

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

2009 ACCESSORIES AND EQUIPMENT**Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey****DIAGNOSTIC CODE INDEX****DIAGNOSTIC CODE INDEX**

DTC	Description
<u>B1092</u>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW (LHD)
<u>B1092</u>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW (RHD)
<u>B1094</u>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN (LHD)
<u>B1094</u>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN (RHD)
<u>B1096</u>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW (LHD)
<u>B1096</u>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW (RHD)
<u>B1098</u>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN (LHD)
<u>B1098</u>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN (RHD)
<u>B10BB</u>	LEFT HEATED SEAT SWITCH INPUT CIRCUIT STUCK
<u>B10BC</u>	RIGHT HEATED SEAT SWITCH INPUT CIRCUIT STUCK
<u>B123F</u>	MENU SWITCH STUCK
<u>B127A</u>	COMPASS PERFORMANCE
<u>B1286</u>	COMPASS/TEMP BUTTON PERFORMANCE
<u>B1287</u>	RESET SWITCH PERFORMANCE
<u>B1288</u>	TRIP/TOGGLE SWITCH PERFORMANCE
<u>B1427</u>	REMOTE RADIO SWITCH INPUT CIRCUIT HIGH (WITHOUT EVIC)
<u>B1427</u>	REMOTE RADIO SWITCH INPUT CIRCUIT HIGH (WITH EVIC)
<u>B1428</u>	REMOTE RADIO SWITCH INPUT CIRCUIT STUCK (WITHOUT EVIC)
<u>B1428</u>	REMOTE RADIO SWITCH INPUT CIRCUIT STUCK (WITH EVIC)
<u>B1502</u>	STEERING WHEEL CONTROL DOWN SWITCH PERFORMANCE
<u>B1503</u>	STEERING WHEEL CONTROL RIGHT SWITCH PERFORMANCE
<u>B1613</u>	PANEL ILLUMINATION CONTROL CIRCUIT LOW
<u>B1615</u>	PANEL ILLUMINATION CONTROL CIRCUIT OPEN
<u>B168F</u>	FRONT FOG LAMP SWITCH CIRCUIT STUCK
<u>B17E3</u>	TURN SIGNAL SWITCH PERFORMANCE
<u>B210D</u>	BATTERY VOLTAGE LOW
<u>B210E</u>	BATTERY VOLTAGE HIGH
<u>B2181</u>	HEATED SEAT MODULE POWER SUPPLY LOW
<u>B2182</u>	HEATED SEAT MODULE POWER SUPPLY HIGH
<u>B2301</u>	WIPER MODE SWITCH INPUT CIRCUIT LOW
<u>B2307</u>	WASHER SWITCH INPUT CIRCUIT LOW
<u>B2339</u>	HORN SWITCH STUCK - WITH EVIC
<u>B2339</u>	HORN SWITCH STUCK - WITHOUT EVIC

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<u>B238E</u>	HI BEAM SWITCH CIRCUIT LOW
<u>B2390</u>	MIST SWITCH CIRCUIT LOW
<u>B2394</u>	FLASH TO PASS/OPTICAL HORN SWITCH CIRCUIT STUCK
<u>C2312</u>	TRAC/ESP OFF SWITCH STUCK
<u>P1103</u>	DC TO AC CONVERTER SWITCH STUCK
<u>U0141</u>	LOST COMMUNICATION WITH FRONT CONTROL MODULE (TOTALLY INTEGRATED POWER MODULE)
<u>U0161</u>	LOST COMMUNICATION WITH COMPASS MODULE
<u>U0184</u>	LOST COMMUNICATION WITH RADIO
<u>U0208</u>	LOST COMMUNICATION WITH HEATED SEATS CONTROL MODULE
<u>U1008</u>	LIN 1 BUS
<u>U1109</u>	LOST COMMUNICATION WITH LIN STEERING WHEEL CONTROLS
<u>U113B</u>	LOST COMMUNICATION WITH SWITCH BANK MODULE
<u>U1149</u>	LOST COMMUNICATION WITH MULTIFUNCTION SWITCH

DIAGNOSIS AND TESTING

B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW (LHD)



Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P187) Front Left Seat Heater Control circuit is shorted to ground.

Possible Causes
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT SHORTED TO GROUND
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT SHORTED TO (Z921) GROUND CIRCUIT
SEAT CUSHION HEATER ELEMENT SHORTED
SEAT BACK HEATER ELEMENT SHORTED
HEATED SEAT MODULE (HSM)

Diagnostic Test**1. VERIFY DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW IS ACTIVE**

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

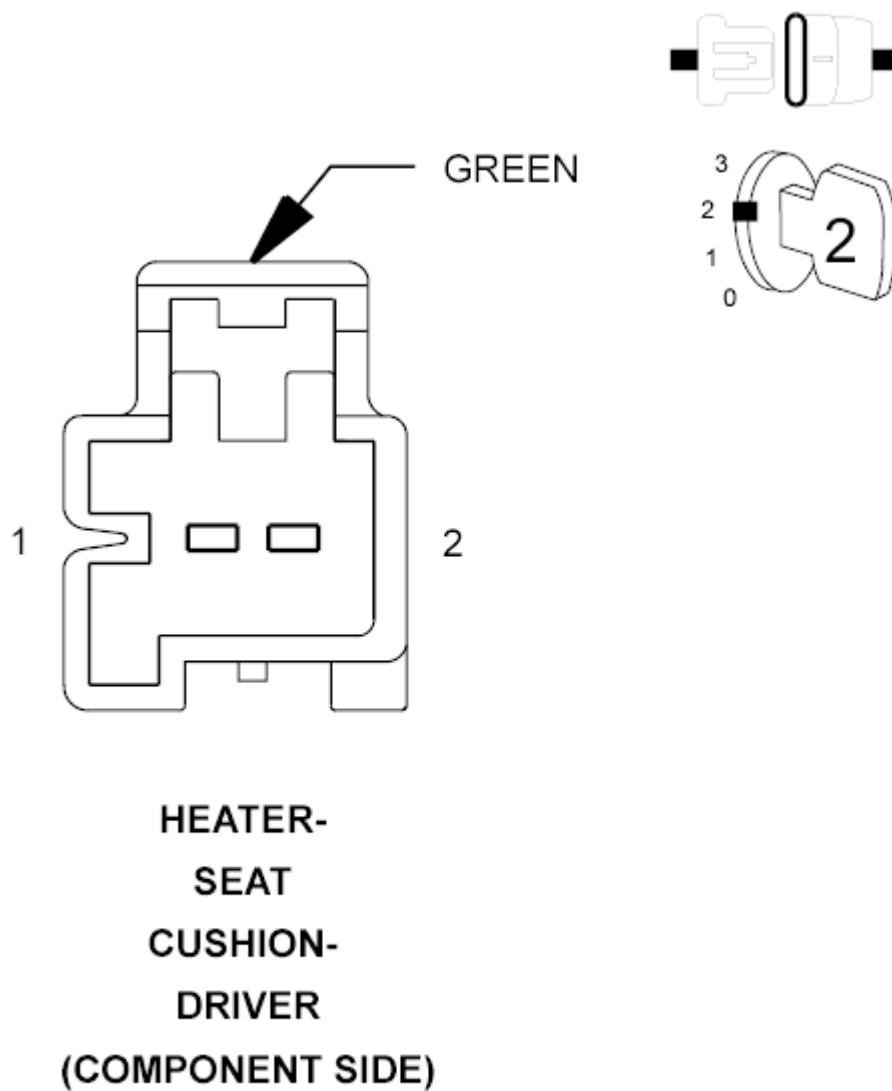
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT IN BODY HARNESS FOR A SHORT TO GROUND



103810

Fig. 2: Checking Front Left Seat Heater Control Circuit In Body Harness For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Driver Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Turn the ignition on.
4. With the scan tool, erase DTCs.
5. Operate the Heated Seat Switch in both positions several times.

6. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

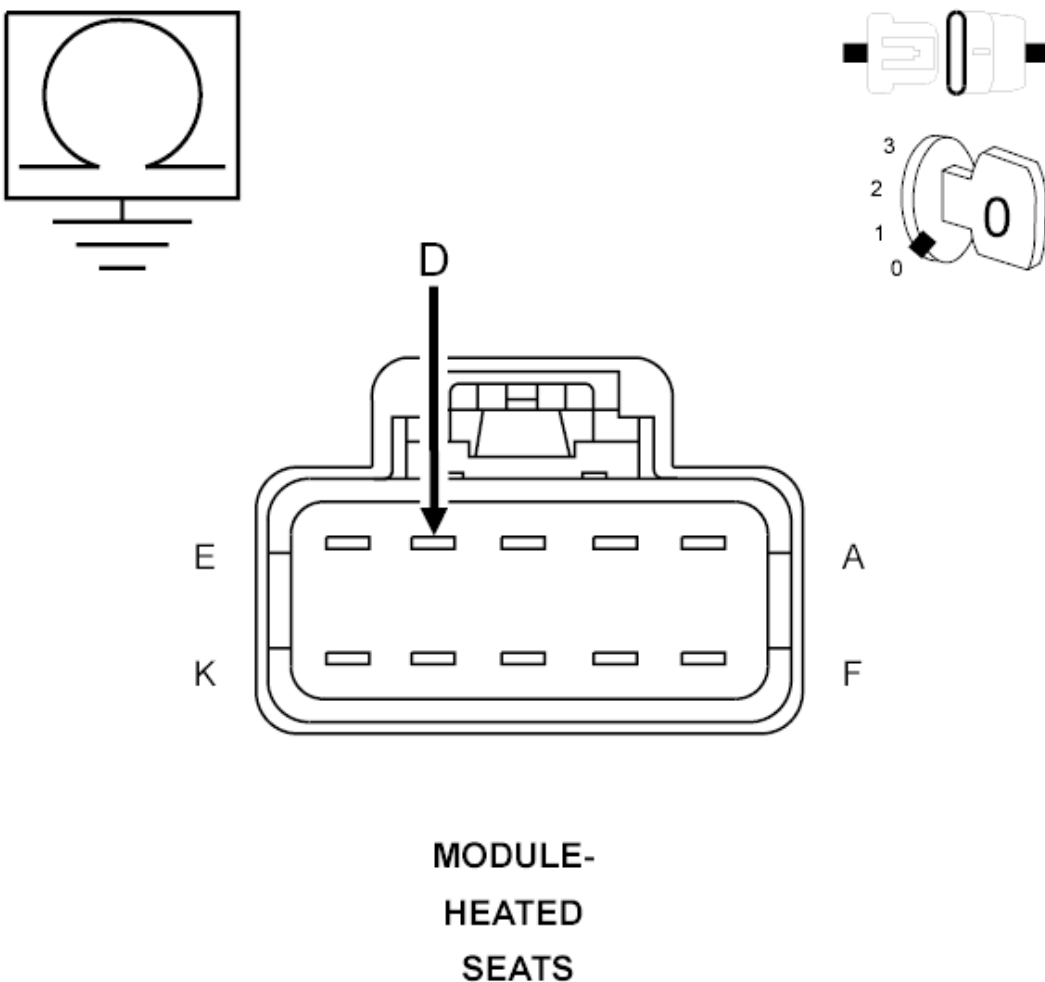
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO GROUND



103816

Fig. 3: Checking Front Left Seat Heater Control Circuit For A Short To Ground

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure resistance of the (P187) Front Left Seat Heater Control circuit between ground and the HSM connector.

Is the resistance below 10k ohms?

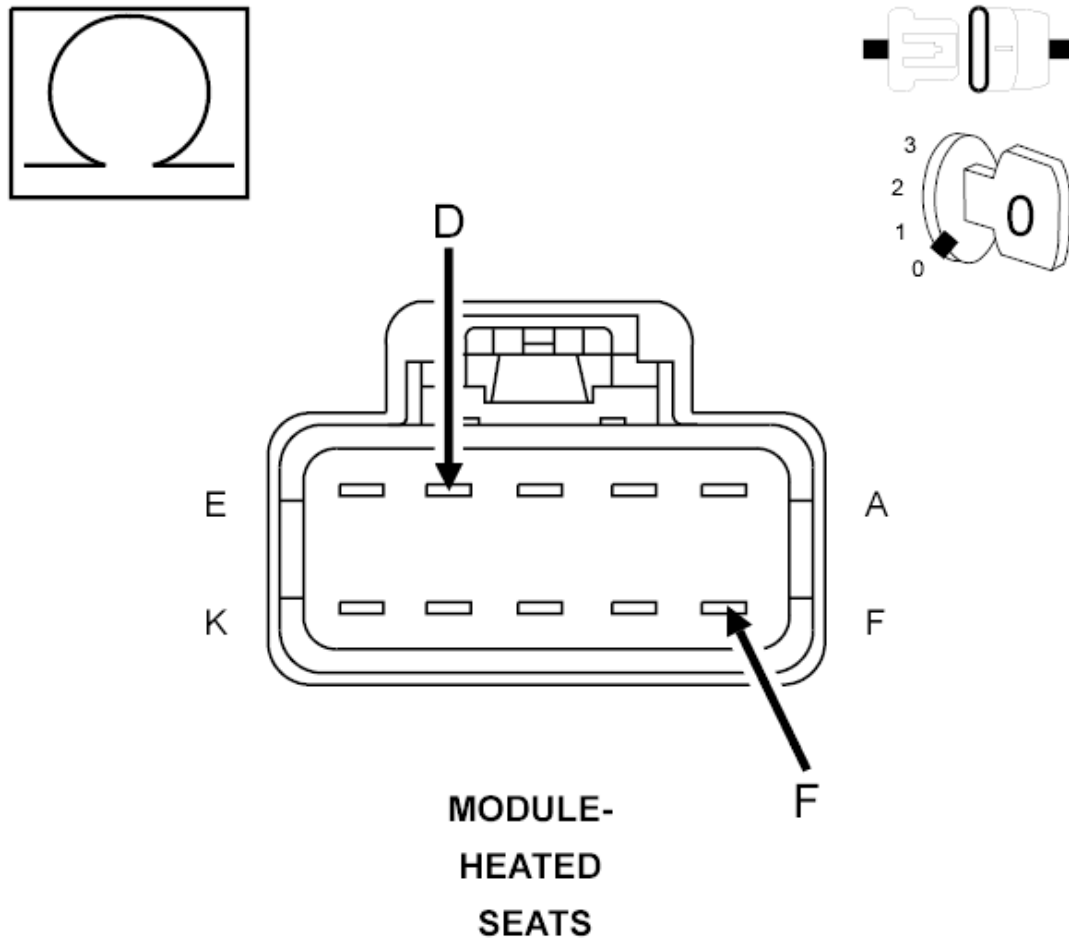
Yes

- Repair the (P187) Front Left Seat Heater Control circuit for a short to ground.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. **CHECK (P187) FRONT LEFT SEAT HEATER CONTROL FOR A SHORT TO (Z921) GROUND CIRCUIT**



00507120

Fig. 4: Checking Front Left Seat Heater Control For A Short To Ground Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (P187) Front Left Seat Heater Control circuit and the (Z921) Ground circuit at the HSM connector.

Is the resistance below 10k ohms?

Yes

- Repair the (P187) Front Left Seat Heater Control circuit for a short to the (Z921) Ground circuit.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. CHECK DRIVER SEAT CUSHION HEATER ELEMENT FOR A SHORT TO GROUND

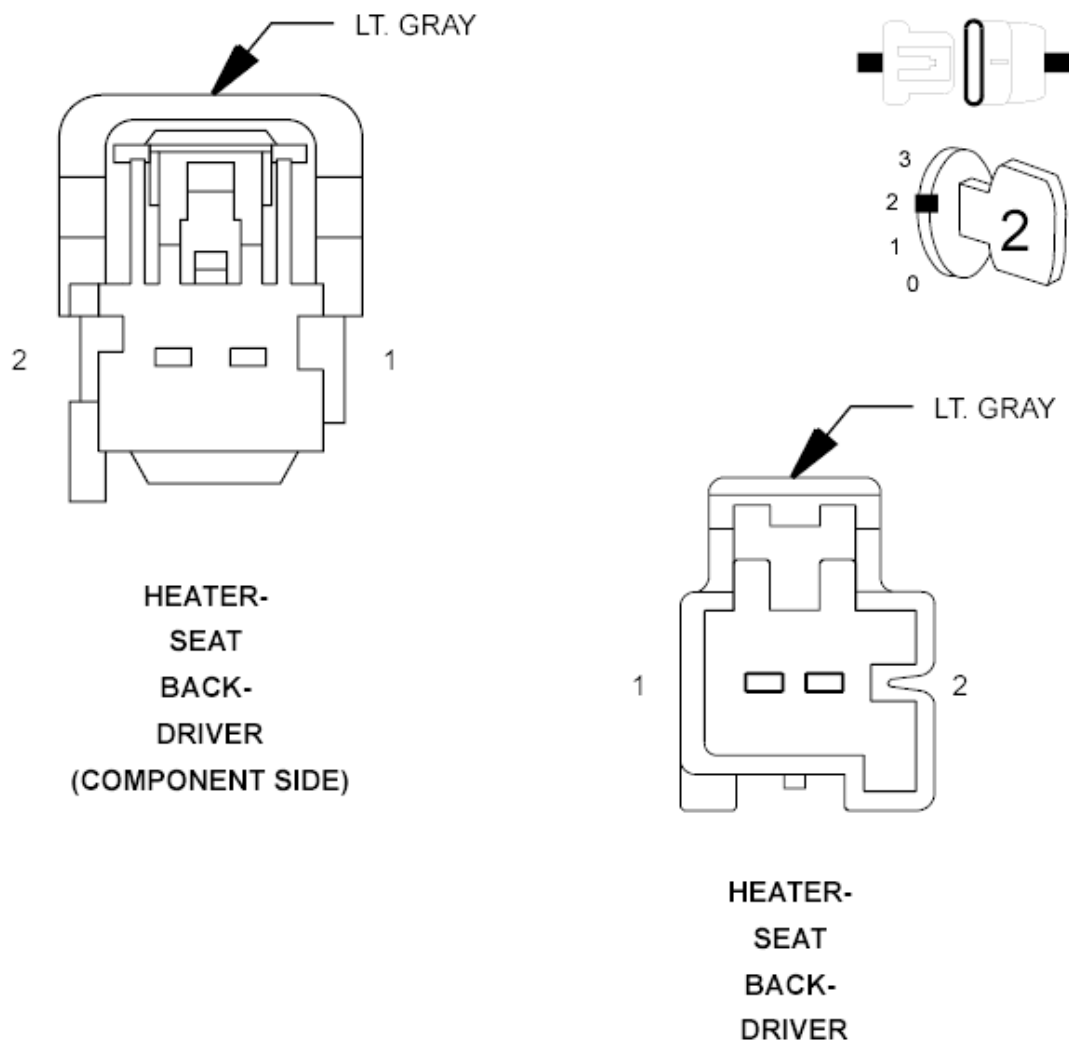


Fig. 5: Checking Driver Seat Cushion Heater Element For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Reconnect the Driver Seat Cushion Heater connector.
3. Disconnect the Driver Seat Back Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Operate the Heated Seat Switch in both positions several times.
7. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

Yes

- Replace the shorted Driver Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Driver Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW (RHD)

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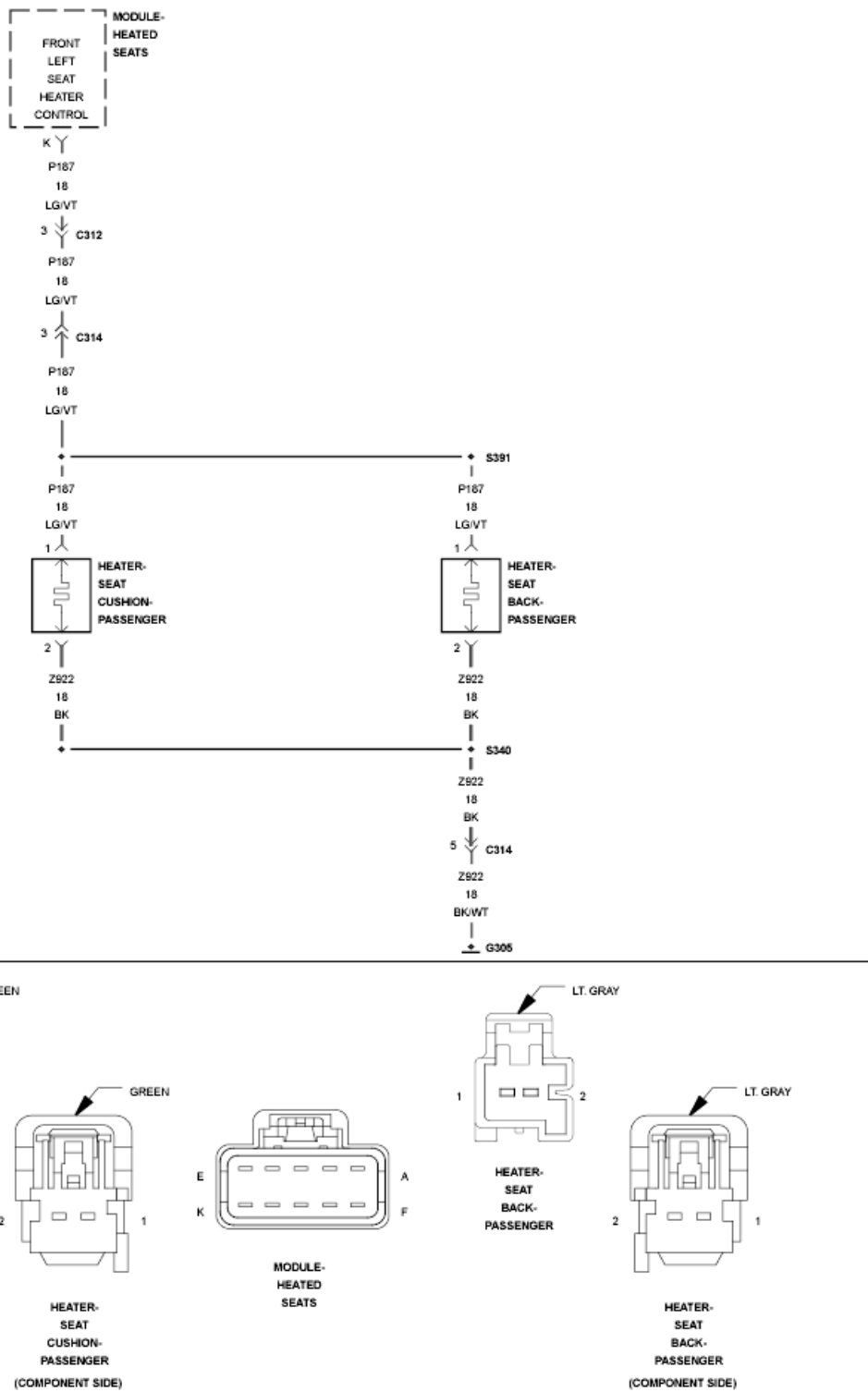


Fig. 6: Front Left Seat Heater Control Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P187) Front Left Seat Heater Control circuit is shorted to ground.

Possible Causes
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT SHORTED TO GROUND
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT SHORTED TO (Z921) GROUND CIRCUIT
SEAT CUSHION HEATER ELEMENT SHORTED
SEAT BACK HEATER ELEMENT SHORTED
HEATED SEAT MODULE (HSM)

Diagnostic Test**1. VERIFY DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW IS ACTIVE**

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

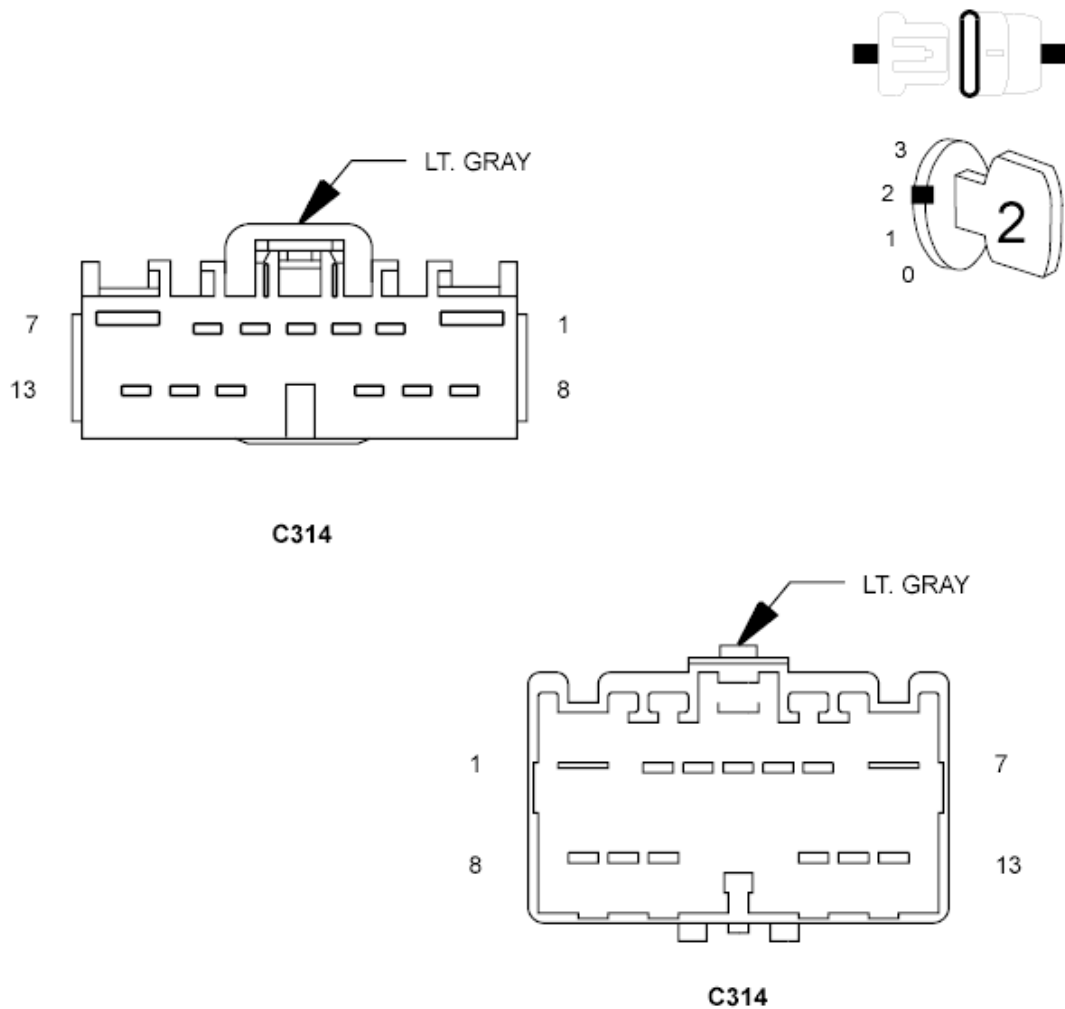
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT IN BODY HARNESS FOR A SHORT TO GROUND



00496591

Fig. 7: Checking Front Left Seat Heater Control Circuit In Body Harness For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the C314 inline harness connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Turn the ignition on.
4. With the scan tool, erase DTCs.
5. Operate the Heated Seat Switch in both positions several times.
6. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

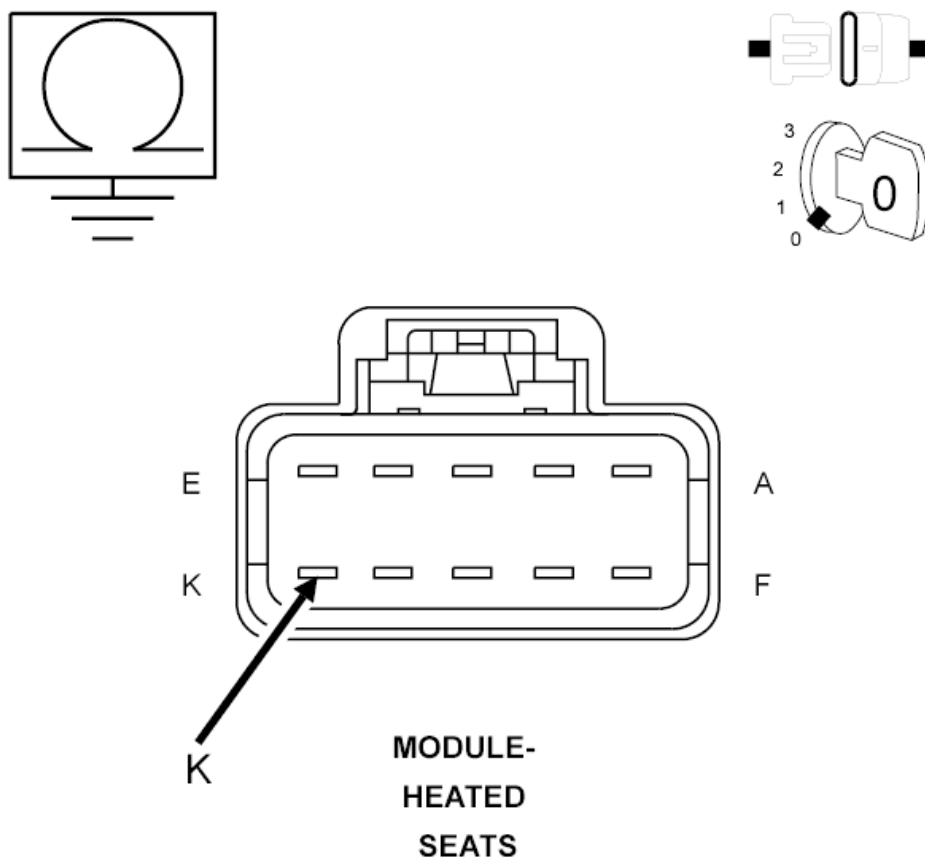
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO GROUND



103828

Fig. 8: Checking Front Left Seat Heater Control Circuit For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the resistance of the (P187) Front Left Seat Heater Control circuit between ground and the HSM connector.

Is the resistance below 10k ohms?

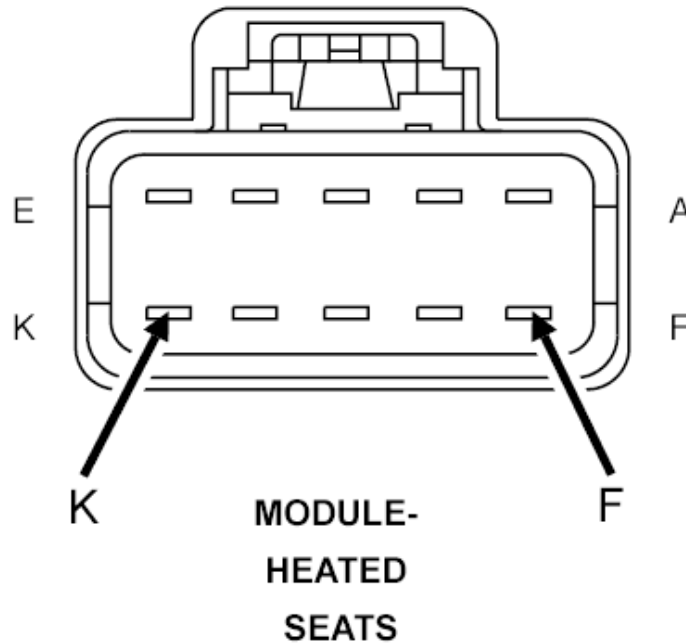
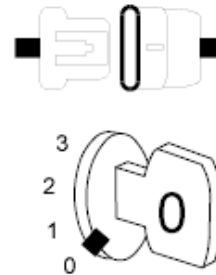
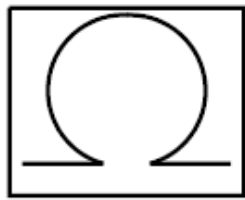
Yes

- Repair the (P187) Front Left Seat Heater Control circuit for a short to ground.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. **CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO (Z921) GROUND CIRCUIT**



00496614

Fig. 9: Checking Front Left Seat Heater Control Circuit For A Short To Ground Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (P187) Front Left Seat Heater Control circuit and the (Z921) Ground circuit at the HSM connector.

Is the resistance below 10k ohms?

Yes

- Repair the (P187) Front Left Seat Heater Control circuit for a short to the (Z921) Ground circuit.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. Reconnect the C314 inline harness connector.
3. Disconnect the Passenger Seat Cushion Heater connector.

NOTE: **Check connectors - Clean and repair as necessary.**

4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Operate the Heated Seat Switch in both positions several times.
7. With the scan tool, read DTCs.

Is DTC B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW active?

Yes

- Repair or replace the pigtail harness for a short to ground or replace the shorted Passenger Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the shorted Passenger Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN (LHD)

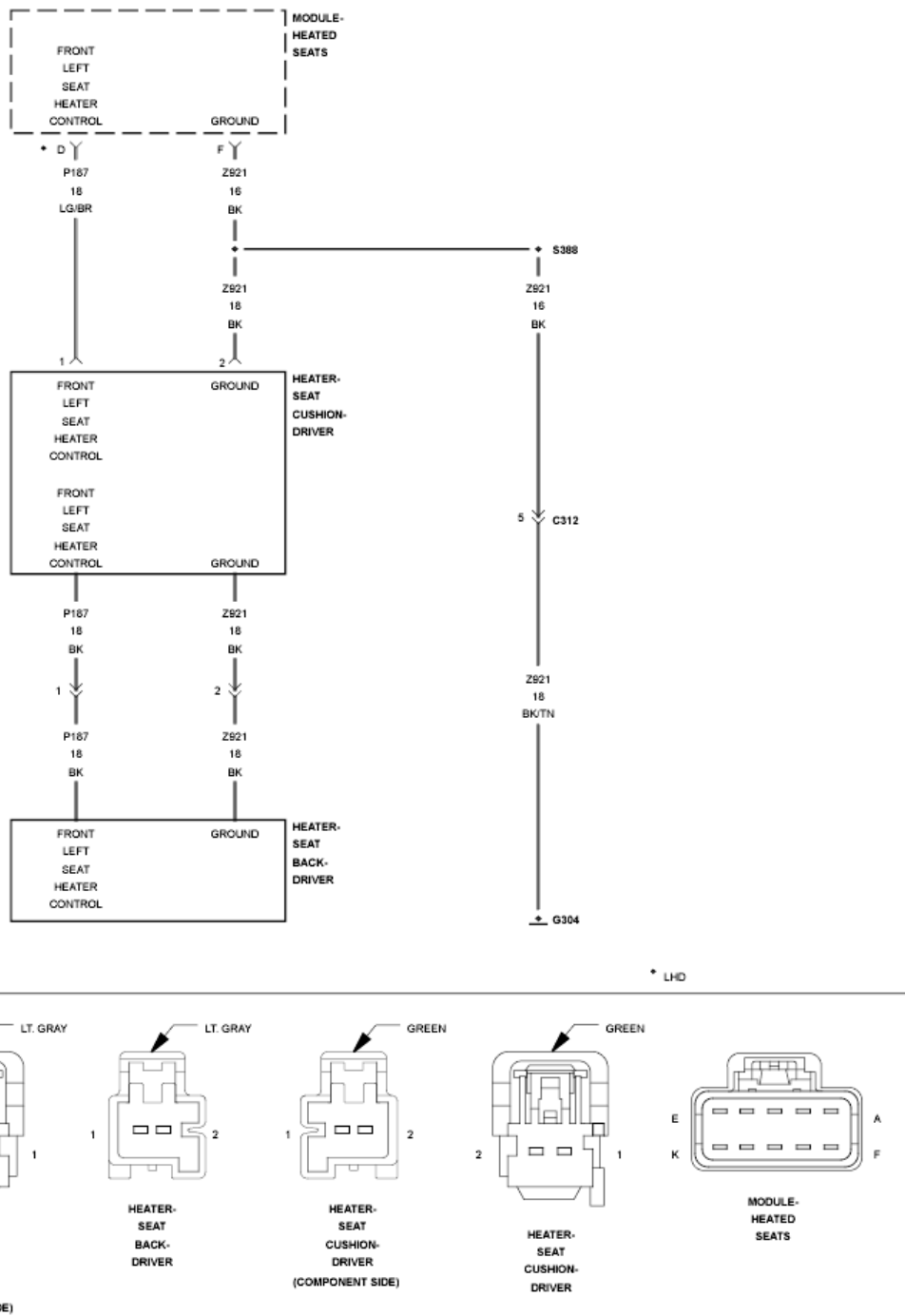


Fig. 11: Front Left Seat Heater Control Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P187) Front Left Seat Heater Control circuit is open.

Possible Causes
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN
(Z921) GROUND CIRCUIT OPEN
SEAT CUSHION HEATER ELEMENT OPEN
SEAT BACK HEATER ELEMENT OPEN
HEATED SEAT MODULE (HSM)

Diagnostic Test**1. VERIFY DTC B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN IS ACTIVE**

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN active?

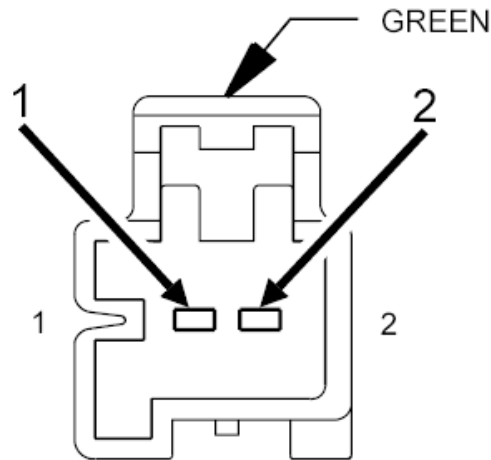
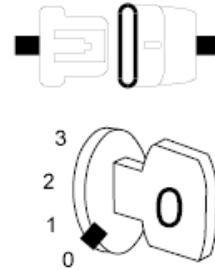
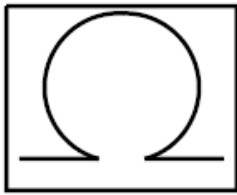
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR OPEN SEAT HEATER ELEMENTS



HEATER-
SEAT
CUSHION-
DRIVER
(COMPONENT SIDE)

103832

Fig. 12: Checking For Open Seat Heater Elements
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Driver Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the total resistance of the Cushion and Seat Back Heater Elements between the (P187) Front Left Seat Heater Control circuit and the (Z921) Ground circuit at the Driver Seat Cushion Heater connector (component side).

Is the total resistance 4.5 ohms + or - 0.5 ohms?

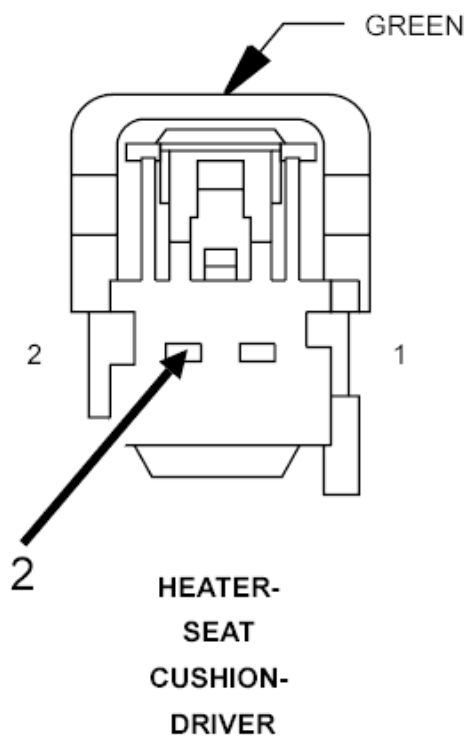
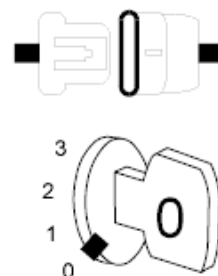
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (Z921) GROUND CIRCUIT FOR AN OPEN



00507412

Fig. 13: Checking Ground Circuit For An Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (Z921) Ground circuit between ground and the Driver Seat Cushion Heater connector (harness side).

Is the resistance below 5.0 ohms?

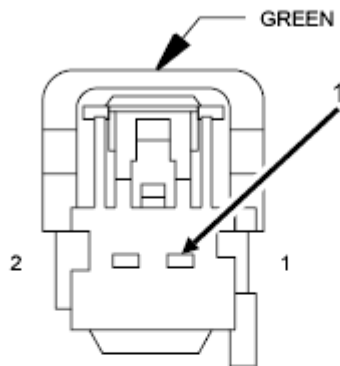
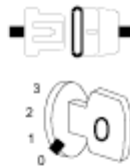
Yes

- Go to step 4

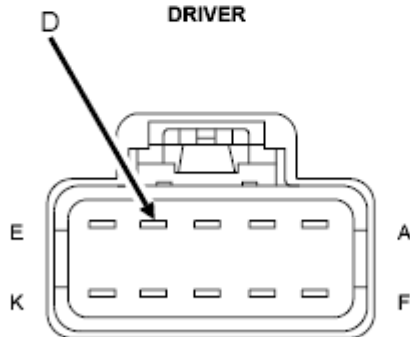
No

- Repair the (Z921) Ground circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT FOR AN OPEN IN BODY HARNESS



**HEATER-
SEAT
CUSHION-
DRIVER**



**MODULE-
HEATED
SEATS**

Fig. 14: Checking Front Left Seat Heater Control Circuit For An Open In Body Harness
Courtesy of CHRYSLER LLC

1. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the (P187) Front Left Seat Heater Control circuit between the HSM connector and the Driver Seat Cushion Heater connector (harness side).

Is the resistance below 5.0 ohms?

Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P187) Front Left Seat Heater Control circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

5. CHECK DRIVER SEAT BACK HEATER ELEMENT FOR AN OPEN

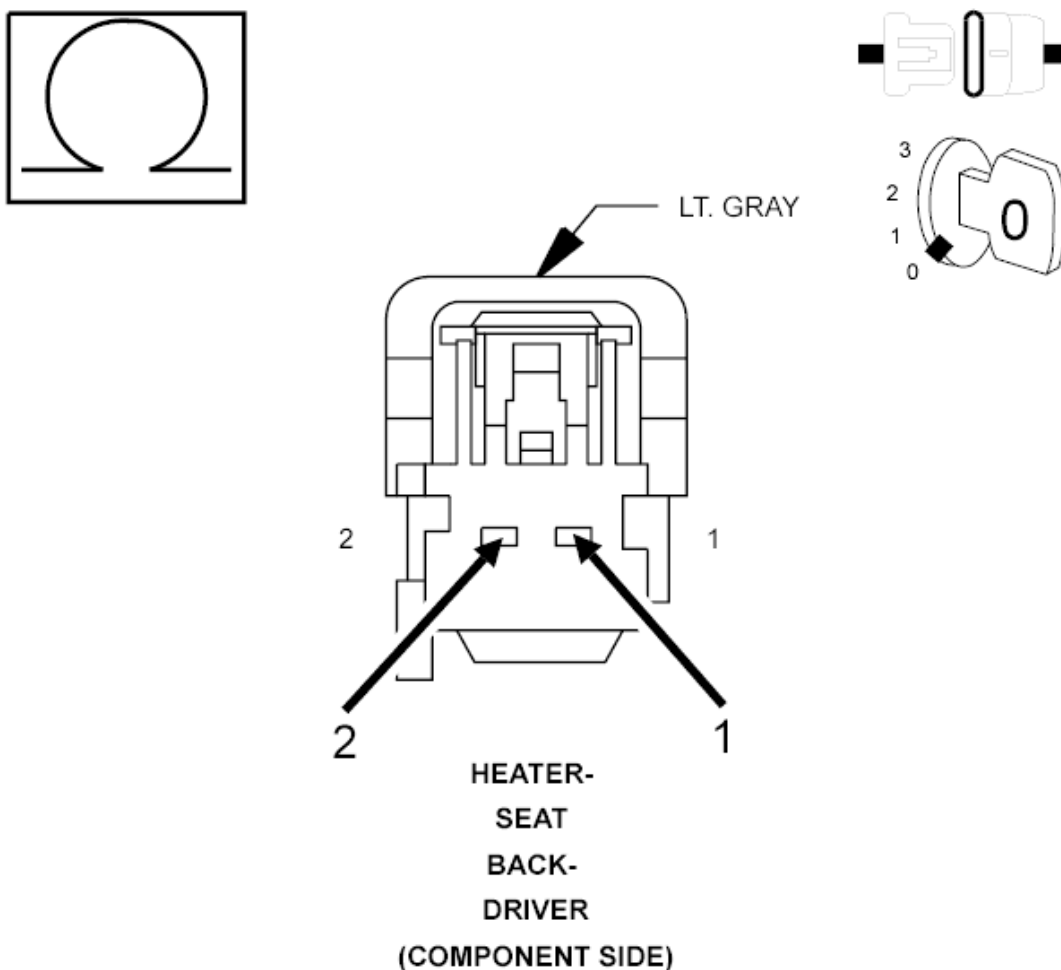


Fig. 15: Checking Driver Seat Back Heater Element For An Open
Courtesy of CHRYSLER LLC

1. Disconnect the Driver Seat Back Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the Driver Seat Back Heater Element between the (P187) Front Left Seat Heater Control and the (Z921) Ground circuit at the Driver Seat Back Heater connector.

Is the resistance above 8.5 ohms?

Yes

- Replace the Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

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No

- Replace the Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN (RHD)

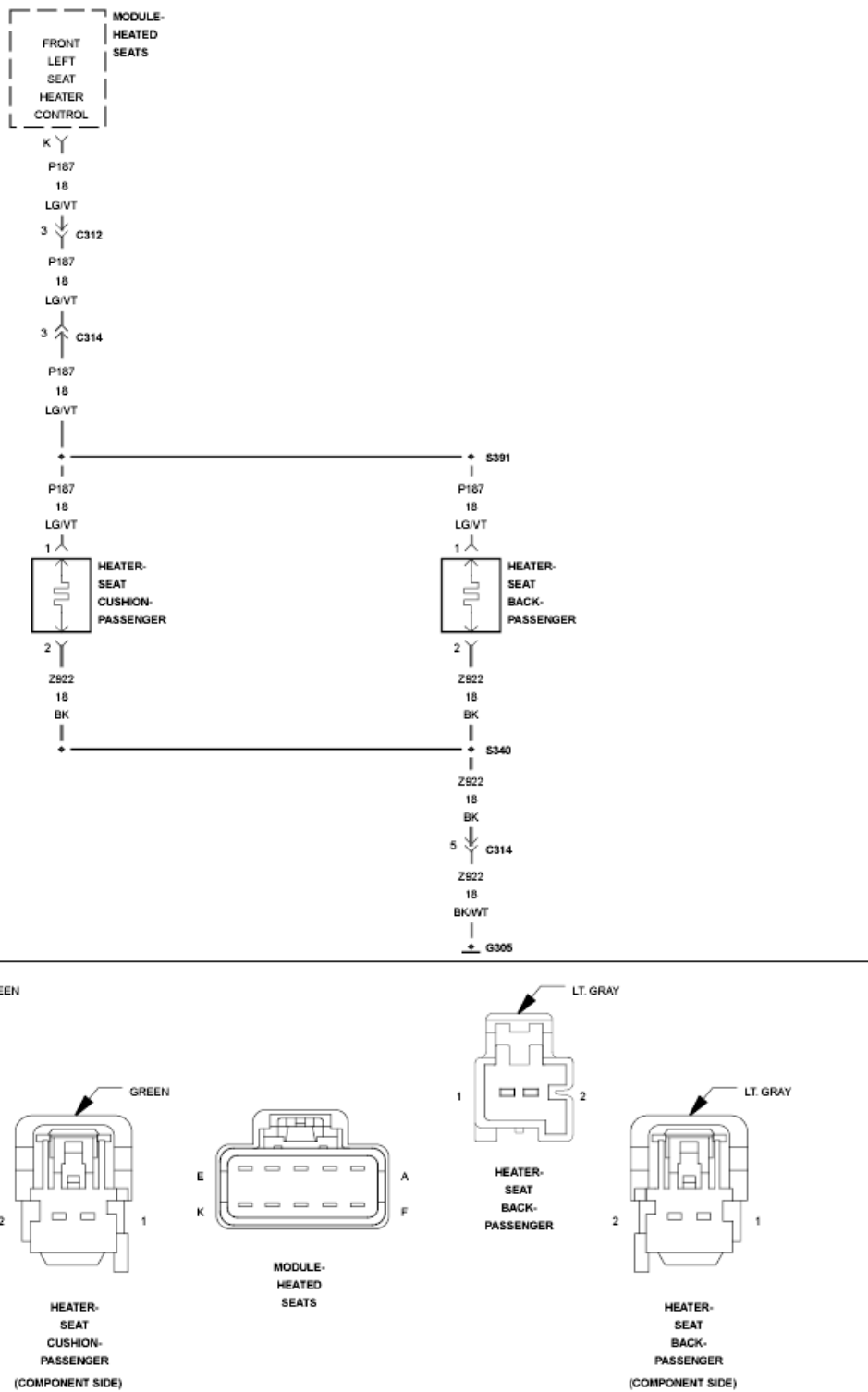


Fig. 16: Front Left Seat Heater Control Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P187) Front Left Seat Heater control circuit is open.

Possible Causes
(P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN
(Z922) GROUND CIRCUIT OPEN
SEAT CUSHION HEATER ELEMENT OPEN
SEAT BACK HEATER ELEMENT OPEN
HEATED SEAT MODULE (HSM)

Diagnostic Test**1. VERIFY DTC B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN IS ACTIVE**

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN active?

Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR OPEN PIGTAIL HARNESS AND SEAT HEATER ELEMENTS

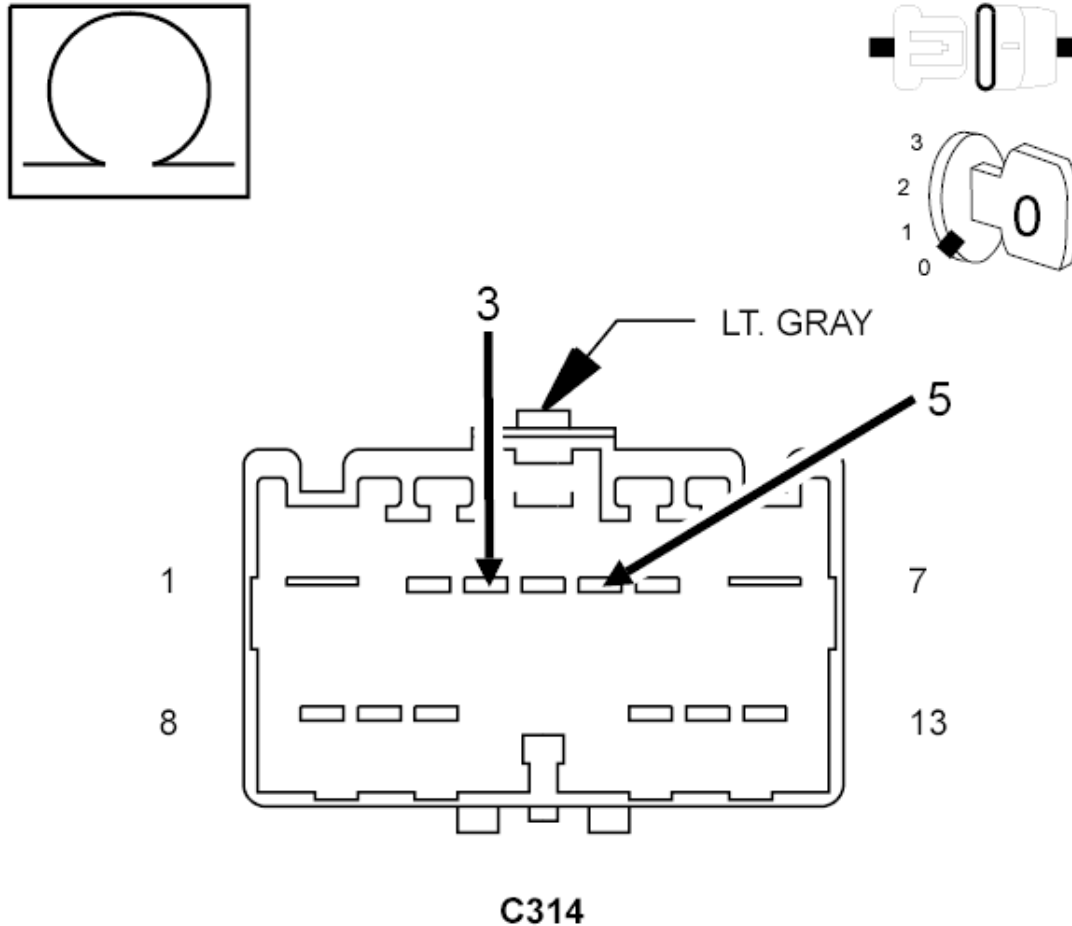


Fig. 17: Checking For Open Pigtail Harness & Seat Heater Elements
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the C314 inline harness connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the total resistance of the harness and Cushion and Seat Back Heater Elements between the (P187) Front Left Seat Heater Control circuit and the (Z922) Ground circuit at the C314 inline harness connector (seat side).

Is the total resistance 3.5 ohms + or - 0.5 ohms?

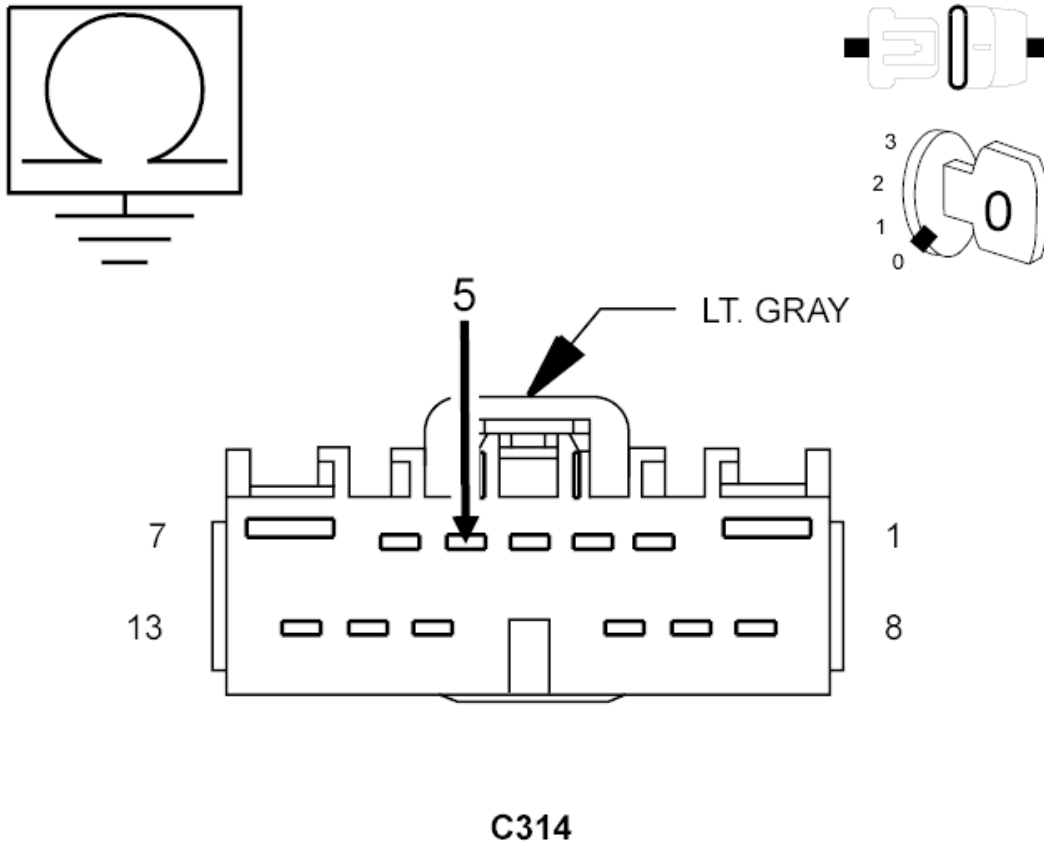
Yes

- Go to step 3

No

- Go to step 5

3. **CHECK (Z922) GROUND CIRCUIT FOR AN OPEN**



00497052

Fig. 18: Checking Ground Circuit For An Open

Courtesy of CHRYSLER LLC

1. Measure the resistance of the (Z922) Ground circuit between ground and the C314 inline harness connector (harness side).

Is the resistance below 5.0 ohms?

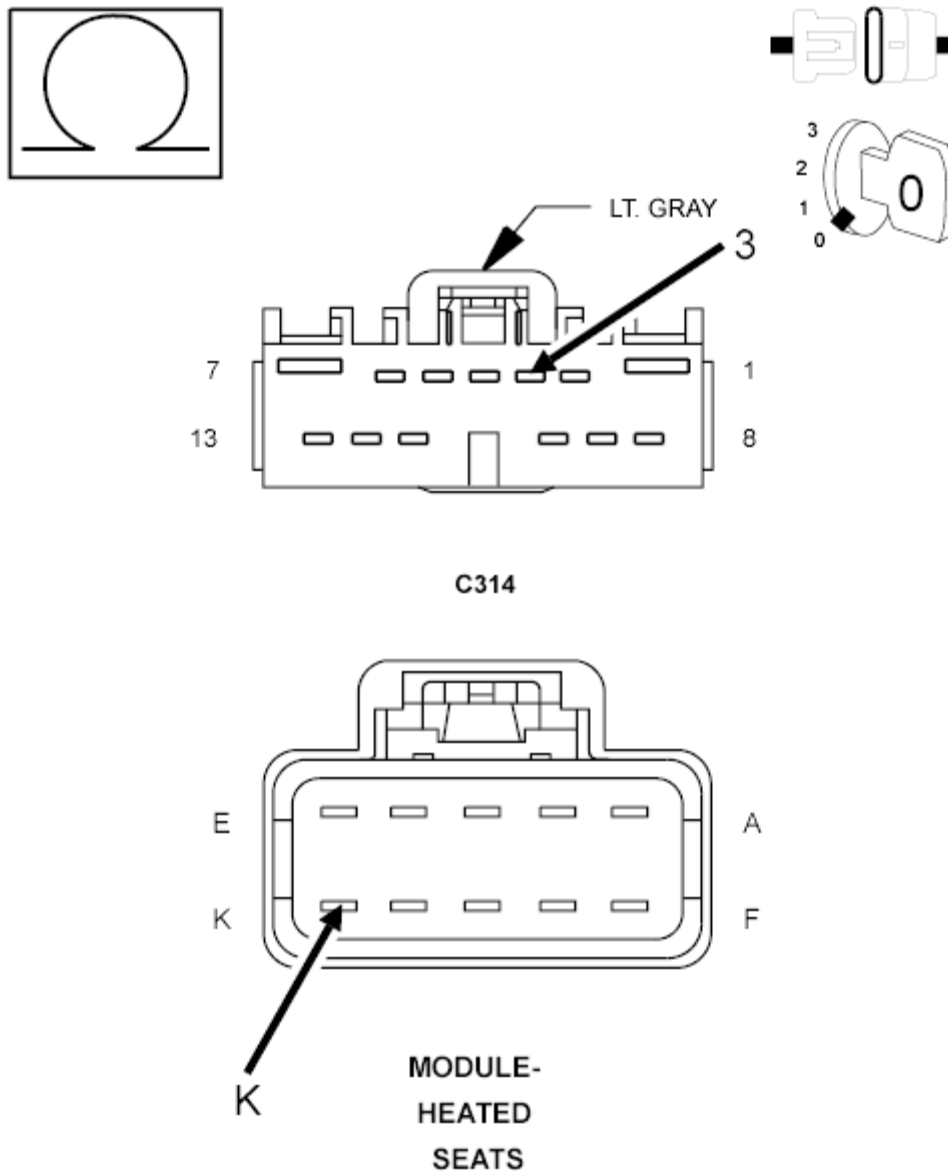
Yes

- Go to step 4

No

- Repair the (Z922) Ground circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. **CHECK (P187) FRONT LEFT SEAT HEATER CONTROL CIRCUIT FOR AN OPEN IN BODY HARNESS**



00497073

Fig. 19: Checking Front Left Seat Heater Control Circuit For An Open In Body Harness

Courtesy of CHRYSLER LLC

1. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the (P187) Front Left Seat Heater Control circuit between the HSM connector and the C314 inline harness connector (harness side).

Is the resistance below 5.0 ohms?

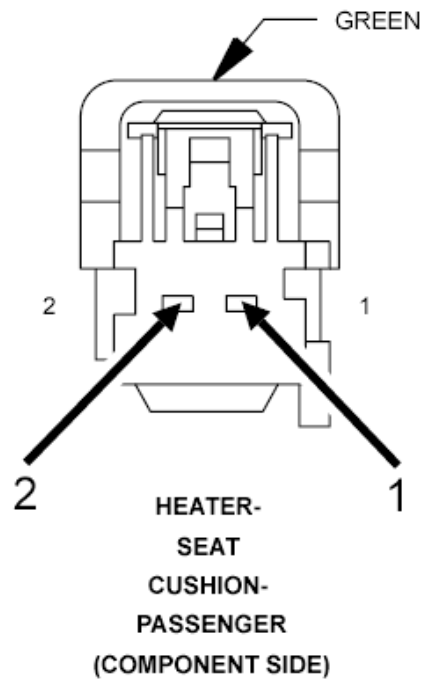
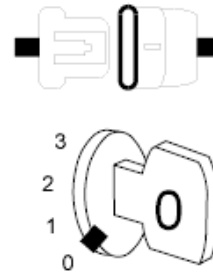
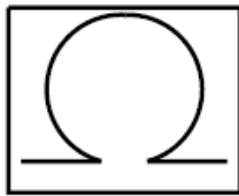
Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P187) Front Left Seat Heater Control circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

5. **CHECK PASSENGER SEAT CUSHION HEATER ELEMENT FOR AN OPEN**



00497091

Fig. 20: Checking Passenger Seat Cushion Heater Element For An Open
Courtesy of CHRYSLER LLC

1. Disconnect the Passenger Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the Seat Cushion Heater Element at the Passenger Seat Cushion Heater connector.

Is the resistance above 8.5 ohms?

Yes

- Replace the Seat Cushion Heater Element in accordance with the Service Information.

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair or replace the pigtail harness for an open or replace the open Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW (LHD)

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

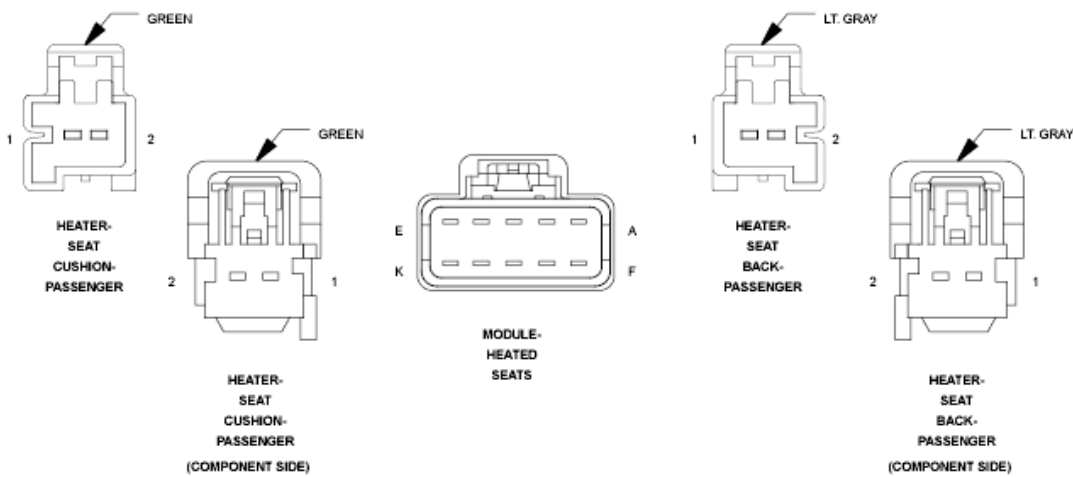
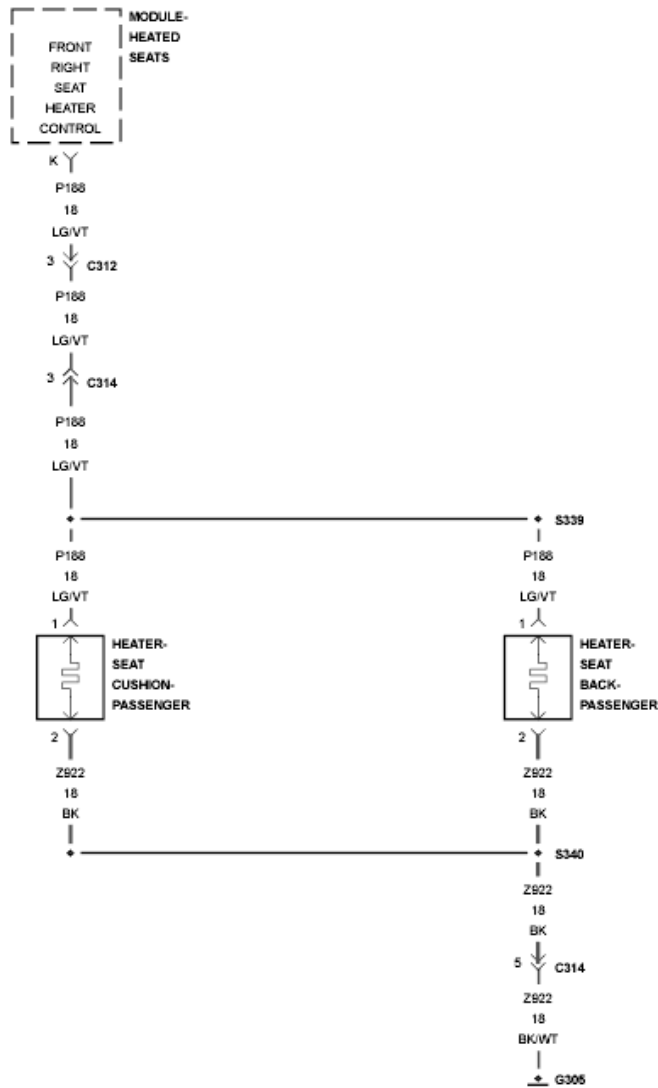


Fig. 21: Front Right Seat Heater Control Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P188) Front Right Seat Heater Control circuit is shorted to ground.

Possible Causes
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT SHORTED TO GROUND
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT SHORTED TO (Z921) GROUND CIRCUIT
SEAT CUSHION HEATER ELEMENT SHORTED
SEAT BACK HEATER ELEMENT SHORTED
HEATED SEAT MODULE (HSM)

Diagnostic Test

1. VERIFY DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW IS ACTIVE

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

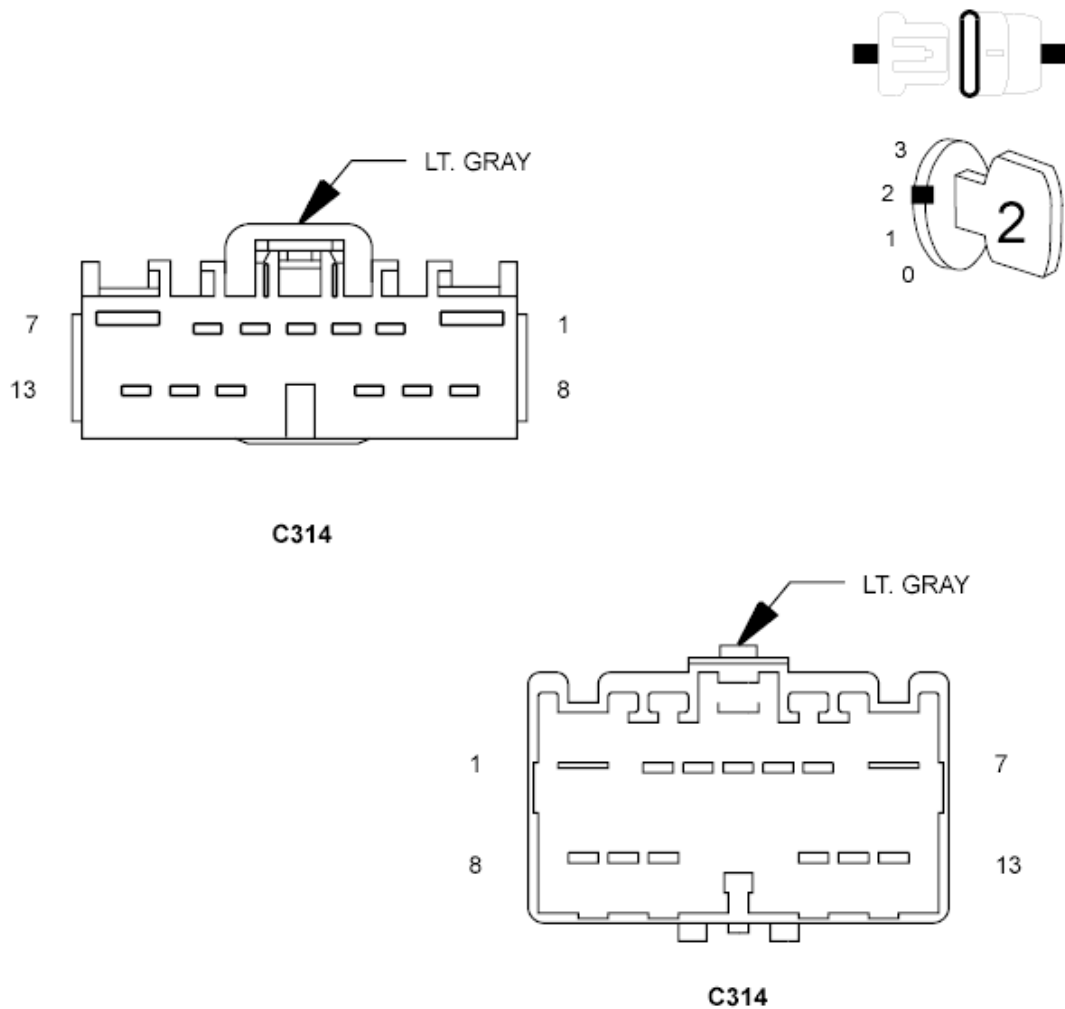
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT IN BODY HARNESS FOR A SHORT TO GROUND



00496591

Fig. 22: Checking Front Left Seat Heater Control Circuit In Body Harness For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the C314 inline harness connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Turn the ignition on.
4. With the scan tool, erase DTCs.
5. Operate the Heated Seat Switch in both positions several times.
6. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

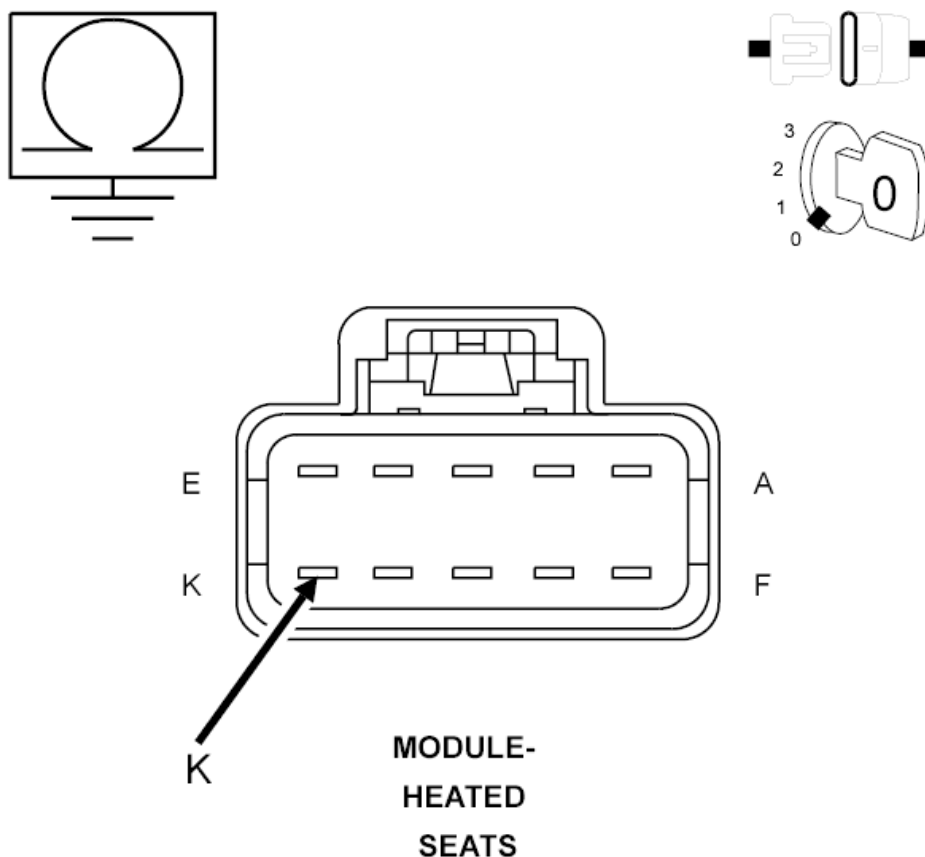
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO GROUND



103828

Fig. 23: Checking Front Left Seat Heater Control Circuit For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the resistance of the (P188) Front Right Seat Heater Control circuit between ground and the HSM connector.

Is the resistance below 10k ohms?

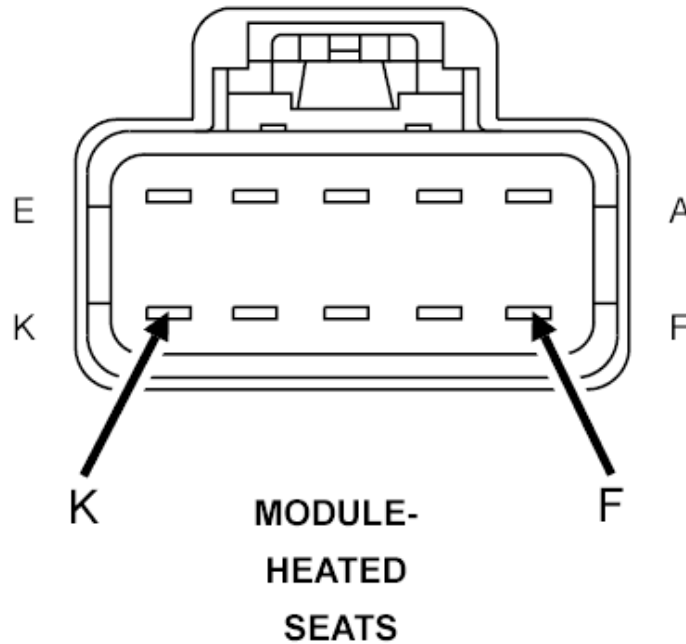
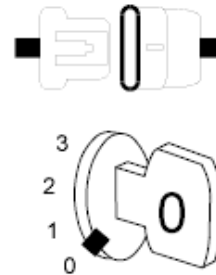
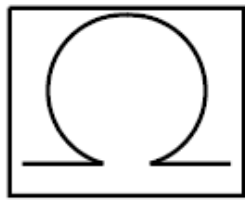
Yes

- Repair the (P188) Front Right Seat Heater Control circuit for a short to ground.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. **CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO (Z921) GROUND CIRCUIT**



00496614

Fig. 24: Checking Front Left Seat Heater Control Circuit For A Short To Ground Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (P188) Front Right Seat Heater Control circuit and the (Z921) Ground circuit at the HSM connector.

Is the resistance below 10k ohms?

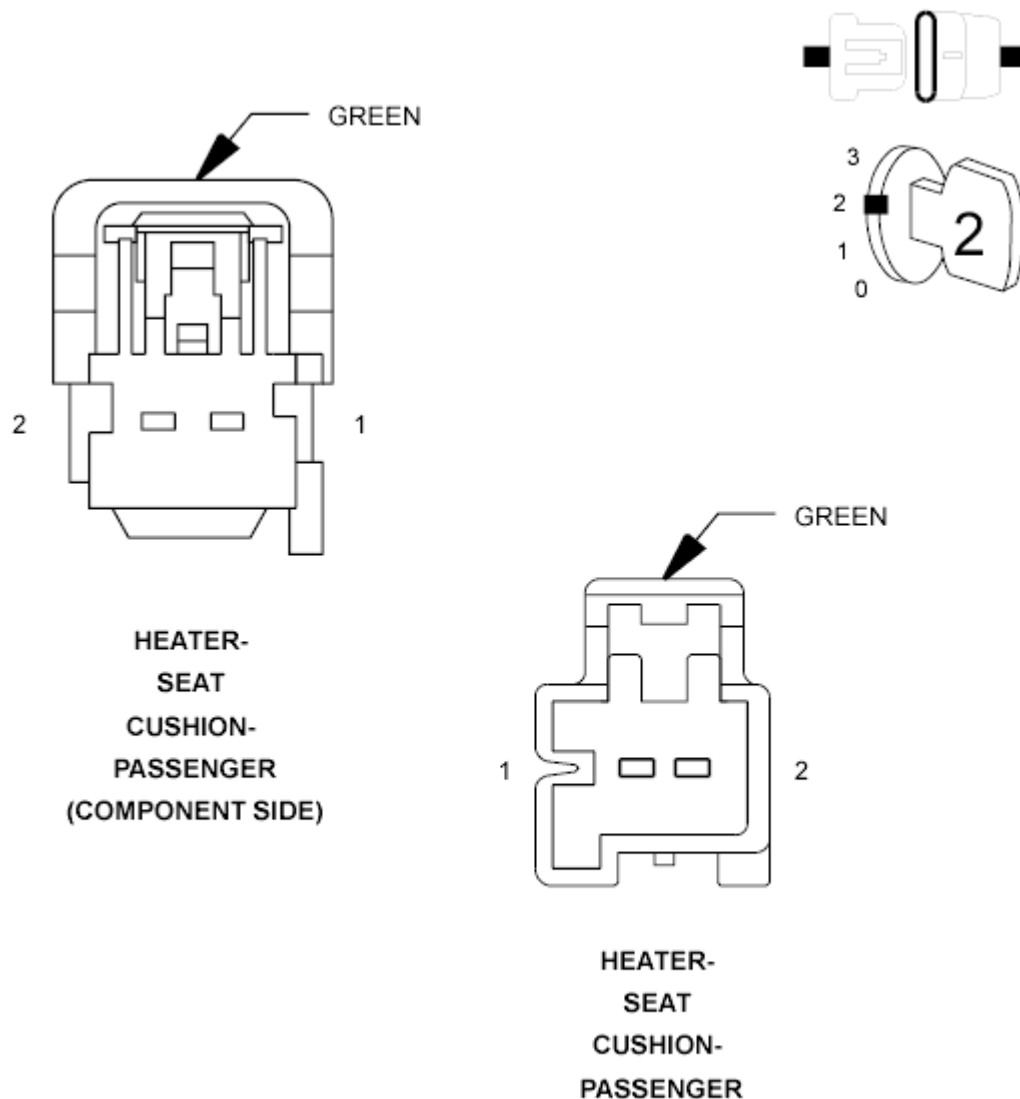
Yes

- Repair the (P188) Front Right Seat Heater Control circuit for a short to the (Z921) Ground circuit.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. **CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT IN PIGTAIL HARNESS AND PASSENGER SEAT BACK HEATER ELEMENT FOR A SHORT TO GROUND**



00496645

Fig. 25: Checking Front Left Seat Heater Control Circuit In Pigtail Harness & Passenger Seat Back Heater Element For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.

2. Reconnect the C314 inline harness connector.
3. Disconnect the Passenger Seat Cushion Heater connector.

NOTE: **Check connectors - Clean and repair as necessary.**

4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Operate the Heated Seat Switch in both positions several times.
7. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

Yes

- Repair or replace the pigtail harness for a short to ground or replace the shorted Passenger Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the shorted Passenger Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW (RHD)

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

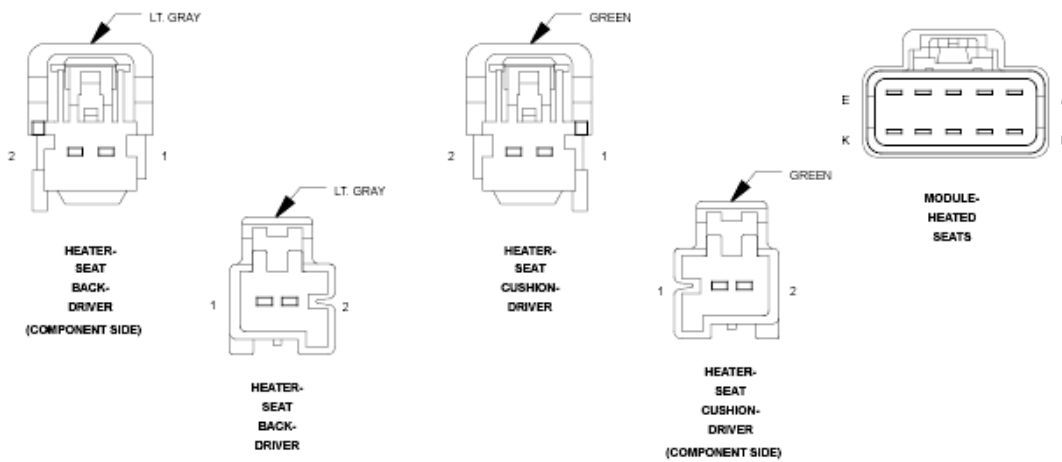
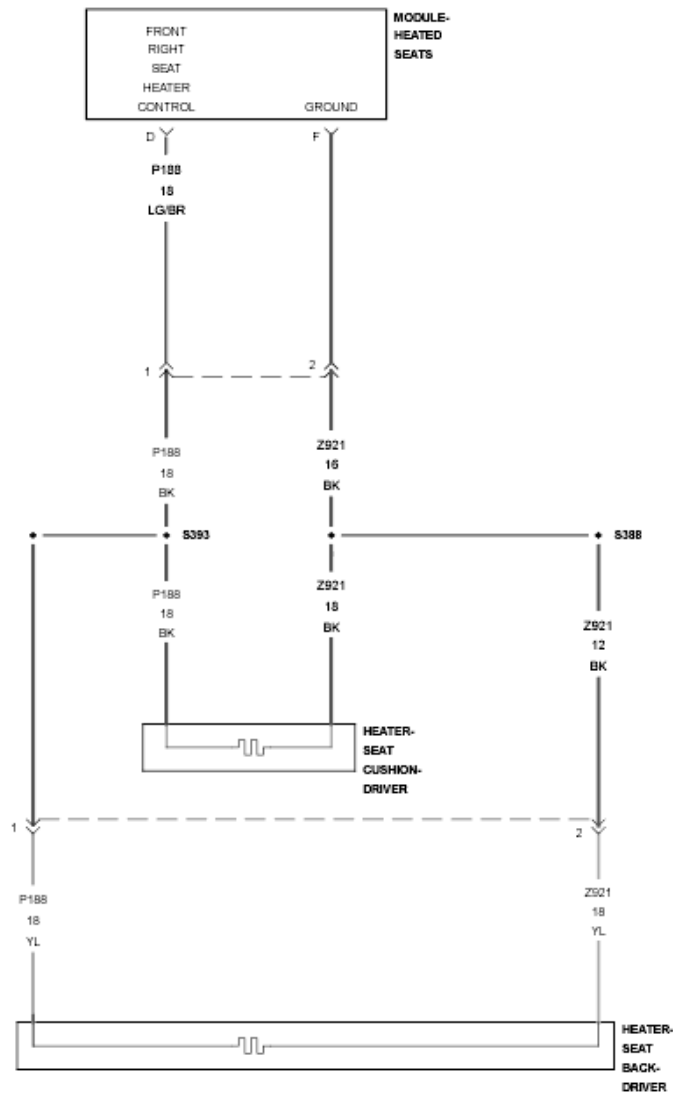


Fig. 26: Front Right Seat Heater Control Circuit Schematic

01110630

Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P188) Front Right Seat Heater Control circuit is shorted to ground.

Possible Causes
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT SHORTED TO GROUND
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT SHORTED TO (Z921) GROUND CIRCUIT
SEAT CUSHION HEATER ELEMENT SHORTED
SEAT BACK HEATER ELEMENT SHORTED
HEATED SEAT MODULE (HSM)

Diagnostic Test**1. VERIFY DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW IS ACTIVE**

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

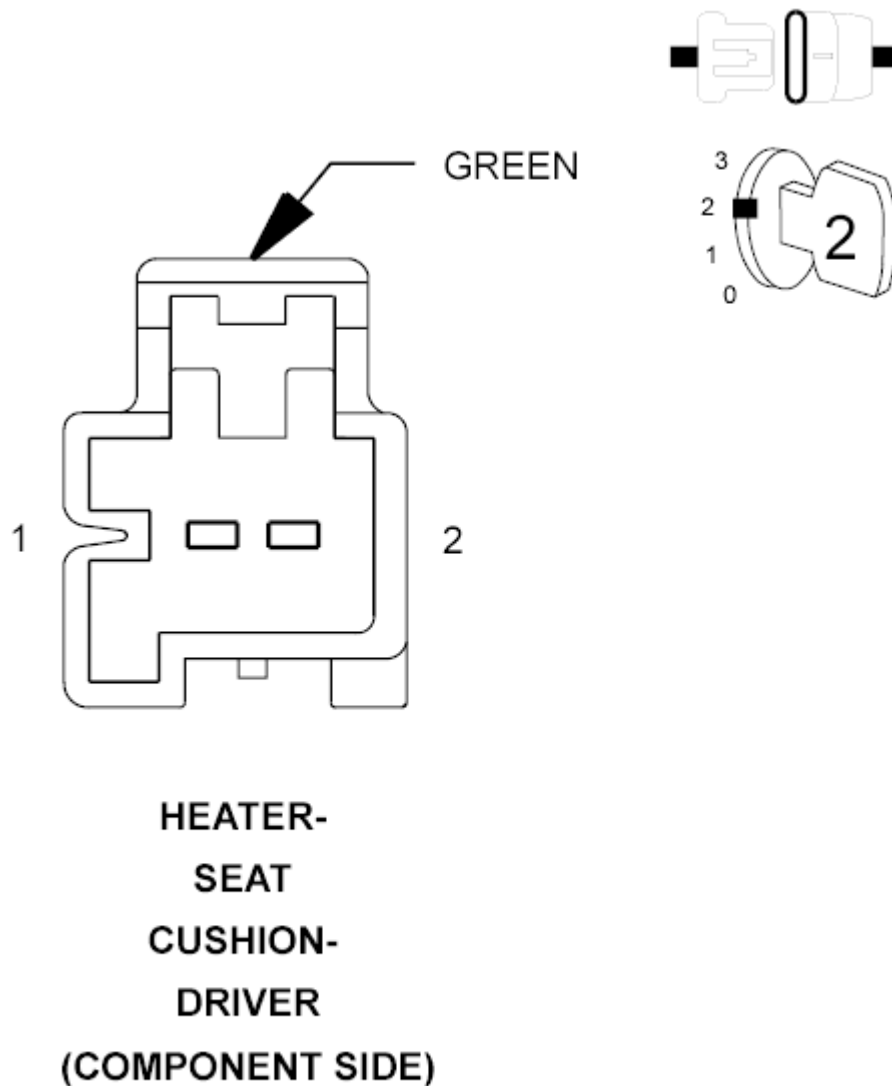
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT IN BODY HARNESS

FOR A SHORT TO GROUND

103810

Fig. 27: Checking Front Left Seat Heater Control Circuit In Body Harness For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Driver Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Turn the ignition on.
4. With the scan tool, erase DTCs.

5. Operate the Heated Seat Switch in both positions several times.
6. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

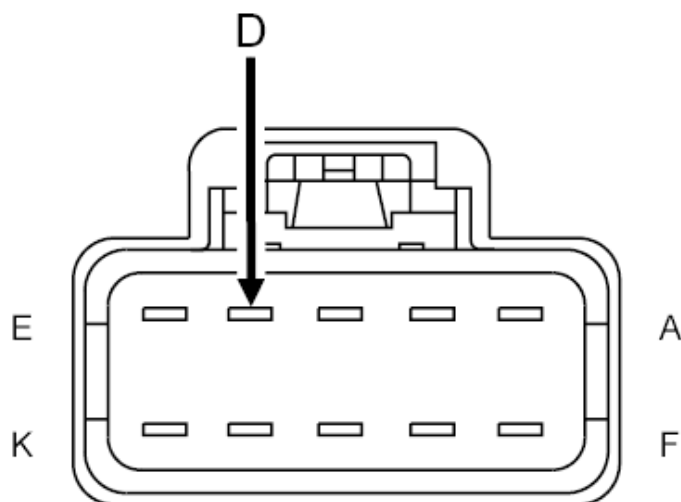
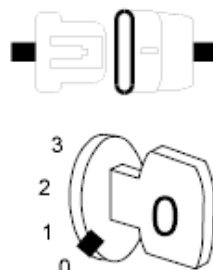
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT FOR A SHORT TO GROUND



**MODULE-
HEATED
SEATS**

Fig. 28: Checking Front Left Seat Heater Control Circuit For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure resistance of the (P188) Front Right Seat Heater Control circuit between ground and the HSM connector.

Is the resistance below 10k ohms?

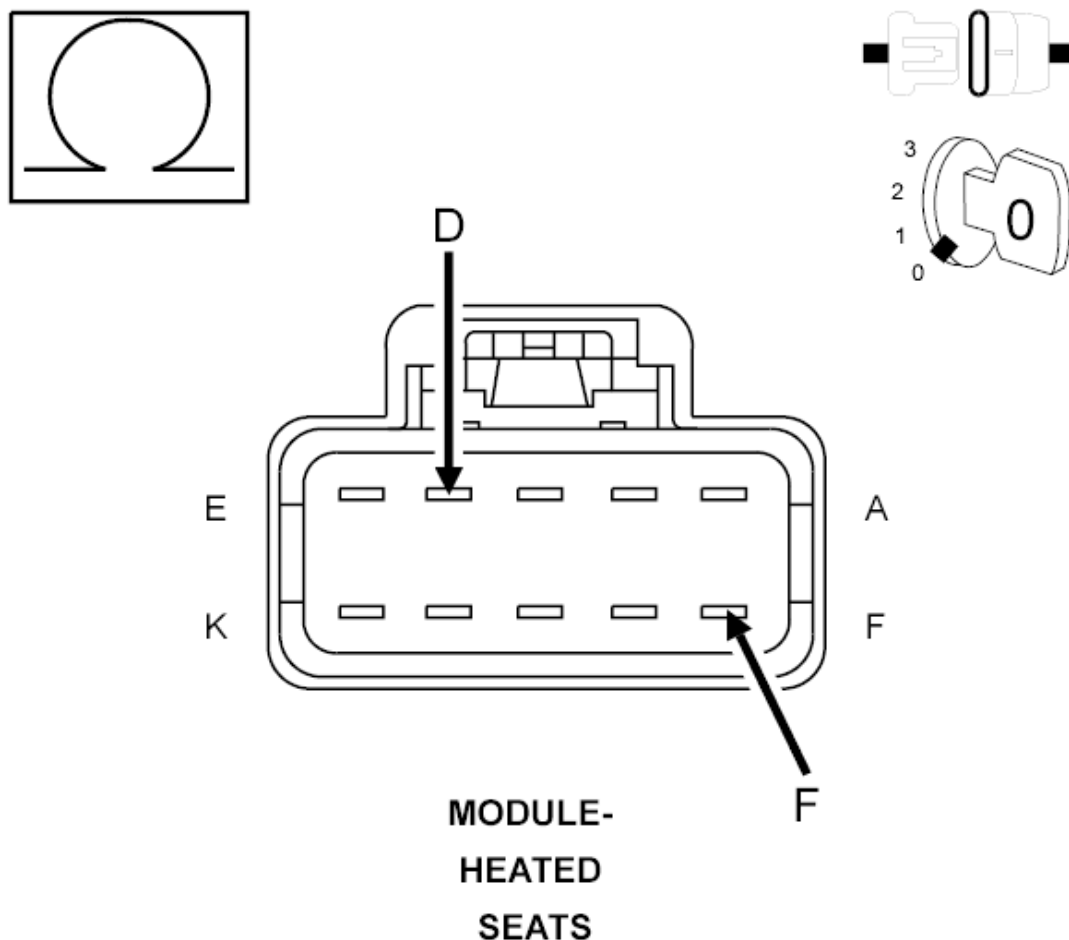
Yes

- Repair the (P188) Front Right Seat Heater Control circuit for a short to ground.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. **CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL FOR A SHORT TO (Z921) GROUND CIRCUIT**



00507120

Fig. 29: Checking Front Left Seat Heater Control For A Short To Ground Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (P188) Front Right Seat Heater Control circuit and the (Z921) Ground circuit at the HSM connector.

Is the resistance below 10k ohms?

Yes

- Repair the (P188) Front Right Seat Heater Control circuit for a short to the (Z921) Ground circuit.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. CHECK DRIVER SEAT CUSHION HEATER ELEMENT FOR A SHORT TO GROUND

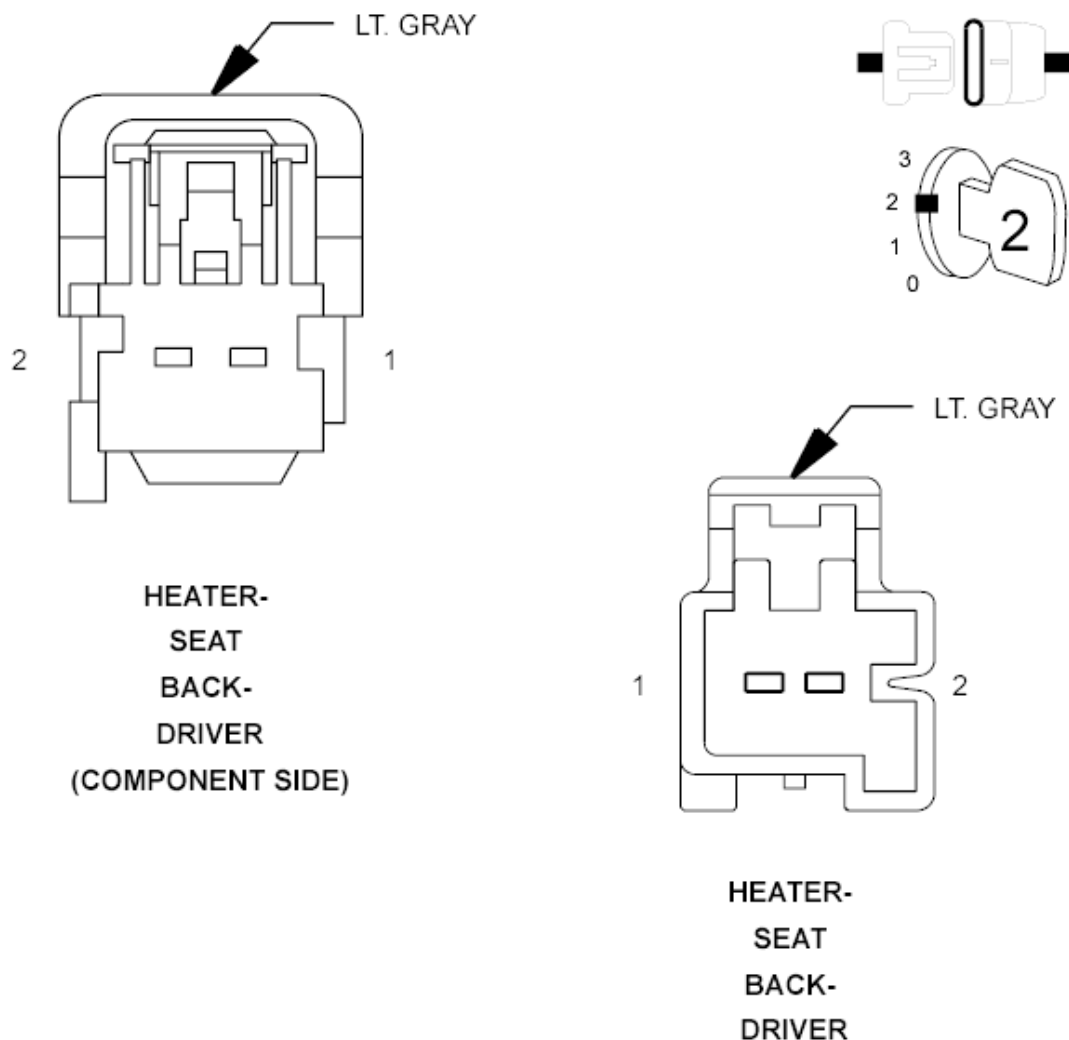


Fig. 30: Checking Driver Seat Cushion Heater Element For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Reconnect the Driver Seat Cushion Heater connector.
3. Disconnect the Driver Seat Back Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Operate the Heated Seat Switch in both positions several times.
7. With the scan tool, read DTCs.

Is DTC B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW active?

Yes

- Replace the shorted Driver Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Driver Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN (LHD)

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

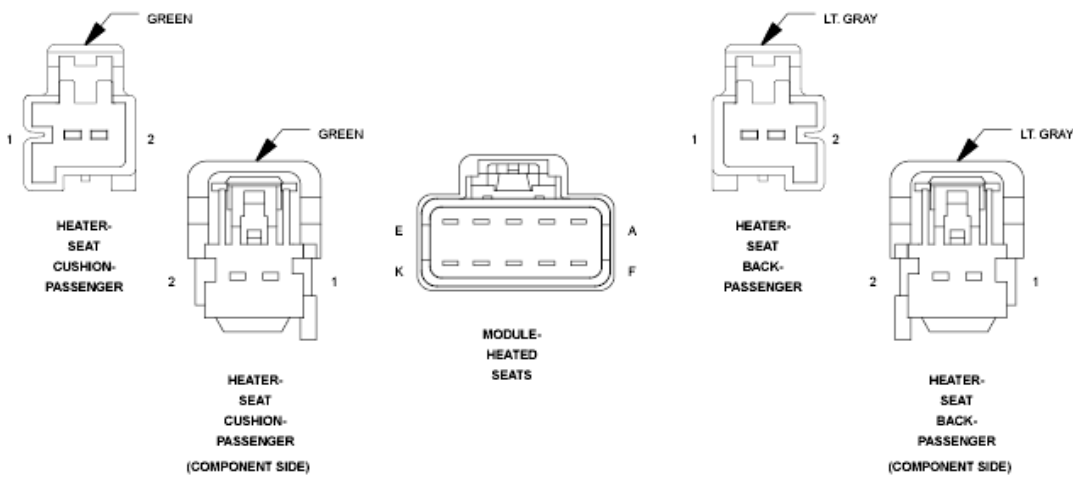
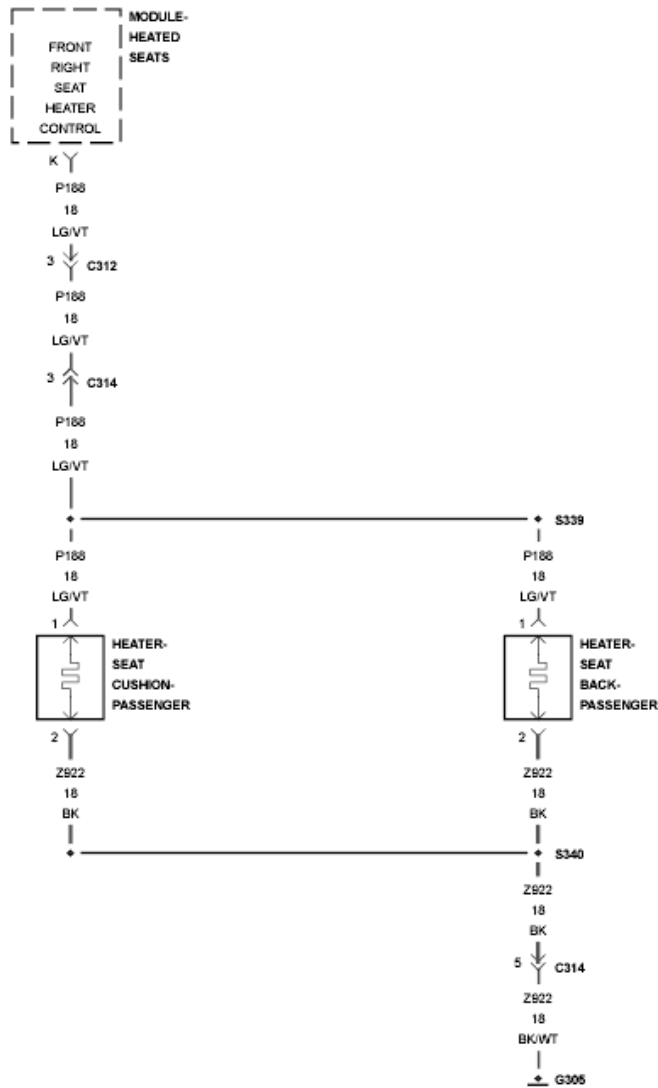


Fig. 31: Front Right Seat Heater Control Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P188) Front Right Seat Heater control circuit is open.

Possible Causes
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN
(Z922) GROUND CIRCUIT OPEN
SEAT CUSHION HEATER ELEMENT OPEN
SEAT BACK HEATER ELEMENT OPEN
HEATED SEAT MODULE (HSM)

Diagnostic Test

1. VERIFY DTC B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN IS ACTIVE

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN active?

Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR OPEN PIGTAIL HARNESS AND SEAT HEATER ELEMENTS

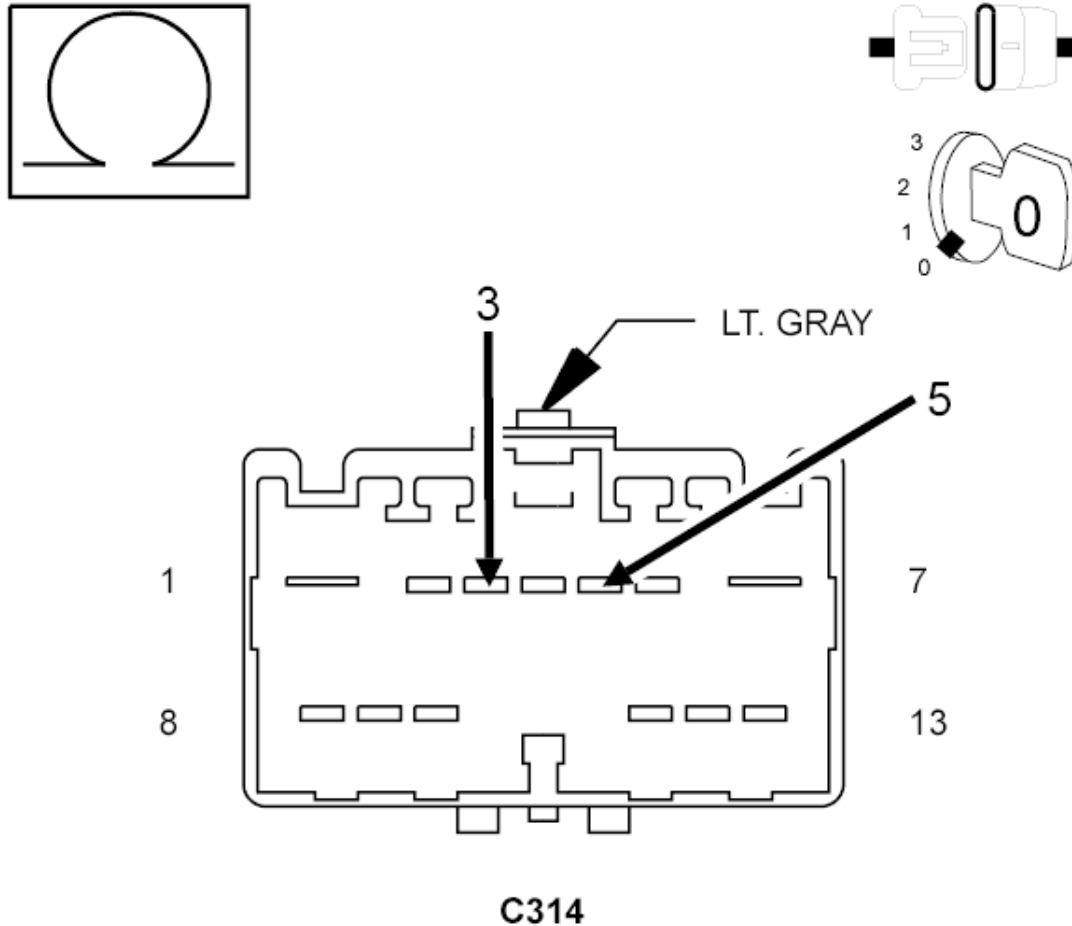


Fig. 32: Checking For Open Pigtail Harness & Seat Heater Elements
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the C314 inline harness connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the total resistance of the harness and Cushion and Seat Back Heater Elements between the (P188) Front Right Seat Heater Control circuit and the (Z922) Ground circuit at the C314 inline harness connector (seat side).

Is the total resistance 3.5 ohms + or - 0.5 ohms?

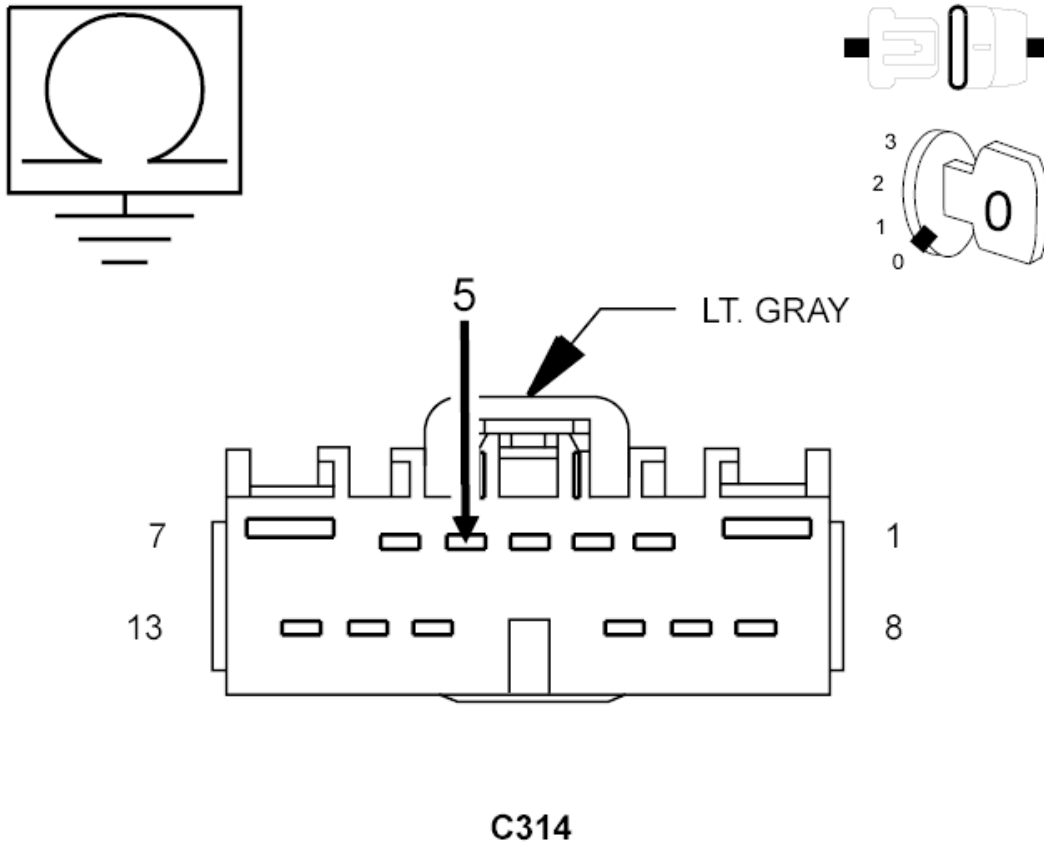
Yes

- Go to step 3

No

- Go to step 5

3. **CHECK (Z922) GROUND CIRCUIT FOR AN OPEN**



00497052

Fig. 33: Checking Ground Circuit For An Open

Courtesy of CHRYSLER LLC

1. Measure the resistance of the (Z922) Ground circuit between ground and the C314 inline harness connector (harness side).

Is the resistance below 5.0 ohms?

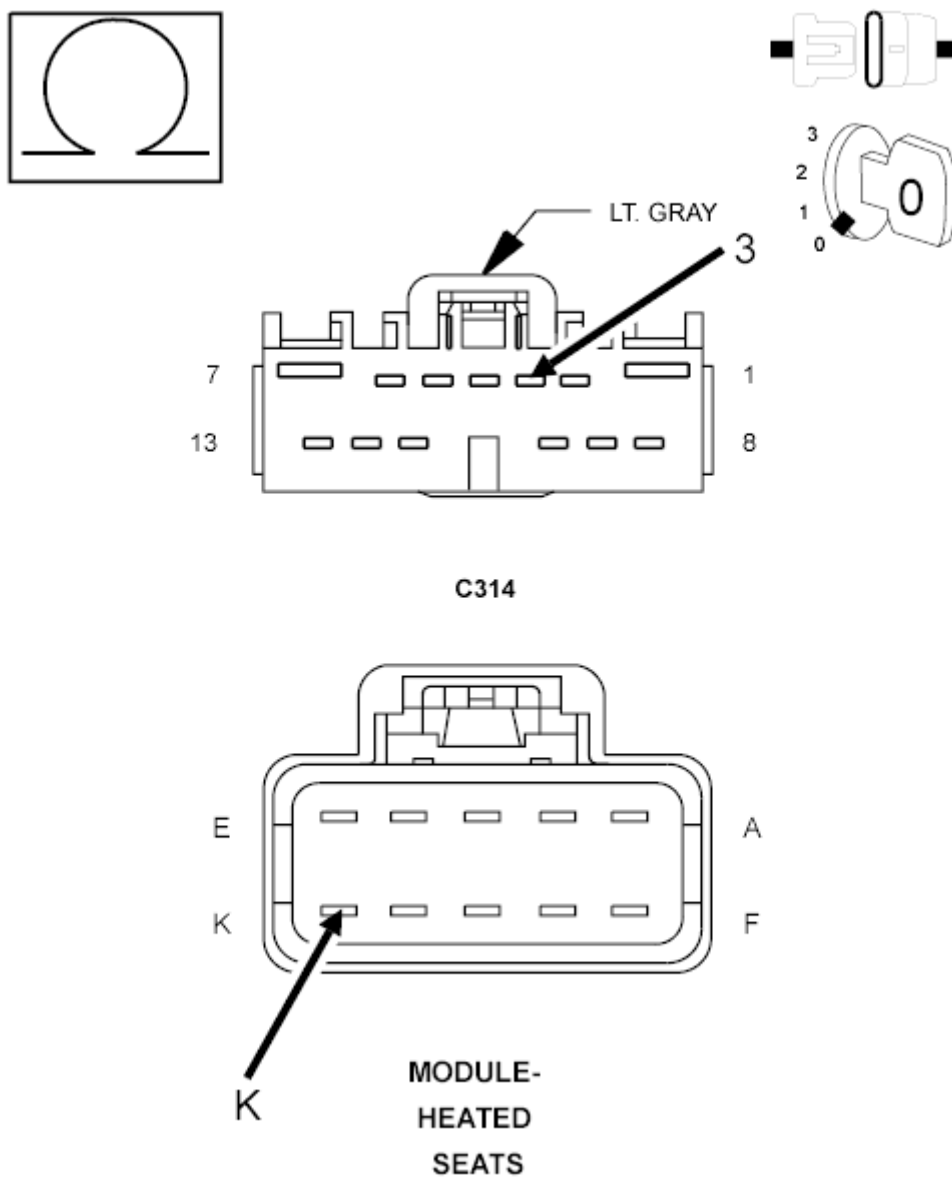
Yes

- Go to step 4

No

- Repair the (Z922) Ground circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK (P188) FRONT RIGHT SEAT HEATER CIRCUIT FOR AN OPEN IN BODY HARNESS



00497073

Fig. 34: Checking Front Left Seat Heater Control Circuit For An Open In Body Harness
 Courtesy of CHRYSLER LLC

1. Disconnect the HSM connector.

NOTE: **Check connectors - Clean and repair as necessary.**

2. Measure the resistance of the (P188) Front Right Seat Heater Control circuit between the HSM connector and the C314 inline harness connector (harness side).

Is the resistance below 5.0 ohms?

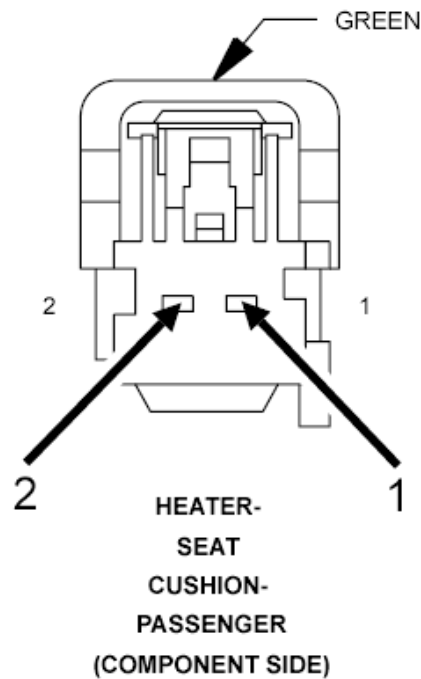
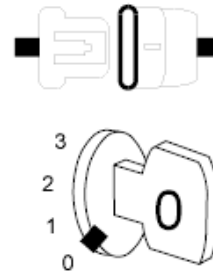
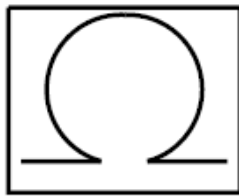
Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P188) Front Right Seat Heater Control circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

5. **CHECK PASSENGER SEAT CUSHION HEATER ELEMENT FOR AN OPEN**



00497091

Fig. 35: Checking Passenger Seat Cushion Heater Element For An Open
Courtesy of CHRYSLER LLC

1. Disconnect the Passenger Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the Seat Cushion Heater Element at the Passenger Seat Cushion Heater connector.

Is the resistance above 8.5 ohms?

Yes

- Replace the Seat Cushion Heater Element in accordance with the Service Information.

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair or replace the pigtail harness for an open or replace the open Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN (RHD)

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

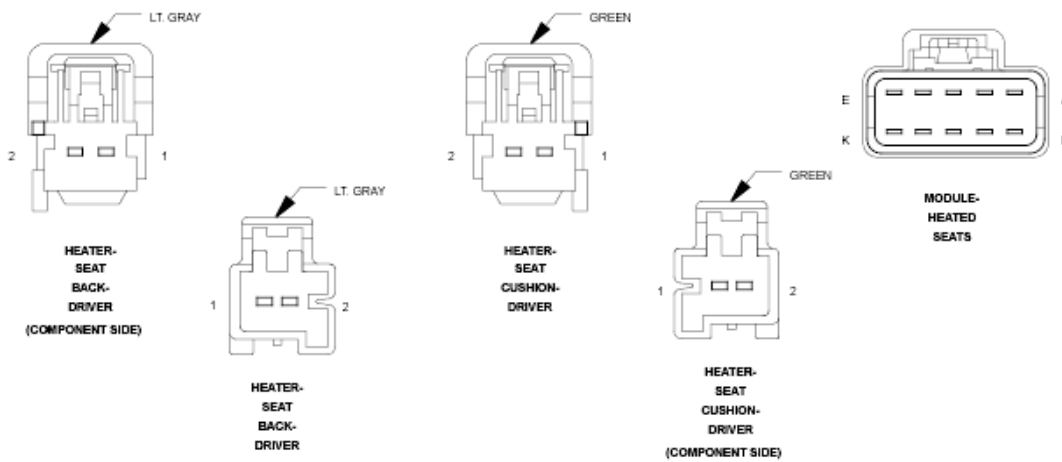
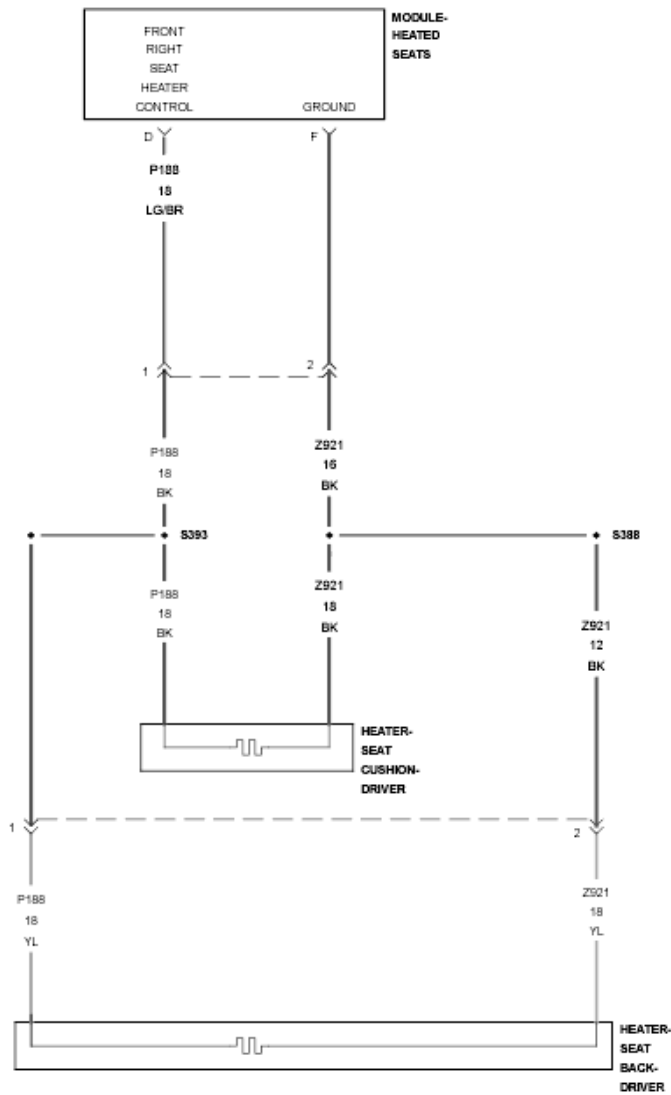


Fig. 36: Front Right Seat Heater Control Circuit Schematic

01110636

Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Ignition on, during the heated seat operation.

- **Set Condition:**

This code sets immediately when the Heated Seat Module (HSM) detects that the (P188) Front Right Seat Heater Control circuit is open.

Possible Causes
(P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN
(Z921) GROUND CIRCUIT OPEN
SEAT CUSHION HEATER ELEMENT OPEN
SEAT BACK HEATER ELEMENT OPEN
HEATED SEAT MODULE (HSM)

Diagnostic Test

1. VERIFY DTC B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN IS ACTIVE

1. Turn the ignition on.
2. With the scan tool, record and erase Diagnostic Trouble Codes (DTCs).
3. Operate the Heated Seat Switch in both positions several times.
4. With the scan tool, read DTCs.

Is DTC B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN active?

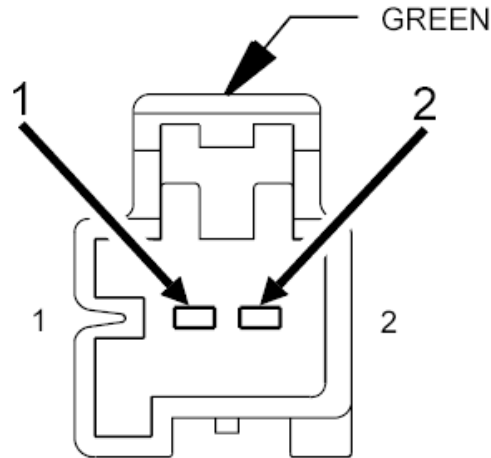
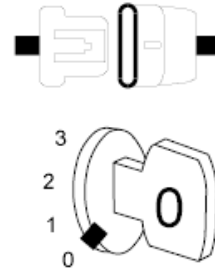
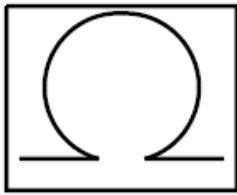
Yes

- Go to step 2

No

- The conditions that caused this code to set are not present at this time. Verify seat harness is routed correctly. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals. Attempt to reproduce condition by adjusting the seat.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR OPEN SEAT HEATER ELEMENTS



HEATER-
SEAT
CUSHION-
DRIVER
(COMPONENT SIDE)

103832

Fig. 37: Checking For Open Seat Heater Elements
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Driver Seat Cushion Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Measure the total resistance of the Cushion and Seat Back Heater Elements between the (P188) Front Right Seat Heater Control circuit and the (Z921) Ground circuit at the Driver Seat Cushion Heater connector (component side).

Is the total resistance 4.5 ohms + or - 0.5 ohms?

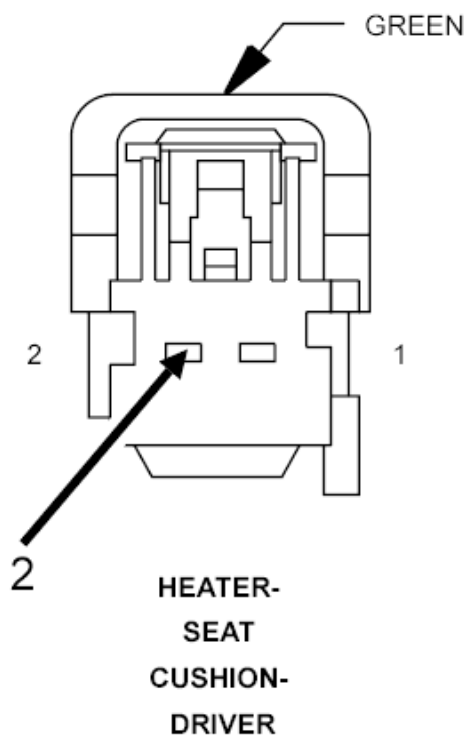
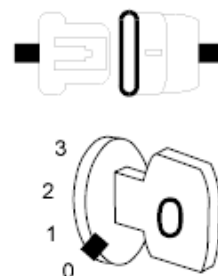
Yes

- Go to step 3

No

- Go to step 5

3. CHECK (Z921) GROUND CIRCUIT FOR AN OPEN



00507412

Fig. 38: Checking Ground Circuit For An Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (Z921) Ground circuit between ground and the Driver Seat Cushion Heater connector (harness side).

Is the resistance below 5.0 ohms?

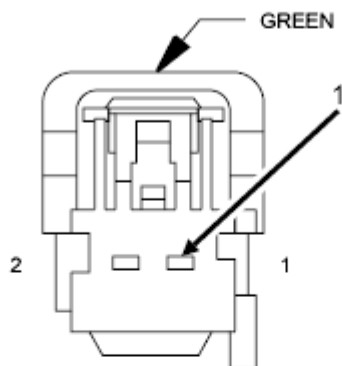
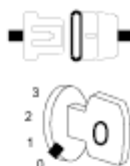
Yes

- Go to step 4

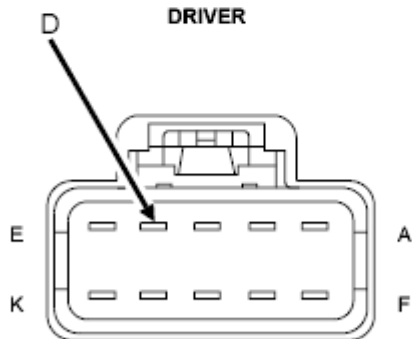
No

- Repair the (Z921) Ground circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK (P188) FRONT RIGHT SEAT HEATER CONTROL CIRCUIT FOR AN OPEN IN BODY HARNESS



**HEATER-
SEAT
CUSHION-
DRIVER**



**MODULE-
HEATED
SEATS**

Fig. 39: Checking Front Left Seat Heater Control Circuit For An Open In Body Harness
Courtesy of CHRYSLER LLC

1. Disconnect the HSM connector.

NOTE: **Check connectors - Clean and repair as necessary.**

2. Measure the resistance of the (P188) Front Right Seat Heater Control circuit between the HSM connector and the Driver Seat Cushion Heater connector (harness side).

Is the resistance below 5.0 ohms?

Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P188) Front Right Seat Heater Control circuit for an open.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

5. CHECK DRIVER SEAT BACK HEATER ELEMENT FOR AN OPEN

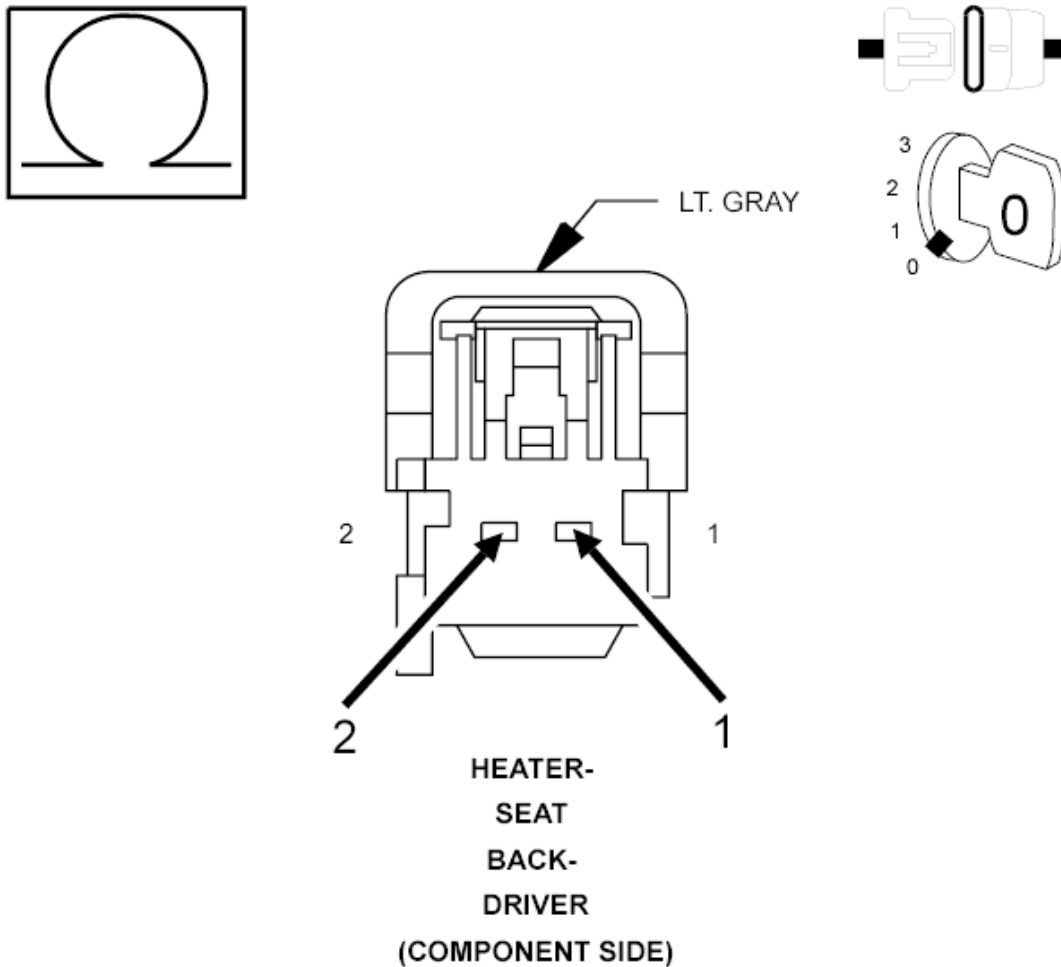


Fig. 40: Checking Driver Seat Back Heater Element For An Open
Courtesy of CHRYSLER LLC

1. Disconnect the Driver Seat Back Heater connector.

NOTE: Check connectors - Clean and repair as necessary.

2. Measure the resistance of the Driver Seat Back Heater Element between the (P188) Front Right Seat Heater Control and the (Z921) Ground circuit at the Driver Seat Back Heater connector.

Is the resistance above 8.5 ohms?

Yes

- Replace the Seat Back Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

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No

- Replace the Seat Cushion Heater Element in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B10BB-LEFT HEATED SEAT SWITCH INPUT CIRCUIT STUCK

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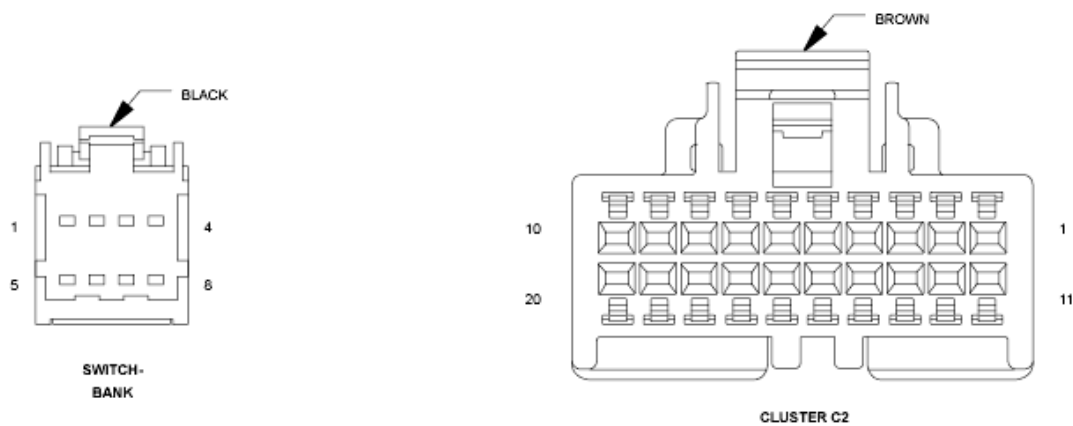
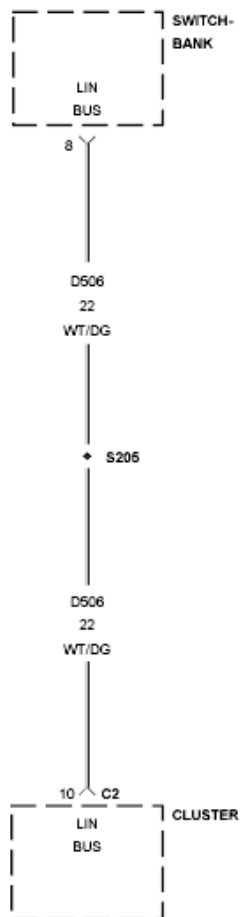


Fig. 41: LIN BUS Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

If the Cluster (CCN) senses the Left Heated Seat switch input for more than 20 seconds.

Possible Causes
OBJECT HOLDING LEFT HEATED SEAT SWITCH IN A PUSHED POSITION SUBSTANCE CAUSING LEFT HEATED SEAT SWITCH TO GET STUCK IN A PUSHED POSITION SWITCH BANK

Diagnostic Test

1. INSPECT SWITCH BANK FOR DAMAGE

NOTE: Diagnose and repair all LIN Bus related DTCs before performing this test procedure.

1. Turn the ignition off.
2. Inspect the Switch Bank for damage.

Is the Switch Bank damaged?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 2

2. INSPECT FOR OBJECT OR SUBSTANCE CAUSING LEFT HEATED SEAT SWITCH TO STAY OR STICK IN A PUSHED POSITION

1. Inspect the Left Heated Seat switch for anything that would cause it to stay or stick in a pushed position.

Is anything present that would cause the Left Heated Seat switch to stay or stick in a pushed position?

Yes

- Repair as necessary.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Press and release the Left Heated Seat switch several times and then wait 20 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display: B10BB-LEFT HEATED SEAT SWITCH INPUT CIRCUIT STUCK?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- The conditions that caused this code to set are not present at this time.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B10BC-RIGHT HEATED SEAT SWITCH INPUT CIRCUIT STUCK

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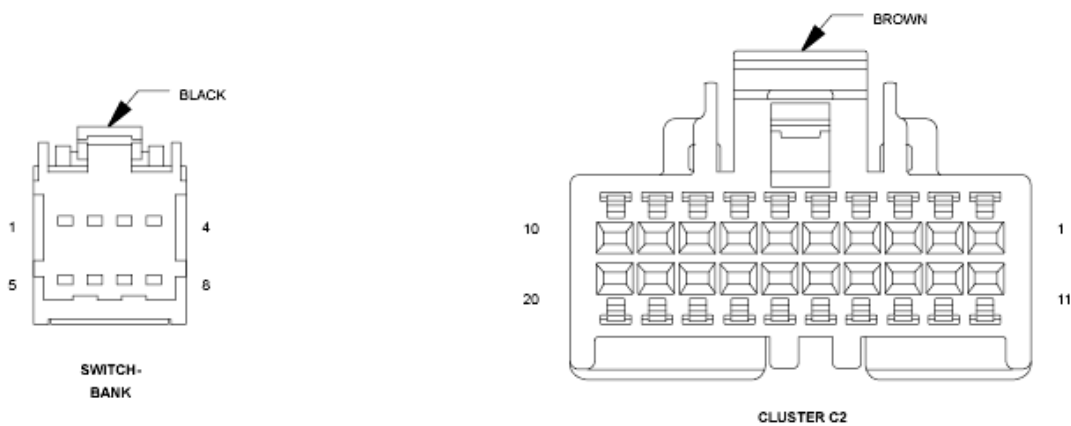
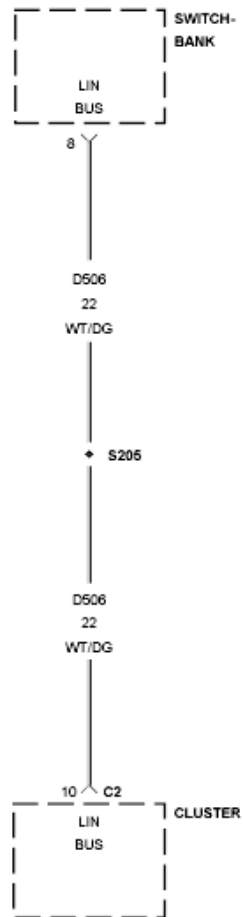


Fig. 42: LIN BUS Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

If the Cluster (CCN) senses the Right Heated Seat switch input for more than 20 seconds.

Possible Causes
OBJECT HOLDING RIGHT HEATED SEAT SWITCH IN A PUSHED POSITION SUBSTANCE CAUSING RIGHT HEATED SEAT SWITCH TO GET STUCK IN A PUSHED POSITION SWITCH BANK

Diagnostic Test

1. INSPECT SWITCH BANK FOR DAMAGE

NOTE: Diagnose and repair all LIN Bus related DTCs before performing this test procedure.

1. Turn the ignition off.
2. Inspect the Switch Bank for damage.

Is the Switch Bank damaged?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 2

2. INSPECT FOR OBJECT OR SUBSTANCE CAUSING RIGHT HEATED SEAT SWITCH TO STAY OR STICK IN A PUSHED POSITION

1. Inspect the Right Heated Seat switch for anything that would cause it to stay or stick in a pushed position.

Is anything present that would cause the Right Heated Seat switch to stay or stick in a pushed position?

Yes

- Repair as necessary.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Press and release the Right Heated Seat switch several times and then wait 20 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display: B10BC-RIGHT HEATED SEAT SWITCH INPUT CIRCUIT STUCK?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- The conditions that caused this code to set are not present at this time.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B123F-MENU SWITCH STUCK

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Instrument Cluster detects the Menu Switch active for greater than 20 seconds.

Possible Causes
MENU SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Press the MENU switch three times.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

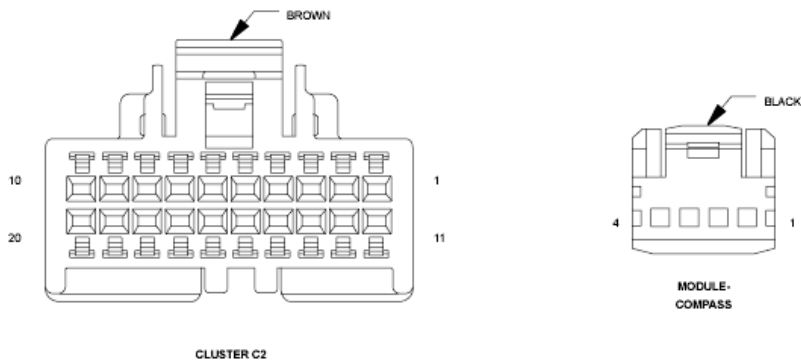
Yes

- Replace the Menu Switch in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Test complete

B127A-COMPASS PERFORMANCE



- **When Monitored:**

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With the ignition on.

- **Set Condition:**

Compass performance.

Possible Causes
(F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN (Z926) GROUND CIRCUIT OPEN COMPASS MODULE CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this test, check all fuses related to the system.

NOTE: Remove any electronic devices (laptop computers, cell phones) from the instrument panel.

NOTE: Before proceeding, check the compass variance and calibration in accordance with the service information.

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN

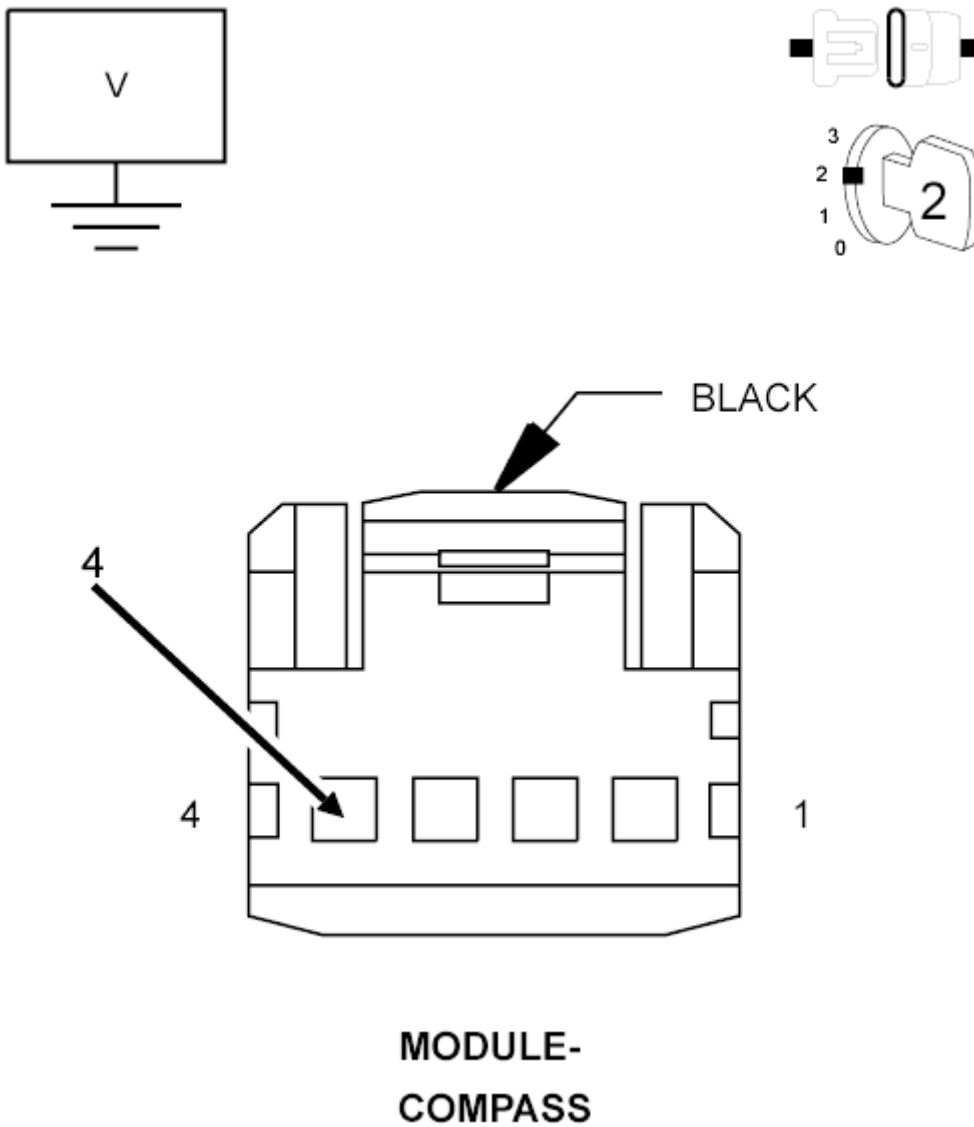


Fig. 44: Checking Fused Run Relay Output Circuit Open
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Compass Module harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (F921) Fused Run Relay Output circuit for an open.

Is the voltage above 10 volts?

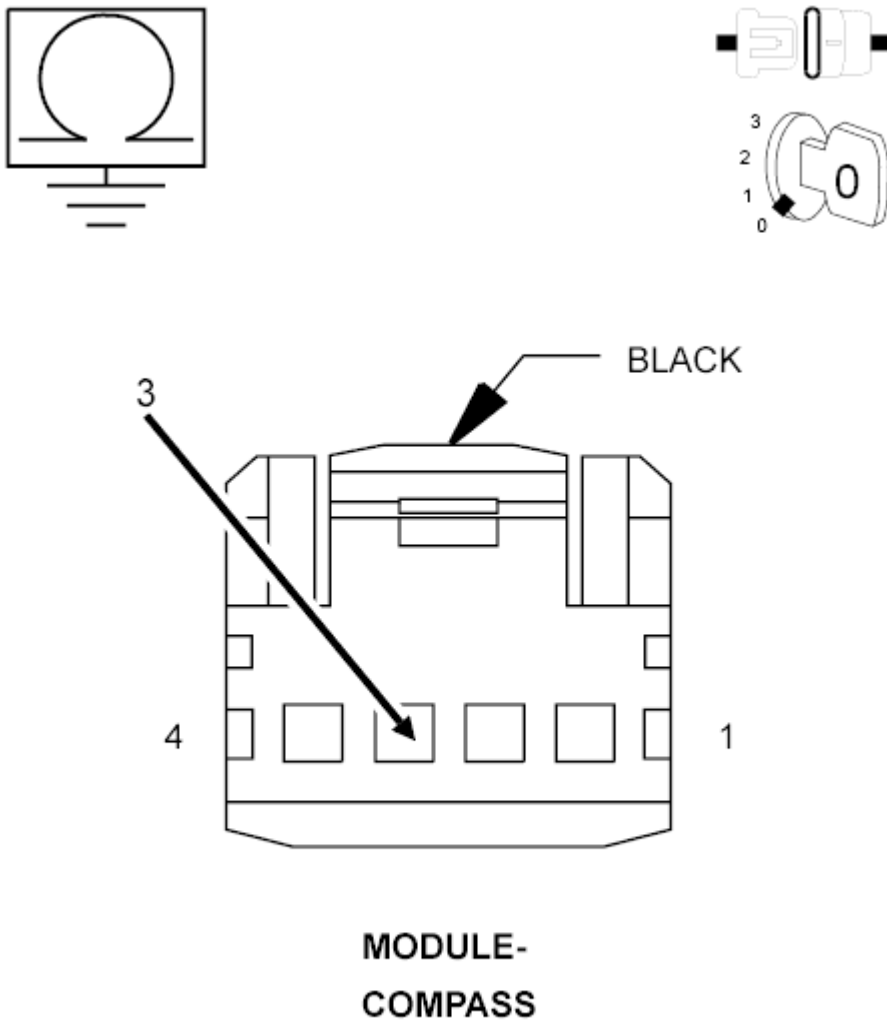
Yes

- Go to step 3

No

- Repair the (F921) Fused Run Relay Output circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

3. (Z926) GROUND CIRCUIT OPEN



107101

Fig. 45: Checking Ground Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance of the (Z926) Ground circuit for an open.

Is the resistance above 10K ohms?

Yes

- Repair the (Z926) Ground circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Replace the Compass Module in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

B1286-COMPASS/TEMP BUTTON PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Compass/Temp Button active for greater than 20 seconds.

Possible Causes
RIGHT STEERING WHEEL SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Press the Compass/Temp Button three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Right Steering Wheel Switch in accordance with the Service Information.

- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B1287-RESET SWITCH PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Reset Switch active for greater than 20 seconds.

Possible Causes
RIGHT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Press the Reset switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Right Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B1288-TRIP/TOGGLE SWITCH PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

• When Monitored:

With the ignition on.

• Set Condition:

The Cluster detects the Trip/Toggle Switch active for greater than 20 seconds.

Possible Causes
CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. Press the Trip/Toggle switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete.

B1427-REMOTE RADIO SWITCH INPUT CIRCUIT HIGH (WITHOUT EVIC)

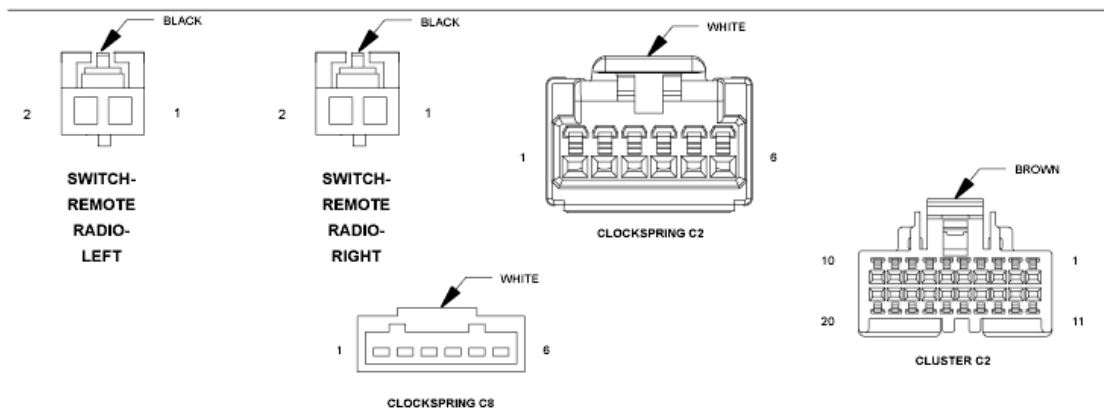
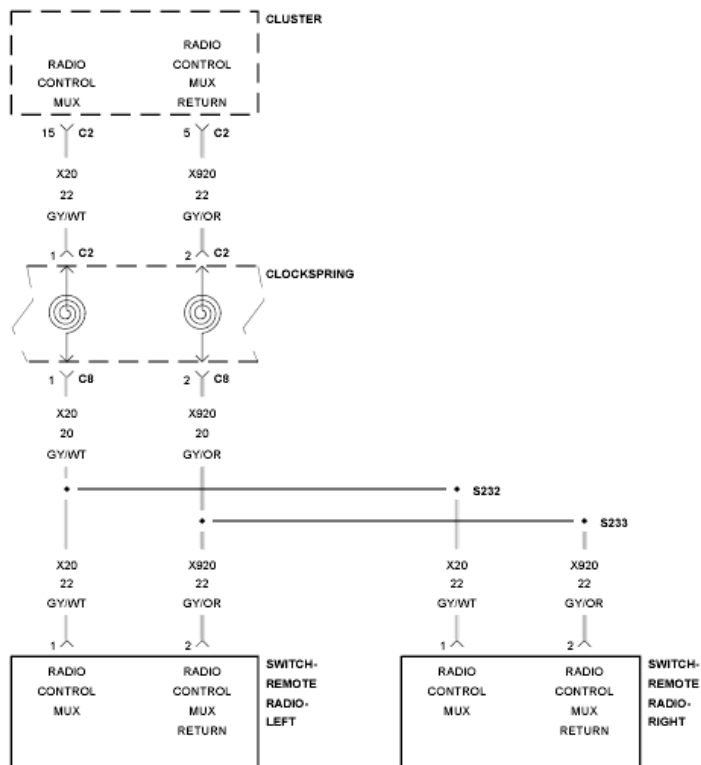


Fig. 46: Remote Control MUX Circuit Schematic

Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

With the Radio on.

- **Set Condition:**

The Cluster Detects the Radio Control MUX (multiplex) circuit is open or shorted to voltage.

Possible Causes
(X20) REMOTE CONTROL MUX CIRCUIT OPEN
(X20) REMOTE CONTROL MUX CIRCUIT SHORTED TO VOLTAGE
(X920) REMOTE CONTROL MUX RETURN CIRCUIT OPEN
LEFT REMOTE RADIO SWITCH
RIGHT REMOTE RADIO SWITCH
CLOCKSPRING
CLUSTER

Diagnostic Test**1. CHECK FOR ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read the active DTCs.

Does the scan tool display B1427-REMOTE RADIO SWITCH INPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. (X20) RADIO CONTROL MUX CIRCUIT SHORTED TO VOLTAGE

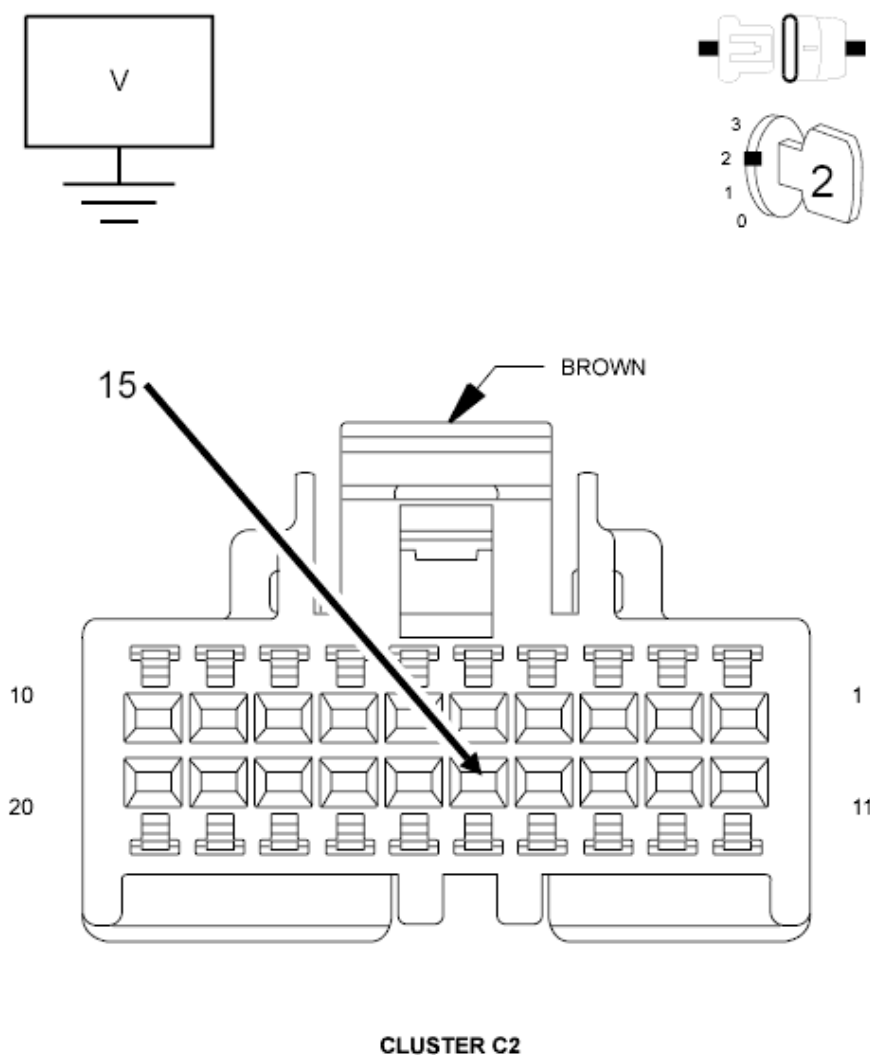


Fig. 47: Checking Radio Control MUX Circuit Shorted To Voltage
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Turn the ignition on.
4. Measure the voltage on the (X20) Radio Control MUX circuit.

Is the voltage above 1.0 volt?

Yes

- Repair the short to voltage in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 3

3. LEFT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Connect the Cluster C2 harness connector.
3. Disconnect the Left Remote Radio Switch harness connector.
4. Connect a 5 Amp fused jumper wire between cavity 1 and cavity 2 in the Left Remote Radio Switch harness connector.
5. Turn the ignition on.
6. With the scan tool monitor the Remote Radio Control Switch voltage.

Is the voltage below 1.0 volt?

Yes

- Replace the Left Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. RIGHT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Connect the Left Remote Radio Switch harness connector.
3. Disconnect the Right Remote Radio Switch harness connector.
4. Connect a 5 Amp fused jumper wire between cavity 1 and cavity 2 in the Right Remote Radio Switch harness connector.
5. Turn the ignition on.
6. With the scan tool monitor the Remote Radio Control Switch voltage.

Is the voltage below 1.0 volt?

Yes

- Replace the Right Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. (X20) RADIO CONTROL MUX CIRCUIT OPEN

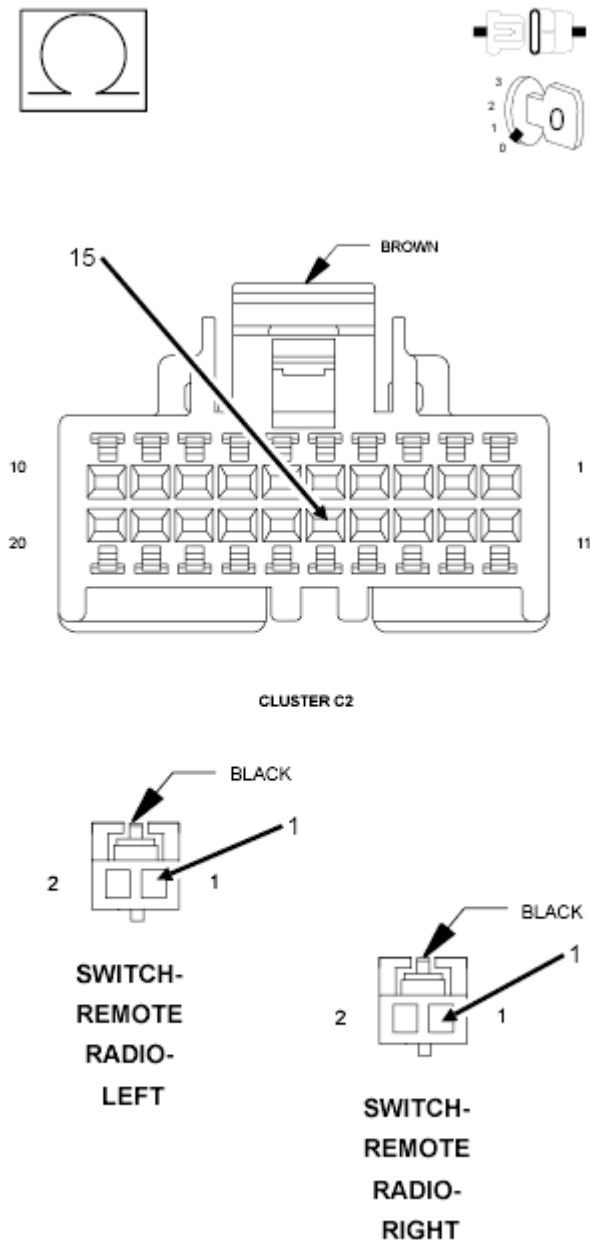


Fig. 48: Checking Radio Control MUX Circuit Open
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Remote Radio Switch harness connector.
3. Disconnect the Cluster C2 harness connector.
4. Measure the resistance of the (X20) Radio Control MUX circuit.

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Are the resistances above 5.0 Ohms?

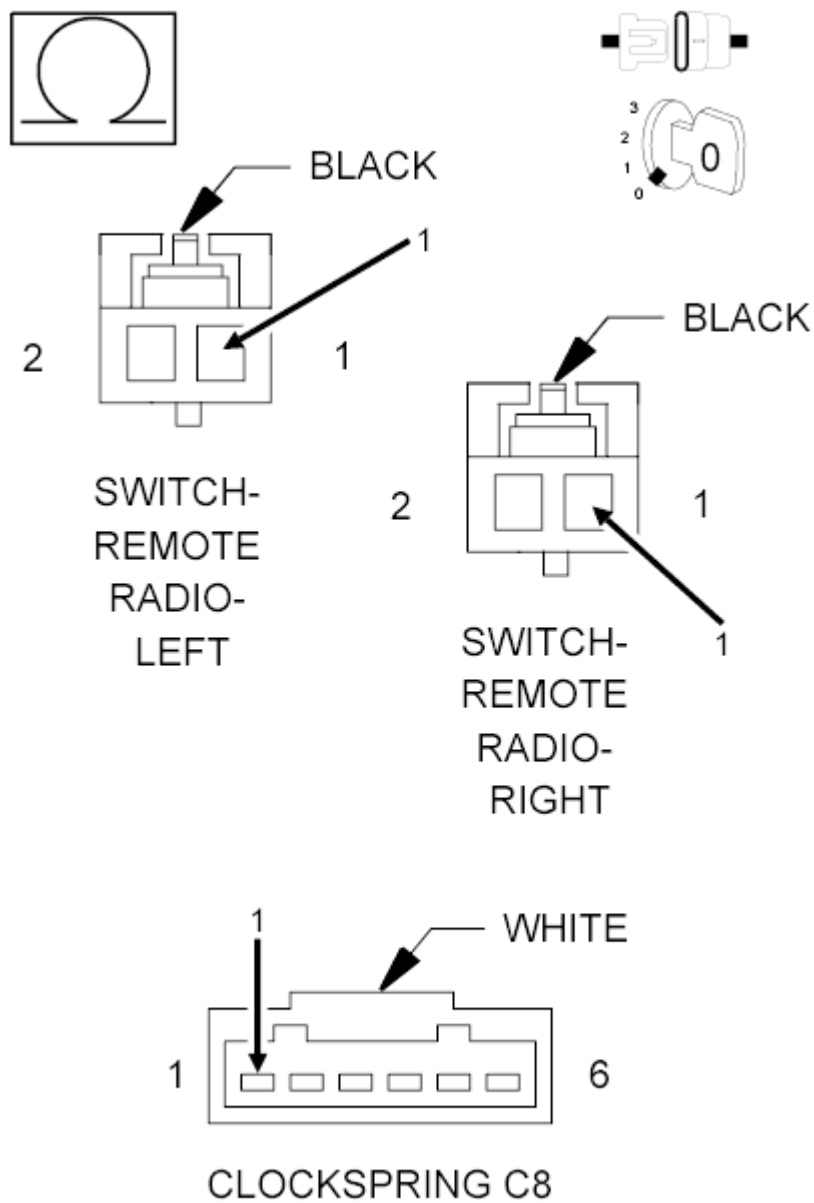
Yes

- Go to step 6

No

- Go to step 8

6. (X20) RADIO CONTROL MUX CIRCUIT OPEN BETWEEN REMOTE RADIO SWITCHES AND CLOCKSPRING



2540389

Fig. 49: Checking Radio Control MUX Circuit Open Between Remote Radio Switches & Clockspring

Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C8 harness connector.
2. Measure the resistance of the (X20) Radio Control MUX circuit.

Are the resistances above 5.0 Ohms?

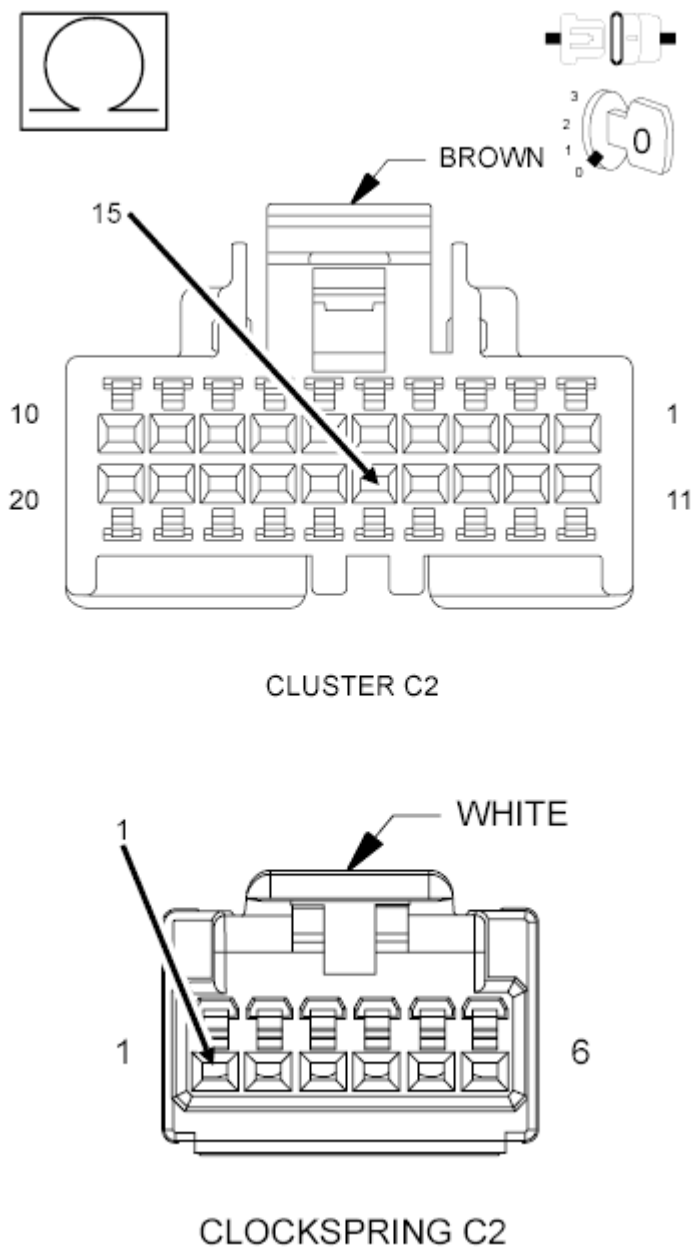
Yes

- Repair the open in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 7

7. (X20) RADIO CONTROL MUX CIRCUIT OPEN BETWEEN CLOCKSPrING AND CLUSTER



2540416

Fig. 50: Checking Radio Control MUX Circuit Open Between Clockspring & Cluster

Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C2 harness connector.
2. Measure the resistance of the (X20) Radio Control MUX circuit.

Is the resistance above 5.0 Ohms?

Yes

- Repair the open in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

8. (X920) RADIO CONTROL MUX RETURN CIRCUIT OPEN

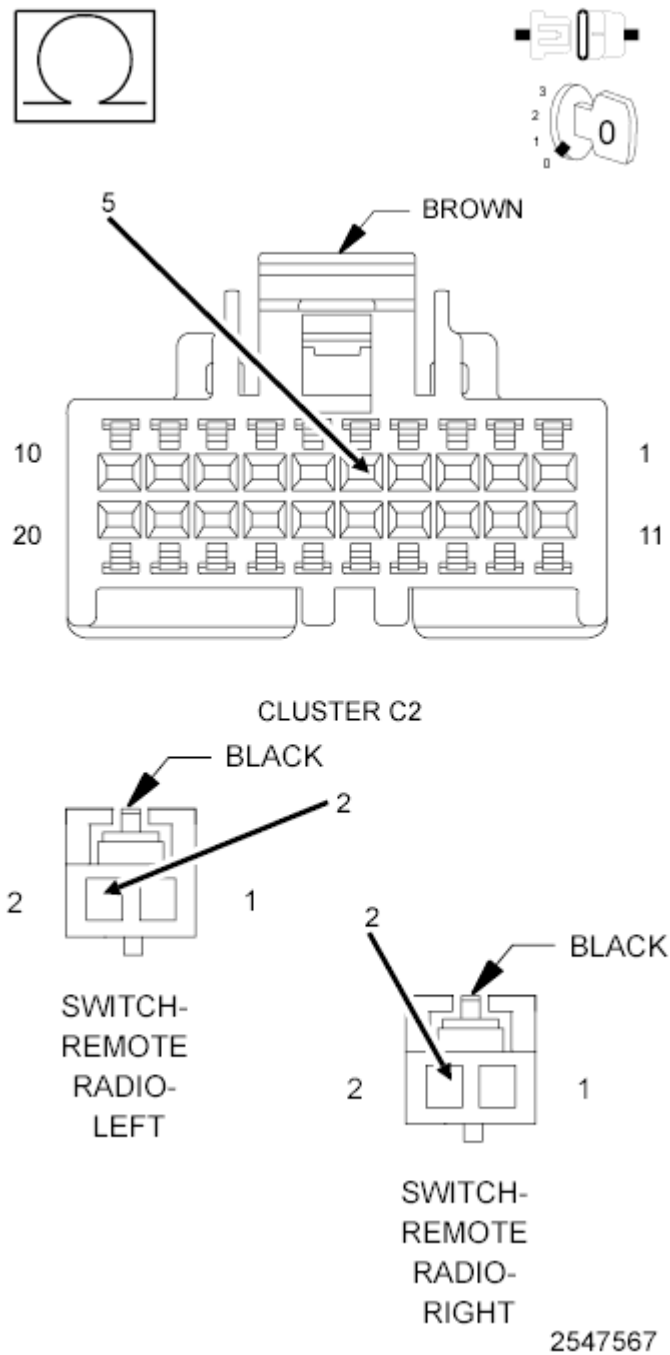


Fig. 51: Checking Radio Control MUX Return Circuit Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X920) Radio Control MUX Return circuit.

Are the resistances above 5.0 Ohms?

Yes

- Go to step 9

No

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

9. (X920) RADIO CONTROL MUX RETURN CIRCUIT OPEN BETWEEN REMOTE RADIO SWITCHES AND CLOCKSPRING

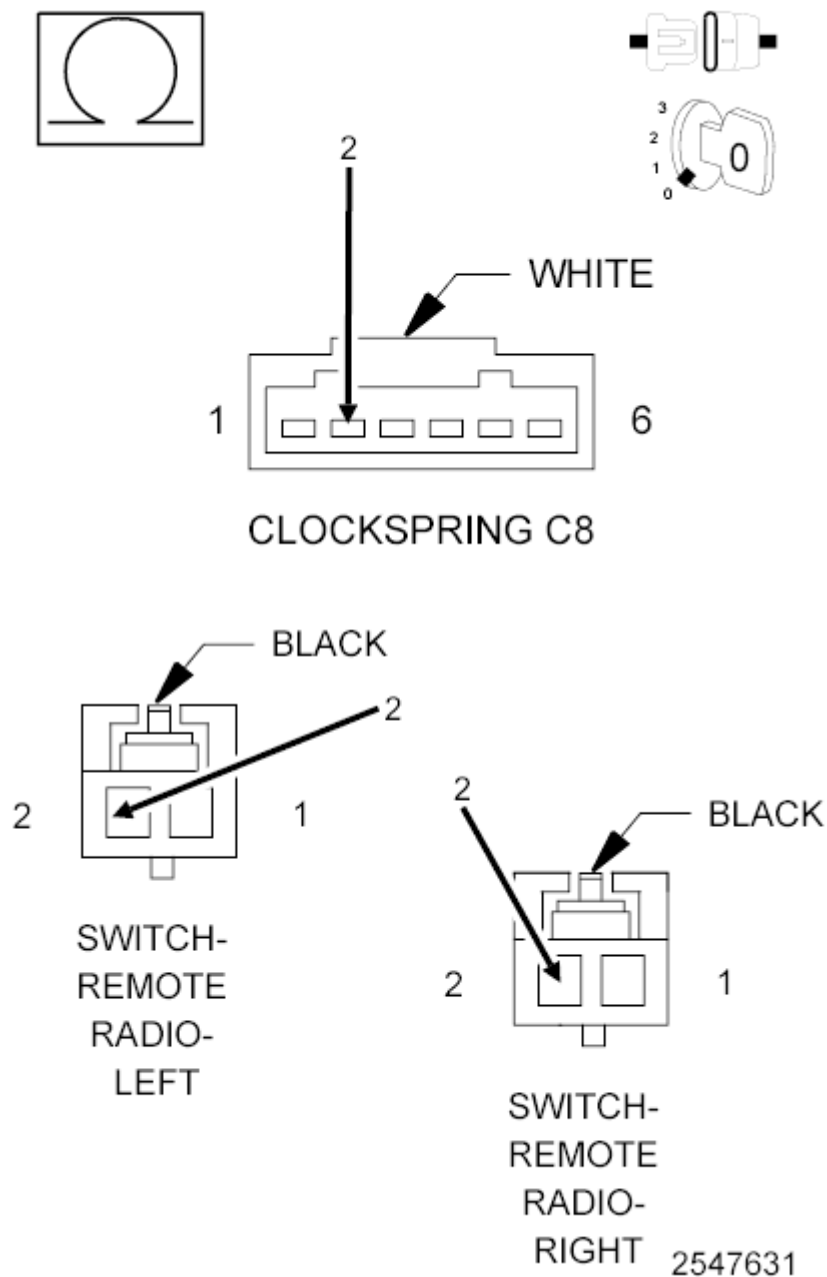


Fig. 52: Checking Radio Control MUX Return Circuit Open Between Remote Radio Switches & Clockspring**Courtesy of CHRYSLER LLC**

1. Disconnect the Clockspring C8 harness connector.
2. Measure the resistance of the (X920) Radio Control MUX Return circuit.

Are the resistances above 5.0 Ohms?

Yes

- Repair the open in the (X920) Radio Control MUX Return circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 10

10. **(X920) RADIO CONTROL MUX RETURN CIRCUIT OPEN BETWEEN CLOCKSPRING AND CLUSTER**

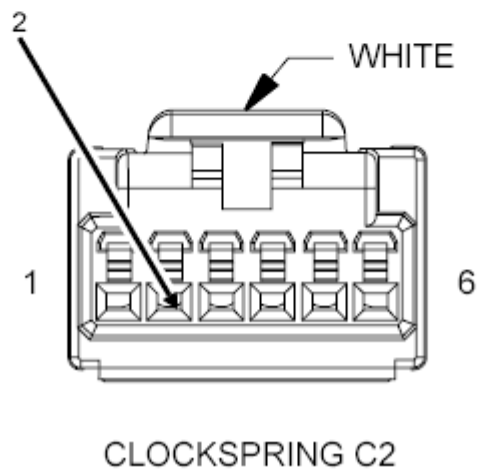
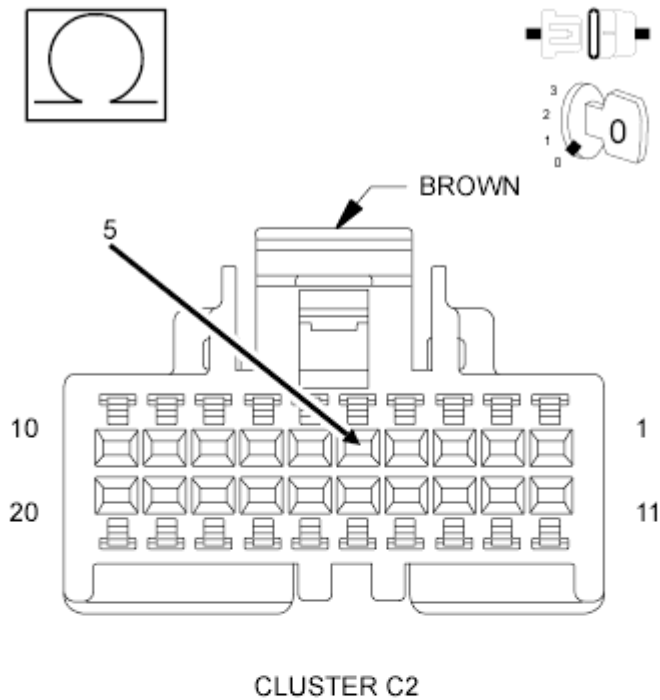


Fig. 53: Checking Radio Control MUX Return Circuit Open Between Clockspring & Cluster
Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C2 harness connector.
2. Measure the resistance of the (X920) Radio Control MUX Return circuit.

Is the resistance above 5.0 Ohms?

Yes

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- Repair the open in the (X920) Radio Control MUX Return circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1427-REMOTE RADIO SWITCH INPUT CIRCUIT HIGH (WITH EVIC)

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2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

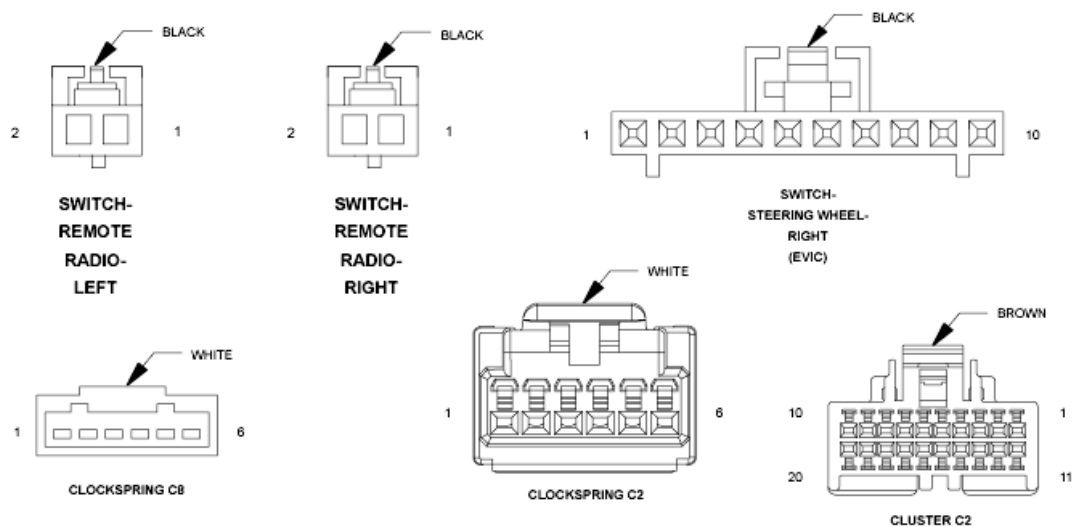
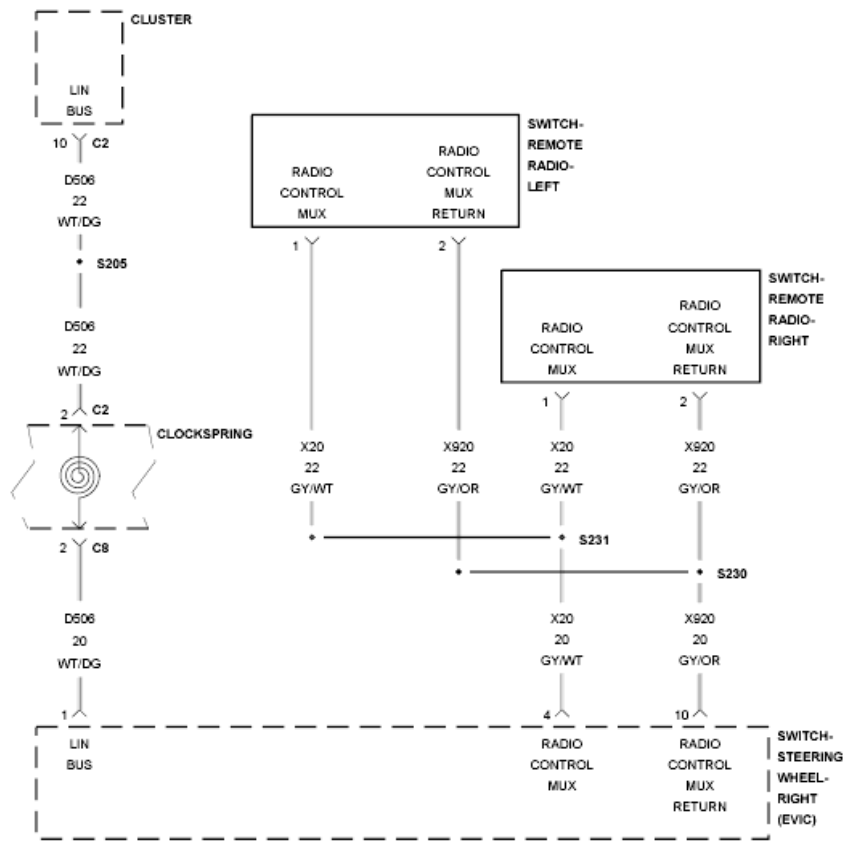


Fig. 54: Remote Control MUX Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

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- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster Detects the Radio Control MUX (multiplex) circuit is open or shorted to voltage.

Possible Causes
(X20) REMOTE CONTROL MUX CIRCUIT OPEN
(X20) REMOTE CONTROL MUX CIRCUIT SHORTED TO VOLTAGE
LEFT REMOTE RADIO SWITCH
RIGHT REMOTE RADIO SWITCH
RIGHT STEERING WHEEL SWITCH

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. (X20) RADIO CONTROL MUX CIRCUIT SHORT TO VOLTAGE

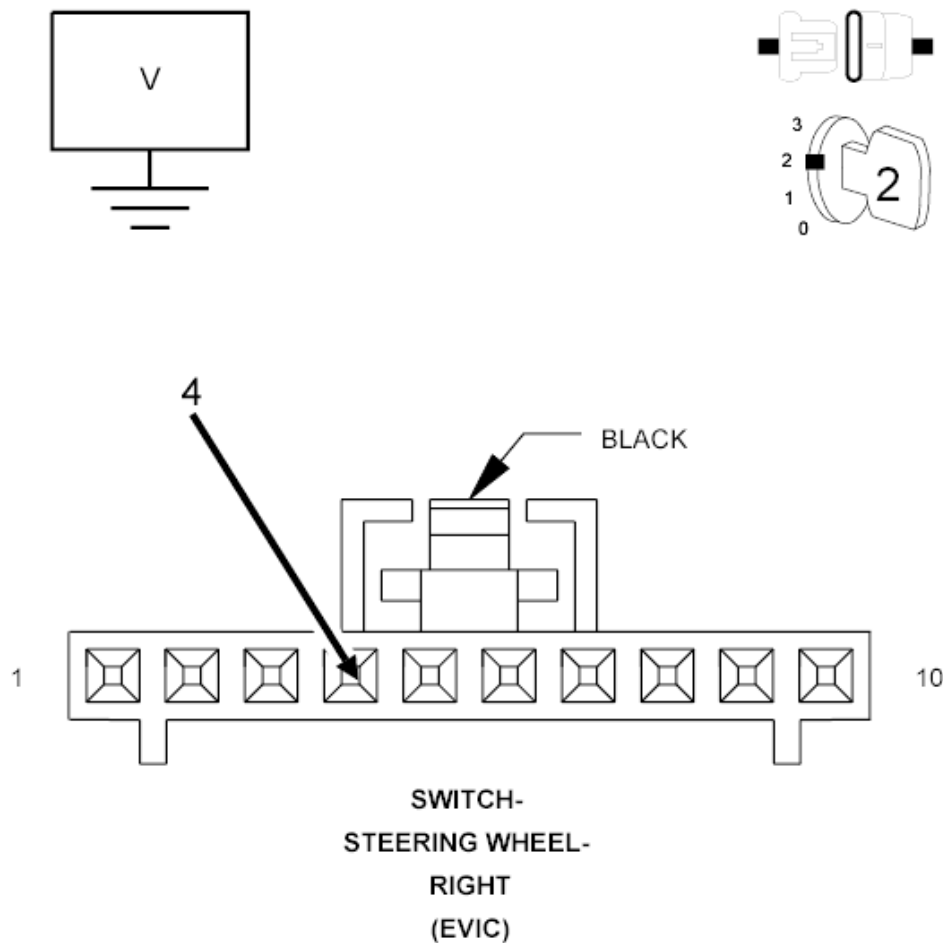


Fig. 55: Checking Radio Control MUX Circuit Short To Voltage
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Steering Wheel Switch harness connector.
3. Turn the ignition on.
4. Measure the voltage on the (X20) Radio Control MUX circuit.

Is the voltage above 10.0 volts?

Yes

- Repair the short to voltage in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. LEFT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Connect the Right Steering Wheel Switch harness connector.
3. Disconnect the Left Remote Radio Switch harness connector.
4. Connect a 5 Amp fused jumper wire between cavity 1 and cavity 2 in the Left Remote Radio Switch harness connector.
5. Turn the ignition on.
6. With the scan tool monitor the Remote Radio Control Switch voltage.

Is the voltage below 1.0 volt?

Yes

- Replace the Left Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. RIGHT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Connect the Left Remote Radio Switch harness connector.
3. Disconnect the Right Remote Radio Switch harness connector.
4. Connect a 5 Amp fused jumper wire between cavity 1 and cavity 2 in the Right Remote Radio Switch harness connector.
5. Turn the ignition on.
6. With the scan tool monitor the Remote Radio Control Switch voltage.

Is the voltage below 1.0 volt?

Yes

- Replace the Right Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. (X20) RADIO CONTROL MUX CIRCUIT OPEN

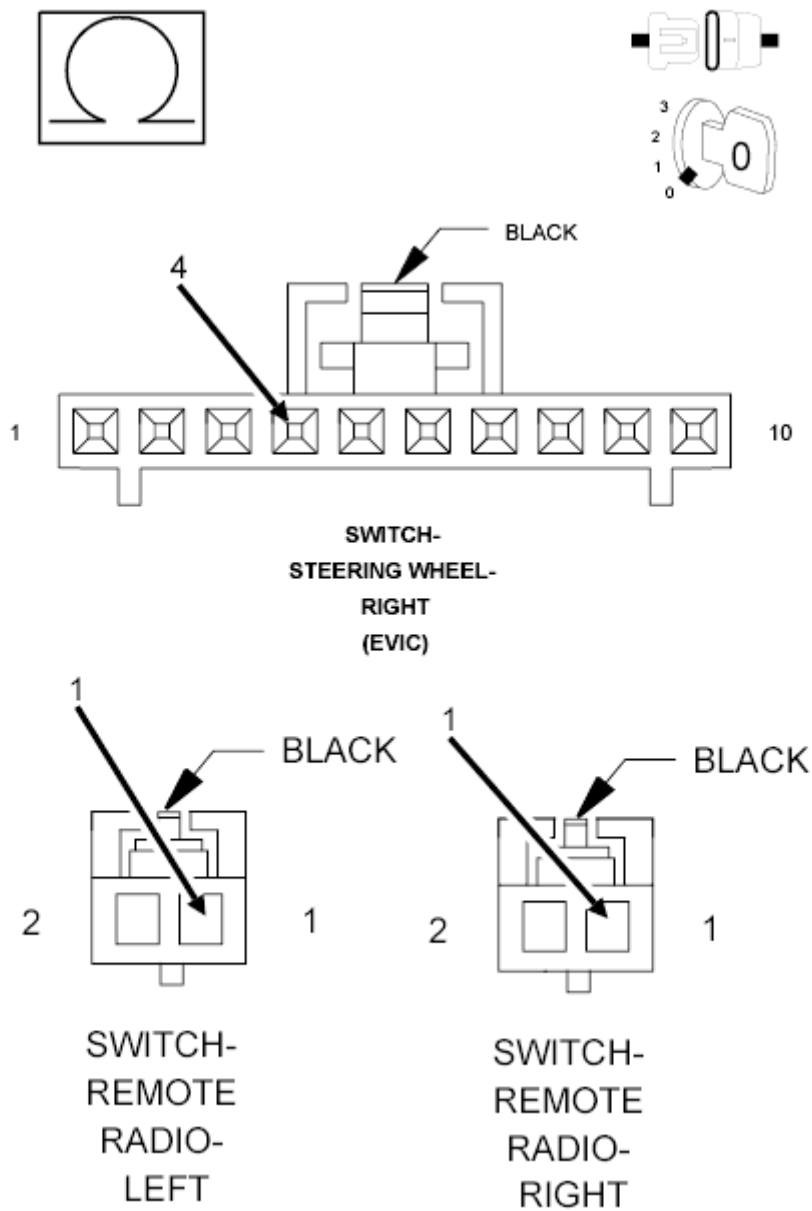


Fig. 56: Checking Radio Control MUX Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Steering Wheel Switch harness connector.
3. Measure the resistance of the (X20) Radio Control MUX circuit.

Are the resistances above 100.0 Ohms?

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Yes

- Repair the open in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Right Steering Wheel Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1428-REMOTE RADIO SWITCH INPUT CIRCUIT STUCK (WITHOUT EVIC)

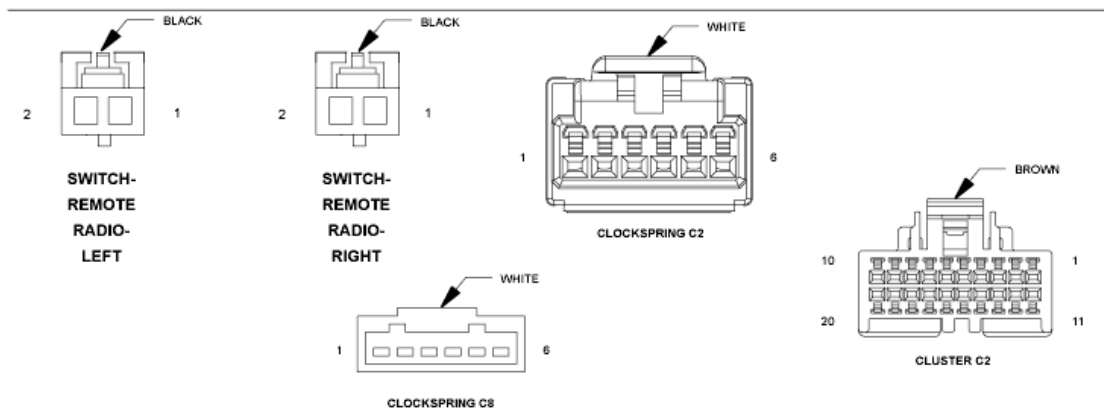
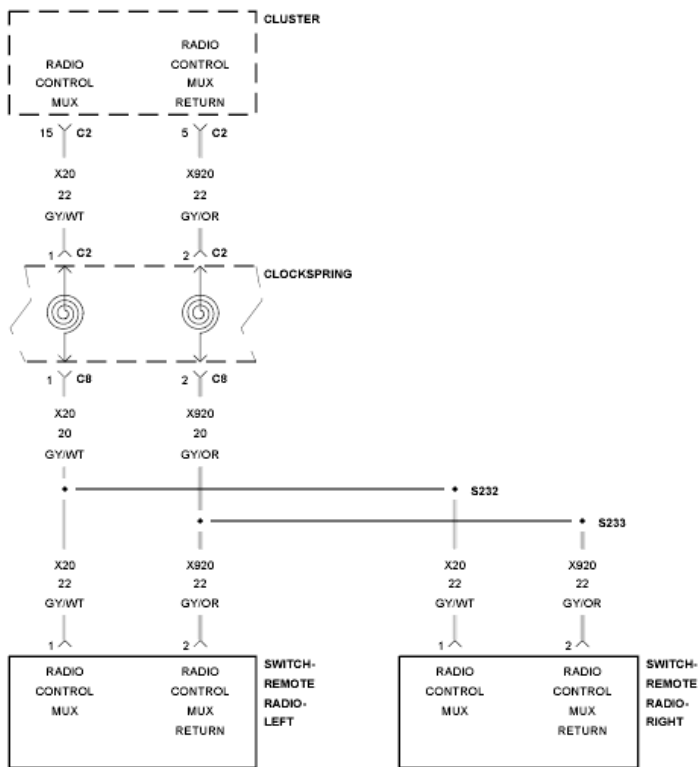


Fig. 57: Remote Control MUX Circuit Schematic

Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

With the ignition in any position except off.

- **Set Condition:**

The Cluster detects a stuck switch state on the (X20) Radio Control MUX (multiplex) circuit for more than 30 seconds.

Possible Causes
(X20) RADIO CONTROL MUX CIRCUIT SHORTED TO GROUND
LEFT REMOTE RADIO SWITCH
RIGHT REMOTE RADIO SWITCH
CLOCKSPRING
CLUSTER

Diagnostic Test**1. CHECK FOR ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. LEFT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Disconnect the Left Remote Radio Switch harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

- Replace the Left Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. RIGHT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Disconnect the Right Remote Radio Switch harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

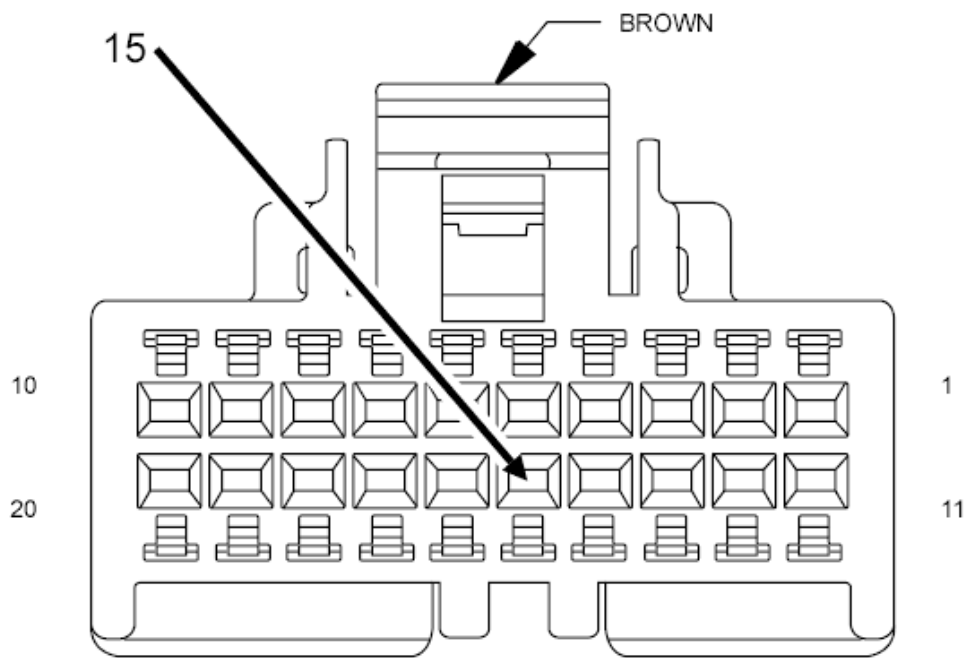
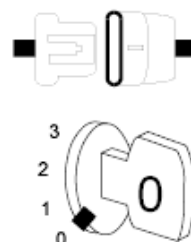
Yes

- Go to step 4

No

- Replace the Right Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (X20) RADIO CONTROL MUX CIRCUIT SHORTED TO GROUND



CLUSTER C2

2498831

Fig. 58: Checking Radio Control MUX Circuit Shorted To Ground

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance between ground and the (X20) Radio Control MUX circuit.

Is the resistance below 5.0 Ohms?

Yes

- Repair the short to ground in the (X20) Radio Control MUX circuit.

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- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1428-REMOTE RADIO SWITCH INPUT CIRCUIT STUCK (WITH EVIC)



For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

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- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects a stuck switch state on the (X20) Radio Control MUX (multiplex) circuit for more than 30 seconds.

Possible Causes
(X20) RADIO CONTROL MUX CIRCUIT SHORTED TO GROUND LEFT REMOTE RADIO SWITCH RIGHT REMOTE RADIO SWITCH RIGHT STEERING WHEEL SWITCH

Diagnostic Test

1. CHECK FOR ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. LEFT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Disconnect the Left Remote Radio Switch harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

- Replace the Left Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. RIGHT REMOTE RADIO SWITCH

1. Turn the ignition off.
2. Disconnect the Right Remote Radio Switch harness connector.
3. Turn the ignition on.
4. With the scan tool, read the active DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 4

No

- Replace the Right Remote Radio Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (X20) RADIO CONTROL MUX CIRCUIT SHORTED TO GROUND

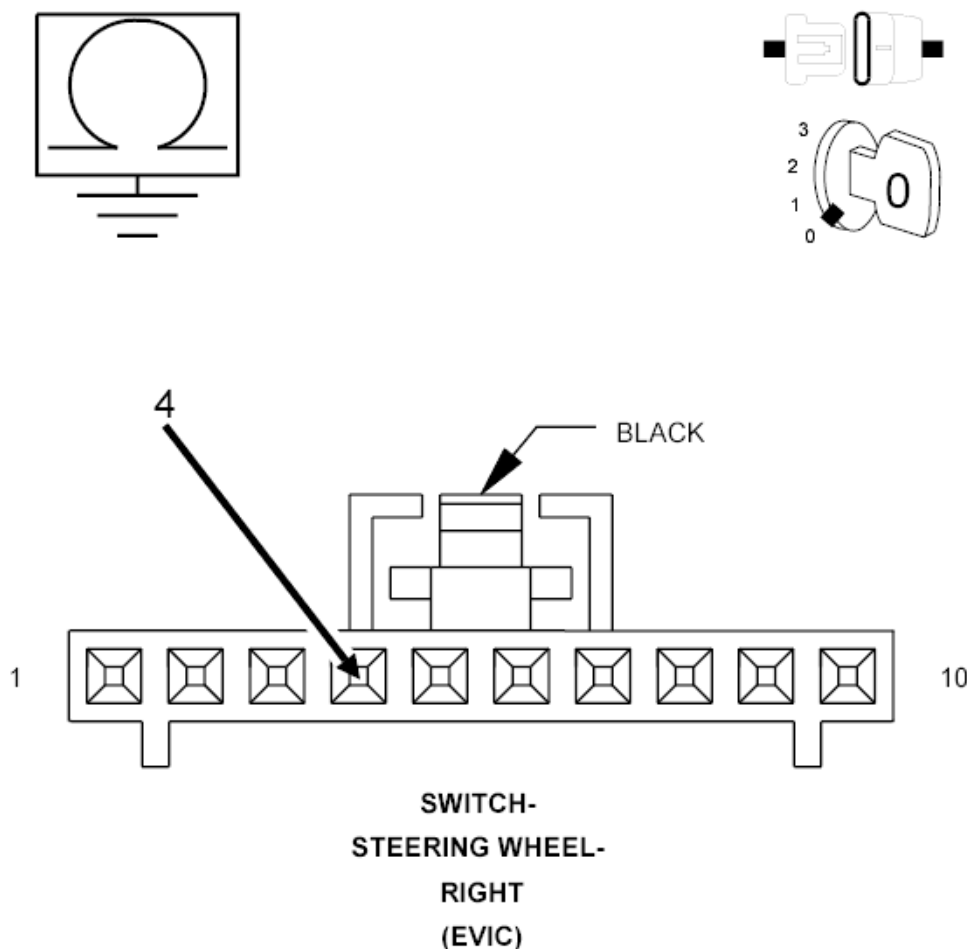


Fig. 60: Checking Radio Control MUX Circuit Shorted To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Steering Wheel Switch harness connector.
3. Measure the resistance between ground and the (X20) Radio Control MUX circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the short to ground in the (X20) Radio Control MUX circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Right Steering Wheel Switch in accordance with the Service Information.

- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1502-STEERING WHEEL CONTROL DOWN SWITCH PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Steering Wheel Control Down Switch active for greater than 20 seconds.

Possible Causes
LEFT STEERING WHEEL SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Press the Steering Wheel Control Down Switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Left Steering Wheel Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B1503-STEERING WHEEL CONTROL RIGHT SWITCH PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Steering Wheel Control Right Switch active for greater than 20 seconds.

Possible Causes
LEFT STEERING WHEEL SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Press the Steering Wheel Control Right Switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Steering Wheel Control Left Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B1613-PANEL ILLUMINATION CONTROL CIRCUIT LOW

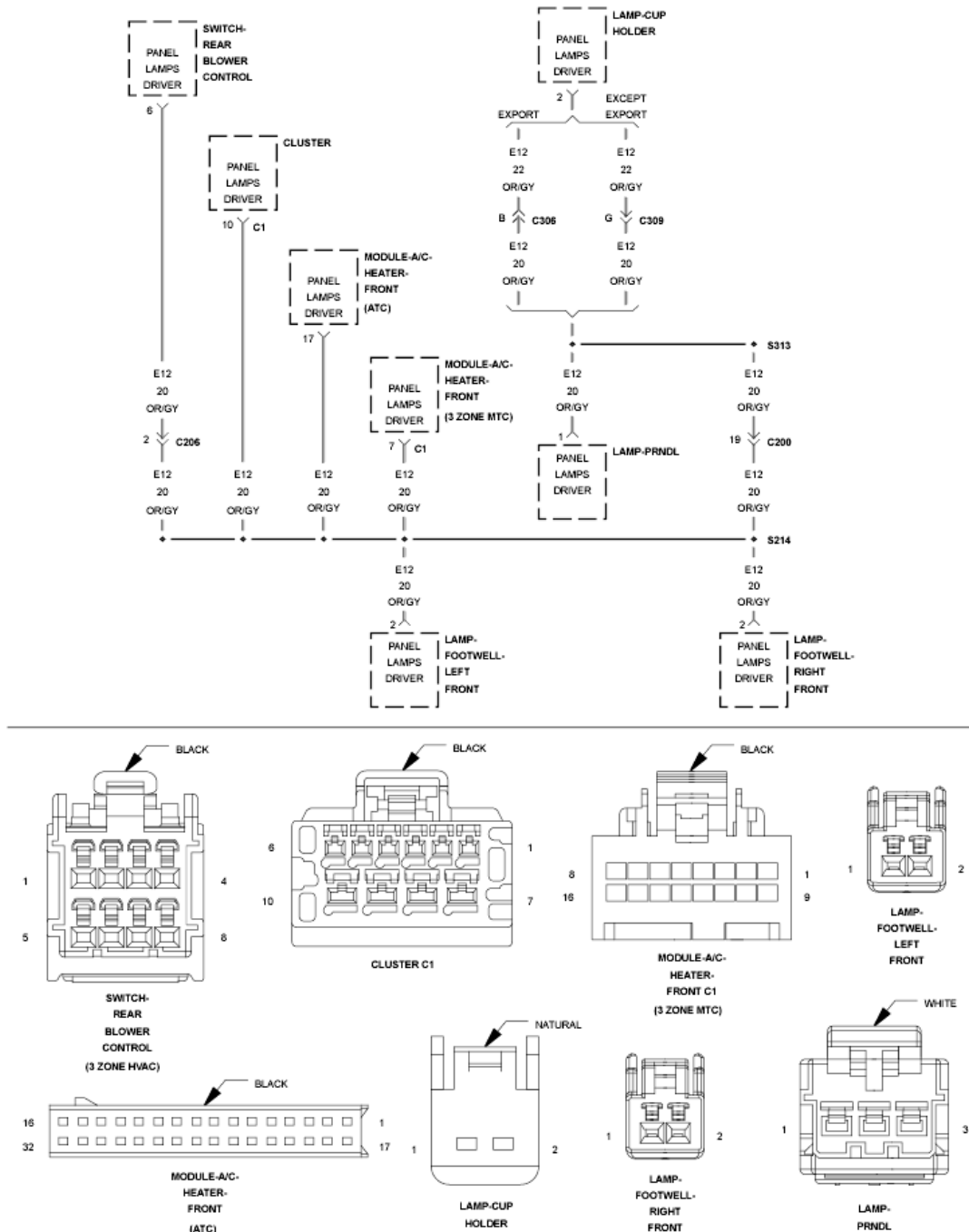


Fig. 61: Panel Lamps Driver Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

With the ignition on and the Panel Illumination active.

- **Set Condition:**

Panel Illumination Status LOW.

Possible Causes
(E12) PANEL LAMPS DRIVER CIRCUIT SHORTED TO GROUND PRNDL LAMP SHORTED TO GROUND LEFT OR RIGHT FOOTWELL LAMP SHORTED TO GROUND CUP HOLDER LAMP SHORTED TO GROUND FRONT A/C HEATER MODULE (ATC OR MTC) SHORTED TO GROUND REAR BLOWER CONTROL SWITCH SHORTED TO GROUND CLUSTER

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Activate the Panel Illumination.
4. Wait 30 seconds.
5. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. CHECK EACH COMPONENT FOR AN INTERNAL SHORT TO GROUND

NOTE: Using the wiring diagram as a guide disconnect each component one at a time while checking for the DTC to become stored. Repeat this step for each component.

1. Turn the ignition off.

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2. Disconnect the non-functioning component harness connector.
3. Turn the ignition on.
4. Activate the Panel Illumination.
5. With the scan tool, read DTCs.

Is the DTC still active?

Yes

- Go to step 3

No

- Replace the non-functioning component that when disconnected caused the DTC to become stored in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

3. CHECK THE (E12) PANEL LAMPS DRIVER CIRCUIT FOR A SHORT TO GROUND

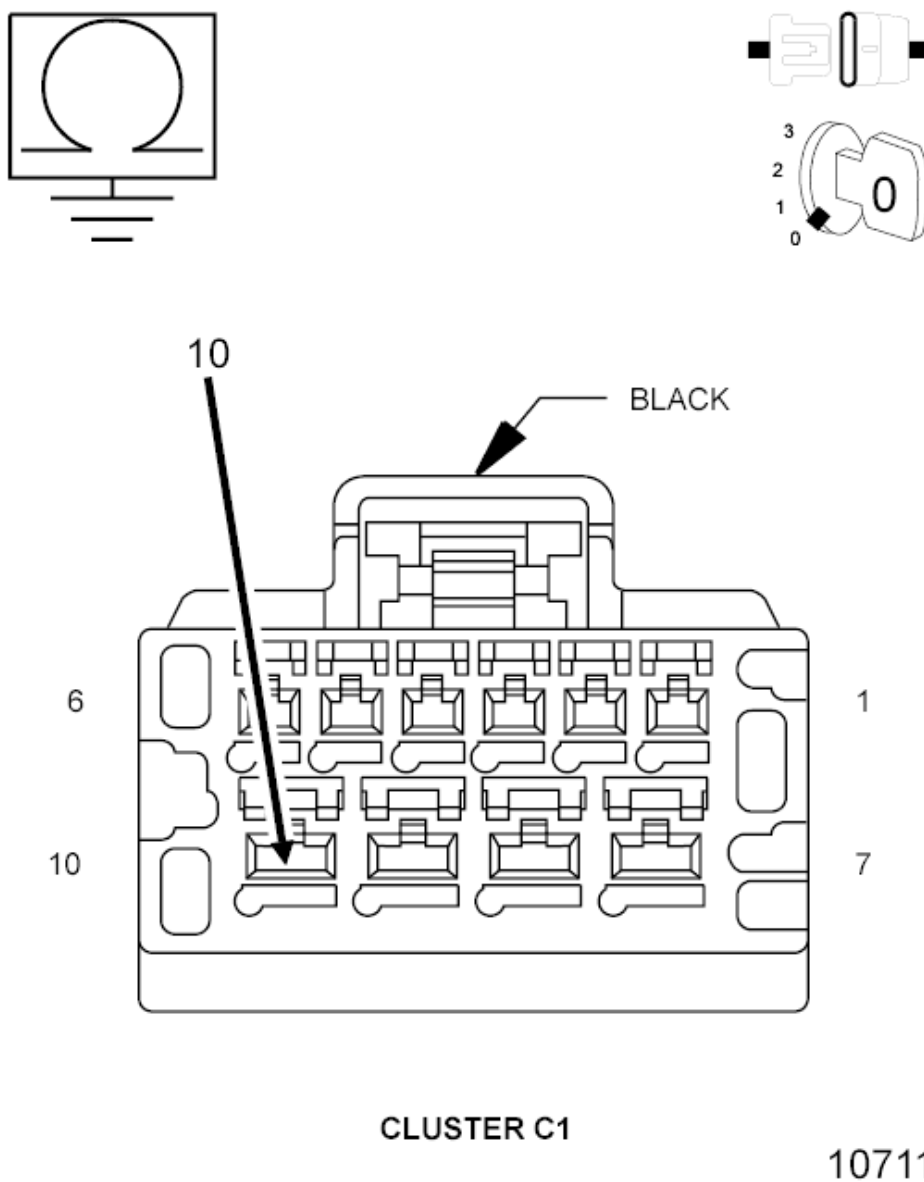


Fig. 62: Checking Panel Lamps Driver Circuit For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Instrument Cluster C1 harness connector.
3. With all (E12) Panel Lamps Driver circuit components disconnected, measure the resistance to ground on the (E12) Panel Lamps Driver Circuit from the Instrument Cluster C1 harness connector.

Is the resistance less than 10K ohms?

Yes

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- Repair the (E12) Panel Lamps Driver circuit for a short to ground.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Replace the Cluster in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

B1615-PANEL ILLUMINATION CONTROL CIRCUIT OPEN

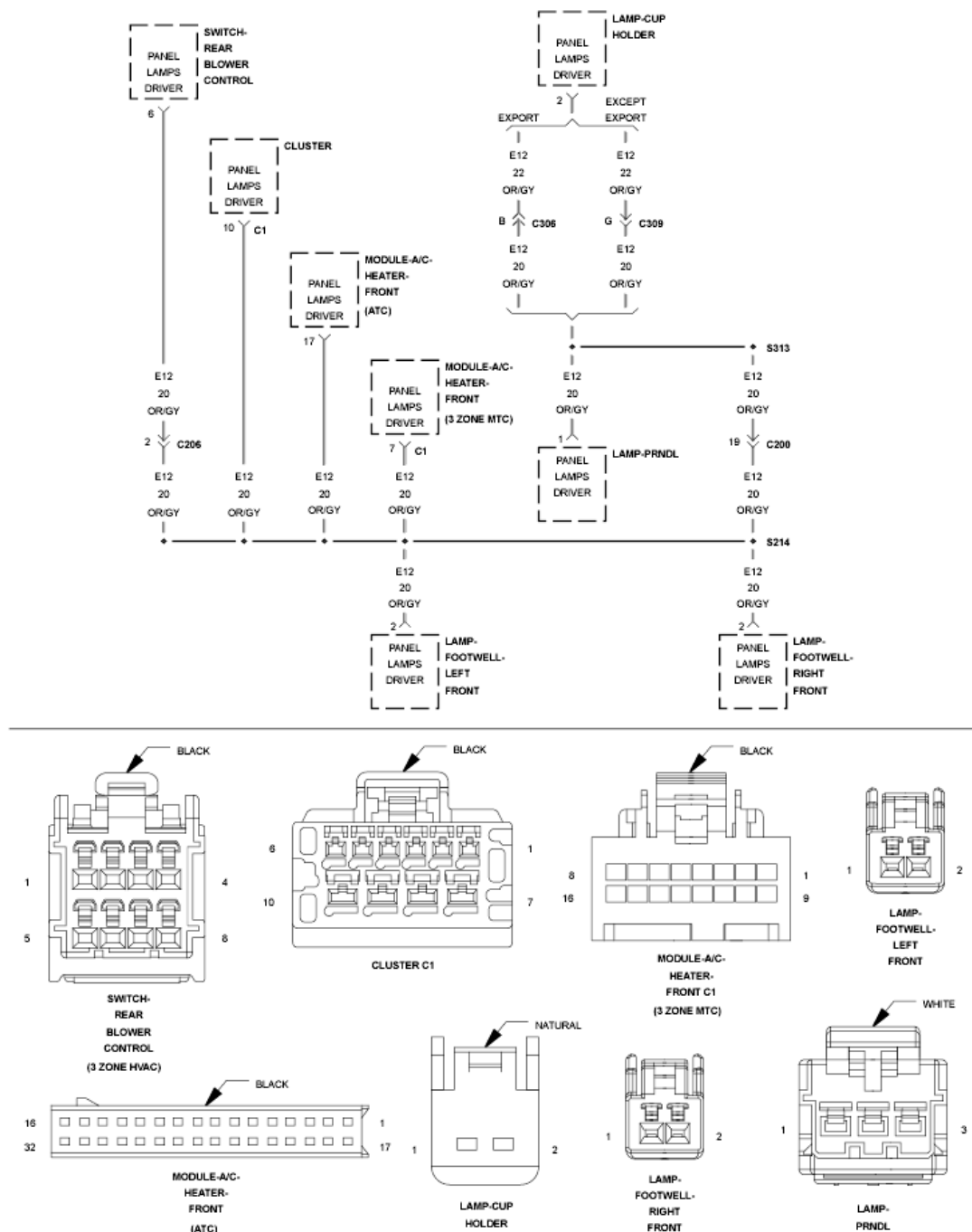


Fig. 63: Panel Lamps Driver Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

With the ignition on and the Panel Illumination circuit active.

• **Set Condition:**

The Instrument Cluster detects an open condition on the Panel Illumination Control circuit.

Possible Causes
(E12) PANEL LAMPS DRIVER CIRCUIT OPEN INSTRUMENT CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Activate the Panel Illumination.
4. Wait 30 seconds.
5. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. CHECK THE (E12) PANEL LAMPS DRIVER CIRCUIT FOR AN OPEN

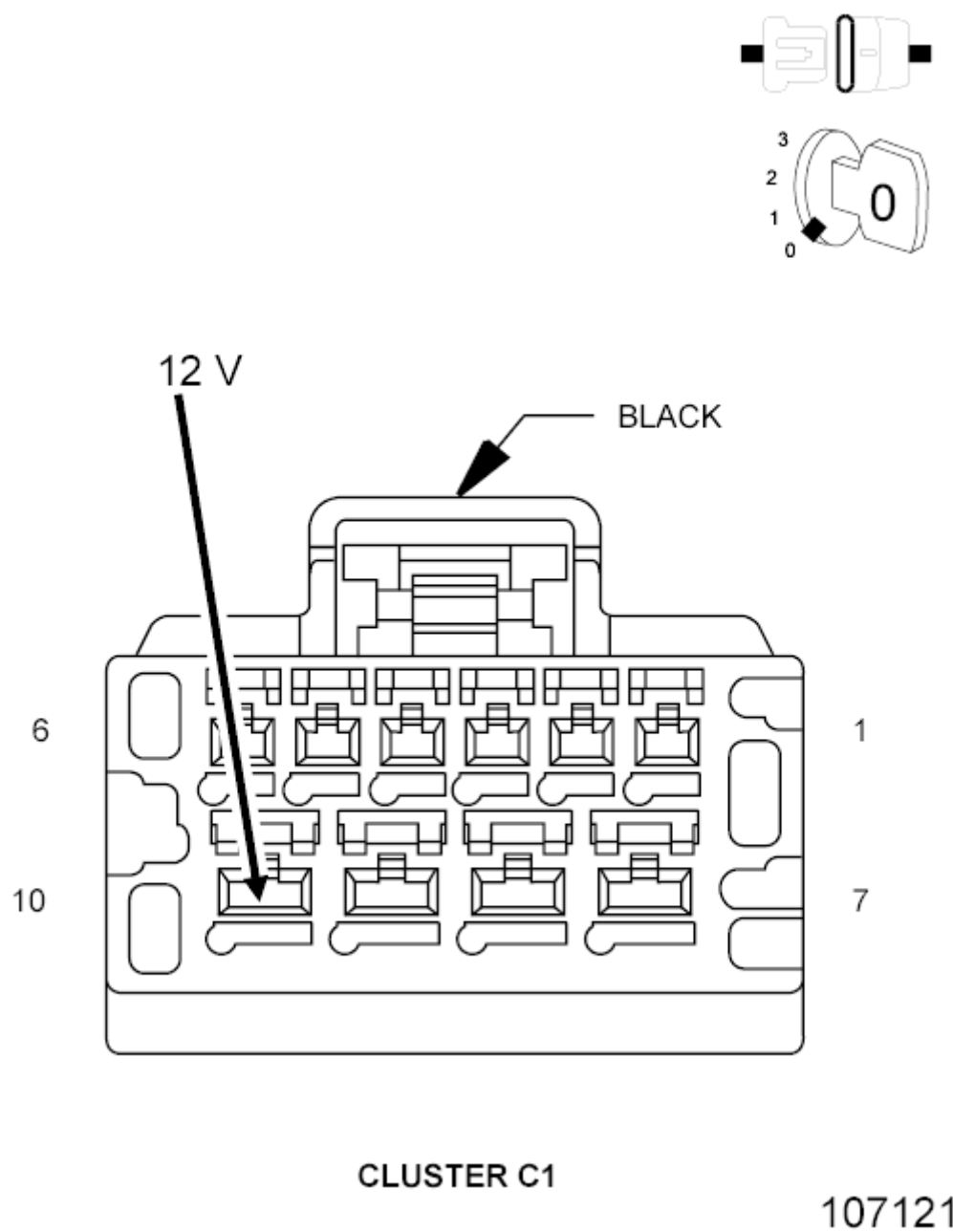


Fig. 64: Checking Panel Lamps Driver Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Cluster C1 harness connector.
3. Inspect the connector and associated wiring for the Panel illumination circuit.
4. Using a fused jumper wire connected to 12 volts, probe cavity 10 of the Cluster C1 harness connector.

Did the components illuminate?

Yes

- Replace the Instrument Cluster in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Using the **SYSTEM WIRING DIAGRAMS** as a guide, locate and repair the (E12) Panel Lamps Driver circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

B168F-FRONT FOG LAMP SWITCH CIRCUIT STUCK

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Front Fog Lamp Switch Input Circuit voltage is less than the expected value.

Possible Causes
LEFT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Turn the Headlamps on.
3. Turn the Fog Lamps on and off three times.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B17E3-TURN SIGNAL SWITCH PERFORMANCE

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Turn Signal function inoperative.

Possible Causes
LEFT MULTIFUNCTION SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Actuate the left and right turn signals with the Left Multifunction Switch.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B210D-BATTERY VOLTAGE LOW

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

Battery voltage less than 9 volts for approximately 5 to 6 seconds.

Possible Causes
GENERATOR OPERATION PCM

Diagnostic Test

1. CHECK FOR ANY POWERTRAIN CONTROL MODULES DTCS

NOTE: Make sure the Battery is in good condition. Using the Midtronics Battery Tester, test the Battery before continuing.

NOTE: Inspect the vehicle for after market accessories that may exceed the Generator System output.

NOTE: Make sure the generator drive belt is in good operating condition.

NOTE: Inspect the fuses in the TIPM. If an open fuse is found, use the wire diagram/schematic as a guide, inspect the wiring and connectors for damage.

1. Turn the ignition on.

2. With the scan tool, read active PCM DTC's.

Does the scan tool display any active PCM DTC's?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** for the diagnostic test procedure.

No

- Check the above conditions that can cause a low voltage condition. Repair as necessary.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

B210E-BATTERY VOLTAGE HIGH

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

• When Monitored:

With the ignition on.

• Set Condition:

Battery voltage greater than 16 volts for approximately 15 seconds.

Possible Causes
GENERATOR PCM

Diagnostic Test

1. CHECK FOR ANY POWERTRAIN CONTROL MODULES DTCS

NOTE: Make sure the Battery is in good condition. Using the Midtronics Battery Tester, test the Battery before continuing.

NOTE: Inspect the vehicle for after market accessories that may exceed the Generator System output.

NOTE: Make sure the generator drive belt is in good operating condition.

NOTE: Inspect the fuses in the TIPM. If an open fuse is found, use the wire

diagram/schematic as a guide, inspect the wiring and connectors for damage.

1. Turn the ignition on.
2. With the scan tool, read active PCM DTC's.

Does the scan tool display any active PCM DTC's?

Yes

- Refer to **DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Standard Procedure** for the diagnostic test procedure.

No

- Check the above conditions that can cause a high voltage condition. Repair as necessary.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

B2181-HEATED SEAT MODULE POWER SUPPLY LOW

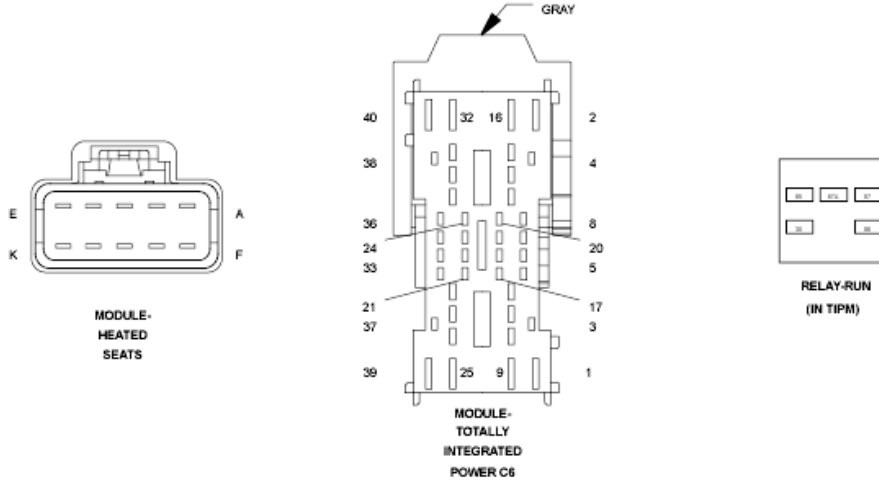
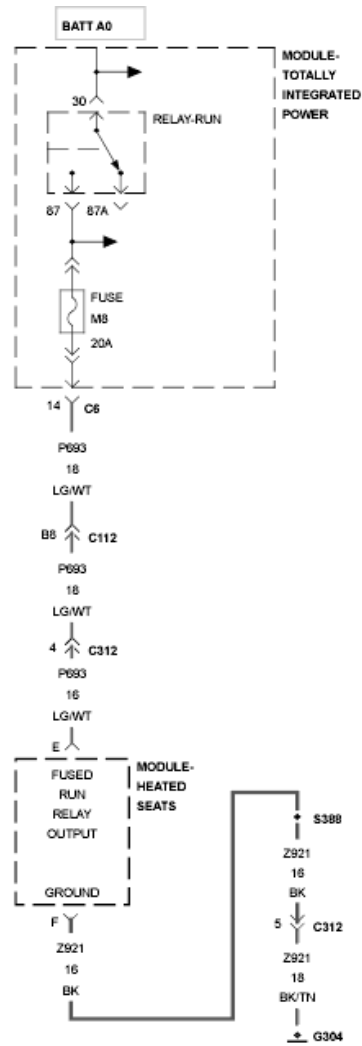


Fig. 65: Fused Run Relay Output Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With ignition on.

- **Set Condition:**

If the Heated Seat Module (HSM) detects voltage under 10 volts on the (P693) Fused Run Relay Output circuit.

Possible Causes
CHARGING SYSTEM VOLTAGE LOW (P693) FUSED RUN RELAY OUTPUT CIRCUIT HEATED SEAT MODULE (HSM)

Diagnostic Test**1. CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCs)**

1. Turn the ignition on.
2. With the scan tool, read Engine Control Module (ECM) or Powertrain Control Module (PCM) DTCs.

Are there any Charging System DTCs set in the ECM or PCM?

Yes

- Refer to Electrical - Engine Systems/Charging - Diagnosis and Testing , DTC-Based Diagnostics/MODULE, Engine Control (ECM) - Standard Procedure or DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Diagnosis and Testing for Charging System diagnostic procedures.

No

- Go to step 2

2. VERIFY DTC B2181-HEATED SEAT MODULE POWER SUPPLY LOW IS ACTIVE

1. With the scan tool, record and erase DTCs.
2. Turn the ignition off.
3. Start the engine and let it run for one minute.
4. With the scan tool, read DTCs.

Does DTC B2181-HEATED SEAT MODULE POWER SUPPLY LOW reset?

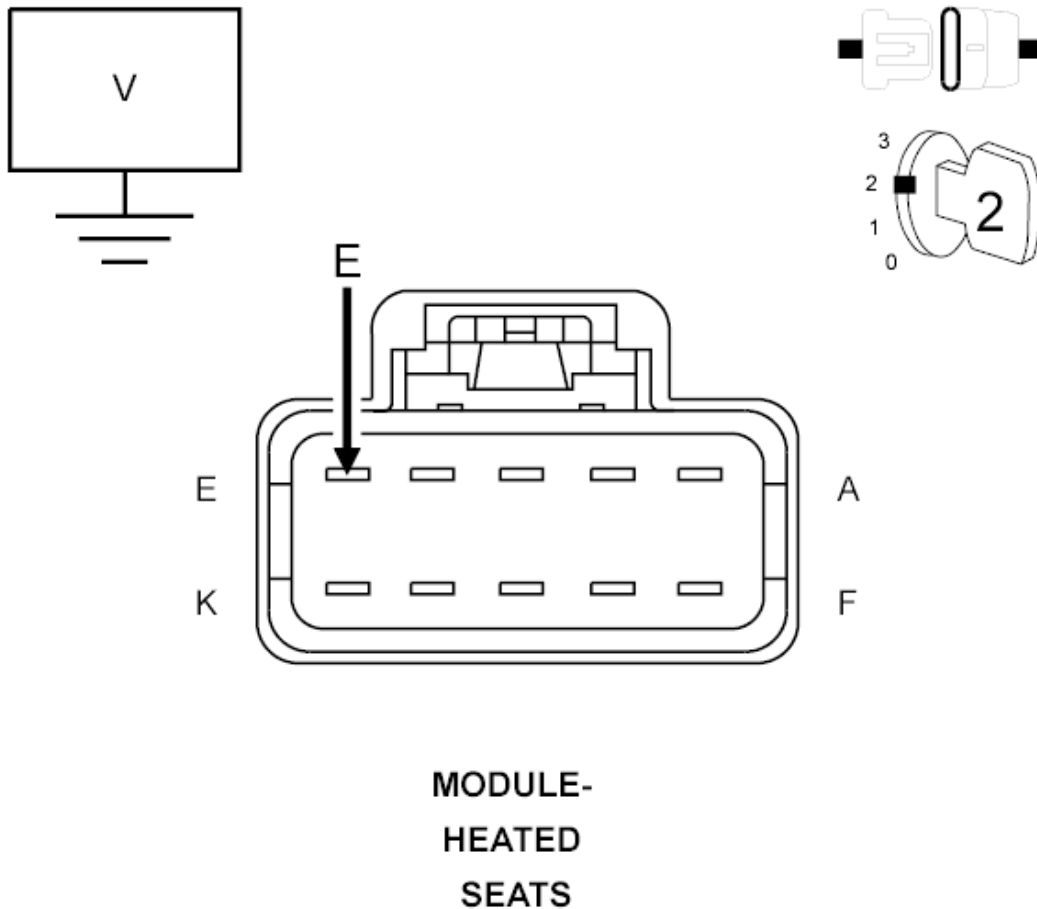
Yes

- Go to step 3

No

- The conditions that caused this code to set are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. CHECK (P693) FUSED RUN RELAY OUTPUT CIRCUIT VOLTAGE



00496395

Fig. 66: Checking Fused Run Relay Output Circuit Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Start the engine and let idle.
4. Measure the voltage of the (P693) Fused Run Relay Output circuit between the HSM connector and ground and compare it to the voltage at the vehicle battery.

Is the voltage measured at the HSM connector the same as the voltage measured at the battery?

Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P693) Fused Run Relay Output circuit for the cause of the low voltage condition at the HSM.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B2182-HEATED SEAT MODULE POWER SUPPLY HIGH

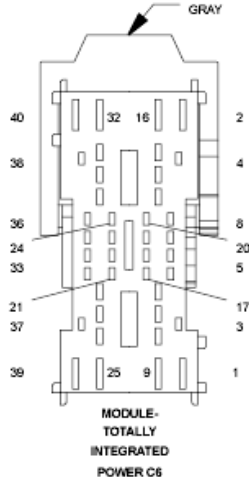
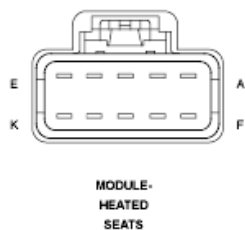
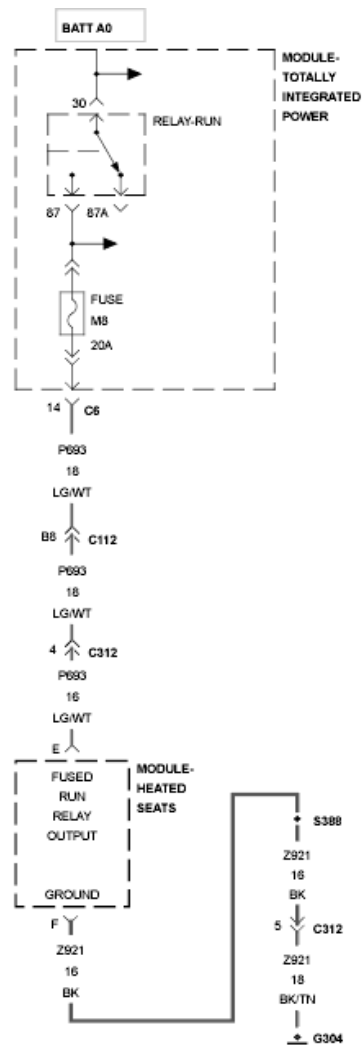


Fig. 67: Fused Run Relay Output Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

• **When Monitored:**

With ignition on.

• **Set Condition:**

If the Heated Seat Module detects voltage over 16.0 volts on the (P693) Fused Run Relay Output circuit.

Possible Causes

CHARGING SYSTEM VOLTAGE LOW
(P693) FUSED RUN RELAY OUTPUT CIRCUIT
HEATED SEAT MODULE (HSM)

Diagnostic Test

1. CHECK FOR CHARGING SYSTEM DIAGNOSTIC TROUBLE CODES (DTCs)

1. Turn the ignition on.
2. With the scan tool, read Engine Control Module (ECM) or Powertrain Control Module (PCM) DTCs.

Are there any Charging System DTCs set in the ECM or PCM?

Yes

- Refer to Electrical - Engine Systems/Charging - Diagnosis and Testing , DTC-Based Diagnostics/MODULE, Engine Control (ECM) - Standard Procedure or DTC-Based Diagnostics/MODULE, Powertrain Control (PCM) - Diagnosis and Testing for Charging System diagnostic procedures.

No

- Go to step 2

2. VERIFY DTC B2182-HEATED SEAT MODULE POWER SUPPLY HIGH IS ACTIVE

1. With the scan tool, record and erase DTCs.
2. Turn the ignition off.
3. Start the engine and let it run for one minute.
4. With the scan tool, read DTCs.

Does DTC B2182-HEATED SEAT MODULE POWER SUPPLY HIGH reset?

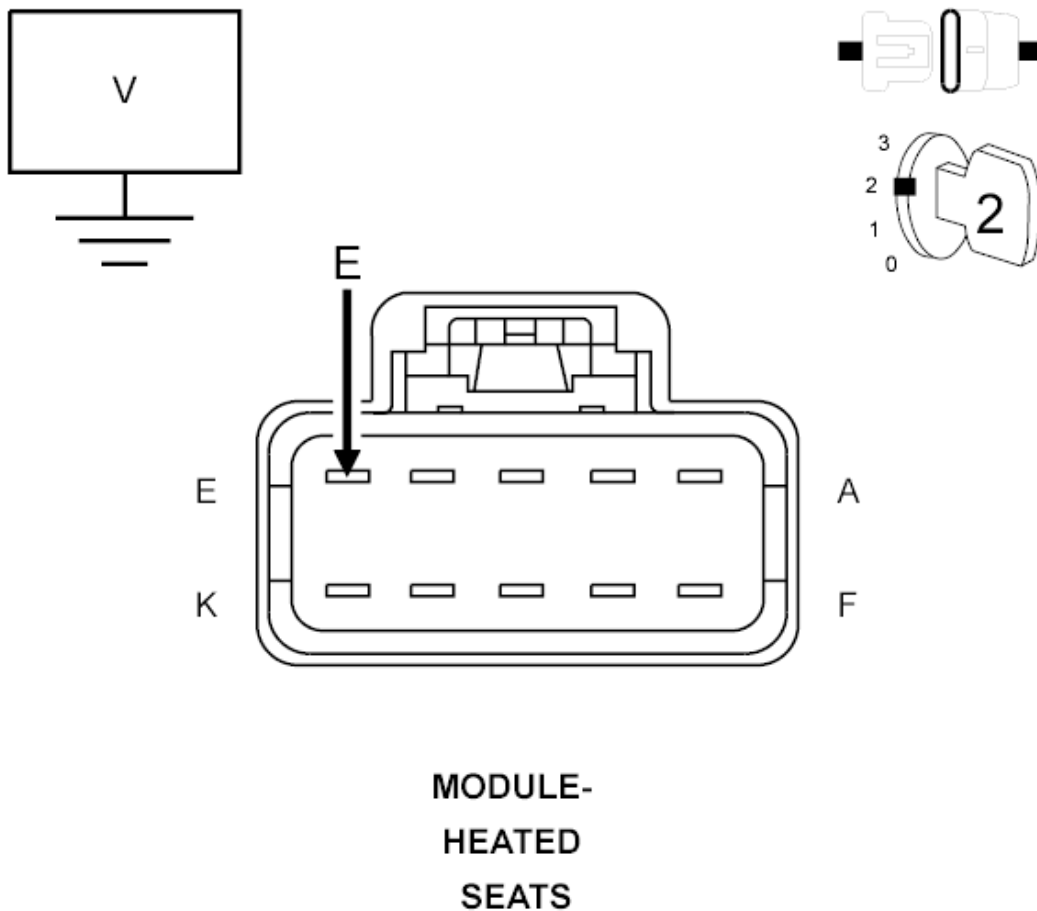
Yes

- Go to step 3

No

- The conditions that caused this code to set are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, inspect the wiring and connectors.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. CHECK (P693) FUSED RUN RELAY OUTPUT CIRCUIT VOLTAGE



00496395

Fig. 68: Checking Fused Run Relay Output Circuit Voltage
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the HSM connector.

NOTE: Check connectors - Clean and repair as necessary.

3. Start the engine and let idle.
4. Measure the voltage of the (P693) Fused Run Relay Output circuit between the HSM connector and ground and compare it to the voltage at the vehicle battery.

Is the voltage measured at the HSM connector the same as the voltage measured at the battery?

Yes

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P693) Fused Run Relay Output circuit for the cause of the high voltage condition at the HSM.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B2301-WIPER MODE SWITCH INPUT CIRCUIT LOW

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Wiper Mode Switch Input circuit voltage is less than the expected value.

Possible Causes
RIGHT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Turn the Wipers on and off three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Right Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B2307-WASHER SWITCH INPUT CIRCUIT LOW

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Washer Switch Input circuit voltage is less than the expected value.

Possible Causes
RIGHT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Actuate the Washer Switch.

3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Right Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B2339-HORN SWITCH STUCK - WITH EVIC

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

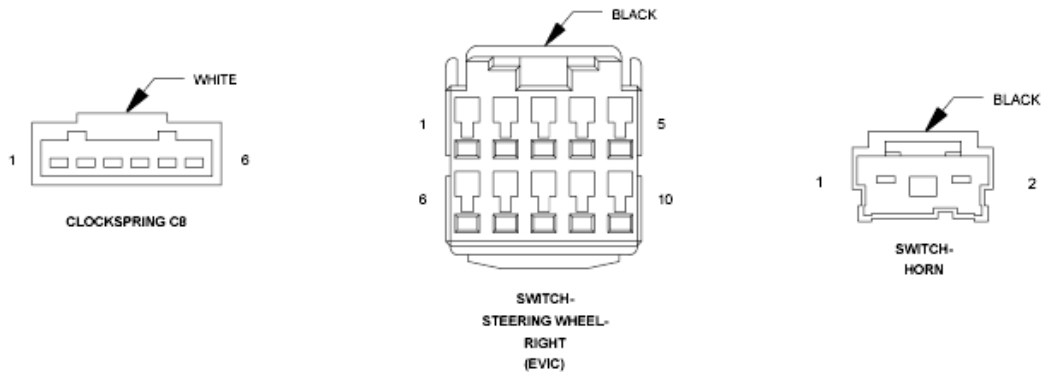
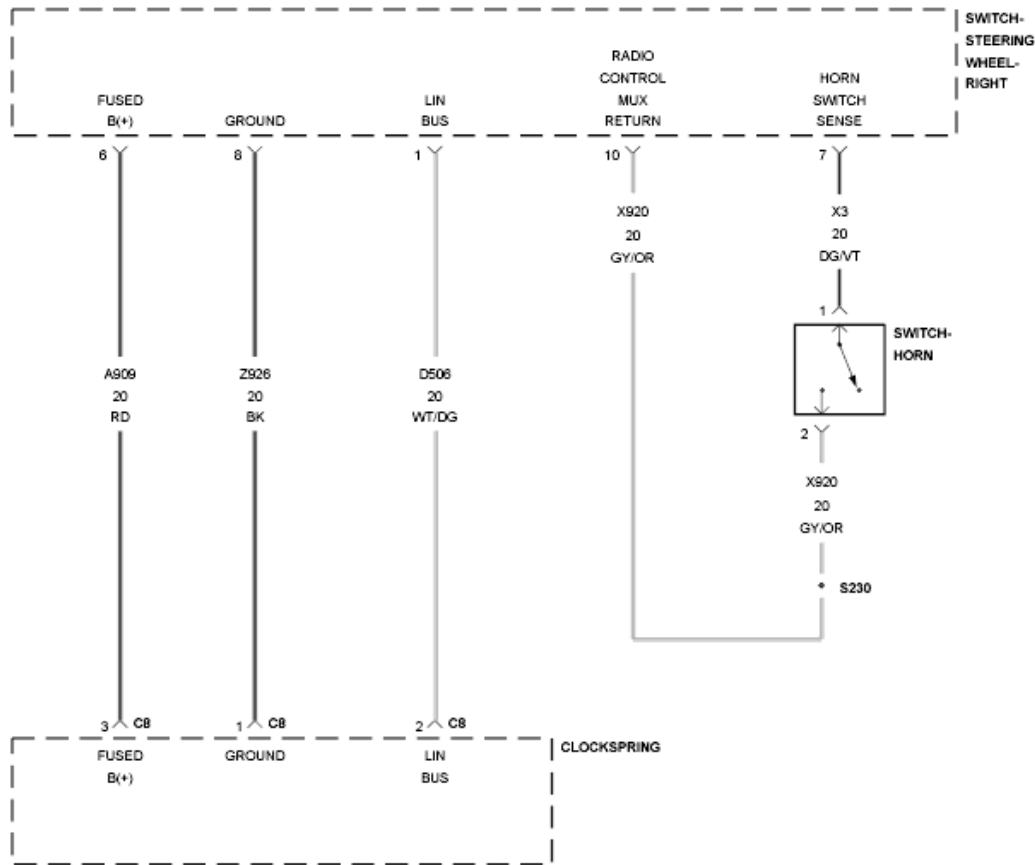


Fig. 69: Horn Switch Sense Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Cluster senses the Horn Switch input for more than 50 seconds.

Possible Causes
(X3) HORN SWITCH SENSE CIRCUIT SHORTED TO GROUND
RIGHT STEERING WHEEL SWITCH
CLOCKSPRING
HORN SWITCH

Diagnostic Test

1. TEST FOR INTERMITTENT CONDITION

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. CHECK FOR A SHORTED HORN SWITCH

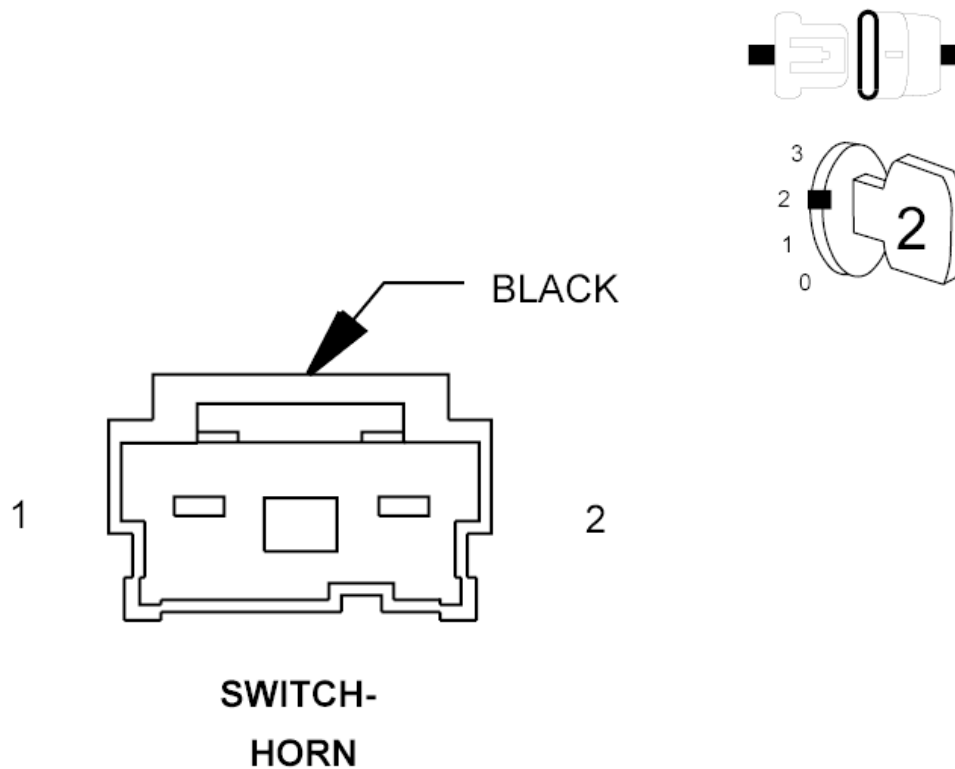


Fig. 70: Checking For A Shorted Horn Switch
Courtesy of CHRYSLER LLC

WARNING: To avoid possible serious or fatal injury, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

1. Remove the Driver Airbag in accordance with the Service Information.
2. Disconnect the Horn switch connector.

NOTE: Before proceeding, thoroughly inspect the wiring harness and connectors between the Horn Switch and the Right Steering Wheel Switch. Look for chafed, pierced, pinched, or partially broken wires and broken, bent, pushed out, spread, corroded, or contaminated terminals.

WARNING: Turn the ignition on, then reconnect the 12-volt battery. Failure to follow these instructions may result in possible serious or fatal injury.

3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 3

No

- Replace the Horn Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. CHECK (X3) HORN SWITCH SENSE CIRCUIT FOR A SHORT TO GROUND

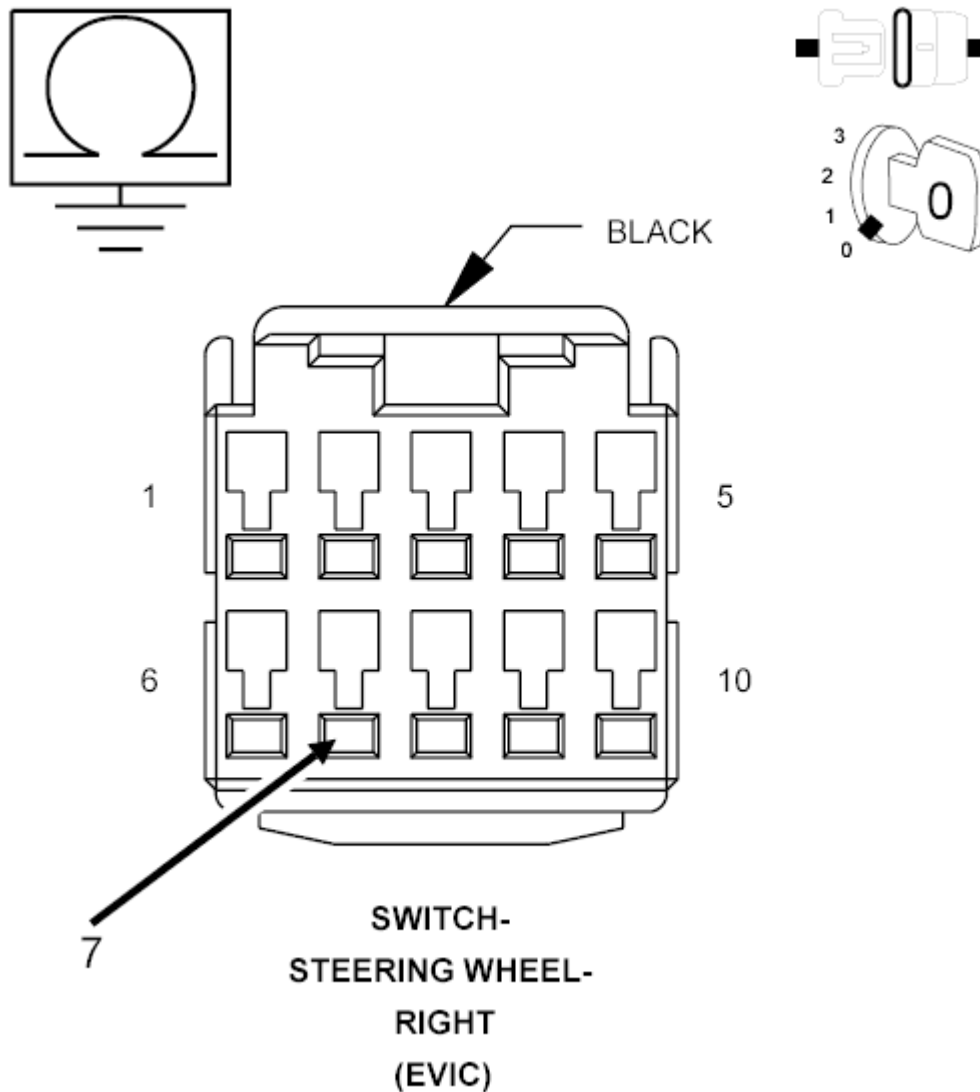


Fig. 71: Checking Horn Switch Sense Circuit For A Short To Ground

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Steering Wheel Switch harness connector.
3. Measure the resistance of the (X3) Horn Switch Sense circuit between ground and the Right Steering Wheel Switch harness connector.

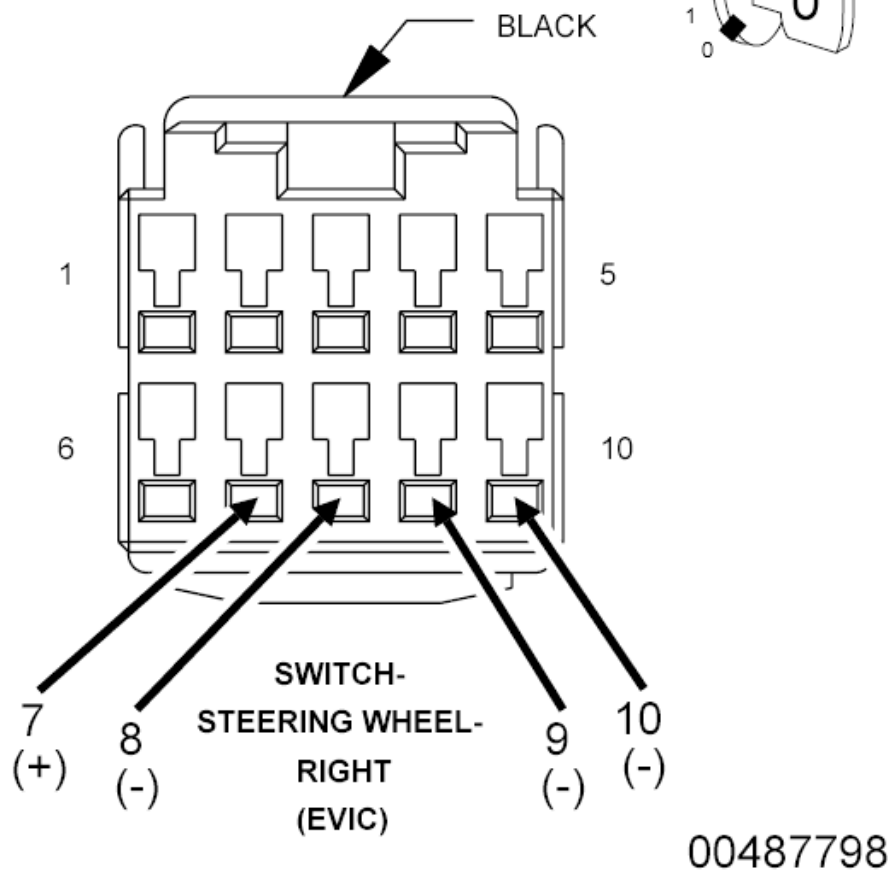
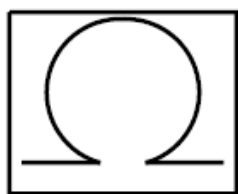
Is the resistance below 10k Ohms?

Yes

- Repair the short to ground in the (X3) Horn Switch Sense circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4
4. **CHECK (X3) HORN SWITCH SENSE CIRCUIT FOR A SHORT TO (X920) RADIO CONTROL MUX RETURN CIRCUIT, (G907) EVIC/NAV MUX RETURN CIRCUIT, OR (Z926) GROUND CIRCUIT**



00487798

Fig. 72: Checking Horn Switch Sense Circuit For A Short To Radio Control MUX Return Circuit
Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C8 connector.
2. Measure the resistance between the (X3) Horn Switch Sense circuit and the (X920) Radio Control MUX Return circuit at the Right Steering Wheel Switch harness connector.
3. Measure the resistance between the (X3) Horn Switch Sense circuit and the (G907) EVIC/NAV MUX Return circuit at the Right Steering Wheel Switch harness connector.
4. Measure the resistance between the (X3) Horn Switch Sense circuit and the (Z926) Ground circuit at the Right Steering Wheel Switch harness connector.

Is the resistance below 10k Ohms between the (X3) Horn Switch Sense circuit and any of the other circuits?

Yes

- Repair all circuits with a resistance below 10k Ohms for a short to the (X3) Horn Switch Sense circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. CHECK FOR A SHORTED RIGHT STEERING WHEEL SWITCH

1. Replace the Right Steering Wheel Switch in accordance with the Service Information.
2. Reconnect the Horn Switch connector.
3. Turn the ignition on.
4. With the Scan Tool, erase DTCs.
5. Cycle the ignition switch.
6. Operate the Horn Switch several times.
7. With the scan tool, read DTCs.

Does the scan tool display DTC B2339-HORN SWITCH STUCK?

Yes

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B2339-HORN SWITCH STUCK - WITHOUT EVIC

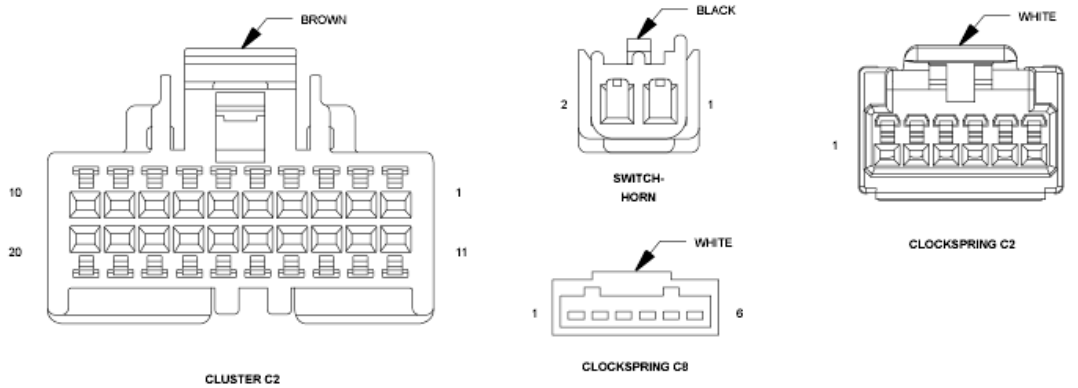
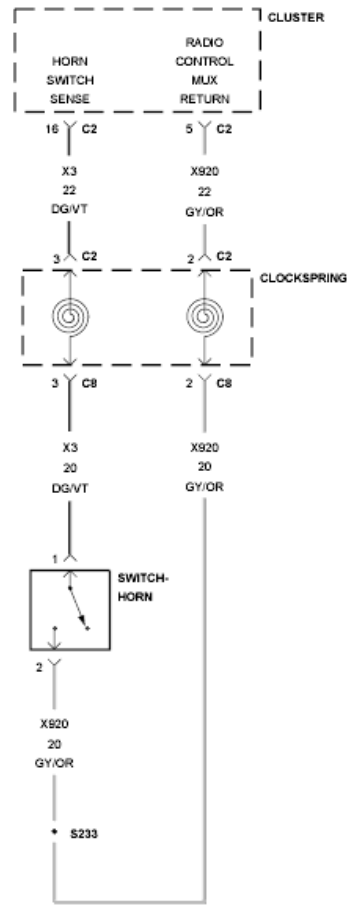


Fig. 73: Horn Switch Sense Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Cluster senses the Horn Switch input for more than 30 seconds.

Possible Causes
(X3) HORN SWITCH SENSE CIRCUIT SHORTED TO GROUND HORN SWITCH CLOCKSPRING CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. CHECK FOR A SHORTED HORN SWITCH

WARNING: To avoid possible serious or fatal injury, turn the ignition off, disconnect the battery and wait two minutes before proceeding.

1. Disconnect the Horn switch connector in accordance with the Service Information.

WARNING: Turn the ignition on, then reconnect the 12-volt battery. Failure

to follow these instructions may result in possible serious or fatal injury.

2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

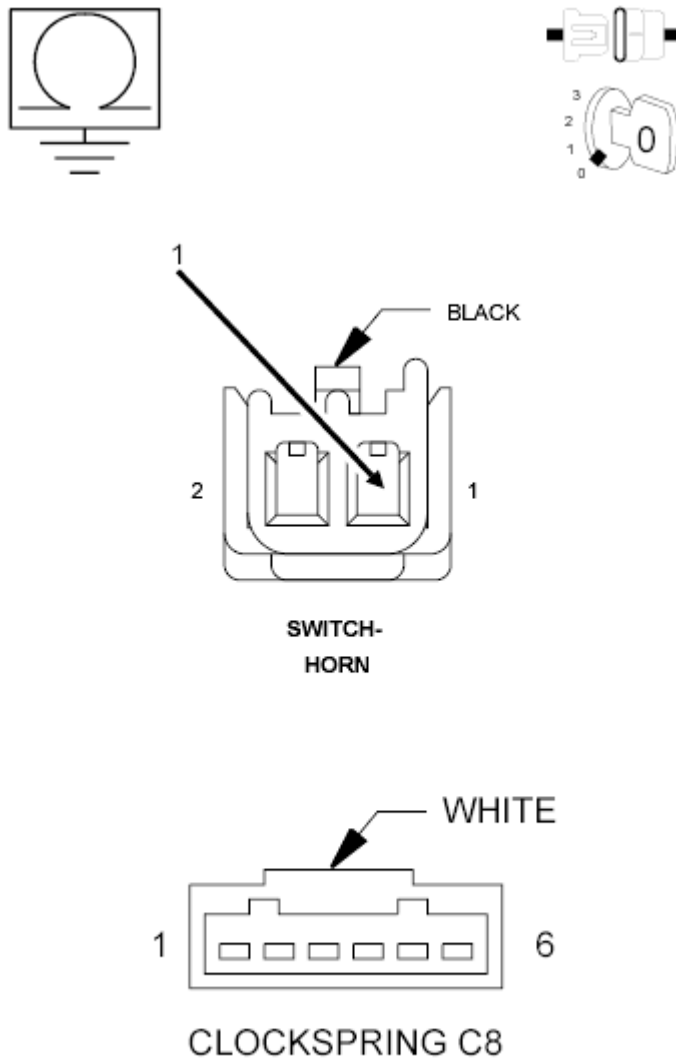
Yes

- Go to step 3

No

- Replace the Horn Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. **CHECK (X3) HORN SWITCH SENSE CIRCUIT FOR A SHORT TO GROUND BETWEEN HORN SWITCH AND CLOCKSPRING**



2545920

Fig. 74: Checking Horn Switch Sense Circuit For A Short To Ground Between Horn Switch & Clockspring

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Clockspring C8 harness connector.
3. Measure the resistance of the (X3) Horn Switch Sense circuit between ground and the Clockspring C8 harness connector.

Is the resistance below 10k Ohms?

Yes

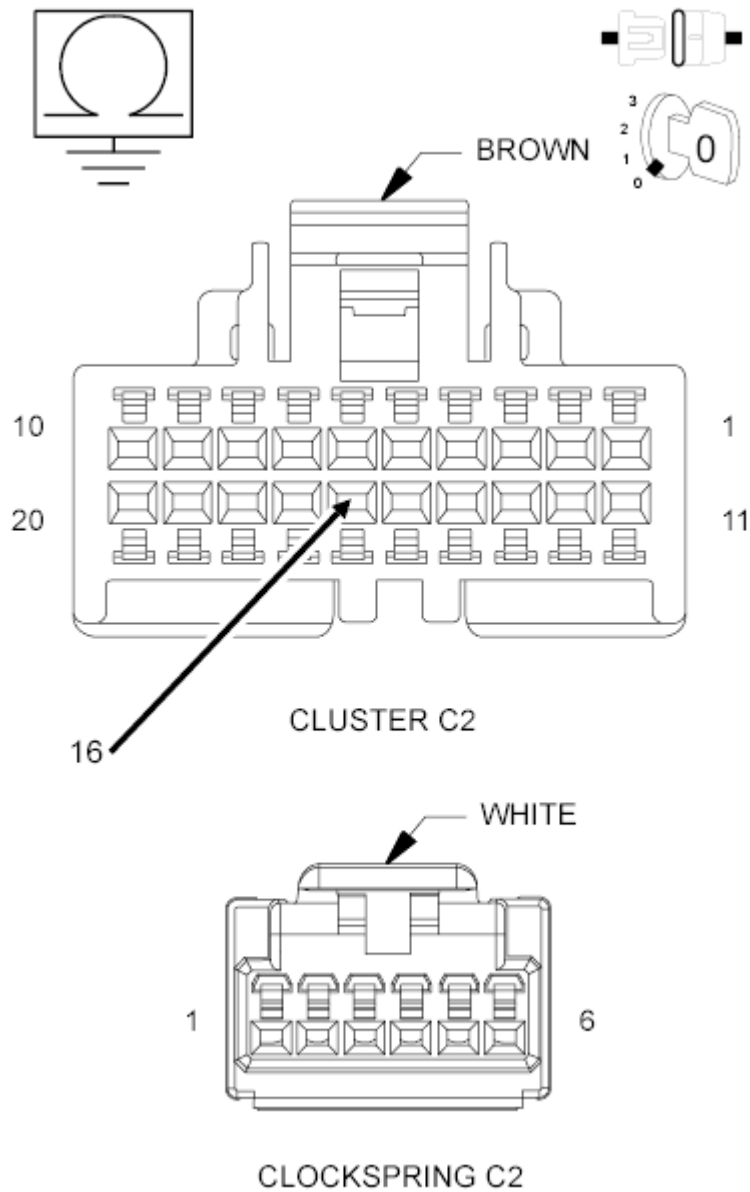
- Repair the short to ground in the (X3) Horn Switch Sense circuit.

- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 4

4. **CHECK (X3) HORN SWITCH SENSE CIRCUIT FOR A SHORT TO GROUND BETWEEN CLOCKSPrING AND CLUSTER**



2545971

Fig. 75: Checking Horn Switch Sense Circuit For A Short To Ground Between Clockspring & Cluster

Courtesy of CHRYSLER LLC

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

1. Disconnect the Cluster C2 harness connector.
2. Disconnect the Clockspring C2 harness connector.
3. Measure the resistance of the (X3) Horn Switch Sense circuit between ground and the Clockspring C2 harness connector.

Is the resistance below 10k Ohms?

Yes

- Repair the short to ground in the (X3) Horn Switch Sense circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 5

5. CHECK THE CLOCKSPrING FOR AN INTERNAL SHORT TO GROUND

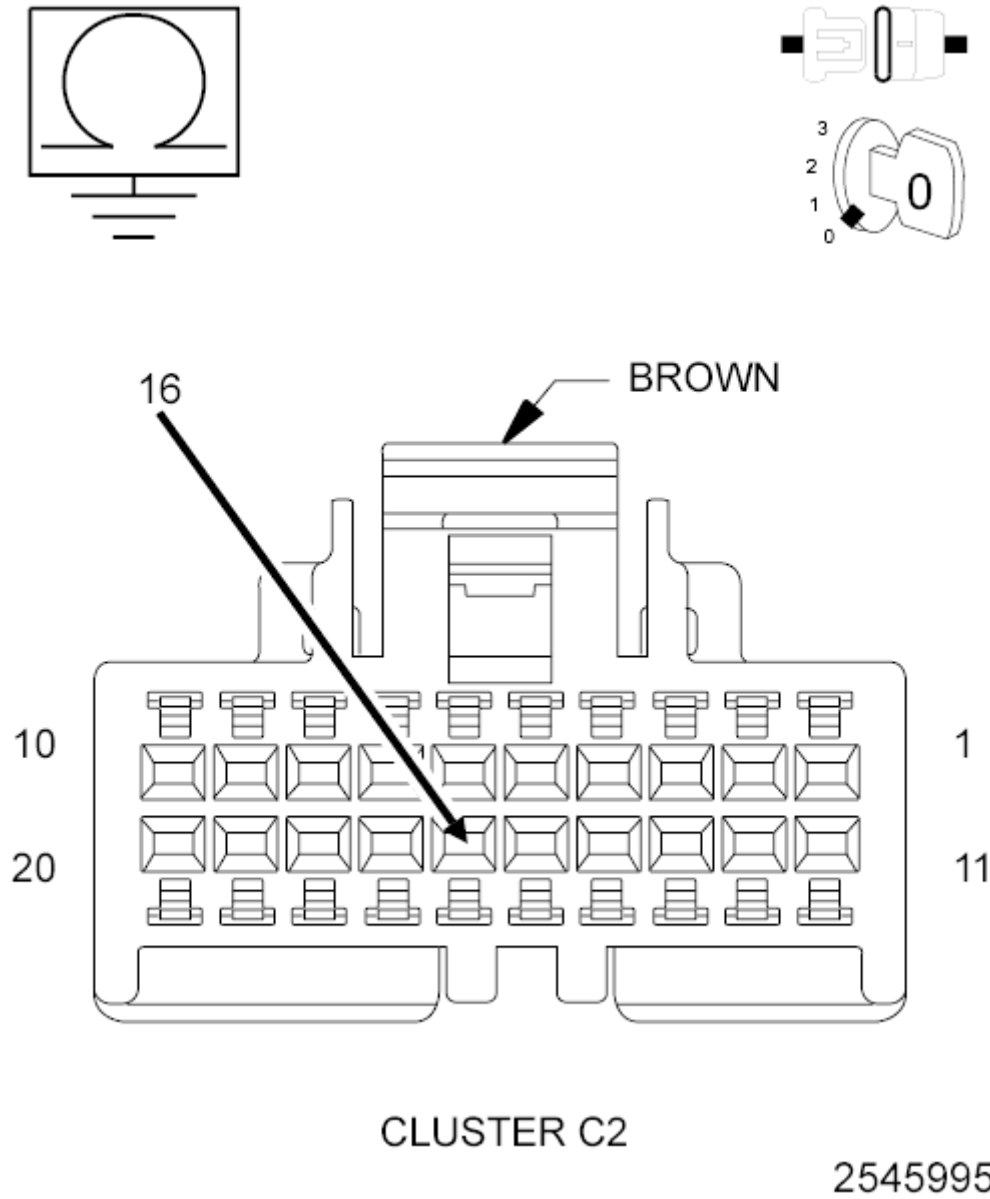


Fig. 76: Checking Clockspring For An Internal Short To Ground
 Courtesy of CHRYSLER LLC

1. Reconnect the Clockspring C2 harness connector.
2. Measure the resistance of the (X3) Horn Switch Sense circuit between ground and the Cluster C2 harness connector.

Is the resistance below 10k Ohms?

Yes

- Replace the Clockspring in accordance with the Service Information.

- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B238E-HI BEAM SWITCH CIRCUIT LOW

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

• When Monitored:

With the ignition on.

• Set Condition:

The Cluster detects the High Beam Switch Input circuit voltage is less than the expected value.

Possible Causes
LEFT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Turn the Headlamps on.
3. Actuate the High Beams.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE,**

Totally Integrated Power (TIPM) - Standard Procedure .**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B2390-MIST SWITCH CIRCUIT LOW

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Mist Switch Input circuit voltage is less than the expected value.

Possible Causes
RIGHT MULTIFUNCTION SWITCH

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Actuate the Mist Switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Right Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

B2394-FLASH TO PASS/OPTICAL HORN SWITCH CIRCUIT STUCK

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the Flash to Pass Switch Input circuit voltage is less than the expected value.

Possible Causes
LEFT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Actuate the Flash to Pass/Optical Horn.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

C2312-TRAC/ESP OFF SWITCH STUCK

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster detects the TRAC/ESP Off Switch active for greater than 20 seconds.

Possible Causes
SWITCH BANK

NOTE: The Electronic Stability Control (ESC) may also be referred to as Electronic Stability Program (ESP) depending on the vehicle model year and configuration.

Diagnostic Test**1. CHECK FOR AN ACTIVE DTC**

1. Turn the ignition on.
2. Press the TRAC/ESP Off Switch three times.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Test complete.

P1103-DC TO AC CONVERTER SWITCH STUCK

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

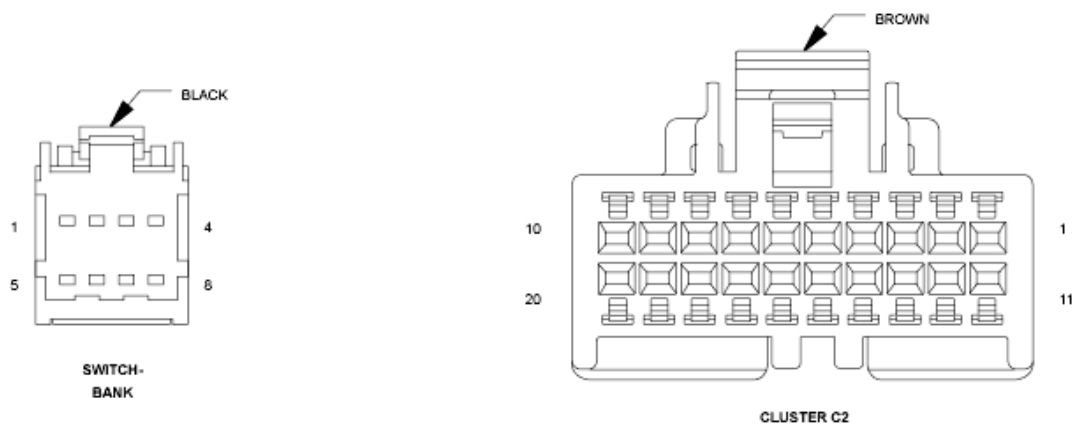
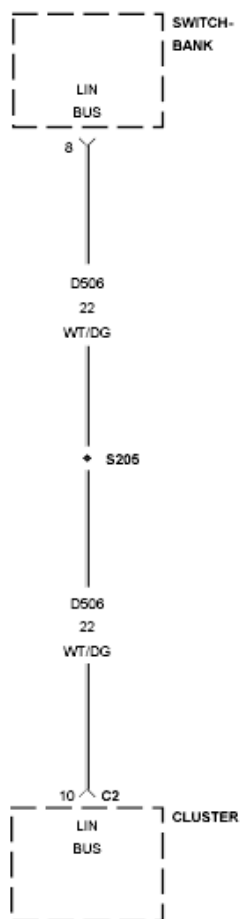


Fig. 77: LIN BUS Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

If the Cluster (CCN) senses the Inverter switch input for more than 20 seconds.

Possible Causes
OBJECT HOLDING INVERTER SWITCH IN A PUSHED POSITION
SUBSTANCE CAUSING INVERTER SWITCH TO GET STUCK IN A PUSHED POSITION
SWITCH BANK

Diagnostic Test

1. INSPECT SWITCH BANK FOR DAMAGE

NOTE: Diagnose and repair all LIN Bus related DTCs before performing this test procedure.

1. Turn the ignition off.
2. Inspect the Switch Bank for damage.

Is the Switch Bank damaged?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 2

2. INSPECT FOR OBJECT OR SUBSTANCE CAUSING INVERTER SWITCH TO STAY OR STICK IN A PUSHED POSITION

1. Inspect the Inverter switch for anything that would cause it to stay or stick in a pushed position.

Is anything present that would cause the Inverter switch to stay or stick in a pushed position?

Yes

- Repair as necessary.

- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Press and release the Inverter switch several times and then wait 20 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display: P1103-DC TO AC CONVERTER SWITCH STUCK?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- The conditions that caused this code to set are not present at this time.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U0141-LOST COMMUNICATION WITH FRONT CONTROL MODULE (TOTALLY INTEGRATED POWER MODULE)

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

Ignition Off Draw (IOD) fuse installed.

Totally Integrated Power Module (TIPM) is configured correctly.

- **Set Condition:**

Bus messages not received from the TIPM for approximately two to five seconds.

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

Possible Causes

CAN BUS CIRCUITS OPEN OR SHORTED
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
TIPM NOT CONFIGURED CORRECTLY
TOTALLY INTEGRATED POWER MODULE (TIPM)
TIPM POWER AND GROUND
MODULE THAT SET THIS DTC

Diagnostic Test

1. VERIFY DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE

NOTE: Make sure the IOD fuse is installed and battery voltage is between 10 and 16 volts before proceeding.

1. With the scan tool, read active Cluster DTCs.

Is this DTC active?

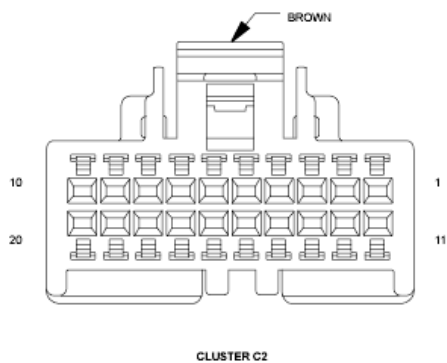
Yes

- Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing** and perform the **U0141-LOST COMMUNICATION WITH FRONT CONTROL MODULE (TOTALLY INTEGRATED POWER MODULE)** diagnostic procedure.

No

- Refer to **Non-DTC Diagnostics/Communication - Diagnosis and Testing** and perform the Stored Lost Communication DTCs diagnostic procedure.

U0161-LOST COMMUNICATION WITH COMPASS MODULE



For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

With the ignition on.

• **Set Condition:**

The Cluster does not receive information from the Compass Module.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN (Z926) GROUND CIRCUIT OPEN COMPASS MODULE INSTRUMENT CLUSTER

Diagnostic Test

1. **CHECK FOR AN ACTIVE DTC**

NOTE: Remove any electronic devices (laptop computers, cell phones) from the instrument panel.

NOTE: Before proceeding, check the compass variance and calibration in accordance with the service information.

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

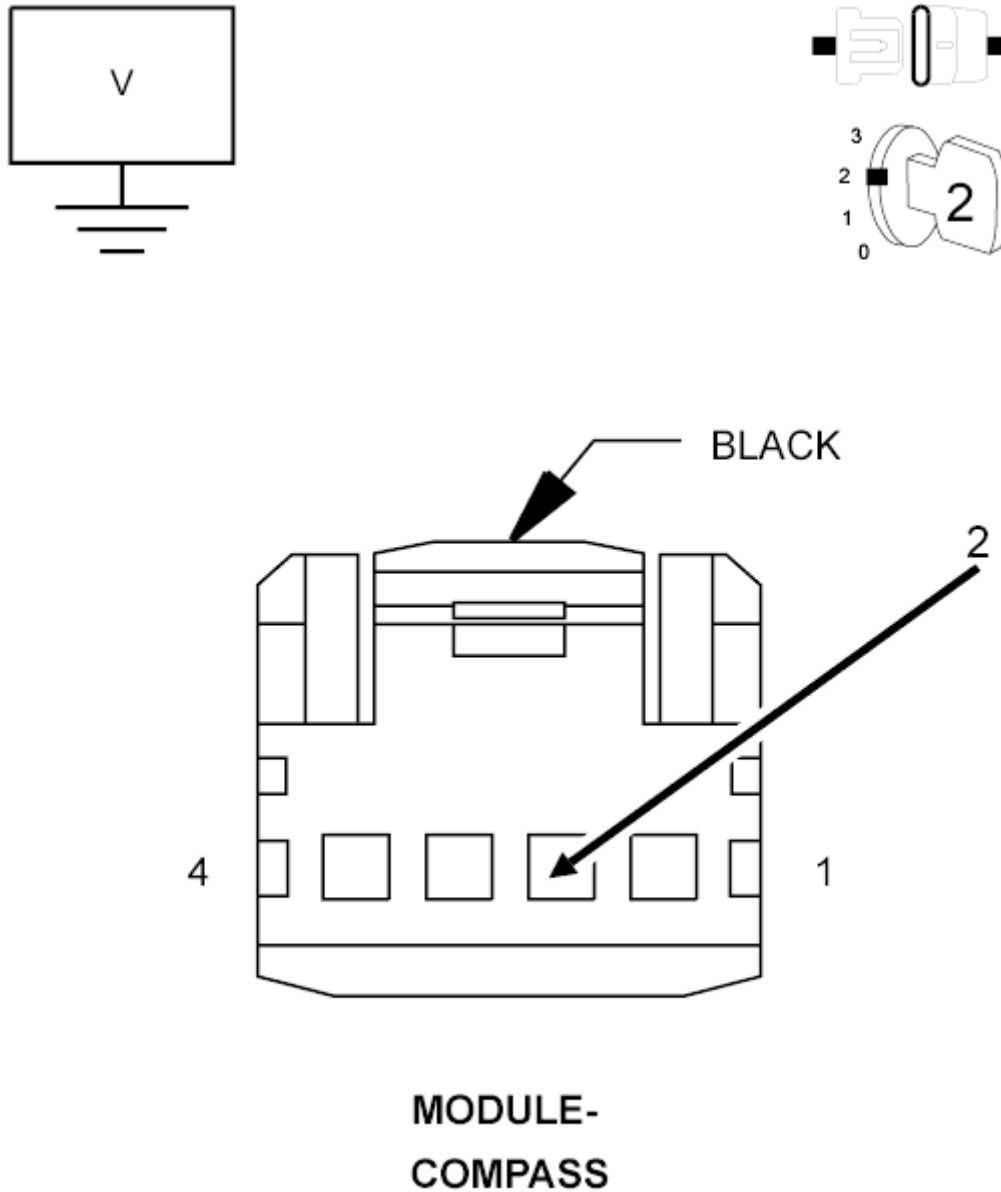
Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. **(D506) LIN BUS CIRCUIT**



107131

Fig. 79: Checking Compass Module Harness Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Compass Module harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN BUS circuit.

Is the voltage above 5 volts?

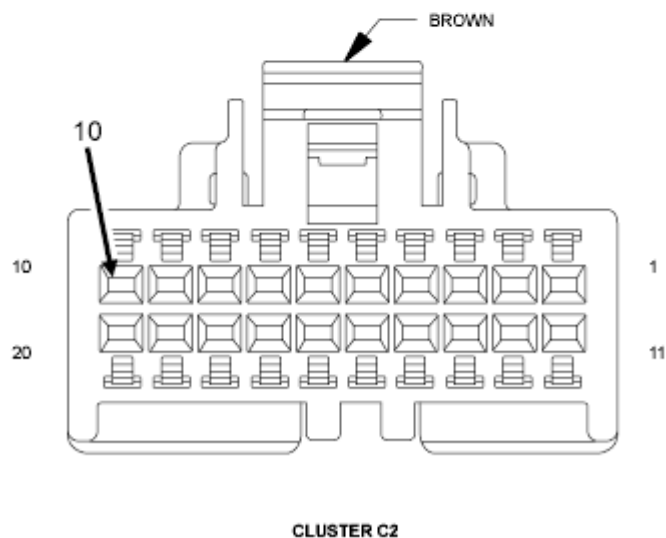
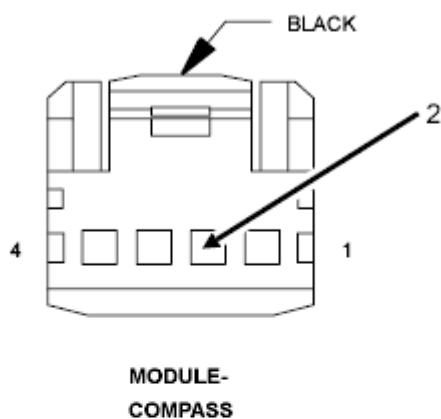
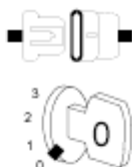
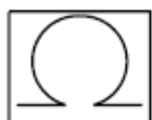
Yes

- Go to step 4

No

- Go to step 3

3. (D506) LIN BUS CIRCUIT OPEN



107133

Fig. 80: Checking Instrument Cluster C2 Harness Connector
Courtesy of CHRYSLER LLC

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

1. Turn the ignition off.
2. Disconnect the Instrument Cluster C2 harness connector.
3. Measure the resistance of the (D506) LIN BUS circuit.

Is the resistance below 10K ohms?

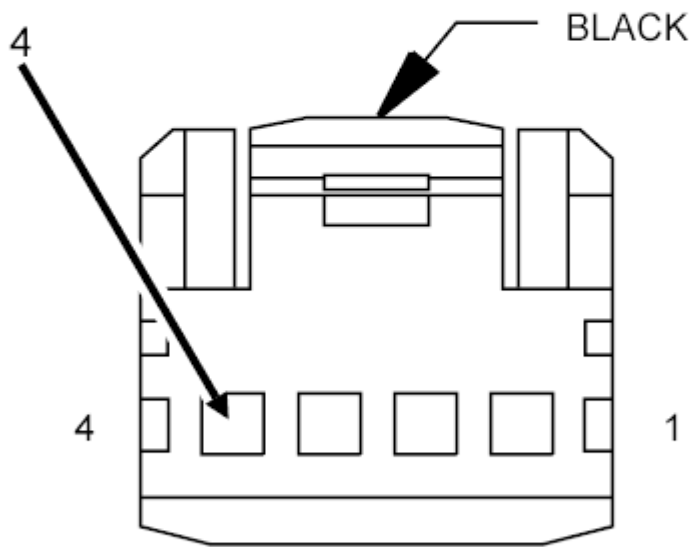
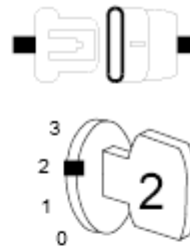
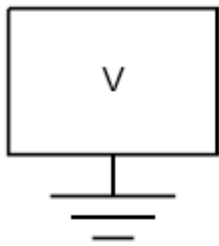
Yes

- Replace the Cluster in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (D506) LIN BUS circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. (F921) FUSED RUN RELAY OUTPUT CIRCUIT OPEN



MODULE-
COMPASS

107135

Fig. 81: Checking Fused Run Relay Output Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition on.
2. Measure the voltage of the (F921) Fused Run Relay Output circuit at the Compass Module harness connector.

Is the voltage above 10 volts?

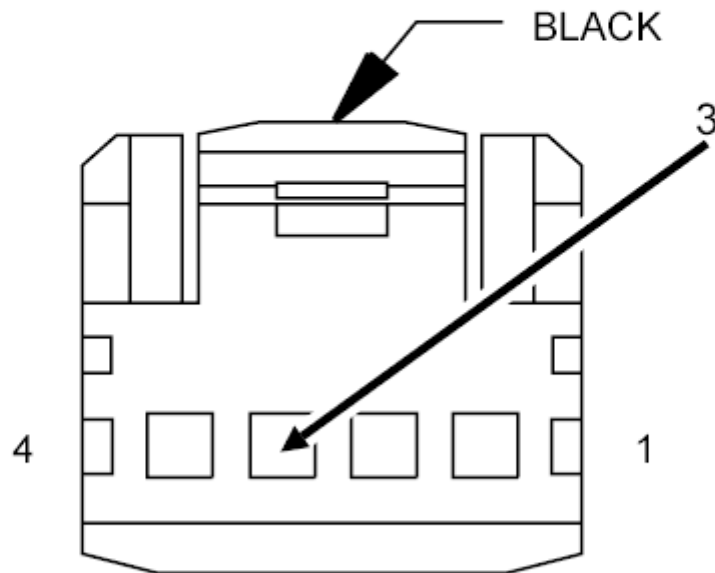
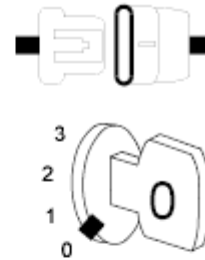
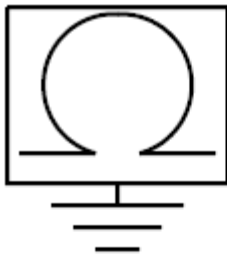
Yes

- Go to step 5

No

- Repair the (F921) Fused Run Relay Output circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

5. (Z926) GROUND CIRCUIT OPEN



MODULE-
COMPASS

Fig. 82: Checking Ground Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.

2. Measure the resistance between ground and the (Z926) Ground circuit at the Compass Module harness connector.

Is the voltage above 10K ohms?

Yes

- Replace the Compass Module in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (Z926) ground circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

U0184-LOST COMMUNICATION WITH RADIO

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

Refer to Non-DTC Diagnostics/Communication - Diagnosis and Testing for the diagnostic test procedure.

U0208-LOST COMMUNICATION WITH HEATED SEATS CONTROL MODULE

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

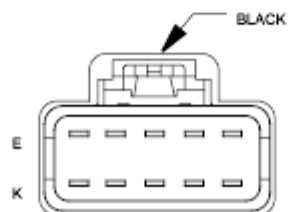
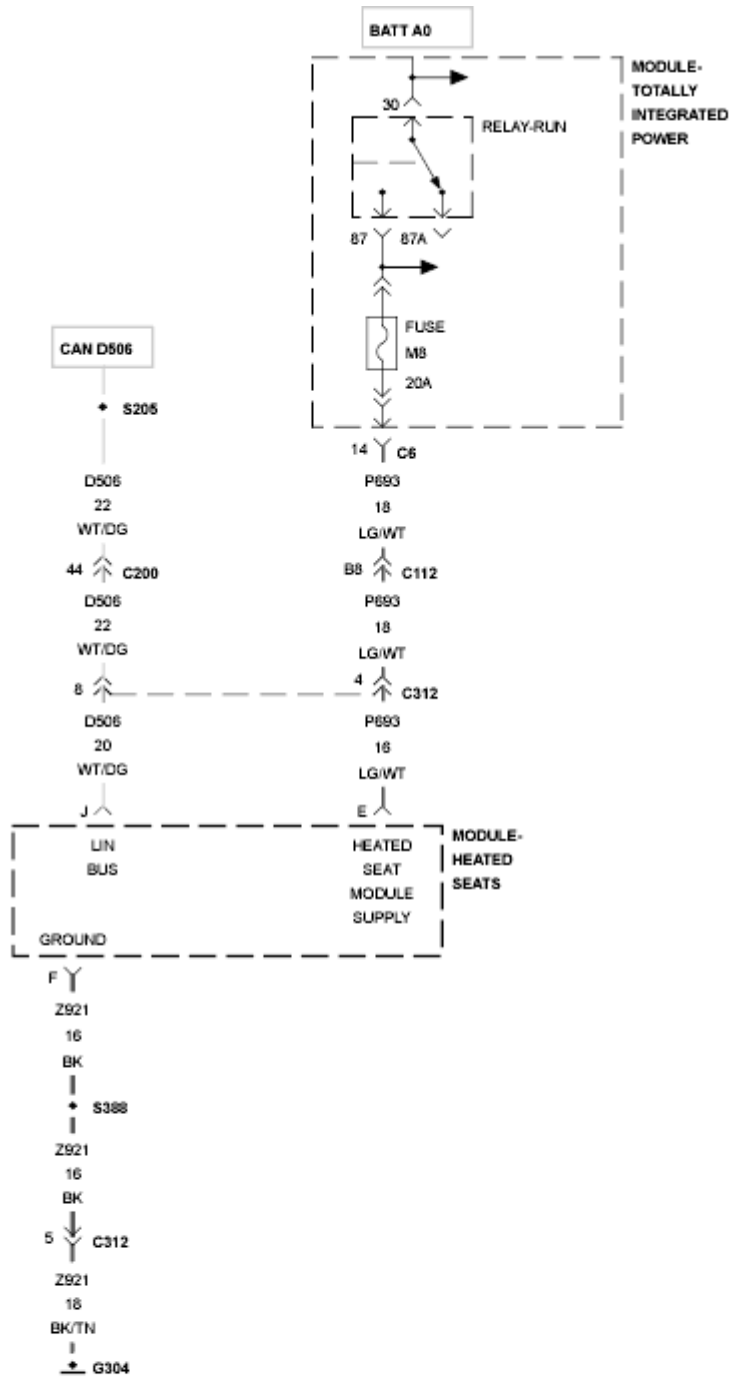


Fig. 83: Heated Seat Module Supply Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Instrument Cluster does not receive information from the Heated Seats Control Module.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (P693) HEATED SEAT MODULE SUPPLY CIRCUIT OPEN (Z921) GROUND CIRCUIT OPEN HEATED SEATS MODULE INSTRUMENT CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display the DTC as active?

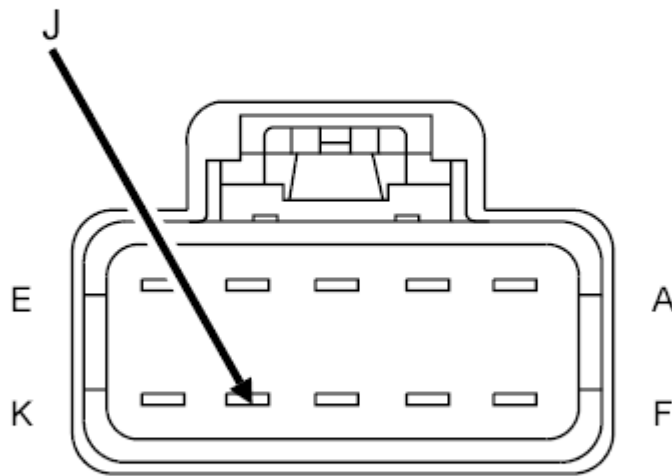
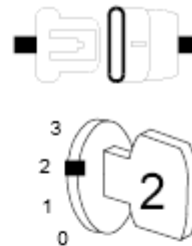
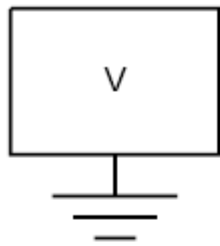
Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (D506) LIN BUS CIRCUIT OPEN



**MODULE-
HEATED
SEATS**

107145

Fig. 84: Checking Heated Seats Module Harness Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Heated Seats Module harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN BUS circuit.

Is the voltage above 5 volts?

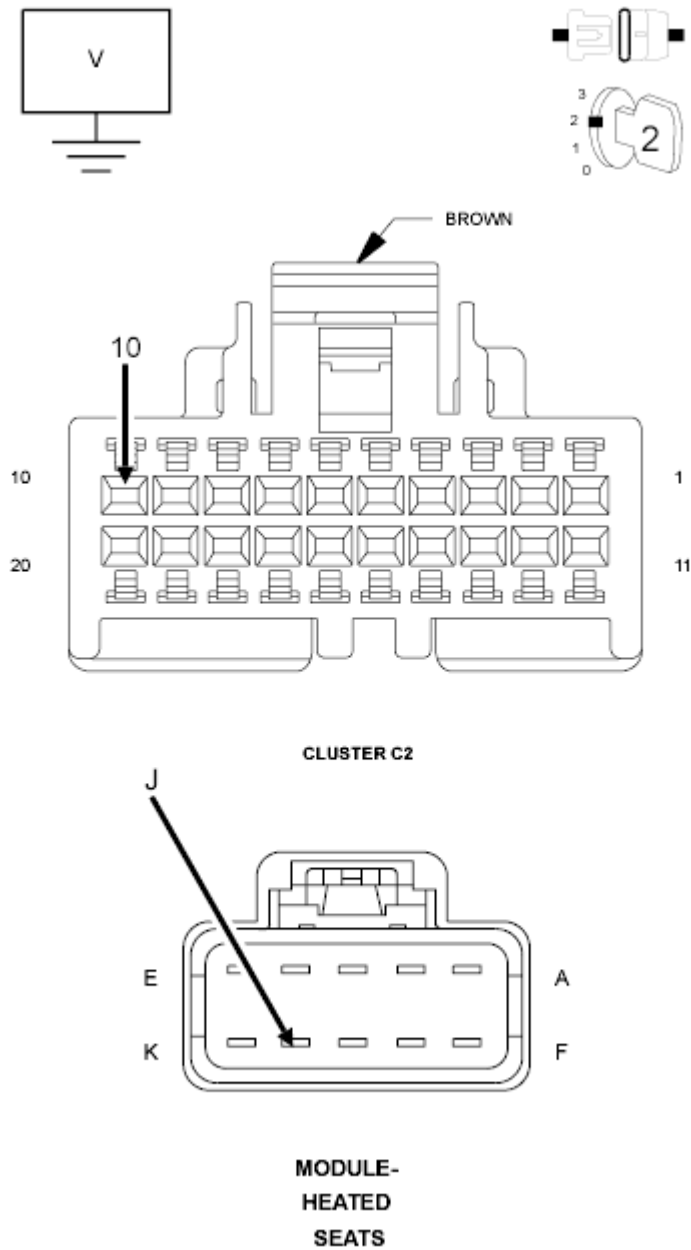
Yes

- Go to step 4

No

- Go to step 3

3. (D506) LIN BUS CIRCUIT OPEN



107147

Fig. 85: Checking Instrument Cluster C2 Harness Connector
 Courtesy of CHRYSLER LLC

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

1. Turn the ignition off.
2. Disconnect the Instrument Cluster C2 harness connector.
3. Measure the resistance of the (D506) LIN BUS circuit.

Is the resistance below 10K ohms?

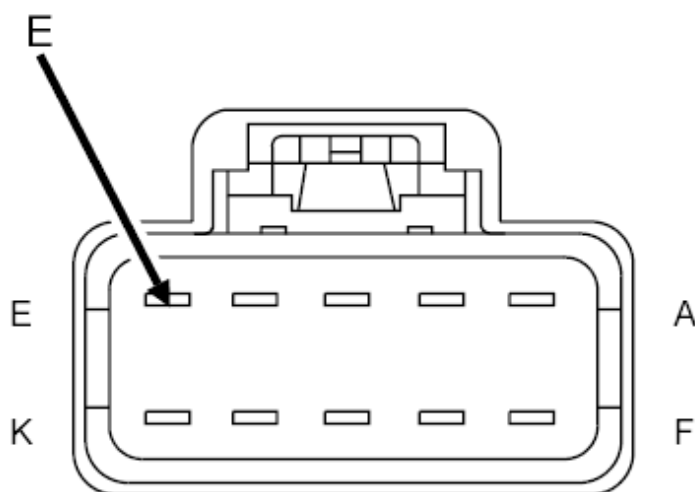
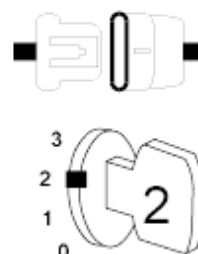
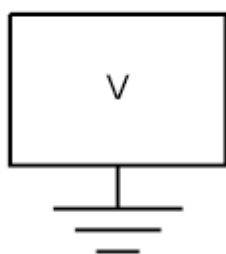
Yes

- Replace the Instrument Cluster in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (D506) LIN BUS circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. (P693) HEATED SEAT MODULE SUPPLY



**MODULE-
HEATED
SEATS**

107149

Fig. 86: Checking Heated Seat Module Supply
Courtesy of CHRYSLER LLC

1. Turn the ignition on.
2. Measure the voltage of the (P693) Heated Seat Module Supply circuit.

Is the voltage above 10 volts?

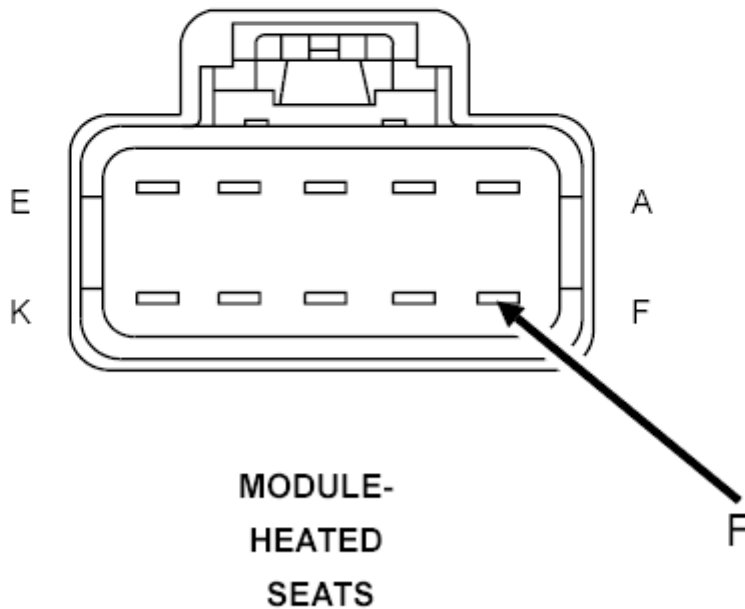
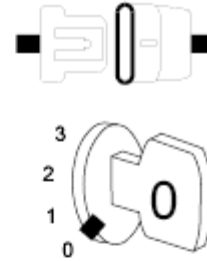
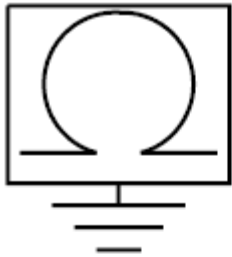
Yes

- Go to step 5

No

- Repair the (P693) Heated Seat Module Supply circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

5. (Z921) GROUND CIRCUIT OPEN



107151

Fig. 87: Checking Ground Circuit Open
Courtesy of CHRYSLER LLC

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

1. Turn the ignition off.
2. Measure the resistance between ground and the (Z921) Ground circuit.

Is the resistance above 10K ohms?

Yes

- Replace the Heated Seats Module in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (Z921) ground circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

U1008-LIN 1 BUS

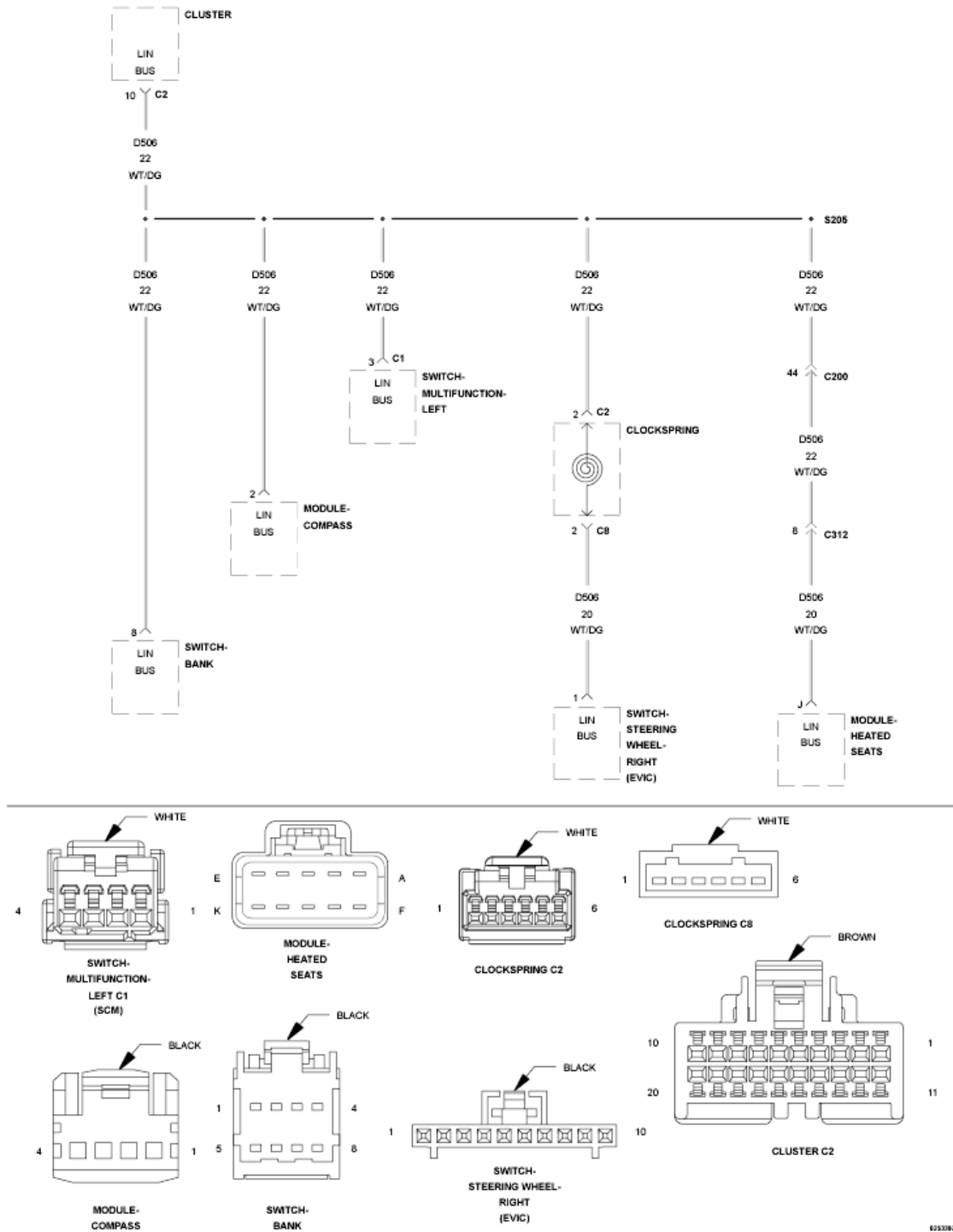


Fig. 88: LIN BUS Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

With the ignition on.

• **Set Condition:**

LIN 1 Bus Performance.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN
(D506) LIN BUS CIRCUIT SHORTED TO GROUND
SHORTED LIN BUS COMPONENT CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DIAGNOSTIC TROUBLE CODE (DTC)

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. Using the scan tool, read DTCs.

Does the scan tool display: U1008-LIN 1 BUS?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. SHORTED LIN BUS COMPONENT

NOTE: After disconnecting each component, check DTCs with the scan tool.

1. Turn the ignition on.
2. Disconnect the Compass Module harness connector.
3. Disconnect the Heated Seat Module harness connector.
4. Disconnect the Switch Bank harness connector.

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

5. Disconnect the Left Multifunction Switch harness connector.
6. Disconnect the Right Steering Wheel Switch harness connector.

With each component disconnected, did the DTC U1008-LIN 1 BUS change from active to stored?

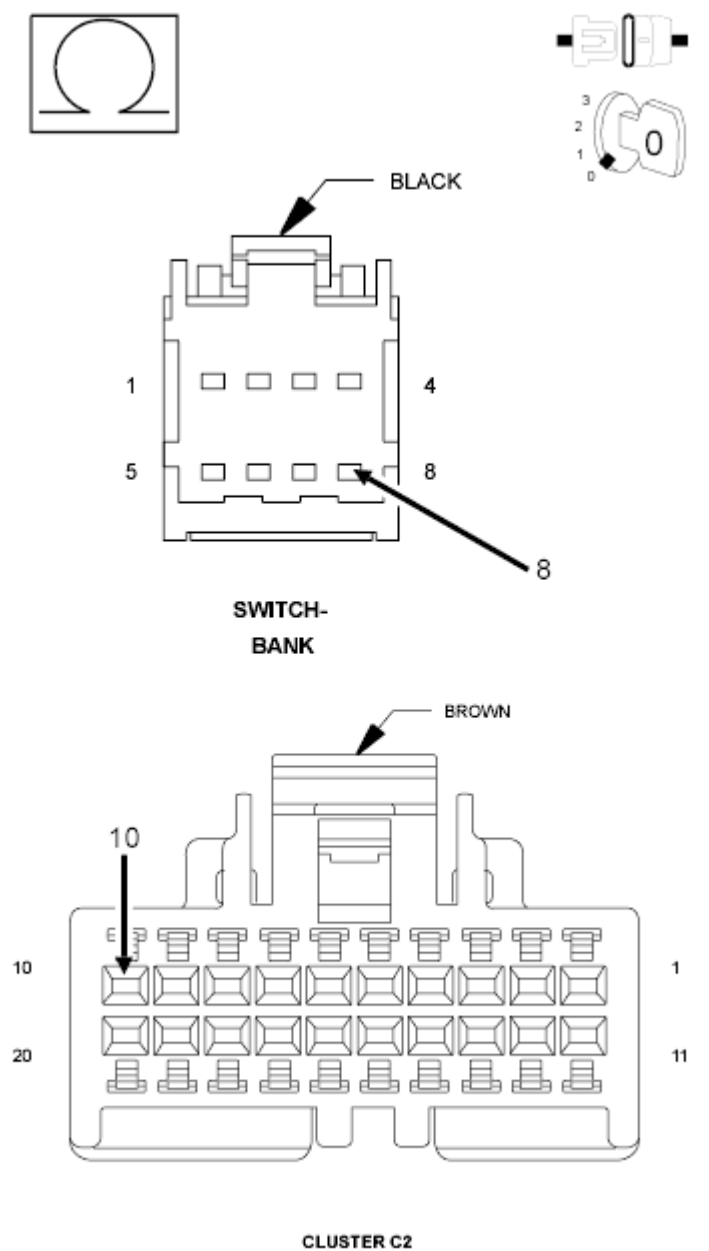
Yes

- Replace the component that caused the DTC U1008-LIN 1 BUS to change from active to stored.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. (D506) LIN BUS CIRCUIT OPEN



107157

Fig. 89: Checking LIN BUS Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance of the (D506) LIN Bus circuit between the Cluster C2 and Switch Bank harness connectors.

Is the resistance above 10K Ohms?

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2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

Yes

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. (D506) LIN BUS CIRCUIT SHORTED TO GROUND

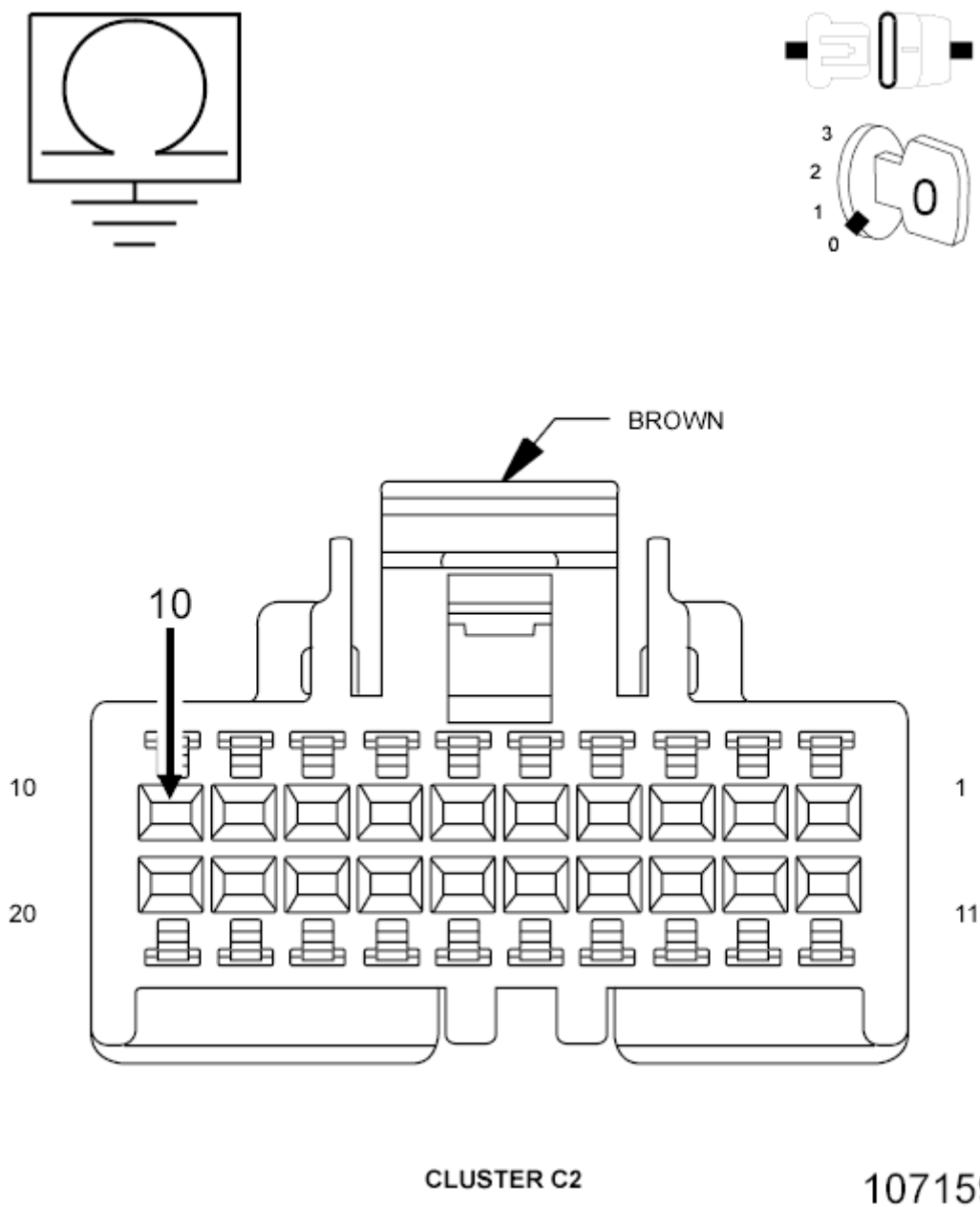


Fig. 90: Checking LIN BUS Circuit Shorted To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance to ground on the (D506) LIN Bus circuit.

Is the resistance below 10K Ohms?

Yes

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2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

- Repair the short to ground in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

U1109-LOST COMMUNICATION WITH LIN STEERING WHEEL CONTROLS



For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

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2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

With the ignition on.

- **Set Condition:**

The Cluster does not receive information from the Right Steering Wheel Switch.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (A909) FUSED B(+) CIRCUIT OPEN (Z926) GROUND CIRCUIT OPEN RIGHT STEERING WHEEL SWITCH CLOCKSPRING

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

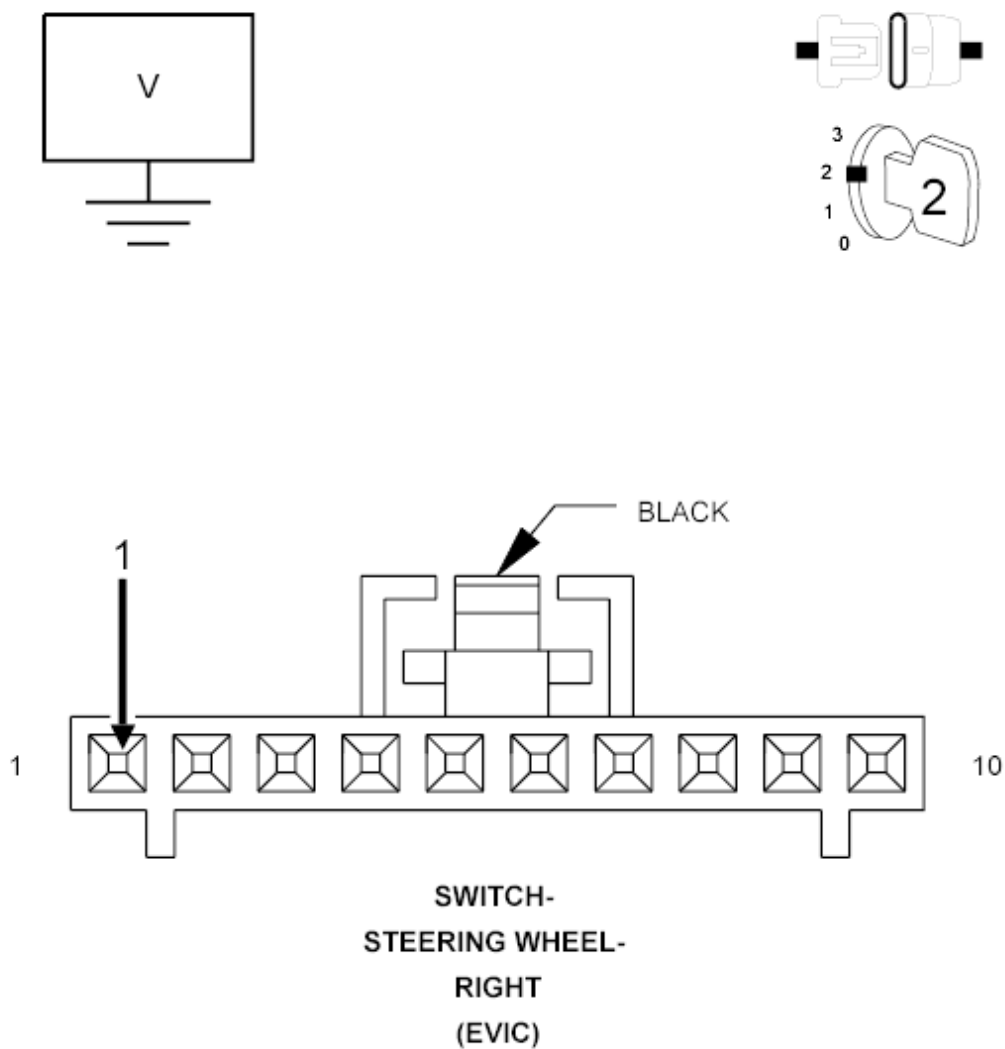
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. CHECK THE VOLTAGE OF (D506) LIN BUS CIRCUIT AT THE RIGHT STEERING WHEEL SWITCH



2544119

Fig. 92: Checking Voltage Of LIN BUS Circuit At Right Steering Wheel Switch
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Steering Wheel Switch harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN Bus circuit at the Right Steering Wheel Switch harness connector.

Is the voltage above 5.0 volts?

Yes

- Go to step 5

No

- Go to step 3

3. (D506) LIN BUS CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH AND CLOCKSPrING

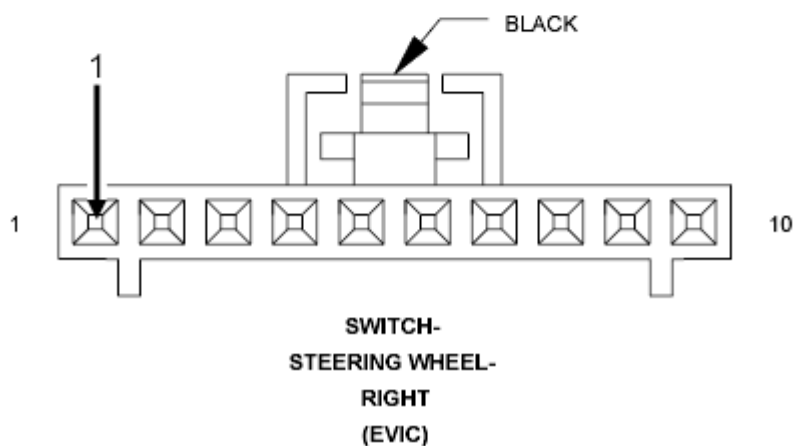
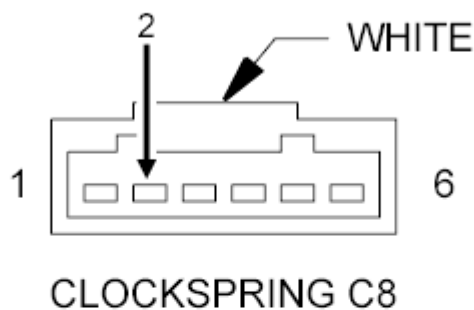
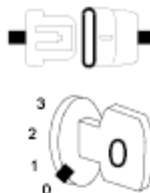
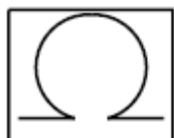


Fig. 93: Checking LIN BUS Circuit Open Between Right Steering Wheel Switch & Clockspring
Courtesy of CHRYSLER LLC

1. Turn the ignition off.

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2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

2. Disconnect the Clockspring C8 harness connector.
3. Measure the resistance of the (D506) LIN Bus circuit between the Right Steering Wheel Switch and Clockspring C8 harness connectors.

Is the resistance below 5.0 Ohms?

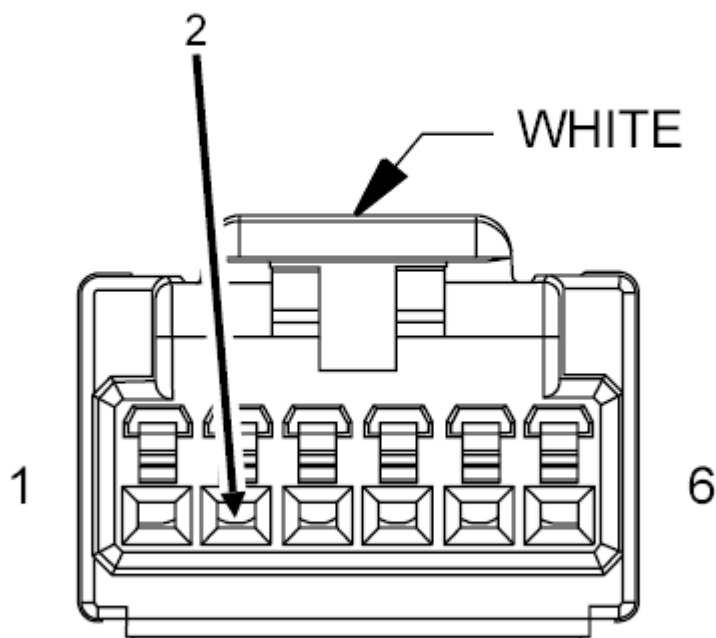
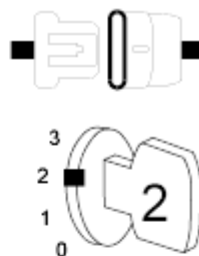
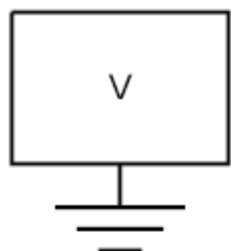
Yes

- Go to step 4

No

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. CHECK THE VOLTAGE OF (D506) LIN BUS CIRCUIT AT THE CLOCKSPRING



CLOCKSPRING C2

2544170

Fig. 94: Checking Voltage Of LIN BUS Circuit At Clockspring
Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C2 harness connector.
2. Turn the ignition on.
3. Measure the voltage of the (D506) LIN Bus circuit at the Clockspring C2 harness connector.

Is the voltage above 5.0 volts?

Yes

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. **CHECK THE VOLTAGE OF (A909) FUSED B(+) CIRCUIT AT THE RIGHT STEERING WHEEL SWITCH**

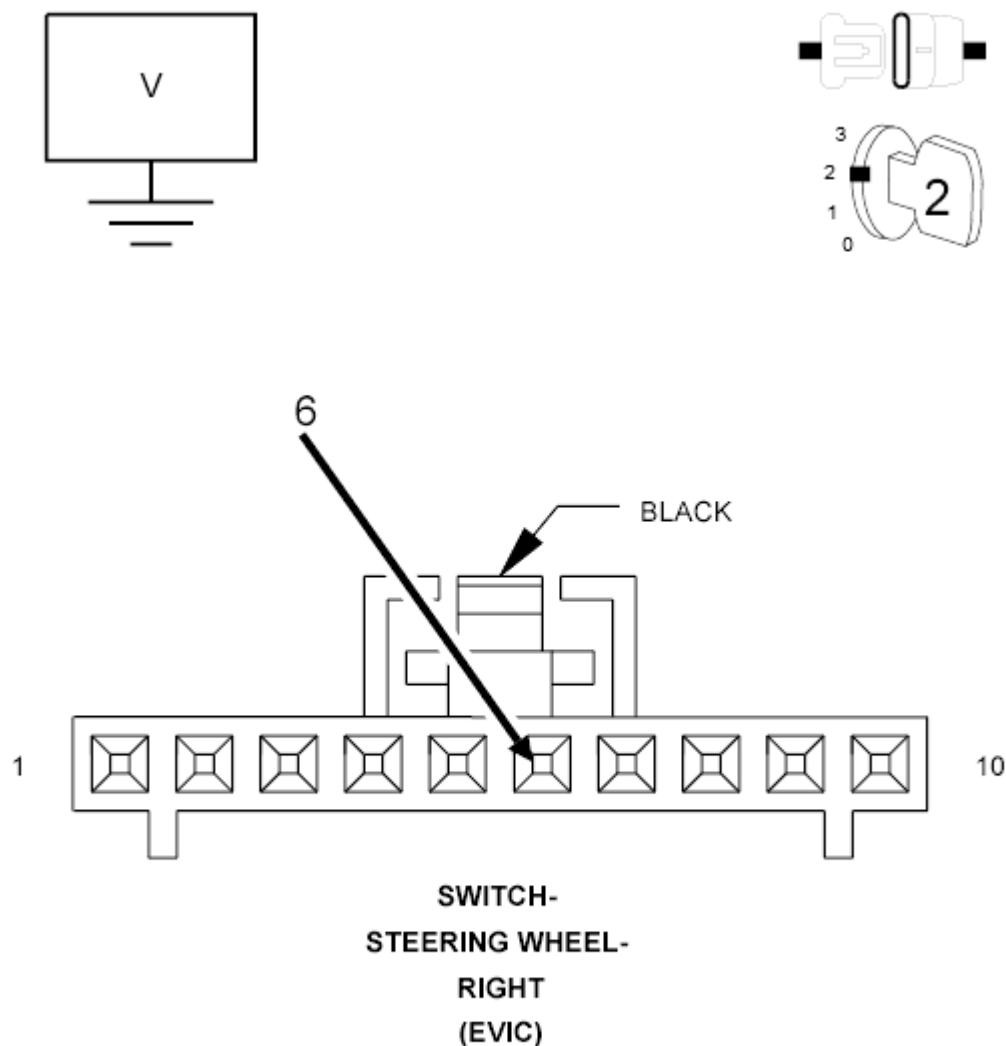


Fig. 95: Checking Voltage Of Fused B(+) Circuit At Right Steering Wheel Switch
Courtesy of CHRYSLER LLC

1. Measure the voltage of the (A909) Fused B(+) circuit at the Right Steering Wheel Switch harness connector.

Is the voltage above 10.0 volts?

Yes

- Go to step 8

No

- Go to step 6

6. **(A909) FUSED B(+) CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH AND CLOCKSPRING**

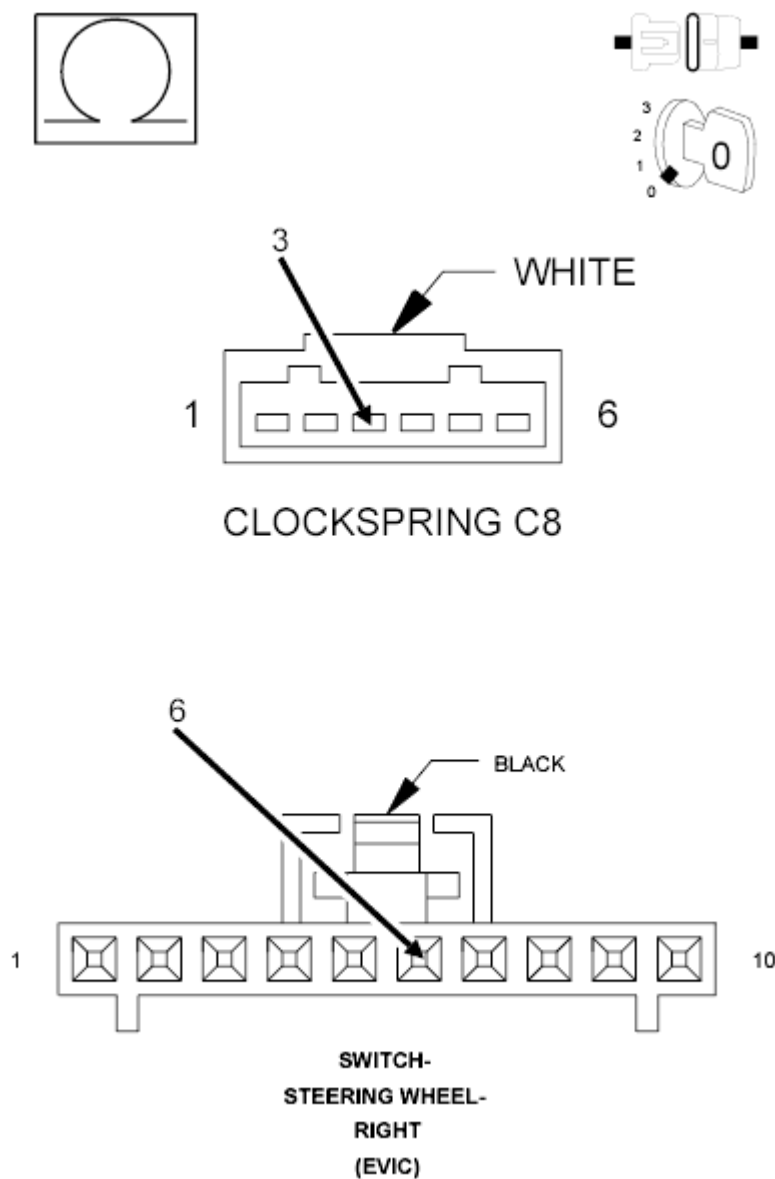


Fig. 96: Checking Fused B(+) Circuit Open Between Right Steering Wheel Switch & Clockspring
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Clockspring C8 harness connector.
3. Measure the resistance of the (A909) Fused B(+) circuit between the Right Steering Wheel Switch and Clockspring C8 harness connectors.

Is the resistance below 5.0 Ohms?

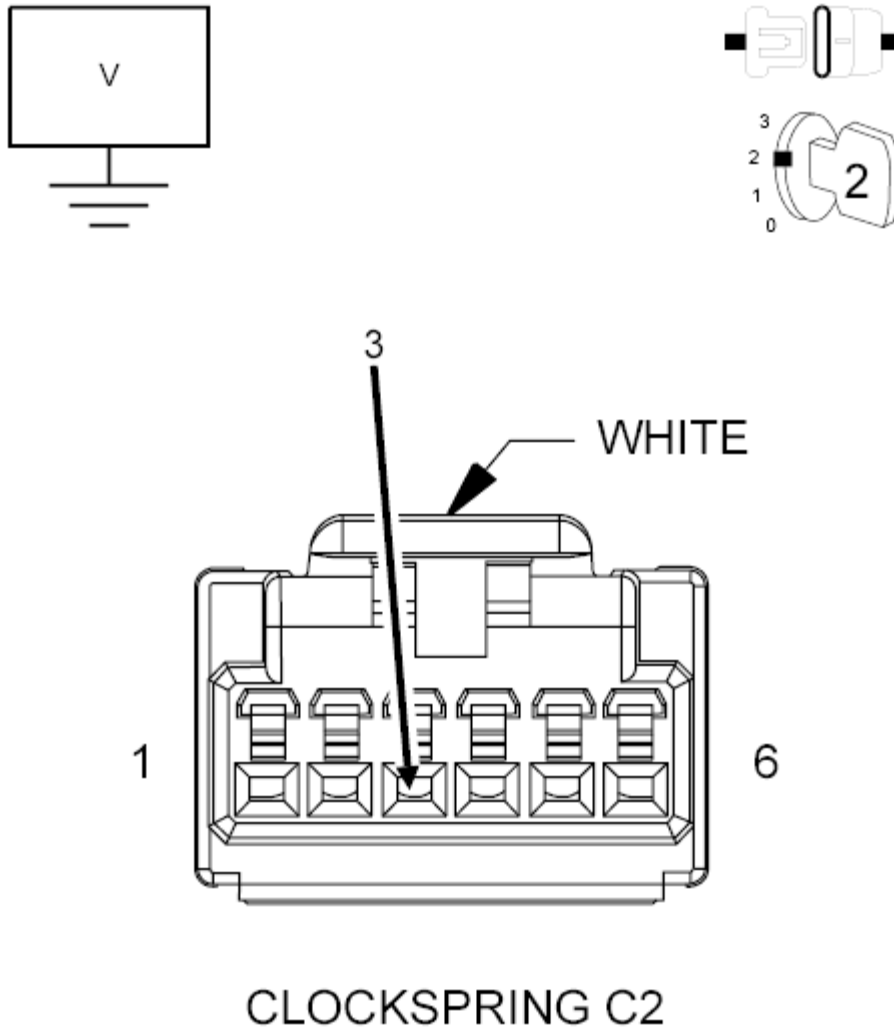
Yes

- Go to step 7

No

- Repair the open in the (A909) Fused B(+) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

7. (A909) FUSED B(+) CIRCUIT OPEN BETWEEN THE CLOCKSPRING AND TOTALLY INTEGRATED POWER MODULE



2544230

Fig. 97: Checking Fused B(+) Circuit Open Between Clockspring & Totally Integrated Power Module

Courtesy of CHRYSLER LLC

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1. Turn the ignition off.
2. Disconnect the Clockspring C2 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (A909) Fused B(+) circuit at the Clockspring C2 harness connectors.

Is the voltage above 10.0 volts?

Yes

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the open in the (A909) Fused B(+) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

8. CHECK THE (Z926) GROUND CIRCUIT AT THE RIGHT STEERING WHEEL SWITCH

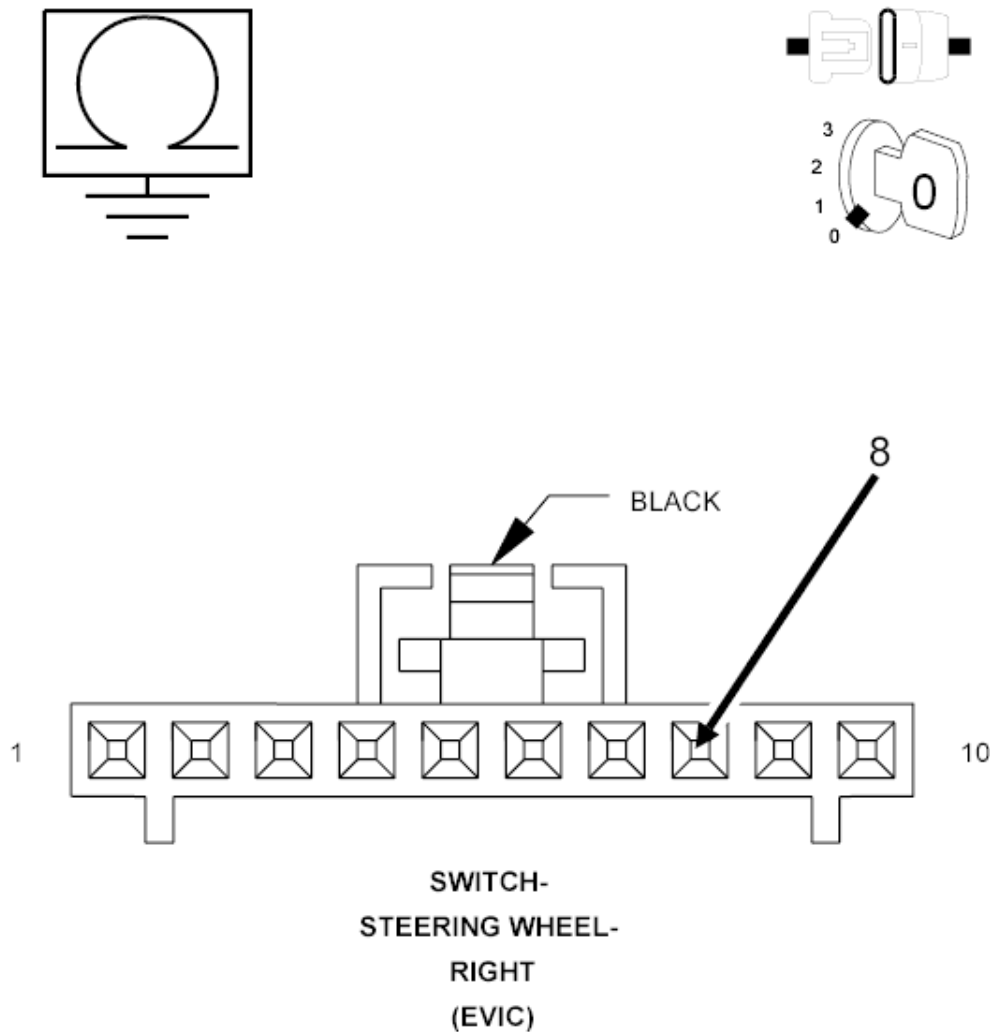


Fig. 98: Checking Ground Circuit At Right Steering Wheel Switch
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (Z926) Ground circuit at the Right Steering Wheel Switch harness connector.

Is the resistance below 5.0 Ohms?

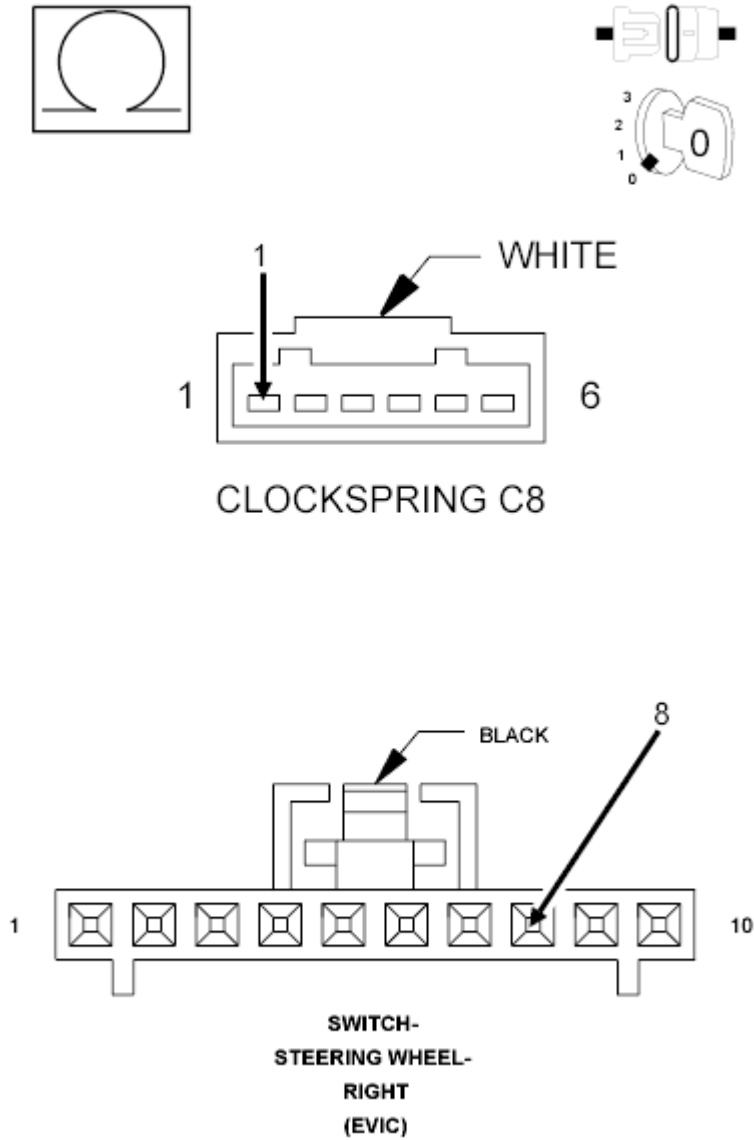
Yes

- Replace the Right Steering Wheel Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 9

9. (Z926) GROUND CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH AND CLOCKSPRING



2544294

Fig. 99: Checking Ground Circuit Open Between Right Steering Wheel Switch & Clockspring
Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C8 harness connector.
2. Measure the resistance of the (Z926) Ground circuit between the Right Steering Wheel Switch and Clockspring C8 harness connectors.

Is the resistance below 5.0 Ohms?

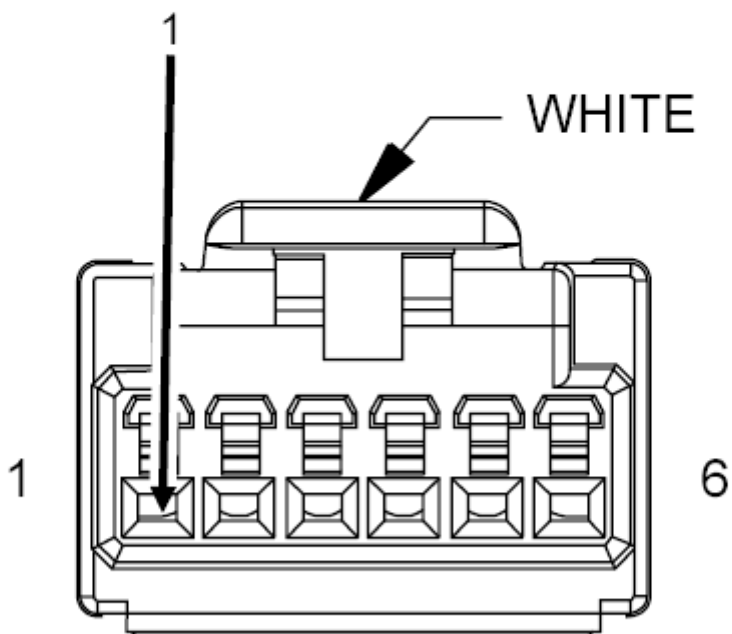
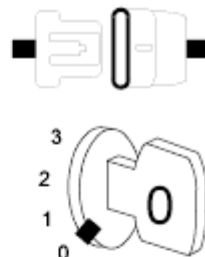
Yes

- Go to step 10

No

- Repair the open in the (Z926) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

10. (Z926) GROUND CIRCUIT OPEN BETWEEN THE CLOCKSPRING AND GROUND



CLOCKSPRING C2

Fig. 100: Checking Ground Circuit Open Between Clockspring & Ground
Courtesy of CHRYSLER LLC

1. Disconnect the Clockspring C2 harness connector.
2. Measure the resistance between ground and the (Z926) Ground circuit at the Clockspring C2 harness connector.

Is the resistance below 5.0 Ohms?

Yes

- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

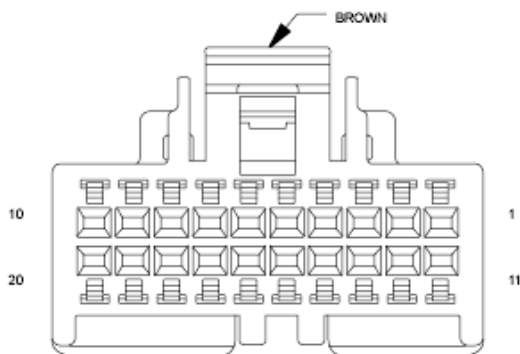
No

- Repair the open in the (Z926) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

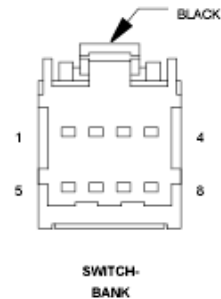
U113B-LOST COMMUNICATION WITH SWITCH BANK MODULE

2009 Dodge Journey R/T

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CLUSTER C2



SWITCH-BANK

Fig. 101: Fused B+ & LIN BUS Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster does not receive information from the Switch Bank Module.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (A909) FUSED B+ CIRCUIT OPEN (Z907) GROUND CIRCUIT OPEN SWITCH BANK MODULE CLUSTER

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Wait 30 seconds.
4. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

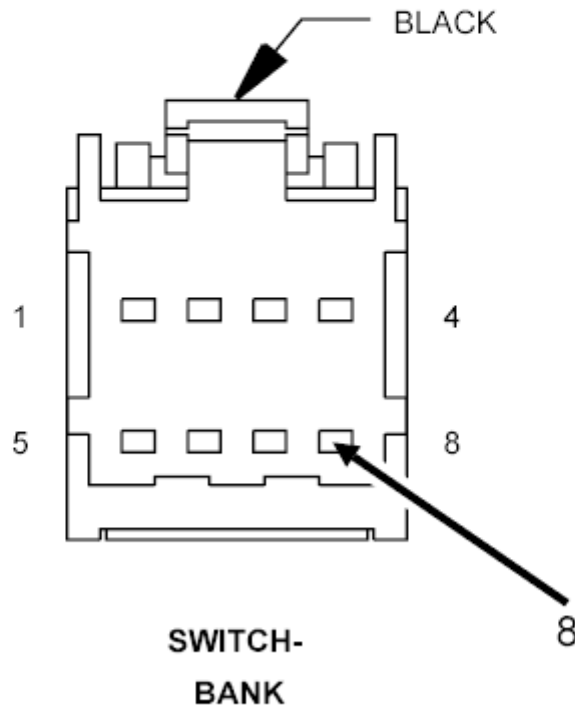
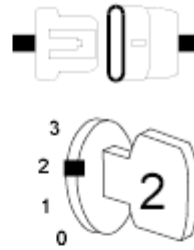
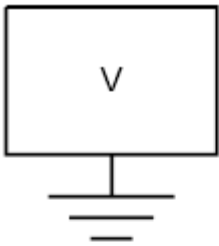
Yes

- Go to step 2

No

- The condition that caused this code to set is not present at this time. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. (D506) LIN BUS CIRCUIT



107173

Fig. 102: Checking Switch Bank Module Harness Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Switch Bank Module harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN BUS circuit.

Is the voltage above 5 volts?

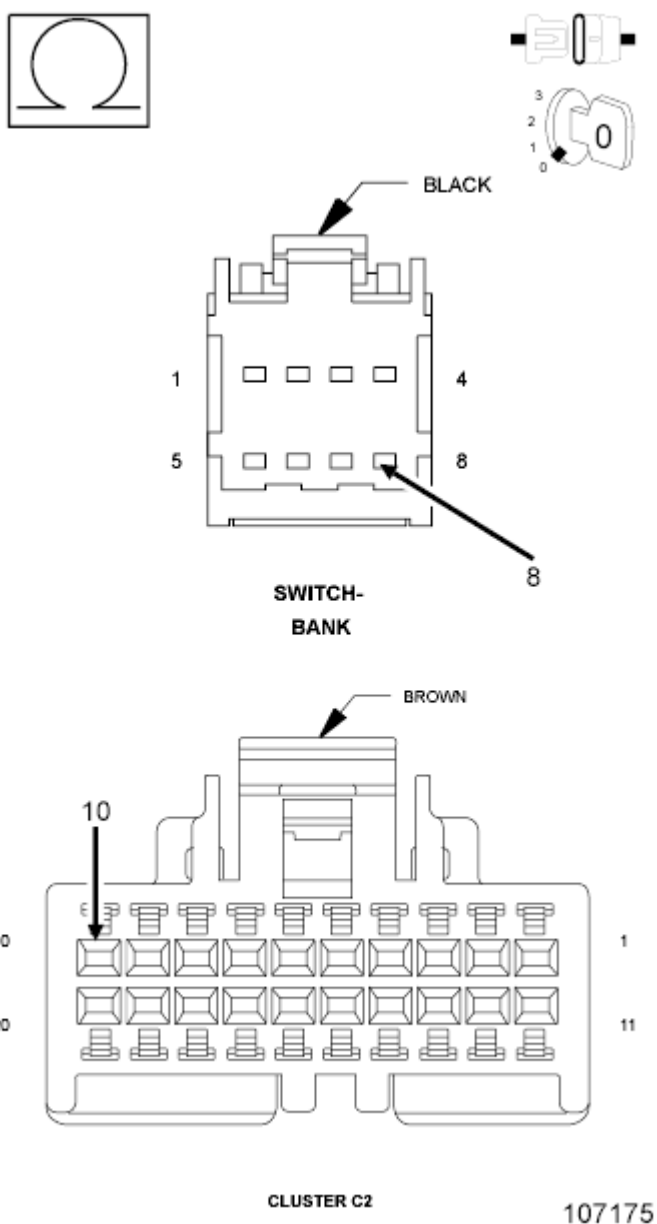
Yes

- Go to step 4

No

- Go to step 3

3. (D506) LIN BUS CIRCUIT OPEN



107175

Fig. 103: Checking Cluster C2 Harness Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.

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2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance of the (D506) LIN BUS circuit.

Is the resistance below 10K ohms?

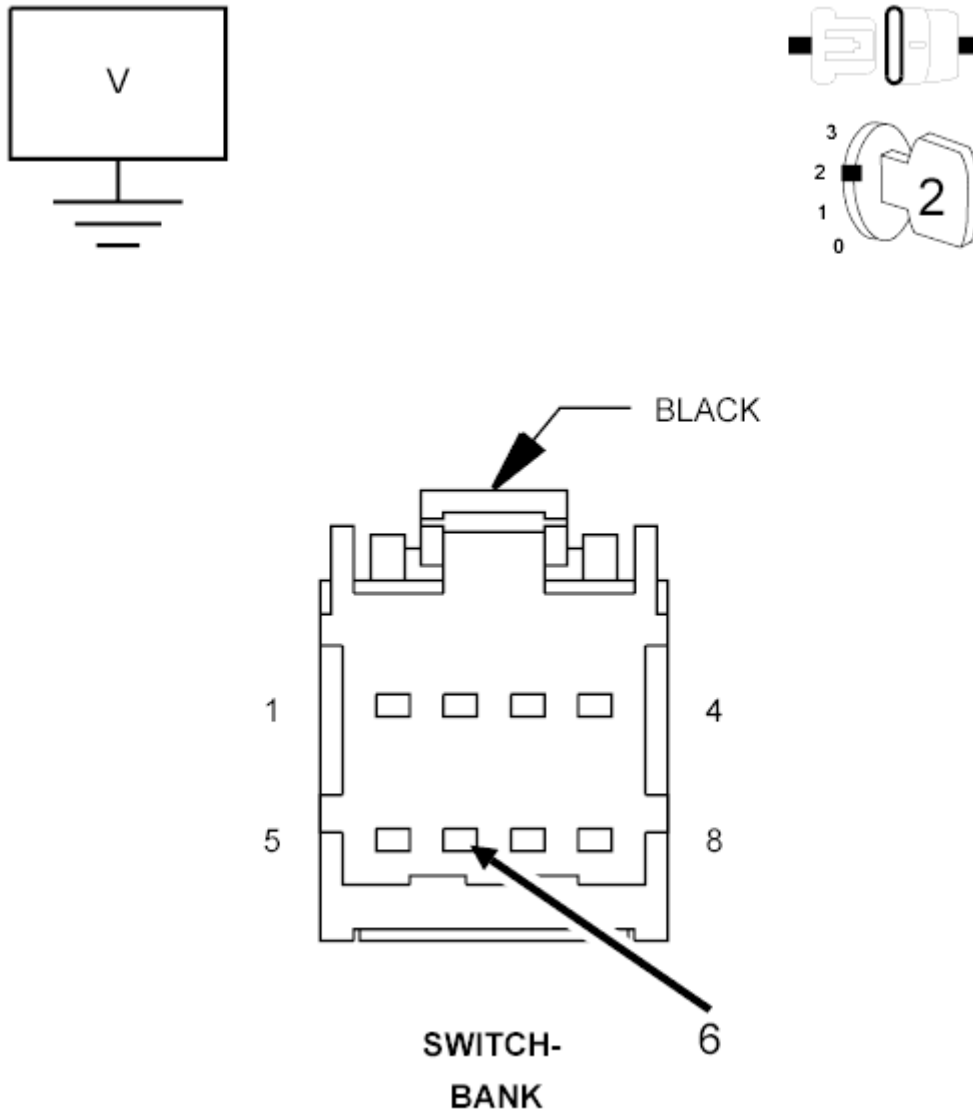
Yes

- Replace the Cluster in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (D506) LIN BUS circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

4. (A909) FUSED B+ CIRCUIT OPEN

**Fig. 104: Checking Fused B+ Circuit Open**

Courtesy of CHRYSLER LLC

1. Turn the ignition on.
2. Measure the voltage of the (A909) Fused B+ circuit at the Switch Bank Module harness connector.

Is the voltage above 10 volts?

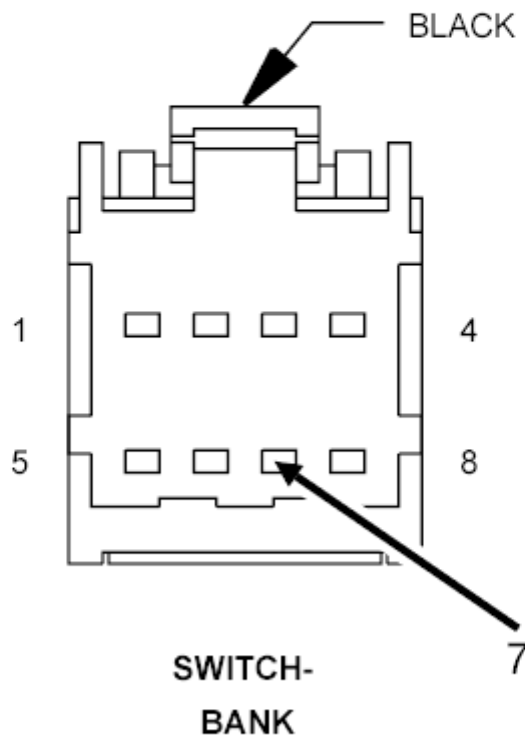
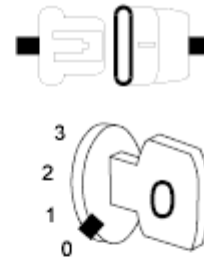
Yes

- Go to step 5

No

- Repair the (A909) Fused B+ circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

5. (Z907) GROUND CIRCUIT OPEN



107179

Fig. 105: Checking Ground Circuit Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance between ground and the (Z907) Ground circuit at the Switch Bank Module

harness connector.

Is the resistance above 10K ohms?

Yes

- Replace the Switch Bank Module in accordance with the service information.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Repair the (Z907) ground circuit for an open.
- Perform BODY VERIFICATION TEST - VER 1. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

U1149-LOST COMMUNICATION WITH MULTIFUNCTION SWITCH

2009 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Journey

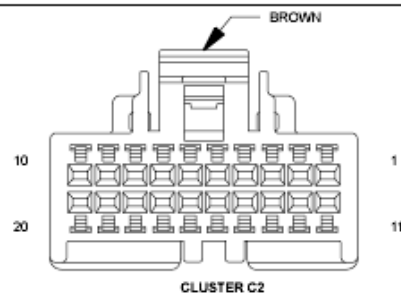


Fig. 106: Fused Run/Start Relay Output Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Cluster does not receive information from the Left Multifunction Switch.

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (F943) FUSED RUN/START RELAY OUTPUT CIRCUIT OPEN (A412) FUSED B(+) I.O.D. CIRCUIT OPEN (Z926) GROUND CIRCUIT OPEN LEFT MULTIFUNCTION SWITCH

Diagnostic Test

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, verify the Left and Right Multifunction Switch and Clockspring harness connectors are properly seated and verify proper pin terminal tension. A loose connection at any of these connectors may cause this DTC to set.

1. Turn the ignition on.
2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.

2. (D506) LIN BUS CIRCUIT OPEN

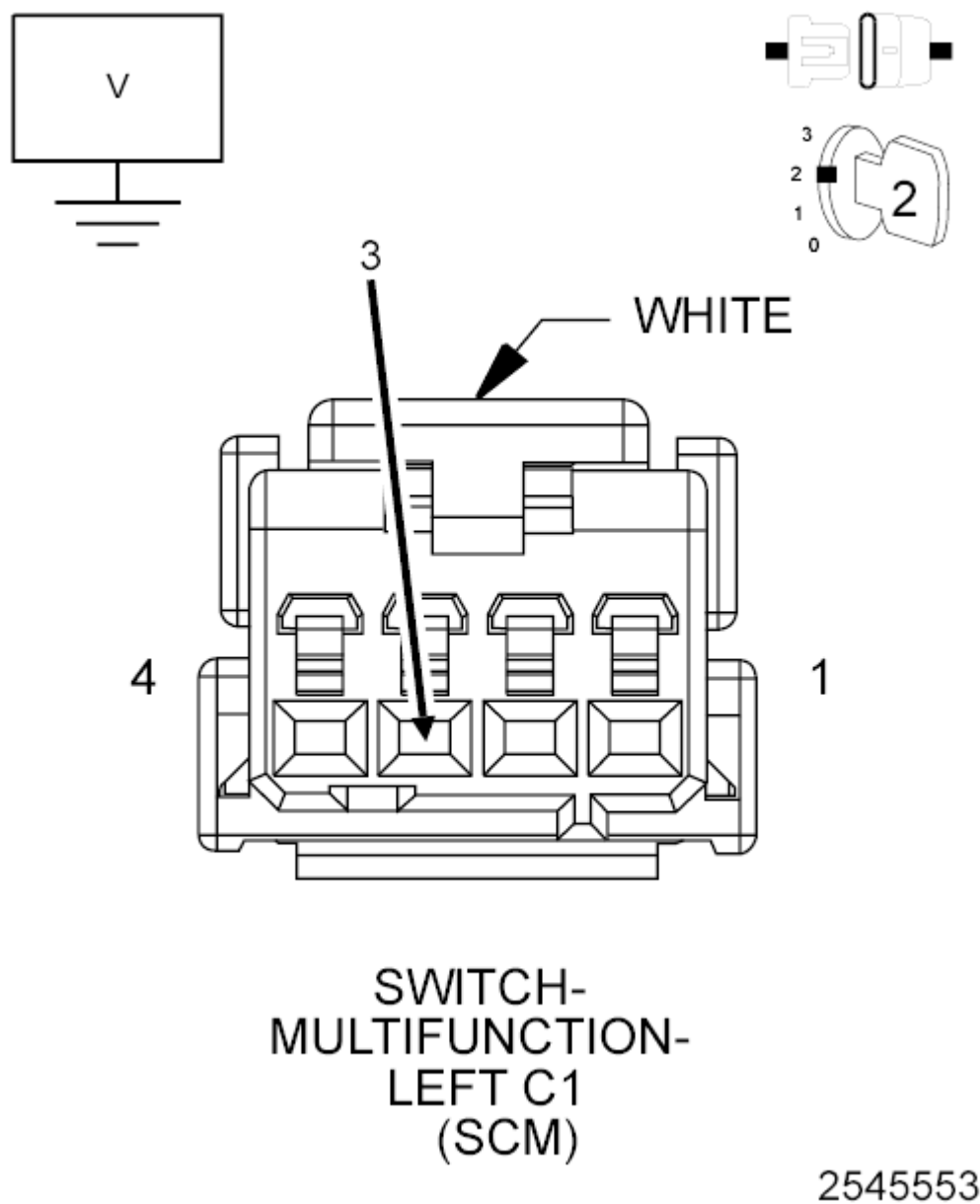


Fig. 107: Checking Left Multifunction Switch Harness Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Multifunction Switch harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN Bus circuit at the Left Multifunction Switch harness connector.

Is the voltage above 5.0 volts?

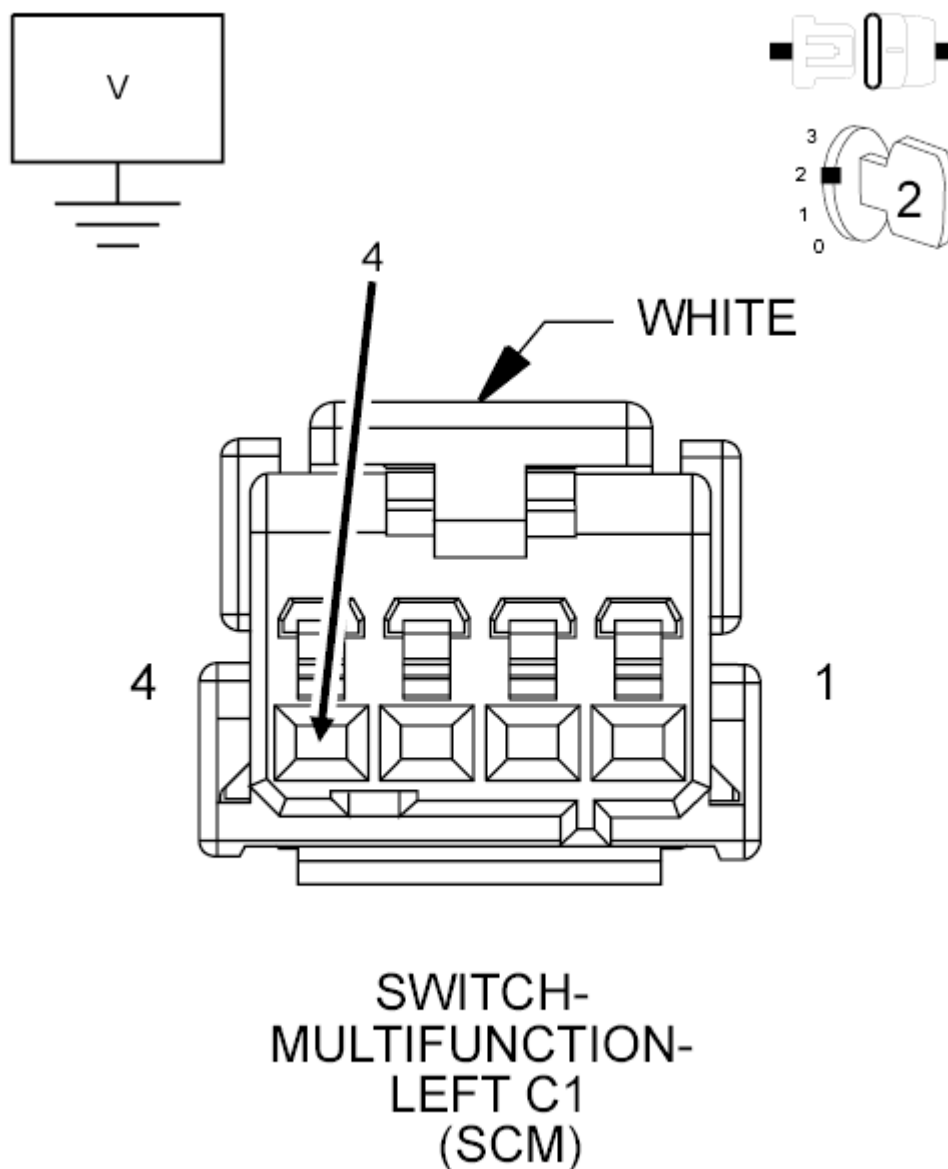
Yes

- Go to step 3

No

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. (F943) FUSED RUN/START RELAY OUTPUT CIRCUIT OPEN



2545571

Fig. 108: Checking Fused Run/Start Relay Output Circuit Open

Courtesy of CHRYSLER LLC

1. Measure the voltage of the (F943) Fused Run/Start Relay Output circuit at the Left Multifunction Switch harness connector.

Is the voltage above 10.0 volts?

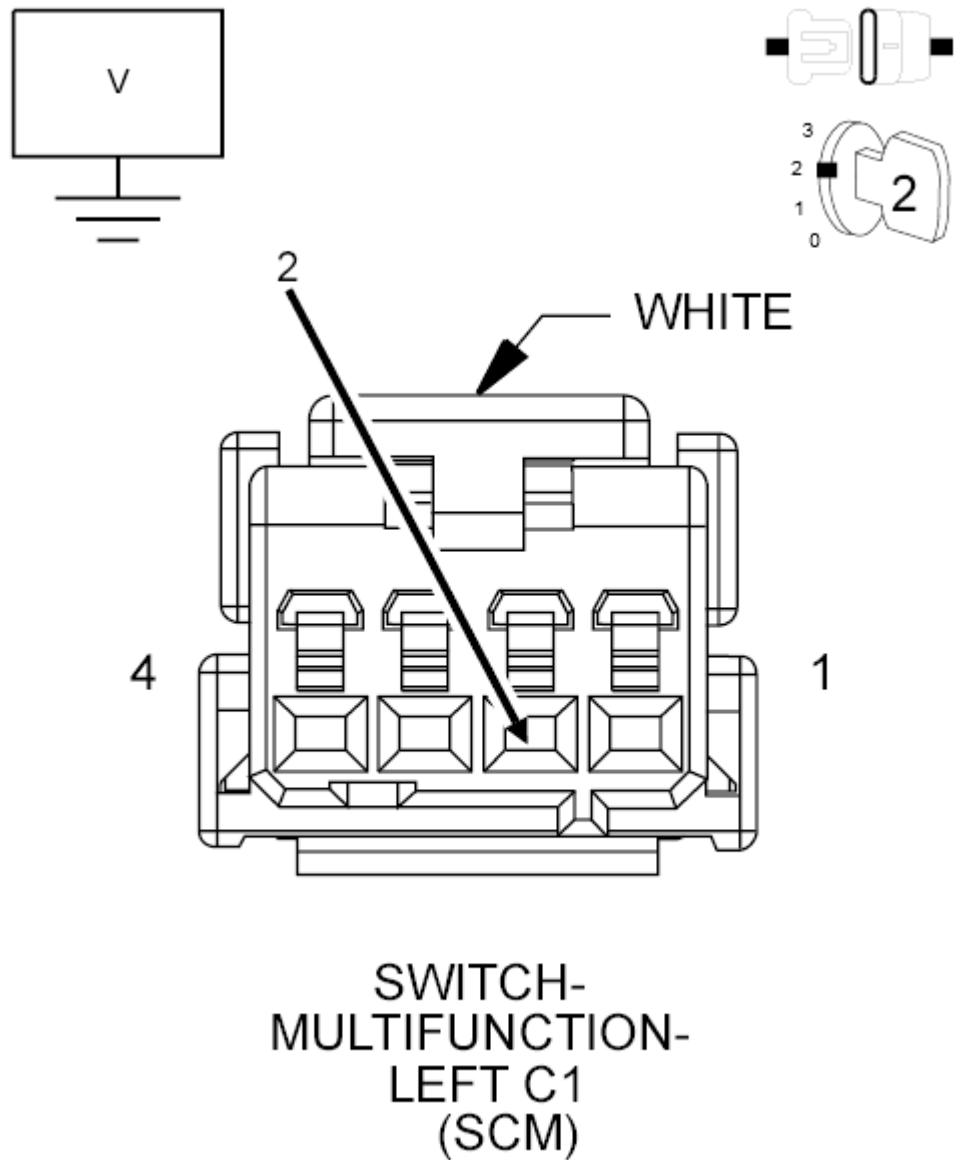
Yes

- Go to step 4

No

- Repair the open in the (F943) Fused Run/Start Relay Output circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. **(A412) FUSED B(+) I.O.D. CIRCUIT OPEN**



2545605

Fig. 109: Checking Fused B(+) I.O.D. Circuit Open
Courtesy of CHRYSLER LLC

1. Measure the voltage of the (A412) Fused B(+) I.O.D. circuit at the Left Multifunction Switch harness connector.

Is the voltage above 10.0 volts?

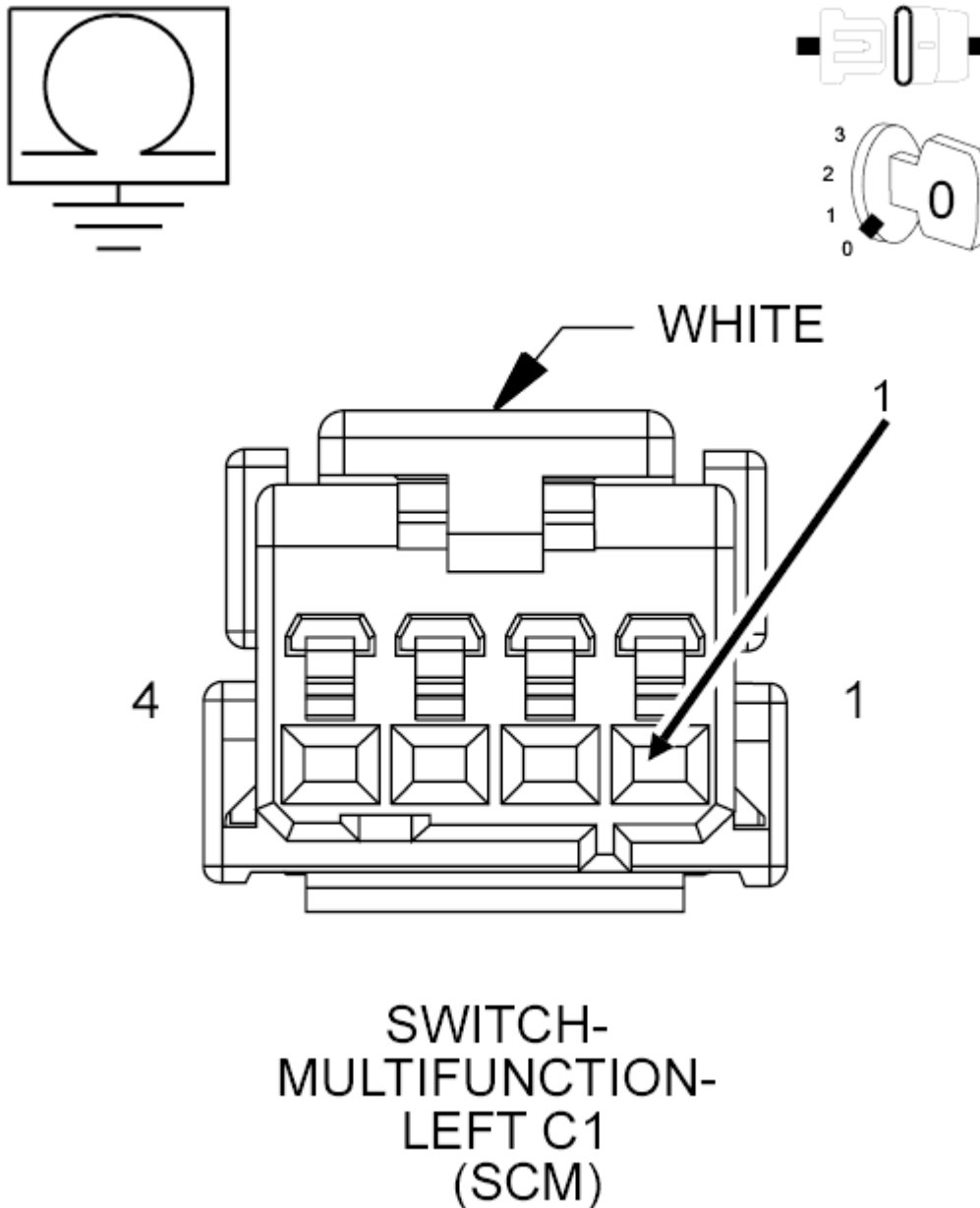
Yes

- Go to step 5

No

- Repair the open in the (A412) Fused B(+) I.O.D. circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. (Z926) GROUND CIRCUIT OPEN



2545617

Fig. 110: Checking Ground Circuit Open
Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (Z926) Ground circuit at the Left Multifunction

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Switch harness connector.

Is the resistance below 5.0 Ohms?

Yes

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the open in the (Z926) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .