater mat and the backrest heater mat?

Yes	GO to Q14
No	REPAIR the circuit. GO to Q15

O13 CHECK THE HEATED SEAT TEMPERATURE SENSOR FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158484 C3298-2, Component Side	Ω	 E158484 C3298-3, Component Side
 E158484 C3298-2, Component Side	Ω	Ground

Is the resistance between 300 and 300,000 ohms between pins 2 and 3; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to O14
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to O15

O14 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 [C3051](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to O15
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 O15

O15 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Passenger Heated Seat is Inoperative With Heated/Ventilated Seats

Refer to Wiring Diagrams Cell [119](#) for 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

DTC	Description	Fault Trigger Conditions
B1151:4B	Passenger Seat Cushion: Over Temperature	Sets when the SCME senses the passenger front cushion temperature has exceeded 110°C (230°F) for more than 4 seconds. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1155:01	Passenger Seat: General Electrical Failure	Sets when the SCME senses the passenger front heater element current draw has exceeded a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1155:11	Passenger Seat: Circuit Short To Ground	Sets when the SCME senses the passenger front heater element current draw has exceeded a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1155:12	Passenger Seat: Circuit Short To Battery	Sets when the SCME senses the passenger front heater circuit voltage is above a specified threshold when the driver is active. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1155:13	Passenger Seat: Circuit Open	Sets when the SCME senses the passenger front heater element current draw is less than a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B1155:1A	Passenger Seat: Circuit Resistance Below Threshold	Sets when the SCME senses the passenger front heater element current draw is more than a specified threshold. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B120A:01	Passenger Seat Cushion Temperature Sensor: General Electrical Failure	Sets when the SCME senses the passenger front heater sensor voltage is out-of-range low or high. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B120A:11	Passenger Seat Cushion Temperature Sensor: Circuit Short To Ground	Sets when the SCME senses the passenger front heater sensor voltage is out-of-range low. When this DTC sets, the SCME disables the circuit until the ignition is cycled.
B120A:15	Passenger Seat Cushion Temperature Sensor: Circuit Short To Battery or Open	Sets when the SCME senses the passenger front heater sensor voltage is out-of-range high. When this DTC sets, the SCME disables the circuit until the ignition is cycled.

Possible Causes

- Wiring, terminals or connectors
- Heater mat
- FCIM
- SCME

PINPOINT TEST P : THE PASSENGER HEATED SEAT IS INOPERATIVE “ WITH HEATED/VENTILATED SEATS

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 FOR SCME (FRONT SEAT CLIMATE CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

- Ignition OFF.
- Ignition ON.
- Using a diagnostic scan tool, perform SCME self-test.

Are any SCME Diagnostic Trouble Codes (DTCs) present?

Yes	For DTC B1155:01, B1155:11, B1155:12, B1155:13 or B1155:1A, GO to P4 For DTC B1151:4B, B120A:01, B120A:11 or B120A:15, GO to P6 For all other Diagnostic Trouble Codes (DTCs), REFER to the SCME DTC Chart.
No	GO to P2

P2 CHECK THE HEATED SEAT VOLTAGE SUPPLY CIRCUITS FOR AN OPEN

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: DSM [C341B](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341B-8		Ground
C341B-9		Ground

Are the voltages greater than 11 volts?

Yes	GO to P3
No	REPAIR the circuit in question. GO to P15

P3 CHECK THE HEATED SEAT GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Disconnect: DSM Module [C341C](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341C-7	Ω	Ground
C341C-8	Ω	Ground
C341C-9	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to P4
No	REPAIR the circuit in question. GO to P15

P4 CHECK THE HEATER ELEMENT POWER 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 [C3051](#) (if not previously disconnected).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: DSM [C341A](#) and [C341B](#).
- Disconnect: Right Front Seat Cushion Heater [C3302](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-1		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to P15
No	GO to P5

P5 CHECK THE HEATER ELEMENT POWER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-1	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-1	Ω	C341B-5

Are the resistances greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the DSM?

Yes	GO to P9
No	REPAIR the affected circuit. GO to P15

P6 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Disconnect: Driver Side Airbag In-line [C3051](#).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: DSM [C341A](#) and [C341B](#).
- Disconnect: Right Front Seat Cushion Heater [C3302](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-2	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-2	Ω	C341A-14

Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the FCIM?

Yes	GO to P7
No	REPAIR the circuit. GO to P15

P7 CHECK THE HEATED SEAT TEMPERATURE SENSOR RETURN CIRCUIT FOR AN OPEN OR SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-3	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-3	Ω	C341A-10

Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the DSM?

Yes	GO to P8
No	REPAIR the open circuit or REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. GO to P15

P8 CHECK THE HEATED SEAT TEMPERATURE SENSOR CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-2		Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to P15
No	GO to P13

P9 CHECK THE HEATER ELEMENT GROUND CIRCUIT FOR AN OPEN

- Disconnect: Right Front Seat Backrest Heater [C3316](#).
- Measure:

[Click to display connectors](#)

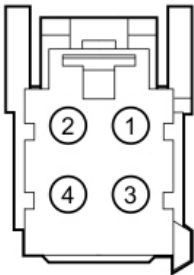
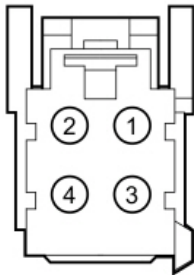
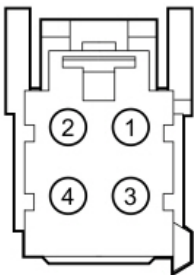
Positive Lead	Measurement / Action	Negative Lead
C3316-2	Ω	C341B-7

Are the resistances less than 3 ohms?

Yes	GO to P10
No	REPAIR the affected circuit. GO to P15

P10 CHECK CUSHION HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

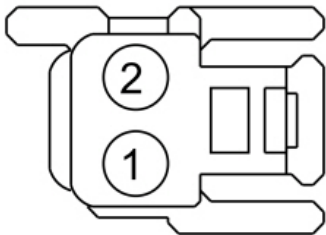
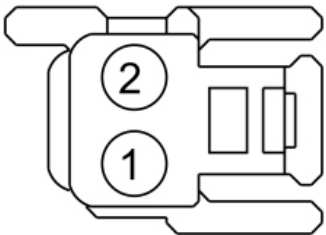
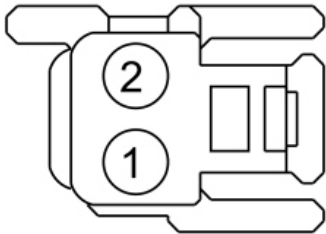
Positive Lead	Measurement / Action	Negative Lead
 E158484 C3302-1, Component Side	Ω	 E158484 C3302-4, Component Side
 E158484 C3302-1, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 4; and greater than 10,000 ohms between pin 1 and ground?

Yes	GO to P11
No	INSTALL a new passenger seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to P15

P11 CHECK THE BACKREST HEATED SEAT MAT FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158488 C3316-1, Component Side	Ω	 E158488 C3316-2, Component Side
 E158488 C3316-2, Component Side	Ω	Ground

Is the resistance between 0.6 and 2 ohms between pins 1 and 2; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to P12
No	INSTALL a new passenger seat backrest heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to P15

P12 CHECK THE CIRCUIT BETWEEN THE CUSHION HEATER MAT AND BACKREST HEATER MAT FOR AN OPEN AND SHORT TO GROUND

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-4	Ω	Ground

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C3302-4	Ω	C3316-1

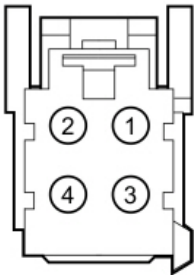
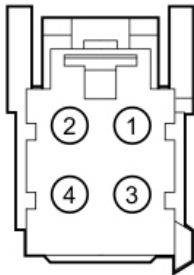
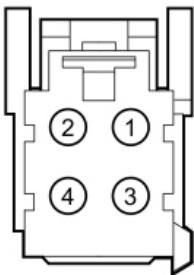
Is the resistance greater than 10,000 ohms between the passenger seat cushion heater mat and ground; and less than 3 ohms between the passenger seat cushion heater mat and the backrest heater mat?

Yes	GO to P14
No	REPAIR the circuit. GO to P15

P13 CHECK THE HEATED SEAT TEMPERATURE SENSOR FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
 E158484 C3302-2, Component Side	Ω	 E158484 C3302-3, Component Side
 E158484 C3302-2, Component Side	Ω	Ground

Is the resistance between 300 and 300,000 ohms between pins 2 and 3; and greater than 10,000 ohms between pin 2 and ground?

Yes	GO to P14
No	INSTALL a new driver seat cushion heater mat. REFER to: Seat Heater Mat Removal (501-10A Front Seats, General Procedures). GO to P15

P14 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 Passenger Side Airbag In-line [C3053](#) or Driver Side Airbag In-line [C3051](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to P15
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 P15

P15 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

Both Ventilated Seats are Inoperative

Refer to Wiring Diagrams Cell [119](#) for 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
- FCIM
- SCME

Visual Inspection and Diagnostic Pre-checks

- Verify BJB fuse 9 (30A) is OK.

PINPOINT TEST Q : BOTH VENTILATED SEATS ARE INOPERATIVE

Q1 CHECK THE HEATED SEAT OPERATION

- Start the engine.
- Attempt to operate the heated seats using the FCIM buttons.

Did the heated seats operate correctly?

Yes	GO to Q2
No	DIAGNOSE the inoperative heated seats. GO to Pinpoint Test N

Q2 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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.
- 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, 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.

The Driver Ventilated Seat is Inoperative/Does Not Operate Correctly

Refer to Wiring Diagrams Cell [119](#) for 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
B14BD:11	Driver Seat Cushion Blower: Circuit Short To Ground	If the current to the driver seat cushion blower exceeds a programmed threshold, the SCME shuts down the driver seat system and sets this DTC.

DTC	Description	Fault Trigger Conditions
B14BE:11	Driver Seat Back Blower: Circuit Short To Ground	If the current to the driver seat back blower exceeds a programmed threshold, the SCME shuts down the driver seat system and sets this DTC.

Possible Causes

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

PINPOINT TEST R : THE DRIVER VENTILATED SEAT IS INOPERATIVE/DOES NOT OPERATE CORRECTLY

R1 CHECK THE DRIVER HEATED SEAT OPERATION

- Start the engine.
- Attempt to operate the driver heated seat using the FCIM buttons.

Does the driver heated seat operate correctly?

Yes	GO to R2
No	DIAGNOSE the inoperative driver heated seat. GO to Pinpoint Test O

R2 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) VENTILATED SEAT CONTROL SWITCH PID (PARAMETER IDENTIFICATION)

- Access the FCIM and monitor the CC_SW_D_CL_S PID
- Monitor the PID while pressing and releasing the driver ventilated seat control switch.

Did the PID change when the driver ventilated seat control switch was pressed and released?

Yes	GO to R3
No	INSTALL a new FCIM. Refer to the appropriate section in Group 415 for the procedure.

R3 CHECK THE BLOWER MOTOR AND DSM (DRIVER FRONT SEAT MODULE) CONNECTIONS

- Ignition OFF.
- Disconnect and inspect all of the DSM connectors.
- Disconnect: Left Front Seat Cushion Blower Motor [C3327](#).
- Disconnect: Left Front Seat Backrest Blower Motor [C3033](#).
- Inspect the DSM, front seat cushion blower motor and front seat backrest blower motor 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 all previously disconnected connectors.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	GO to R4
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.

R4 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 [C3051](#).
- Disconnect: DSM [C341A](#).
- Disconnect: Left Front Seat Cushion Blower Motor [C3327](#).
- Disconnect: Left Front Seat Backrest Blower Motor [C3033](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-1		Ground
C341A-2		Ground
C341A-5		Ground
C341A-7		Ground

Is any voltage present?

Yes	REPAIR the affected circuit. GO to R9
No	GO to R5

R5 CHECK THE BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-1	Ω	Ground
C341A-2	Ω	Ground
C341A-5	Ω	Ground
C341A-7	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to R6
No	REPAIR the affected circuit. GO to R9

R6 CHECK THE BLOWER MOTOR CIRCUITS FOR AN OPEN

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- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-5	Ω	C3033-3
C341A-7	Ω	C3033-1

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-5	Ω	C3327-3
C341A-7	Ω	C3327-1

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-1	Ω	C3033-2

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-2	Ω	C3327-2

Are the resistances less than 3 ohms?

Yes	If only the backrest blower did not operate correctly, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to R7 If only the cushion blower did not operate correctly, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to R7 If both the cushion and backrest blower motors did not operate correctly, GO to R8
No	REPAIR the affected circuit. GO to R9

R7 CHECK THE BLOWER MOTOR 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 [C3051](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to R9
No	GO to R9

R8 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 [C3051](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to R9
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 R9

R9 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

The Passenger Ventilated Seat is Inoperative/Does Not Operate Correctly

Refer to Wiring Diagrams Cell [119](#) for 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
B14C0:11	Passenger Seat Cushion Blower: Circuit Short To Ground	If the current to the passenger seat cushion blower exceeds a programmed threshold, the SCME shuts down the passenger seat system and sets this DTC.
B14C2:11	Passenger Seat Back Blower: Circuit Short To Ground	If the current to the passenger seat back blower exceeds a programmed threshold, the SCME shuts down the passenger seat system and sets this DTC.

Possible Causes

- Wiring, terminals or connectors
- FCIM
- SCME

PINPOINT TEST S : THE PASSENGER VENTILATED SEAT IS INOPERATIVE/DOES NOT OPERATE CORRECTLY

S1 CHECK THE PASSENGER HEATED SEAT OPERATION

- Start the engine.
- Attempt to operate the passenger heated seat using the FCIM buttons.

Did the passenger heated seat operate correctly?

Yes	GO to S2
No	DIAGNOSE the inoperative passenger heated seat. GO to Pinpoint Test P

S2 CHECK THE FCIM (FRONT CONTROLS INTERFACE MODULE) VENTILATED SEAT CONTROL SWITCH PID (PARAMETER IDENTIFICATION)

- Access the FCIM and monitor the CC_SW_P_CL_S PID
- Monitor the PID while pressing and releasing the passenger ventilated seat control switch.

Did the PID change when the passenger ventilated seat control switch was pressed and released?

Yes	GO to S3
No	INSTALL a new FCIM. Refer to the appropriate section in Group 415 for the procedure.

S3 CHECK THE BLOWER MOTOR AND DSM (DRIVER FRONT SEAT MODULE) CONNECTIONS

- Ignition OFF.
- Disconnect and inspect all of the DSM connectors.
- Disconnect: Right Front Seat Cushion Blower Motor [C3328](#).
- Disconnect: Right Front Seat Backrest Blower Motor [C3791](#).
- Inspect the DSM, front seat cushion blower motor and front seat backrest blower motor 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 all previously disconnected connectors.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	GO to S4
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.

S4 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 [C3051](#).
- Disconnect: Passenger Side Airbag In-line [C3053](#).
- Disconnect: DSM [C341A](#).
- Disconnect: Right Front Seat Cushion Blower Motor [C3328](#).
- Disconnect: Right Front Seat Backrest Blower Motor [C3791](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-3		Ground
C341A-4		Ground
C341A-6		Ground
C341A-15		Ground

Is any voltage present?

Yes	REPAIR the affected circuit. GO to S9
No	GO to S5

S5 CHECK THE BLOWER MOTOR CIRCUITS FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-3	Ω	Ground
C341A-4	Ω	Ground
C341A-6	Ω	Ground
C341A-15	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to S6
No	REPAIR the affected circuit. GO to S9

S6 CHECK THE BLOWER MOTOR CIRCUITS FOR AN OPEN

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-6	Ω	C3791-1
C341A-15	Ω	C3791-3

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-6	Ω	C3328-1
C341A-15	Ω	C3328-3

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-3	Ω	C3791-2

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C341A-4	Ω	C3328-2

Are the resistances less than 3 ohms?

Yes	If only the backrest blower did not operate correctly, INSTALL a new backrest blower motor. REFER to: Front Seat Backrest Blower Motor (501-10A Front Seats, Removal and Installation). GO to S7 If only the cushion blower did not operate correctly, INSTALL a new cushion blower motor. REFER to: Front Seat Cushion Blower Motor (501-10A Front Seats, Removal and Installation). GO to S7 If both the cushion and backrest blower motors did not operate correctly, GO to S8
No	REPAIR the affected circuit. GO to S9

S7 CHECK THE BLOWER MOTOR 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 [C3051](#) or Passenger Side Airbag In-line [C3053](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to S9
No	GO to S9

S8 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 [C3051](#) or Passenger Side Airbag In-line [C3053](#) 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 service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCME. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation). GO to S9
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 S9

S9 VERIFY THE SRS (SUPPLEMENTAL RESTRAINT SYSTEM) PROVES OUT SUCCESSFULLY

- REFER to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
- Connect: Driver Side Airbag In-line [C3051](#).
- Connect: Passenger Side Airbag In-line [C3053](#).
- Connect all previously disconnected connectors.
- REFER to: Supplemental Restraint System (SRS) Depowering (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) (501-20B Supplemental Restraint System, Diagnosis and Testing).

DTC: U0100:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The DSM and the PCM communicate using the HS-CAN1 and MS-CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0100:00	Lost Communication with ECM/PCM "A": No Sub Type Information	Set by the DSM whenever it has lost communication to the PCM for 5 seconds or longer while DSM input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- DSM
- PCM

PINPOINT TEST T : DTC: U0100:00

T1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to T2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

T2 CHECK THE COMMUNICATION NETWORK

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

Does the PCM pass the network test?

Yes	GO to T3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

T3 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 U0100:00 still present?

Yes	GO to T4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

T4 CHECK FOR DTC U0100:00 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 U0100:00 set in other modules?

Yes	☐ Click here to access Guided Routine (PCM).
No	INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

DTC: U0140:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

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

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
-----	-------------	--------------------------

DTC	Description	Fault Trigger Conditions
U0140:00	Lost Communication with Body Control Module: No Sub Type Information	Set by the SCME whenever it has lost communication to the BCM for 5 seconds or longer while SCME input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCME
- BCM

PINPOINT TEST U : DTC: U0140:00

U1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to U2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

U2 CHECK THE COMMUNICATION NETWORK

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

Does the BCM pass the network test?

Yes	GO to U3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

U3 RECHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 SCME self-test.

Is DTC U0140:00 still present?

Yes	GO to U4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

U4 CHECK FOR DTC 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 U0140:00 set in other modules?

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

DTC: U0140:00

Refer to Wiring Diagrams Cell [14](#) for 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
U0140:00	Lost Communication with Body Control Module: No Sub Type Information	Set by the DSM whenever it has lost communication to the BCM for 5 seconds or longer while DSM input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- DSM
- BCM

PINPOINT TEST V : DTC: U0140:00

V1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to V2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

V2 CHECK THE COMMUNICATION NETWORK

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

Does the BCM pass the network test?

Yes	GO to V3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

V3 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 U0140:00 still present?

Yes	GO to V4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

V4 CHECK FOR DTC 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 U0140:00 set in other modules?

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

DTC: U0257:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCME and the FCIM communicate using the HS-CAN3 and MS-CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
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DTC	Description	Fault Trigger Conditions
U0257:00	Lost Communication with Front Controls / Display Interface Module: No Sub Type Information	Set by the SCME whenever it has lost communication to the FCIM while SCME input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCME
- FCIM

PINPOINT TEST W : DTC: U0257:00

W1 VERIFY CUSTOMER CONCERN					
• Ignition ON. • Verify there is an observable symptom present. Is an observable symptom present? <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Yes</td> <td style="padding: 5px;">GO to W2</td> </tr> <tr> <td style="padding: 5px;">No</td> <td style="padding: 5px;">The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.</td> </tr> </table>		Yes	GO to W2	No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.
Yes	GO to W2				
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.				
W2 CHECK THE COMMUNICATION NETWORK					
• Ignition ON. • Using a diagnostic scan tool, perform the network test. Does the FCIM pass the network test? <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Yes</td> <td style="padding: 5px;">GO to W3</td> </tr> <tr> <td style="padding: 5px;">No</td> <td style="padding: 5px;">REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).</td> </tr> </table>		Yes	GO to W3	No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
Yes	GO to W3				
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).				
W3 RECHECK THE SCME (FRONT SEAT CLIMATE CONTROL 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 SCME self-test. Is DTC U0257:00 still present? <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">Yes</td> <td style="padding: 5px;">GO to W4</td> </tr> <tr> <td style="padding: 5px;">No</td> <td style="padding: 5px;">The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.</td> </tr> </table>		Yes	GO to W4	No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.
Yes	GO to W4				
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.				
W4 CHECK FOR DTC U0257:00 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 U0140:00 set in other modules?

Yes	☐ Click here to access Guided Routine (FCIM).
No	INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).

DTC: U0140:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG and SCMH communicate to the BCM using the MS-CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0140:00	Lost Communication with Body Control Module: No Sub Type Information	Set by the SCMG or SCMH whenever it has lost communication to the BCM for 5 seconds or longer while the SCMG/ SCMH input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCMG/ SCMH
- BCM

PINPOINT TEST X : DTC: U0140:00

X1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to X2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

X2 CHECK THE COMMUNICATION NETWORK

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

Does the BCM pass the network test?

Yes	GO to X3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

X3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0140:00 still present?

Yes	GO to X4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

X4 CHECK FOR DTC 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 U0140:00 set in other modules?

Yes	☐ Click here to access Guided Routine (BCM).
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U0208:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG/ SCMH and DSM communicate using the MS-CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0208:00	Lost Communication With "Seat Control Module A": No Sub Type Information	Set by the SCMG/ SCMH whenever it has lost communication to the DSM for 5 seconds or longer while the SCMG/ SCMH input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCMG/ SCMH
- DSM

PINPOINT TEST Y : DTC: U0208:00

Y1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to Y2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

Y2 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 Y3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Y3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0208:00 still present?

Yes	GO to Y4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

Y4 CHECK FOR DTC U0208:00 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 U0208:00 set in other modules?

Yes	INSTALL a new DSM. REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, Removal and Installation).
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U024B:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMH communicates to the SCMG using the CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U024B:00	Lost Communication with Seat Control Module "G": No Sub Type Information	Set by the SCMH whenever it has lost communication to the SCMG for 5 seconds or longer while the SCMH input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCMH
- SCMG

PINPOINT TEST Z: DTC: U024B:00

Z1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to Z2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

Z2 CHECK THE COMMUNICATION NETWORK

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

Does the SCMG pass the network test?

Yes	GO to Z3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

Z3 RECHECK THE SCMH (PASSENGER MULTI-CONTOUR 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 SCMH self-test.

Is DTC U024B:00 still present?

Yes	GO to Z4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

Z4 CHECK FOR DTC U024B: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 U024B:00 set in other modules?

Yes	INSTALL a new SCMG. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).
No	INSTALL a new SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U0253:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG and SCMH communicate to the APIM using the CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0253:00	Lost Communication With Accessory Protocol Interface Module: No Sub Type Information	Set by the SCMG/ SCMH whenever it has lost communication to the APIM for 5 seconds or longer while the SCMG/ SCMH input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCMG/ SCMH
- APIM

PINPOINT TEST AA : DTC: U0253:00

AA1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to AA2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AA2 CHECK THE COMMUNICATION NETWORK

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

Does the APIM pass the network test?

Yes	GO to AA3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

AA3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0253:00 still present?

Yes	GO to AA4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AA4 CHECK FOR DTC U0253:00 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 U0253:00 set in other modules?

Yes	INSTALL a new APIM. Refer to the appropriate section in Group 415 for the procedure.
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U0256:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG and SCMH communicate to the FCIM using the CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0256:00	Lost Communication With Front Controls Interface Module "A": No Sub Type Information	Set by the SCMG/ SCMH whenever it has lost communication to the FCIM for 5 seconds or longer while the SCMG/ SCMH input voltage is between 10 and 15.5 volts.

Possible Causes

- Module communication
- SCMG/ SCMH
- FCIM

PINPOINT TEST AB : DTC: U0256:00

AB1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to AB2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AB2 CHECK THE COMMUNICATION NETWORK

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

Does the FCIM pass the network test?

Yes	GO to AB3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

AB3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0256:00 still present?

Yes	GO to AB4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AB4 CHECK FOR DTC U0256:00 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 U0256:00 set in other modules?

Yes	☐ Click here to access Guided Routine (FCIM).
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U0422:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG and SCMH communicate to the BCM using the CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0422:00	Invalid Data Received From Body Control Module: No Sub Type Information	Set by the SCMG/ SCMH whenever it has received an unknown ignition status from the BCM.

Possible Causes

- Module communication
- SCMG/ SCMH
- BCM

PINPOINT TEST AC : DTC: U0422:00

AC1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to AC2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AC2 CHECK THE COMMUNICATION NETWORK

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

Does the BCM pass the network test?

Yes	GO to AC3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

AC3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0422:00 still present?

Yes	GO to AC4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AC4 CHECK FOR DTC U0422:00 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 U0422:00 set in other modules?

Yes	☐ Click here to access Guided Routine (BCM).
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

DTC: U0455:00

Refer to Wiring Diagrams Cell [14](#) for schematic and connector information.

Normal Operation and Fault Conditions

The SCMG and SCMH communicate to the OCSM using the CAN.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
U0455:82	Invalid Data Received From Restraints Occupant Classification System Module: Alive / Sequence Counter Incorrect / Not Updated	Set by the SCMG or SCMH whenever it has received an invalid status from the OCSM.

Possible Causes

- Module communication
- SCMG/ SCMH
- OCSM

PINPOINT TEST AD : DTC: U0455:82

AD1 VERIFY CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to AD2
No	The system is operating normally at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AD2 CHECK THE COMMUNICATION NETWORK

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

Does the OCSM pass the network test?

Yes	GO to AD3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

AD3 RECHECK THE SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) / SCMH (PASSENGER MULTI-CONTOUR 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 SCMG/ SCMH self-test.

Is DTC U0455:00 still present?

Yes	GO to AD4
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or intermittent fault condition.

AD4 CHECK FOR DTC U0455:82 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 U0455:82 set in other modules?

Yes	INSTALL a new OCSM.
No	INSTALL a new SCMG or SCMH. REFER to: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, Removal and Installation).

