DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B2730	Back Over-Temp Detected	If the driver seat backrest blower motor temperature exceeds 70 ° C (158 ° F) in cool mode or 85 ° C (185 ° F) in heat mode for more than 4 seconds the SCME shuts down the driver seat system and sets this DTC.

Possible Causes

- Wiring, terminals or connectors
- Restricted backrest blower motor filter
- Crushed or restricted backrest foam pad
- Backrest blower motor
- SCME

DIAGNOSIS AND TESTING > FRONT SEATS > PINPOINT TEST(S) > PINPOINT TEST AK : DTC B2730 > PINPOINT TEST AK : DTC B2730

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

AK1 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) FOR ON-DEMAND DIAGNOSTIC TROUBLE CODES (DTCS)

Start the vehicle and set the driver seat to HIGH heat.

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

Was DTC B2730 retrieved on-demand during the self-test?

Yes	GO to AK2

No	GO to AK5

AK2 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR CIRCUITS FOR A SHORT TO GROUND

REFER to: Supplemental Restraint System (SRS) Depowering .

Disconnect: Driver Side Airbag In-line C3051 .

Disconnect: Passenger Side Airbag In-line C3053 .

Disconnect: SCME C3265B .

Disconnect: Driver Backrest Blower Motor C3034 .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265B-9	Ω	Ground
C3265B-10	Ω	Ground

Are the resistances greater than 10, 000 ohms?

Yes	GO to AK3

No	REPAIR the circuit in question. GO to AK22

AK3 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

Connect: Driver Backrest Blower Motor C3034 .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265B-9	Ω	C3265B-10

Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10 ° C (32-50 ° F)	2, 782-1, 663 ohms
10-20 ° C (50-68 ° F)	1, 837-1, 140 ohms
20-30 ° C (68-86 ° F)	1, 260-806 ohms
30-40 ° C (86-104 ° F)	893-570 ohms
40-50 ° C (104-122 ° F)	630-428 ohms

Is the resistance within the limits indicated?

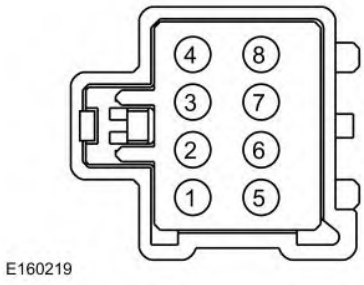
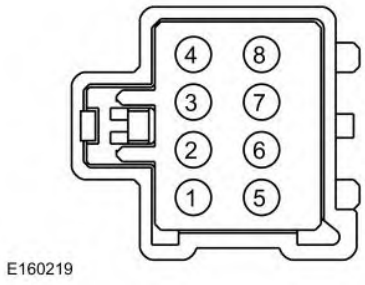
Yes	GO to AK18

No	GO to AK4

AK4 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR

Disconnect: Driver Backrest Blower Motor C3034 .

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3034-5, Component Side	Ω	 C3034-8, Component Side

Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10 ° C (32-50 ° F)	2, 782-1, 663 ohms
10-20 ° C (50-68 ° F)	1, 837-1, 140 ohms
20-30 ° C (68-86 ° F)	1, 260-806 ohms
30-40 ° C (86-104 ° F)	893-570 ohms
40-50 ° C (104-122 ° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit CHS14 (GN) or CHS29 (WH/BU) for an open or high resistance. GO to AK22

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK5 CONFIRM THE FAULT WHILE MONITORING THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) SEAT BACK THERMAL ELECTRIC DEVICE TEMPERATURE (BKTMP) AND SEAT CUSHION THERMAL ELECTRIC DEVICE TEMPERATURE (CSHTEMP) PARAMETER IDENTIFICATIONS (PIDS)

Set the passenger seat to OFF.

Using a diagnostic scan tool, clear the SCME Diagnostic Trouble Codes (DTCs).

Using a diagnostic scan tool, monitor the SCME BKTMP and CSHTEMP.

NOTE: A crushed seat backrest foam pad may be the cause of the fault making it necessary to occupy the seat to recreate and identify the fault.

Attempt to recreate the fault. Start the vehicle and set the driver seat to HIGH heat for at least 15 minutes while occupying the seat.

Do the Parameter Identifications (PIDs) increase incrementally (gradually) and stay within 15 ° C (27 ° F) of each other?

Yes	Fault not present at this time. Fault may have been set due to a past failure, incorrect use of the climate controlled seat system by repeated switching between heat and cool modes or due to excessive passenger compartment temperature.

No	If the BKTMP PID increases incrementally and is greater than 15 ° C (27 ° F) of the CSHTEMP PID, GO to AK6 If the BKTMP PID increases quickly (temperature "jumps" and does not increase incrementally) and is greater than 15 ° C (27 ° F) of the CSHTEMP PID, GO to AK16

AK6 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS

With the engine running, set both front seats to HIGH cool.

Note the airflow exhausting from the driver seat backrest blower motor and compare it to the airflow exhausting from the passenger seat backrest blower motor.

Carry out a wiggle test of the wire harnesses between the SCME and the driver seat backrest blower motor while monitoring blower operation. The blower should operate consistently and not change speeds.

Is the airflow exhausting from the driver seat backrest blower motor comparable to the airflow exhausting from the passenger seat backrest blower motor with no change in operation when carrying out the wiggle test?

Yes	GO to AK7

No	If the airflow exhausting from the driver seat backrest blower motor is not comparable to the airflow exhausting from the passenger seat backrest blower motor, GO to AK8 If the driver seat backrest blower motor operation changed while carrying out the wiggle test, IDENTIFY and REPAIR the wiring fault.

AK7 COMPARE OPERATION OF THE DRIVER AND PASSENGER SEATS WHILE OCCUPIED

Note the airflow exhausting from the driver seat backrest blower motor with the driver seat occupied and compare it to the airflow exhausting from the passenger seat backrest blower motor with the passenger seat occupied.

Is the airflow exhausting from the driver seat backrest blower motor comparable to the airflow exhausting from the passenger seat backrest blower motor?

Yes	GO to AK16

No	INSTALL a new driver seat backrest foam pad.

AK8 CHECK THE DRIVER SEAT BACKREST BLOWER FOR AN OBSTRUCTION OR RESTRICTED

FILTER

Ignition OFF.

Inspect the blower of the driver seat backrest blower motor assembly for an obstruction or for a restricted filter.

Is the blower obstructed or the filter restricted?

Yes	REMOVE the obstruction or INSTALL a new seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor .

No	GO to AK9

AK9 CHECK THE DRIVER SEAT BACKREST BLOWER SPEED CONTROL CIRCUIT FOR AN OPEN

REFER to: Supplemental Restraint System (SRS) Depowering .

Disconnect: Driver Side Airbag In-line C3051 .

Disconnect: Passenger Side Airbag In-line C3053 .

Disconnect: SCME C3265C .

Disconnect: Driver Backrest Blower Motor C3034 .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265C-12	Ω	C3034-7

Is the resistance less than 3 ohms?

Yes	GO to AK10

No	REPAIR the circuit. GO to AK22

AK10 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO VOLTAGE

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265C-15	V	Ground

Is any voltage present?

Yes	REPAIR the circuit. GO to AK22

No	GO to AK11

AK11 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUIT FOR A SHORT TO GROUND

Ignition OFF.

Measure:

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

Is the resistance greater than 10, 000 ohms?

Yes	GO to AK12

No	REPAIR the circuit. GO to AK22

AK12 CHECK THE DRIVER SEAT BACKREST BLOWER CIRCUITS FOR AN OPEN

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265C-16	Ω	C3034-3
C3265C-15	Ω	C3034-4

Are the resistances less than 3 ohms?

Yes	GO to AK13

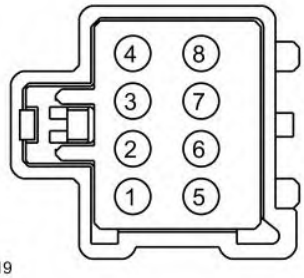
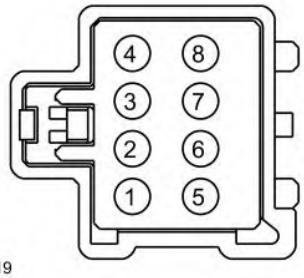
No	REPAIR the circuit in question. GO to AK22

AK13 CHECK THE DRIVER SEAT BACKREST BLOWER RESISTANCE

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

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead

 C3034-3, Component Side	Ω	 C3034-4, Component Side

Is the resistance between 4, 000 and 10, 000 ohms?

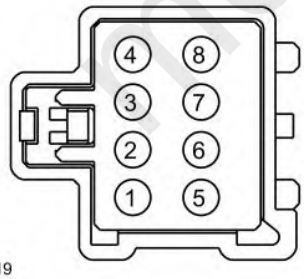
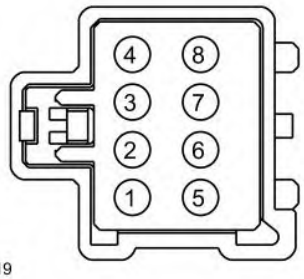
Yes	GO to AK14

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK14 CHECK THE DRIVER SEAT BACKREST BLOWER SPEED CONTROL RESISTANCE

NOTE: The ohmmeter must be connected with the positive lead to pin 7 and the negative lead to pin 4 when measuring. Ohmmeter leads incorrectly connected results in false readings and leads to incorrect identification of components that are not faulty.

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 C3034-7, Component Side	Ω	 C3034-4, Component Side

Is the resistance between 240K and 400K ohms?

Yes	GO to AK15

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK15 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR INSTALLATION AND FOR CRUSHED SEAT BACKREST

Ignition OFF.

Remove the driver seat. REFER to: Front Seat .

Remove the driver seat backrest cover. REFER to: Front Seat Backrest Cover .

Inspect the driver seat backrest for the following:

Blower motor correctly installed

Backrest foam pad crushed or restricted

Is the driver seat backrest blower motor correctly installed and are there no signs of damage to the foam pad?

Yes	INSTALL the driver seat backrest cover and seat. GO to AK18

No	CORRECTLY install the driver seat backrest blower motor or INSTALL a new driver seat backrest foam pad. GO to AK22

AK16 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR AND WIRING

REFER to: Supplemental Restraint System (SRS) Depowering .

Disconnect: Driver Side Airbag In-line C3051 .

Disconnect: Passenger Side Airbag In-line C3053 .

Disconnect: SCME C3265B .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265B-9	Ω	C3265B-10

Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10 ° C (32-50 ° F)	2, 782-1, 663 ohms
10-20 ° C (50-68 ° F)	1, 837-1, 140 ohms
20-30 ° C (68-86 ° F)	1, 260-806 ohms
30-40 ° C (86-104 ° F)	893-570 ohms
40-50 ° C (104-122 ° F)	630-428 ohms

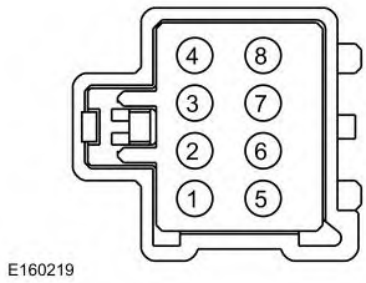
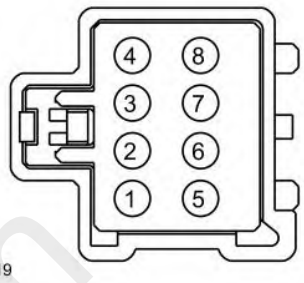
Is the resistance within the limits indicated?

Yes	GO to AK18

No	GO to AK17

AK17 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR THERMISTOR

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead
 E160219 C3034-5, Component Side	Ω	 E160219 C3034-8, Component Side

Compare the measured resistance value with the following table:

Ambient Temperature	Resistance
0-10 ° C (32-50 ° F)	2, 782-1, 663 ohms
10-20 ° C (50-68 ° F)	1, 837-1, 140 ohms
20-30 ° C (68-86 ° F)	1, 260-806 ohms
30-40 ° C (86-104 ° F)	893-570 ohms
40-50 ° C (104-122 ° F)	630-428 ohms

Is the resistance within the limits indicated?

Yes	REPAIR circuit CHS14 (GN) or CHS29 (WH/BU) for an open or high resistance. GO to AK22

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK18 CHECK THE DRIVER SEAT BACKREST BLOWER MOTOR HEATING/COOLING CIRCUITRY CURRENT DRAW

Connect all SCME, blower motor and Body Harness-to-Seat Harness Connectors.

NOTE: It may be necessary to open the seat wire harness conduit to allow placing the inductive current probe around the circuit as described in the following step. Care must be taken when opening up the wire harness so as not to damage any wiring or connectors. Do not damage any wiring or induce stress on any wiring or connectors.

Close up the wire harness once repairs to the seat are complete.

NOTE: Use a commercially available inductive current probe (such as Electronic Specialties Current Probe/Multimeter 685 or a Fluke I410 [used with a digital multimeter]) or the low current probe from the VMM available for use with IDS. If these are unavailable, the inductive current probe feature from a battery tester may be substituted.

Place an inductive current probe around circuit CHS01 (GY/VT) near SCME C3265A-J and monitor the current draw.

Start the engine and set the driver seat to HIGH heat.

Is the current draw less than 11 amps?

Yes	GO to AK19

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK19 CHECK RESISTANCE OF THE DRIVER SEAT BACKREST BLOWER MOTOR AND WIRING

Ignition OFF.

Disconnect: SCME C3265A .

Measure:

Positive Lead	Measurement / Action	Negative Lead
C3265A-J	Ω	C3265A-K

Are the resistances between 0.9 and 10 ohms?

Yes	GO to AK21

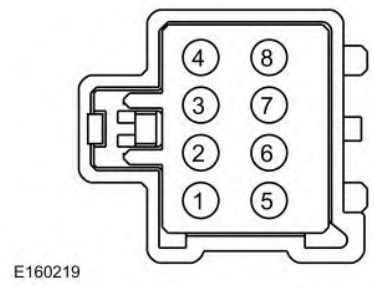
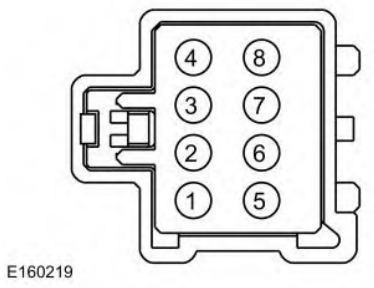
No	GO to AK20

AK20 CHECK THE RESISTANCE OF THE DRIVER SEAT BACKREST BLOWER MOTOR

Disconnect: Driver Backrest Blower Motor C3034 .

Measure the **component side resistance** between:

Positive Lead	Measurement / Action	Negative Lead

 C3034-1, Component Side	Ω	 C3034-2, Component Side

Is the resistance between 0.9 and 10 ohms?

Yes	REPAIR circuit CHS01 (GY/VT) or RHS01 (WH/VT) for an open or high resistance. GO to AK22

No	INSTALL a new driver seat backrest blower motor. REFER to: Front Seat Backrest Blower Motor . GO to AK22

AK21 CHECK THE SCME (FRONT SEAT CLIMATE CONTROL MODULE) OPERATION

Ignition OFF.

Disconnect and inspect all of the SCME connectors.

Repair:

corrosion (install new connector or terminals - clean module pins)

damaged or bent pins - install new terminals/pins as necessary

pushed-out pins - install new pins as necessary

Reconnect the SCME connectors. Make sure they seat and latch correctly.

NOTE: Do not reconnect Driver Side Airbag In-line 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 Technical Service Bulletins (TSBs). If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new SCME. REFER to: Front Seat Climate Control Module [SCME] . GO to AK22