

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

Possible Causes

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

Visual Inspection and Diagnostic Pre-checks

- Verify BCM fuse 2 (7.5A) is OK.
- Verify BJB fuse 26 (30A) is OK.

DIAGNOSIS AND TESTING > FRONT SEATS > PINPOINT TEST(S) > PINPOINT TEST E : THE MEMORY SEAT DOES NOT OPERATE HORIZONTALLY/VERTICALLY/RECLINE USING THE SEAT CONTROL SWITCH > PINPOINT TEST E : 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.

E1 RETRIEVE THE DSM (DRIVER FRONT SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

REFER to: Supplemental Restraint System (SRS) Depowering .

Disconnect: Driver Side Airbag In-line C3051 .

Ignition ON.

Activate the seat control switch in all directions.

Using a diagnostic scan tool, perform DSM self-test. If the diagnostic scan tool does not communicate with the DSM, REFER to: Communications Network .

Are any DSM Diagnostic Trouble Codes (DTCs) present?

Yes	If Diagnostic Trouble Codes (DTCs) B1663, B1664, B1665 and B1666 are all retrieved, GO to E10 For DTC B1703, B1707, B1711, B1715, B1719, B1723, B1727 or B1731, GO to E3 For DTC B1663, GO to E20 For DTC B1664, GO to E23 For DTC B1665, GO to E26 For DTC B1666, GO to E29 For all other Diagnostic Trouble Codes (DTCs), REFER to the DSM DTC Chart . GO to E33
No	GO to E2

E2 CHECK THE DSM (DRIVER FRONT SEAT MODULE) SEAT CONTROL SWITCH PARAMETER IDENTIFICATIONS (PIDS)

While operating the seat control switch in all positions, monitor the following DSM seat control switch Parameter Identifications (PIDs) using a diagnostic scan tool:

Driver Power Seat Front Up/Down Switch (SFNT_SW)

Driver Power Seat Forward/Backward Switch (SFWD_SW)

Driver Power Seat Rear Up/Down Switch (SREARSW)

Driver Power Seat Recline Switch Status (SRCL_SW)

Do the PID states agree with the switch positions?

Yes	GO to E9
No	VERIFY BJB fuse 26 (30A) is OK. If OK, GO to E3 If not OK or fails while operating the seat control switch, DISCONNECT the seat control switch C3387 and GO to E7

E3 CHECK THE SEAT CONTROL SWITCH

Ignition OFF.

Remove the driver seat control switch. REFER to: Front Seat Control Switch .

Check the seat control switch. Refer to Component Testing for schematic and connector information.

Is the seat control switch OK?

Yes	GO to E4
No	INSTALL a new driver seat control switch. REFER to: Front Seat Control Switch . GO to E33

E4 CHECK FOR VOLTAGE TO THE SEAT CONTROL SWITCH

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3387-10		Ground

Is the voltage greater than 11 volts?

Yes	GO to E5
No	REPAIR the circuit. GO to E33

E5 CHECK THE SEAT CONTROL SWITCH GROUND CIRCUIT FOR AN OPEN

Measure:

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

Is the resistance less than 3 ohms?

Yes	GO to E6
No	REPAIR the circuit. GO to E33

E6 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO VOLTAGE

Disconnect: DSM C341B .

Ignition ON.

Measure:

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

Is any voltage present?

Yes	REPAIR the circuit in question. GO to E33
No	GO to E7

E7 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR A SHORT TO GROUND

Ignition OFF.

Disconnect: DSM C341B .

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	GO to E8
No	REPAIR the circuit in question. GO to E33

E8 CHECK THE CIRCUITS BETWEEN THE SEAT CONTROL SWITCH AND DSM (DRIVER FRONT SEAT MODULE) FOR AN OPEN

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3387-12	Ω	C341B-17
C3387-16	Ω	C341B-18
C3387-15	Ω	C341B-16
C3387-17	Ω	C341B-6
C3387-9	Ω	C341B-19
C3387-14	Ω	C341B-15
C3387-7	Ω	C341B-7
C3387-13	Ω	C341B-5

Are the resistances less than 3 ohms?

Yes	GO to E32
No	REPAIR the circuit in question. GO to E33

E9 CHECK THE SEAT TRACK OPERATION USING DSM (DRIVER FRONT SEAT MODULE) ACTIVE COMMANDS AND PARAMETER IDENTIFICATIONS (PIDS)

Toggle the following DSM active commands ON and OFF using a diagnostic scan tool while monitoring the seat movement:

Front Motor Up (FRONT_UP)

Front Motor Down (FRONT_DWN)

Rear Motor Up (REAR_UP)

Rear motor down (REAR_DWN)

Horizontal Motor Forward (HORZ_FWD)

Horizontal Motor Backward (HORZ_BWD)

Recline Motor Backward (RECL_BWD)

Recline Motor Forward (RECL_FWD)

Does the driver seat operate correctly?

Yes	The condition may be intermittent. CHECK for causes of an intermittent concern, particularly the pins and terminals of electrical connectors that were disconnected.
------------	--

	Do not install any new components at this time. Components should only be installed when directed to do so in the pinpoint test. REPAIR any intermittent wiring, terminal or connector concerns found. GO to E33
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No	If no seat movement, GO to E10 If no front vertical seat movement, GO to E20 If no rear vertical seat movement, GO to E23 If no horizontal seat movement, GO to E26 If no recline seat movement, GO to E29
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E10 CHECK FOR VOLTAGE TO THE DSM (DRIVER FRONT SEAT MODULE)

Ignition OFF.

Disconnect: DSM C341A and C341B .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341A-1		Ground

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-1		Ground

Are the voltages greater than 11 volts?

Yes	GO to E11
------------	-----------

No	VERIFY BJB fuse 26 (30A) and BCM fuse 2 (7.5A) are OK. If OK, REPAIR the circuit. If not OK, REFER to the OEM WIRING DIAGRAMS to identify the possible causes of the circuit short. GO to E33
-----------	---

E11 CHECK THE DSM (DRIVER FRONT SEAT MODULE) GROUND CIRCUITS FOR AN OPEN

Measure:

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

Measure:

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

Are the resistances less than 3 ohms?

Yes	GO to E12
------------	-----------

No	REPAIR the circuit in question. GO to E33
-----------	---

E12 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	GO to E14
------------	-----------

No	GO to E13
-----------	-----------

E13 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

Disconnect: Driver Seat Front Height Motor C382 .

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track . GO to E33
------------	---

No	REPAIR the circuit in question. GO to E33
-----------	---

E14 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	GO to E16
No	GO to E15

E15 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

Disconnect: Driver Seat Rear Height Motor C363 .

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track . GO to E33
No	REPAIR the circuit in question. GO to E33

E16 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO GROUND

Measure:

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

Are the resistances greater than 10, 000 ohms?

Yes	GO to E18
No	GO to E17

E17 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

Disconnect: Driver Seat Horizontal Motor C362 .

Measure:

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

C341B-12	Ω	Ground
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Are the resistances greater than 10, 000 ohms?

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor . GO to E33
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No	REPAIR the circuit in question. GO to E33
-----------	---

E18 CHECK THE RECLINER MOTOR CIRCUITS FOR A SHORT TO GROUND

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-13	Ω	Ground
C341B-21	Ω	Ground

Are the resistances greater than 10, 000 ohms?

Yes	GO to E32
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No	GO to E19
-----------	-----------

E19 CHECK THE RECLINER MOTOR CIRCUITS FOR A SHORT TO GROUND WITH THE MOTOR DISCONNECTED

Disconnect: Driver Seat Recliner Motor C3187 .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-13	Ω	Ground
C341B-21	Ω	Ground

Are the resistances greater than 10, 000 ohms?

Yes	INSTALL a new driver seat backrest frame. GO to E33
------------	---

No	REPAIR the circuit in question. GO to E33
-----------	---

E20 CHECK THE FRONT HEIGHT MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

Ignition OFF.

Disconnect: Driver Seat Front Height Motor C382 .

Ignition ON.

Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):

Front Motor Up (FRONT_UP)

Front Motor Down (FRONT_DWN)

 **NOTE:** During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.

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

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

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

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track . GO to E33
------------	---

No	GO to E21
-----------	-----------

E21 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: DSM C341B .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-23		Ground
C341B-11		Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to E33
------------	---

No	GO to E22
-----------	-----------

E22 CHECK THE FRONT HEIGHT MOTOR CIRCUITS FOR AN OPEN

Ignition OFF.

Measure:

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

Are the resistances less than 3 ohms?

Yes	GO to E32
------------	-----------

No	REPAIR the circuit in question. GO to E33
-----------	---

E23 CHECK THE REAR HEIGHT MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

Ignition OFF.

Disconnect: Driver Seat Rear Height Motor C363 .

Ignition ON.

Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):

Rear Motor Up (REAR_UP)

Rear motor down (REAR_DWN)



NOTE: During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.

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

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

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

Yes	INSTALL a new driver seat track. REFER to: Front Seat Track . GO to E33
------------	---

No	GO to E24
-----------	-----------

E24 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: DSM C341B .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-22		Ground
C341B-10		Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to E33
No	GO to E25

E25 CHECK THE REAR HEIGHT MOTOR CIRCUITS FOR AN OPEN

Ignition OFF.

Measure:

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

Are the resistances less than 3 ohms?

Yes	GO to E32
No	REPAIR the circuit in question. GO to E33

E26 CHECK THE HORIZONTAL MOTOR FOR CORRECT OPERATION USING ACTIVE COMMANDS

Ignition OFF.

Disconnect: Driver Seat Horizontal Motor C362 .

Ignition ON.

Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):

Horizontal Motor Forward (HORZ_FWD)

Horizontal Motor Backward (HORZ_BWD)



NOTE: During the following step, the voltage being measured changes polarity

dependent upon which direction the seat control is activated.

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

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

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

Yes	INSTALL a new horizontal motor. REFER to: Front Seat Track Motor . GO to E33
------------	--

No	GO to E27
-----------	-----------

E27 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: DSM C341B .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-9		Ground
C341B-12		Ground

Is any voltage present?

Yes	REPAIR the circuit in question. GO to E33
------------	---

No	GO to E28
-----------	-----------

E28 CHECK THE HORIZONTAL MOTOR CIRCUITS FOR AN OPEN

Ignition OFF.

Measure:

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

Are the resistances less than 3 ohms?

Yes	GO to E32
------------	-----------

No	REPAIR the circuit in question. GO to E33
-----------	---

E29 CHECK VOLTAGE AT THE RECLINER MOTOR USING DSM (DRIVER FRONT SEAT MODULE) RECLINER MOTOR PARAMETER IDENTIFICATIONS (PIDS)

Ignition OFF.

Disconnect: Driver Seat Recliner Motor C3187 .

Ignition ON.

Using a diagnostic scan tool, view the following DSM active command Parameter Identifications (PIDs):

Recline Motor Forward (RECL_FWD)

Recline Motor Backward (RECL_BWD)

 **NOTE:** During the following step, the voltage being measured changes polarity dependent upon which direction the seat control is activated.

Using a diagnostic scan tool, toggle the active commands RECL_FWD and RECL_BWD on and off and measure:

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

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

Yes	INSTALL a new driver seat backrest frame. GO to E33
------------	---

No	GO to E30
-----------	-----------

E30 CHECK THE RECLINER MOTOR CIRCUITS FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect: DSM C341B .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-13		Ground

C341B-21		Ground
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Is any voltage present?

Yes	REPAIR the circuit in question. GO to E33
------------	---

No	GO to E31
-----------	-----------

E31 CHECK THE RECLINER MOTOR CIRCUITS FOR AN OPEN

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C341B-13	Ω	C3187-1
C341B-21	Ω	C3187-3

Are the resistances less than 3 ohms?

Yes	GO to E32
------------	-----------

No	REPAIR the circuit in question. GO to E33
-----------	---

E32 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?