

**2014 Jeep Patriot Limited**

2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass &amp; Patriot

**2014 ACCESSORIES AND EQUIPMENT****Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot****DIAGNOSTIC CODE INDEX****DIAGNOSTIC CODE INDEX**

<b>DTC</b>	<b>Description</b>
<b><u>B1092</u></b>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW
<b><u>B1094</u></b>	FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN
<b><u>B1096</u></b>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW
<b><u>B1098</u></b>	FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN
<b><u>B10BB</u></b>	LEFT HEATED SEAT SWITCH INPUT CIRCUIT STUCK
<b><u>B10BC</u></b>	RIGHT HEATED SEAT SWITCH INPUT CIRCUIT STUCK
<b><u>B123F</u></b>	MENU SWITCH STUCK
<b><u>B1263</u></b>	COMPASS MAGNETIC FIELD PERFORMANCE
<b><u>B1265</u></b>	TRIP/TOGGLE SWITCH STUCK
<b><u>B1286</u></b>	COMPASS/TEMP BUTTON PERFORMANCE
<b><u>B1427</u></b>	REMOTE RADIO SWITCH INPUT CIRCUIT HIGH
<b><u>B1428</u></b>	REMOTE RADIO SWITCH INPUT CIRCUIT STUCK
<b><u>B1504</u></b>	LEFT STEERING WHEEL CONTROL SWITCH CIRCUIT
<b><u>B161A</u></b>	COURTESY/DOME LAMP CONTROL CIRCUIT
<b><u>B161E</u></b>	READING LAMP CONTROL CIRCUIT
<b><u>B168F</u></b>	FRONT FOG LAMP SWITCH CIRCUIT
<b><u>B1782</u></b>	HEADLAMP LEVELING SWITCH STUCK
<b><u>B178E</u></b>	HEADLAMP SWITCH INPUT CIRCUIT
<b><u>B178F</u></b>	TURN SWITCH INPUT CIRCUIT
<b><u>B1800</u></b>	DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT PERFORMANCE
<b><u>B1801</u></b>	DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT

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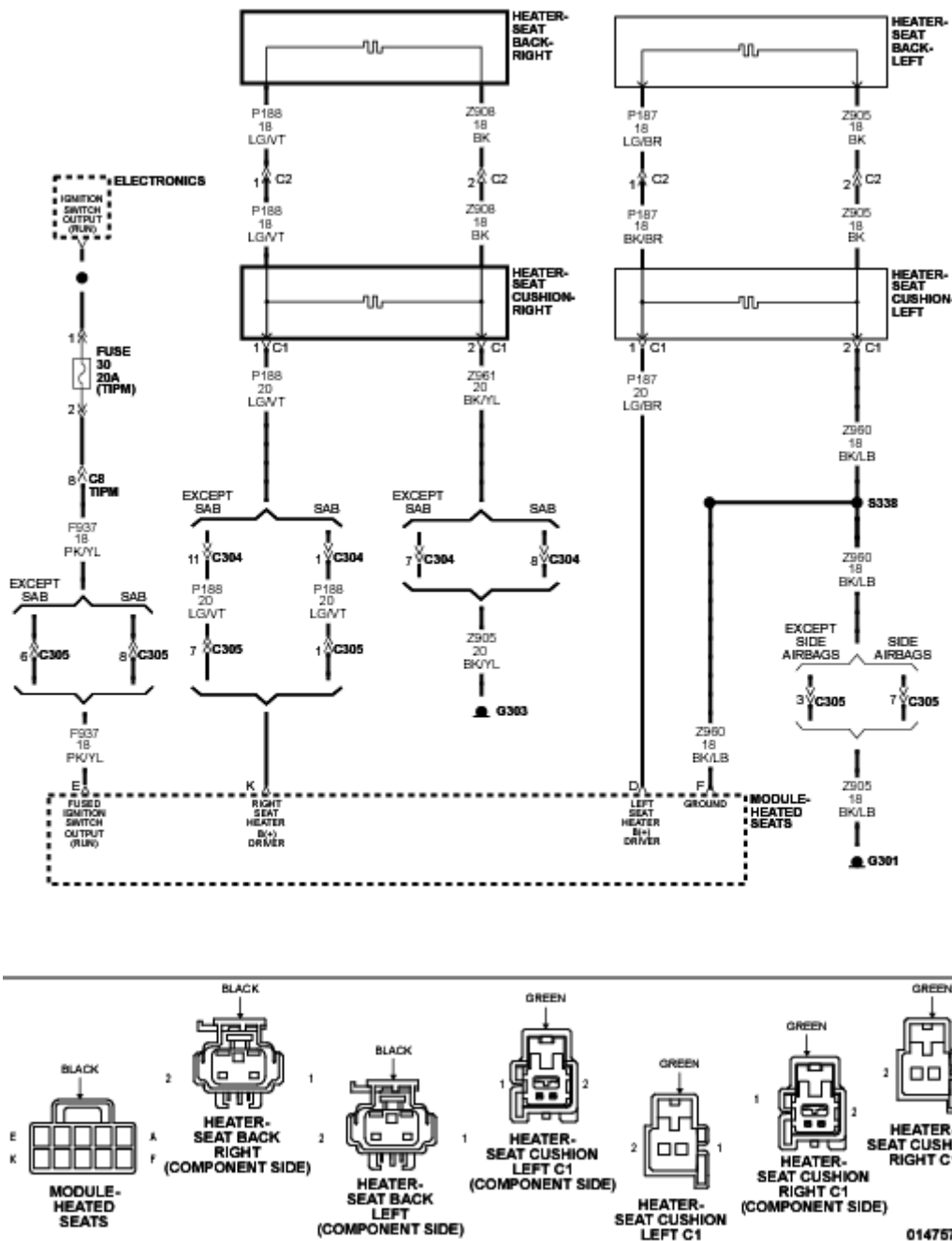
2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot

	LOW
<b><u>B1806</u></b>	PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW
<b><u>B1934</u></b>	DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK
<b><u>B1935</u></b>	PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK
<b><u>B2181</u></b>	HEATED SEAT MODULE POWER SUPPLY LOW
<b><u>B2182</u></b>	HEATED SEAT MODULE POWER SUPPLY HIGH
<b><u>B225C</u></b>	COMPASS MODULE INTERNAL
<b><u>B2300</u></b>	WIPER MODE SWITCH INPUT CIRCUIT PERFORMANCE
<b><u>B2339</u></b>	HORN SWITCH STUCK
<b><u>B2372</u></b>	HIGH BEAM SWITCH CIRCUIT
<b><u>B2374</u></b>	WASHER SWITCH INPUT CIRCUIT
<b><u>B2375</u></b>	MIST SWITCH INPUT CIRCUIT
<b><u>B2376</u></b>	REAR WIPER SWITCH INPUT CIRCUIT
<b><u>B2377</u></b>	REAR WASHER SWITCH INPUT CIRCUIT
<b><u>B2378</u></b>	FLASH TO PASS SWITCH CIRCUIT
<b><u>C2312</u></b>	TRAC/ESP OFF SWITCH STUCK
<b><u>P0462</u></b>	FUEL LEVEL SENSOR 1 CIRCUIT LOW
<b><u>P0463</u></b>	FUEL LEVEL SENSOR 1 CIRCUIT HIGH
<b><u>P2067</u></b>	FUEL LEVEL SENSOR 2 CIRCUIT LOW
<b><u>P2068</u></b>	FUEL LEVEL SENSOR 2 CIRCUIT HIGH
<b><u>U0141</u></b>	LOST COMMUNICATION WITH IPM (FCM/TIPM)
<b><u>U0151</u></b>	LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER (ORC)
<b><u>U0161</u></b>	LOST COMMUNICATION WITH COMPASS MODULE
<b><u>U0164</u></b>	LOST COMMUNICATION WITH HVAC CONTROL MODULE
<b><u>U0167</u></b>	LOST COMMUNICATION WITH INTRUSION TRANSCIVER CONTROL MODULE
<b><u>U0168</u></b>	LOST COMMUNICATION WITH VEHICLE SECURITY CONTROL MODULE (SKREEM/WCM)
<b><u>U0184</u></b>	LOST COMMUNICATION WITH RADIO

**2014 Jeep Patriot Limited**2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass &  
Patriot

<b><u>U0195</u></b>	LOST COMMUNICATION WITH SDARS
<b><u>U0197</u></b>	LOST COMMUNICATION WITH HANDS FREE PHONE MODULE
<b><u>U0208</u></b>	LOST COMMUNICATION WITH HEATED SEAT CONTROL MODULE
<b><u>U1008</u></b>	LIN 1 BUS
<b><u>U1109</u></b>	LOST COMMUNICATION WITH LIN STEERING WHEEL CONTROLS
<b><u>U113B</u></b>	LOST COMMUNICATION WITH SWITCH BANK MODULE
<b><u>U1149</u></b>	LOST COMMUNICATION WITH MULTI-FUNCTION SWITCH

**DIAGNOSIS AND TESTING****B1092-FRONT LEFT SEAT HEATER CONTROL CIRCUIT LOW**



**Fig. 1: Seat Heater Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

With the ignition on, during the heated seat operation.

**SET CONDITION**

When the Heated Seat Module (HSM) detects that the Left Seat Heater B(+) Driver circuit is shorted to ground.

**POSSIBLE CAUSES****Possible Causes**

LEFT SEAT HEATER B(+) DRIVER CIRCUIT SHORTED TO GROUND  
SEAT CUSHION HEATER ELEMENT SHORTED  
SEAT BACK HEATER ELEMENT SHORTED  
HEATED SEAT MODULE (HSM)

**DIAGNOSTIC TEST****1. CHECK IF THE DTC 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.

Does the scan tool display this DTC as active?

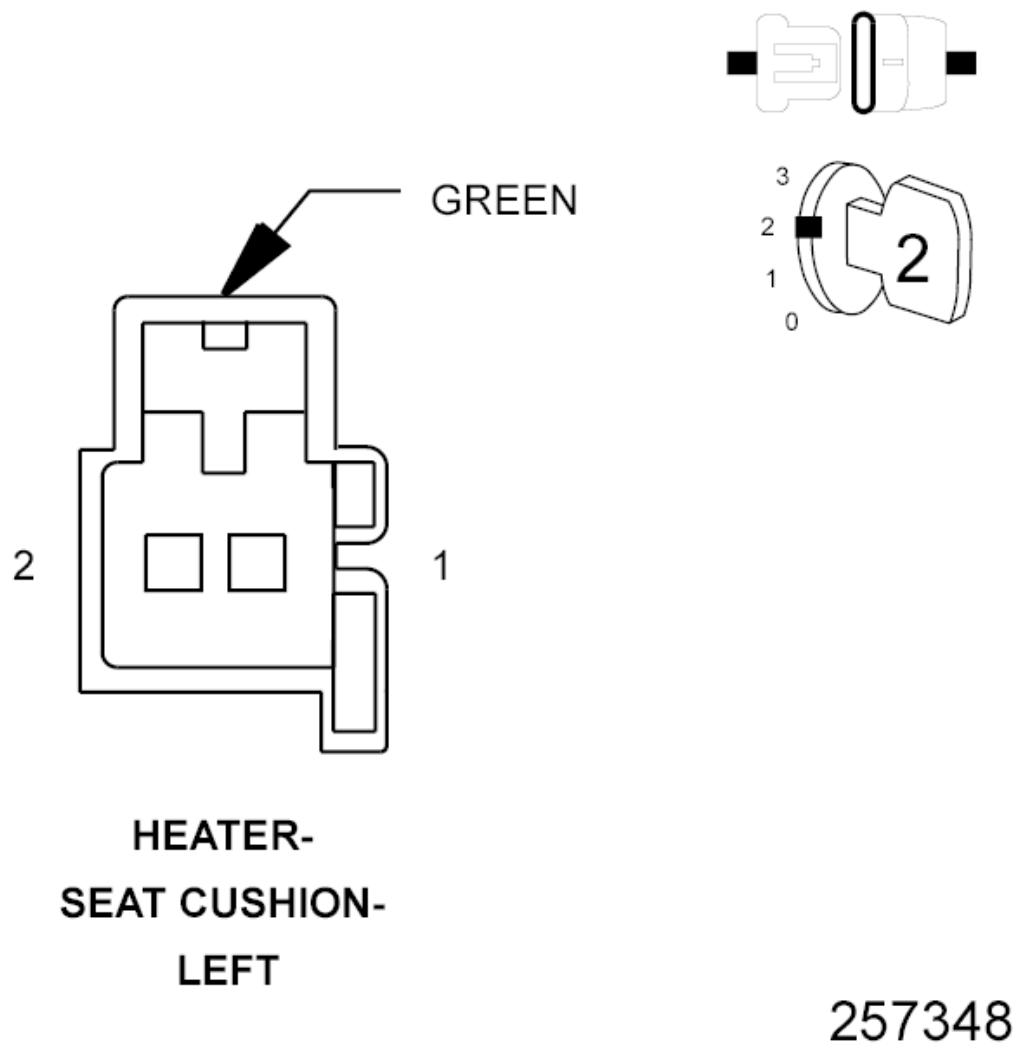
**Yes**

- Go To 2

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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. Attempt to reproduce condition by adjusting the seat.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. CHECK THE (P187) LEFT SEAT HEATER B(+) DRIVER CIRCUIT IN BODY HARNESS FOR A SHORT TO GROUND**



257348

**Fig. 2: Checking Left Seat Heater B(+) Driver Circuit**  
Courtesy of CHRYSLER GROUP, LLC

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

Does the scan tool display this DTC as active?

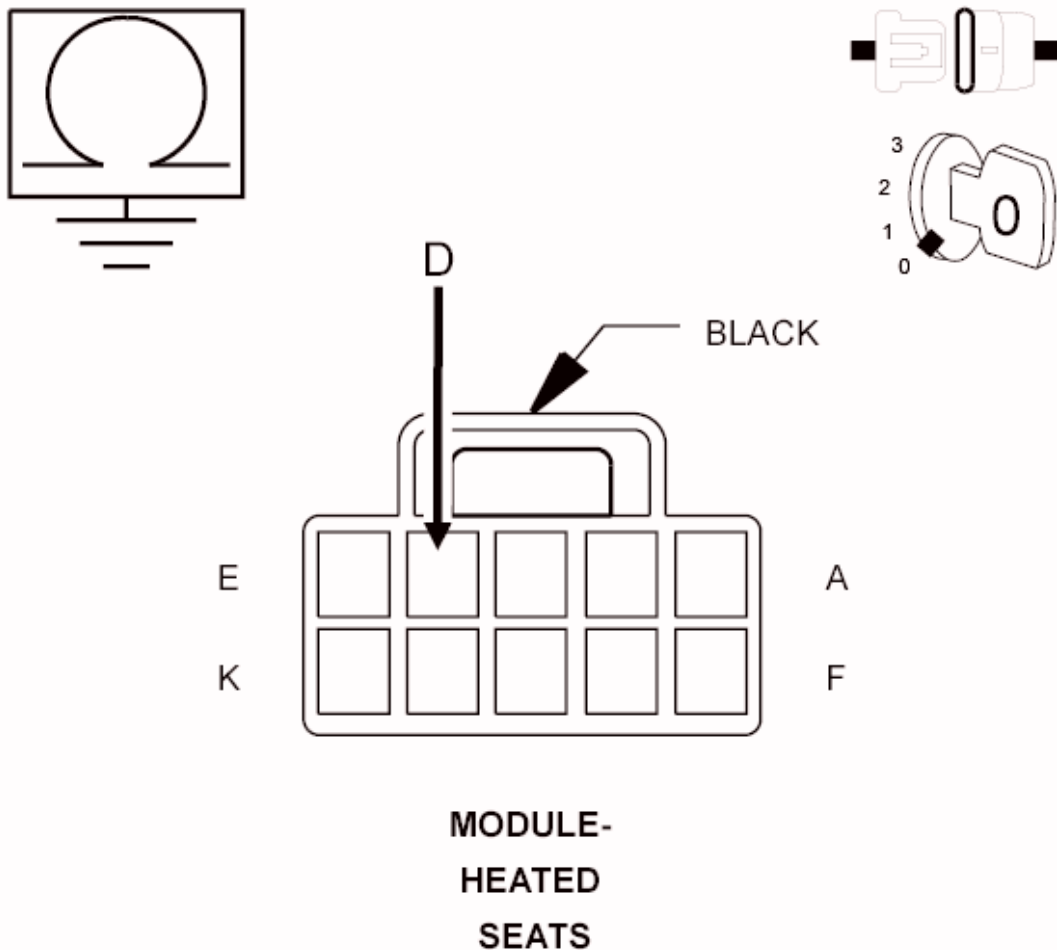
**Yes**

- Go To 3

No

- Go To 4

### 3. CHECK THE (P187) LEFT SEAT HEATER B(+) DRIVER CIRCUIT FOR A SHORT TO GROUND



01476654

**Fig. 3: Measuring Resistance Of Left Seat Heater B (+) Driver Circuit Between Ground & HSM Connector**  
 Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the HSM harness connector.
3. Measure the resistance of the (P187) Left Seat Heater B(+) Driver circuit between ground and the HSM harness connector.

Is the resistance below 10K Ohms?

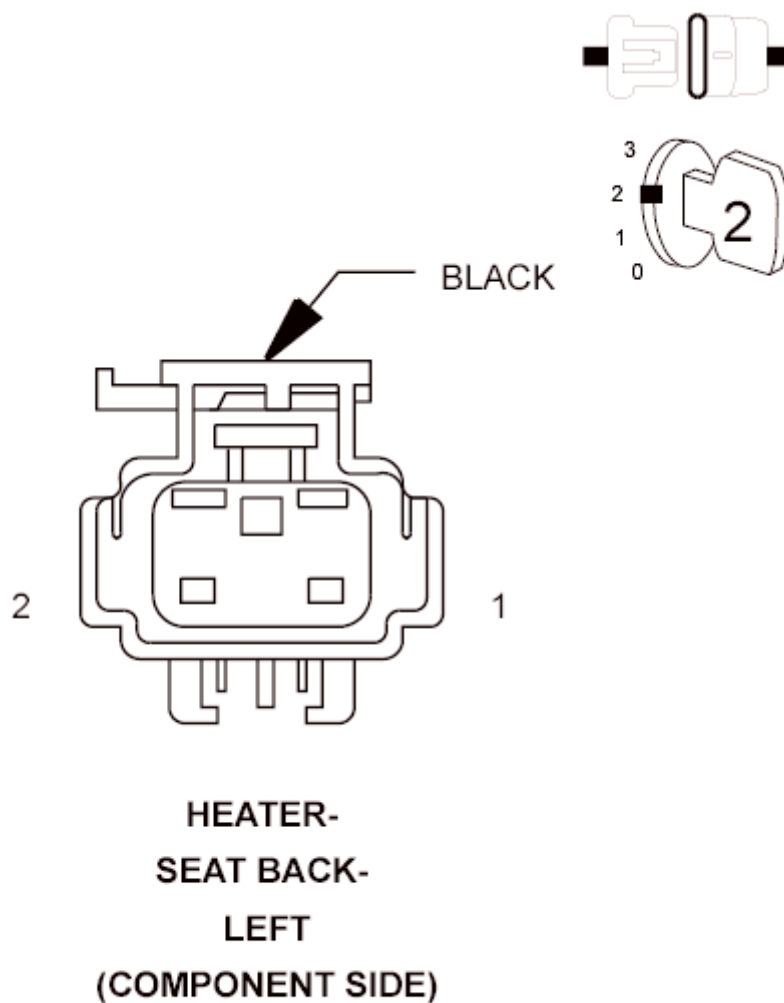
**Yes**

- Repair the (P187) Left Seat Heater B(+) Driver circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 4

**4. CHECK LEFT SEAT CUSHION HEATER FOR A SHORT TO GROUND**



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**Fig. 4: Left Seat Cushion Heater Connector End View**  
**Courtesy of CHRYSLER GROUP, LLC**

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

Does the scan tool display this DTC as active?

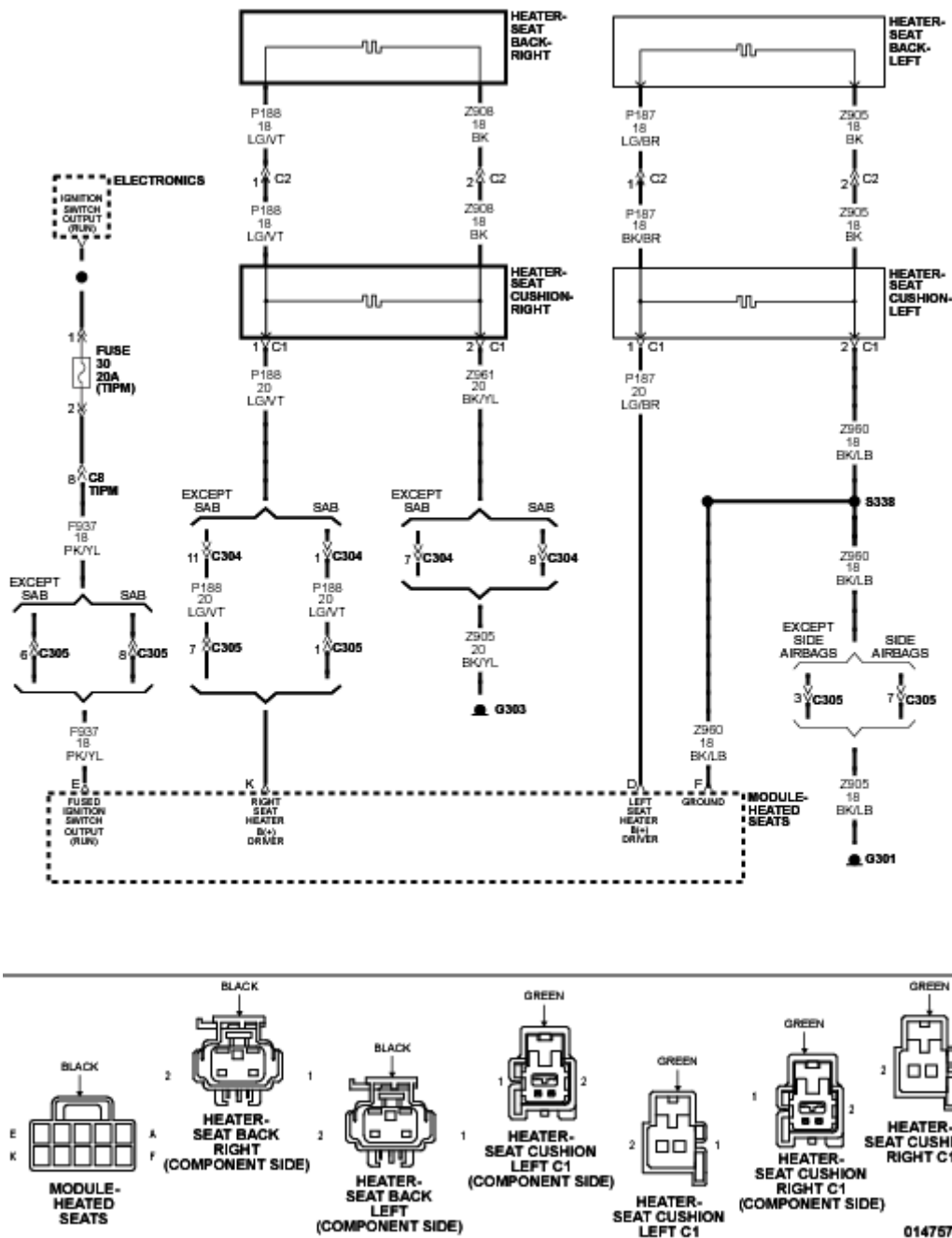
**Yes**

- Replace the Left Seat Cushion Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Left Seat Back Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1094-FRONT LEFT SEAT HEATER CONTROL CIRCUIT OPEN**



**Fig. 5: Seat Heater Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

With the ignition on, during the heated seat operation.

**SET CONDITION**

When the Heated Seat Module (HSM) detects that the Left Seat Heater B(+) Driver circuit is open.

**POSSIBLE CAUSES**

Possible Causes
LEFT SEAT HEATER B(+) DRIVER CIRCUIT OPEN GROUND CIRCUIT OPEN SEAT CUSHION HEATER ELEMENT OPEN SEAT BACK HEATER ELEMENT OPEN HEATED SEAT MODULE (HSM)

**DIAGNOSTIC TEST****1. CHECK IF THE DTC 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.

Does the scan tool display this DTC as active?

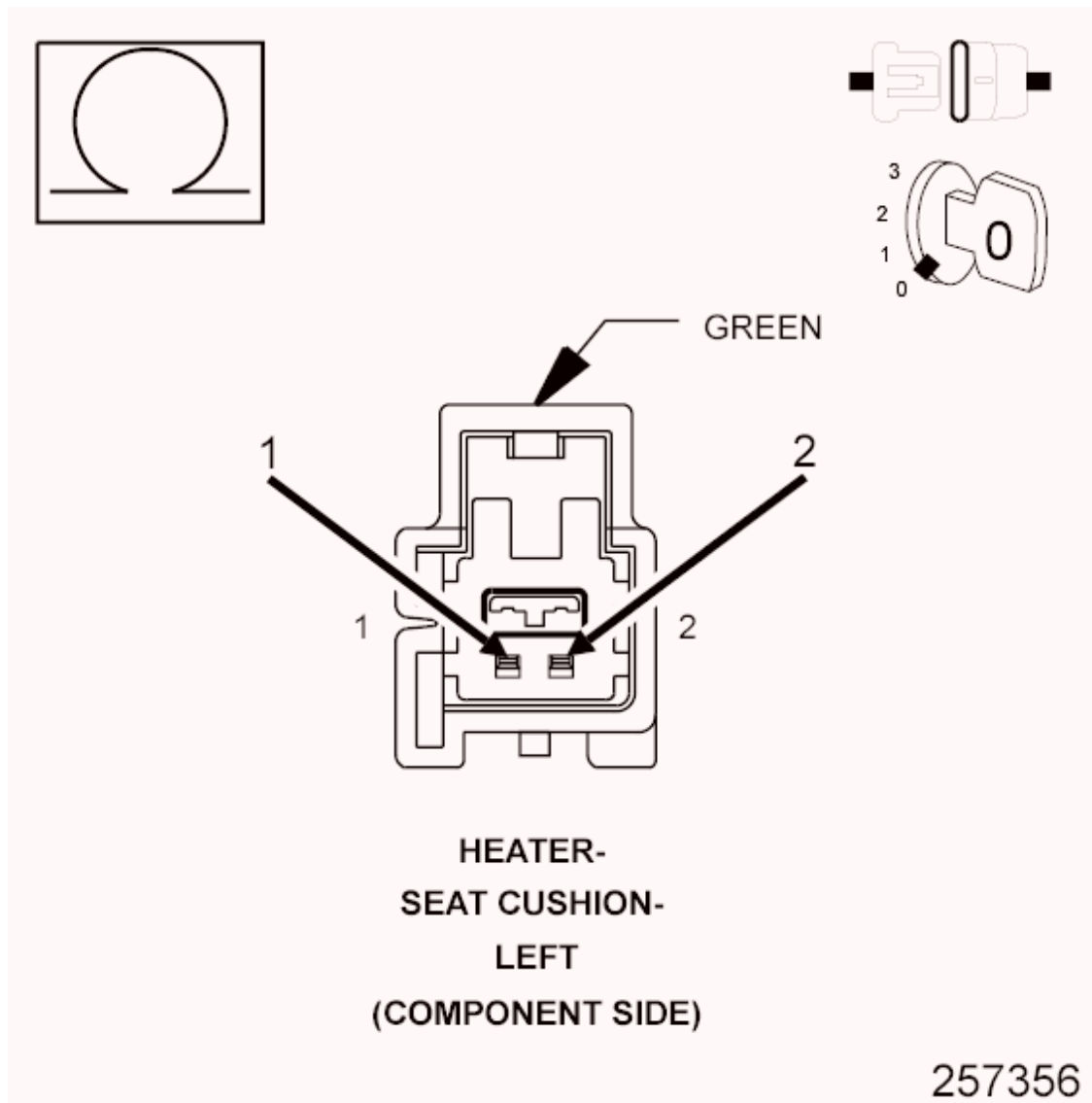
**Yes**

- Go To 2

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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. Attempt to reproduce condition by adjusting the seat.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. CHECK FOR AN OPEN SEAT HEATER ELEMENTS**



**Fig. 6: Checking For Open Seat Heater Elements**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Left Seat Cushion Heater harness connector.
3. Measure the total resistance of the Cushion and Seat Back Heater Elements between the (P187) Left Seat Heater B(+) Driver circuit and the (Z905) Ground circuit at the Left Seat Cushion Heater connector (component side).

Is the total resistance 2.5 to 3.5 Ohms ( $\pm 0.5$  Ohm)?

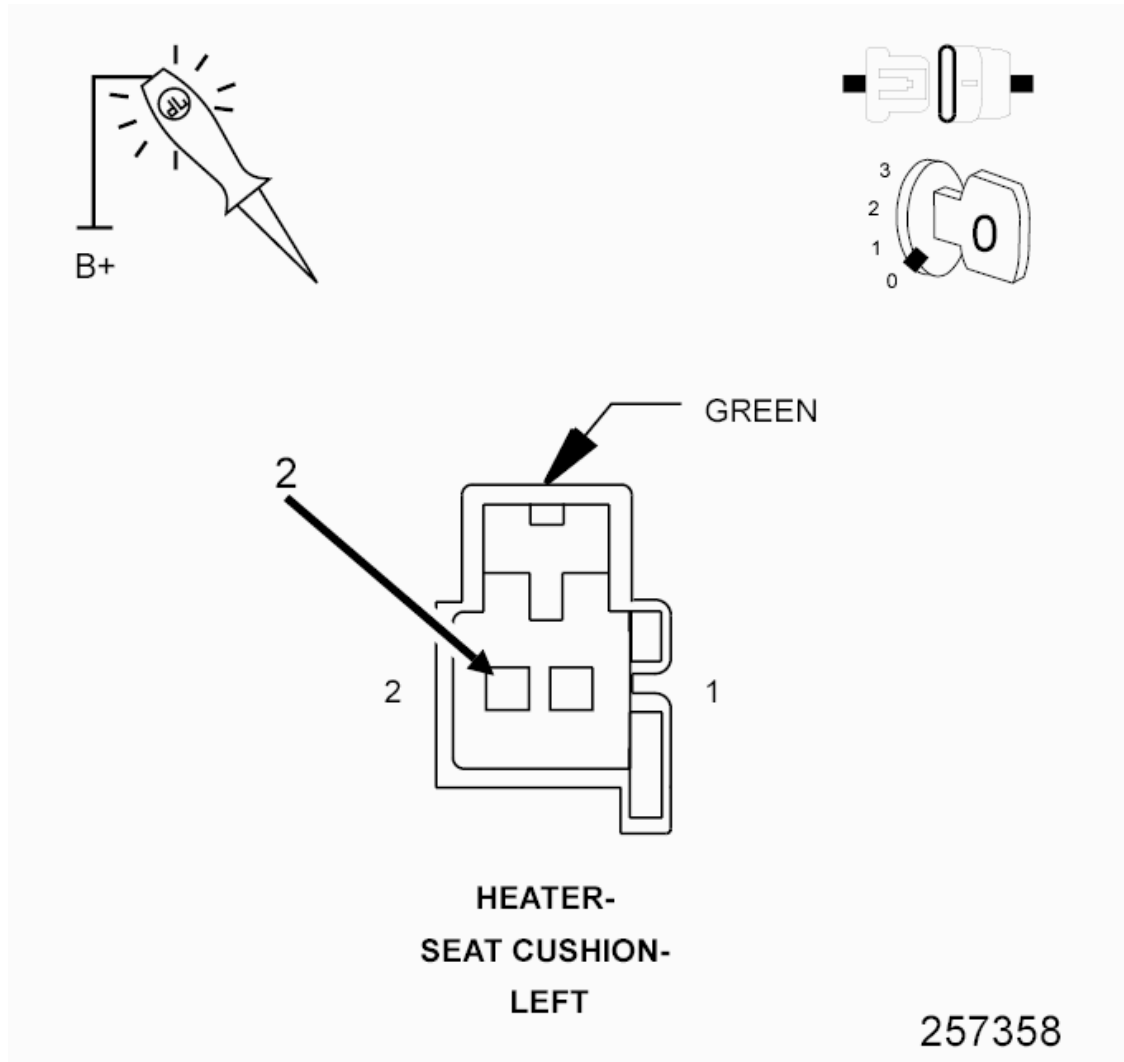
**Yes**

- Go To 3

No

- Go To 5

### 3. CHECK THE (Z903) GROUND CIRCUIT FOR AN OPEN



**Fig. 7: Checking Ground Circuit For An Open**  
 Courtesy of CHRYSLER GROUP, LLC

1. Using a 12-volt test light connected to 12-volts, check the (Z903) Ground circuit at the Left Seat Cushion Heater harness connector (harness side).

**NOTE:** The test light should be illuminated and bright. Compare the brightness to that of a direct connection to the battery.

Does the test light illuminate brightly?

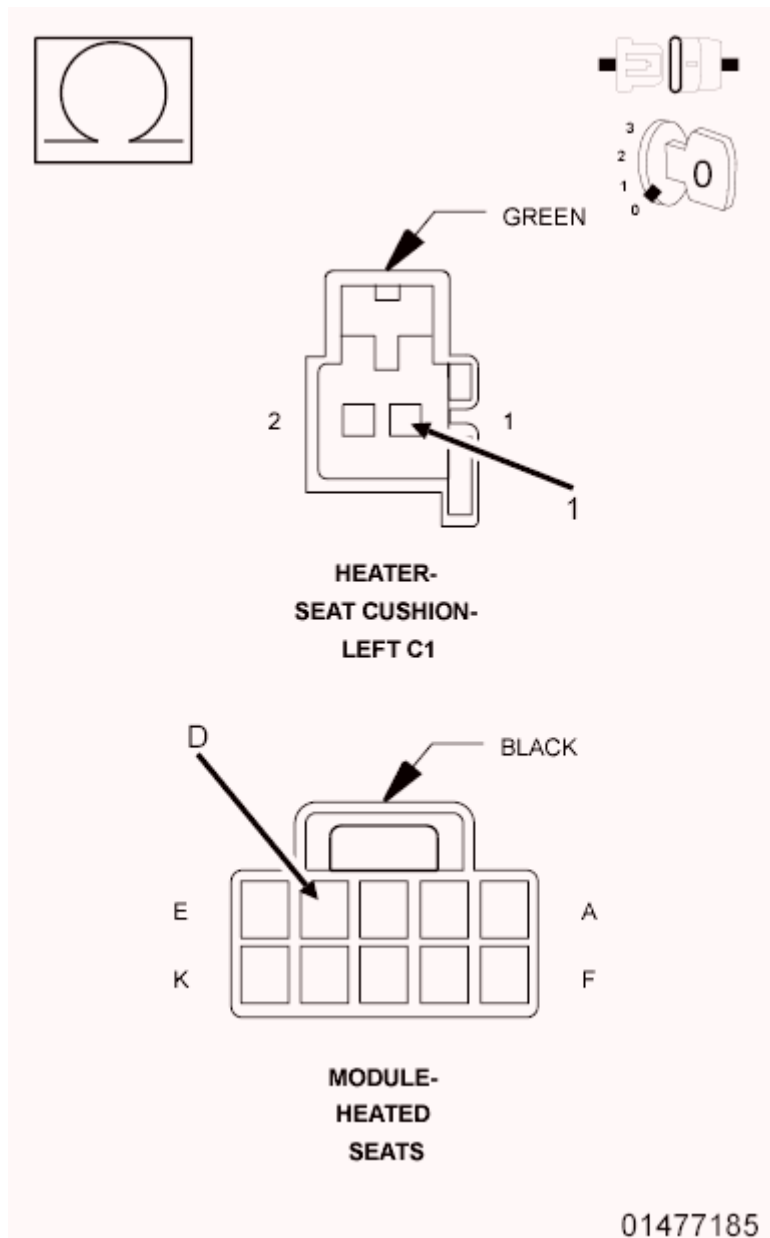
**Yes**

- Go To 4

**No**

- Repair the (Z903) Ground circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**4. CHECK THE (P187) LEFT SEAT HEATER B(+) DRIVER CIRCUIT FOR AN OPEN IN BODY HARNESS**



**Fig. 8: Measuring Resistance Of Left Seat Heater B (+) Driver Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Disconnect the HSM harness connector.
2. Measure the resistance of the (P187) Left Seat Heater B(+) Driver circuit between the HSM harness connector and the Left Seat Cushion Heater harness connector (harness side).

Is the resistance below 5.0 Ohms?

**Yes**

- Replace the Heated Seat Module (HSM) in accordance with the

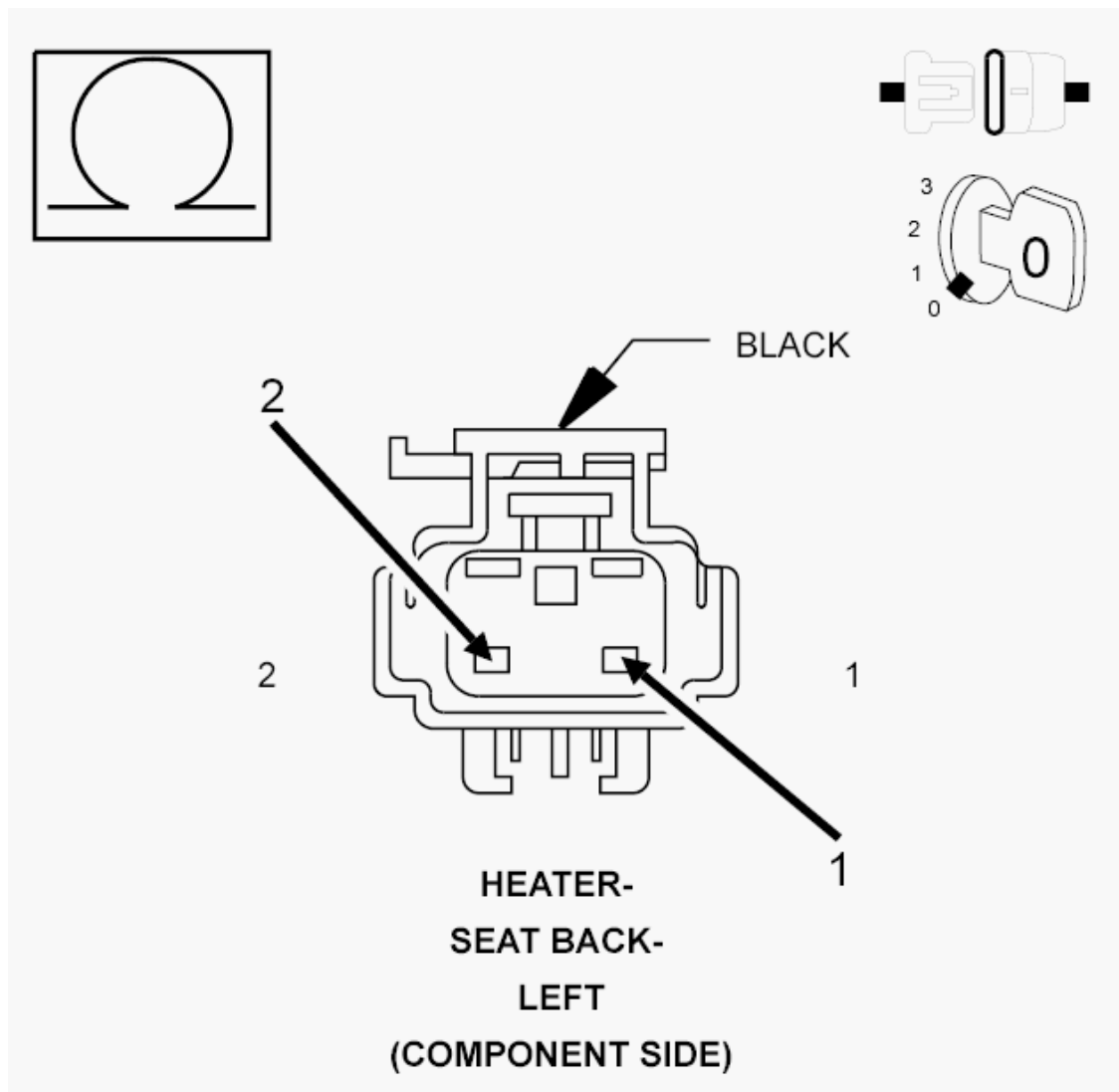
Service Information.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

No

- Repair the (P187) Left Seat Heater B(+) Driver circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**5. CHECK THE LEFT SEAT BACK HEATER ELEMENT FOR AN OPEN**



**Fig. 9: Measuring Resistance Of Left Seat Back Heater Element**  
 Courtesy of CHRYSLER GROUP, LLC



1. Disconnect the Left Seat Back Heater harness connector.
2. Measure the resistance of the Left Seat Back Heater Element between the (P187) Left Seat Heater B(+) Driver and the (Z905) Ground circuit at the Left Seat Back Heater connector (component side).

Is the resistance above 6.0 Ohms?

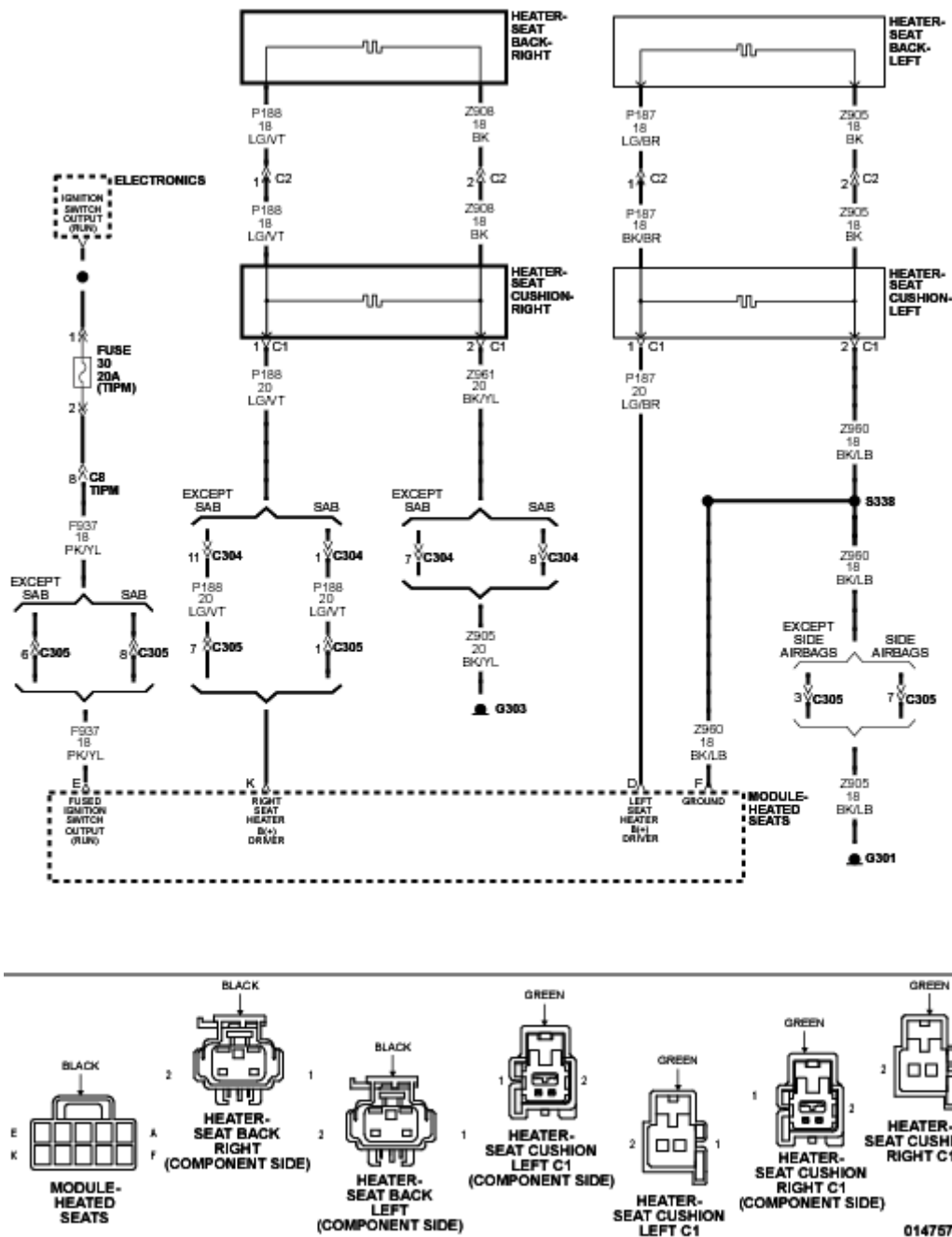
**Yes**

- Replace the Seat Back Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Seat Cushion Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1096-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT LOW**



**Fig. 10: Seat Heater Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

With the ignition on, during the heated seat operation.

**SET CONDITION**

When the Heated Seat Module (HSM) detects that the Right Seat Heater B(+) Driver circuit is shorted to ground.

**POSSIBLE CAUSES****Possible Causes**

RIGHT SEAT HEATER B(+) DRIVER CIRCUIT SHORTED TO GROUND

SEAT CUSHION HEATER ELEMENT SHORTED

SEAT BACK HEATER ELEMENT SHORTED

HEATED SEAT MODULE (HSM)

**DIAGNOSTIC TEST****1. CHECK IF THE DTC 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.

Does the scan tool display this DTC as active?

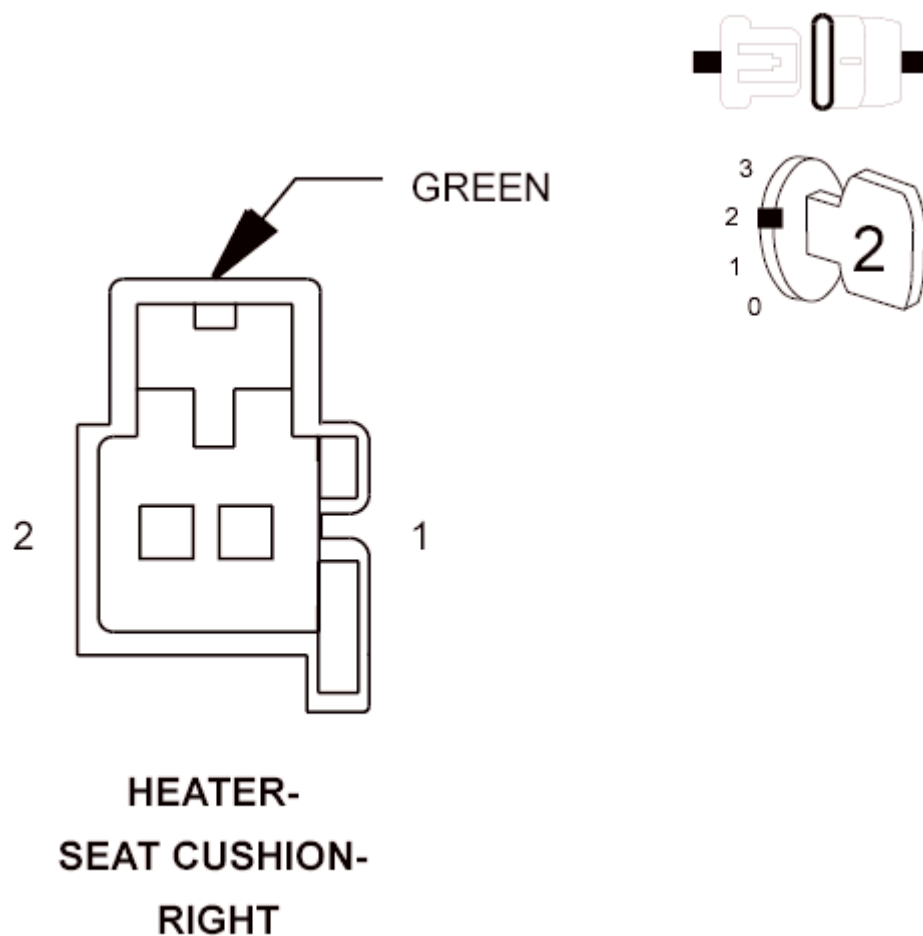
**Yes**

- Go To 2

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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. Attempt to reproduce condition by adjusting the seat.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. CHECK THE (P188) RIGHT SEAT HEATER B(+) DRIVER CIRCUIT IN BODY HARNESS FOR A SHORT TO GROUND**



257366

**Fig. 11: Checking Right Seat Heater B(+) Driver Circuit**  
Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Right Seat Cushion Heater harness connector.
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 this active?

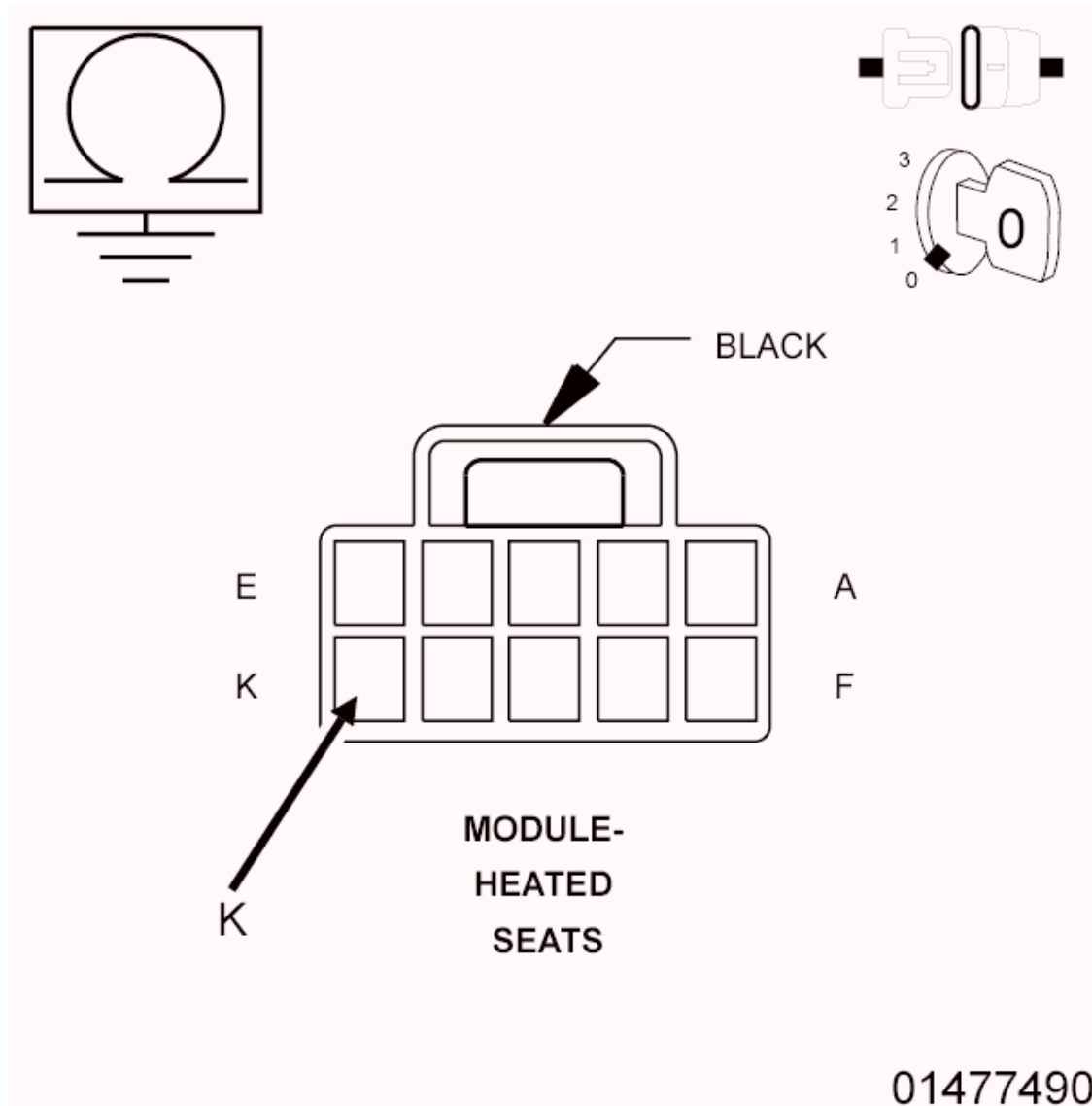
**Yes**

- Go To 3

**No**

- Go To 4

### 3. CHECK THE (P188) RIGHT SEAT HEATER B(+) DRIVER CIRCUIT FOR A SHORT TO GROUND



**Fig. 12: Measuring Resistance Of Right Seat Heater B (+) Driver Circuit Between Ground & HSM Connector**  
 Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the HSM harness connector.
3. Measure the resistance of the (P188) Right Seat Heater B(+) Driver circuit between ground and the HSM harness connector.

Is the resistance below 10K Ohms?

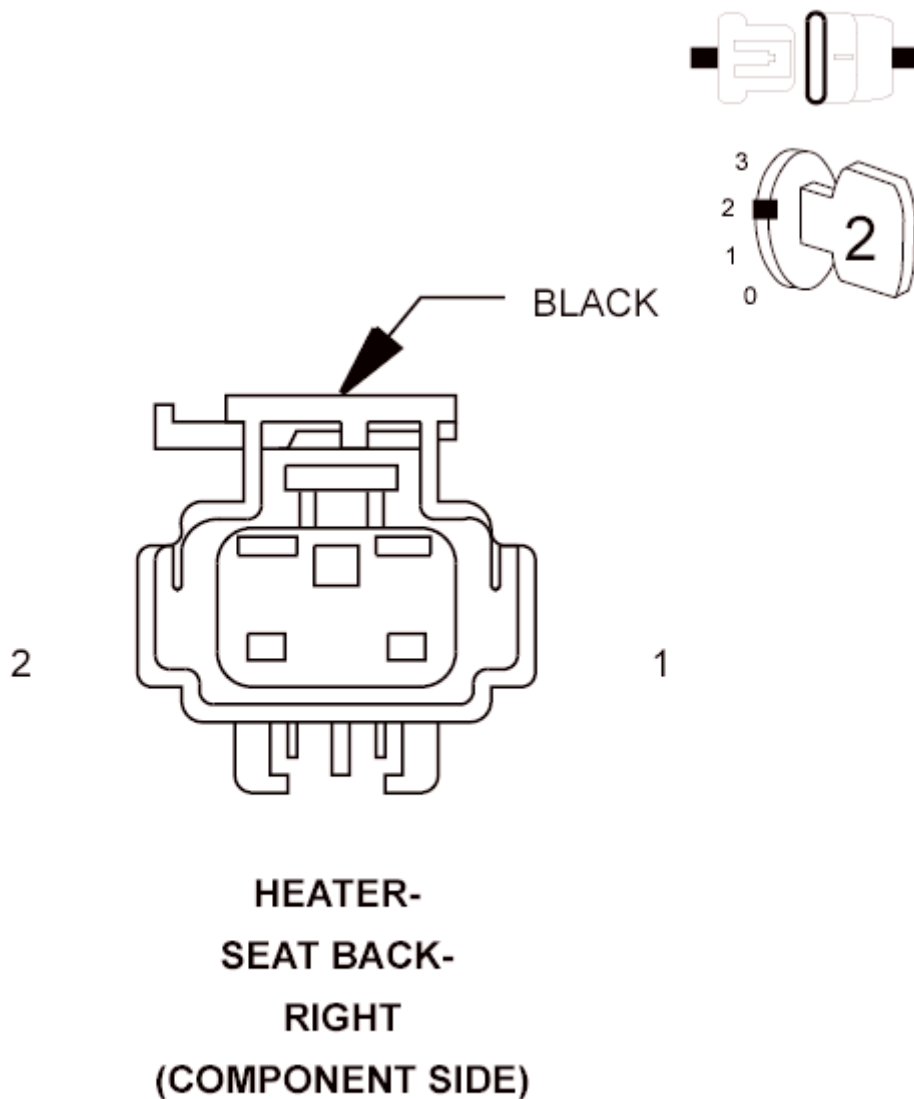
**Yes**

- Repair the (P188) Right Seat Heater B(+) Driver circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 4

**4. CHECK THE RIGHT SEAT CUSHION HEATER FOR A SHORT TO GROUND**



1477561

**Fig. 13: Checking Right Seat Cushion Heater For A Short To Ground**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Reconnect the Right Seat Cushion Heater harness connector.
3. Disconnect the Right Seat Back Heater harness connector.
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 this DTC active?

**Yes**

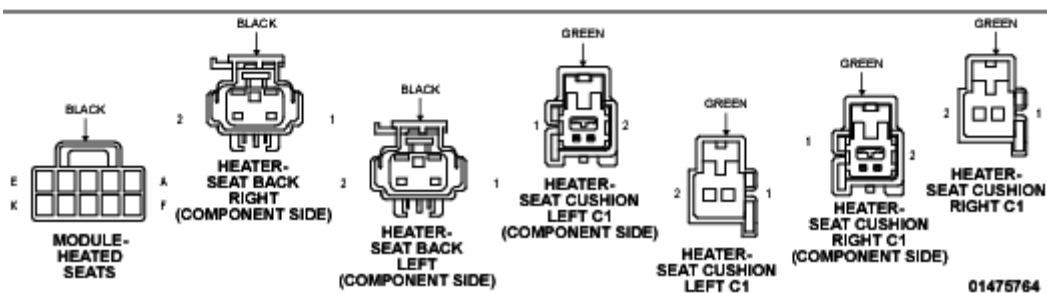
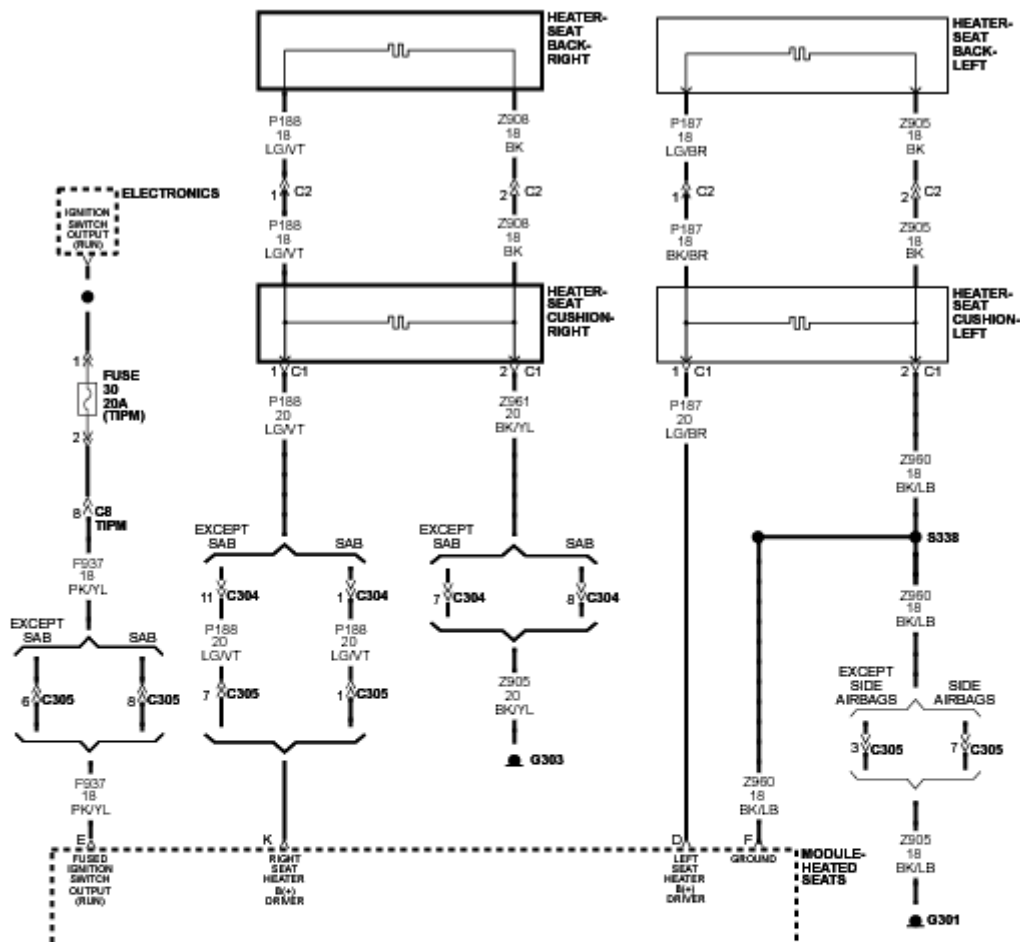
- Replace the Right Seat Cushion Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Right Seat Back Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1098-FRONT RIGHT SEAT HEATER CONTROL CIRCUIT OPEN**





**Fig. 14: Seat Heater Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

With the ignition on, during the heated seat operation.

**SET CONDITION**

When the Heated Seat Module (HSM) detects that the Right Seat Heater B(+) Driver circuit is open.

**POSSIBLE CAUSES**

Possible Causes
RIGHT SEAT HEATER B(+) DRIVER CIRCUIT OPEN GROUND CIRCUIT OPEN SEAT CUSHION HEATER ELEMENT OPEN SEAT BACK HEATER ELEMENT OPEN HEATED SEAT MODULE (HSM)

**DIAGNOSTIC TEST****1. CHECK IF THE DTC 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.

Does the scan tool display this DTC as active?

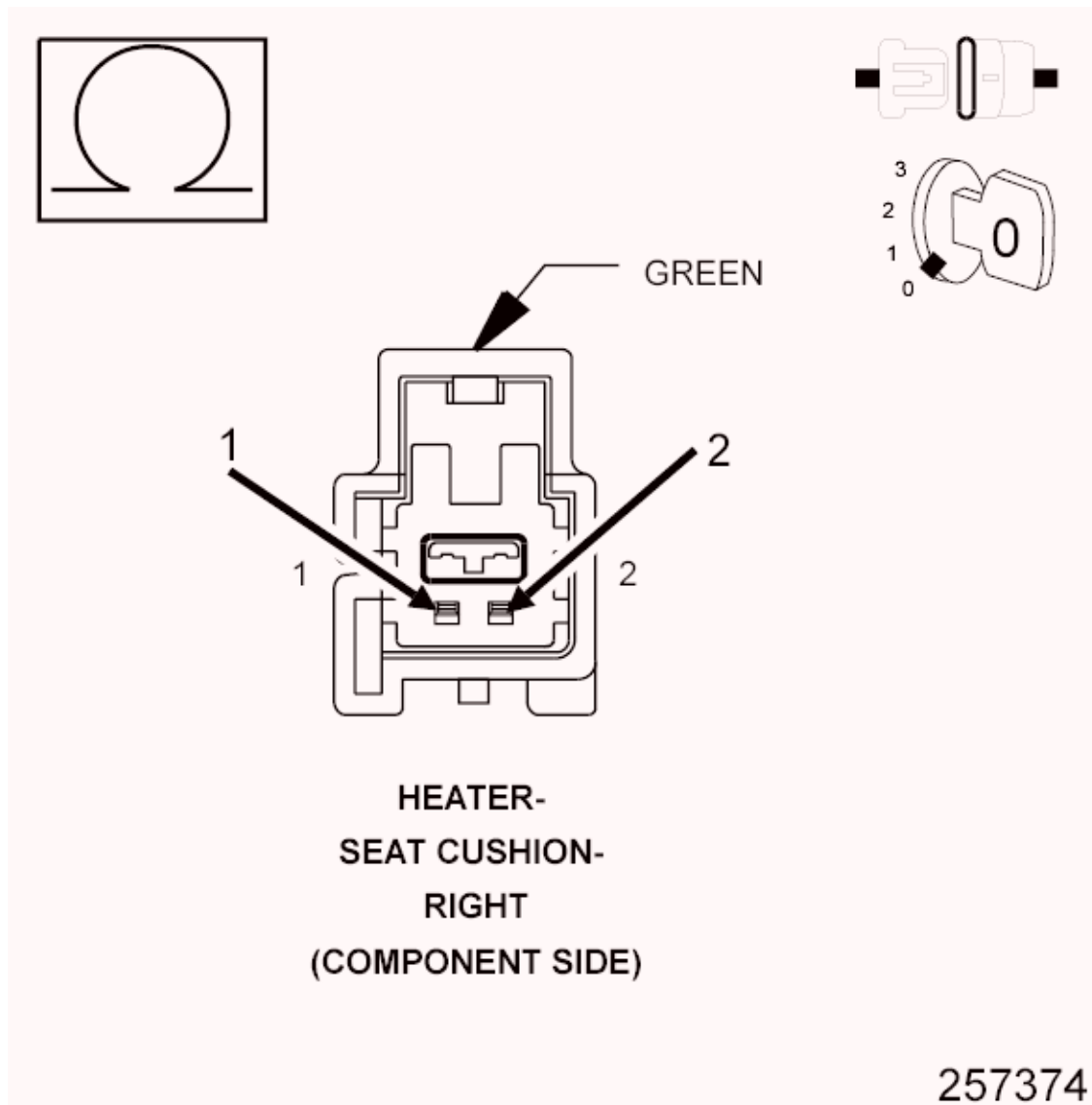
**Yes**

- Go To 2

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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. Attempt to reproduce condition by adjusting the seat.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. CHECK FOR OPEN SEAT HEATER ELEMENTS**



**Fig. 15: Checking For Open Seat Heater Elements**  
Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Right Seat Cushion Heater harness connector.
3. Measure the total resistance of the Cushion and Seat Back Heater Elements between (P188) Right Seat Heater B(+) Driver circuit and the (Z908) Ground circuit at the Right Seat Cushion Heater connector (component side).

Is the total resistance 2.5 to 3.5 Ohms ( $\pm 0.5$  Ohm)?

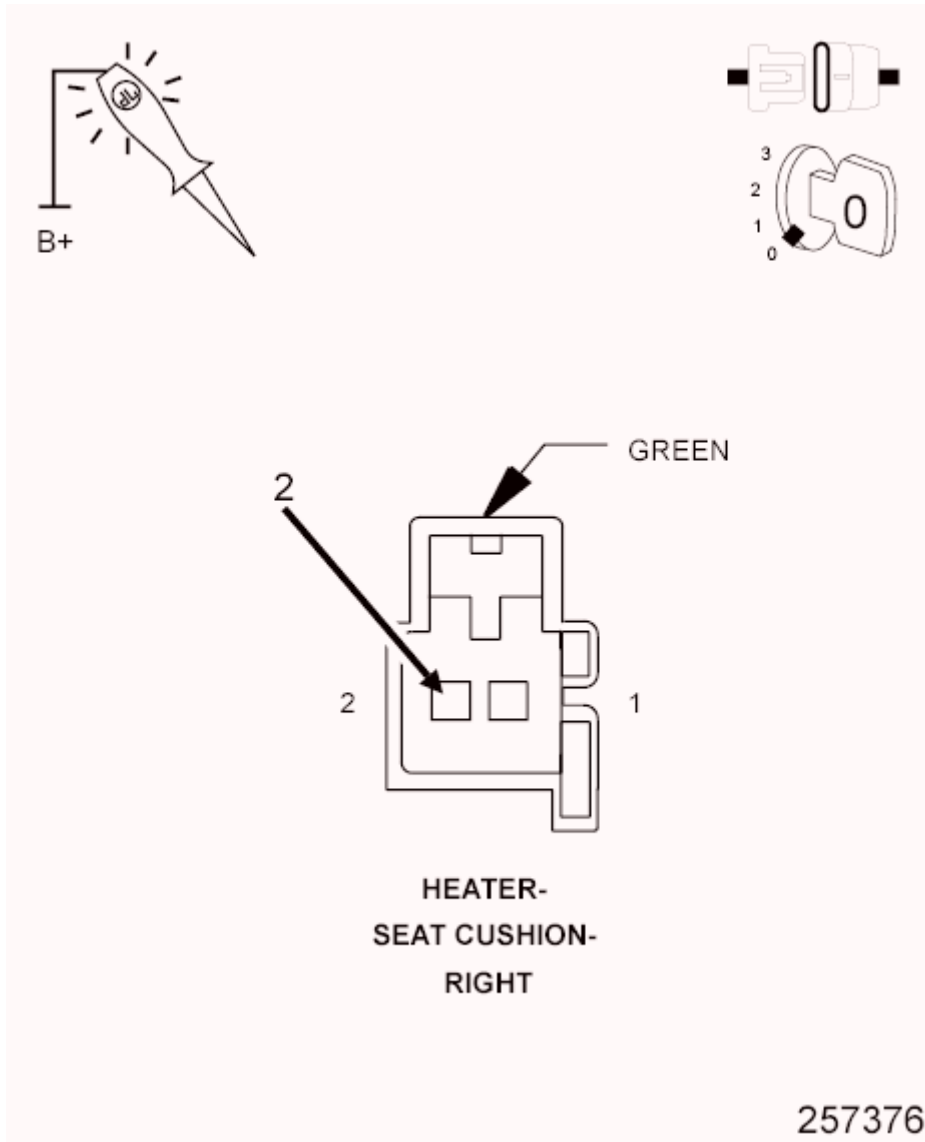
**Yes**

- Go To 3

No

- Go To 5

### 3. CHECK THE (Z908) GROUND CIRCUIT FOR AN OPEN



**Fig. 16: Checking Ground Circuit For An Open**  
Courtesy of CHRYSLER GROUP, LLC

1. Using a 12-volt test light connected to 12-volts, check the (Z908) Ground circuit at the Right Seat Cushion Heater harness connector (harness side).

**NOTE:** The test light should be illuminated and bright. Compare the brightness to that of a direct

**connection to the battery.**

Does the test light illuminate brightly?

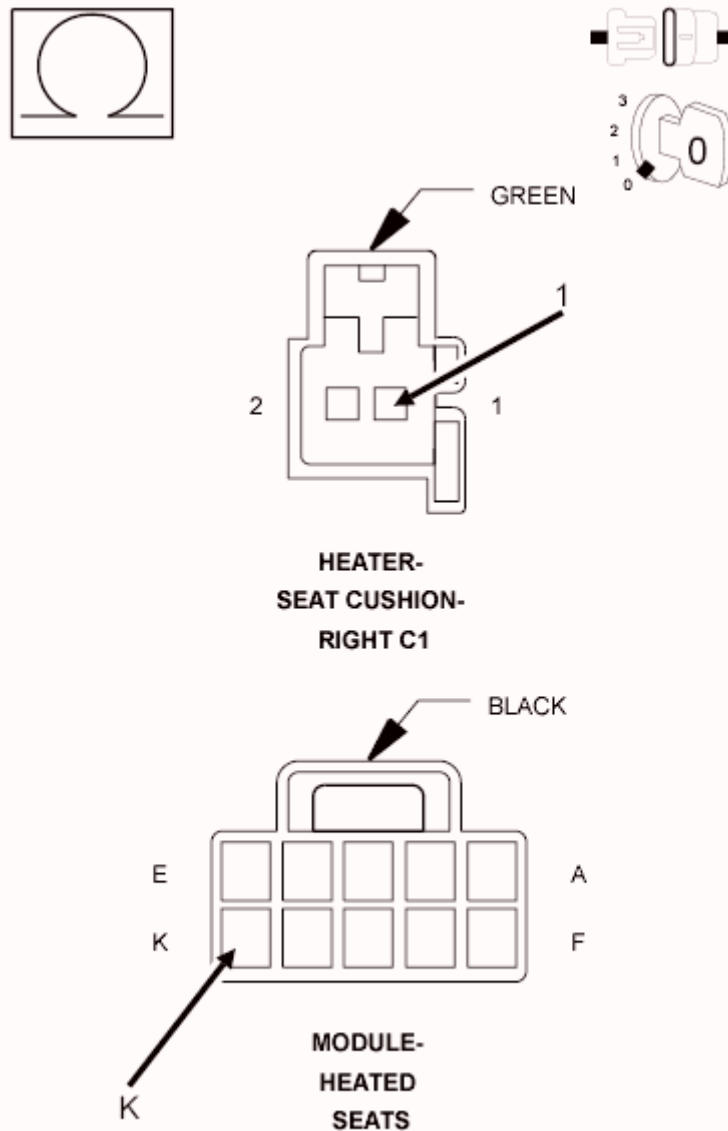
**Yes**

- Go To 4

**No**

- Repair the (Z908) Ground circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**4. CHECK THE (P188) RIGHT SEAT HEATER B(+) DRIVER CIRCUIT FOR AN OPEN IN BODY HARNESS**



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**Fig. 17: Measuring Resistance Of Right Seat Heater B (+) Driver Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

1. Disconnect the HSM harness connector.
2. Measure the resistance of the (P188) Right Seat Heater B(+) Driver circuit between the HSM harness connector and the Right Seat Cushion Heater harness connector (harness side).

Is the resistance below 5.0 Ohms?

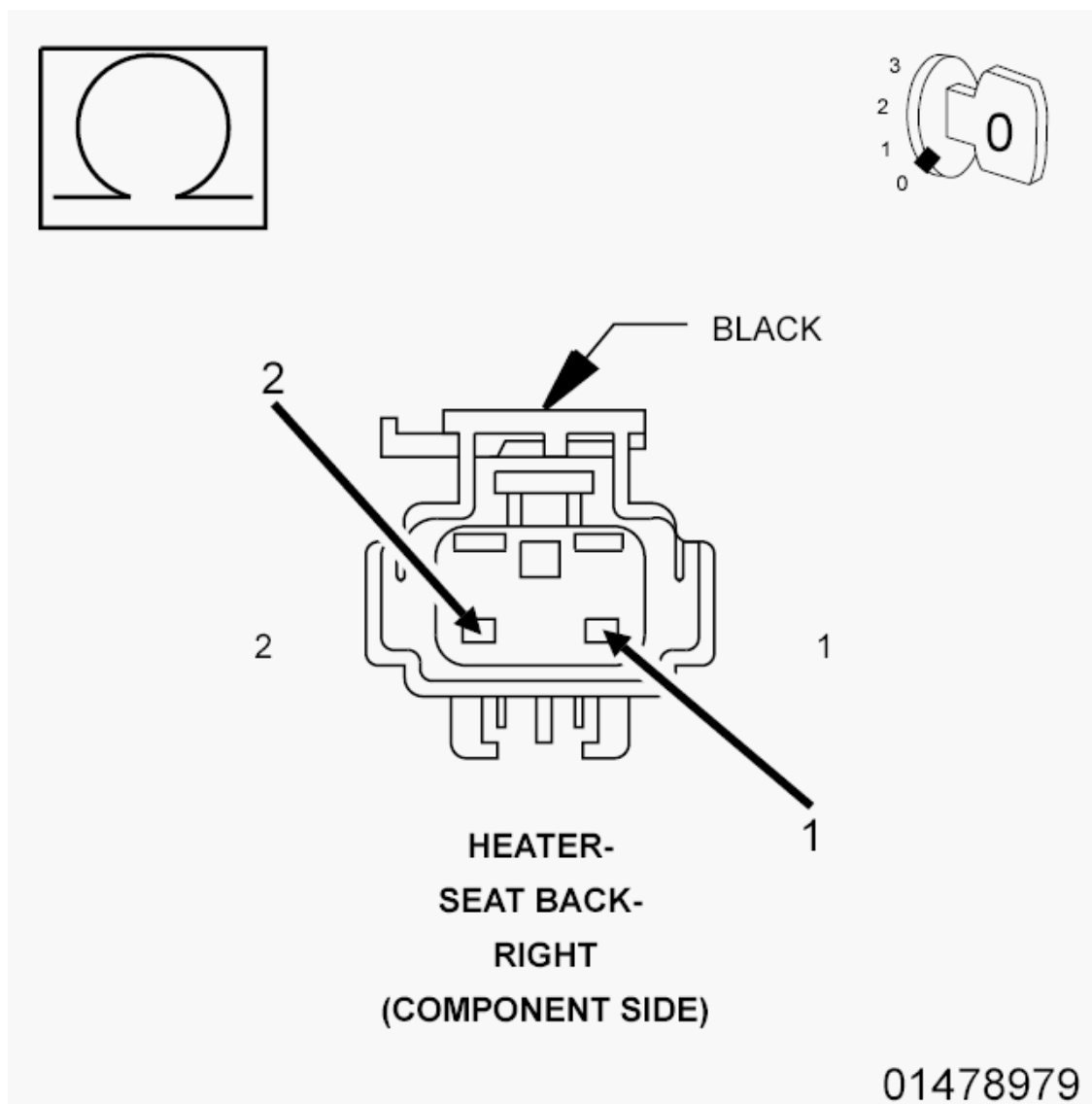
**Yes**

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Repair the (P188) Right Seat Heater B(+) Driver circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

## 5. CHECK THE RIGHT SEAT BACK HEATER ELEMENT FOR AN OPEN



**Fig. 18: Measuring Resistance Of Right Seat Back Heater Element**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Disconnect the Right Seat Back Heater harness connector.
2. Measure the resistance of the Right Seat Back Heater Element between the (P188) Right Seat Heater B(+) Driver and the (Z908) Ground circuit at the Right Seat Back Heater connector (component side).

Is the resistance above 6.0 Ohms?

**Yes**

- Replace the Seat Back Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Seat Cushion Heater Element in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B10BB-LEFT HEATED SEAT SWITCH INPUT CIRCUIT STUCK**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

If the Cluster (CCN) senses the Left Heated Seat switch input for more than 10 seconds.

**POSSIBLE CAUSES**

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 THE 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 **STANDARD PROCEDURE** .

**No**

- Go To 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 **STANDARD PROCEDURE** .

**No**

- Go To 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 10 seconds.
4. 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 **STANDARD PROCEDURE** .

**No**

- The conditions that caused this code to set are not present at this time.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B10BC-RIGHT HEATED SEAT SWITCH INPUT CIRCUIT STUCK**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

With the ignition on.

#### **SET CONDITION**

If the Cluster (CCN) senses the Right Heated Seat switch input for more than 10 seconds.

**POSSIBLE CAUSES****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 **STANDARD PROCEDURE** .

**No**

- Go To 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 **STANDARD PROCEDURE** .

**No**

- Go To 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 10 seconds.
4. 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 **STANDARD PROCEDURE** .

**No**

- The conditions that caused this DTC to set are not present at this time.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B123F-MENU SWITCH STUCK**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

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### WHEN MONITORED

With the ignition on.

### SET CONDITION

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

### POSSIBLE CAUSES

#### Possible Causes

LEFT STEERING WHEEL SWITCH

### DIAGNOSTIC TEST

### 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 Left Steering Wheel Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

### B1263-COMPASS MAGNETIC FIELD PERFORMANCE

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

Internal Compass Module failure detected.

**POSSIBLE CAUSES**

Possible Causes
COMPASS MODULE

**DIAGNOSTIC TEST****CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

**Yes**

- Replace the Compass Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1265-TRIP/TOGGLE SWITCH STUCK**

For a complete wiring diagram refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

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### WHEN MONITORED

With the ignition on.

### SET CONDITION

The Cluster detects the TRIP/TOGGLE Switch active for greater than 20 seconds.

### POSSIBLE CAUSES

Possible Causes
CLUSTER

### DIAGNOSTIC TEST

#### CHECK FOR AN ACTIVE DTC

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

Does the scan tool display: B1265-Trip/Toggle Switch Stuck?

#### Yes

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST Refer to **STANDARD PROCEDURE** .

#### No

- Test complete.

#### B1286-COMPASS/TEMP BUTTON PERFORMANCE

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

### WHEN MONITORED

With the ignition on.

## SET CONDITION

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

## POSSIBLE CAUSES

Possible Causes
LEFT STEERING WHEEL SWITCH

## DIAGNOSTIC TEST

### CHECK FOR AN ACTIVE DTC

**NOTE:** Before proceeding with this diagnostic procedure, verify the Left and Right Steering Wheel 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

- Replace the Left Steering Wheel Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### No

- The condition or conditions that originally set this DTC are not present at this time. Using the 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.

## B1427-REMOTE RADIO SWITCH INPUT CIRCUIT HIGH



For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously with the ignition on.

**SET CONDITION**

The Cluster senses that the Remote Radio Switch Input circuit is open.

**POSSIBLE CAUSES****Possible Causes**

REMOTE RADIO SWITCH INPUT CIRCUIT OPEN (FAULTY STEERING WHEEL WIRING HARNESS / CONNECTOR)  
RIGHT STEERING WHEEL CONTROL SWITCH (SPEED CONTROL SWITCH)

**DIAGNOSTIC TEST****CHECK FOR AN ACTIVE DTC**

**NOTE:** Before proceeding with the diagnostic procedure, verify that the connections are proper made, properly seated and verify proper pin terminal tension. A loose connection at any of the related connectors may cause the DTC to set.

1. Turn the ignition on.
2. Press each Remote Radio Switch twice.
3. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

**Yes**

**WARNING:** Turn the ignition off disconnect the 12-volt battery and wait two minutes before proceeding. Failure to follow these instructions may result in possible serious or

**fatal injury.**

**WARNING:** Do not place an intact non-deployed airbag face down on a hard surface, the airbag propels into the air if accidentally deployed. Failure to follow these instructions may result in possible serious or fatal injury.

**NOTE:** Visually and physically inspect the wiring harness between the Remote Radio Switch harness connectors and the Right Steering Wheel Switch (Speed Control Switch) harness connector. Repair any damaged wires, connectors, and open/spread terminals. If harness is OK, proceed with test.

- Replace the Right Steering Wheel Control Switch (Speed Control Switch) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B1428-REMOTE RADIO SWITCH INPUT CIRCUIT STUCK**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

Continuously with the ignition on.

#### **SET CONDITION**

The Cluster senses that the Remote Radio Switch Input circuit is stuck for greater than 600 seconds.

**POSSIBLE CAUSES****Possible Causes****STUCK REMOTE RADIO SWITCH****DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

**NOTE:** Before proceeding with the diagnostic procedure, verify that the connections are properly seated and verify correct pin terminal tension. A loose connection at any of the related connectors may cause the DTC to set.

1. Turn the ignition on.
2. Press each Remote Radio Switch twice.
3. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. LEFT OR RIGHT REMOTE RADIO SWITCH**

**NOTE:** Check for a stuck Remote Radio Switch. Repair as necessary.

1. With the scan tool, view the switch status. Status can be viewed in the Cluster data display.

**NOTE:** With the switches pressed, the value for the remote switches should change state on the scan tool.

2. **Left Remote Radio Switch**

- Seek Up
- Preset
- Seek Down

3. **Right Remote Radio Switch**

- Volume Up
- Audio Mode
- Volume Down

Does the scan tool display the correct status of the switches in the data display?

**Yes**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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.

**No**

**WARNING:** Turn the ignition off disconnect the 12-volt battery and wait two minutes before proceeding. Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:** Do not place an intact non-deployed airbag face down on a hard surface, the airbag propels into the air if accidentally

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

**NOTE:** Visually and physically inspect the wiring harness between the Remote Radio Switch harness connectors and the Right Steering Wheel Switch (Speed Control Switch) harness connector. Repair any damaged wires, connectors, and open/spread terminals. If harness is OK, proceed with test.

- Replace the Remote Radio Switch that does not display the correct value in the data display.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B1504-LEFT STEERING WHEEL CONTROL SWITCH CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

Continuously with the ignition on.

#### **SET CONDITION**

The Cluster senses that the Left Steering Wheel Control Switch is in the Set position for greater than 20 seconds. Phone related switches have a set time of 600 seconds.

#### **POSSIBLE CAUSES**

Possible Causes
LEFT STEERING WHEEL CONTROL SWITCH RIGHT STEERING WHEEL CONTROL SWITCH (SPEED CONTROL SWITCH)

#### **DIAGNOSTIC TEST**

## CHECK FOR AN ACTIVE DTC

1. Turn the ignition on.
2. Press each switch on the Left Steering Wheel Switch assembly twice.
3. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

Yes

**WARNING:** Turn the ignition off disconnect the 12-volt battery and wait two minutes before proceeding. Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:** Do not place an intact non-deployed airbag face down on a hard surface, the airbag propels into the air if accidentally deployed. Failure to follow these instructions may result in possible serious or fatal injury.

**NOTE:** Check for a stuck Left Steering Wheel Control Switch.

**NOTE:** Visually and physically inspect the wiring harness between the Left Steering Wheel Control Switch harness connector and the Right Steering Wheel Control Switch (Speed Control Switch) harness connector. Repair any damaged wires, connectors, and open/spread terminals. If harness is OK, proceed with test.

- Replace the Left Steering Wheel Control Switch in accordance with the Service Information. Once switch has been replaced, press it twice to initialize it. If problem persists, replace the Right Steering Wheel Switch (Speed Control Switch) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD**

**PROCEDURE** .

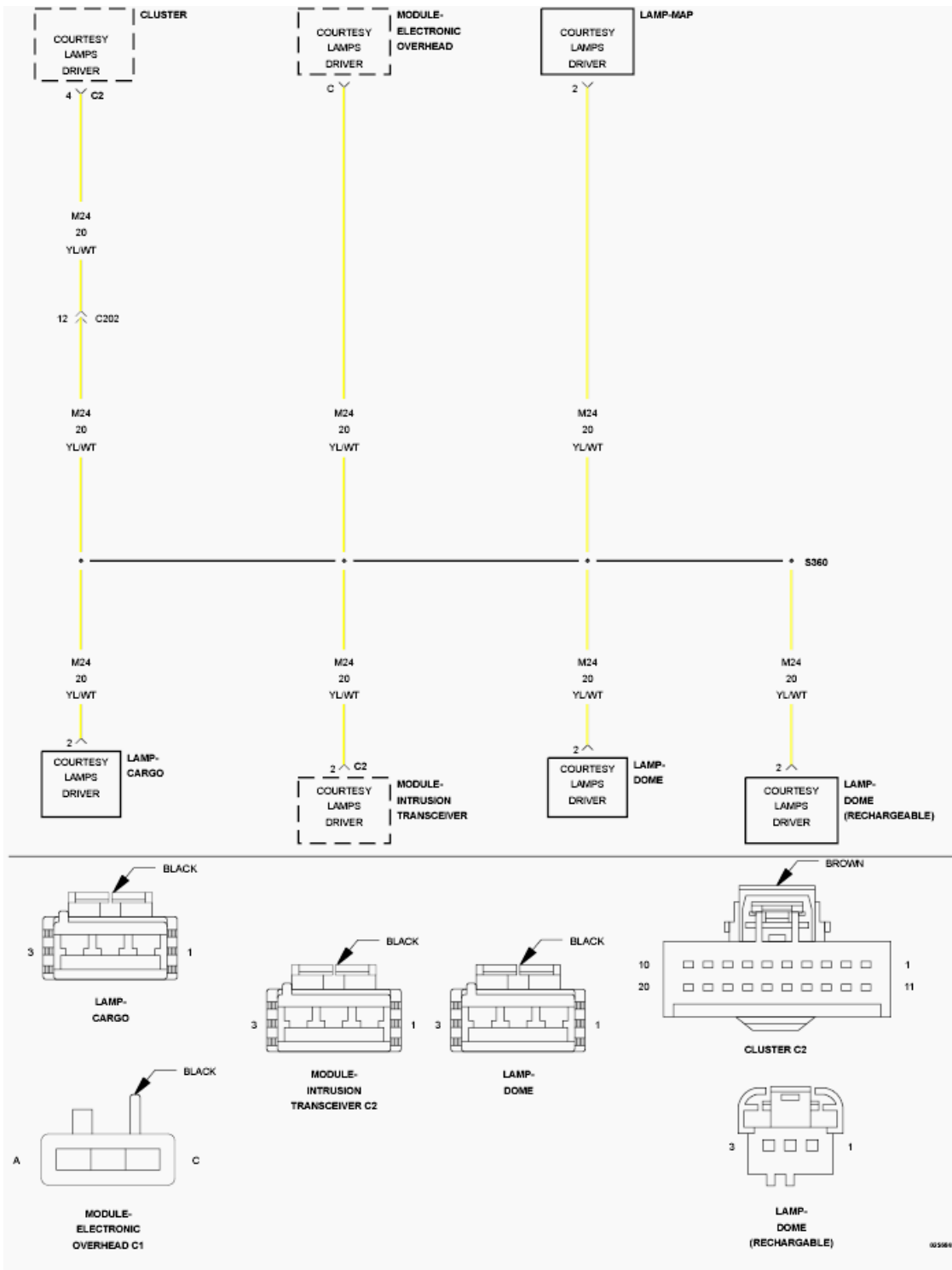
**No**

- The condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B161A-COURTESY/DOME LAMP CONTROL CIRCUIT**

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**Fig. 19: Courtesy/Dome Lamp Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED



Continuously

**SET CONDITION**

When the Cluster detects a short to battery on the Control circuit.

**POSSIBLE CAUSES****Possible Causes**

(M24) COURTESY LAMPS DRIVER CIRCUIT SHORTED TO GROUND

(M24) COURTESY LAMPS DRIVER CIRCUIT OPEN CLUSTER

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool read: B161A-COURTESY/DOME LAMP CONTROL CIRCUIT?

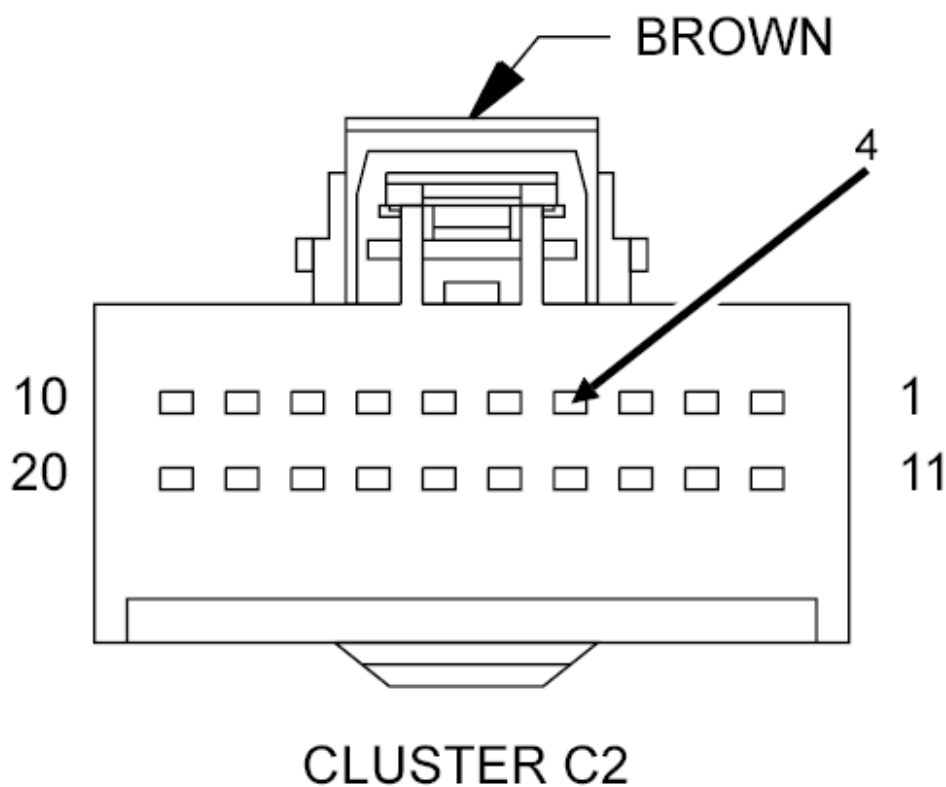
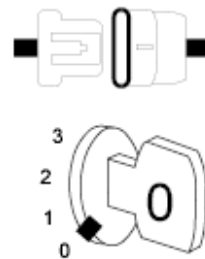
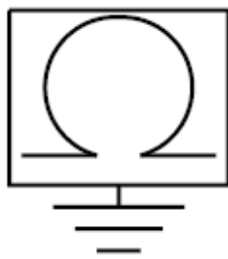
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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 (M24) COURTESY LAMPS DRIVER CIRCUIT FOR A SHORT TO GROUND**



**Fig. 20: Measuring Resistance Between (M24) Courtesy Lamp Driver Circuit & Ground**

**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance between the (M24) Courtesy Lamp Driver circuit and ground.

Is the resistance below 5.0 Ohms?

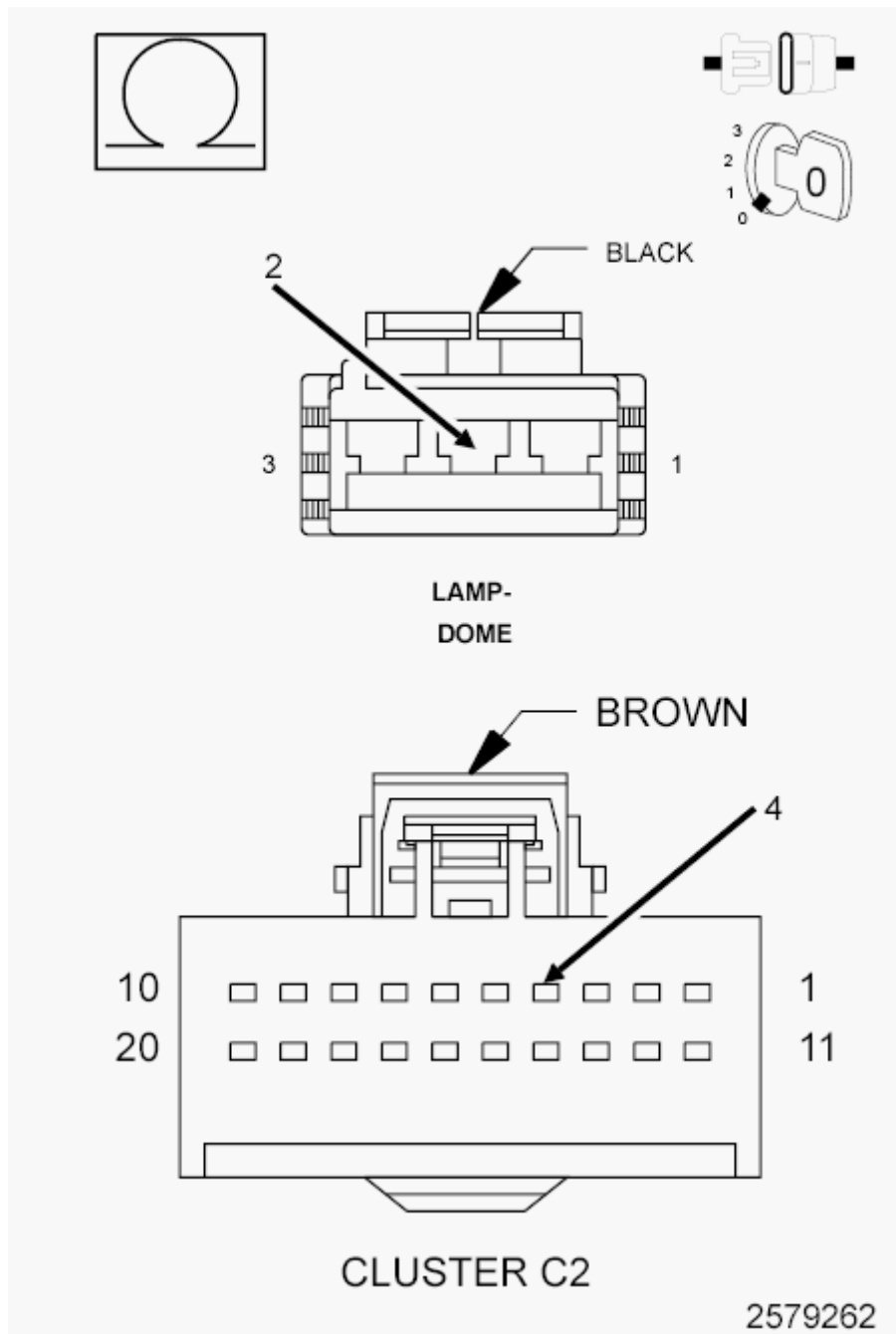
**Yes**

- Repair the short to ground in the (M24) Courtesy Lamp Driver circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 3

**3. CHECK THE (M24) COURTESY LAMPS DRIVER CIRCUIT FOR AN OPEN**



**Fig. 21: Measuring Resistance Of Courtesy Lamp Driver Circuit Between Cluster C2 & Dome Lamp Harness Connectors**  
 Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Dome Lamp harness connector.
3. Measure the resistance of the (M24) Courtesy Lamp Driver circuit between the Cluster C2 and Dome Lamp harness connectors.

Is the resistance above 5.0 Ohms?

**Yes**

- Repair the open in the (M24) Courtesy Lamp Driver circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

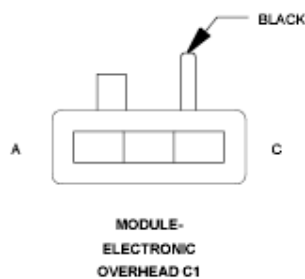
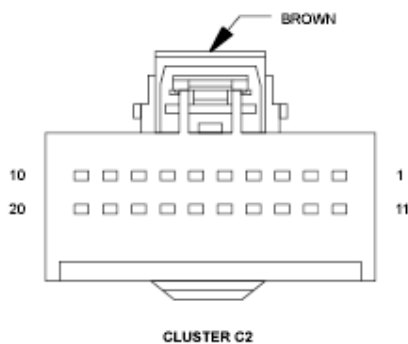
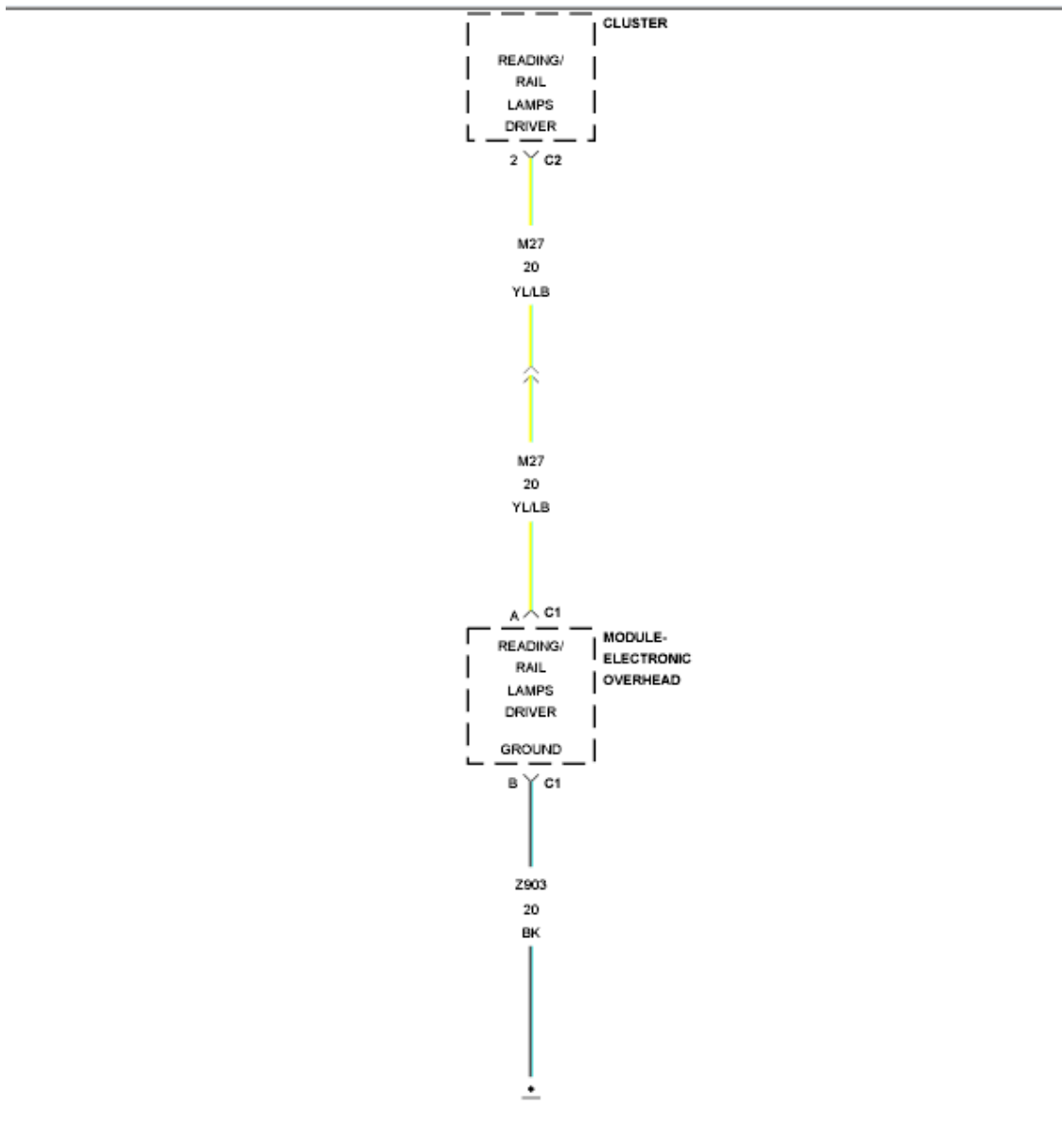
**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B161E-READING LAMP CONTROL CIRCUIT**

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**Fig. 22: Reading Lamp Control Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

When the Cluster detects an open or a short to ground driver circuit.

**POSSIBLE CAUSES****Possible Causes**

(M27) READING/RAIL LAMPS DRIVER CIRCUIT SHORTED TO GROUND

(M27) READING/RAIL LAMPS DRIVER CIRCUIT OPEN

(Z903) GROUND CIRCUIT OPEN

ELECTRONIC OVERHEAD MODULE (EOM)  
CLUSTER

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

**Yes**

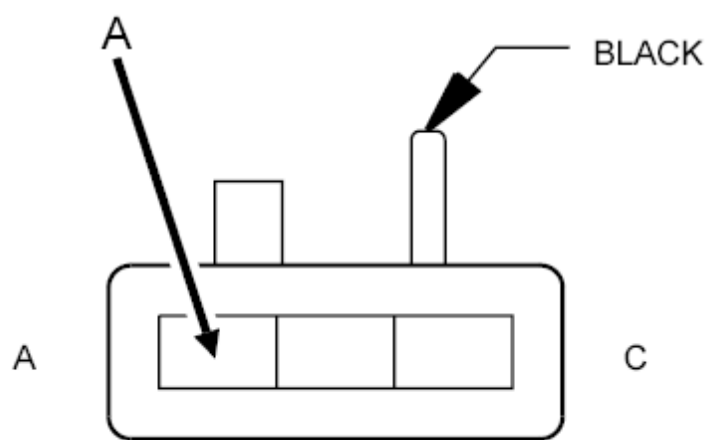
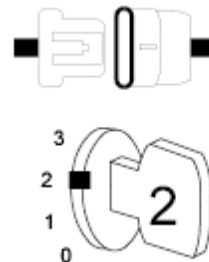
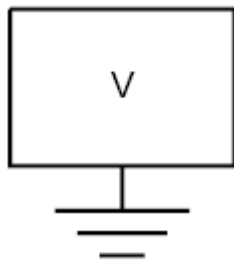
- Go To 4

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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 THE (M27) READING/RAIL LAMPS**

## DRIVER CIRCUIT



MODULE-  
ELECTRONIC  
OVERHEAD C1

**Fig. 23: Measuring Voltage Of Reading/Rail Lamps Driver circuit**  
Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Electronic Overhead Module C1 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (M27) Reading/Rail Lamps Driver circuit.

Is the voltage above 10.0 volts?

**Yes**

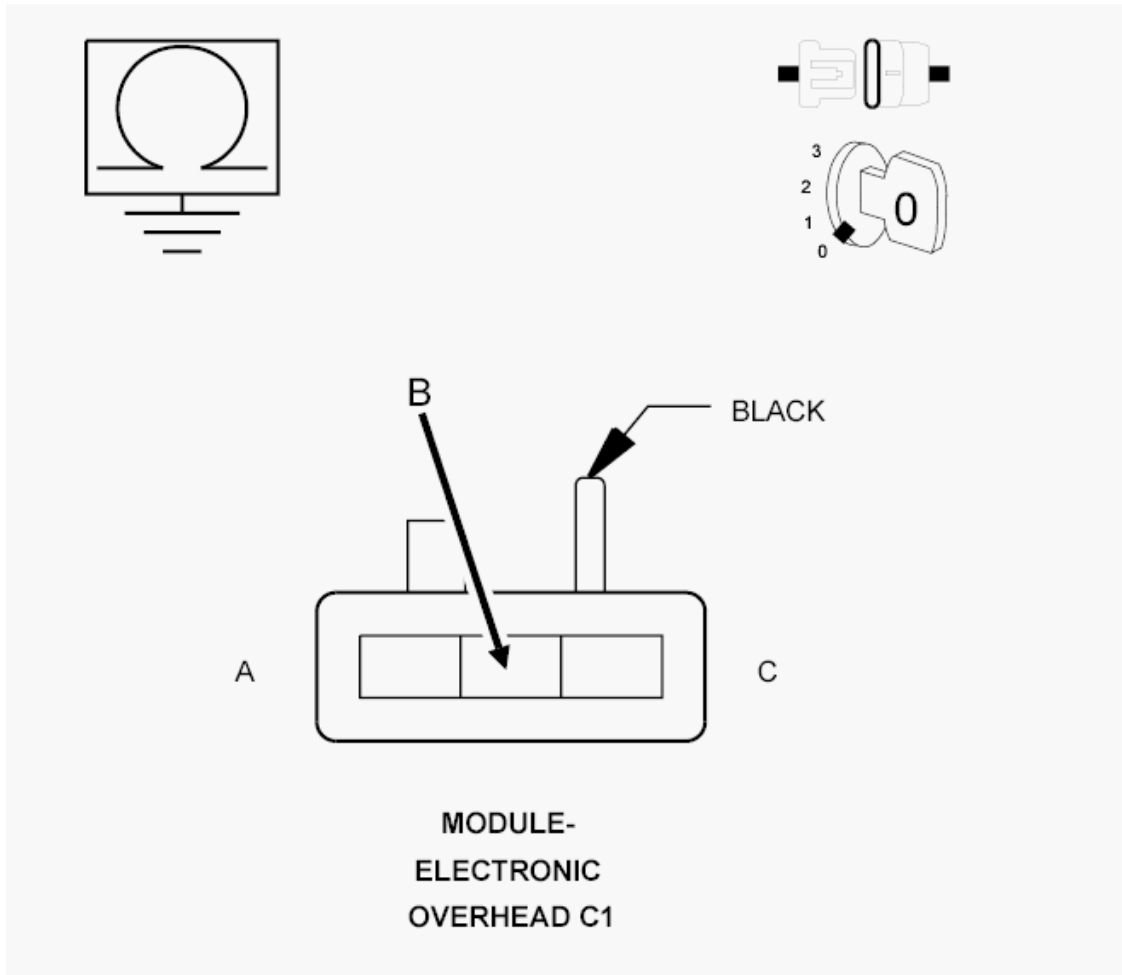
- Go To 3



No

- Go To 4

### 3. CHECK THE (Z903) GROUND CIRCUIT



**Fig. 24: Measuring Resistance Between Ground & Ground Circuit**  
 Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance between ground and the (Z903) Ground circuit.

Is the resistance below 10K Ohms?

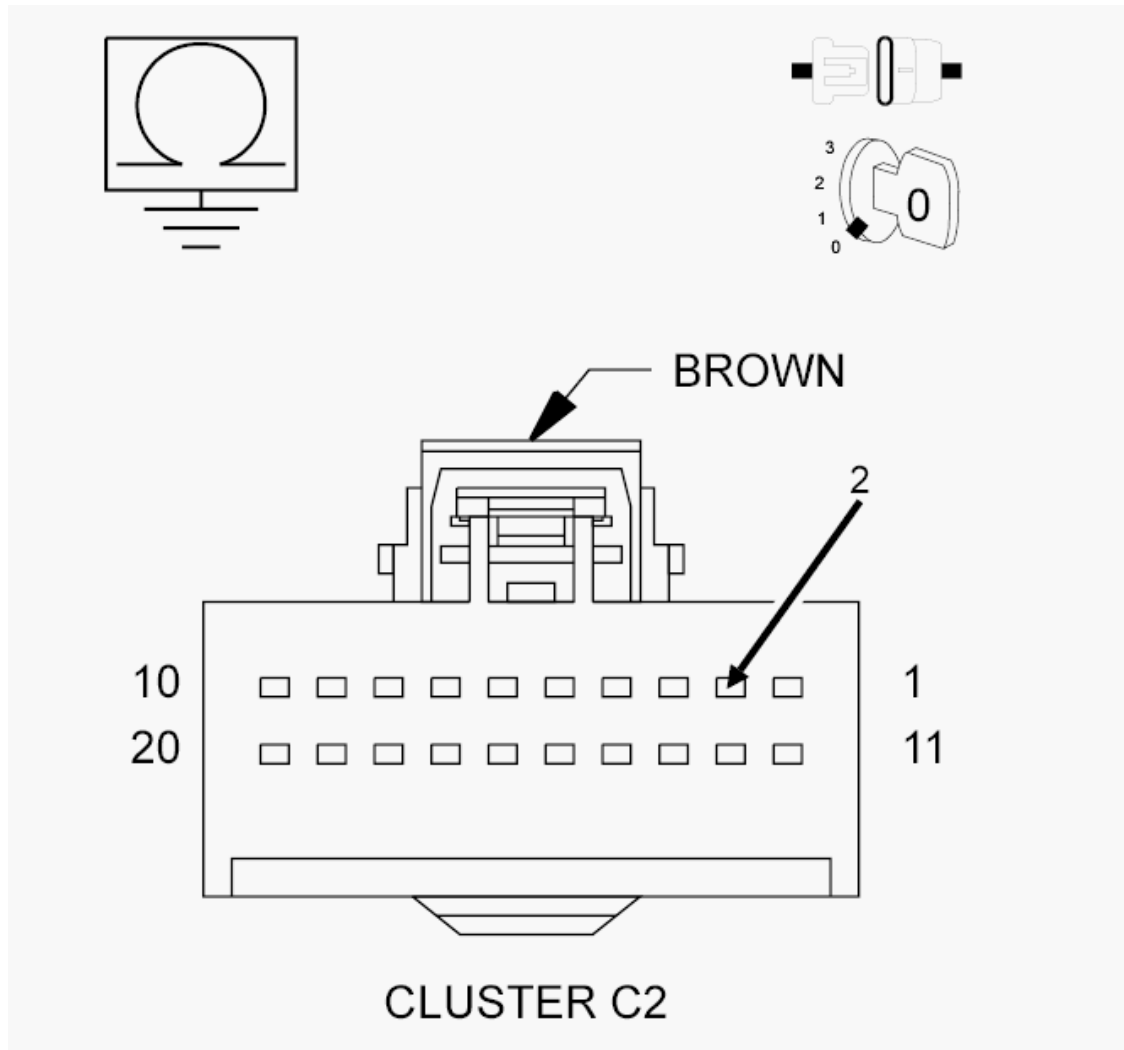
Yes

- Replace the Electronic Overhead Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

No

- Repair the open in the (Z903) Ground Circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**4. CHECK THE (M27) READING/RAIL LAMPS DRIVER CIRCUIT FOR A SHORT TO GROUND**



**Fig. 25: Measuring Resistance Between Ground & Reading/Rail Lamps Driver circuit**

Courtesy of CHRYSLER GROUP, LLC

1. Disconnect the Cluster C2 harness connector.
2. Measure the resistance between ground and the (M27) Reading/Rail Lamps Driver circuit.

Is the resistance below 10K Ohms?

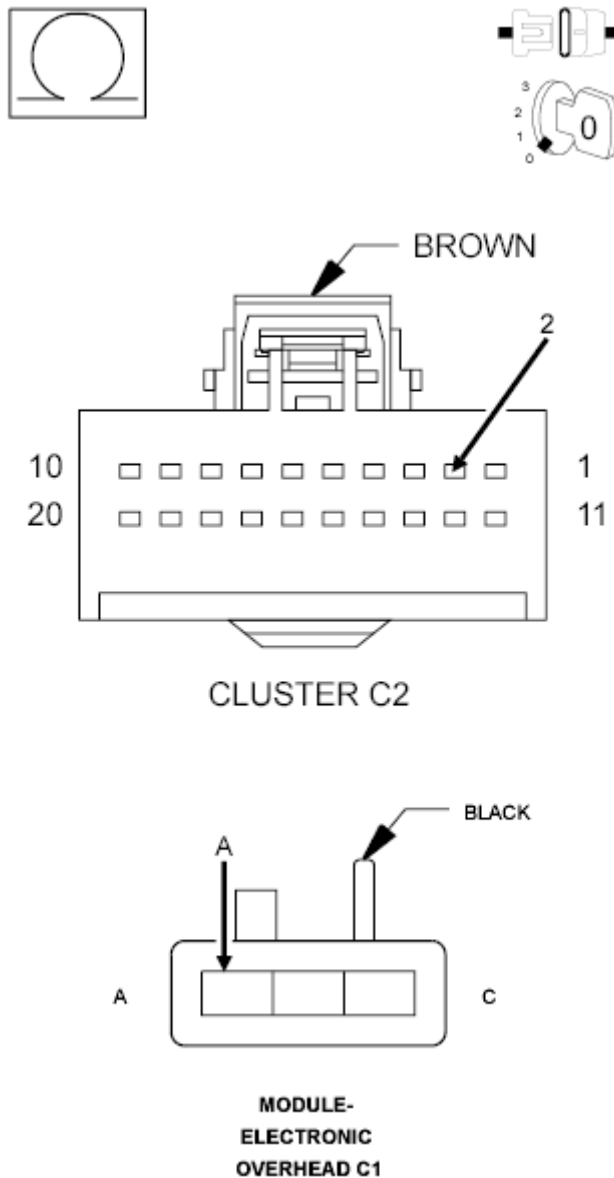
**Yes**

- Repair the short to ground in the (M27) Reading/Rail Lamps Driver circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 5

**5. CHECK THE (M27) READING/RAIL LAMPS DRIVER CIRCUIT FOR AN OPEN**



**Fig. 26: Measuring Resistance Of Reading/Rail Lamps Driver Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the resistance of the (M27) Reading/Rail Lamps Driver circuit.

Is the resistance above 5.0 Ohms?

**Yes**

- Repair the open in the (M27) Reading/Rail Lamps Driver circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B168F-FRONT FOG LAMP SWITCH CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **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**

Possible Causes
LEFT MULTIFUNCTION SWITCH

#### **DIAGNOSTIC TEST**

#### **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 Fog Lamps on and off three times.
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 **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

#### **B1782-HEADLAMP LEVELING SWITCH STUCK**

For a complete wiring diagram, **refer to appropriate SYSTEM WIRING DIAGRAMS article** .

#### **WHEN MONITORED**

With the ignition on.

#### **SET CONDITION**

The Cluster detects the Headlamp Leveling Switch is active for greater than 20 seconds.

#### **POSSIBLE CAUSES**

Possible Causes
SWITCH BANK

#### **DIAGNOSTIC TEST**

#### **CHECK FOR AN ACTIVE DTC**

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Actuate the Headlamp Leveling Switch three times.
4. 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 **STANDARD PROCEDURE** .

## No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

### B178E-HEADLAMP SWITCH INPUT CIRCUIT

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### WHEN MONITORED

With the ignition on.

#### SET CONDITION

The Cluster detects the Headlamp Switch function inoperative.

#### POSSIBLE CAUSES

Possible Causes
LEFT MULTIFUNCTION SWITCH

#### DIAGNOSTIC TEST

### 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. 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 **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

**B178F-TURN SWITCH INPUT CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

The Cluster detects the Turn Signal function inoperative.

**POSSIBLE CAUSES**

Possible Causes
LEFT MULTIFUNCTION SWITCH

**DIAGNOSTIC TEST**

**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 **STANDARD PROCEDURE** .

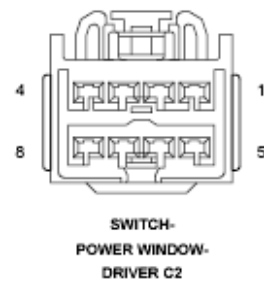
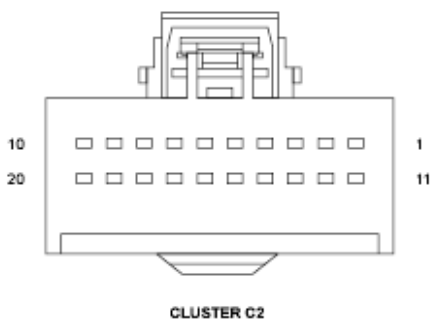
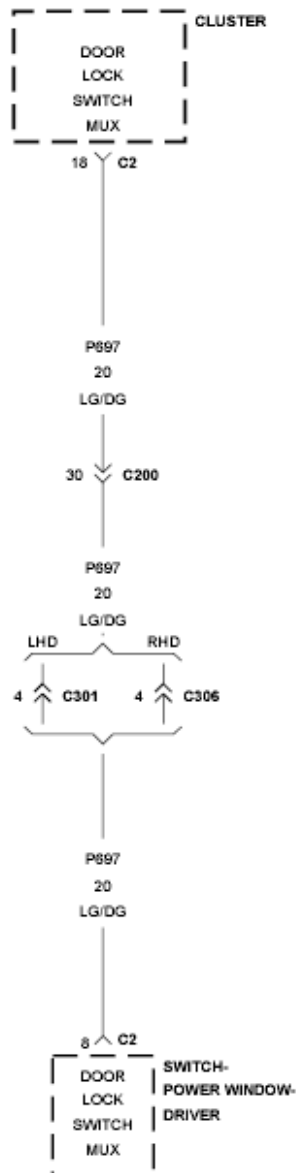
**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

**B1800-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT PERFORMANCE**

## 2014 Jeep Patriot Limited

2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot



**Fig. 27: Driver Door Lock/Unlock Switch Circuit Diagram**

<b>2014 Jeep Patriot Limited</b>
2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot

**Courtesy of CHRYSLER GROUP, LLC**

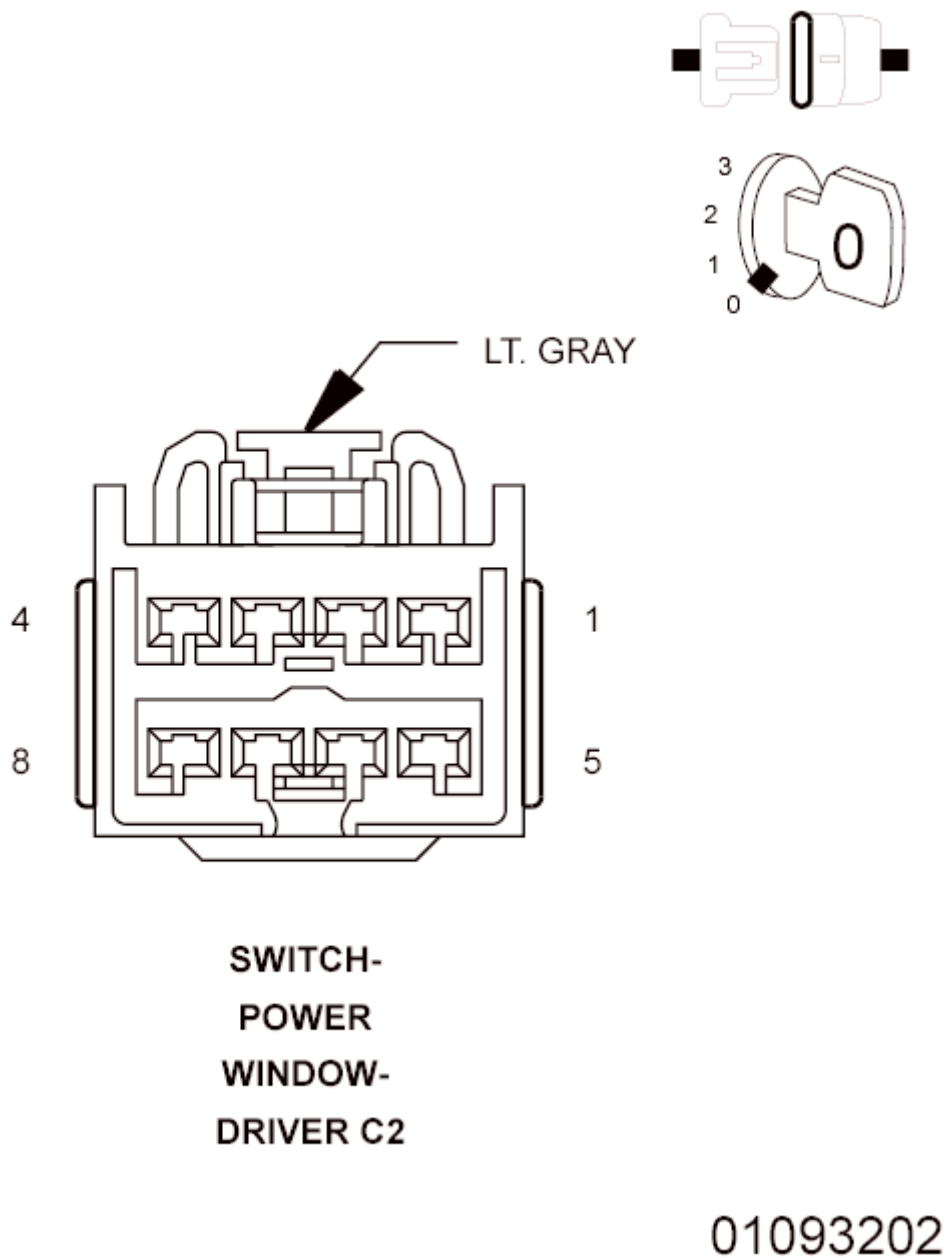
For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**POSSIBLE CAUSES**

<b>Possible Causes</b>
(P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND (P697) DOOR LOCK SWITCH MUX CIRCUIT OPEN (P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO BATTERY (Z961) GROUND CIRCUIT OPEN DOOR LOCK SWITCH INSTRUMENT CLUSTER

**DIAGNOSTIC TEST**

**1. TEST THE DOOR LOCK SWITCH**



**Fig. 28: Checking Driver Window/Door Lock Switch**  
Courtesy of CHRYSLER GROUP, LLC

**NOTE:** The graphic for this step shows the connector for terminal reference only.

1. Turn the ignition off.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.
3. Connect an ohmmeter between terminals number 3 and 8 of the switch (not the connector).
4. With the switch in the neutral position, the resistance should be greater

than 1, 000, 000 ohms (open circuit)

5. While holding the switch in the Lock position, the resistance should be 330 ohms (+/- 33 ohms).
6. While holding the switch in the Unlock position, the resistance should be 100 ohms (+/- 10 ohms).

Does the switch pass all three tests?

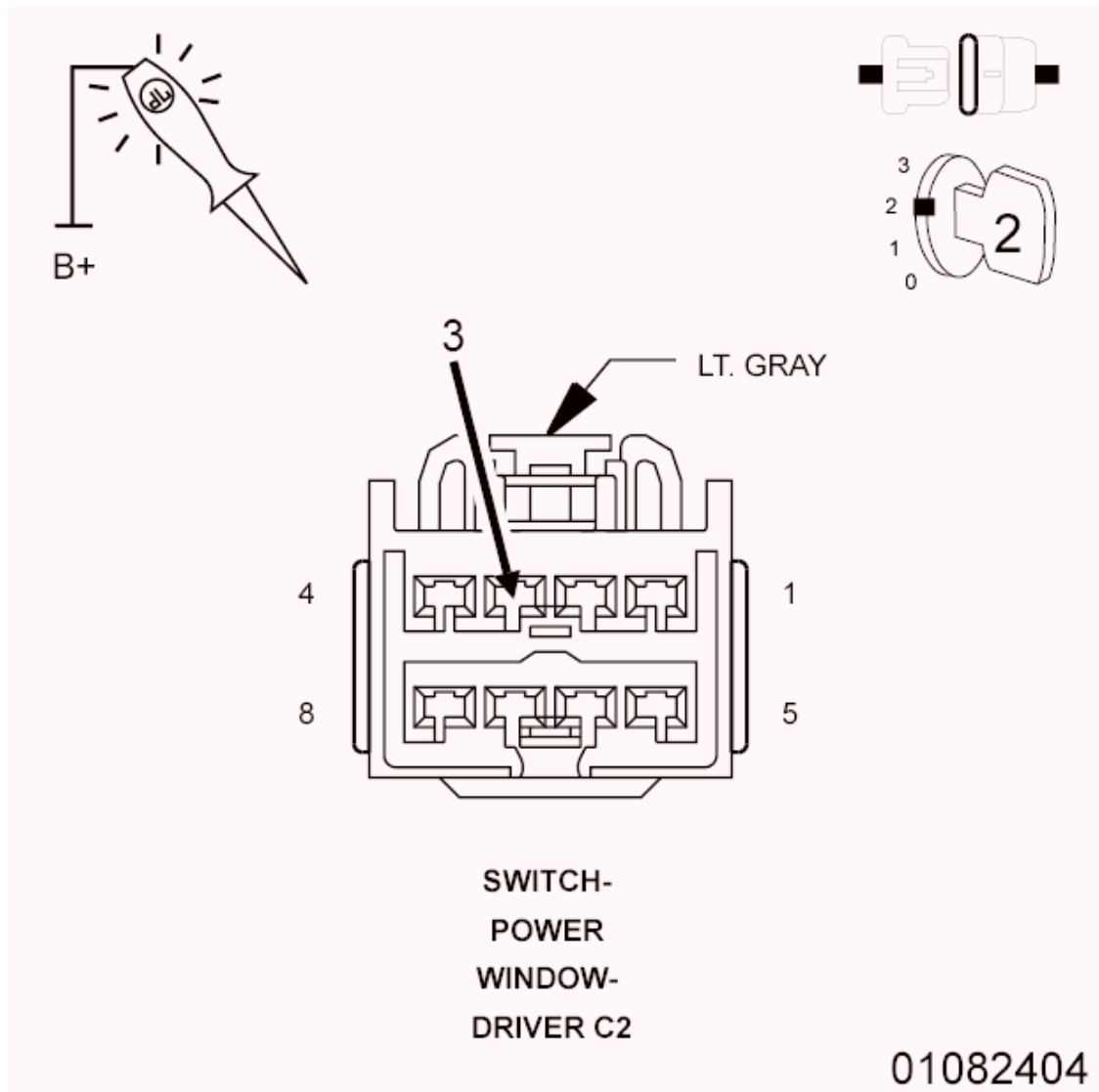
**No**

- Replace the Driver Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**Yes**

- Go To 2

## **2. (Z961) GROUND CIRCUIT OPEN**



**Fig. 29: Checking Ground Circuit Open**  
 Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition on.
2. Using a 12-volt test light connected to 12-volts, check the (Z961) Ground circuit in the Driver Window/Door Lock Switch C2 connector.

Does the test light illuminate brightly

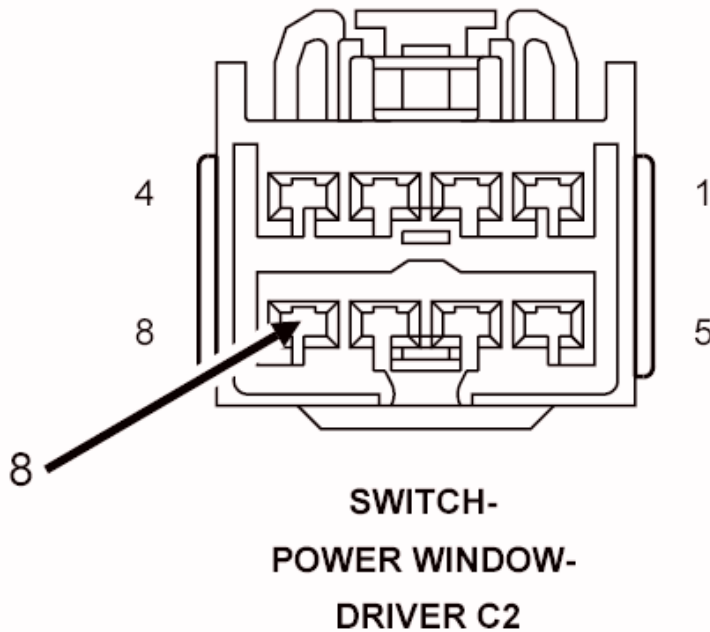
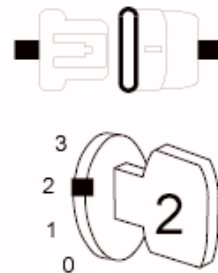
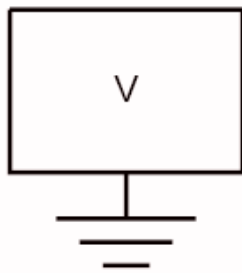
**No**

- Repair the (Z961) Ground circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

Yes

- Go To 3

### 3. (P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO BATTERY



259012

**Fig. 30: Measuring Voltage Between Door Lock Switch Mux Circuit & Ground**

**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the voltage between the (P697) Door Lock Switch Mux circuit and ground.

Is the voltage above 5.2 volts?

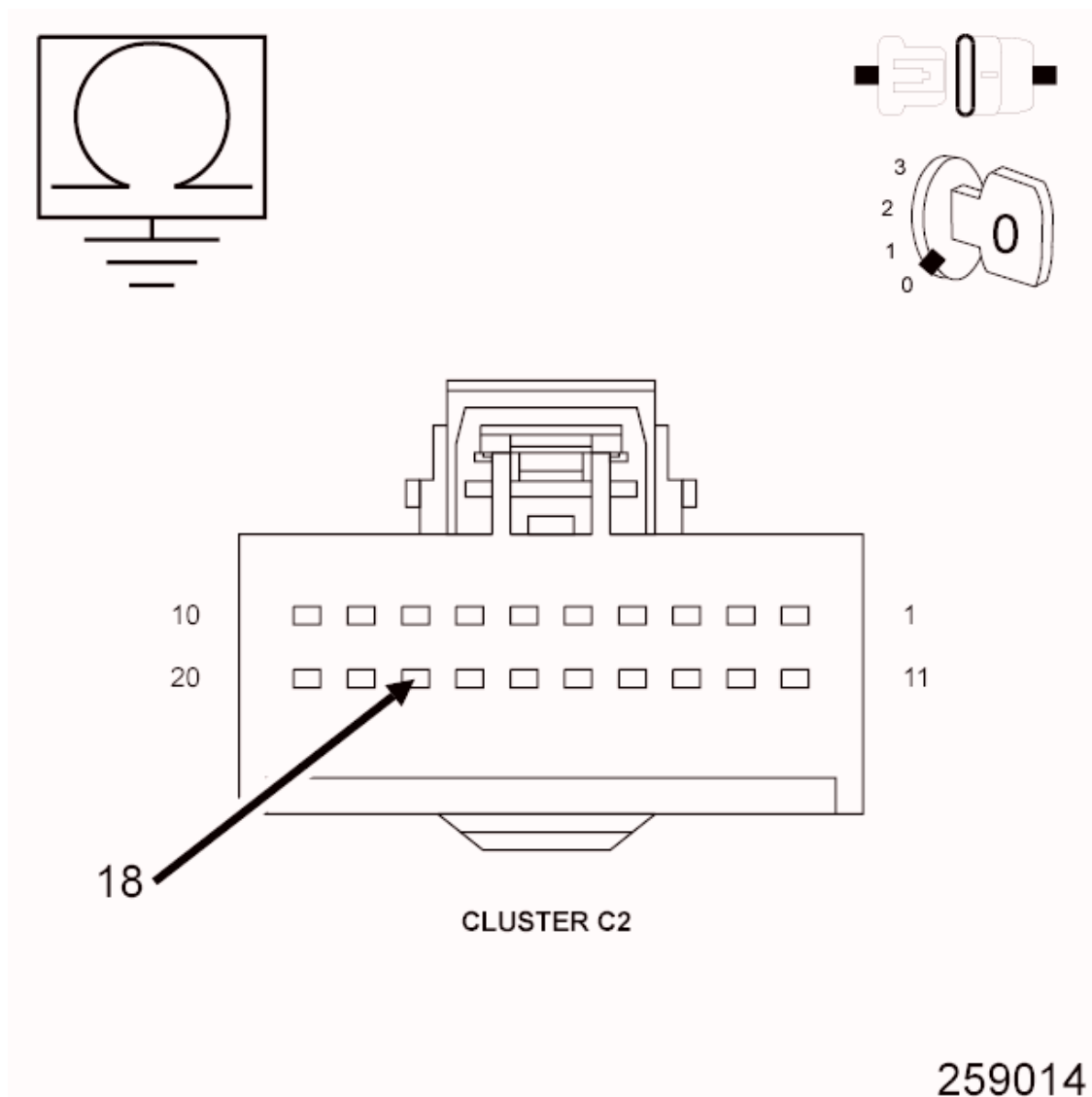
**Yes**

- Repair the (P697) Door Lock Switch Mux circuit for a short to battery.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 4

#### 4. (P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND



**Fig. 31: Measuring Resistance Between Ground & Door Lock Switch MUX Circuit**



**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 connector.
3. Measure the resistance between ground and the (P697) Door Lock Switch Mux circuit.

Is the resistance below 10, 000 ohms?

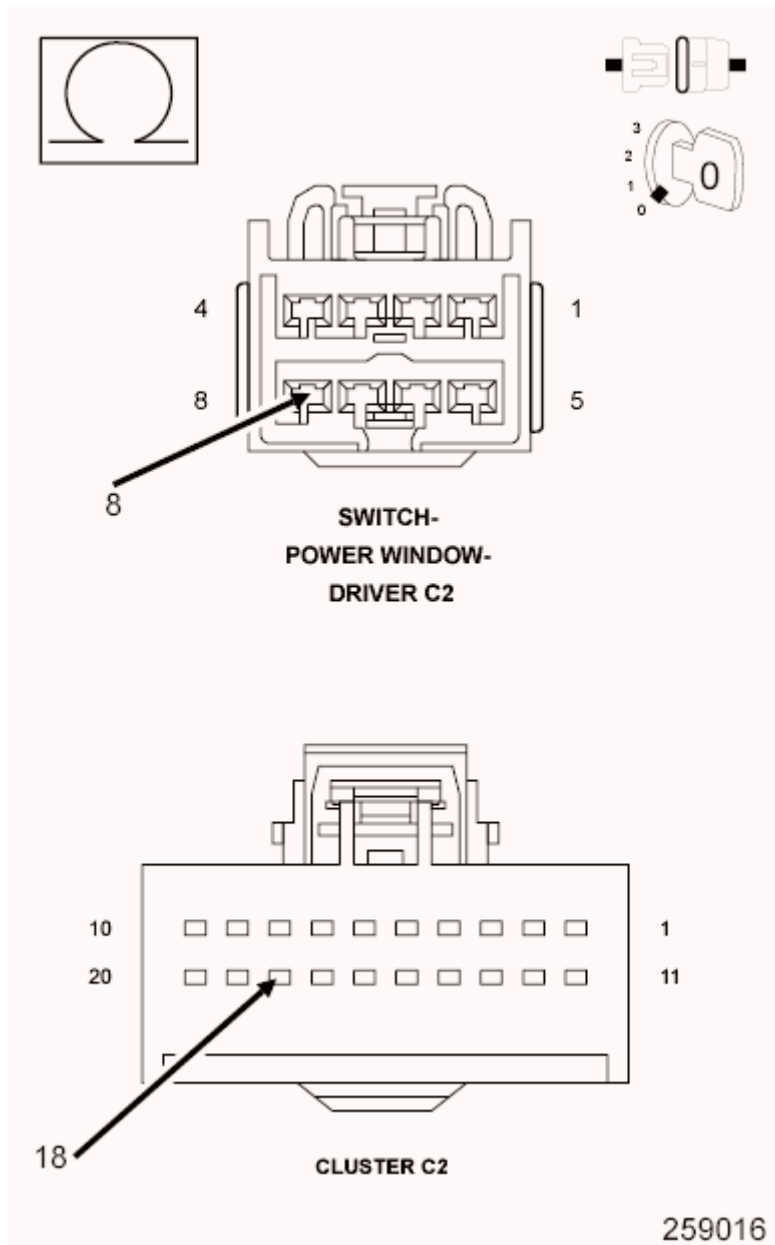
**Yes**

- Repair the (P697) Door Lock Switch Mux circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 5

**5. (P697) DOOR LOCK SWITCH MUX CIRCUIT OPEN**



**Fig. 32: Checking Door Lock Switch MUX Circuit Open**  
Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance of the (P697) Door Lock Switch Mux circuit between the Cluster C2 connector and the Driver Window/Door Lock Switch connector.

Is the resistance below 5.0 ohms?

**No**

- Repair the (P697) Door Lock Switch Mux circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to

**STANDARD PROCEDURE** .

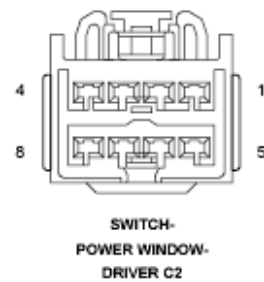
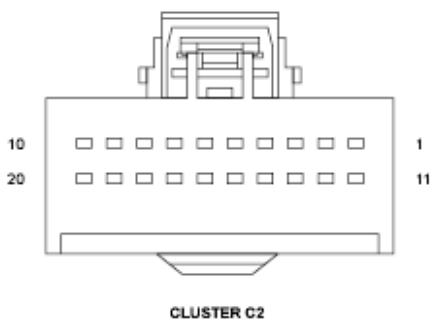
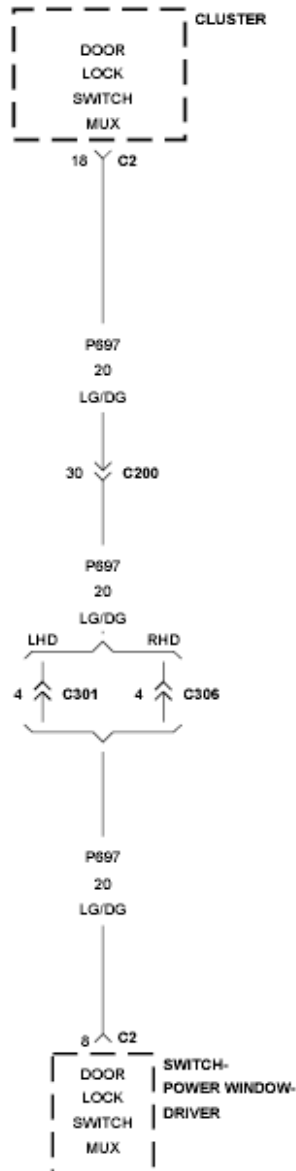
**Yes**

- Replace the Instrument Cluster in accordance with Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1801 DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW**

## 2014 Jeep Patriot Limited

2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot



**Fig. 33: Driver Door Lock/Unlock Switch Circuit Diagram**

**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously

**SET CONDITION**

When the Door Lock Switch Mux circuit is below 0.15 volts for over 10 seconds.

**POSSIBLE CAUSES****Possible Causes**

(P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND  
DOOR LOCK SWITCH  
INSTRUMENT CLUSTER

**DIAGNOSTIC TEST****1. TEST FOR INTERMITTENT CONDITION**

1. With the scan tool, record and erase DTCs
2. Operate the Driver Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1801-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

**Yes**

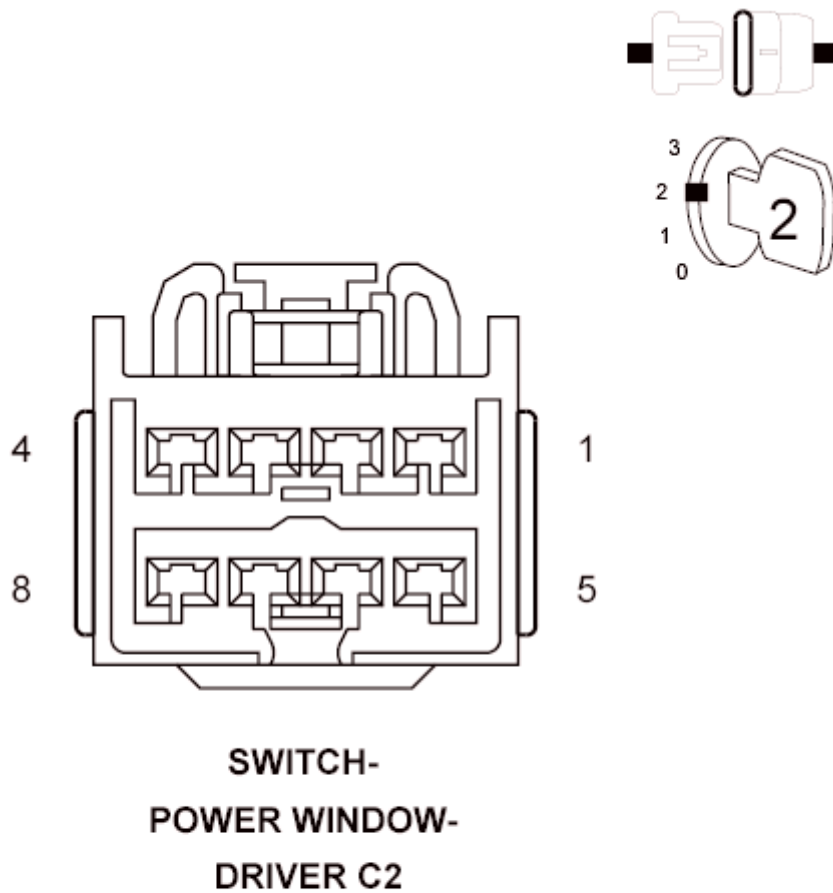
- Go To 2

**No**

- The conditions that caused this code to set are not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

## 2. DOOR LOCK SWITCH SHORTED



259010

**Fig. 34: Checking Door Lock Switch For A Short**  
Courtesy of CHRYSLER GROUP, LLC

1. With the scan tool, erase DTCs.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1801-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

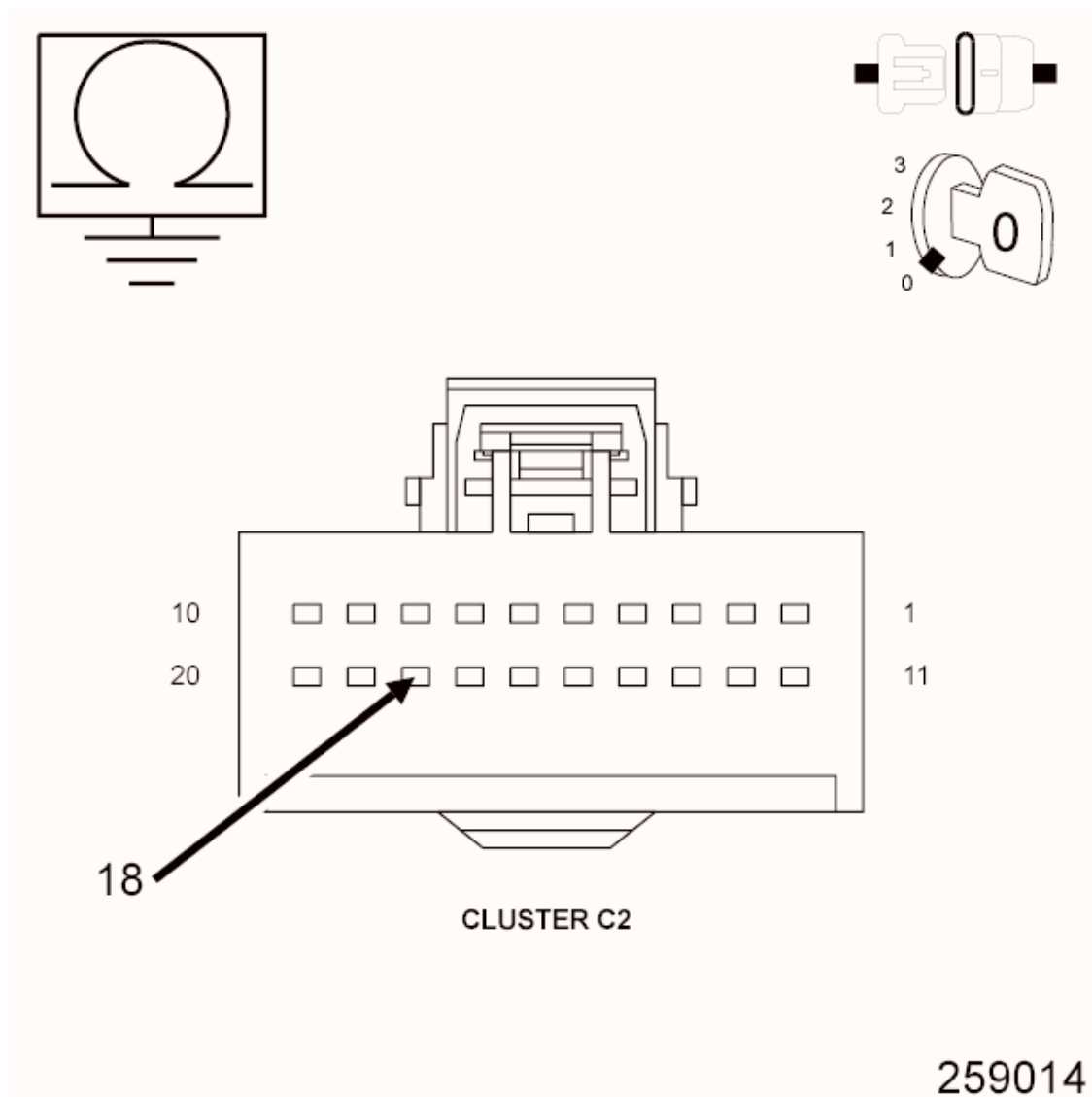
**No**

- Replace the Driver Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**Yes**

- Go To 3

### 3. (P697) DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND



259014

**Fig. 35: Measuring Resistance Between Ground & Door Lock Switch Mux Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 connector.
3. Measure the resistance between ground and the (P697) Door Lock Switch Mux circuit.

Is the resistance below 10, 000 ohms?

**Yes**

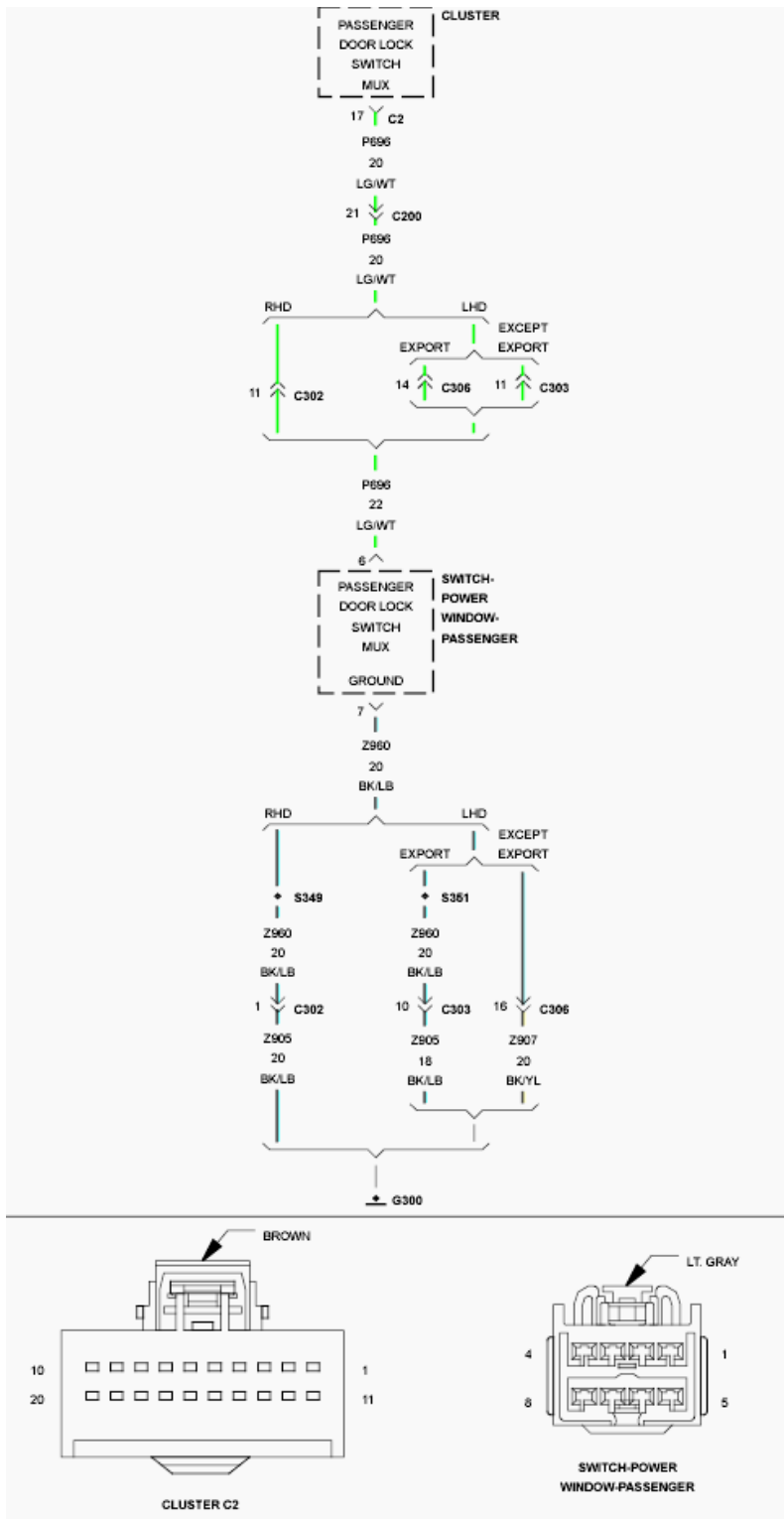
- Repair the (P697) Door Lock Switch Mux circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Instrument Cluster in accordance with Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1806-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW**





**Fig. 36: Passenger Door Lock/Unlock Switch Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously

**SET CONDITION**

When the Door Lock Switch Mux circuit is below 0.15 volts for over 10 seconds.

**POSSIBLE CAUSES****Possible Causes**

(P696) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND  
DOOR LOCK SWITCH  
INSTRUMENT CLUSTER

**DIAGNOSTIC TEST****1. TEST FOR INTERMITTENT CONDITION**

1. With the scan tool, record and erase the DTCs
2. Operate the Passenger Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read the DTCs.

Does the scan tool display B1806-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

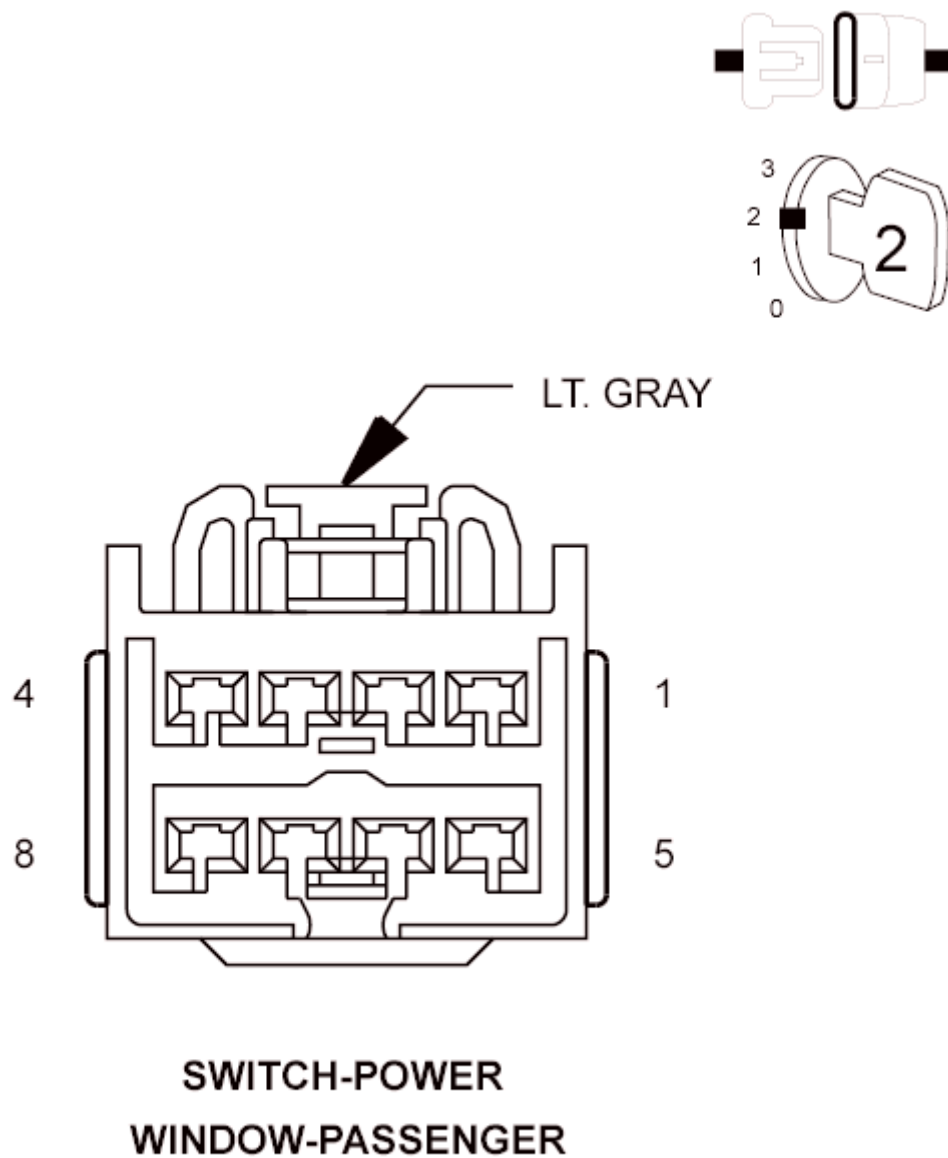
**Yes**

- Go To 2

**No**

- The conditions that caused this code to set are not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. DOOR LOCK SWITCH SHORTED**



01084831

**Fig. 37: Checking Door Lock Switch For Short**  
**Courtesy of CHRYSLER GROUP, LLC**

1. With the scan tool, erase the DTCs.
2. Disconnect the Passenger Window/Door Lock Switch connector.
3. With the scan tool, read the DTCs.

Does the scan tool display B1806-PASSENGER DOOR  
LOCK/UNLOCK SWITCH CIRCUIT LOW?

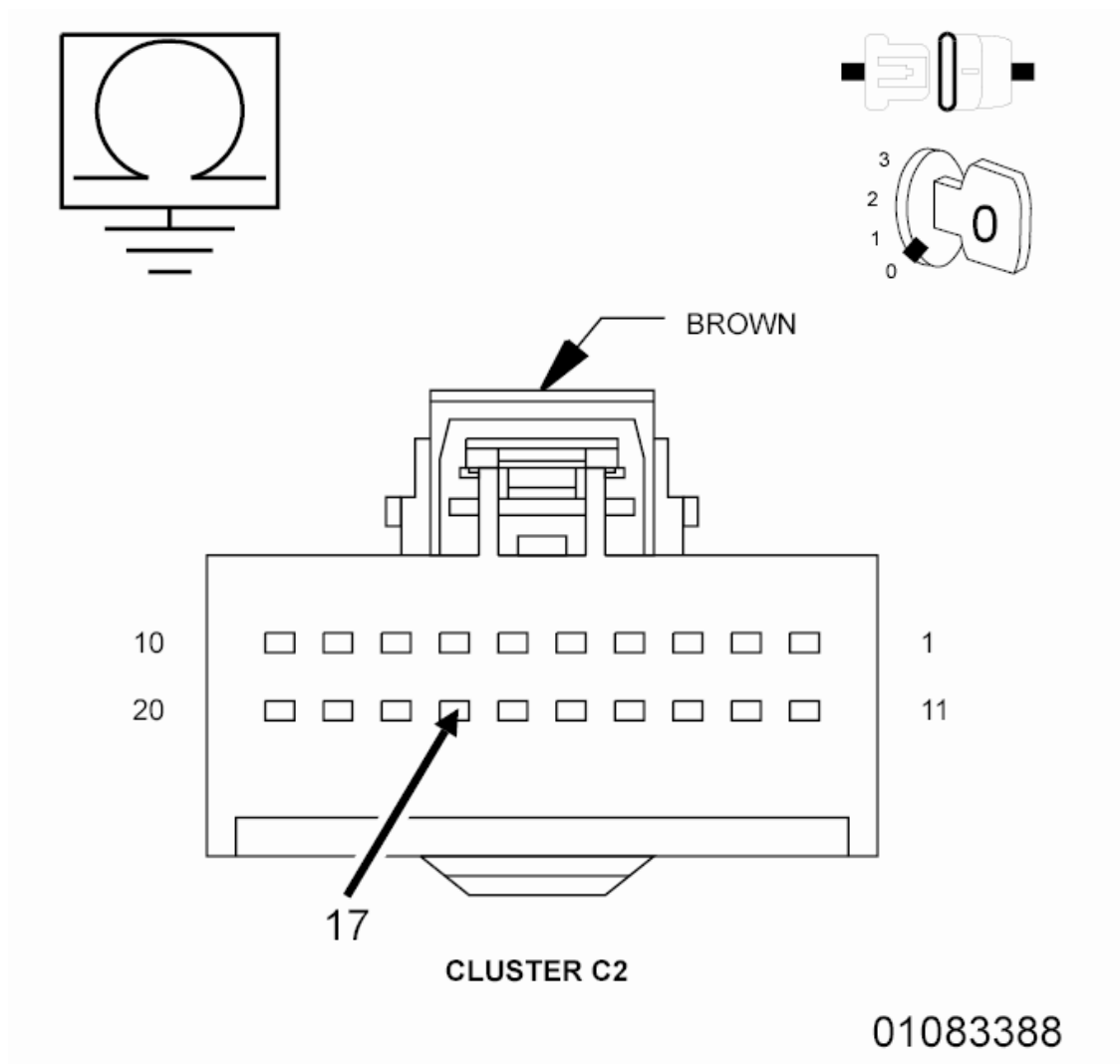
**No**

- Replace the Passenger Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

Yes

- Go To 3

### 3. (P696) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND



**Fig. 38: Measuring Resistance Between Ground And Passenger Door Lock Switch Mux Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 connector.

3. Measure the resistance between ground and the (P696) Passenger Door Lock Switch Mux circuit.

Is the resistance below 10, 000 ohms?

**Yes**

- Repair the (P696) Passenger Door Lock Switch Mux circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

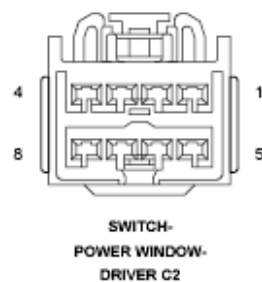
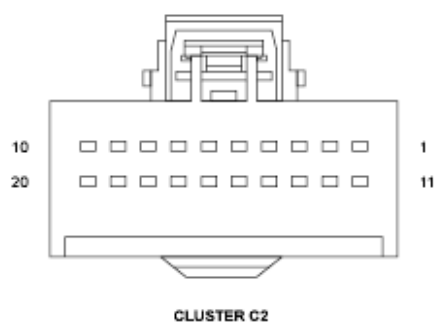
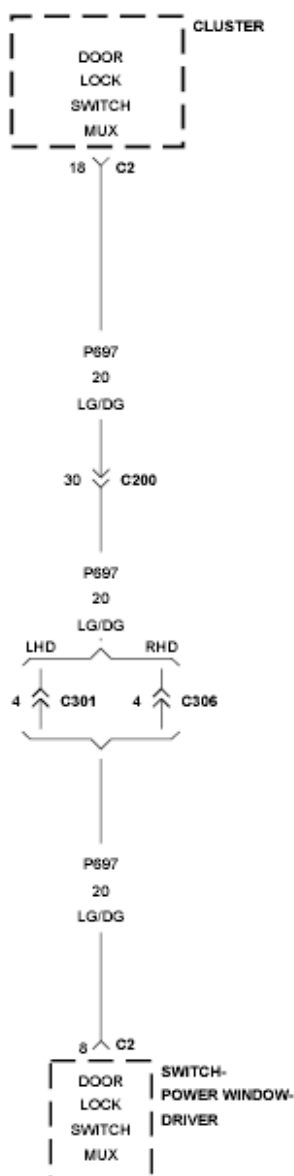
**No**

- Replace the Instrument Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK**

## 2014 Jeep Patriot Limited

2014 ACCESSORIES AND EQUIPMENT Cabin Compartment Node (CCN) - Electrical Diagnostics - Compass & Patriot



**Fig. 39: Driver Door Lock/Unlock Switch Circuit Diagram**

**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously

**SET CONDITION**

When the Driver Door Lock Switch Mux circuit is between 0.8 and 3.5 volts for over 10 seconds.

**POSSIBLE CAUSES****Possible Causes**

(P697) DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORT TO GROUND  
DOOR LOCK SWITCH  
INSTRUMENT CLUSTER

**DIAGNOSTIC TEST****1. TEST FOR INTERMITTENT CONDITION**

1. With the scan tool, record and erase DTCs
2. Operate the Driver Door Lock Switch in all positions several times.

**NOTE:** If at anytime, in the previous step, the switch stuck, replace the switch and start this test from the beginning.

3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

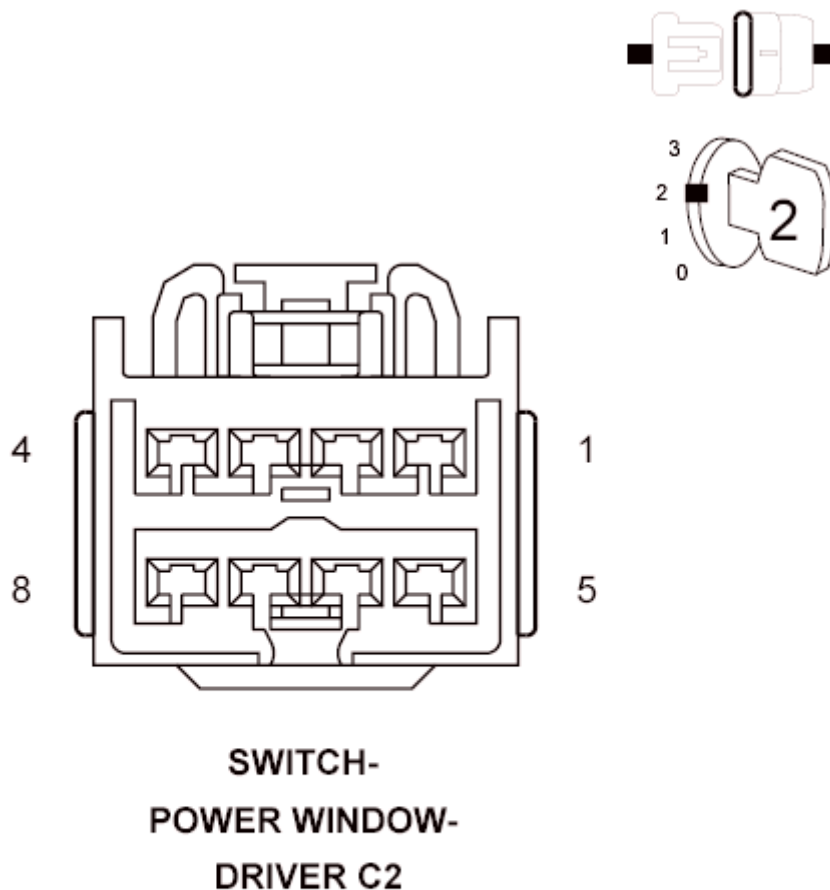
**Yes**

- Go To 2

No

- The conditions that caused this code to set are not present at this time. Using the wiring diagram/schematic as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

## 2. DOOR LOCK SWITCH SHORTED



259010

**Fig. 40: Checking Door Lock Switch For A Short**  
 Courtesy of CHRYSLER GROUP, LLC



1. With the scan tool, erase DTCs.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

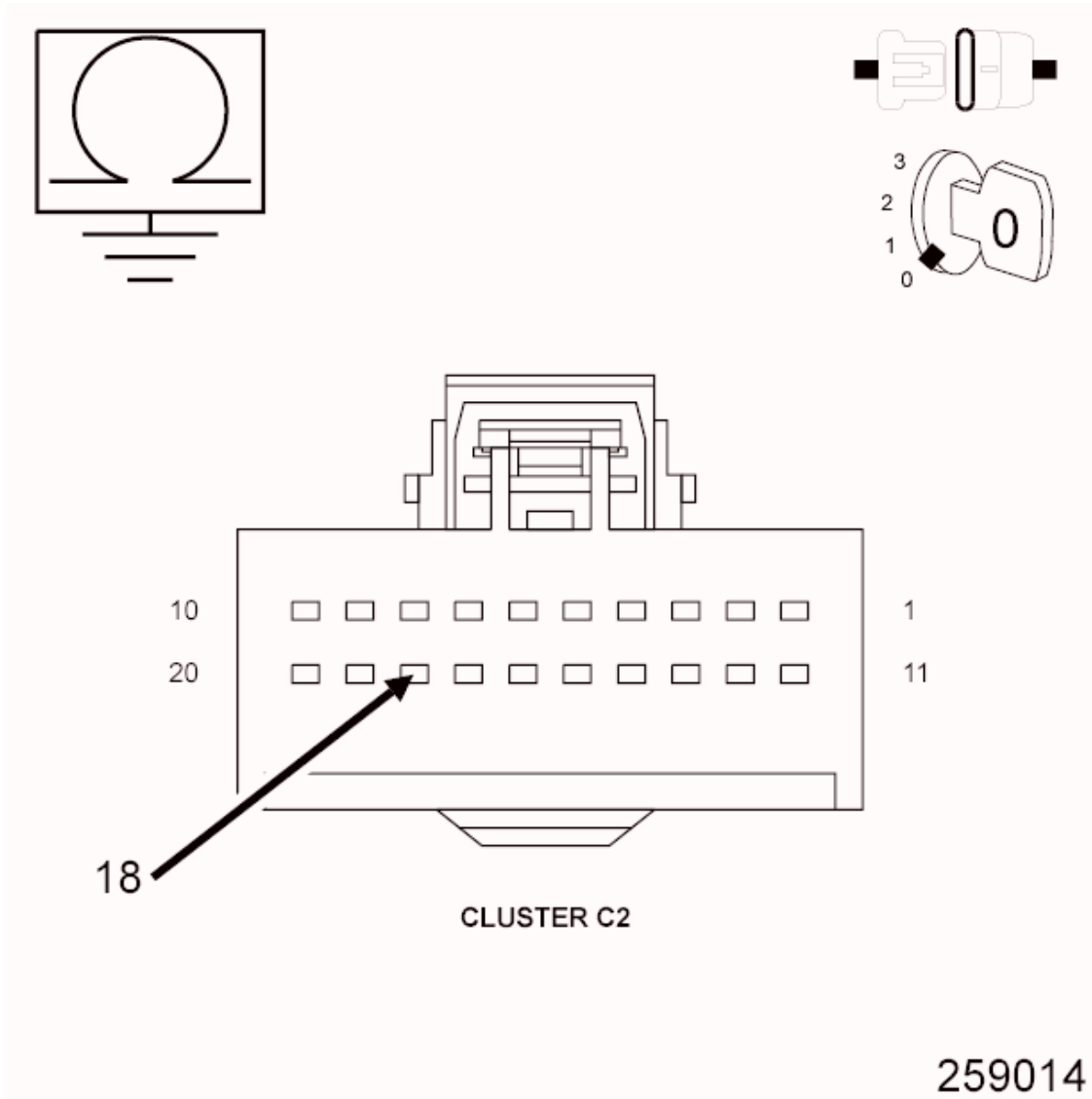
**No**

- Replace the Driver Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**Yes**

- Go To 3

3. **(P697) DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORT TO GROUND**



259014

**Fig. 41: Measuring Resistance Between Ground & Door Lock Switch Mux Circuit**

Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 connector.
3. Measure the resistance between ground and the (P697) Door Lock Switch Mux circuit.

Is the resistance below 1.0 megohms (1, 000, 000)?

**Yes**

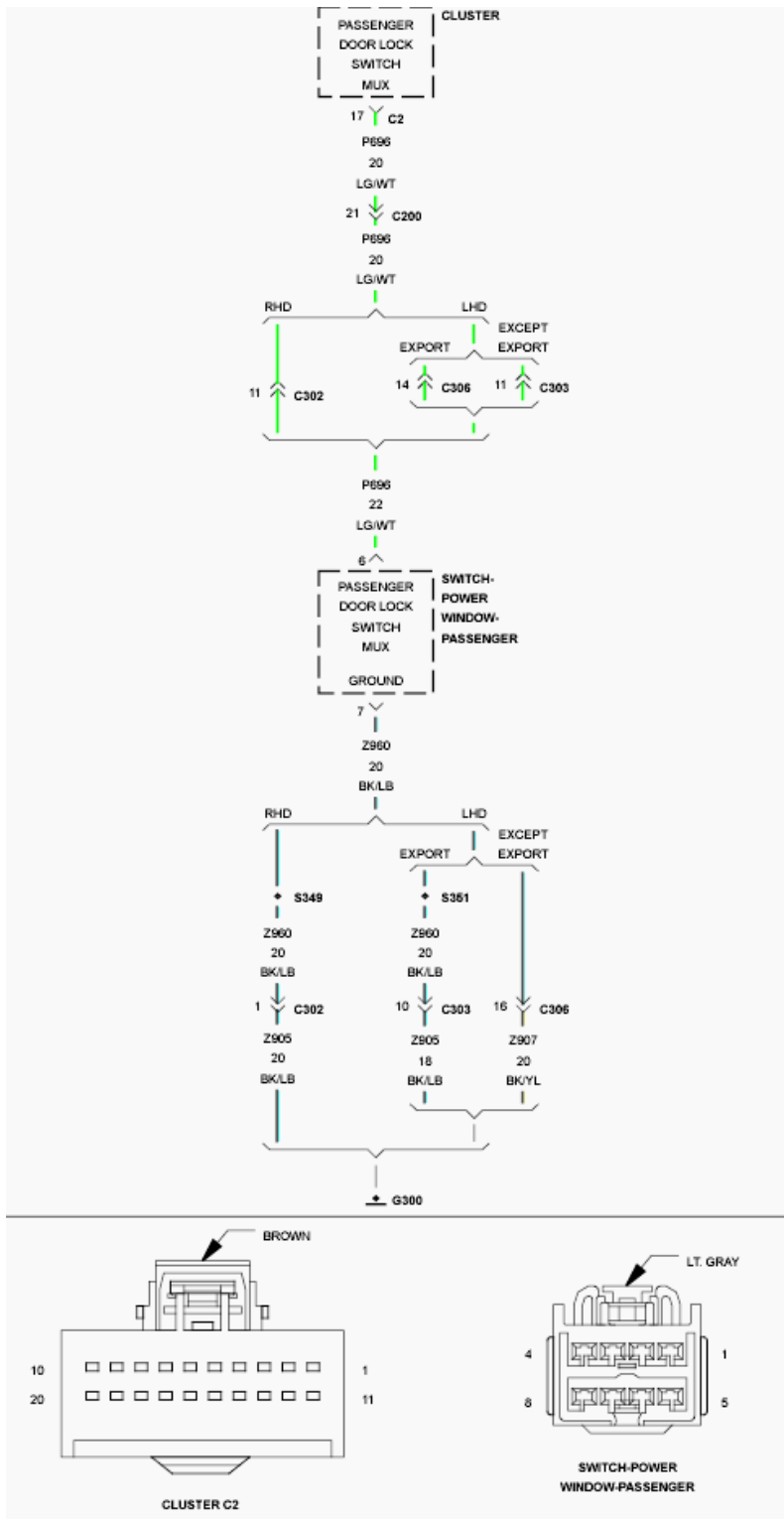
- Repair the (P697) Door Lock Switch Mux circuit for a short to ground.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Instrument Cluster in accordance with Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B1935-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK**



**Fig. 42: Passenger Door Lock/Unlock Switch Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously

**SET CONDITION**

When the Passenger Door Lock Switch Mux circuit is between 0.8 and 3.5 volts for over 10 seconds.

**POSSIBLE CAUSES****Possible Causes**

(P696) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL  
SHORT TO GROUND  
DOOR LOCK SWITCH  
INSTRUMENT CLUSTER

**DIAGNOSTIC TEST****1. TEST FOR INTERMITTENT CONDITION**

1. With the scan tool, record and erase the DTCs
2. Operate the Passenger Door Lock Switch in all positions several times.

**NOTE: If at anytime, in the previous step, the switch stuck, replace the switch.**

3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read the DTCs.

Does the scan tool display B1935-PASSENGER DOOR  
LOCK/UNLOCK SWITCH CIRCUIT STUCK?

**Yes**

- Go To 2

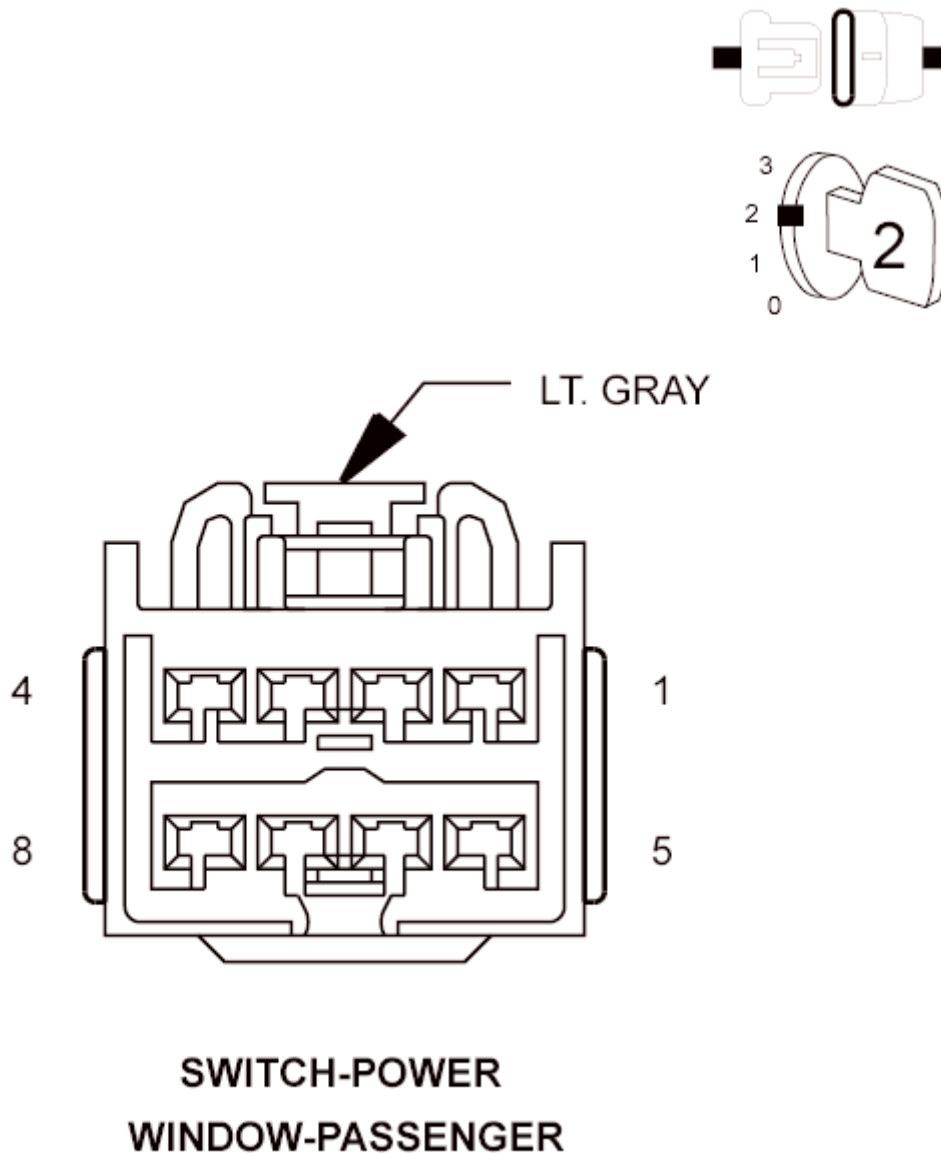
**No**

- The conditions that caused this code to set are not present at this time. Operate the switch in all positions several times. If it does not move smoothly, replace it. Using the wiring diagram/schematic as

a guide, inspect the wiring and connectors.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

## 2. DOOR LOCK SWITCH SHORTED



01084831

**Fig. 43: Checking Door Lock Switch For Short**  
 Courtesy of CHRYSLER GROUP, LLC

1. With the scan tool, erase the DTCs.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.

3. With the scan tool, read the DTCs.

Does the scan tool display B1935-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

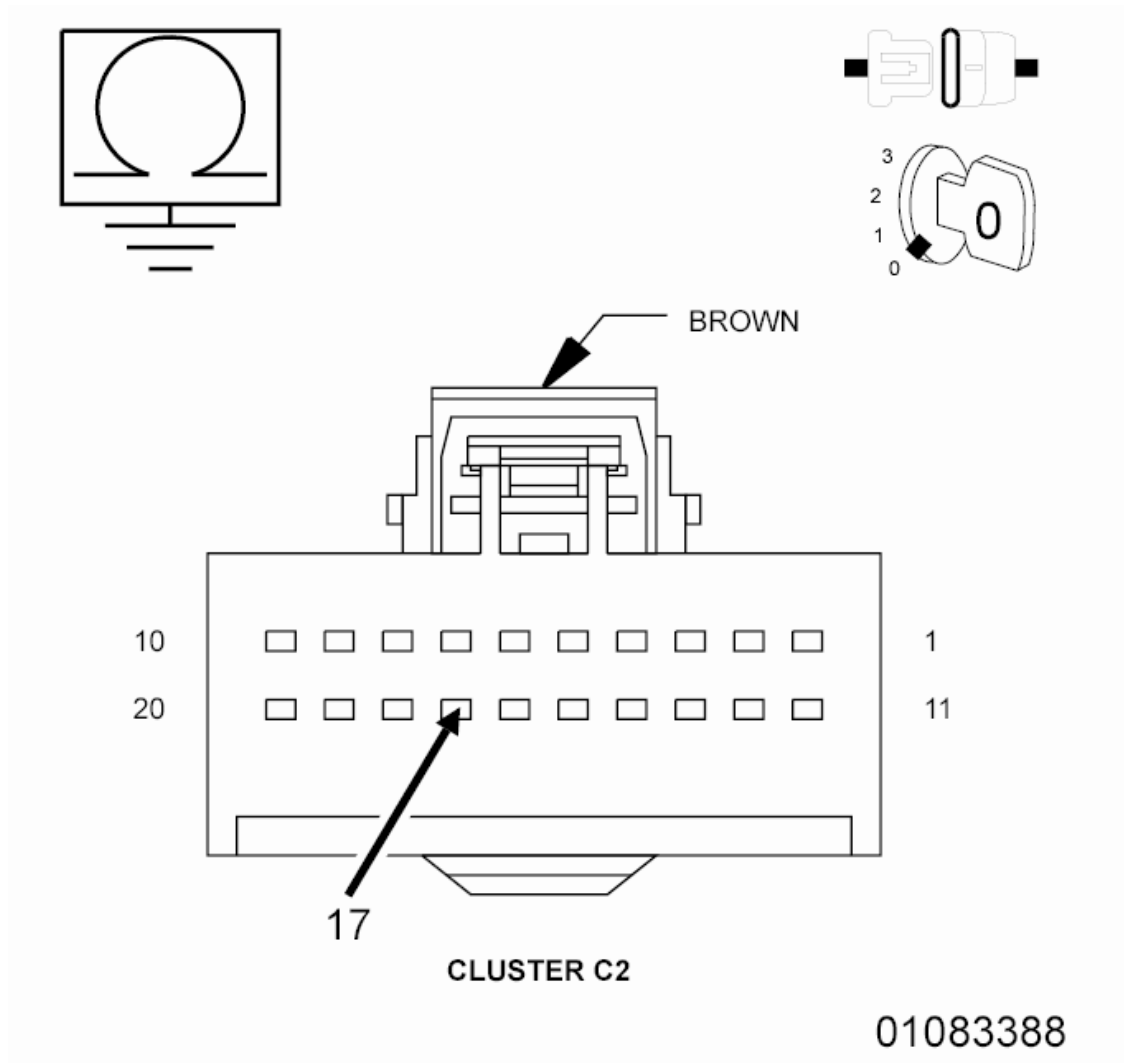
**No**

- Replace the Passenger Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**Yes**

- Go To 3

**3. (P696) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORT TO GROUND**



**Fig. 44: Measuring Resistance Between Ground And Passenger Door Lock Switch Mux Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 connector.
3. Measure the resistance between ground and the (P696) Passenger Door Lock Switch Mux circuit.

Is the resistance below 1.0 megohms (1, 000, 000)?

**Yes**

- Repair the (P696) Passenger Door Lock Switch Mux circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to



**STANDARD PROCEDURE .**

**No**

- Replace the Instrument Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE .**

**B2181-HEATED SEAT MODULE POWER SUPPLY LOW**



For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

With ignition on.

**SET CONDITION**

If the Heated Seat Module (HSM) detects voltage under 10 volts on the (F937) Fused Ignition Switch Output (Run) circuit.

**POSSIBLE CAUSES****Possible Causes**

CHARGING SYSTEM VOLTAGE LOW  
(F937) FUSED IGNITION SWITCH OUTPUT (RUN) 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 Powertrain Control Module (PCM) DTCs.

Are there any Charging System DTCs set in the PCM?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and **DTC INDEX** for Charging System diagnostic procedures. .

**No**

- Go To 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 the scan tool display this DTC as active?

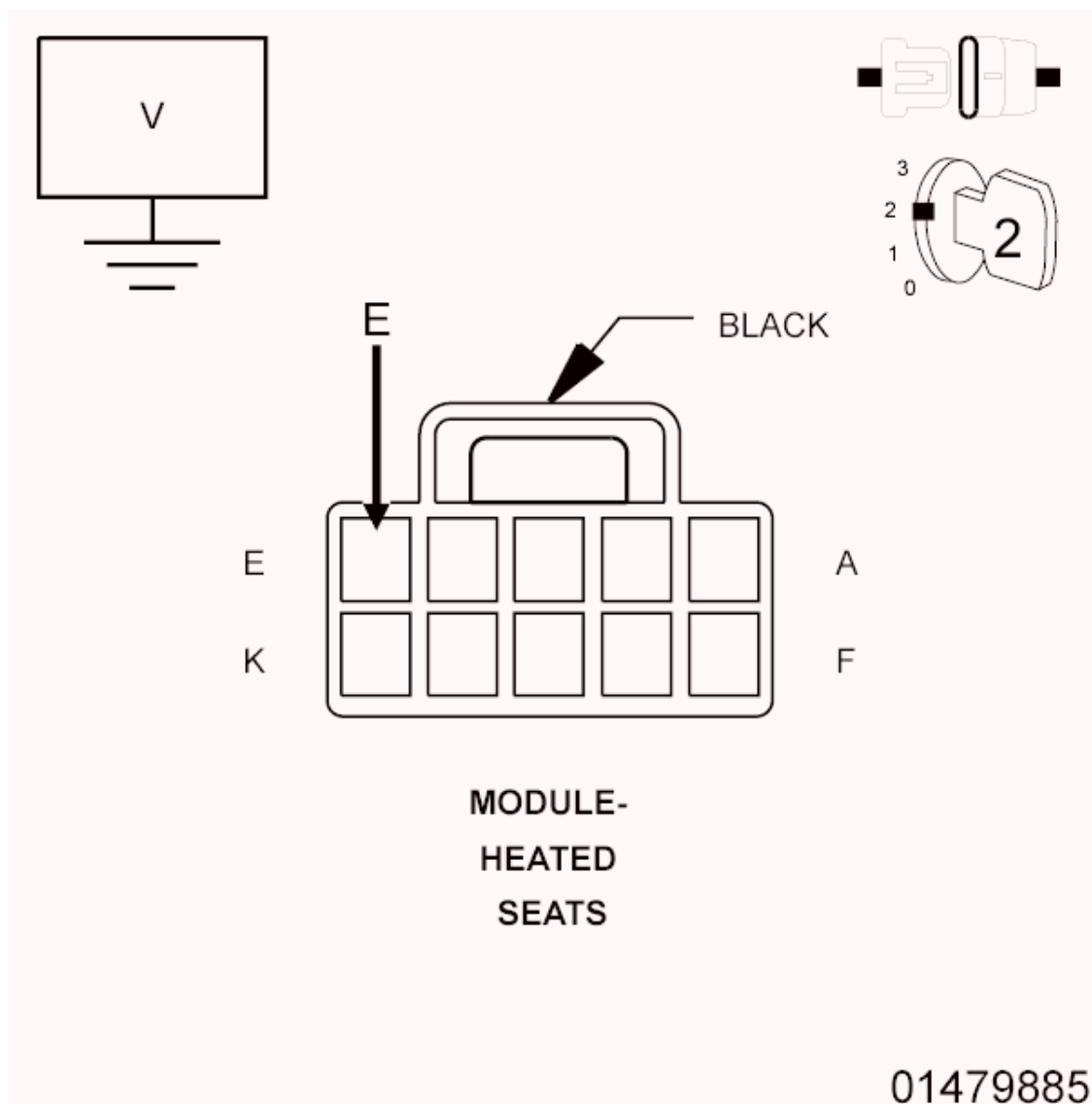
**Yes**

- Go To 3

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. Attempt to reproduce condition by adjusting the seat.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### 3. CHECK (F937) FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT VOLTAGE



**Fig. 46: Measuring Voltage Of Fused Ignition Switch Output (Run) Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

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

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

3. Start the engine and let idle.
4. Measure the voltage of the (F937) Fused Ignition Switch Output (Run) 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?

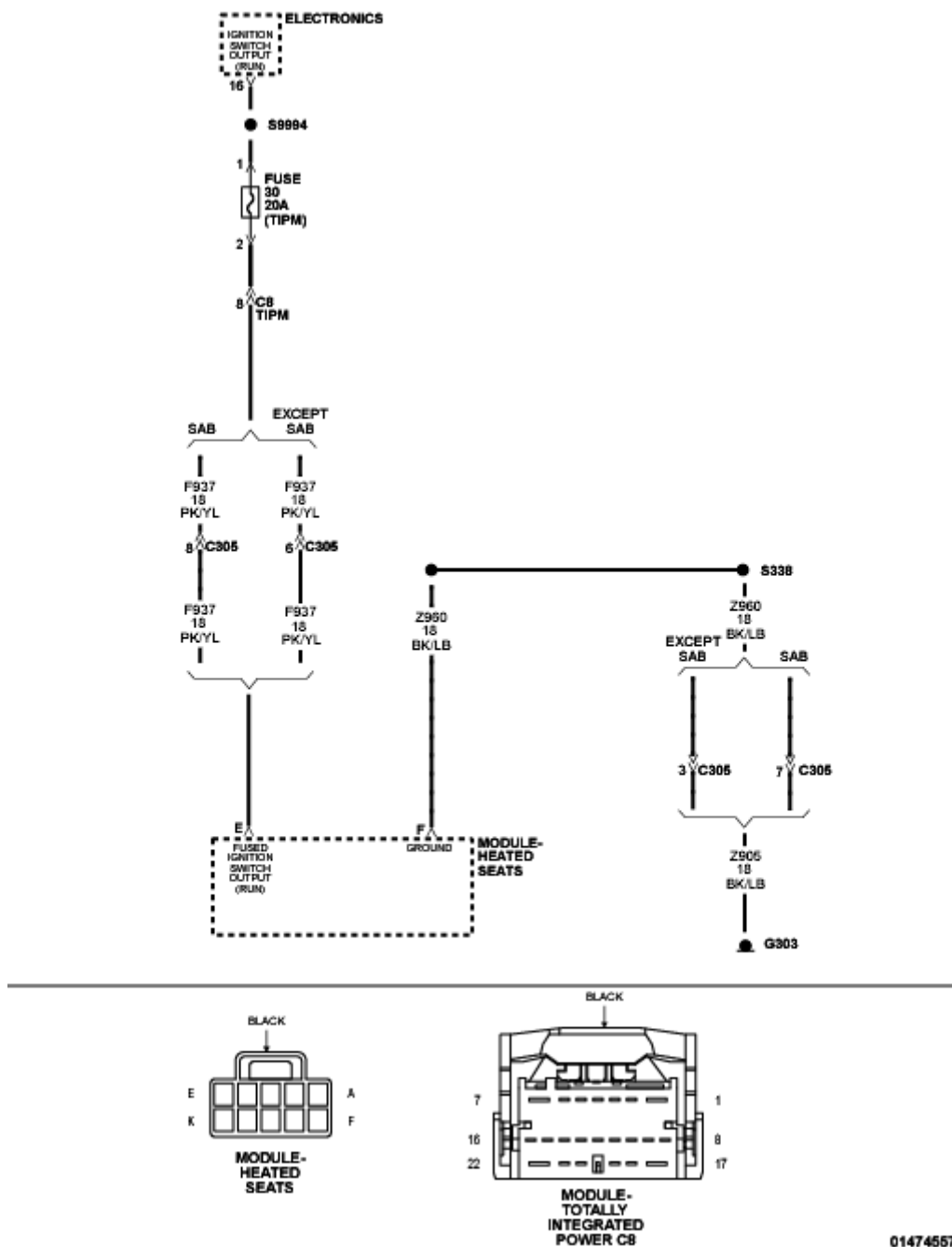
**Yes**

- Replace the Heated Seat Module (HSM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Repair the (F937) Fused Ignition Switch Output (Run) circuit for the cause of the low voltage condition at the HSM.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B2182-HEATED SEAT MODULE POWER SUPPLY HIGH**



**Fig. 47: Heated Seat Module Power Supply Circuit Diagram**  
**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

WHEN MONITORED

With ignition on.

**SET CONDITION**

If the Heated Seat Module detects voltage over 16.0 volts on the on the (F937) Fused Ignition Switch Output (Run) circuit.

**POSSIBLE CAUSES****Possible Causes**

CHARGING SYSTEM VOLTAGE HIGH  
(F937) FUSED IGNITION SWITCH OUTPUT (RUN) 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 Powertrain Control Module (PCM) DTCs.

Are there any Charging System DTCs set in the PCM?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and **DTC INDEX** for Charging System diagnostic procedures. .

**No**

- Go To 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 the scan tool display this DTC as active?

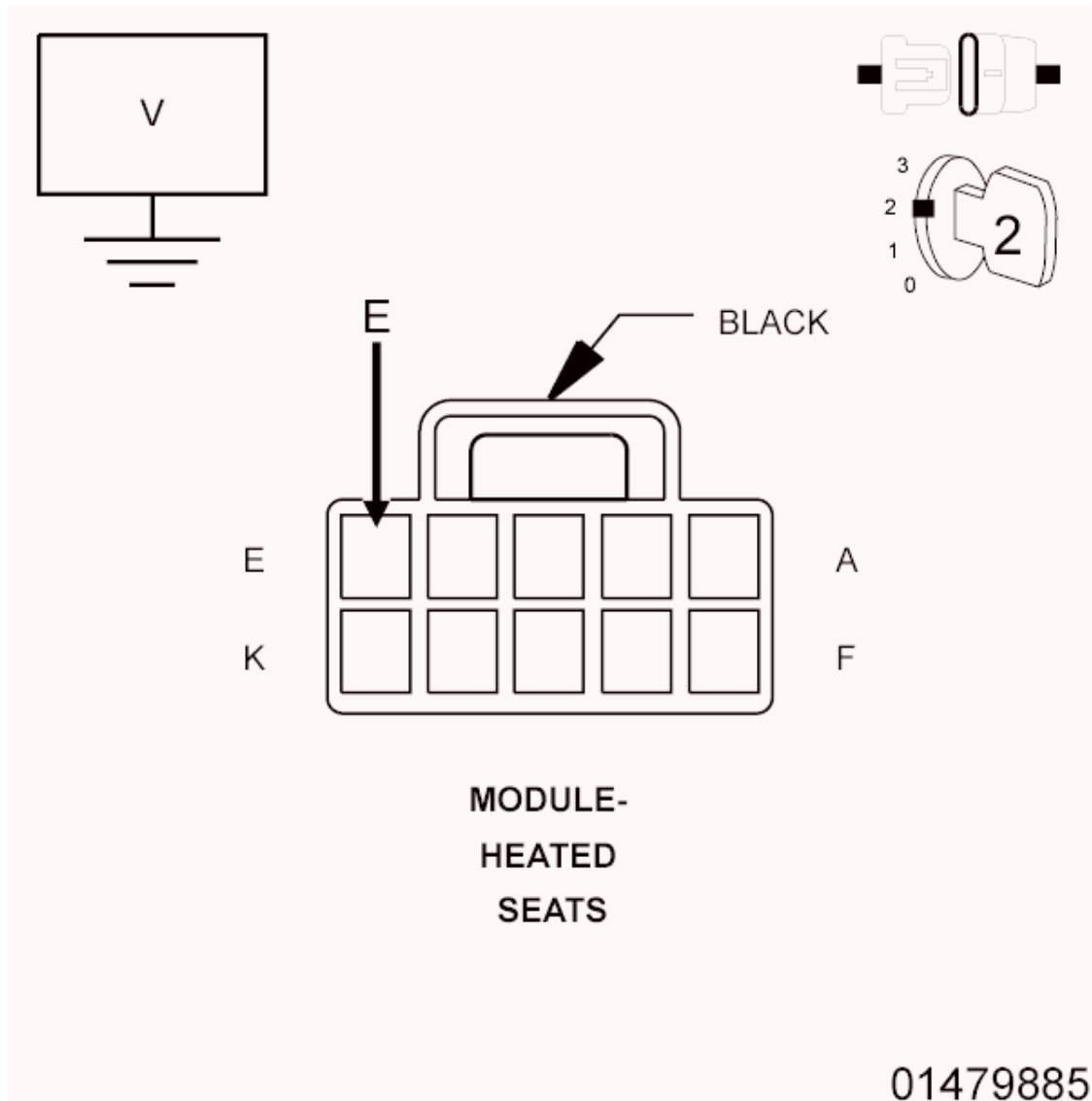
**Yes**

- Go To 3

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### 3. CHECK (F937) FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT VOLTAGE





**Fig. 48: Measuring Voltage Of Fused Ignition Switch Output (Run) Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

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

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

3. Start the engine and let idle.
4. Measure the voltage of the (F937) Fused Ignition Switch Output (Run) 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 the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Repair the (F937) Fused Ignition Switch Output (Run) circuit for the cause of the high voltage condition at the HSM.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**B225C-COMPASS MODULE INTERNAL**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

The Compass Module detects an internal failure.

**POSSIBLE CAUSES**

Possible Causes
COMPASS MODULE

**DIAGNOSTIC TEST****CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display: B225C-COMPASS MODULE INTERNAL?

**Yes**

- Replace the Compass Module in accordance with the service information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Test Complete.

**B2300-WIPER MODE SWITCH INPUT CIRCUIT PERFORMANCE**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

The Cluster detects the Wiper Mode Switch function is inoperative.

**POSSIBLE CAUSES**

**Possible Causes**

**RIGHT MULTIFUNCTION SWITCH**

**DIAGNOSTIC TEST**

**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. Actuate the Wipers with the Right Multifunction Switch.
3. Using 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 **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously with the ignition on.

## SET CONDITION

The Cluster senses that the Horn Switch is pressed for greater than 45 seconds.

## POSSIBLE CAUSES

Possible Causes
HORN SWITCH

## DIAGNOSTIC TEST

### CHECK FOR AN ACTIVE DTC

**NOTE:** Before proceeding with the diagnostic procedure, verify that the connections are proper made, properly seated and verify proper pin terminal tension. A loose connection at any of the related connectors may cause the 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

**WARNING:** Turn the ignition off disconnect the 12-volt battery and wait two minutes before proceeding. Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:** Do not place an intact non-deployed airbag face down on a hard surface, the airbag propels into the air if accidentally deployed. Failure to follow these instructions may result in possible serious or fatal injury.

**NOTE:** Visually and physically inspect the wiring harness between the Horn Switch harness connector and the

**Right Steering Wheel Switch (Speed Control Switch) harness connector. Repair any damaged wires, connectors, and open/spread terminals. If harness is OK, proceed with test.**

- Replace the Horn Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B2372-HIGH BEAM SWITCH CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

With the ignition on.

#### **SET CONDITION**

The Cluster detects the Flash to Pass function inoperative.

#### **POSSIBLE CAUSES**

Possible Causes
LEFT MULTIFUNCTION SWITCH

#### **DIAGNOSTIC TEST**

#### **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 High Beams with the Left Multifunction Switch.
3. Using 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 **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.

**B2374-WASHER SWITCH INPUT CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously with the ignition on.

**SET CONDITION**

The Cluster senses that the Washer Switch is in the Set position for greater than 50 seconds.

**POSSIBLE CAUSES**

--

### Possible Causes

INTERMITTENT WASHER SWITCH INPUT CIRCUIT  
RIGHT MULTIFUNCTION SWITCH  
CLUSTER

#### DIAGNOSTIC TEST

##### 1. DTC IS ACTIVE

**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.

**NOTE:** If U1149-LOST COMMUNICATION WITH MULTIFUNCTION SWITCH is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If U1008-LIN 1 BUS is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If P0562-BATTERY VOLTAGE LOW or P0563-BATTERY VOLTAGE HIGH is set along with this DTC, diagnose the battery voltage DTC first.

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

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this

DTC are not present at this time. Using the 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. RIGHT MULTIFUNCTION SWITCH**

1. Turn the ignition off.
2. Replace the Right Multifunction Switch in accordance with the Service Information.
3. Turn the ignition on.
4. Press and release the Washer Switch several times.
5. With the scan tool, clear stored DTCs in the Cluster.
6. With the scan tool, select Data Display and view the Washer Switch data.
7. While monitoring the Washer Switch data, press and release the Washer Switch several times.

Does the Washer Switch data change states when the switch is pressed and released?

**Yes**

- Test complete.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### **B2375-MIST SWITCH INPUT CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

Continuously with the ignition on.



## SET CONDITION

The Cluster senses that the Mist Switch is in the Set position for greater than 50 seconds.

## POSSIBLE CAUSES

Possible Causes
INTERMITTENT MIST SWITCH INPUT CIRCUIT RIGHT MULTIFUNCTION SWITCH CLUSTER

## DIAGNOSTIC TEST

### 1. DTC IS ACTIVE

**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.

**NOTE:** If U1149-LOST COMMUNICATION WITH MULTIFUNCTION SWITCH is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If U1008-LIN 1 BUS is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If P0562-BATTERY VOLTAGE LOW or P0563-BATTERY VOLTAGE HIGH is set along with this DTC, diagnose the battery voltage DTC first.

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

Does the scan tool display this DTC as active?

Yes

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. RIGHT MULTIFUNCTION SWITCH**

1. Turn the ignition off.
2. Replace the Right Multifunction Switch in accordance with the Service Information.
3. Turn the ignition on.
4. Press and release the Mist Switch several times.
5. With the scan tool, clear stored DTCs in the Cluster.
6. With the scan tool, select Data Display and view the Mist Switch data.
7. While monitoring the Mist Switch data, press and release the Mist Switch several times.

Does the Mist Switch data change states when the switch is pressed and released?

**Yes**

- Test complete.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### **B2376-REAR WIPER SWITCH INPUT CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING**

## DIAGRAMS article .

### WHEN MONITORED

Continuously with the ignition on.

### SET CONDITION

The Cluster senses that the Rear Wiper Switch is in the Set position for greater than 50 seconds.

### POSSIBLE CAUSES

Possible Causes
INTERMITTENT REAR WIPER SWITCH INPUT CIRCUIT RIGHT MULTIFUNCTION SWITCH CLUSTER

### DIAGNOSTIC TEST

#### 1. DTC IS ACTIVE

**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.

**NOTE:** If U1149-LOST COMMUNICATION WITH MULTIFUNCTION SWITCH is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If U1008-LIN 1 BUS is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If P0562-BATTERY VOLTAGE LOW or P0563-BATTERY VOLTAGE HIGH is set along with this DTC, diagnose the battery voltage DTC first.

1. Turn the ignition on.

2. With the scan tool, read DTCs.

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. RIGHT MULTIFUNCTION SWITCH**

1. Turn the ignition off.
2. Replace the Right Multifunction Switch in accordance with the Service Information.
3. Turn the ignition on.
4. Press and release the Rear Wiper Switch several times.
5. With the scan tool, clear stored DTCs in the Cluster.
6. With the scan tool, select Data Display and view the Rear Wiper Switch data.
7. While monitoring the Rear Wiper Switch data, press and release the Rear Wiper Switch several times.

Does the Rear Wiper Switch data change states when the switch is pressed and released?

**Yes**

- Test complete.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B2377-REAR WASHER SWITCH INPUT CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

Continuously with the ignition on.

#### **SET CONDITION**

The Cluster senses that the Rear Washer Switch is in the Set position for greater than 50 seconds.

#### **POSSIBLE CAUSES**

Possible Causes
INTERMITTENT REAR WASHER SWITCH INPUT CIRCUIT RIGHT MULTIFUNCTION SWITCH CLUSTER

#### **DIAGNOSTIC TEST**

##### **1. DTC IS ACTIVE**

**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.

**NOTE:** If U1149-LOST COMMUNICATION WITH MULTIFUNCTION SWITCH is set along with this DTC, diagnose the communication DTC first.

**NOTE:** If U1008-LIN 1 BUS is set along with this DTC,

**diagnose the communication DTC first.**

**NOTE: If P0562-BATTERY VOLTAGE LOW or P0563-BATTERY VOLTAGE HIGH is set along with this DTC, diagnose the battery voltage DTC first.**

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

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. RIGHT MULTIFUNCTION SWITCH**

1. Turn the ignition off.
2. Replace the Right Multifunction Switch in accordance with the Service Information.
3. Turn the ignition on.
4. Press and release the Rear Washer Switch several times.
5. With the scan tool, clear stored DTCs in the Cluster.
6. With the scan tool, select Data Display and view the Rear Washer Switch data.
7. While monitoring the Rear Washer Switch data, press and release the Rear Washer Switch several times.

Does the Rear Washer Switch data change states when the switch is pressed and released?

**Yes**

- Test complete.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **B2378-FLASH TO PASS SWITCH CIRCUIT**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

With the ignition on.

#### **SET CONDITION**

The Cluster detects the Flash to Pass function inoperative.

#### **POSSIBLE CAUSES**

Possible Causes
LEFT MULTIFUNCTION SWITCH

#### **DIAGNOSTIC TEST**

#### **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. Actuate the Optical Horn with the Multifunction Switch.
3. Using 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 **STANDARD PROCEDURE** .

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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 a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

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

#### WHEN MONITORED

With the ignition on.

#### SET CONDITION

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

#### POSSIBLE CAUSES

Possible Causes
SWITCH BANK

#### DIAGNOSTIC TEST

#### CHECK FOR AN ACTIVE DTC



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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?

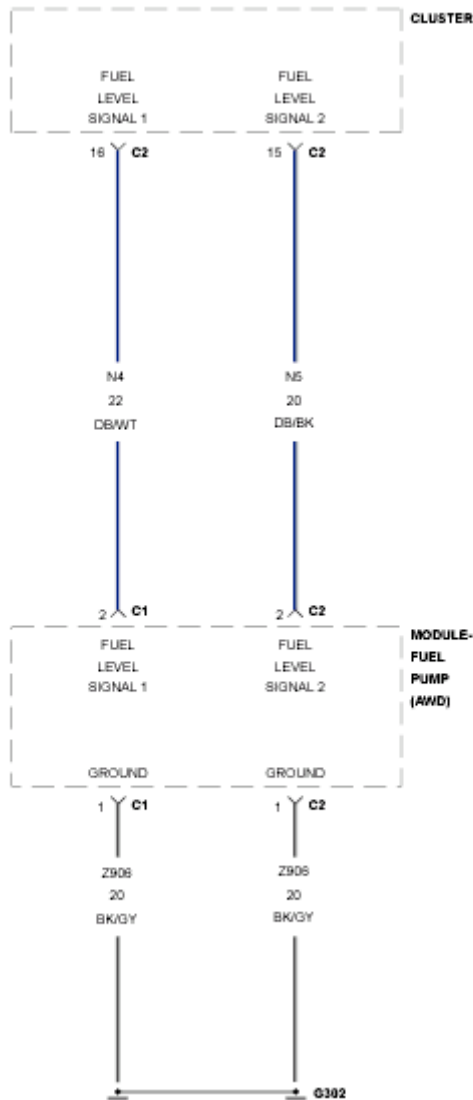
**Yes**

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Test complete.

**P0462-FUEL LEVEL SENSOR 1 CIRCUIT LOW**



**Fig. 49: Fuel Level Signal Circuit Diagram**  
**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### WHEN MONITORED

With the ignition on.

#### SET CONDITION

The Cluster detects that the Fuel Level Sensor input voltage is below the minimum acceptable value.

#### POSSIBLE CAUSES

**Possible Causes**

(N4) FUEL LEVEL SIGNAL 1 CIRCUIT SHORTED TO GROUND  
FUEL PUMP MODULE  
CLUSTER

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. FUEL PUMP MODULE**

1. Turn the ignition off.
2. Disconnect the Fuel Pump Module C1 harness connector.
3. Turn the ignition on.
4. Wait 30 seconds.
5. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

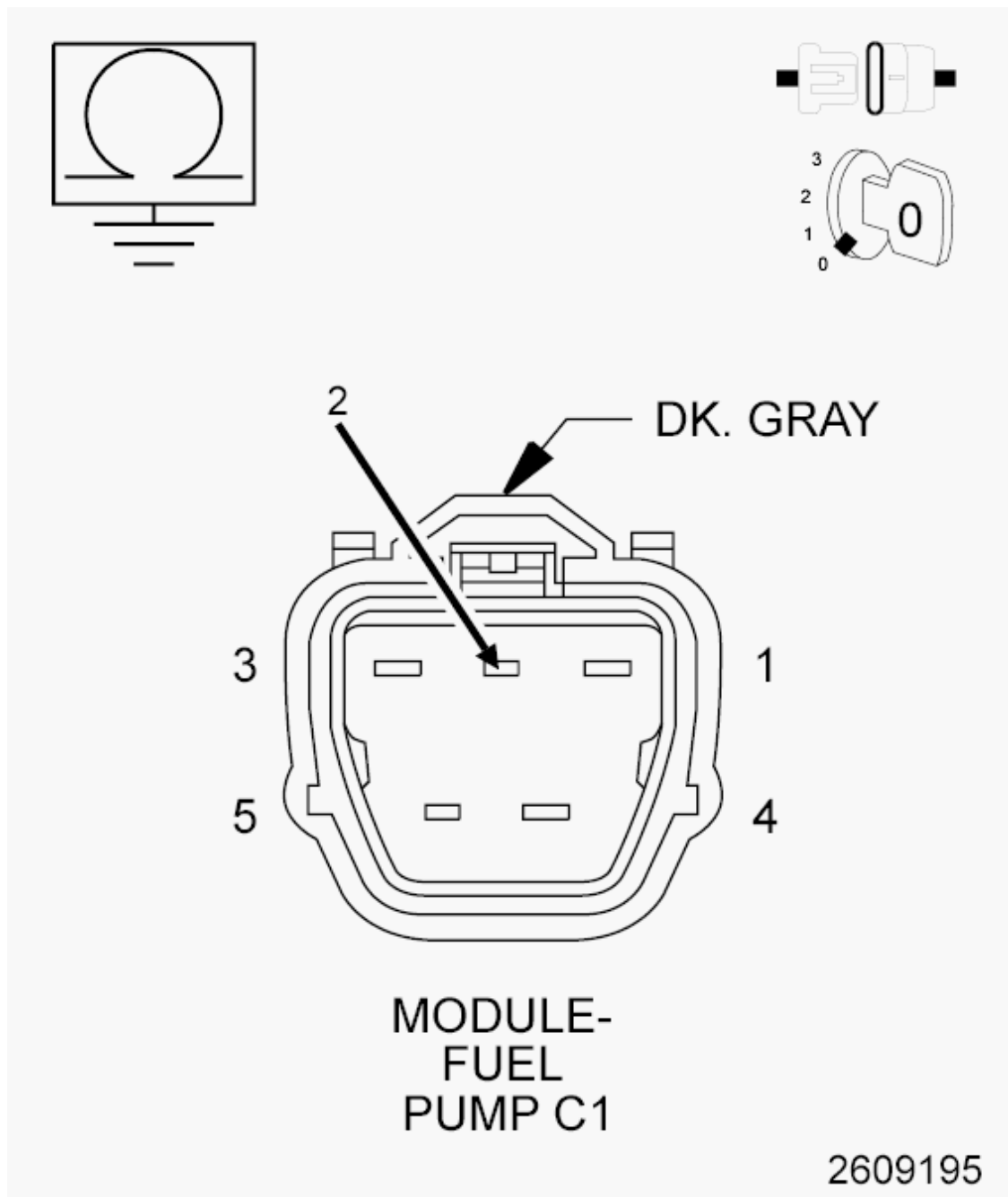
**Yes**

- Go To 3

**No**

- Replace the Fuel Pump Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

### 3. (N4) FUEL LEVEL SIGNAL 1 CIRCUIT SHORTED TO GROUND



**Fig. 50: Measuring Resistance Between Ground & Fuel Level Signal 1 Circuit**

Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance between ground and the (N4) Fuel Level Signal 1 circuit in the Fuel Pump Module C1 harness connector.

Is the resistance below 10K Ohms?

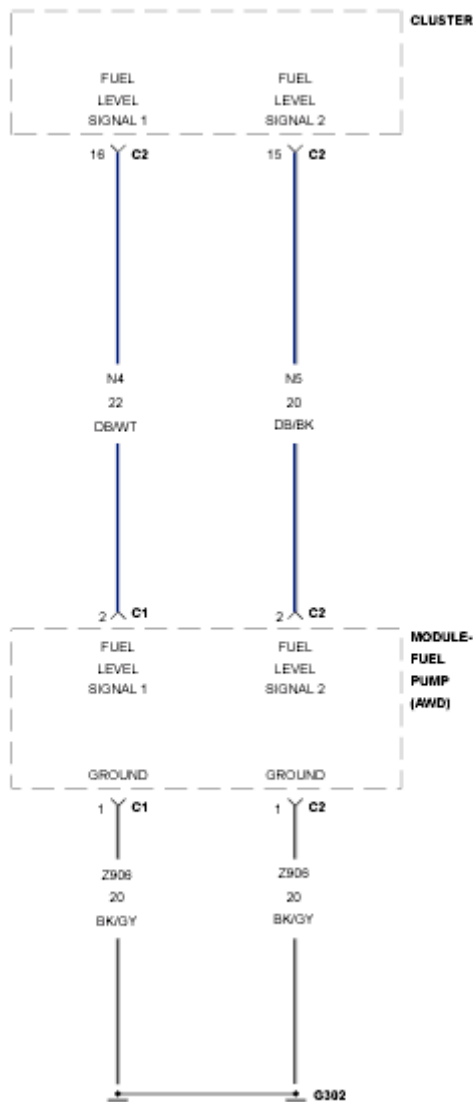
**Yes**

- Repair the short to ground in the (N4) Fuel Level Signal 1 circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**P0463-FUEL LEVEL SENSOR 1 CIRCUIT HIGH**



**Fig. 51: Fuel Level Signal Circuit Diagram**  
**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### WHEN MONITORED

With the ignition on.

#### SET CONDITION

The Cluster detects that the Fuel Level Sensor input voltage is above the maximum acceptable value.

#### POSSIBLE CAUSES

**Possible Causes**

(N4) FUEL LEVEL SIGNAL 1 CIRCUIT SHORTED TO VOLTAGE  
(N4) FUEL LEVEL SIGNAL 1 CIRCUIT OPEN OR HIGH RESISTANCE  
(Z906) GROUND CIRCUIT OPEN OR HIGH RESISTANCE  
FUEL PUMP MODULE  
CLUSTER

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

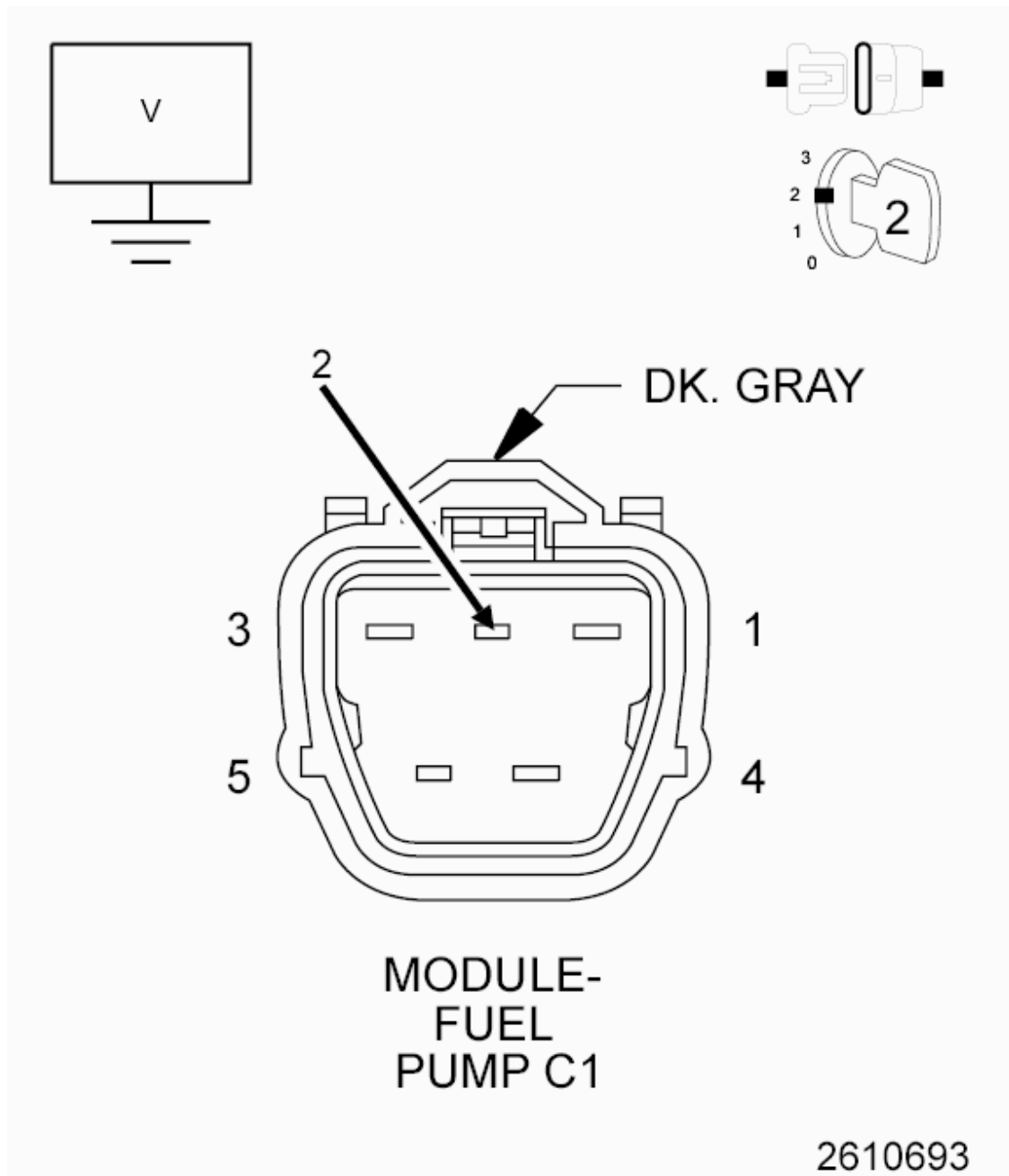
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. (N4) FUEL LEVEL SIGNAL 1 CIRCUIT SHORTED TO VOLTAGE**



**Fig. 52: Measuring Voltage Of Fuel Level Signal 1 Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Fuel Pump Module C1 harness connector.
3. Disconnect the Cluster C2 harness connector.
4. Turn the ignition on.
5. Measure the voltage of the (N4) Fuel Level Signal 1 circuit in the Fuel Pump Module harness connector.



Is there any voltage present?

**Yes**

- Repair the (N4) Fuel Level Signal 1 circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 3

### **3. FUEL PUMP MODULE**

1. Turn the ignition off.
2. Reconnect the Cluster C2 harness connector.
3. Connect a jumper wire between the (N4) Fuel Level Signal 1 circuit and the (Z906) Ground in the Fuel Pump Module C1 harness connector.
4. Turn the ignition on.
5. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

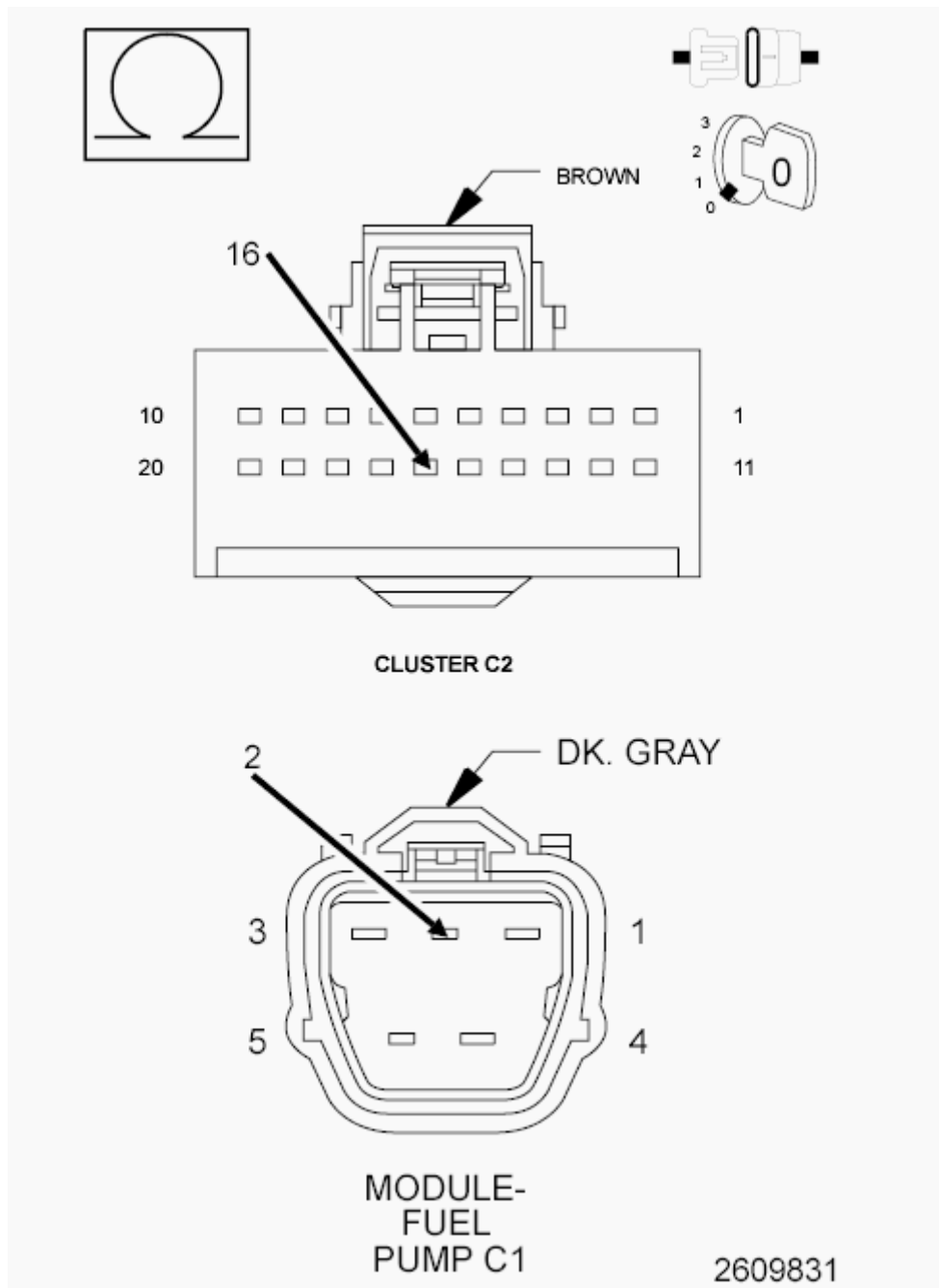
**Yes**

- Go To 4

**No**

- Replace the Fuel Pump Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### **4. (N4) FUEL LEVEL SIGNAL 1 OPEN OR HIGH RESISTANCE**



**Fig. 53: Measuring Resistance Of Fuel Level Signal 1 Circuit Between Fuel Pump Module C1 Harness Connector & Cluster Harness Connector**

**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance of the (N4) Fuel Level Signal 1 circuit between the Fuel Pump Module C1 harness connector and the Cluster harness connector.

Is the resistance above 5.0 Ohms?

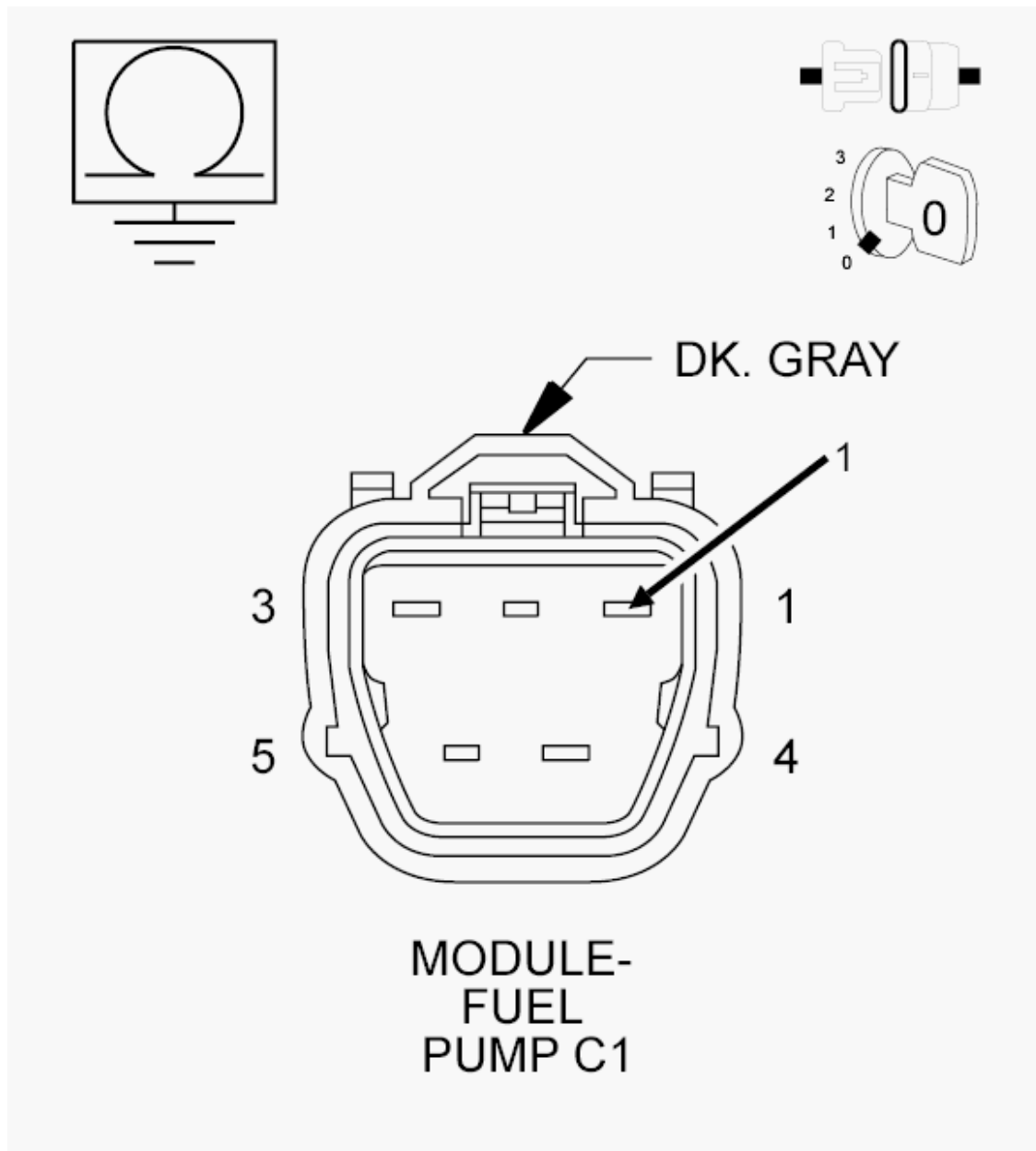
**Yes**

- Repair the (N4) Fuel Level Signal 1 circuit for an open circuit or high resistance.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 5

**5. (Z906) GROUND CIRCUIT OPEN OR HIGH RESISTANCE**



**Fig. 54: Measuring Resistance Between Ground & Ground Circuit In Fuel Pump Module C1 Harness Connector**  
Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance between ground and the (Z906) Ground circuit in the Fuel Pump Module C1 harness connector.

Is the resistance above 5.0 Ohms?

**Yes**

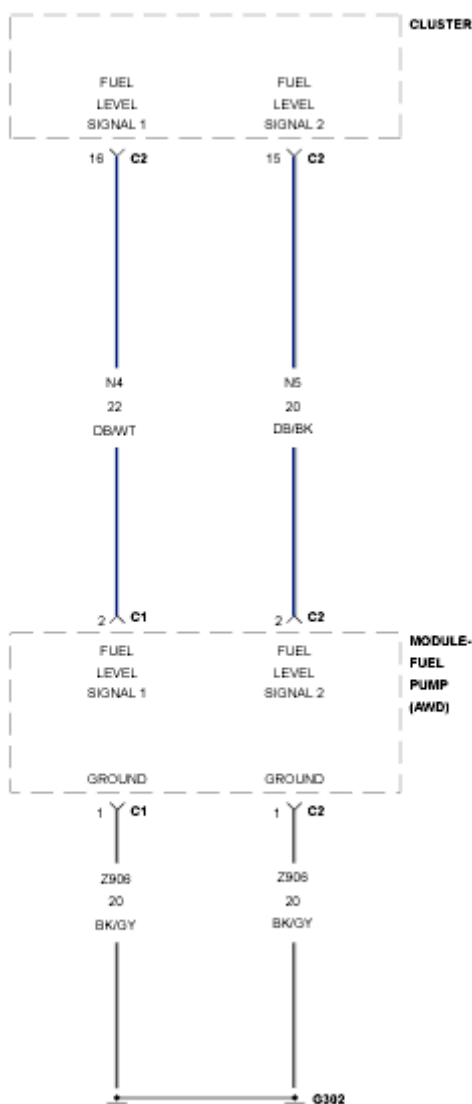
- Repair the (Z906) Ground circuit for an open circuit or high resistance.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

No

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### P2067-FUEL LEVEL SENSOR 2 CIRCUIT LOW



**Fig. 55: Fuel Level Signal Circuit Diagram**  
 Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

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### WHEN MONITORED

With the ignition on.

### SET CONDITION

The Cluster detects that the Fuel Level Sensor input voltage is below the minimum acceptable value.

### POSSIBLE CAUSES

#### Possible Causes

(N5) FUEL LEVEL SIGNAL 2 CIRCUIT SHORTED TO GROUND  
FUEL PUMP MODULE  
CLUSTER

### DIAGNOSTIC TEST

#### 1. CHECK FOR AN ACTIVE DTC

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

Does the scan tool display this DTC as active?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. FUEL PUMP MODULE

1. Turn the ignition off.
2. Disconnect the Fuel Pump Module C2 harness connector.
3. Turn the ignition on.
4. Wait 30 seconds.

5. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

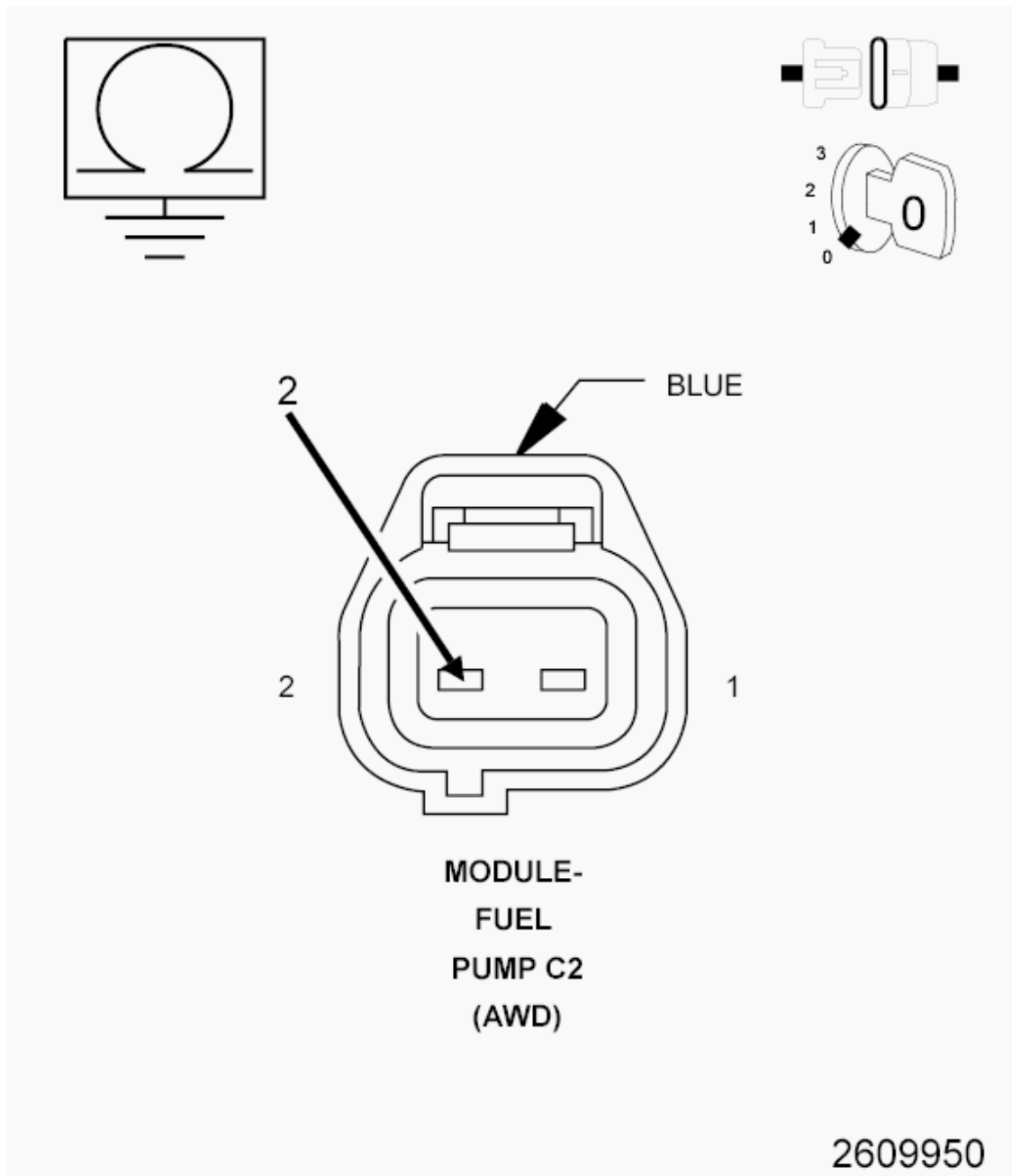
**Yes**

- Go To 3

**No**

- Replace the Fuel Pump Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**3. (N5) FUEL LEVEL SIGNAL 2 CIRCUIT SHORTED TO GROUND**



**Fig. 56: Measuring Resistance Between Ground & Fuel Level Signal 2 Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance between ground and the (N5) Fuel Level Signal 2 circuit in the Fuel Pump Module C2 harness connector.

Is the resistance below 10K Ohms?



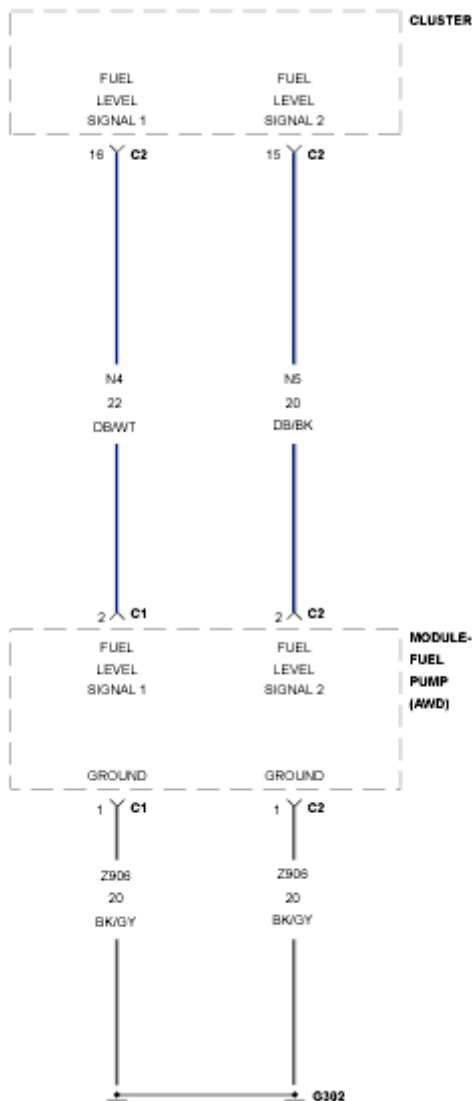
**Yes**

- Repair the short to ground in the (N5) Fuel Level Signal 2 circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### P2068-FUEL LEVEL SENSOR 2 CIRCUIT HIGH



**Fig. 57: Fuel Level Signal Circuit Diagram**  
**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

The Cluster detects that the Fuel Level Sensor input voltage is above the maximum acceptable value.

**POSSIBLE CAUSES****Possible Causes**

(N5) FUEL LEVEL SIGNAL 2 CIRCUIT SHORTED TO VOLTAGE  
(N5) FUEL LEVEL SIGNAL 2 CIRCUIT OPEN OR HIGH RESISTANCE  
(Z906) GROUND CIRCUIT OPEN OR HIGH RESISTANCE  
FUEL PUMP MODULE  
CLUSTER

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

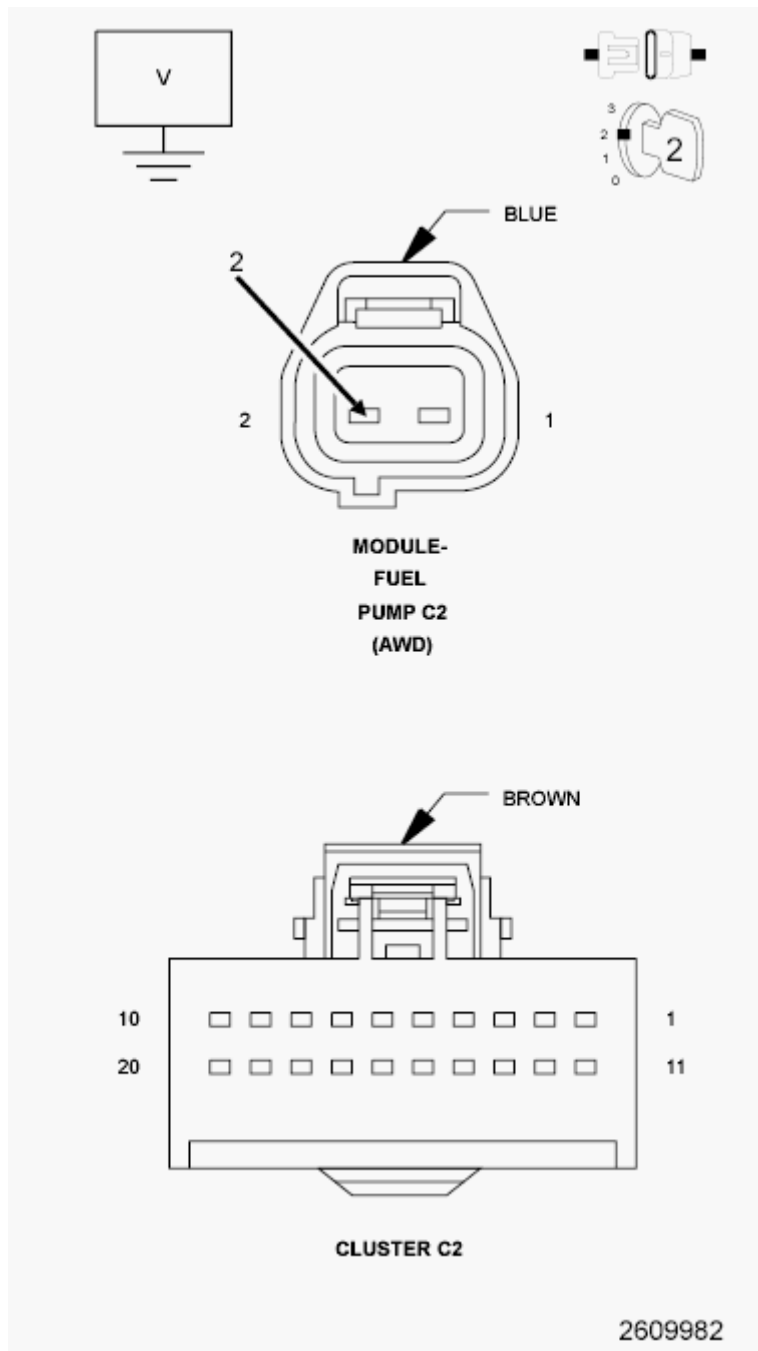
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. (N5) FUEL LEVEL SIGNAL 2 CIRCUIT SHORTED TO VOLTAGE**



**Fig. 58: Measuring Voltage Of Fuel Level Signal 2 Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Fuel Pump Module C2 harness connector.
3. Disconnect the Cluster C2 harness connector.
4. Turn the ignition on.
5. Measure the voltage of the (N5) Fuel Level Signal 2 circuit in the Fuel Pump Module C2 harness connector.

Is there any voltage present?

**Yes**

- Repair the (N5) Fuel Level Signal 2 circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 3

### **3. FUEL PUMP MODULE**

1. Turn the ignition off.
2. Reconnect the Cluster C2 harness connector.
3. Connect a jumper wire between the (N5) Fuel Level Signal 2 circuit and the (Z906) Ground in the Fuel Pump Module C2 harness connector.
4. Turn the ignition on.
5. With the scan tool, read DTCs

Does the scan tool display this DTC as active?

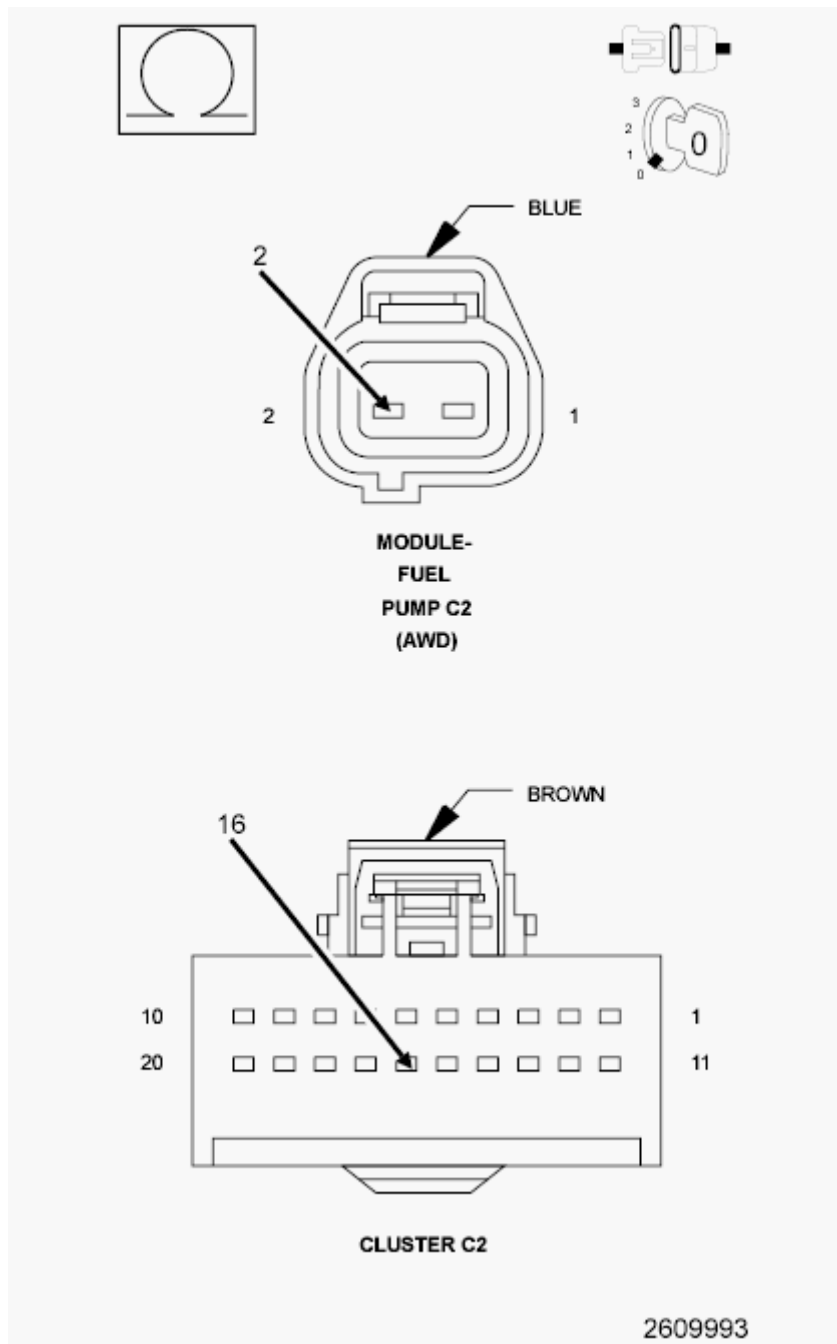
**Yes**

- Go To 4

**No**

- Replace the Fuel Pump Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### **4. (N5) FUEL LEVEL SIGNAL 2 OPEN OR HIGH RESISTANCE**



**Fig. 59: Measuring Resistance Of Fuel Level Signal 2 Circuit**  
Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Cluster C2 harness connector.
3. Measure the resistance of the (N5) Fuel Level Signal 2 circuit between the Fuel Pump Module C2 harness connector and the Cluster harness connector.

Is the resistance above 5.0 Ohms?

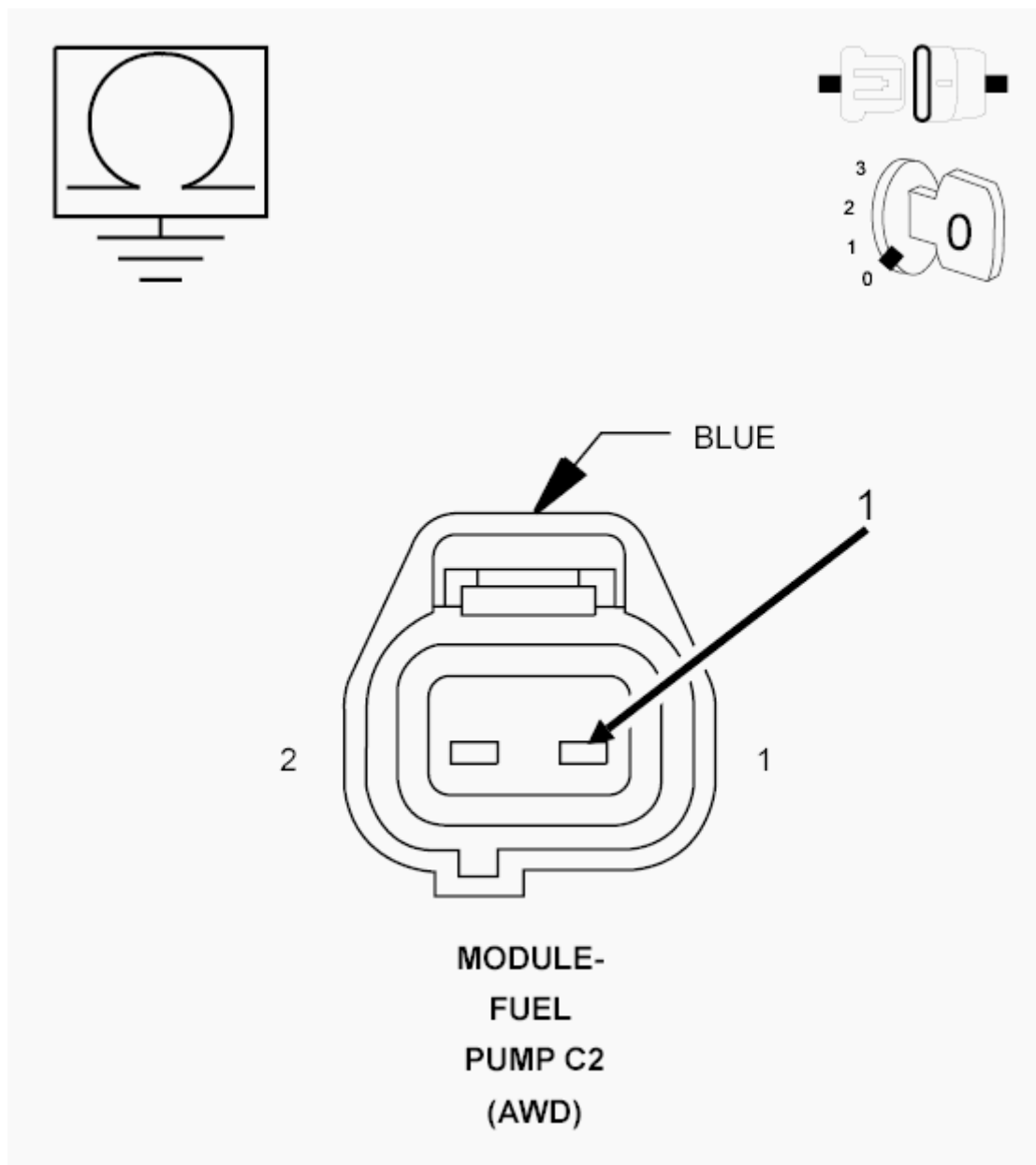
**Yes**

- Repair the (N5) Fuel Level Signal 2 circuit for an open circuit or high resistance.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 5

**5. (Z906) GROUND CIRCUIT OPEN OR HIGH RESISTANCE**



**Fig. 60: Measuring Resistance Between Ground & Ground Circuit In Fuel Pump Module C2 Harness Connector**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the resistance between ground and the (Z906) Ground circuit in the Fuel Pump Module C2 harness connector.

Is the resistance above 5.0 Ohms?

**Yes**

- Repair the (Z906) Ground circuit for an open circuit or high resistance.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**U0141-LOST COMMUNICATION WITH IPM (FCM/TIPM)**

For a complete wiring diagram, **refer to appropriate SYSTEM WIRING DIAGRAMS article** .

**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.

POSSIBLE CAUSES

**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

**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 **DIAGNOSIS AND TESTING** and perform the U0141-LOST COMMUNICATION WITH IPM (FCM/TIPM) diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

**U0151-LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER (ORC)**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.



Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

**SET CONDITION**

Bus messages not received from the Occupant Restraint Controller (ORC) for approximately two to five seconds.

**POSSIBLE CAUSES****Possible Causes**

CAN BUS CIRCUITS OPEN OR SHORTED

DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES

OCCUPANT RESTRAINT CONTROLLERS POWER AND GROUND

TIPM NOT CONFIGURED CORRECTLY

OCCUPANT RESTRAINT CONTROLLER

MODULE THAT SET THIS DTC

**DIAGNOSTIC TEST****VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE**

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

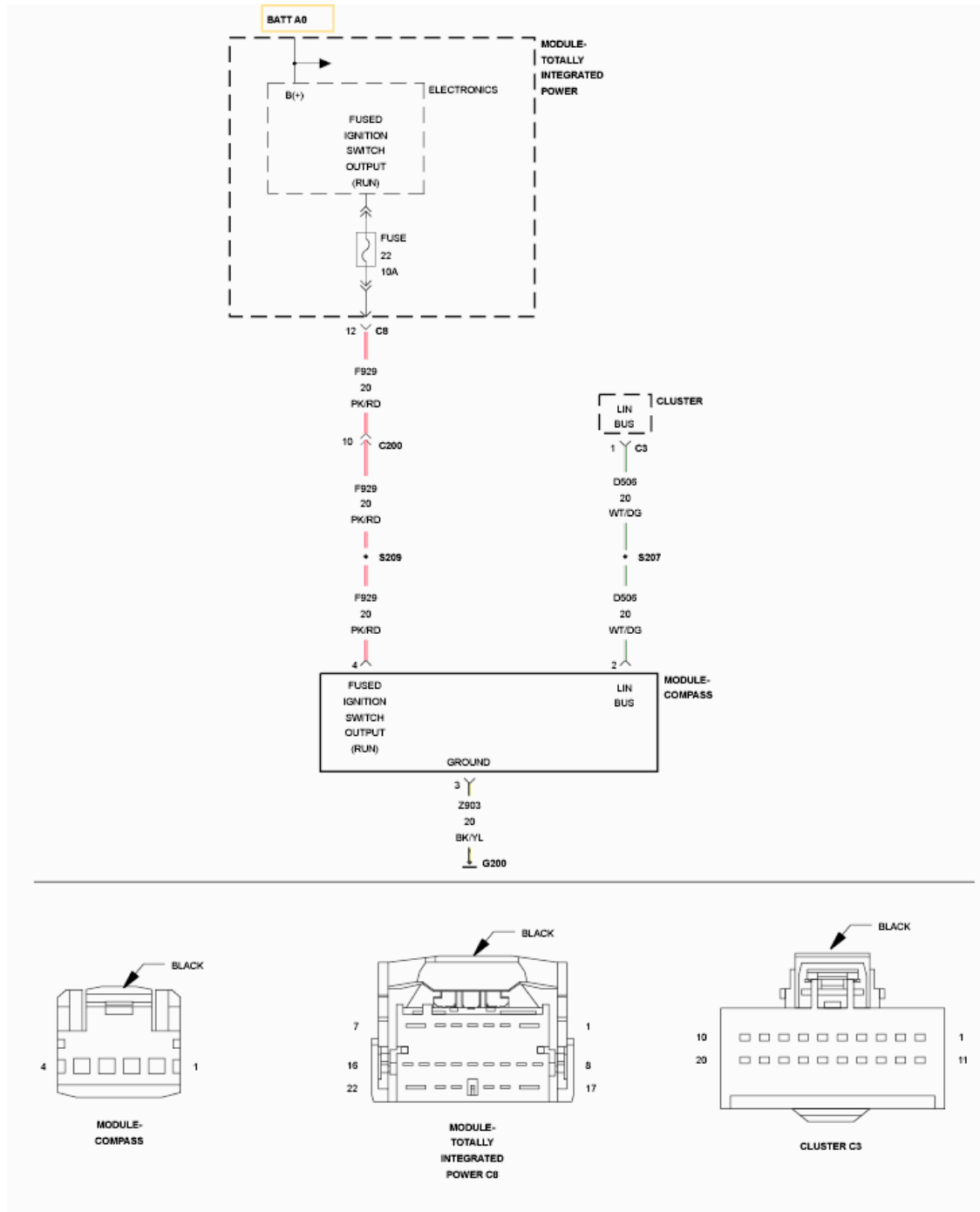
- Refer to **DIAGNOSIS AND TESTING** and perform the U0151-LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER (ORC) diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED

## LOST COMMUNICATION DTCs diagnostic procedure.

### U0161-LOST COMMUNICATION WITH COMPASS MODULE



**Fig. 61: Compass Module Circuit Diagram**  
 Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

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### WHEN MONITORED

With the ignition on.

### SET CONDITION

The Cluster does not receive information from the Compass Module.

### POSSIBLE CAUSES

#### Possible Causes

(D506) LIN BUS CIRCUIT OPEN  
(F929) FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT OPEN  
(Z903) GROUND CIRCUIT OPEN  
COMPASS MODULE  
CLUSTER

### DIAGNOSTIC TEST

#### 1. CHECK FOR AN ACTIVE DTC

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

Does the scan tool display: U0161-LOST COMMUNICATION WITH COMPASS MODULE?

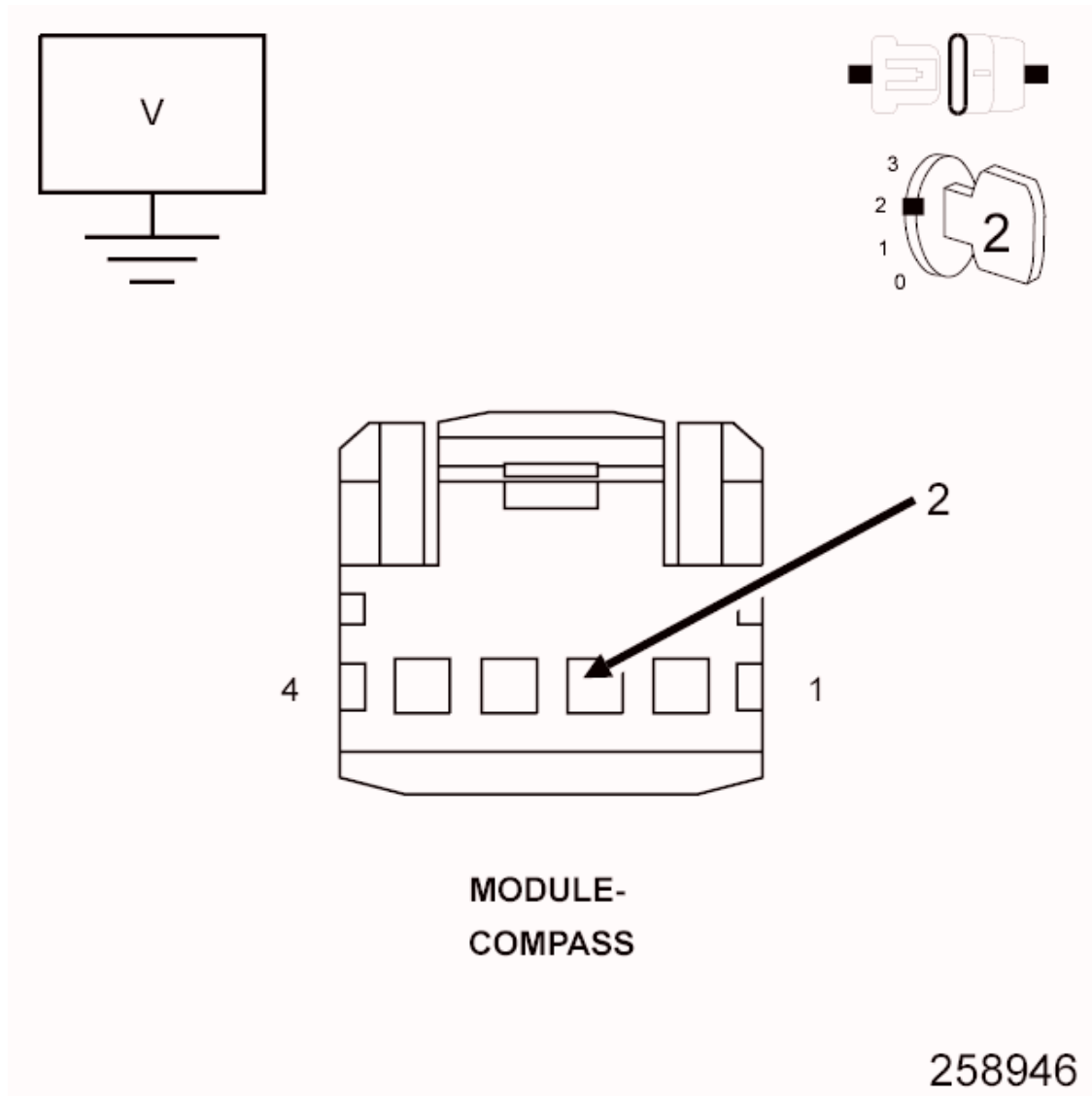
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. 62: Checking LIN Bus Circuit Open**  
 Courtesy of CHRYSLER GROUP, 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 5.0 volts?

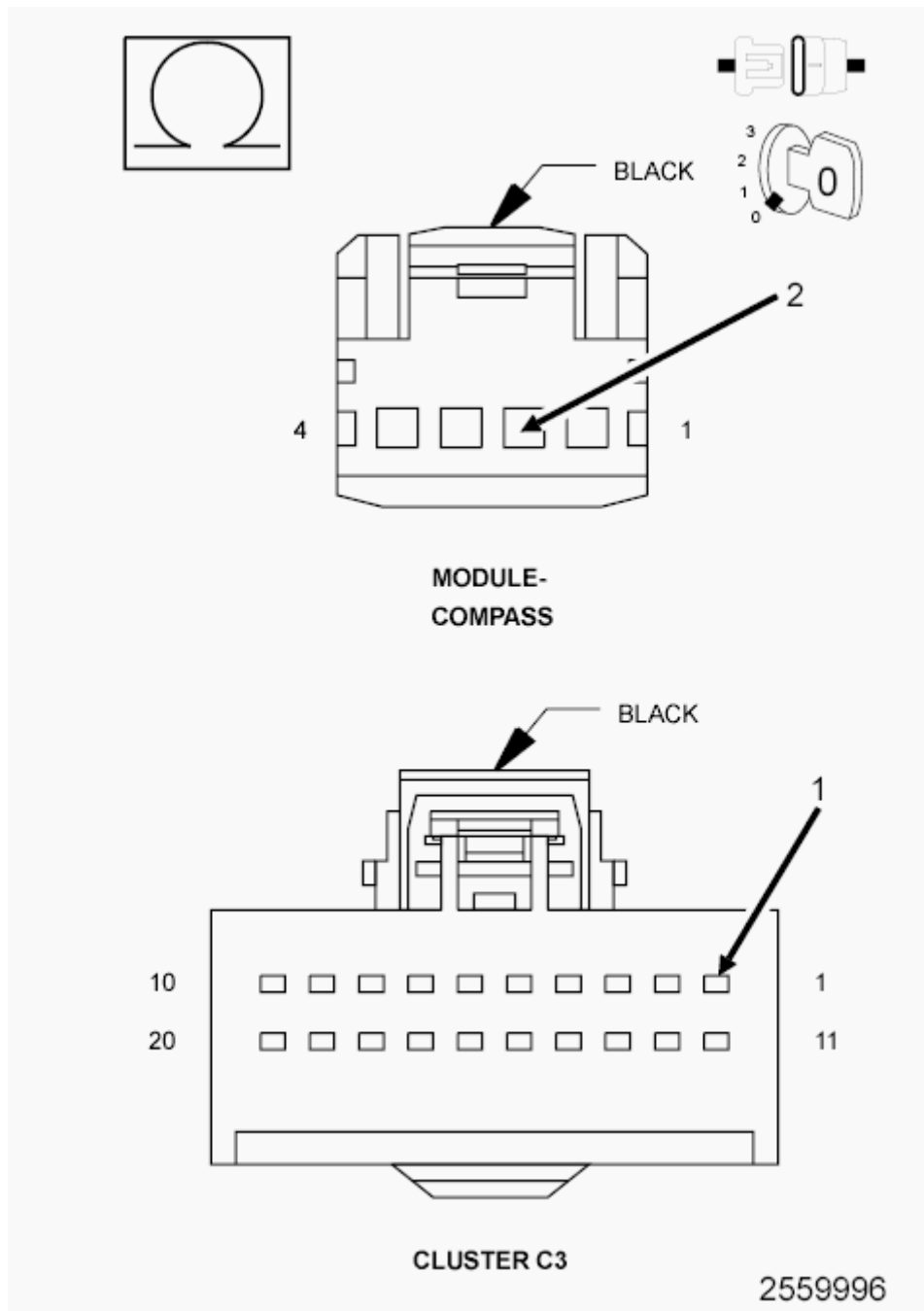
**Yes**

- Go To 4

**No**

- Go To 3

### 3. (D506) LIN BUS CIRCUIT OPEN



**Fig. 63: Measuring Resistance Of LIN Bus Circuit**  
 Courtesy of CHRYSLER GROUP, LLC

1. Turn the ignition off.
2. Disconnect the Cluster C3 harness connector.
3. Measure the resistance of the (D506) LIN BUS circuit.

Is the resistance below 5.0 Ohms?

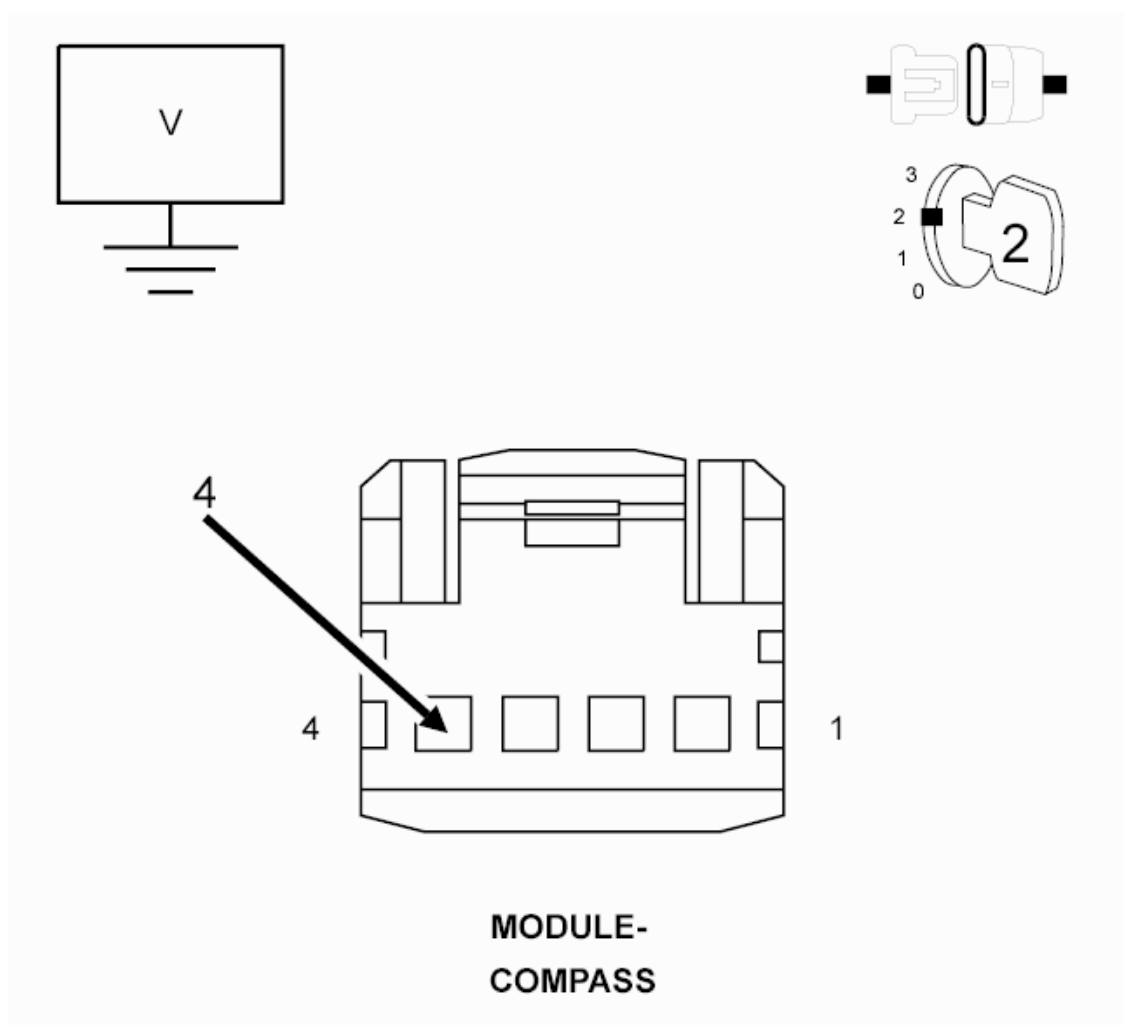
**Yes**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Repair the open in the (D506) LIN BUS circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### 4. (F929) FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT OPEN



**Fig. 64: Measuring Voltage Of Fused Ignition Switch Output (RUN)**

**Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the voltage of the (F929) Fused Ignition Switch Output (RUN) circuit.

Is the voltage above 10.0 volts?

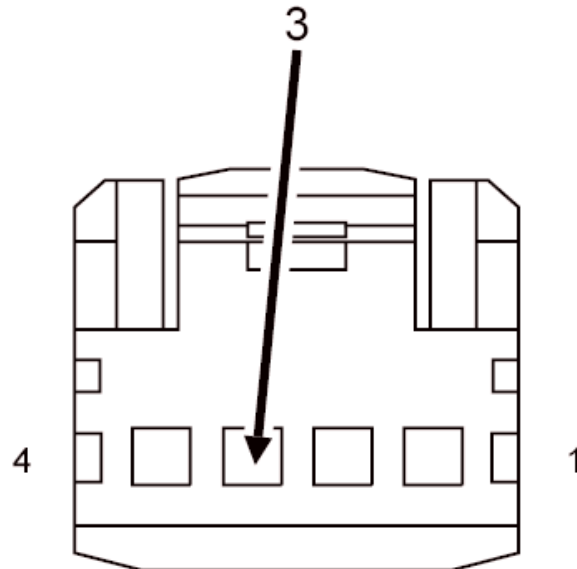
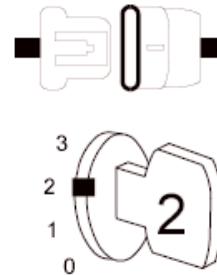
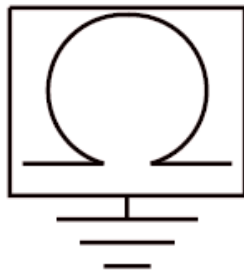
**Yes**

- Go To 5

**No**

- Repair the open in the (F929) Fused Ignition Switch Output (RUN) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**5. (Z903) GROUND CIRCUIT OPEN**



MODULE-  
COMPASS

258950

**Fig. 65: Measuring Resistance Between Ground & Ground Circuit**  
Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance between ground and the (Z903) Ground circuit.

Is the resistance below 10K Ohms?

**Yes**

- Replace the Compass Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**



- Repair the open in the (Z903) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**U0164-LOST COMMUNICATION WITH HVAC CONTROL MODULE**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**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 A/C Heater Control for approximately two to five seconds.

**POSSIBLE CAUSES****Possible Causes**

CAN BUS CIRCUITS OPEN OR SHORTED  
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN  
MESSAGES  
A/C HEATER CONTROLS POWER AND GROUND  
TIPM NOT CONFIGURED CORRECTLY  
A/C HEATER CONTROL  
MODULE THAT SET THIS DTC

**DIAGNOSTIC TEST****VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE**

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0164-LOST COMMUNICATION WITH HVAC CONTROL MODULE diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

#### **U0167-LOST COMMUNICATION WITH INTRUSION TRANSCEIVER CONTROL MODULE**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

#### **SET CONDITION**

Bus messages not received from the Intrusion Transceiver Control Module for approximately two to five seconds.

#### **POSSIBLE CAUSES**

Possible Causes
CAN BUS CIRCUITS OPEN OR SHORTED DTCs RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES

## INTRUSION TRANSCIEVER CONTROL MODULE POWER AND GROUND

TIPM NOT CONFIGURED CORRECTLY

INTRUSION TRANSCIEVER CONTROL MODULE  
MODULE THAT SET THIS DTC

### DIAGNOSTIC TEST

### VERIFY DTC IS ACTIVE

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0167-LOST COMMUNICATION WITH INTRUSION TRANSCIEVER CONTROL MODULE diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

### U0168-LOST COMMUNICATION WITH VEHICLE SECURITY CONTROL MODULE (SKREEM/WCM)

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

### WHEN MONITORED

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

**SET CONDITION**

Bus messages not received from the Wireless Control Module (WCM) for approximately two to five seconds.

**POSSIBLE CAUSES****Possible Causes**

CAN BUS CIRCUITS OPEN OR SHORTED  
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES  
SENTRY KEY REMOTE ENTRY MODULE POWER AND GROUND  
TIPM NOT CONFIGURED CORRECTLY  
SENTRY KEY REMOTE ENTRY MODULE  
MODULE THAT SET THIS DTC

**DIAGNOSTIC TEST****VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE**

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0168-LOST COMMUNICATION WITH VEHICLE SECURITY CONTROL MODULE (SKREEM/WCM) diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

**U0184-LOST COMMUNICATION WITH RADIO**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously when the ignition is on.

Battery voltage between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

**SET CONDITION**

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

**POSSIBLE CAUSES****Possible Causes**

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

**DIAGNOSTIC TEST****VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE**

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0184-LOST COMMUNICATION WITH RADIO diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

**U0195-LOST COMMUNICATION WITH SDARS**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

Continuously when the ignition is on.

The battery voltage is between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

**SET CONDITION**

Bus messages not received from the Satellite Receiver (SDAR) for approximately two to five seconds.

**POSSIBLE CAUSES**

Possible Causes
CAN BUS CIRCUITS OPEN OR SHORTED
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
SATELLITE RECEIVER POWER AND GROUND
TIPM NOT CONFIGURED CORRECTLY
SATELLITE RECEIVER
MODULE THAT SET THIS DTC

**DIAGNOSTIC TEST**

## VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE

**NOTE:** Make sure the IOD fuse is installed and the battery is fully charged before proceeding.

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0195-LOST COMMUNICATION WITH SDARS diagnostic procedure.

**No**

- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

### U0197-LOST COMMUNICATION WITH HANDS FREE PHONE MODULE

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### WHEN MONITORED

Continuously when the ignition is on.

The battery voltage is between 10 and 16 volts.

Ignition Off Draw (IOD) fused installed.

Totally Integrated Power Module (TIPM) is configured correctly.

#### SET CONDITION

Bus messages not received from the Hands Free Module (HFM) for approximately two to five seconds.

#### POSSIBLE CAUSES

<b>Possible Causes</b>
------------------------

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

**DIAGNOSTIC TEST**

**VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE**

**NOTE:**     **Make sure the IOD fuse is installed and the battery is fully charged before proceeding.**

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

Is this DTC active?

**Yes**

- Refer to **DIAGNOSIS AND TESTING** and perform the U0197-LOST COMMUNICATION WITH HANDS FREE PHONE MODULE diagnostic procedure.

**No**

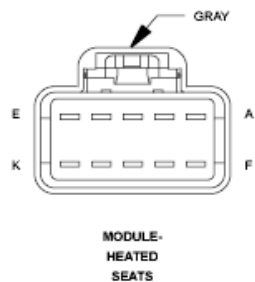
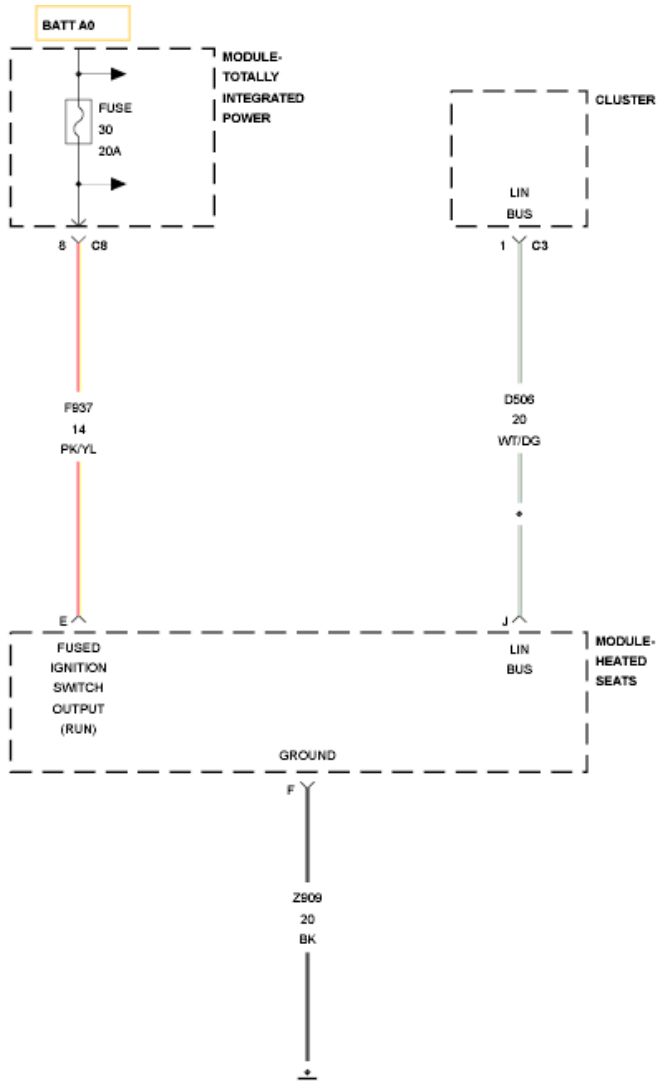
- Refer to **DIAGNOSIS AND TESTING** and perform the STORED LOST COMMUNICATION DTCs diagnostic procedure.

**U0208-LOST COMMUNICATION WITH HEATED SEAT CONTROL MODULE**



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**Fig. 66: Heated Seat Control Module Circuit Diagram**  
Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

**WHEN MONITORED**

With the ignition on.

**SET CONDITION**

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

**POSSIBLE CAUSES****Possible Causes**

(F937) FUSED IGNITION SWITCH OUTPUT (RUN) CIRCUIT OPEN  
OR SHORTED TO GROUND  
(D506) LIN BUS CIRCUIT OPEN  
(Z909) GROUND CIRCUIT OPEN  
HEATED SEATS MODULE

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display this DTC as active?

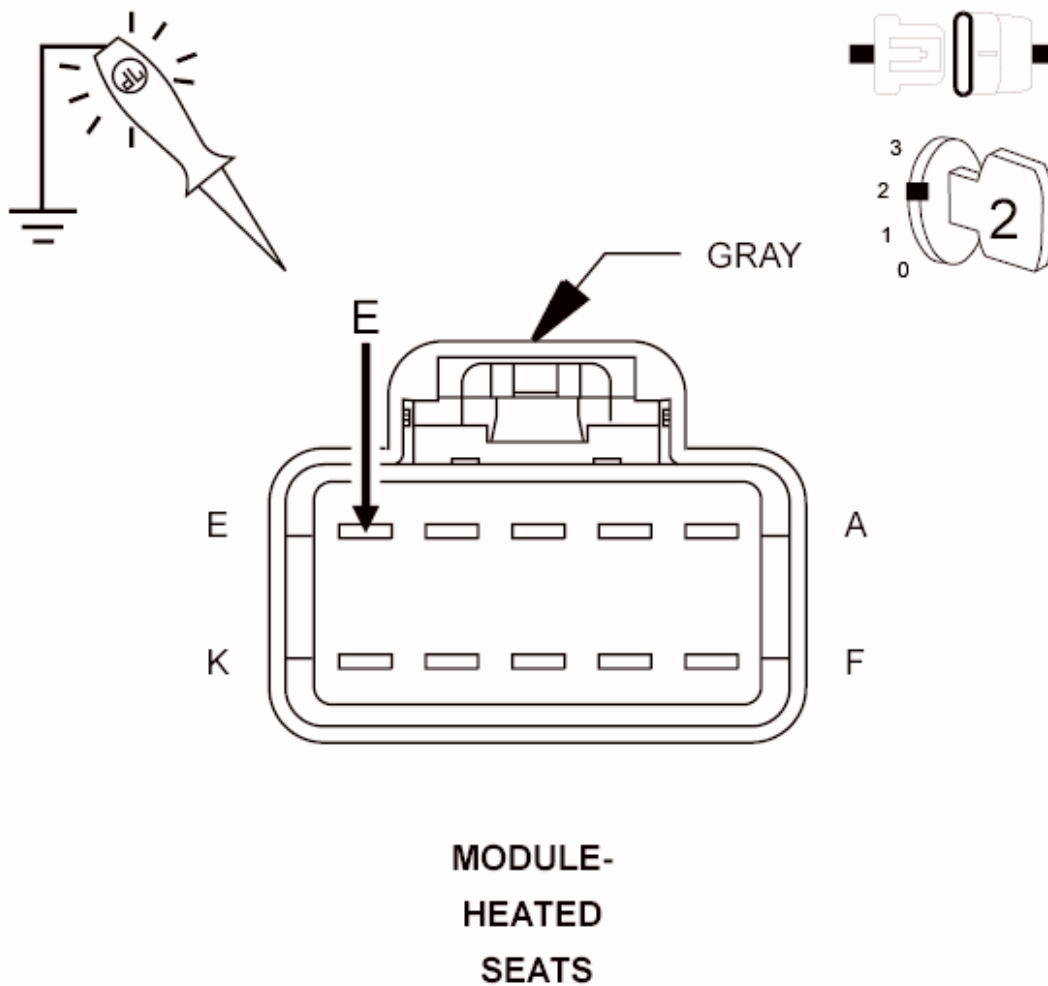
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**2. CHECK POWER TO HEATED SEATS MODULE**



235903

**Fig. 67: Checking Fused Ignition Switch Output (Run) Circuit At Heated Seat Module Harness Connector**  
 Courtesy of CHRYSLER GROUP, LLC

**NOTE: Check the related TIPM fuse. Repair if necessary.**

1. Turn the ignition off.
2. Disconnect the Heated Seats Module harness connector.
3. Turn the ignition on.
4. Using a 12-volt test light connected to ground, check the (F937) Fused Ignition Switch Output (Run) circuit at the Heated Seat Module harness connector.

**NOTE: The test light must illuminate brightly. Compare**

**the brightness to that of a direct connection to the battery.**

Does the test light illuminate brightly?

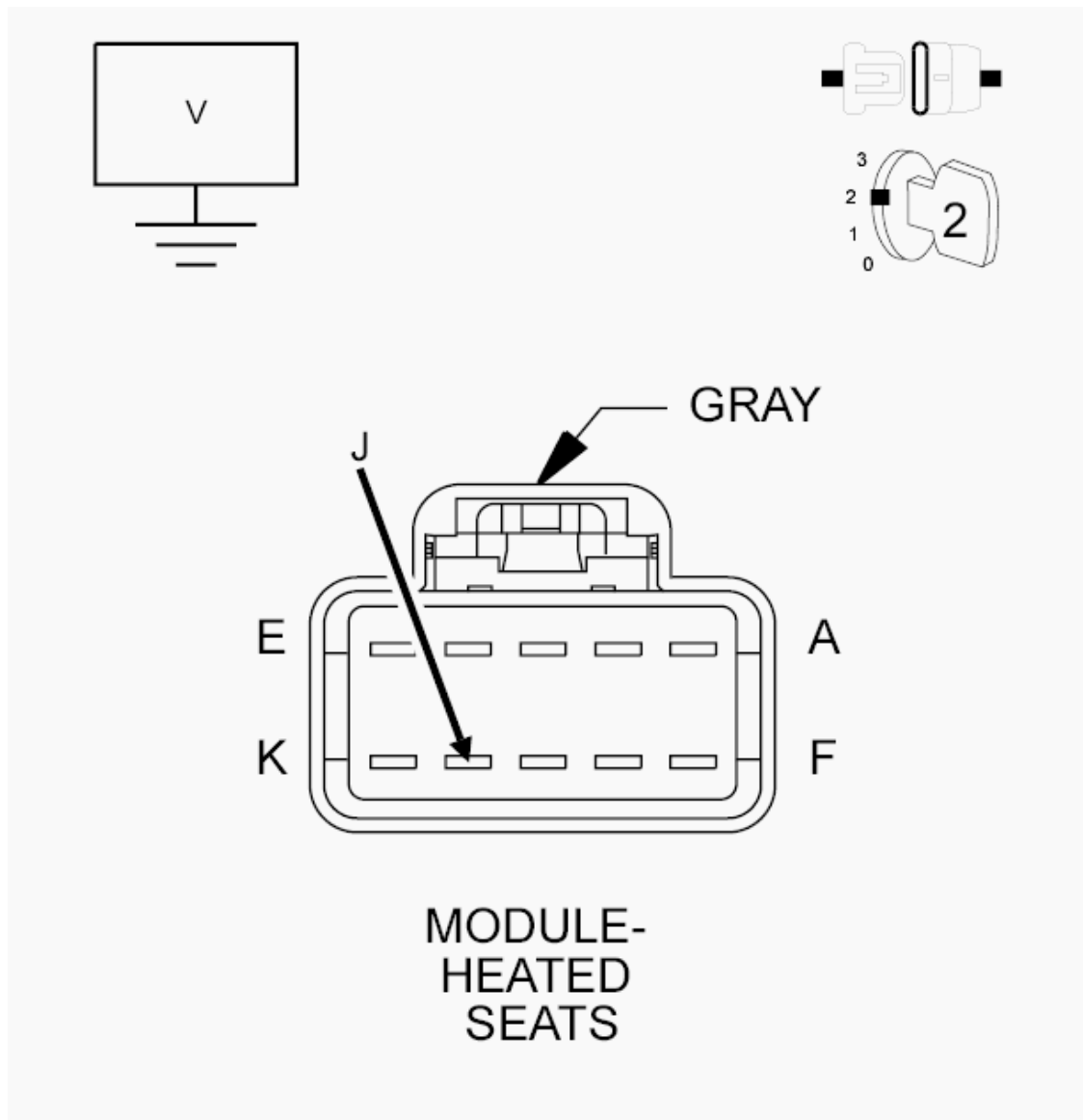
**Yes**

- Go To 3

**No**

- Repair the open in the (F937) Fused Ignition Switch Output (Run) circuit. Inspect the related fuse. If the fuse is open, check the circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**3. CHECK (D506) LIN BUS CIRCUIT VOLTAGE TO HEATED SEATS MODULE**



**Fig. 68: Measuring Voltage Of LIN Bus Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the voltage of the (D506) LIN BUS circuit between the Heated Seats Module harness connector and ground.

Is the voltage above 5.0 volts?

**Yes**

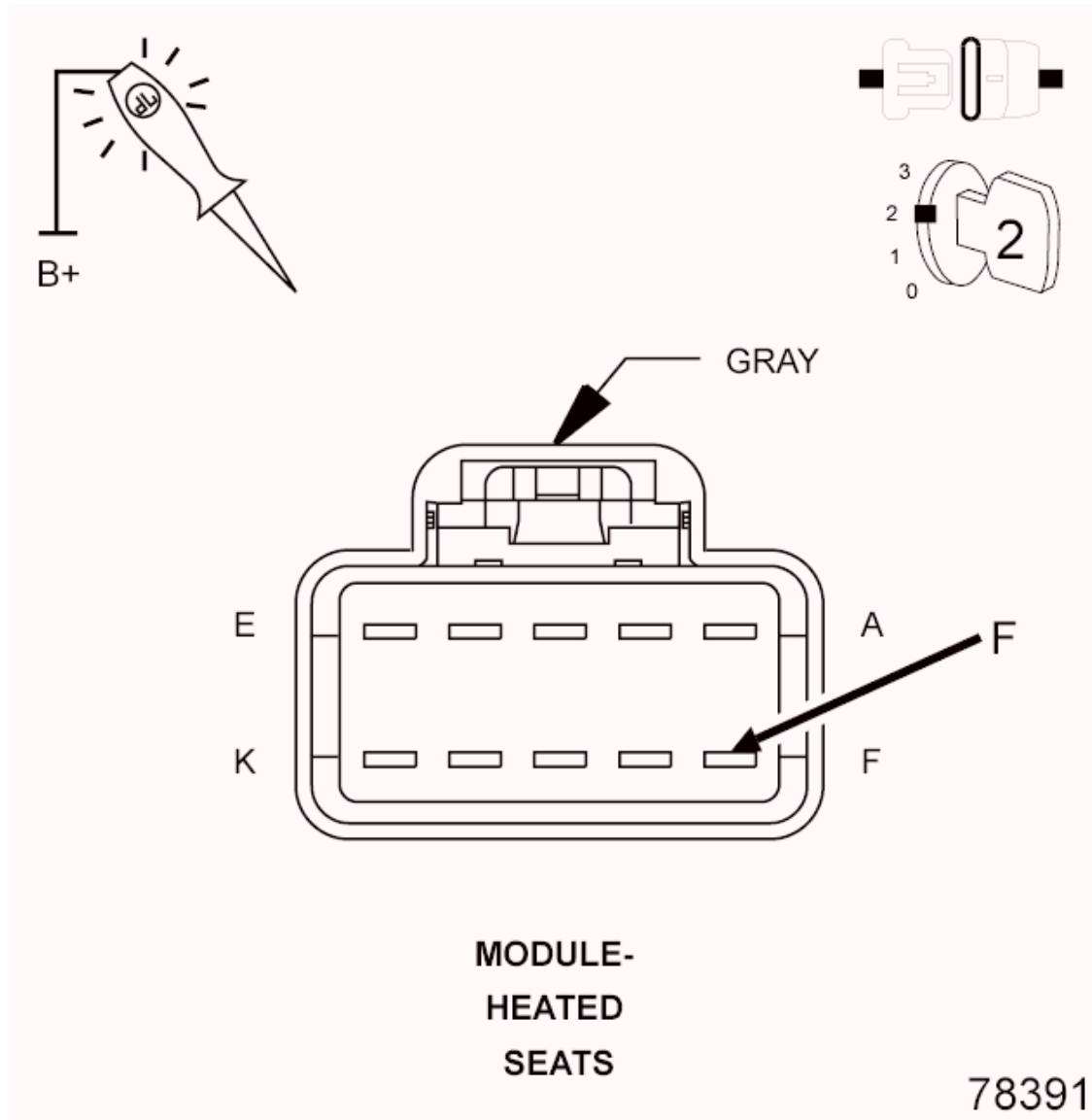
- Go To 4

**No**

- Repair the open in the (D506) LIN BUS circuit.

- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### 4. CHECK (Z909) GROUND CIRCUIT FOR AN OPEN



**Fig. 69: Checking Ground Circuit For Open**  
 Courtesy of CHRYSLER GROUP, LLC

1. Using a 12-volt test light connected to 12 volts, check the (Z909) Ground circuit at the Heated Seats Module harness connector.

**NOTE:** The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.

Does the test light illuminate brightly?

**Yes**

- Replace the Heated Seats Module in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Repair the (Z909) ground circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### **U1008-LIN 1 BUS**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### **WHEN MONITORED**

With the ignition on.

#### **SET CONDITION**

LIN 1 Bus Performance.

#### **POSSIBLE CAUSES**

<b>Possible Causes</b>
(D506) LIN BUS CIRCUIT OPEN (D506) LIN BUS CIRCUIT SHORTED TO GROUND SHORTED LIN BUS COMPONENT 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: U1008-LIN 1 BUS?

**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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 Switch Bank Module harness connector.
3. Disconnect the Remote Compass Module harness connector.
4. Disconnect the Heated Seat Module harness connector.
5. Disconnect the Left Multifunction Switch harness connector.
6. Disconnect the Right Steering Wheel Switch (Speed Control 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 change from active to stored.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 3

**3. (D506) LIN BUS CIRCUIT OPEN**

1. Turn the ignition off.
2. Disconnect the Cluster C3 harness connector.
3. Disconnect the Switch Bank harness connector.
4. Measure the resistance of the (D506) LIN Bus circuit between the Cluster C3 and Switch Bank harness connectors.

Is the resistance above 10K Ohms?

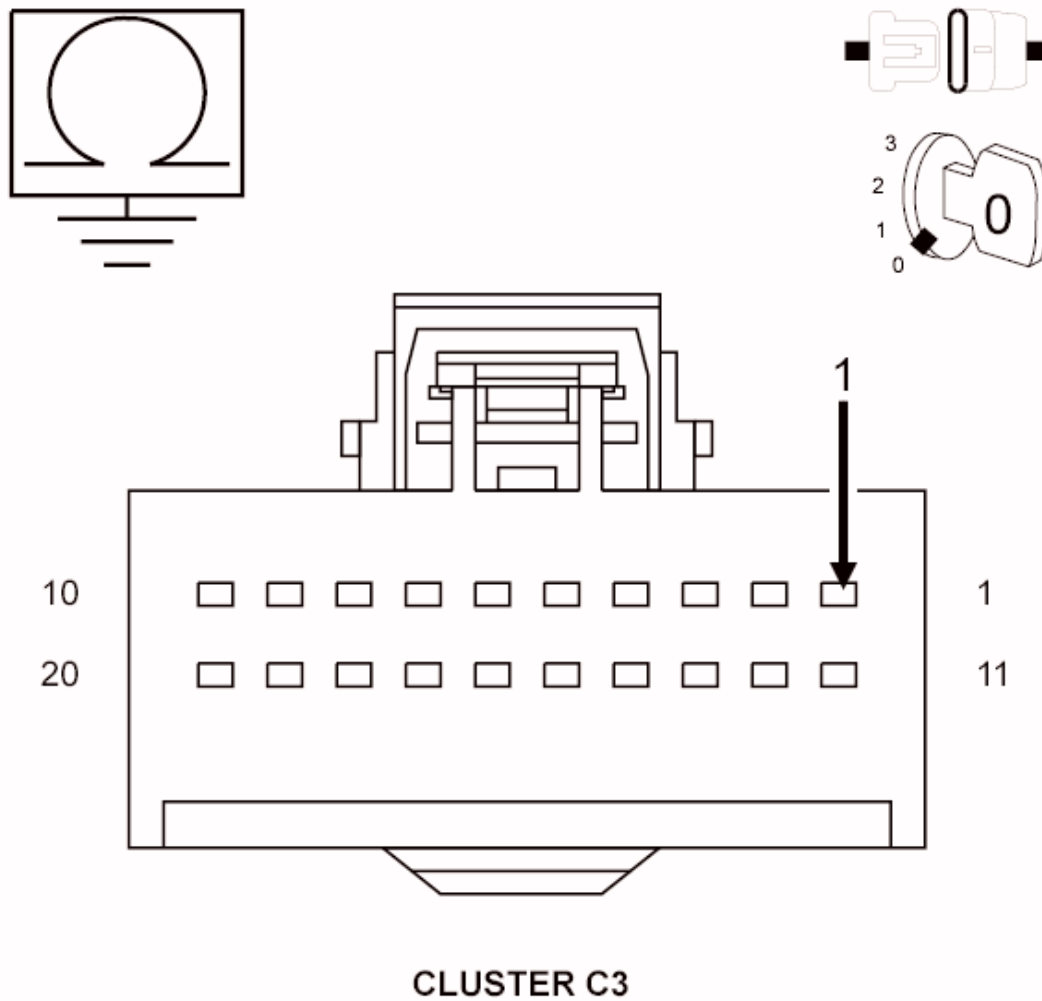
**Yes**

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 4

**4. (D506) LIN BUS CIRCUIT SHORTED TO GROUND**



258994

**Fig. 70: Measuring Resistance To Ground On LIN BUS Circuit**  
**Courtesy of CHRYSLER GROUP, 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**

- Repair the short to ground (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Replace the Cluster in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### U1109-LOST COMMUNICATION WITH LIN STEERING WHEEL CONTROLS

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

#### WHEN MONITORED

With the ignition on.

#### SET CONDITION

The Cluster does not receive information from the Right Steering Wheel Switch (Speed Control Switch).

#### POSSIBLE CAUSES

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (A952) FUSED B (+) CIRCUIT OPEN (Z903) GROUND CIRCUIT OPEN RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH) CLOCKSPRING

#### DIAGNOSTIC TEST

##### 1. CHECK FOR AN ACTIVE DTC

**NOTE:** Before proceeding with the diagnostic procedure, verify that the connections are proper made, properly seated and verify proper pin terminal tension. A loose connection at any of the related connectors may cause the 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 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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 (SPEED CONTROL SWITCH)**

1. Turn the ignition off.

**WARNING:** Turn the ignition off disconnect the 12-volt battery and wait two minutes before proceeding. Failure to follow these instructions may result in possible serious or fatal injury.

**WARNING:** Do not place an intact non-deployed airbag face down on a hard surface, the airbag propels into the air if accidentally deployed. Failure to follow these instructions may result in possible serious or fatal injury.

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

Is the voltage above 5.0 volts?

**Yes**

- Go To 5

**No**

- Go To 3

**3. (D506) LIN BUS CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH) AND CLOCKSPRING**

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

Is the resistance below 5.0 Ohms?

**Yes**

- Go To 4

**No**

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

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

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 **STANDARD PROCEDURE** .

**No**

- Repair the open in the (D506) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**5. CHECK THE VOLTAGE OF (A952) FUSED B (+) CIRCUIT AT THE RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH)**

1. Measure the voltage of the (A952) Fused B (+) circuit at the Right Steering Wheel Switch (Speed Control Switch) harness connector.

Is the voltage above 10.0 volts?

**Yes**

- Go To 8

**No**

- Go To 6

**6. (A952) FUSED B (+) CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH) AND CLOCKSPrING**

1. Turn the ignition off.
2. Disconnect the Clockspring C8 harness connector.
3. Measure the resistance of the (A952) Fused B (+) circuit between the Right Steering Wheel Switch (Speed Control Switch) and Clockspring C8 harness connectors.

Is the resistance below 5.0 Ohms?

**Yes**

- Go To 7

**No**

- Repair the open in the (A952) Fused B (+) circuit.
- Perform the BODY VERIFICATION TEST. Refer to

**STANDARD PROCEDURE** .

**7. (A952) FUSED B (+) CIRCUIT OPEN BETWEEN THE CLOCKSPrING AND TOTALLY INTEGRATED POWER MODULE**

1. Turn the ignition off.
2. Disconnect the Clockspring C2 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (A952) 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 **STANDARD PROCEDURE** .

**No**

- Repair the open in the (A952) Fused B (+) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**8. CHECK THE (Z903) GROUND CIRCUIT AT THE RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH)**

1. Turn the ignition off.
2. Measure the resistance between ground and the (Z903) Ground circuit at the Right Steering Wheel Switch (Speed Control Switch) harness connector.

Is the resistance below 5.0 Ohms?

**Yes**

- Replace the Right Steering Wheel Switch (Speed Control Switch) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

- Go To 9

**9. (Z903) GROUND CIRCUIT OPEN BETWEEN THE RIGHT STEERING WHEEL SWITCH (SPEED CONTROL SWITCH) AND CLOCKSPRING**

1. Disconnect the Clockspring C8 harness connector.
2. Measure the resistance of the (Z903) Ground circuit between the Right Steering Wheel Switch (Speed Control Switch) and Clockspring C8 harness connectors.

Is the resistance below 5.0 Ohms?

**Yes**

- Go To 10

**No**

- Repair the open in the (Z903) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**10. (Z903) GROUND CIRCUIT OPEN BETWEEN THE CLOCKSPRING AND GROUND**

1. Disconnect the Clockspring C2 harness connector.
2. Measure the resistance between ground and the (Z903) Ground circuit at the Clockspring C2 harness connector.

Is the resistance below 5.0 Ohms?

**Yes**

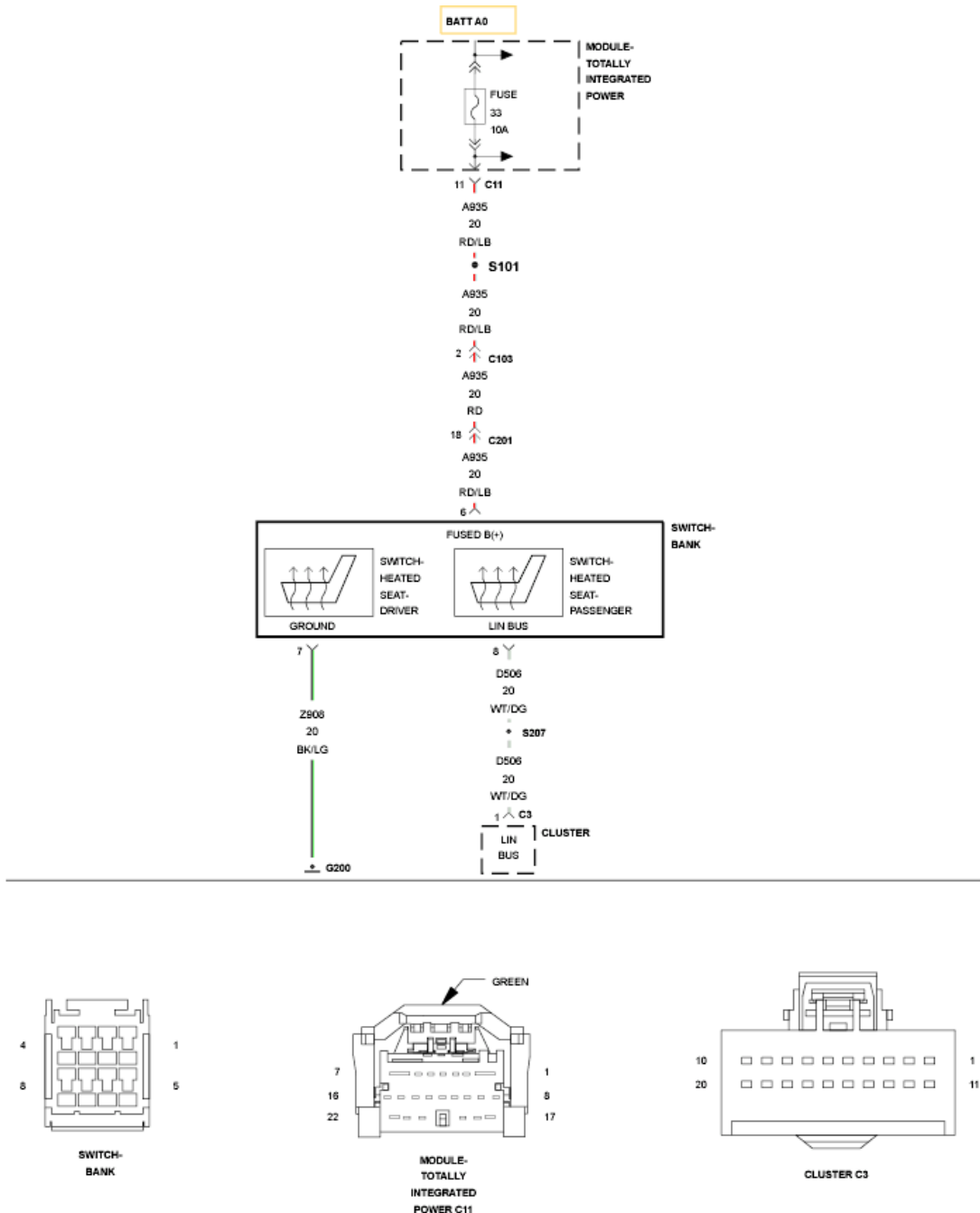
- Replace the Clockspring in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**



- Repair the open in the (Z903) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### U113B-LOST COMMUNICATION WITH SWITCH BANK MODULE



**Fig. 71: Switch Bank Module Circuit Diagram**  
 Courtesy of CHRYSLER GROUP, LLC

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING**

**DIAGRAMS article .****WHEN MONITORED**

With the ignition on.

**SET CONDITION**

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

**POSSIBLE CAUSES**

Possible Causes
(D506) LIN BUS CIRCUIT OPEN (A935) FUSED B+ CIRCUIT OPEN (Z908) GROUND CIRCUIT OPEN SWITCH BANK

**DIAGNOSTIC TEST****1. CHECK FOR AN ACTIVE DTC**

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

Does the scan tool display: U113B-LOST COMMUNICATION WITH SWITCH BANK MODULE?

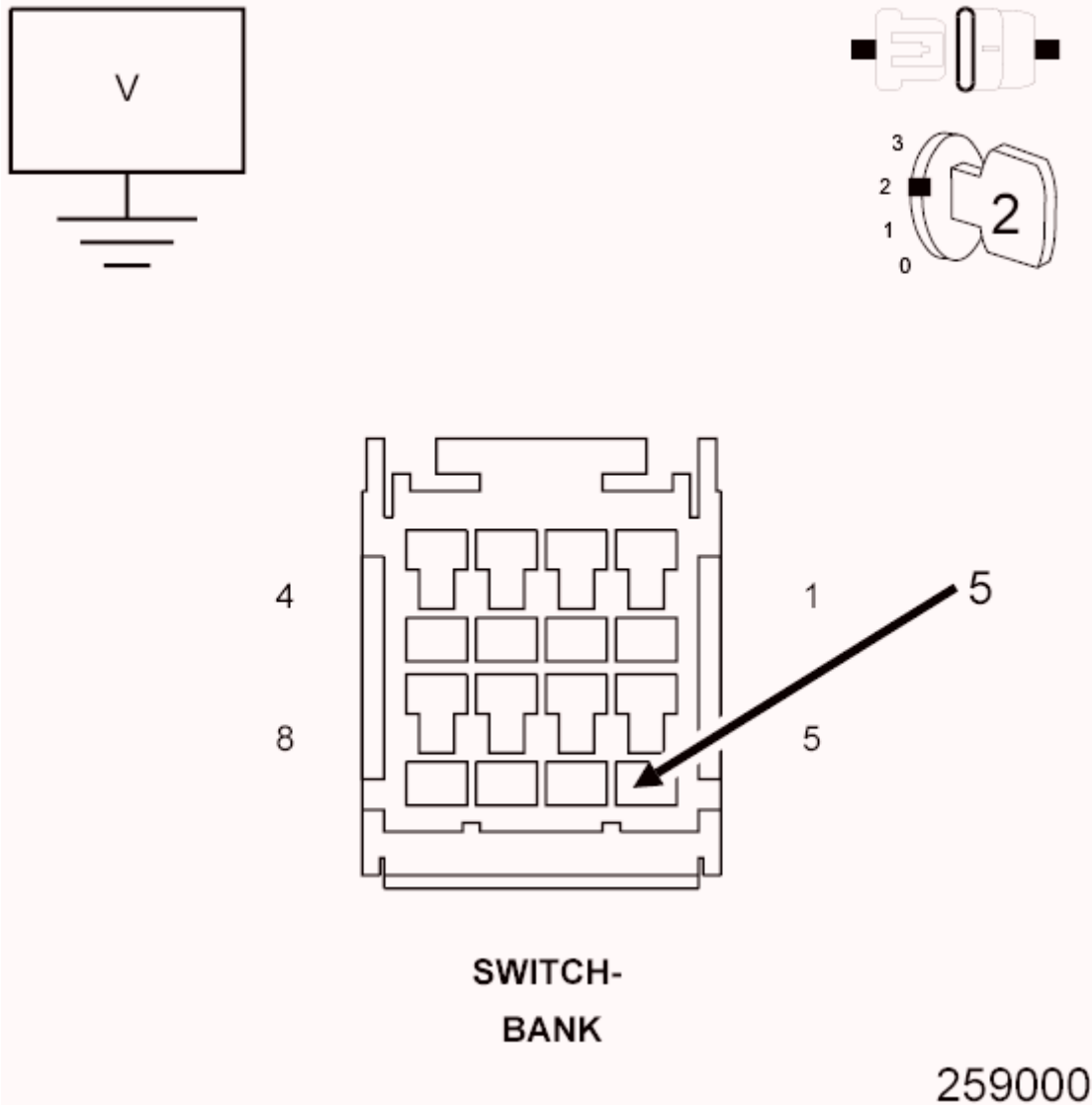
**Yes**

- Go To 2

**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. 72: Measuring Voltage Of LIN BUS Circuit**  
Courtesy of CHRYSLER GROUP, LLC

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

Is the voltage above 5.0 volts?

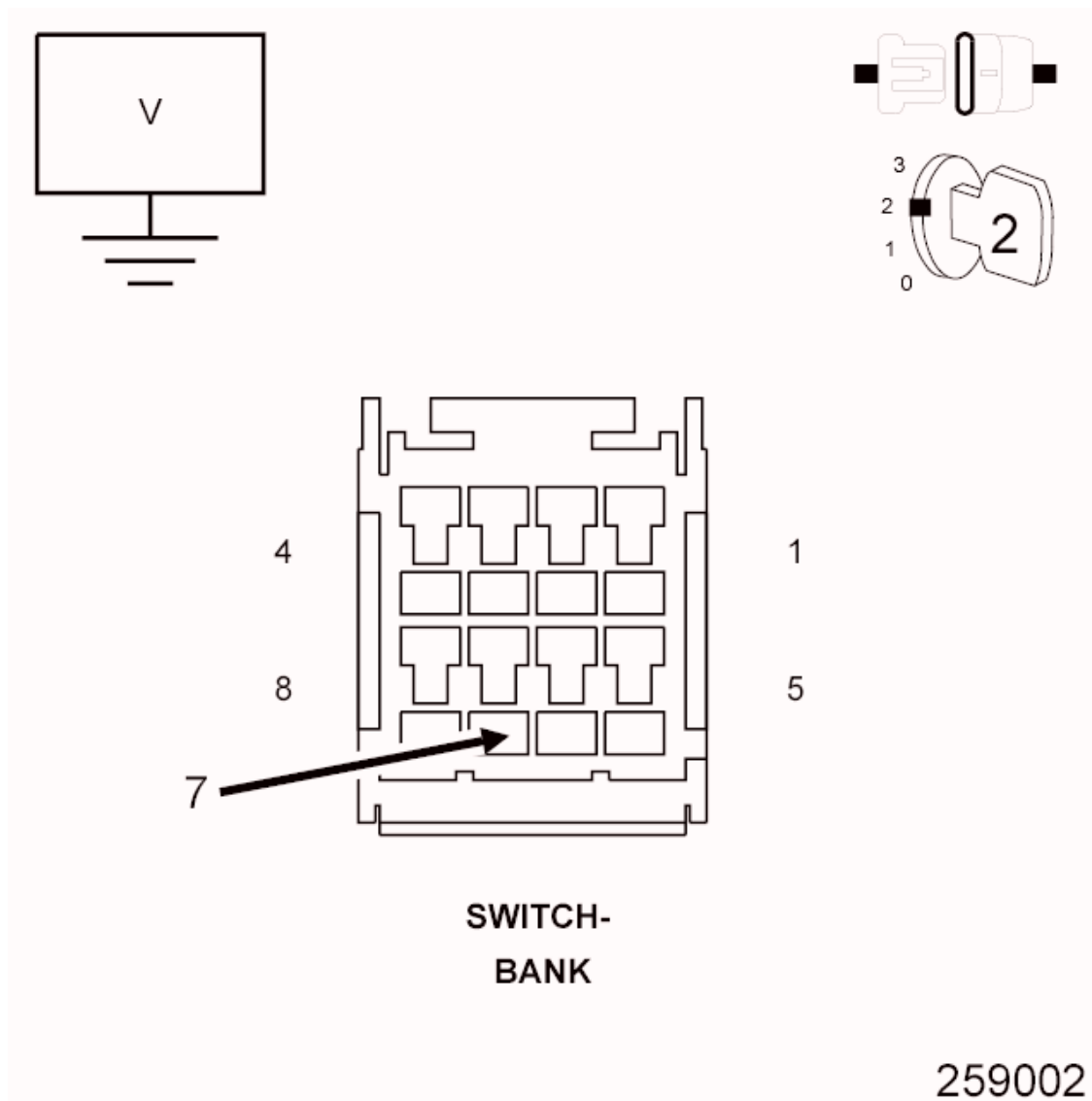
**Yes**

- Go To 3

**No**

- Repair the (D506) LIN BUS circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### 3. (A935) FUSED B+ CIRCUIT OPEN



**Fig. 73: Measuring Voltage Of Fused B (+) Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the voltage of the (A935) Fused B+ circuit.

Is the voltage above 10.0 volts?

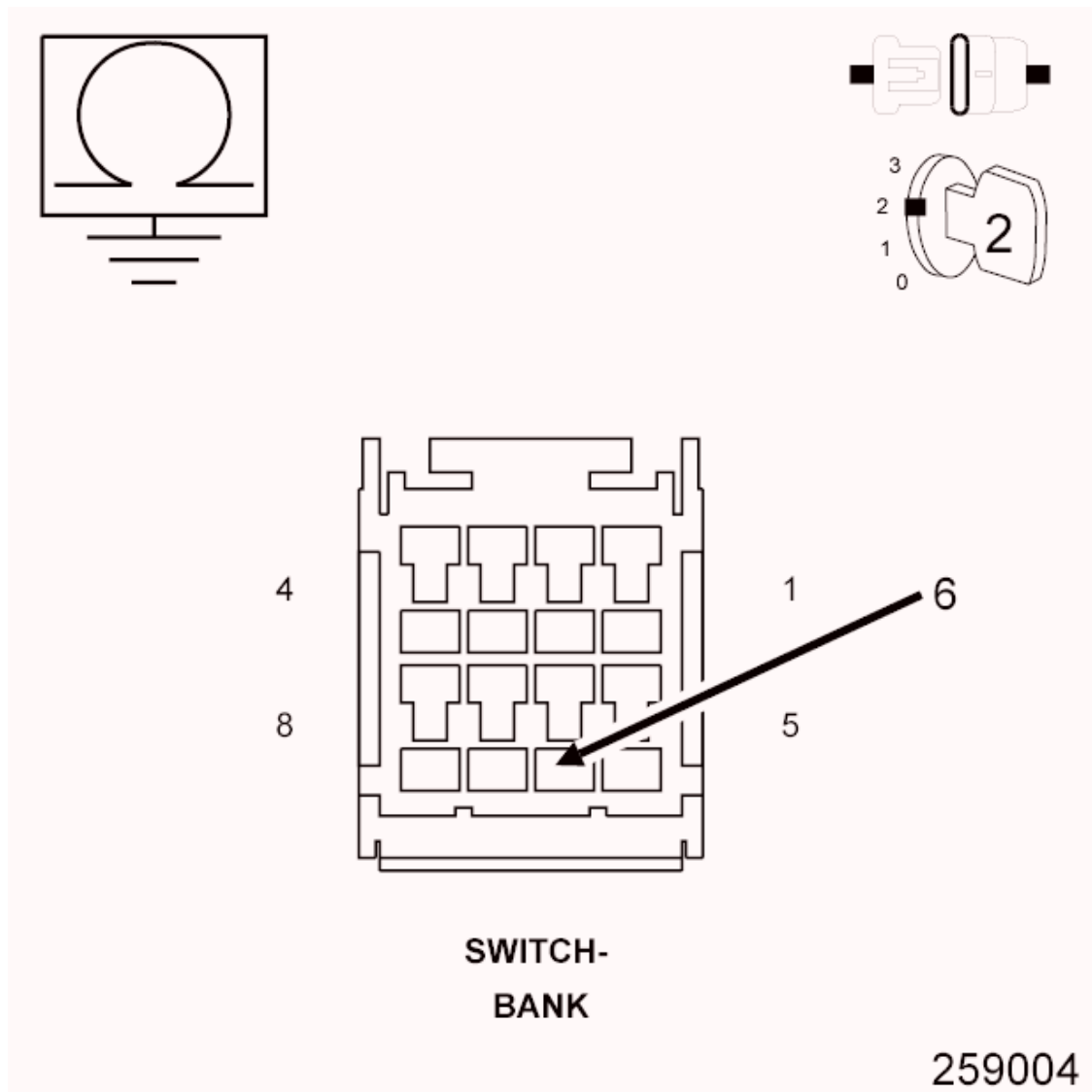
**Yes**

- Go To 4

No

- Repair the (A935) Fused B+ circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

#### 4. (Z908) GROUND CIRCUIT OPEN



**Fig. 74: Measuring Resistance Between Ground & Ground Circuit**  
 Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance between ground and the (Z908) Ground circuit.

Is the resistance below 10K Ohms?

Yes

- Replace the Switch Bank in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

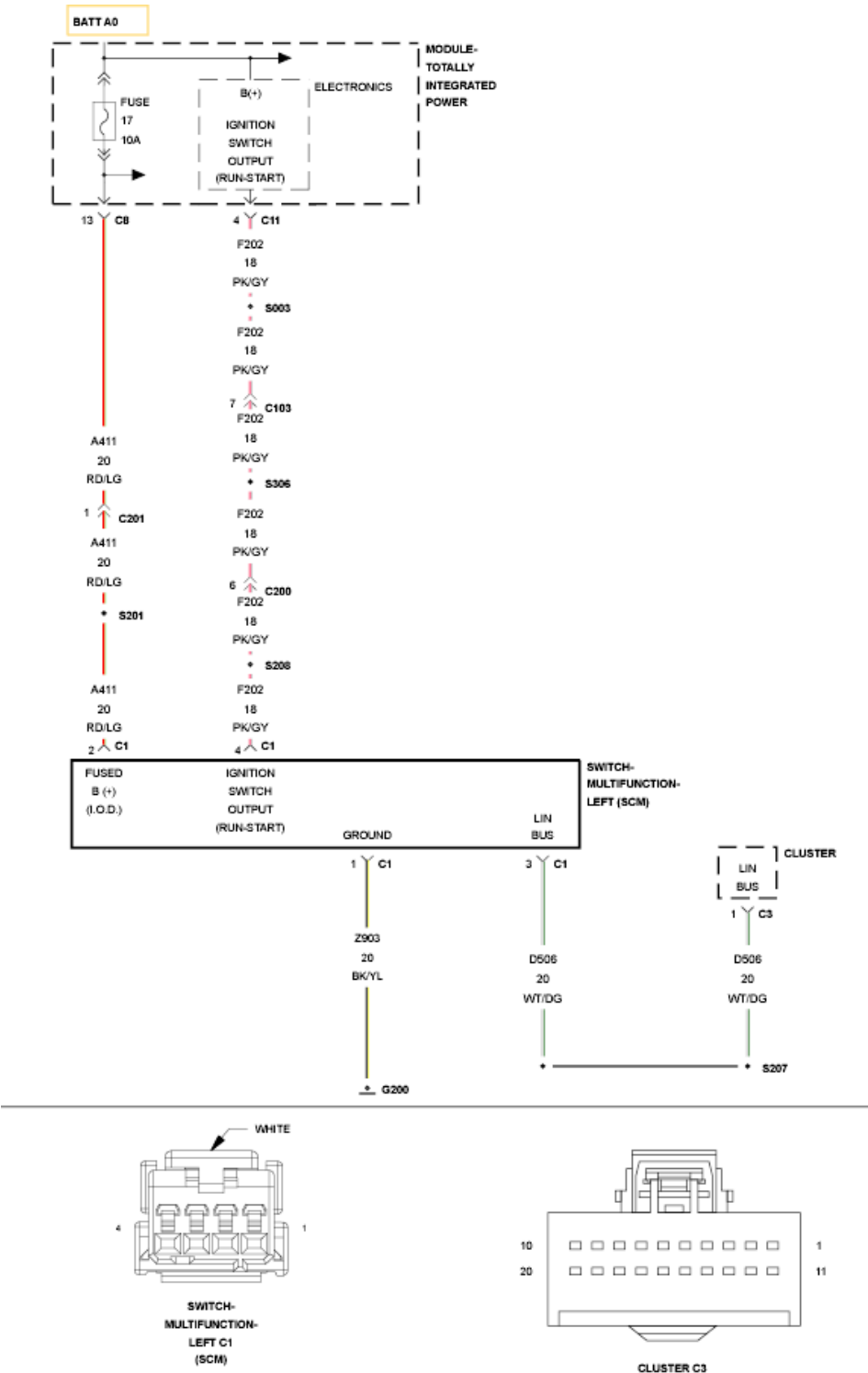
**No**

- Repair the (Z908) Ground circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**U1149-LOST COMMUNICATION WITH MULTI-FUNCTION SWITCH**

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**Fig. 75: Multifunction Switch Circuit Diagram**  
**Courtesy of CHRYSLER GROUP, LLC**

For a complete wiring diagram, refer to appropriate **SYSTEM WIRING DIAGRAMS** article .

## WHEN MONITORED

With the ignition on.

**SET CONDITION**

The Cluster does not receive any LIN Bus messages from the Left Multifunction Switch.

**POSSIBLE CAUSES****Possible Causes**

(D506) LIN BUS CIRCUIT OPEN  
(F202) IGNITION SWITCH OUTPUT (RUN/START) CIRCUIT OPEN  
(A411) FUSED B(+) (I.O.D.) CIRCUIT OPEN  
(Z903) 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 2

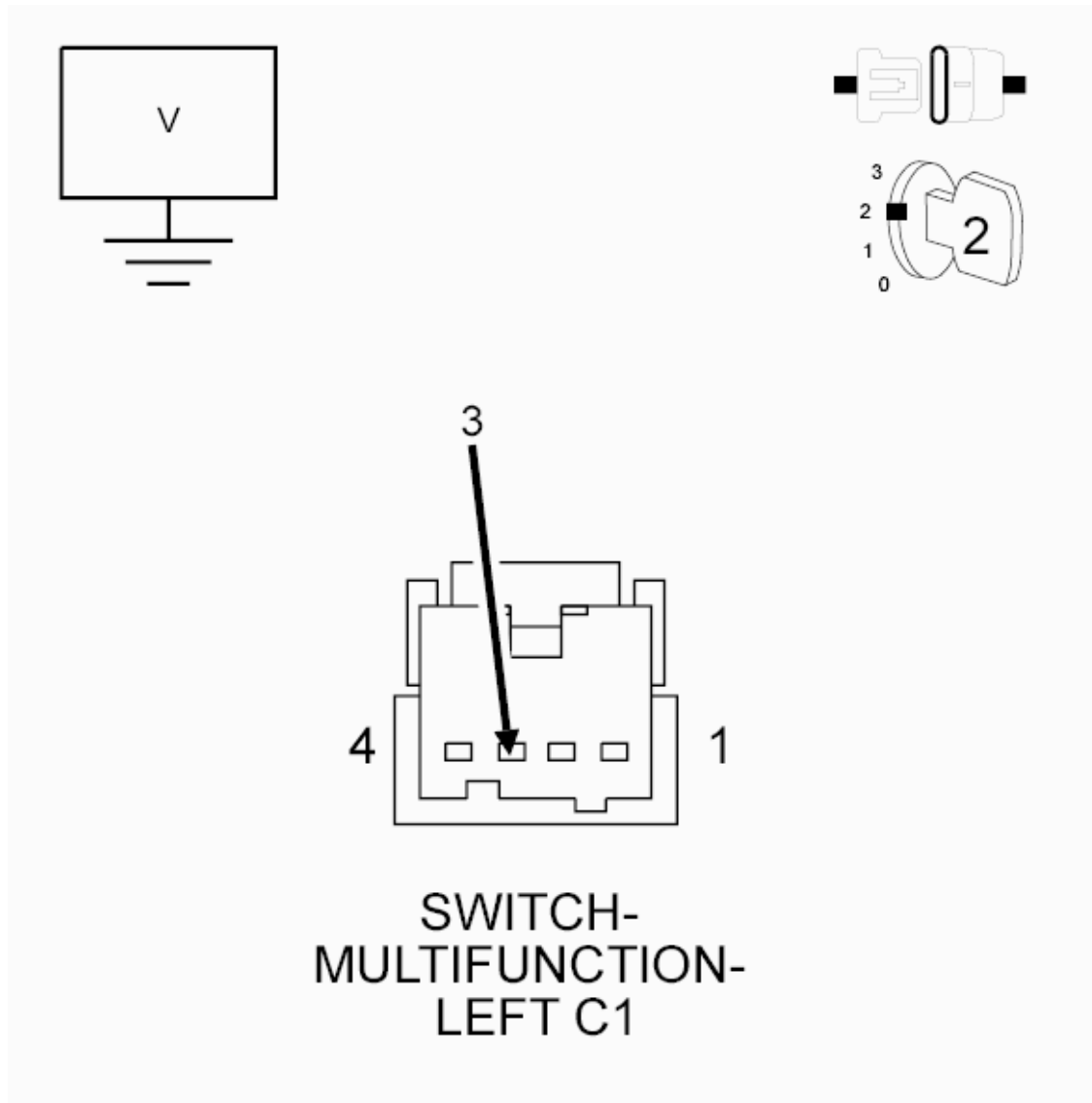
**No**

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the 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. 76: Measuring Voltage Of LIN BUS Circuit**  
**Courtesy of CHRYSLER GROUP, LLC**

1. Turn the ignition off.
2. Disconnect the Left Multifunction Switch C1 harness connector.
3. Turn the ignition on.
4. Measure the voltage of the (D506) LIN BUS circuit.

Is the voltage above 5.0 volts?

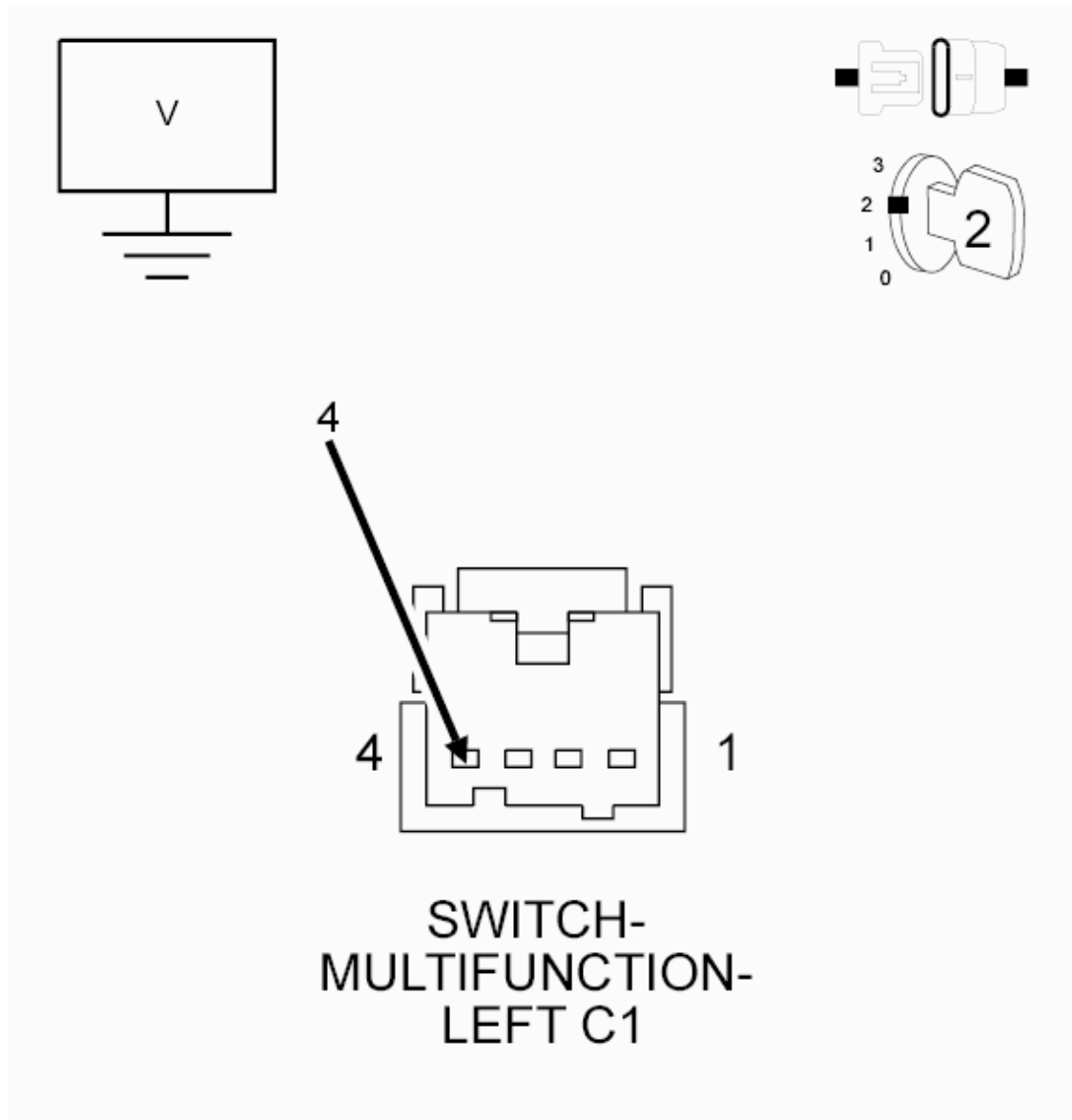
**Yes**

- Go To 3

**No**

- Repair the open in the (D506) LIN BUS circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

### 3. (F202) IGNITION SWITCH OUTPUT (RUN/START) CIRCUIT OPEN



**Fig. 77: Measuring Voltage Of Ignition Switch Output (RUN/START) Circuit**

**Courtesy of CHRYSLER GROUP, LLC**

1. Measure the voltage of the (F202) Ignition Switch Output (RUN/START) circuit.

Is the voltage above 10.0 volts?

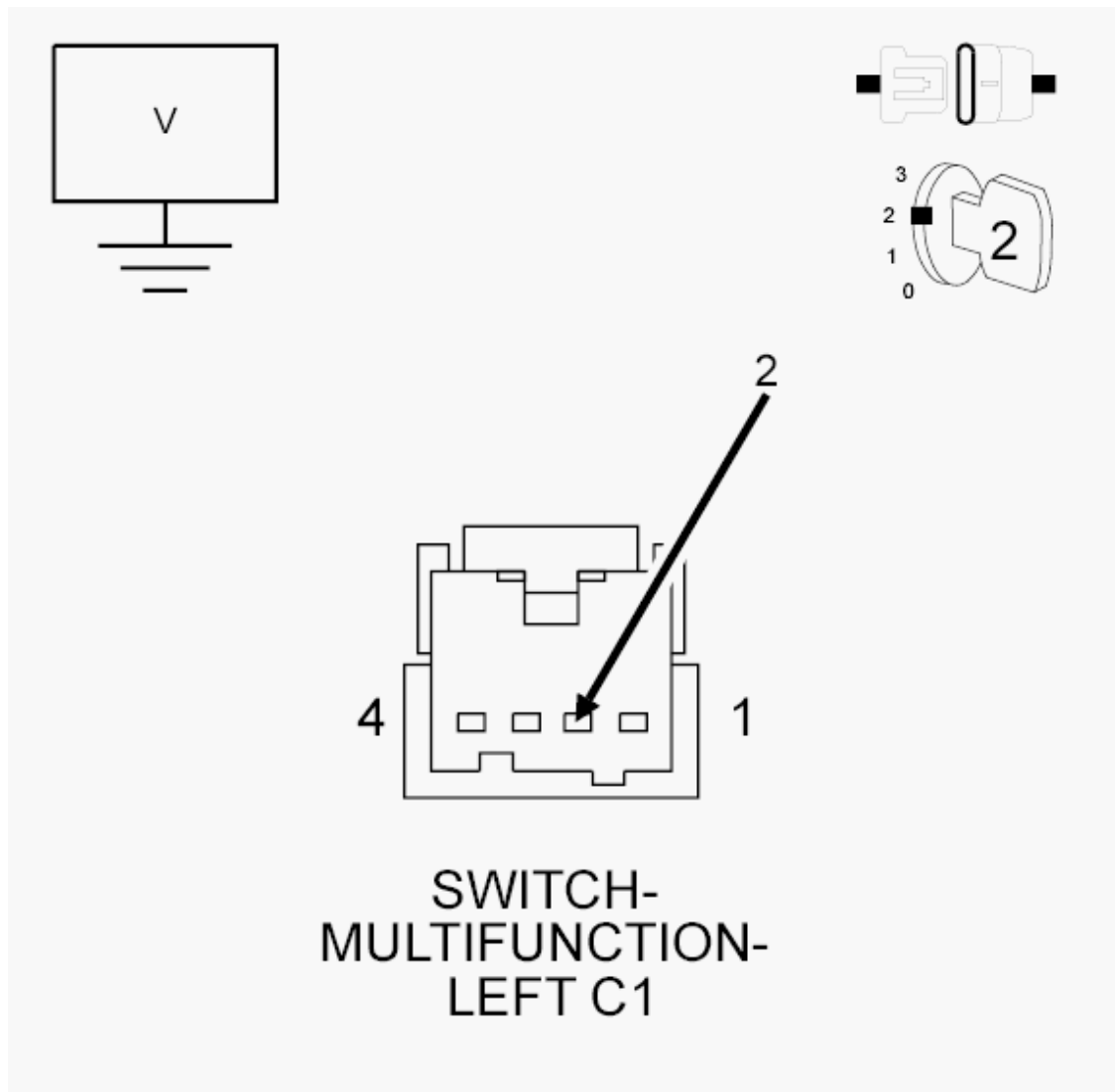
**Yes**

- Go To 4

**No**

- Repair the open in the (F202) Ignition Switch Output (RUN/START) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**4. (A411) FUSED B(+) (I.O.D.) CIRCUIT OPEN**



**Fig. 78: Measuring Voltage Of Fused B (+) (I.O.D.) Circuit**  
 Courtesy of CHRYSLER GROUP, LLC

1. Measure the voltage of the (A411) Fused B(+) (I.O.D.) circuit.

Is the voltage above 10.0 volts?

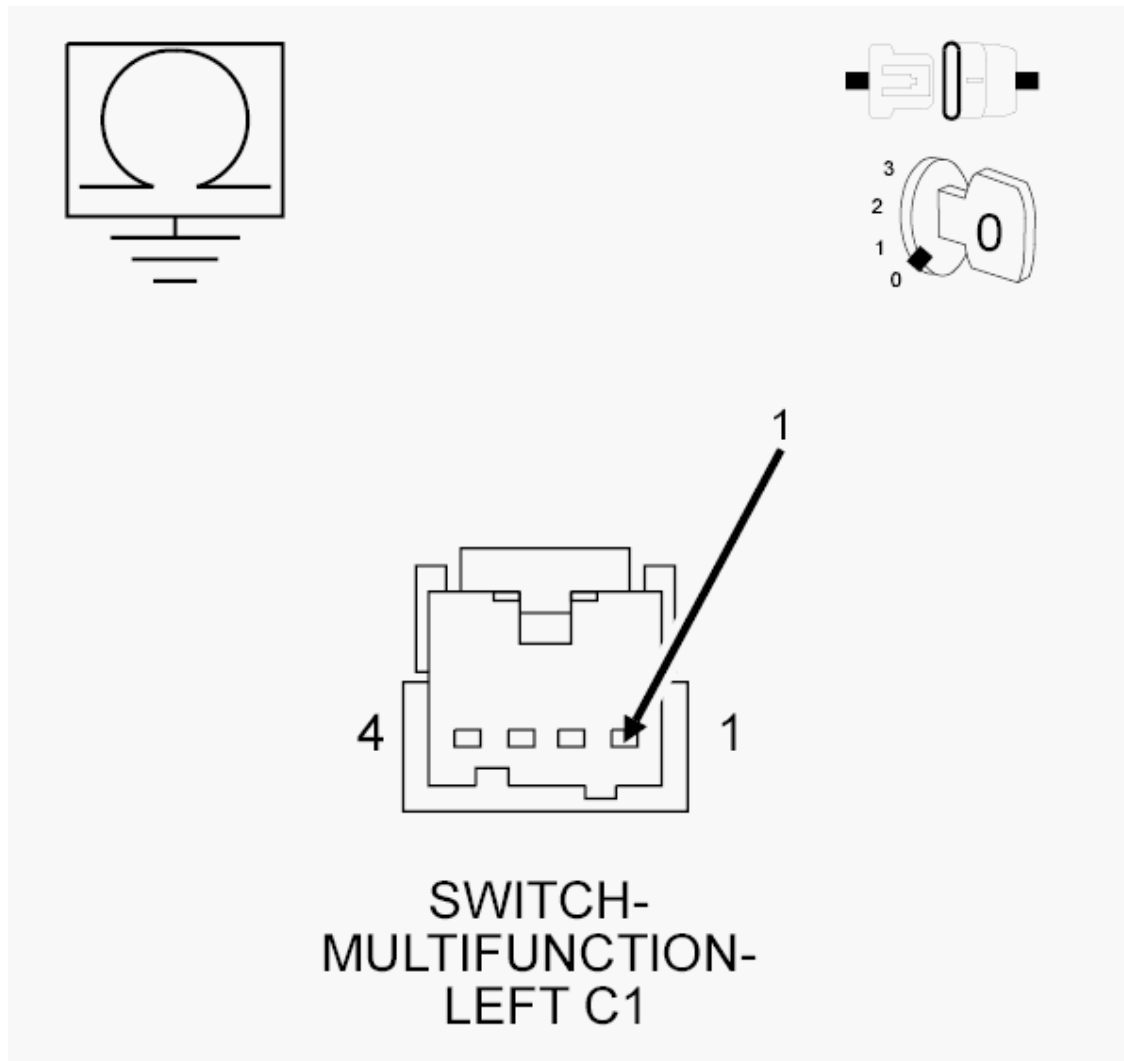
**Yes**

- Go To 5

**No**

- Repair the open in the (A411) Fused B(+) (I.O.D.) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

## 5. (Z903) GROUND CIRCUIT OPEN



**Fig. 79: Measuring Resistance Between Ground & Ground Circuit**  
 Courtesy of CHRYSLER GROUP, LLC

1. Measure the resistance between ground and the (Z903) Ground circuit.

Is the resistance below 10K Ohms?

**Yes**

- Replace the Left Multifunction Switch in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .

**No**

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- Repair the open in the (Z903) Ground circuit.
- Perform the BODY VERIFICATION TEST. Refer to **STANDARD PROCEDURE** .