

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Audio (Amplifier) - Electrical Diagnostics - Journey

2009 ACCESSORIES AND EQUIPMENT**Audio (Amplifier) - Electrical Diagnostics - Journey****DIAGNOSTIC CODE INDEX****DIAGNOSTIC CODE INDEX**

DTC	Description
<u>B1460</u>	CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B1461</u>	CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1462</u>	CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1463</u>	CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1464</u>	CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B1465</u>	CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B1466</u>	CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1467</u>	CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1468</u>	CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1469</u>	CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B146A</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B146B</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B146C</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B146D</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B146E</u>	CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B146F</u>	CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B1470</u>	CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1471</u>	CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1472</u>	CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1473</u>	CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B1474</u>	CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B1475</u>	CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1476</u>	CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B1477</u>	CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B1478</u>	CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B1479</u>	CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B147A</u>	CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B147B</u>	CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
<u>B147C</u>	CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
<u>B147D</u>	CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
<u>B147E</u>	CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
<u>B147F</u>	CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT LOW
<u>B1480</u>	CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

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B1481	CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
B1482	CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
B1483	CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE
B1484	CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT LOW
B1485	CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT HIGH
B1486	CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT OPEN
B1487	CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER
U0019	CAN INTERIOR BUS
U0020	CAN INTERIOR BUS OFF PERFORMANCE
U0141	LOST COMMUNICATION WITH FRONT CONTROL MODULE
U0151	LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER
U0154	LOST COMMUNICATION WITH OCCUPANT CLASSIFICATION MODULE
U0184	LOST COMMUNICATION WITH RADIO
U0197	LOST COMMUNICATION WITH HANDS FREE MODULE
U0199	LOST COMMUNICATION WITH DRIVERS DOOR MODULE
U0200	LOST COMMUNICATION WITH PASSENGER DOOR MODULE

DIAGNOSIS AND TESTING

B1460-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1460-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE?

Yes

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1461-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT LOW

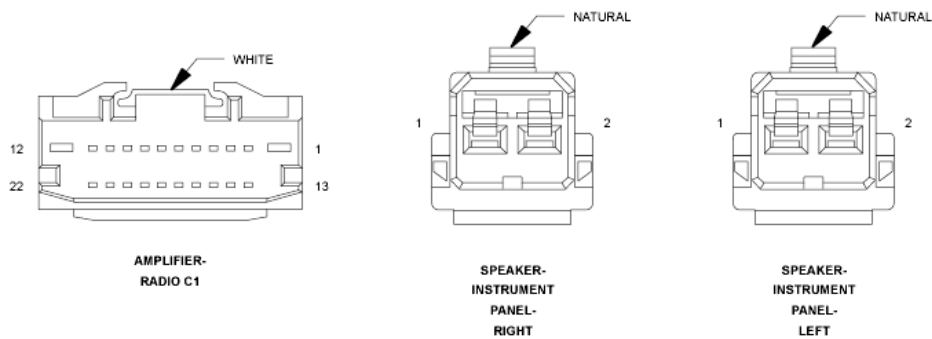
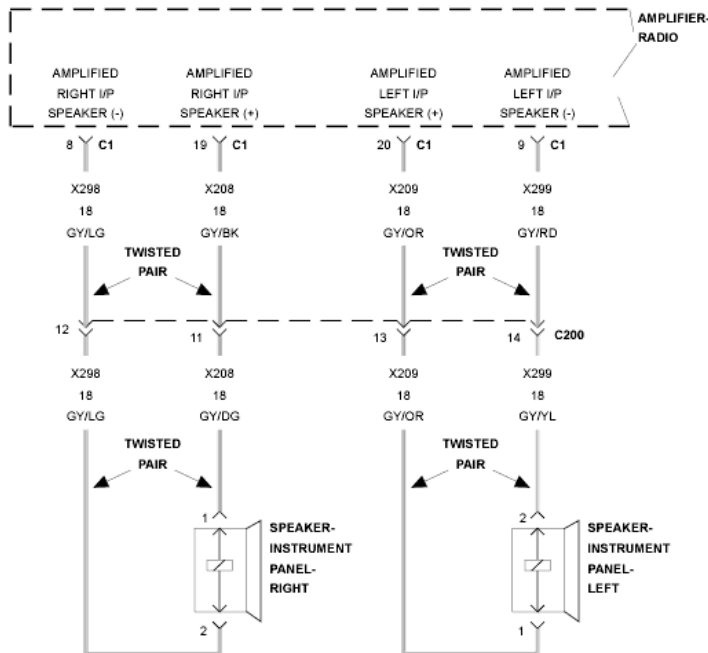


Fig. 1: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes

(X209) AMPLIFIED LEFT FRONT I/P SPEAKER (+) CIRCUIT SHORTED TO GROUND
(X299) AMPLIFIED LEFT FRONT I/P SPEAKER (-) CIRCUIT SHORTED TO GROUND
LEFT FRONT I/P SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1461-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE LEFT INSTRUMENT PANEL (I/P) SPEAKER

1. Ensure one of the front doors is still open.
2. With the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Left I/P Speaker harness connector.
5. Turn the ignition on.

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6. Turn the radio on and set the volume to 25.
7. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1461-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

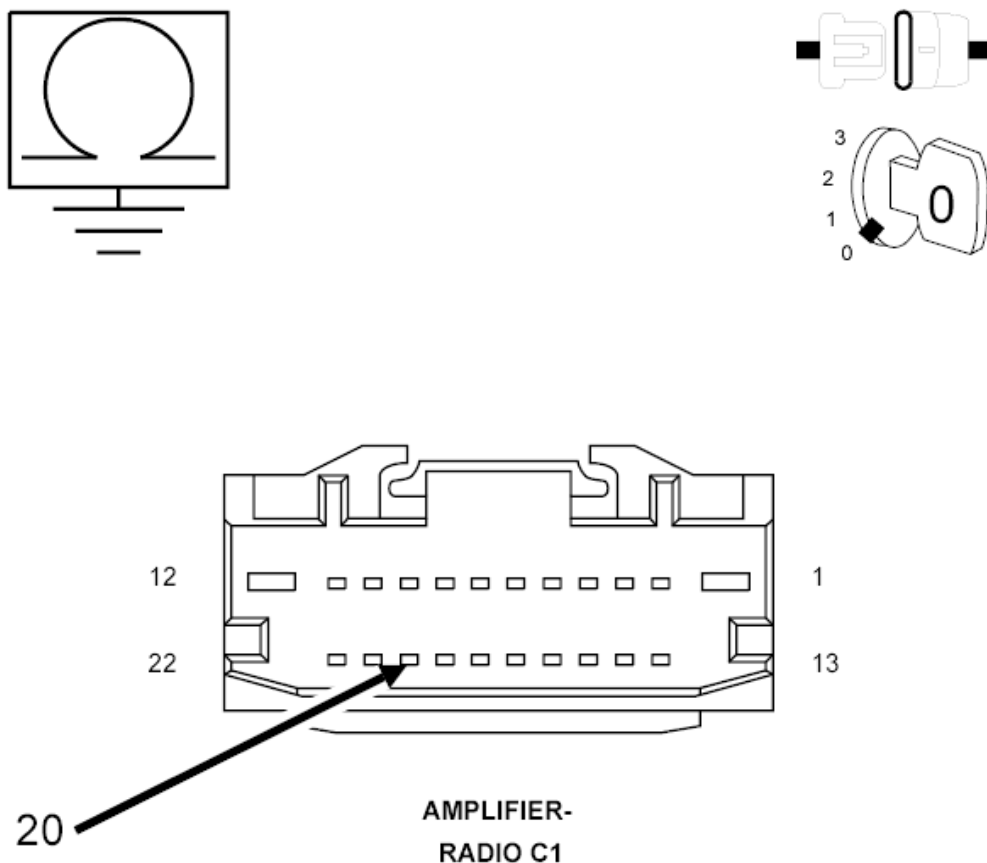
Yes

- Go to step 3

No

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

3. **CHECK THE (X209) AMPLIFIED LEFT FRONT I/P SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND**



1434738

Fig. 2: Checking Amplified Left Front Instrument Panel Speaker (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Measure the resistance between ground and the (X209) Left I/P Speaker (+) circuit.

Is the resistance below 10K Ohms?

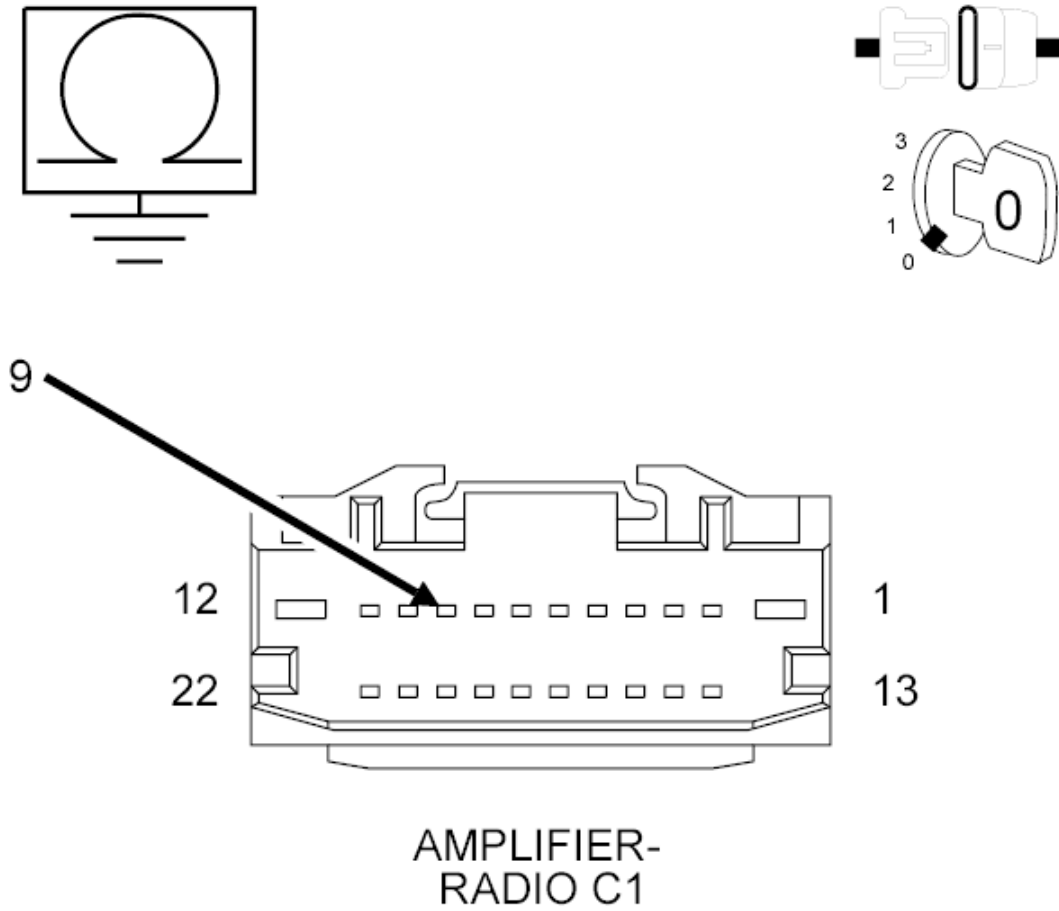
Yes

- Repair the (X209) Left I/P Speaker (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 4

4. **CHECK THE (X299) AMPLIFIED LEFT FRONT I/P SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND**



1434761

Fig. 3: Checking Amplified Left Front Instrument Panel Speaker (-) Circuit
 Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X299) Left I/P Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X299) Left I/P Speaker (-) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Standard Procedure .

No

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

B1462-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

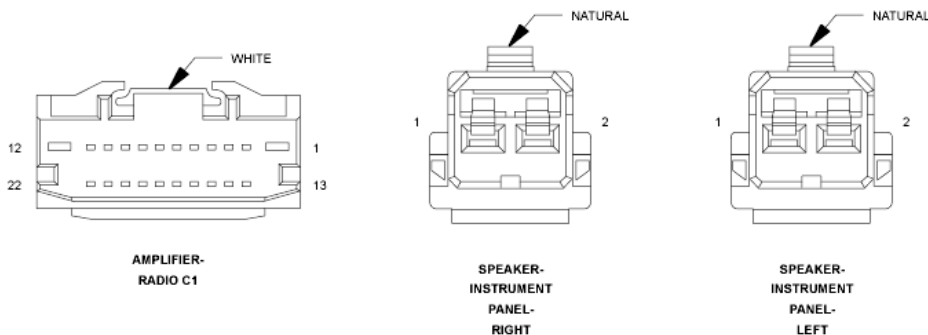
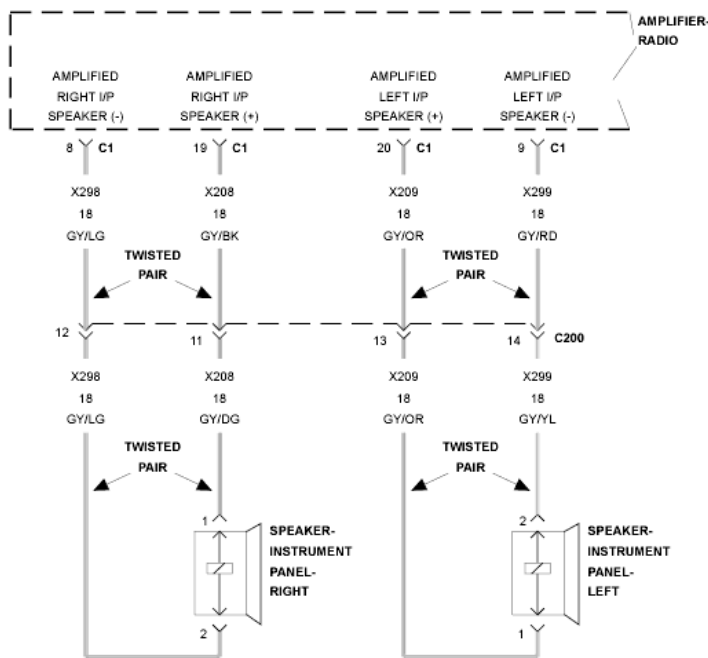


Fig. 4: Amplified Left Front Instrument Panel Speaker Circuit Schematic

Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X209) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE
(X299) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE
AMPLIFIER

Diagnostic Test**1. CHECK FOR AN INTERMITTENT CONDITION**

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1462-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

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

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

2. **CHECK FOR VOLTAGE ON THE (X209) LEFT INSTRUMENT PANEL (I/P) SPEAKER (+) CIRCUIT**

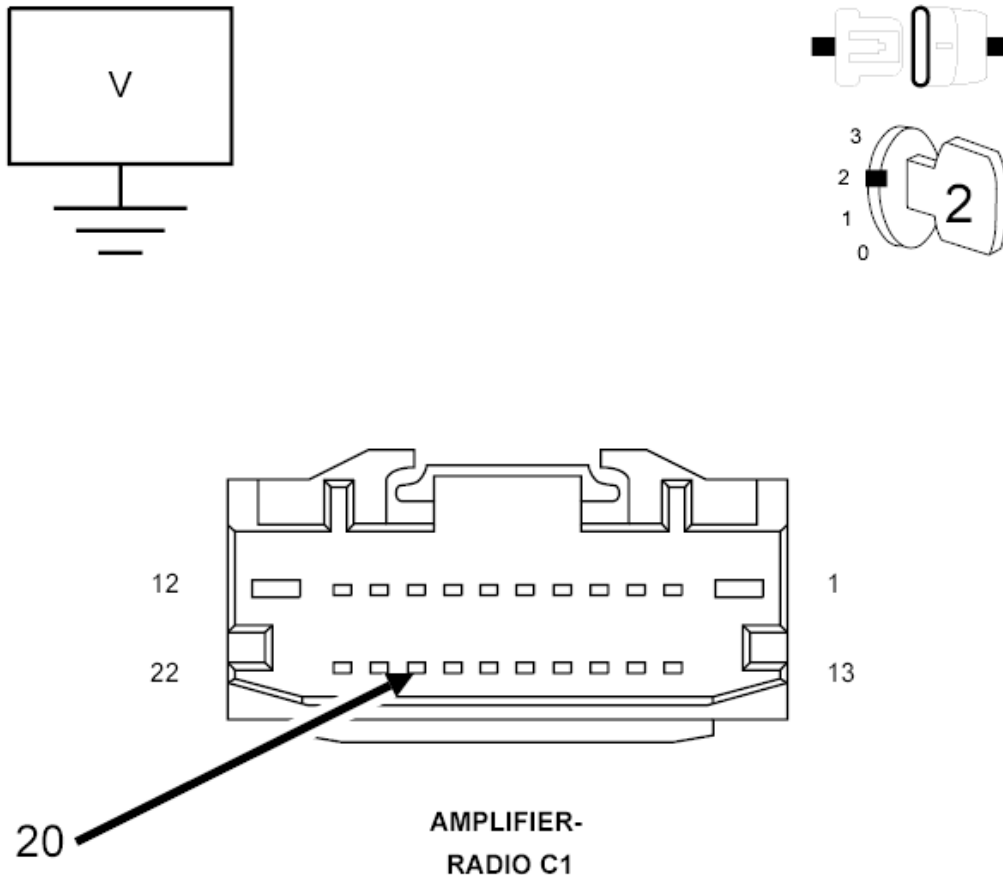


Fig. 5: Checking Left Instrument Panel Speaker (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Disconnect the Amplified Left I/P Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X209) Left I/P Speaker (+) circuit and ground.

Is there any voltage present?

Yes

- Repair the (X209) Left I/P Speaker (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X299) LEFT I/P SPEAKER (-) CIRCUIT

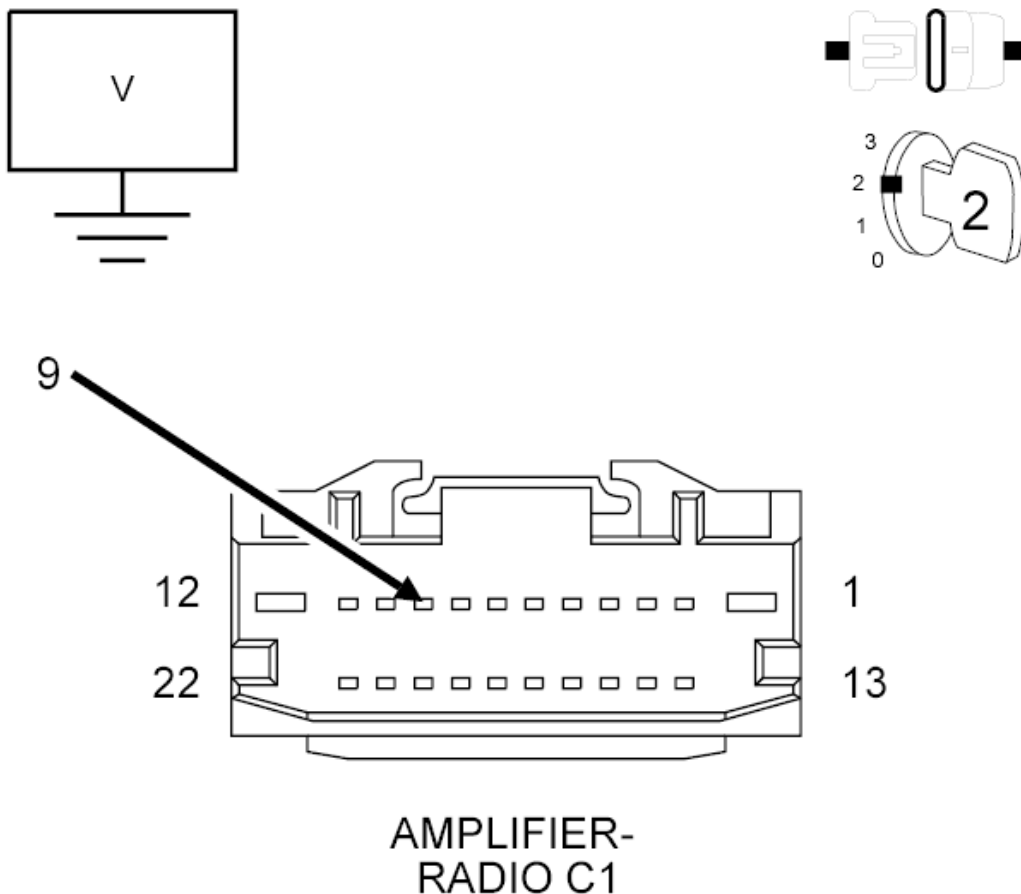


Fig. 6: Checking Left Instrument Panel Speaker (+) Circuit
Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X299) Left I/P Speaker (-) circuit and ground.

Is there any voltage present?

Yes

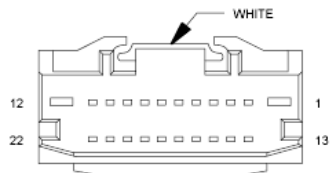
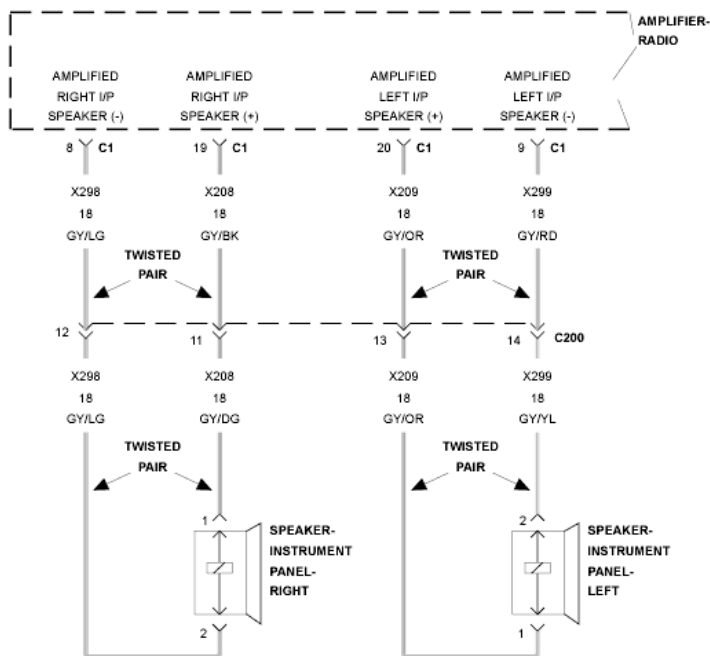
- Repair the (X299) Left I/P Speaker (-) circuit for a short to voltage.

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

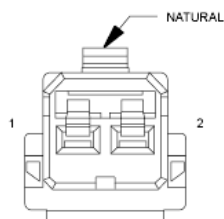
No

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

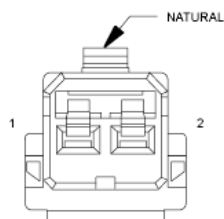
B1463-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT OPEN



AMPLIFIER-
RADIO C1



SPEAKER-
INSTRUMENT
PANEL-
RIGHT



SPEAKER-
INSTRUMENT
PANEL-
LEFT

Fig. 7: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

- **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X209) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT OPEN (X299) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUIT OPEN LEFT FRONT I/P SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1463-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

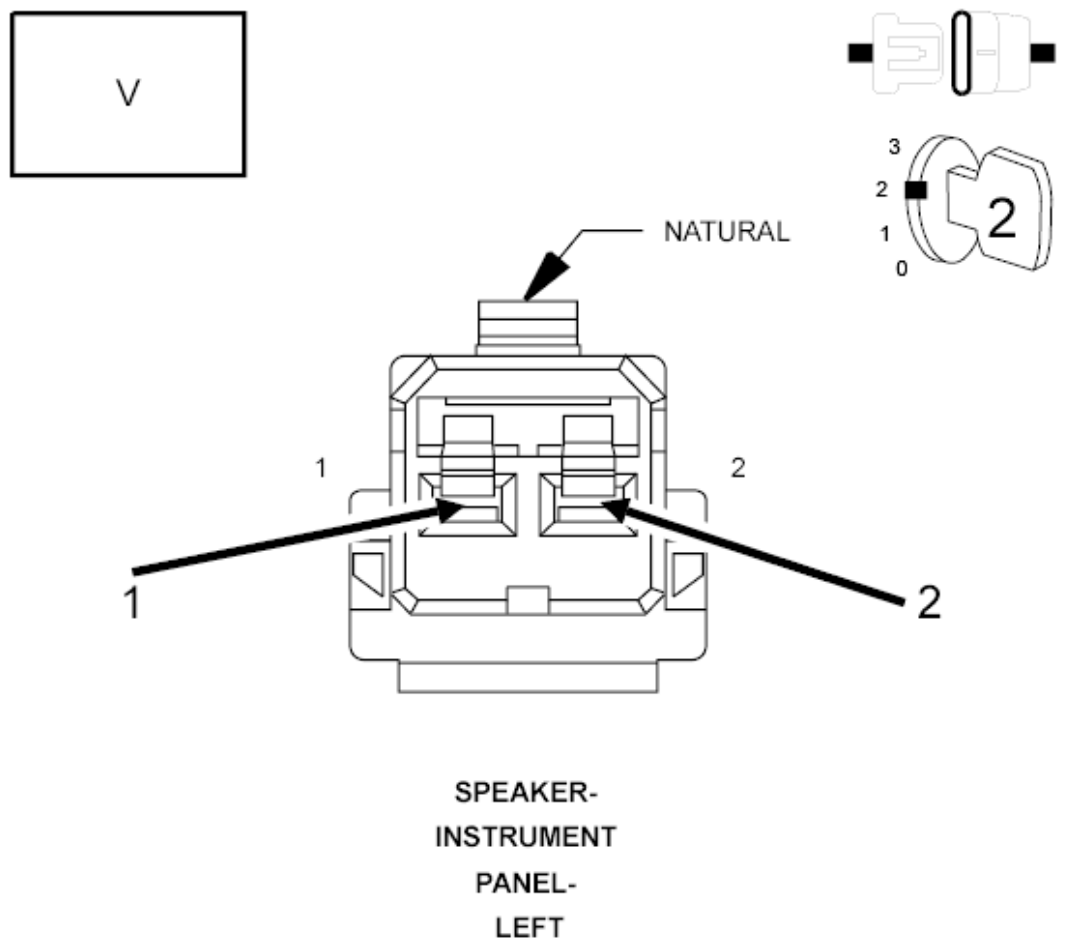
No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and

connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.

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

2. CHECK THE OPERATION OF THE LEFT FRONT I/P SPEAKER



2529592

Fig. 8: Checking Operation Of Left Front Instrumental Panel Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left I/P Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and set the volume to 25.
5. Adjust the speakers to the front and center.

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6. With a voltmeter set to read in A/C voltage, measure the voltage of the Amplified Left I/P Speaker circuits in the Amplified Left I/P Speaker harness connector.

Is the voltage present greater than 1 volt?

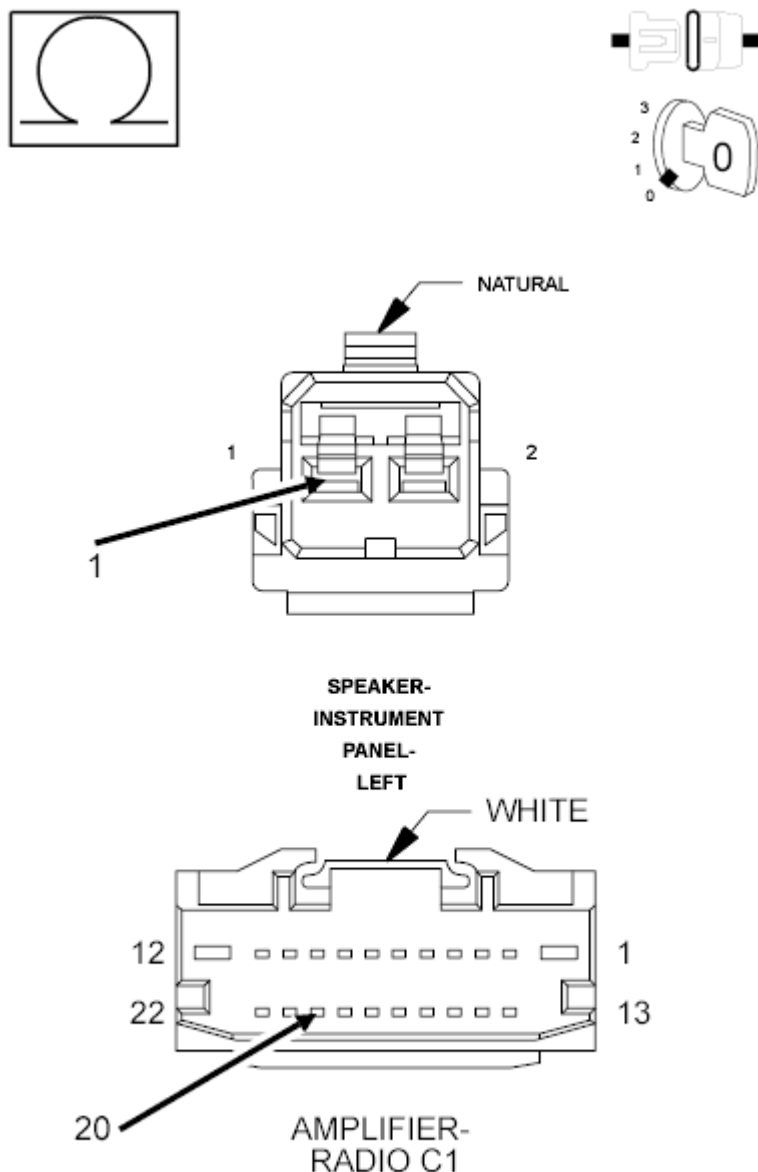
Yes

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

No

- Go to step 3

3. **CHECK THE (X209) LEFT I/P SPEAKER (+) CIRCUIT FOR AN OPEN**



2529631

Fig. 9: Checking Left Instrumental Panel Speaker (+) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Measure the resistance of the (X209) Left I/P Speaker (+) circuit between the Amplifier C1 harness connector and the Left I/P Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

- Go to step 4

No

- Repair the (X209) Left I/P Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK THE (X299) LEFT I/P SPEAKER (-) CIRCUIT FOR AN OPEN

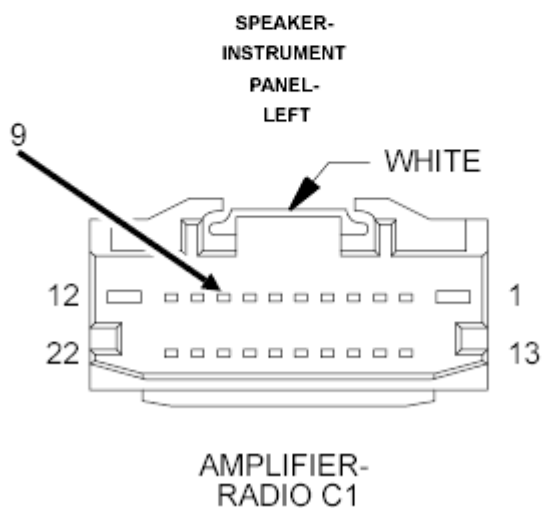
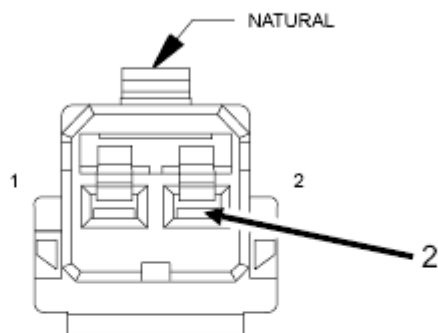
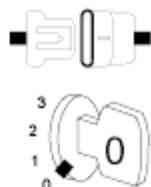
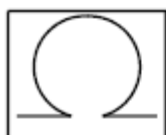


Fig. 10: Checking Left Instrument Panel Speaker (-) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X299) Left I/P Speaker (-) circuit between the Amplifier C1 harness connector and the Left I/P Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

No

- Repair the (X299) Left I/P Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1464-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

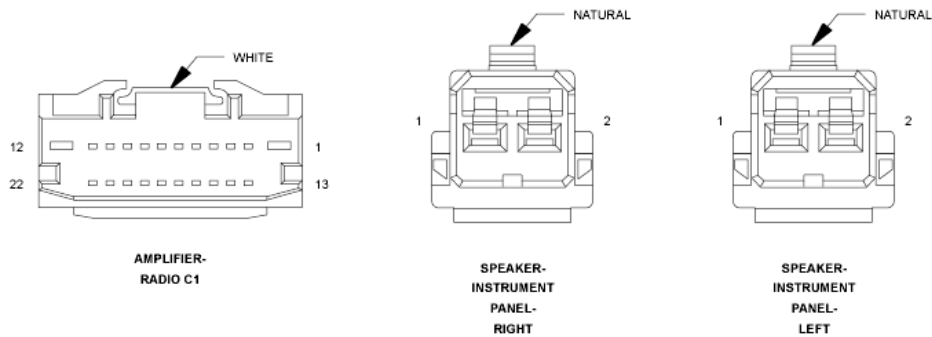
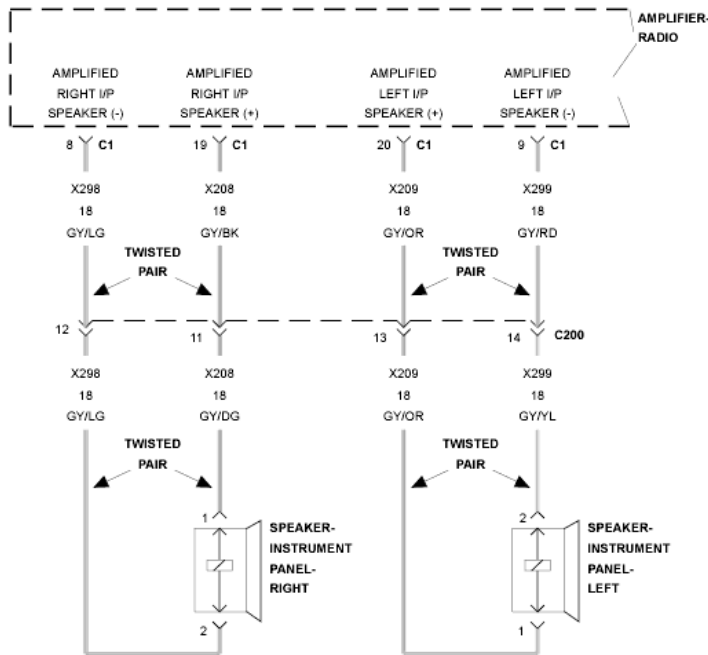


Fig. 11: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

- **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes

(X209) AMPLIFIED LEFT INSTRUMENT PANEL (I/P) (+) CIRCUIT SHORTED TO THE (X299) AMPLIFIED LEFT INSTRUMENT PANEL (I/P) (-) CIRCUIT
LEFT INSTRUMENT PANEL (I/P) SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1464-CHANNEL 1 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

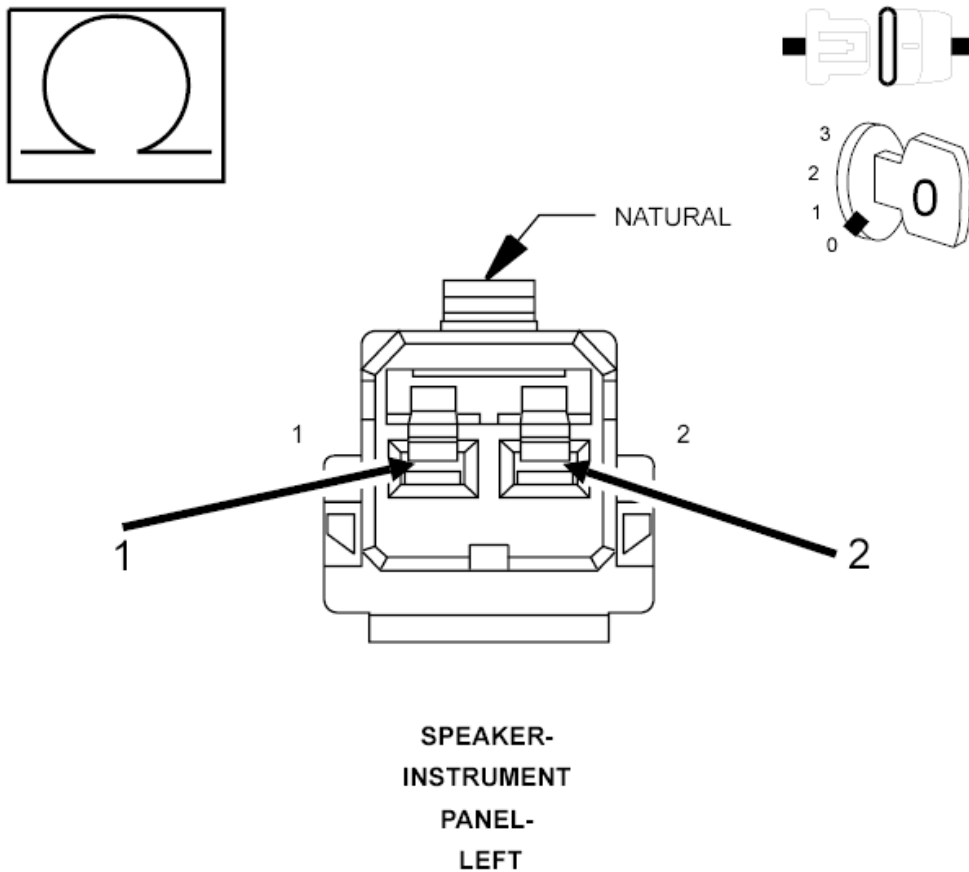
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE AMPLIFIED LEFT I/P SPEAKER



2530647

Fig. 12: Checking Operation Of Amplified Left Instrument Panel Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left I/P Speaker harness connector.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure at the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

Yes

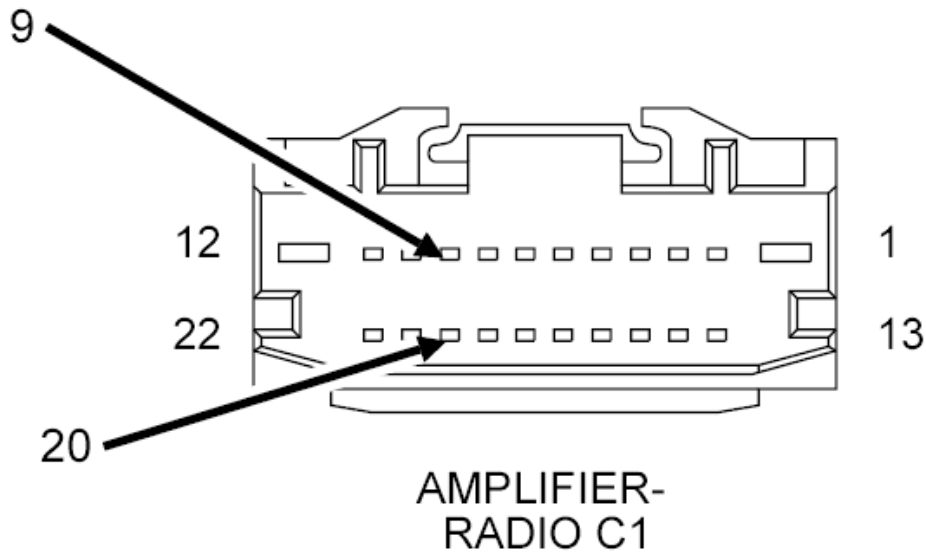
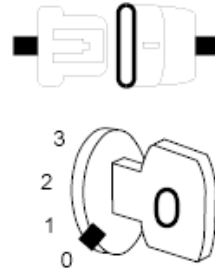
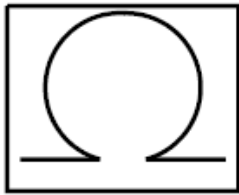
- Replace the Left I/P Speaker in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to step 3

3. **CHECK THE (X209) AMPLIFIED LEFT I/P SPEAKER (+) CIRCUIT, AND THE (X299) AMPLIFIED LEFT I/P SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**



1435570

Fig. 13: Checking Left Instrument Panel Speaker (+) & Left Instrument Panel Speaker (-) Circuits
Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C1 harness connector.
2. Measure the resistance between the (X209) Left I/P Speaker (+) circuit and the (X299) Left I/P Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X209) Left I/P Speaker (+) circuit for a short to the (X299) Left I/P Speaker (-) circuit.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1465-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1465-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE?

Yes

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1466-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT LOW

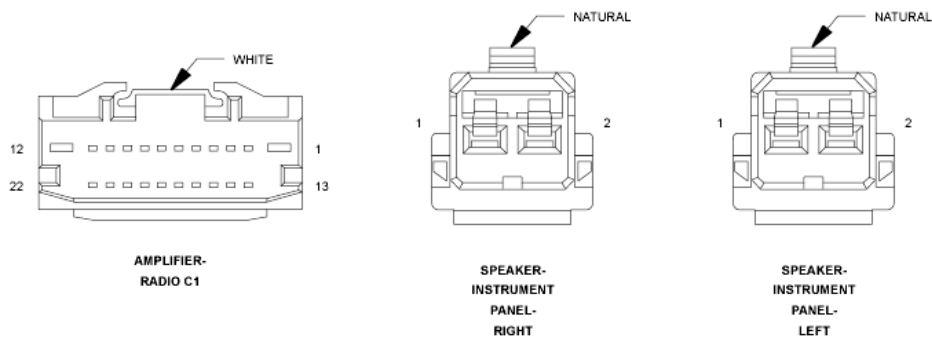
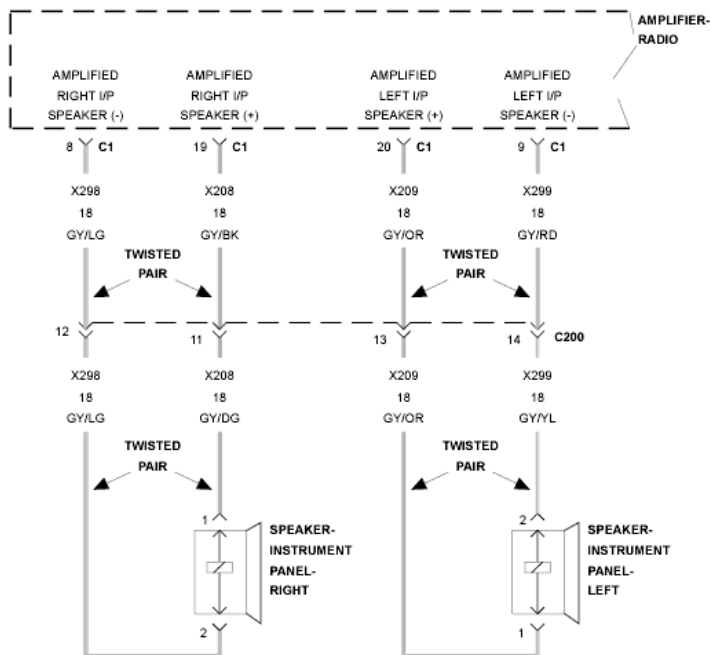


Fig. 14: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT SHORTED TO GROUND (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT SHORTED TO GROUND RIGHT I/P SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1466-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE RIGHT INSTRUMENT PANEL (I/P) SPEAKER

1. Make sure one of the front doors is still open.
2. Using the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Right I/P Speaker harness connector.
5. Turn the ignition on.

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6. Turn the radio on and set the volume to 25.
7. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1466-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

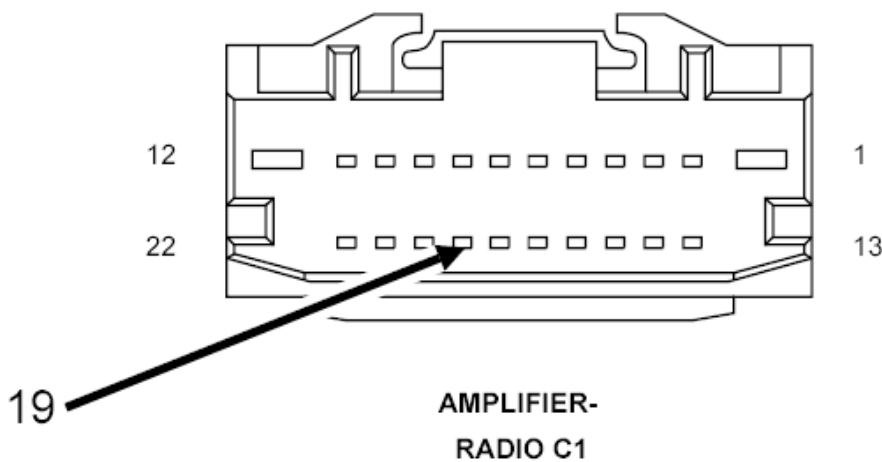
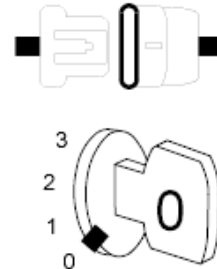
Yes

- Go to step 3

No

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

3. **CHECK THE (X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND**



2504112

Fig. 15: Checking Amplified Right Instrument Panel Speaker (+) Circuit

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Measure the resistance between ground and the (X208) Right I/P Speaker (+) circuit.

Is the resistance below 10K Ohms?

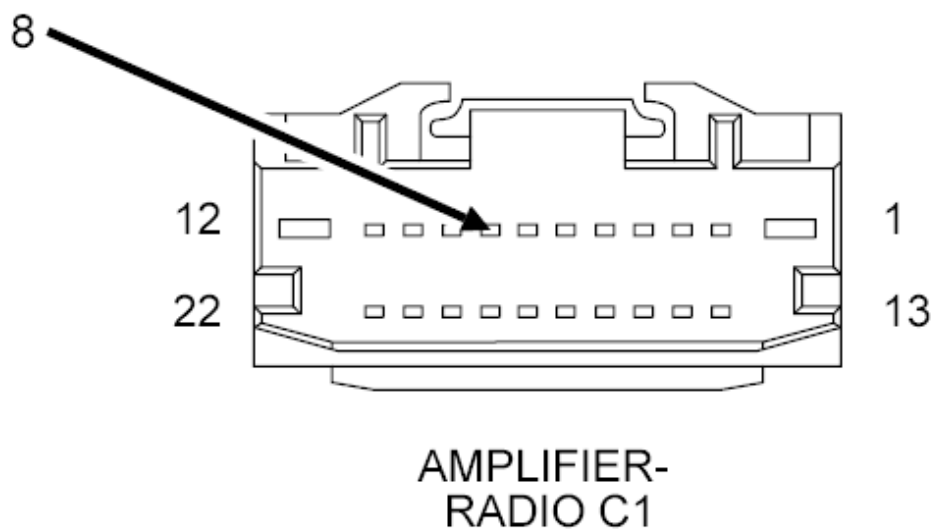
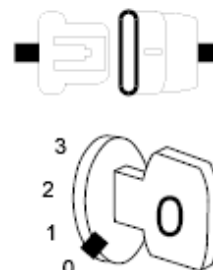
Yes

- Repair the (X208) Right I/P Speaker (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. **CHECK THE (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND**



2504140

Fig. 16: Checking Amplified Right Instrument Panel Speaker (+) Circuit

Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X298) Amplified Right I/P Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

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- Repair the (X298) Amplified Right I/P Speaker (-) for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1467-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

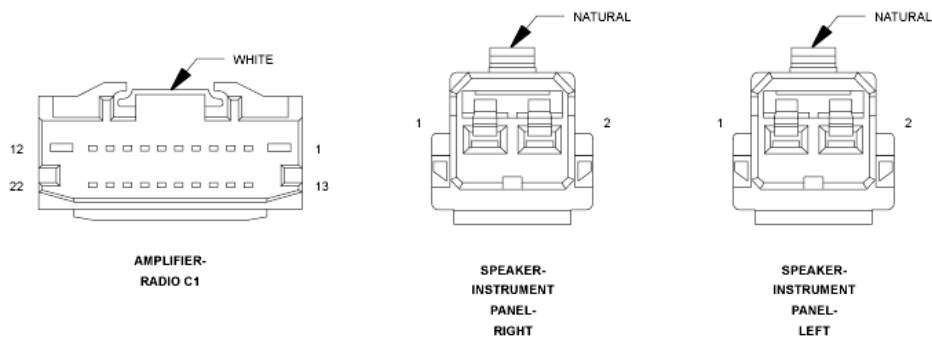
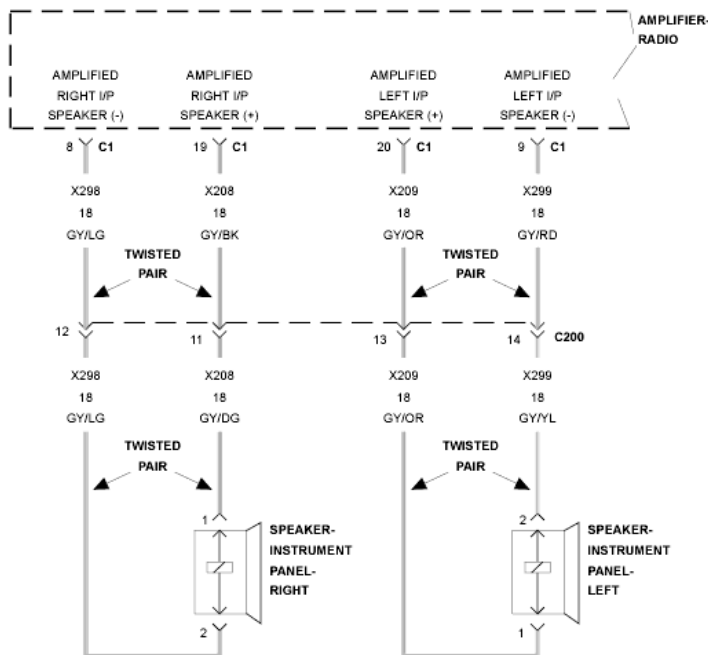


Fig. 17: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes

(X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE
(X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1467-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

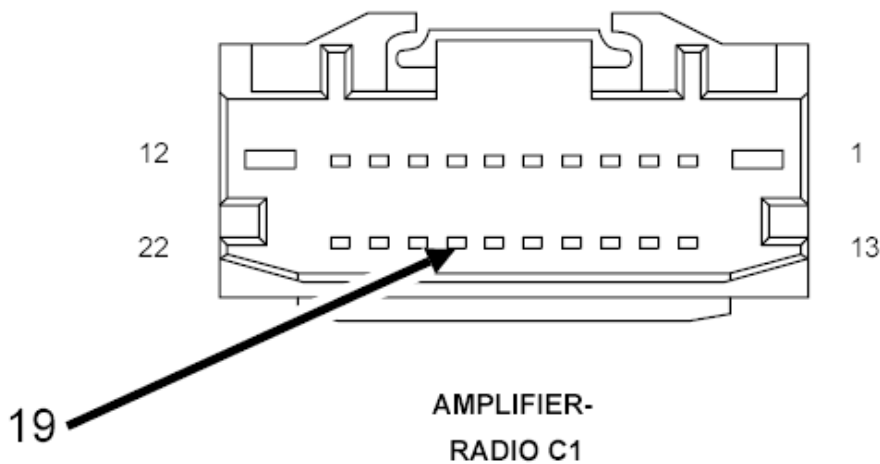
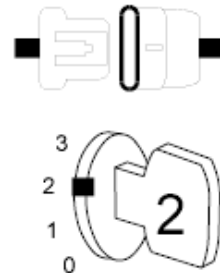
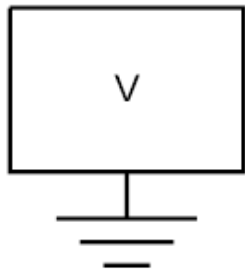
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR VOLTAGE ON THE (X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT



2504224

Fig. 18: Checking Voltage On Amplified Right Instrument Panel Speaker (+) Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Disconnect the Amplified Right I/P Speaker harness connector.
4. Turn the ignition on.
5. Measure for voltage between the (X208) Amplified Right I/P Speaker (+) circuit and ground.

Is there any voltage present?

Yes

- Repair the (X208) Amplified Right I/P Speaker (+) circuit for a short to voltage.

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

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT

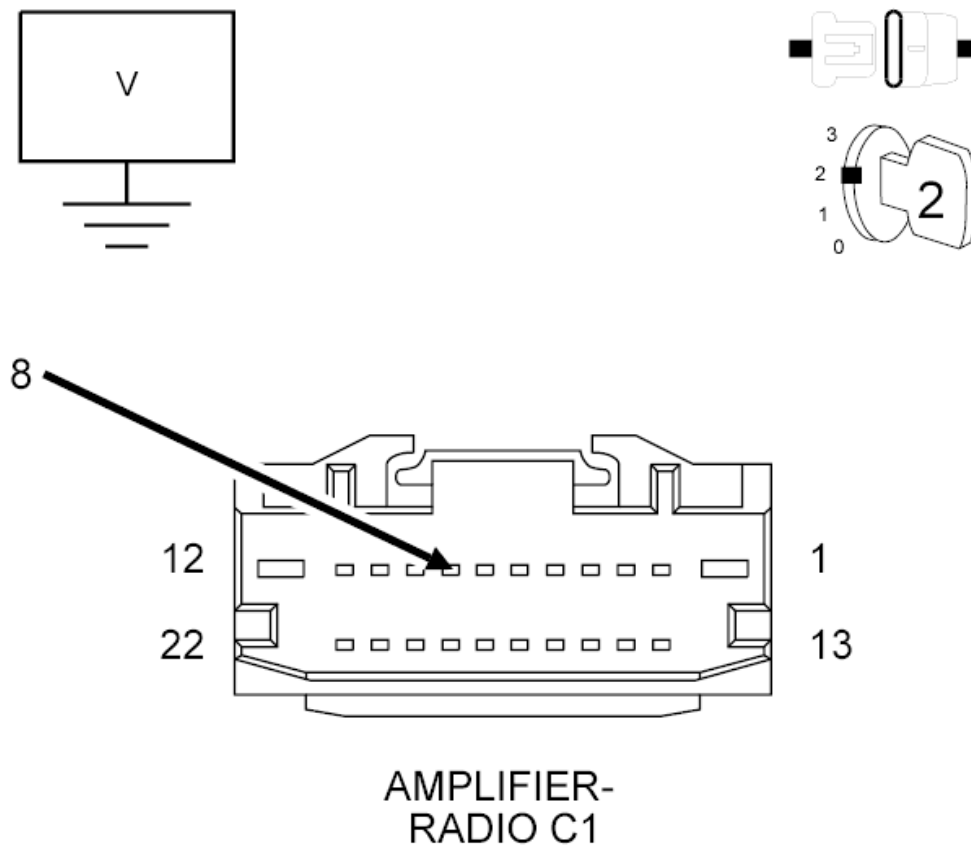


Fig. 19: Checking Voltage On Amplified Right Instrument Panel Speaker (-) Circuit
Courtesy of CHRYSLER LLC

1. Measure for voltage on the (X298) Amplified Right I/P Speaker (-) circuit and ground.

Is there any voltage present?

Yes

- Repair the (X298) Amplified Right I/P Speaker (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

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

B1468-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

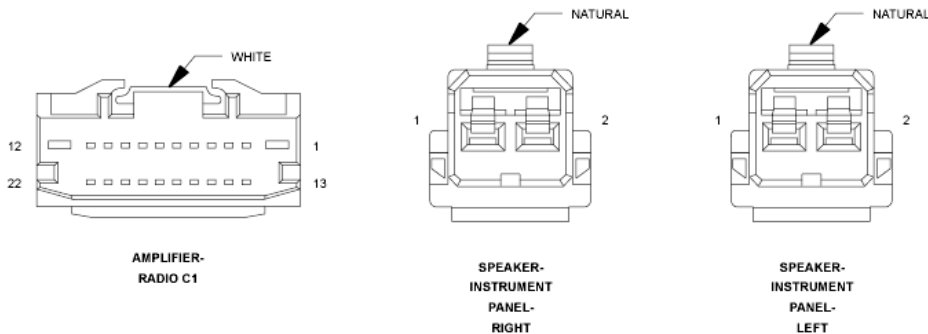
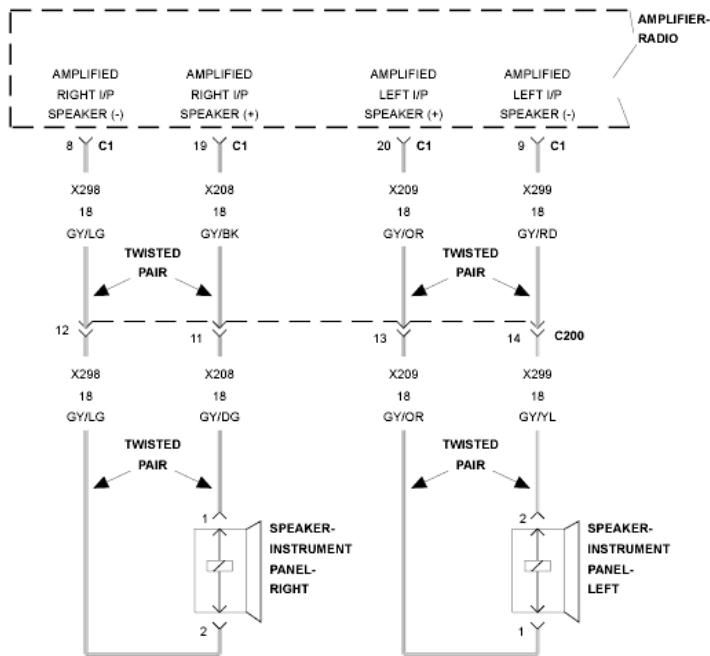


Fig. 20: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

- **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT OPEN
(X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT OPEN
RIGHT I/P SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

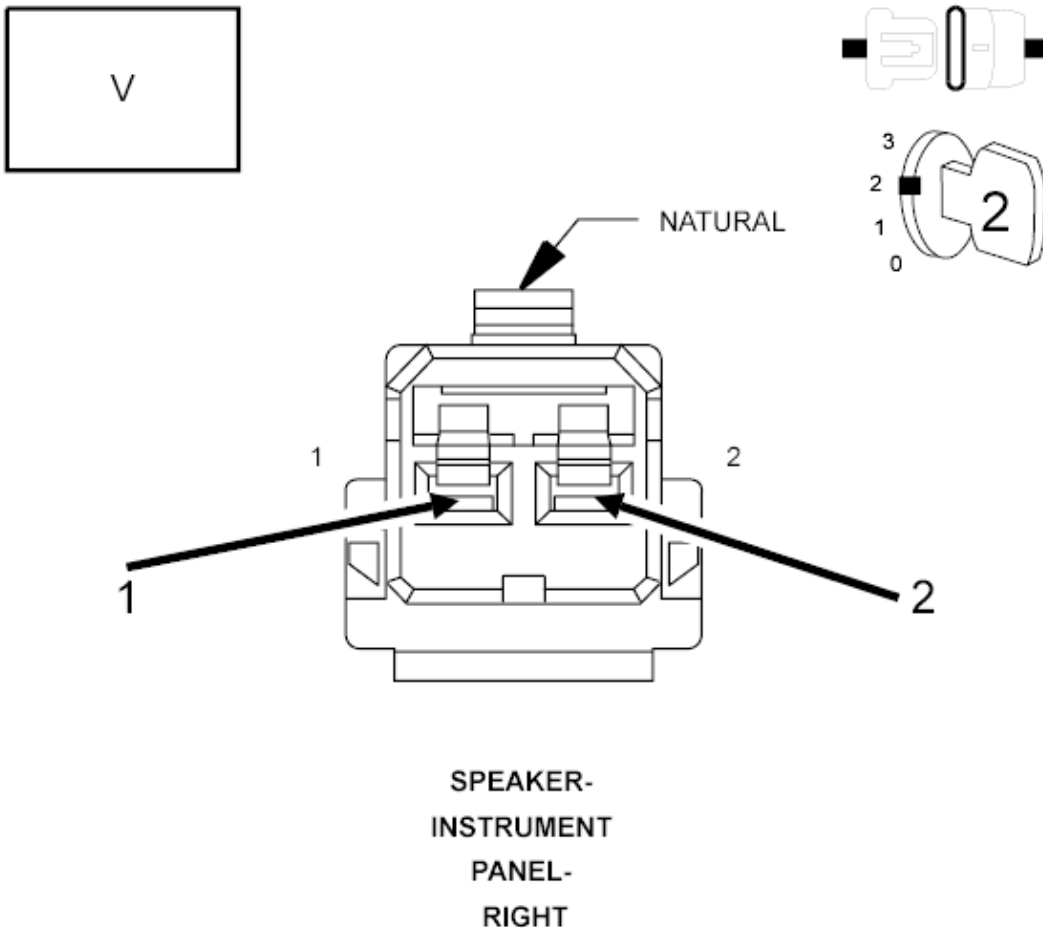
Does the scan tool display active: B1468-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

No

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

Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE OPERATION OF THE RIGHT FRONT I/P SPEAKER**

2533874

Fig. 21: Checking Operation Of Right Front Instrument Panel Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right I/P Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the front and center.
6. With a voltmeter set to read in A/C voltage, measure the voltage of the Amplified Right I/P Speaker circuits in the Amplified Right I/P Speaker harness connector.

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Is the voltage present greater than 1 volt?

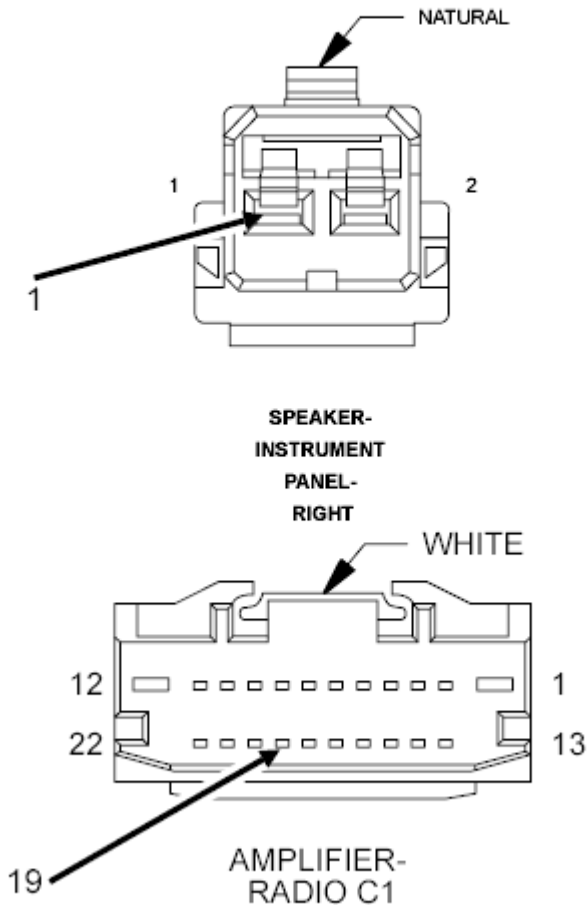
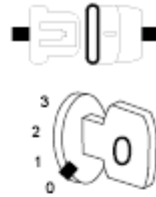
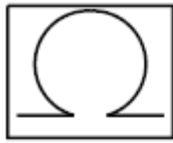
Yes

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

No

- Go to step 3

3. CHECK THE (X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT FOR AN OPEN



2533902

Fig. 22: Checking Amplified Right Instrument Panel Speaker (+) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Measure the resistance of the (X208) Amplified Right I/P Speaker (+) circuit between the Amplifier C1 harness connector and the Amplified Right I/P Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

- Go to step 4

No

- Repair the (X208) Amplified Right I/P Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK THE (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT FOR AN OPEN

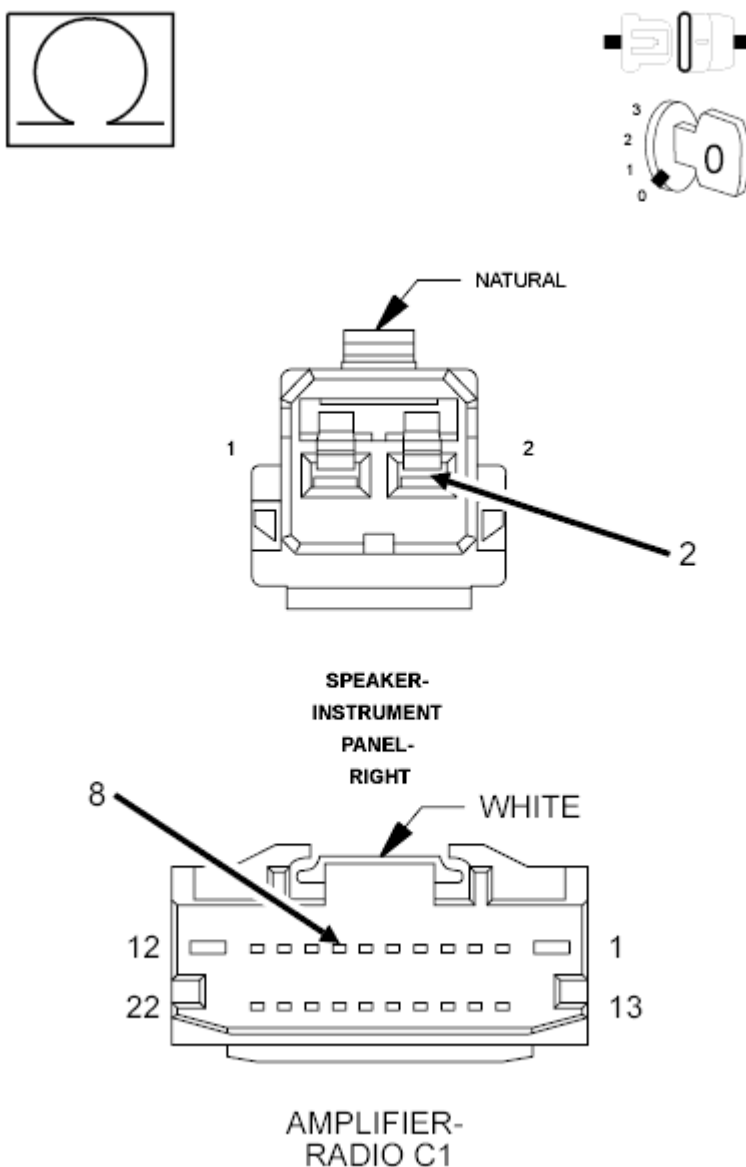


Fig. 23: Checking Amplified Right Instrument Panel Speaker (-) Circuit For An Open

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Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X298) Amplified Right I/P Speaker (-) circuit between the Amplifier C1 harness connector and the Amplified Right I/P Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

No

- Repair the (X298) Amplified Right I/P Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1469-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

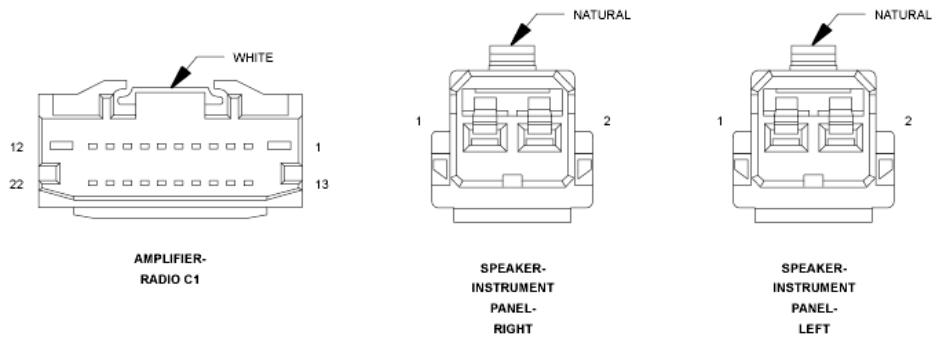
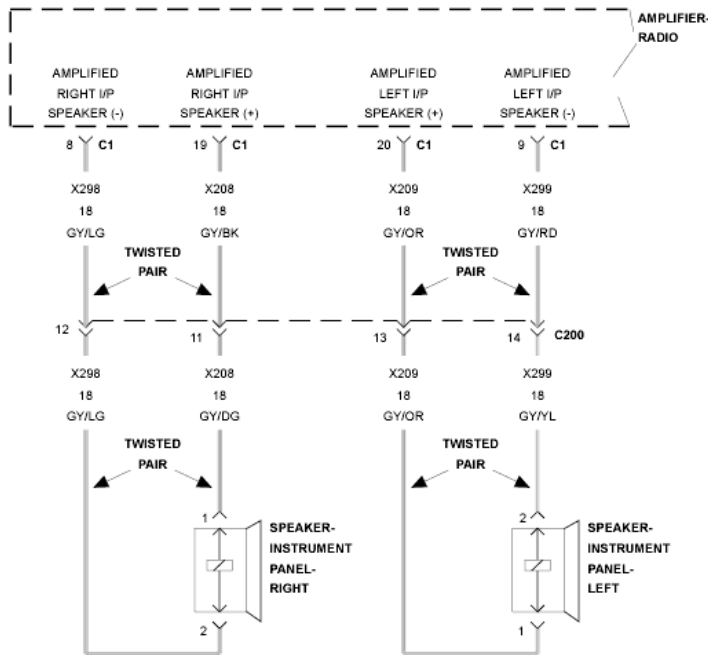


Fig. 24: Amplified Left Front Instrument Panel Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

- **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes

(X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT SHORTED TO THE (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUIT
AMPLIFIED RIGHT I/P SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1469-CHANNEL 2 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

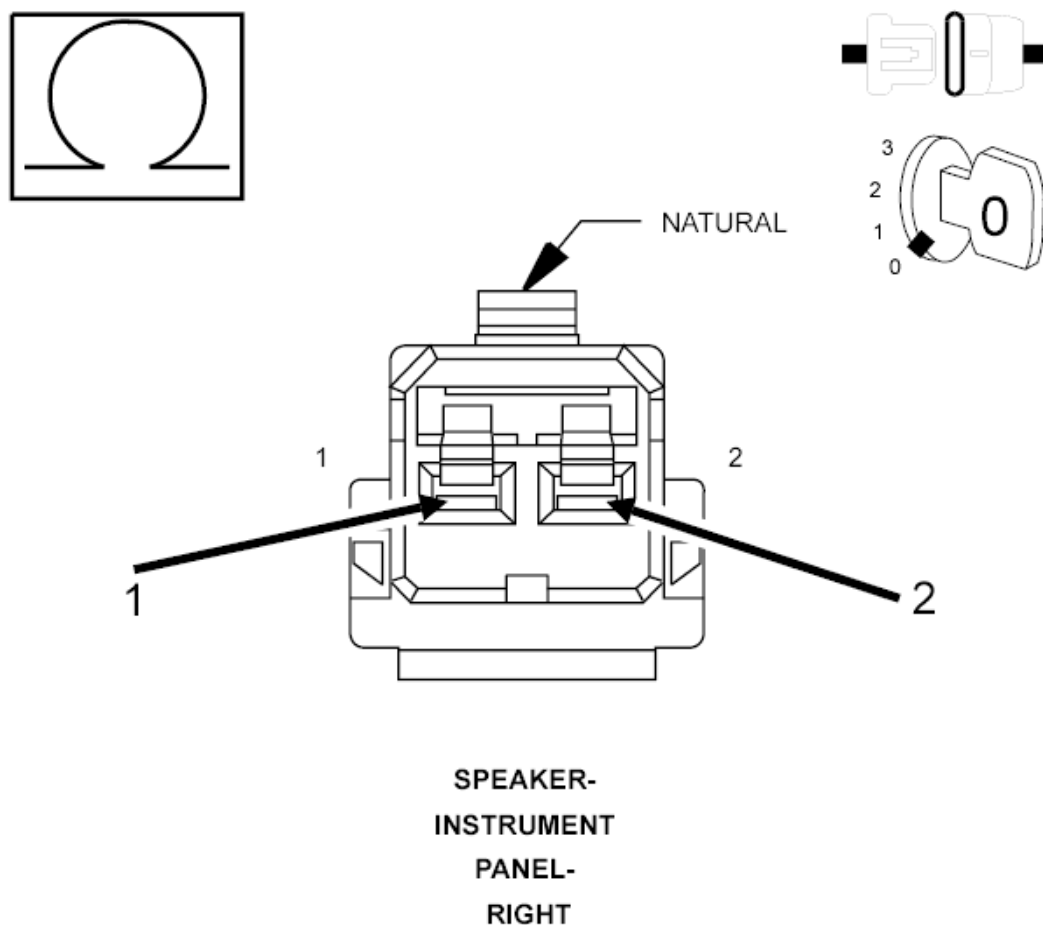
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE AMPLIFIED RIGHT I/P SPEAKER



2534049

Fig. 25: Checking Operation Of Amplified Right Instrument Panel Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplified Right I/P Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure at the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

Yes

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

No

- Go to step 3

3. **CHECK THE (X208) AMPLIFIED RIGHT I/P SPEAKER (+) CIRCUIT, AND THE (X298) AMPLIFIED RIGHT I/P SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**

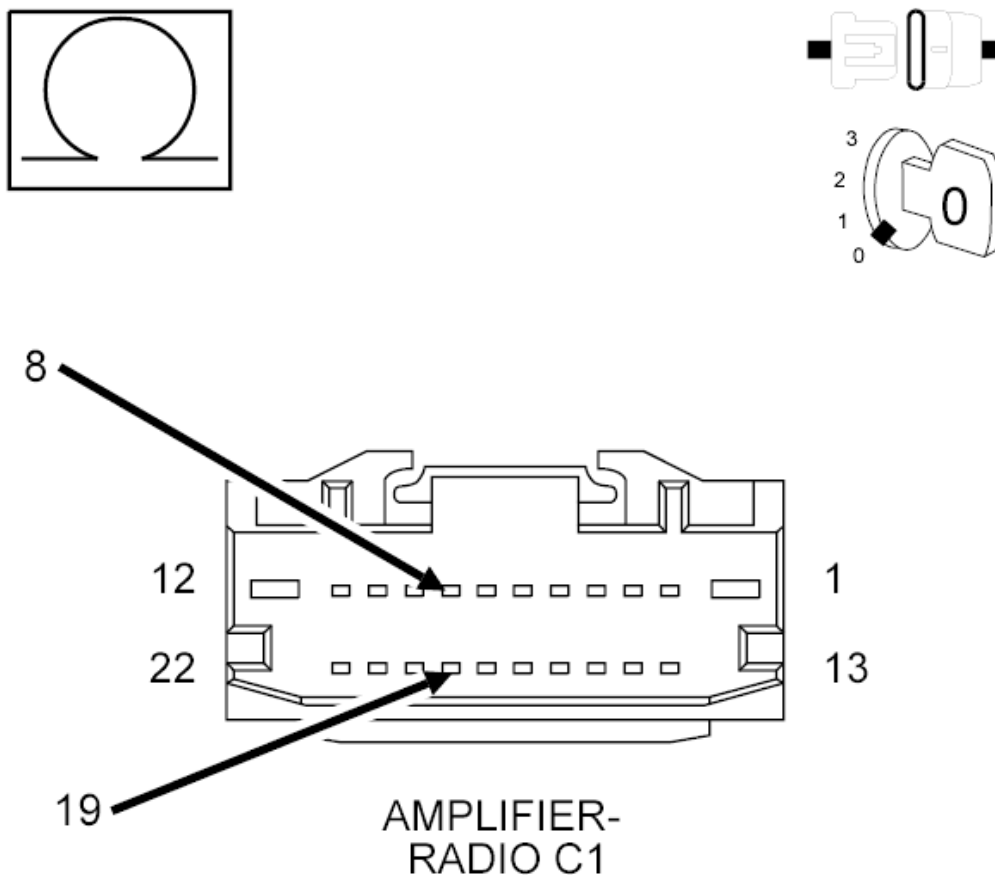


Fig. 26: Measuring Resistance Between Amplified Right Instrument Panel Speaker (+) & (-) Circuits

Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C1 harness connector.
2. Measure the resistance between the (X208) Amplified Right I/P Speaker (+) circuit, and the (X298) Amplified Right I/P Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X208) Amplified Right I/P Speaker (+) circuit, and the (X298) Amplified Right I/P Speaker (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

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

B146A-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test**1. CHECK FOR AN INTERMITTENT CONDITION**

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146A-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT

PERFORMANCE?**Yes**

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B146B-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW

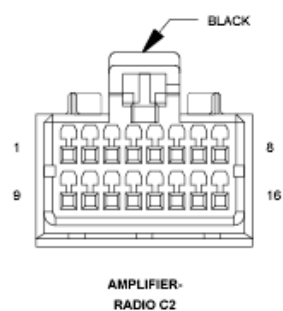
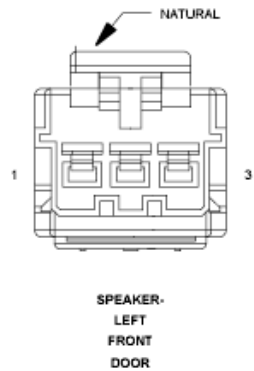
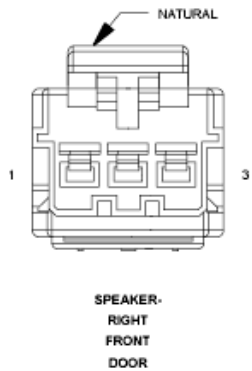
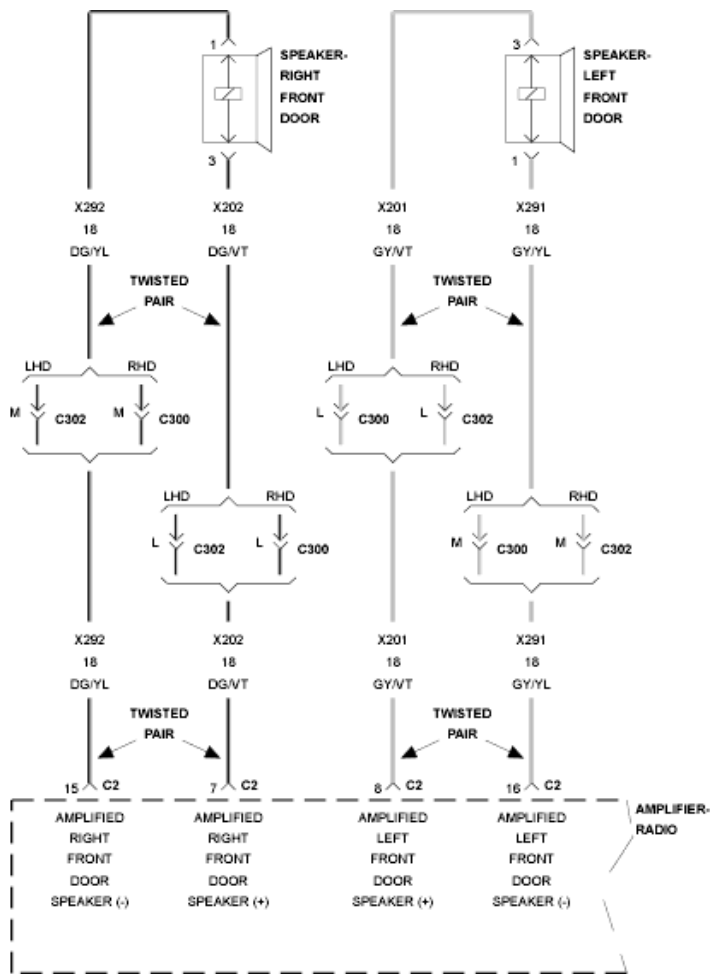


Fig. 27: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO GROUND
(X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT SHORTED TO GROUND
LEFT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146B-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

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

Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE LEFT FRONT DOOR SPEAKER**

1. Make sure one of the front doors is still open.
2. Using the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Left Front Door Speaker harness connector.
5. Turn the ignition on.
6. Turn the radio on and set the volume to 25.
7. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146B-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

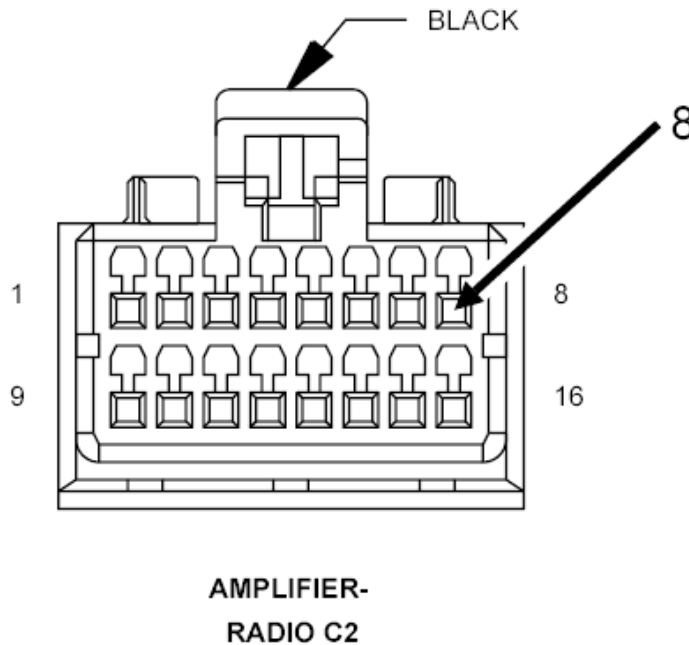
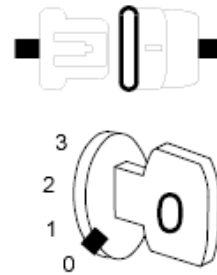
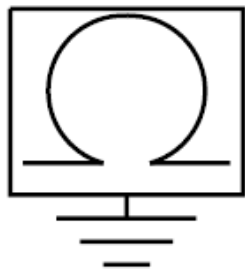
Yes

- Go to step 3

No

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

3. CHECK THE (X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND



2534702

Fig. 28: Checking Left Front Door Speaker (+) Circuit For A Short To Ground
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between ground and the (X201) Left Front Door Speaker (+) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X201) Left Front Door Speaker (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 4

4. **CHECK THE (X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND**

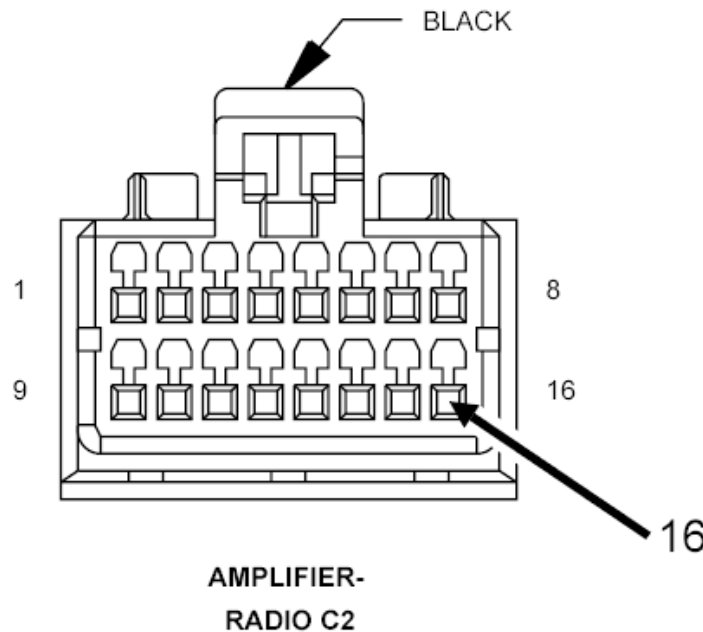
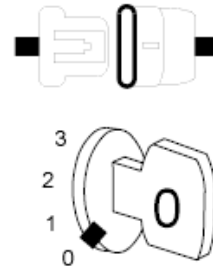
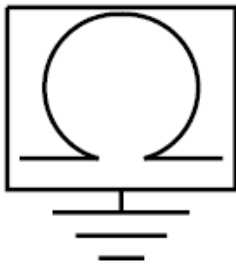


Fig. 29: Checking Left Front Door Speaker (-) Circuit For A Short To Ground
Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X291) Left Front Door Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X291) Left Front Door Speaker (-) for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

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No

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

B146C-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

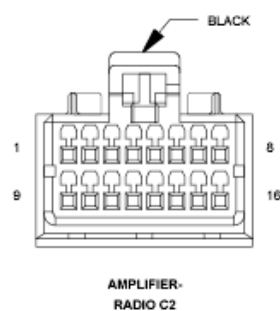
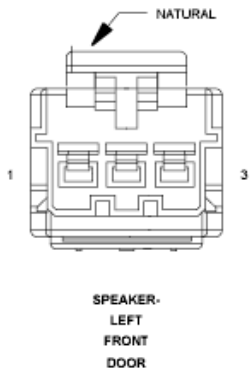
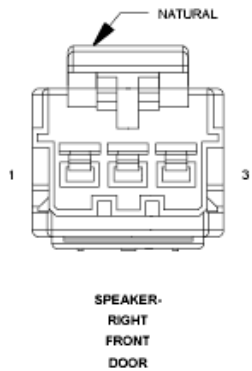
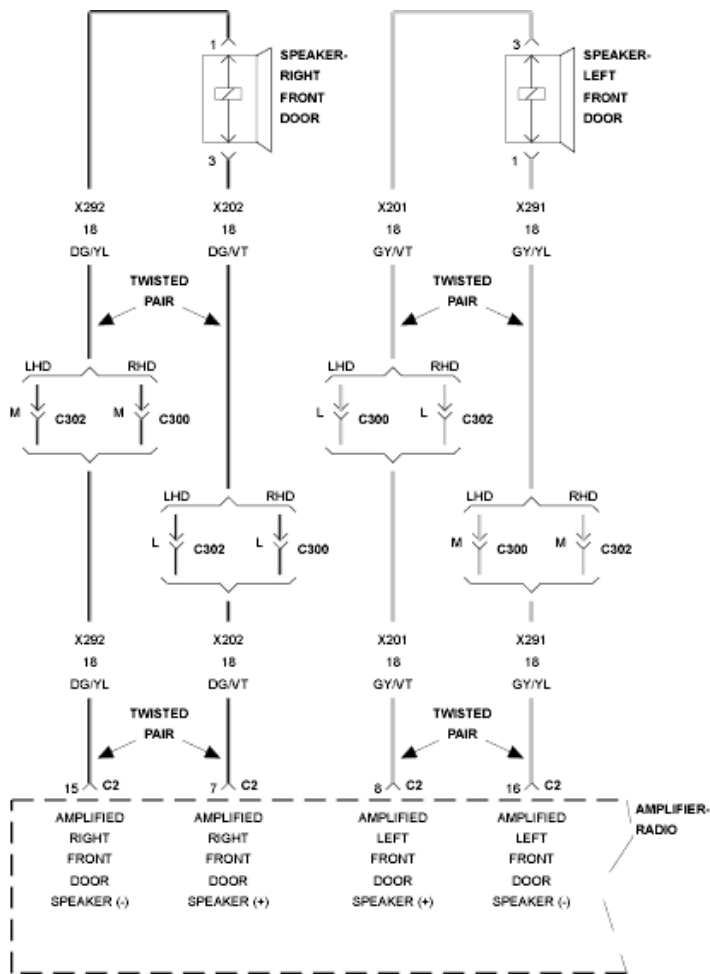


Fig. 30: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE
(X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

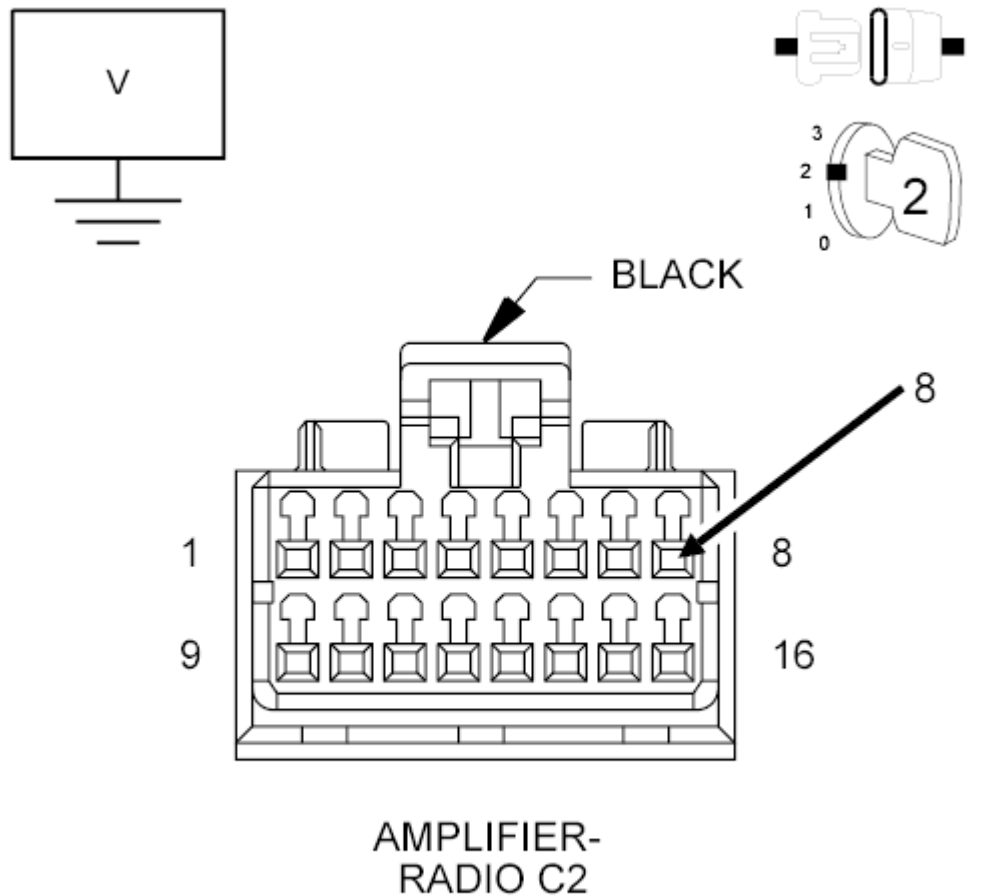
Does the scan tool display active: B146C-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR VOLTAGE ON THE (X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT

2506366

Fig. 31: Checking Voltage On Left Front Door Speaker (+) Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Left Front Door Speaker harness connector.
4. Turn the ignition on.
5. Measure for voltage between the (X201) Left Front Door Speaker (+) circuit and ground.

Is there any voltage present?

Yes

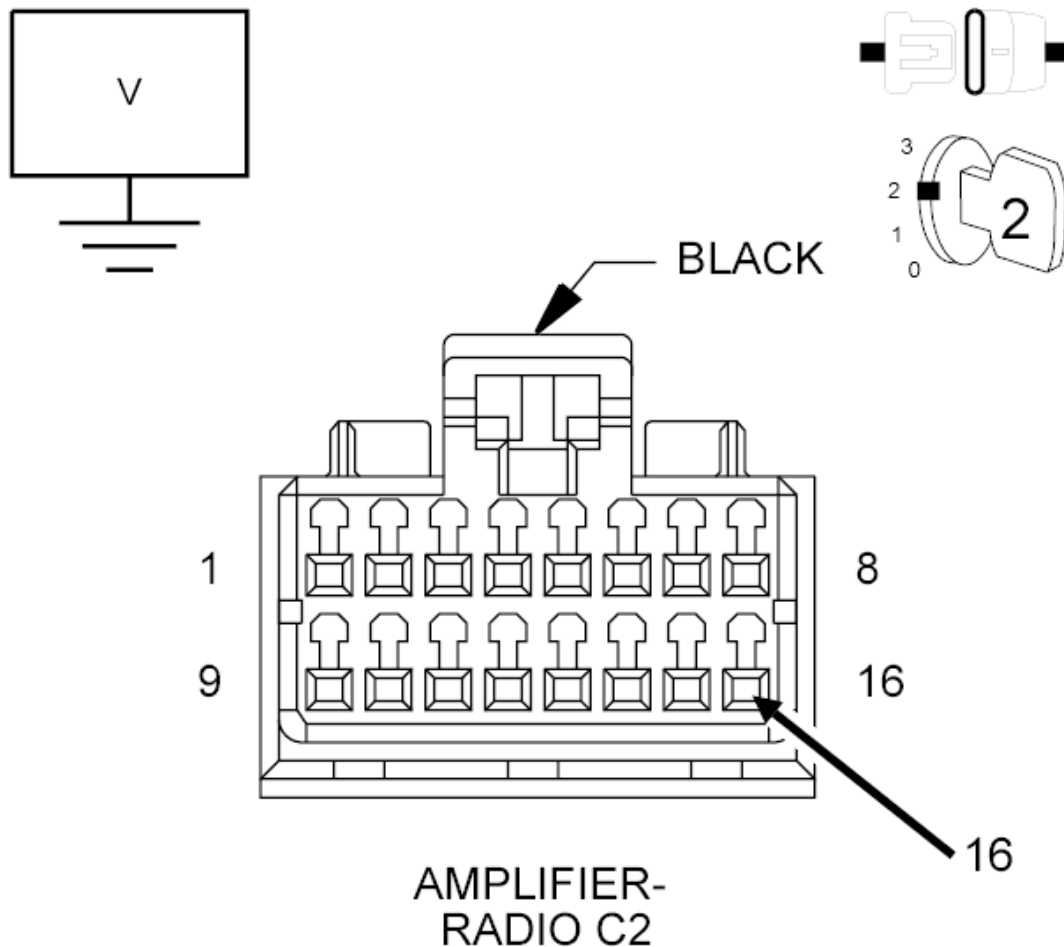
- Repair the (X201) Left Front Door Speaker (+) circuit for a short to voltage.

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

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT



2506490

Fig. 32: Checking Voltage On Left Front Door Speaker (-) Circuit
 Courtesy of CHRYSLER LLC

1. Measure for voltage between the (X291) Left Front Door Speaker (-) circuit and ground.

Is there any voltage present?

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Yes

- Repair the (X291) Left Front Door Speaker (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B146D-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

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2009 ACCESSORIES AND EQUIPMENT Audio (Amplifier) - Electrical Diagnostics - Journey

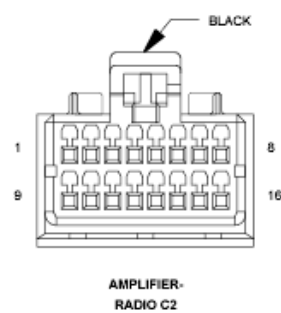
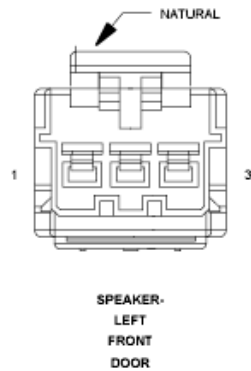
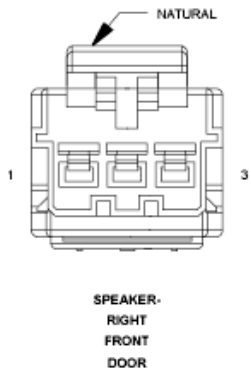
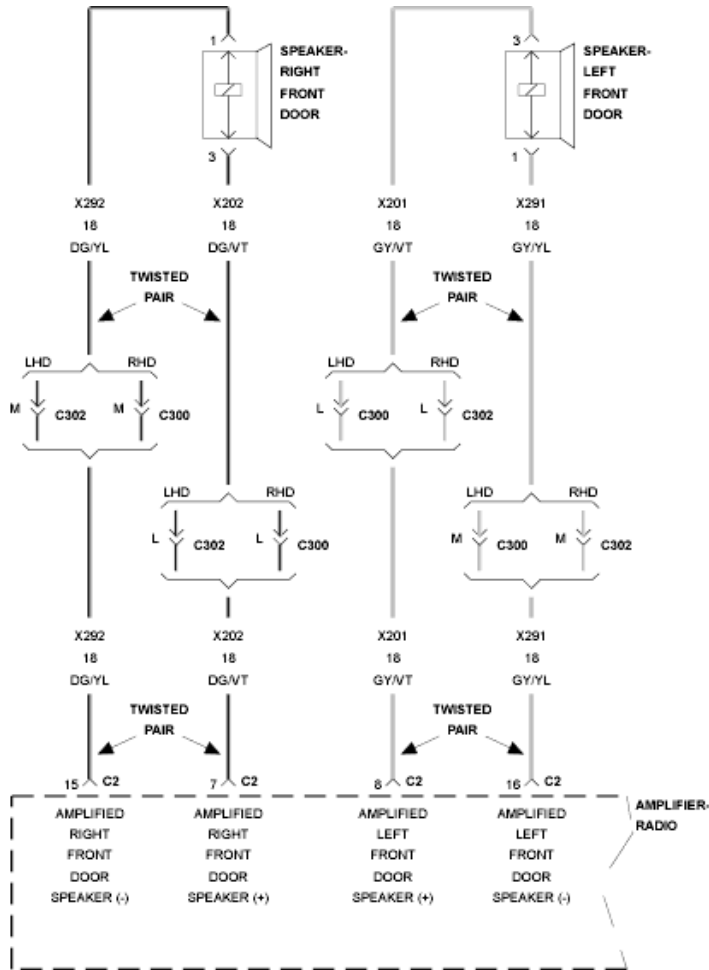


Fig. 33: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

- **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT OPEN
(X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT OPEN
LEFT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146D-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

No

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

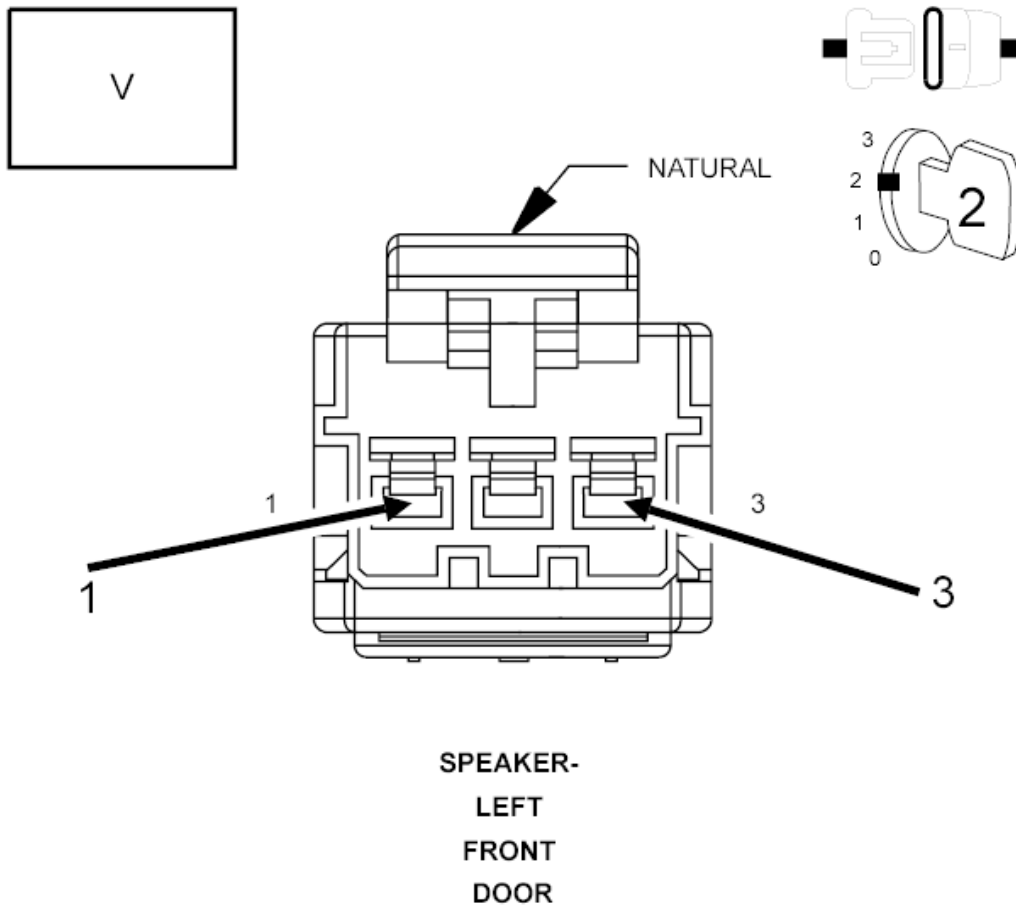
Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE OPERATION OF THE LEFT FRONT DOOR SPEAKER**

Fig. 34: Checking Operation Of Left Front Door Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Front Door Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the front and center.
6. With a voltmeter set to read in A/C voltage, measure the voltage of the Left Front Door Speaker circuits in the Left Front Door Speaker harness connector.

Is the voltage present greater than 1 volt?

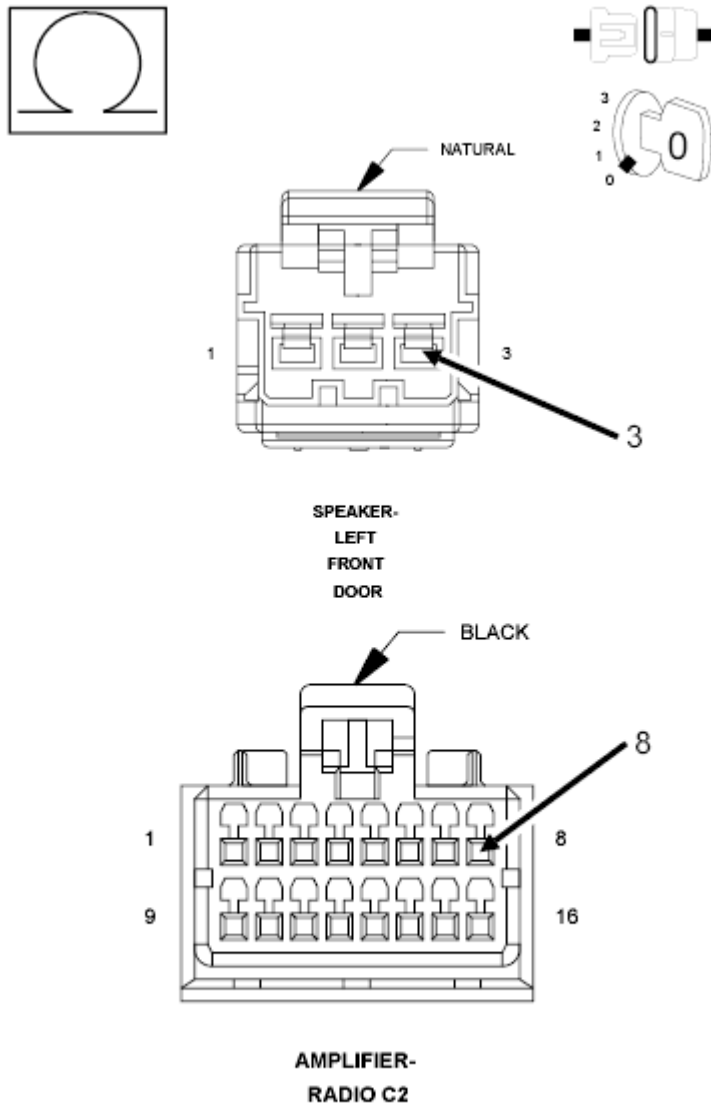
Yes

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

No

- Go to step 3

3. CHECK THE (X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT FOR AN OPEN



2535035

Fig. 35: Checking Left Front Door Speaker (+) Circuit For An Open
 Courtesy of CHRYSLER LLC

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1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance of the (X201) Left Front Door Speaker (+) circuit between the Amplifier C2 harness connector and the Left Rear Speaker harness connector.

Is the resistance below 2.0 Ohms?

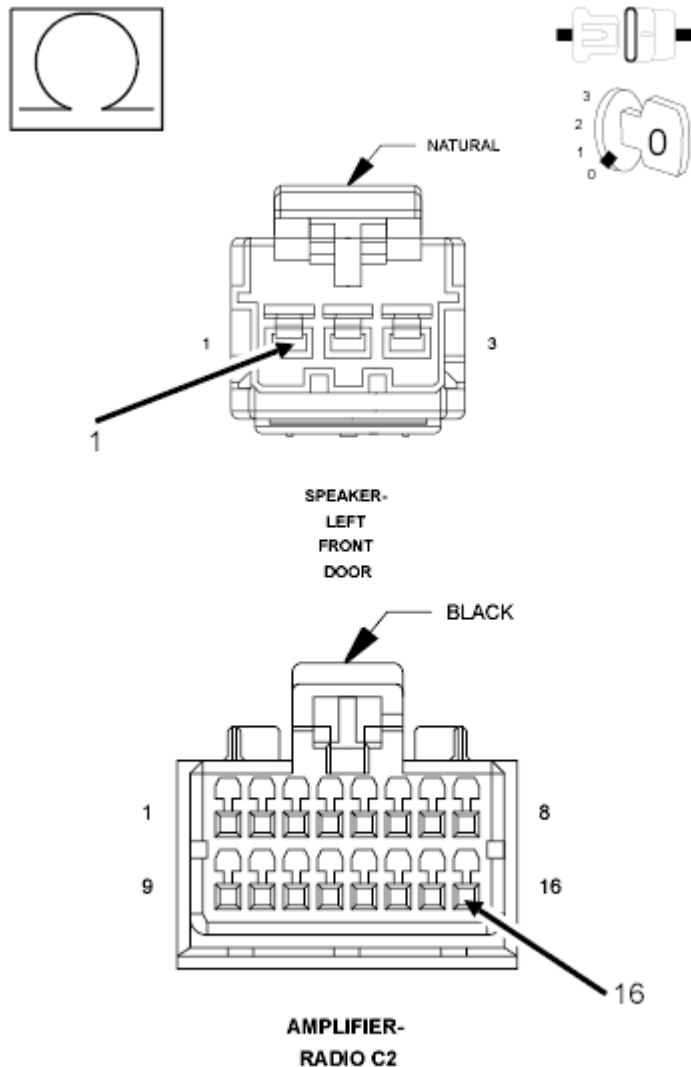
Yes

- Go to step 4

No

- Repair the (X201) Left Front Door Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. CHECK THE (X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT FOR AN OPEN



2535064

Fig. 36: Checking Left Front Door Speaker (-) Circuit For An Open
 Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X291) Left Front Door Speaker (-) circuit between the Amplifier C2 harness connector and the Left Front Door Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

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No

- Repair the (X291) Left Front Door Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B146E-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

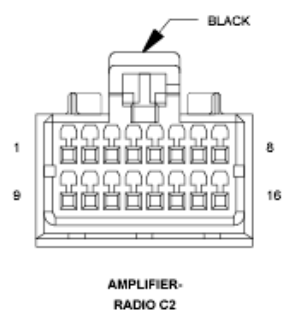
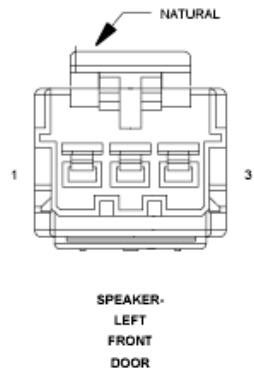
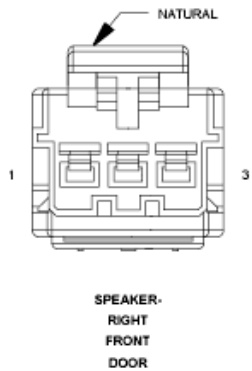
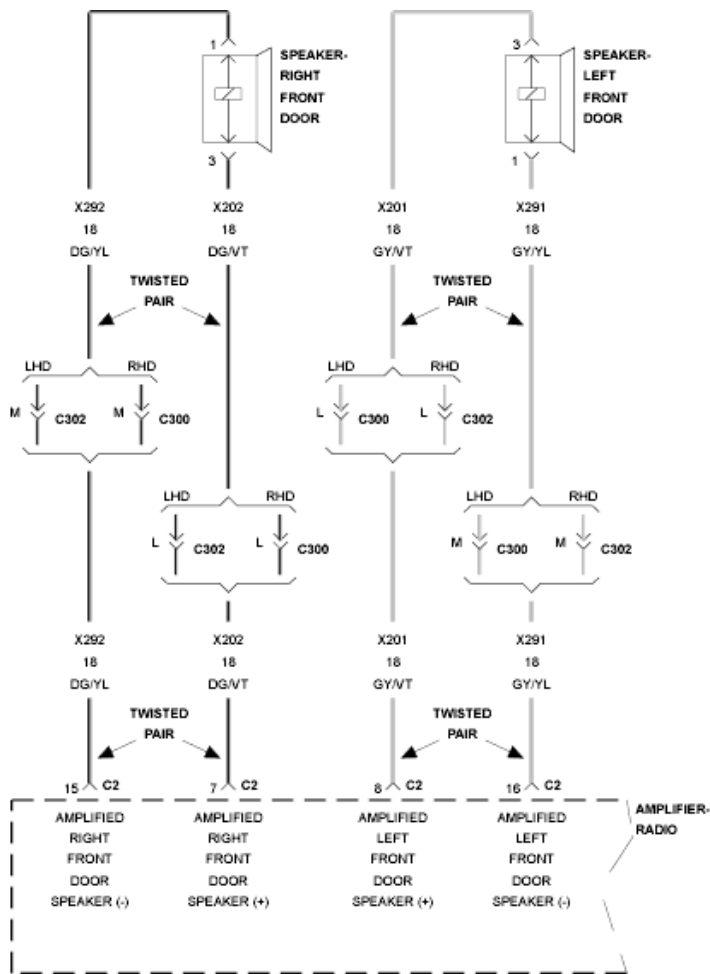


Fig. 37: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

- **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes
(X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO THE (X291) LEFT FRONT DOOR SPEAKER (-) CIRCUIT
LEFT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146E-CHANNEL 3 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

Yes

- Go to step 2

No

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

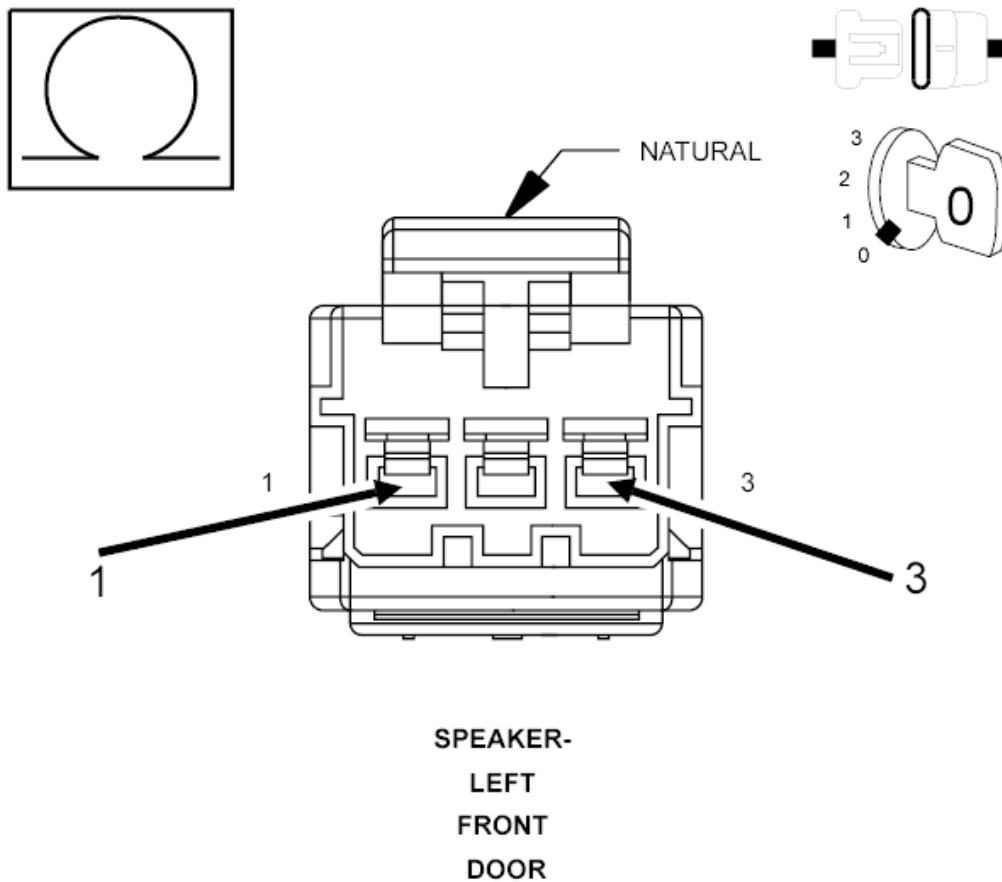
Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE OPERATION OF THE LEFT FRONT DOOR SPEAKER**

Fig. 38: Checking Operation Of Left Front Door Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Front Door Speaker harness connector.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure at the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

Yes

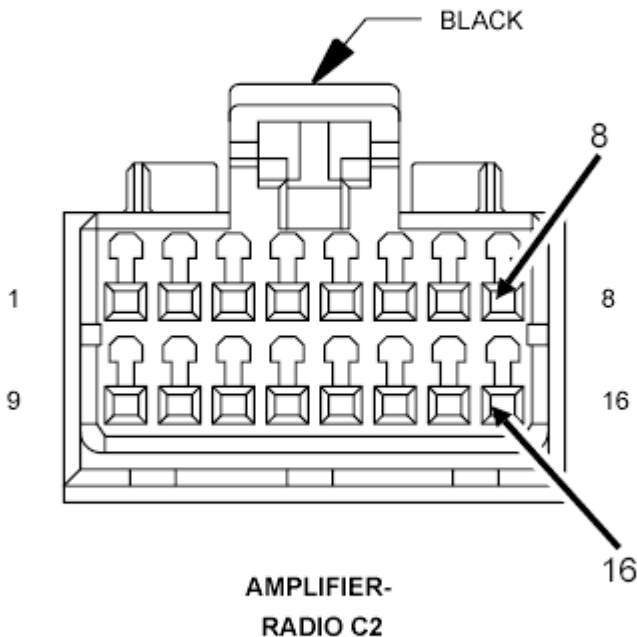
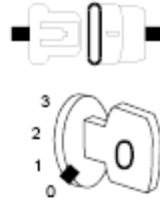
- Replace the Left Front Door Speaker in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to step 3

3. **CHECK THE (X201) LEFT FRONT DOOR SPEAKER (+) CIRCUIT, AND THE (X291) LEFT FRONT DOOR SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**



1436930

Fig. 39: Checking Resistance Between Left Front Door Speaker (+) & (-) Circuits
 Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.
2. Measure the resistance between the (X201) Left Front Door Speaker (+) circuit, and the (X291)

Left Front Door Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X201) Left Front Door Speaker (+) circuit, and the (X291) Left Front Door Speaker (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B146F-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.

5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B146F-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE?

Yes

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

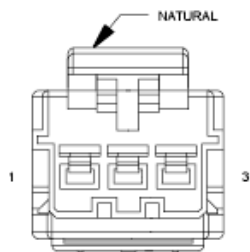
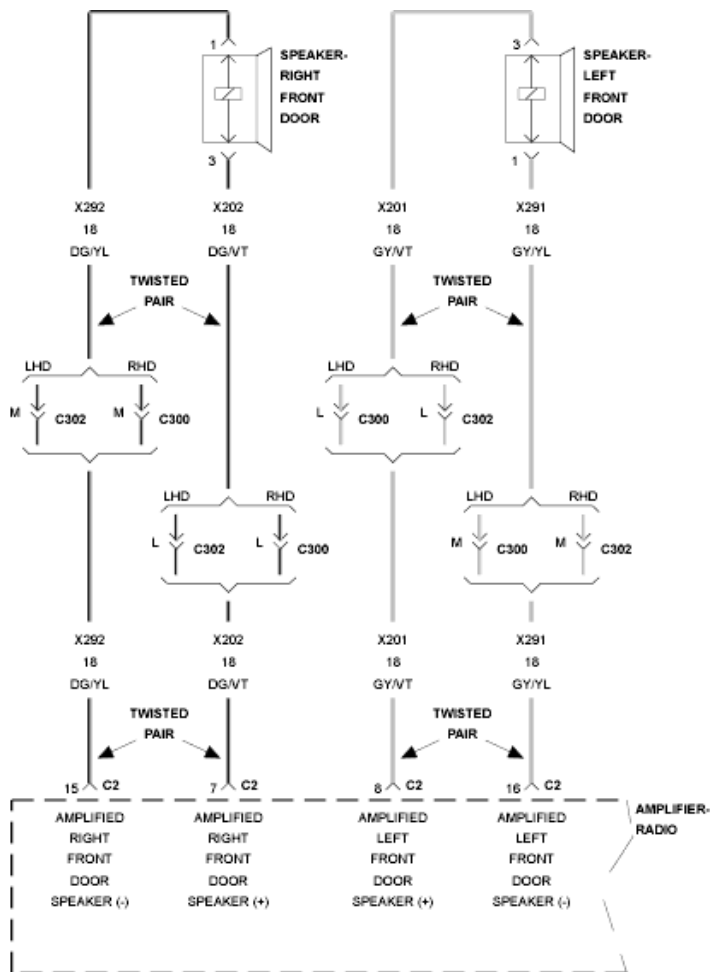
No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

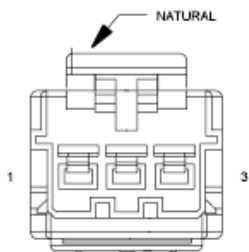
B1470-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT LOW

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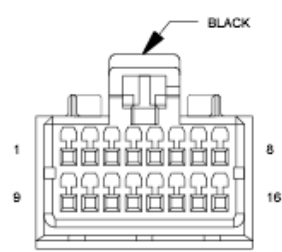
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SPEAKER-
RIGHT
FRONT
DOOR



SPEAKER-
LEFT
FRONT
DOOR



AMPLIFIER-
RADIO C2

Fig. 40: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO GROUND
(X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT SHORTED TO GROUND
RIGHT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1470-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

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

Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE RIGHT FRONT DOOR SPEAKER**

1. Make sure one of the front doors is still open.
2. With the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Right Front Door Speaker harness connector.
5. Turn the ignition on.
6. Turn the radio on and set the volume to 25.
7. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1470-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

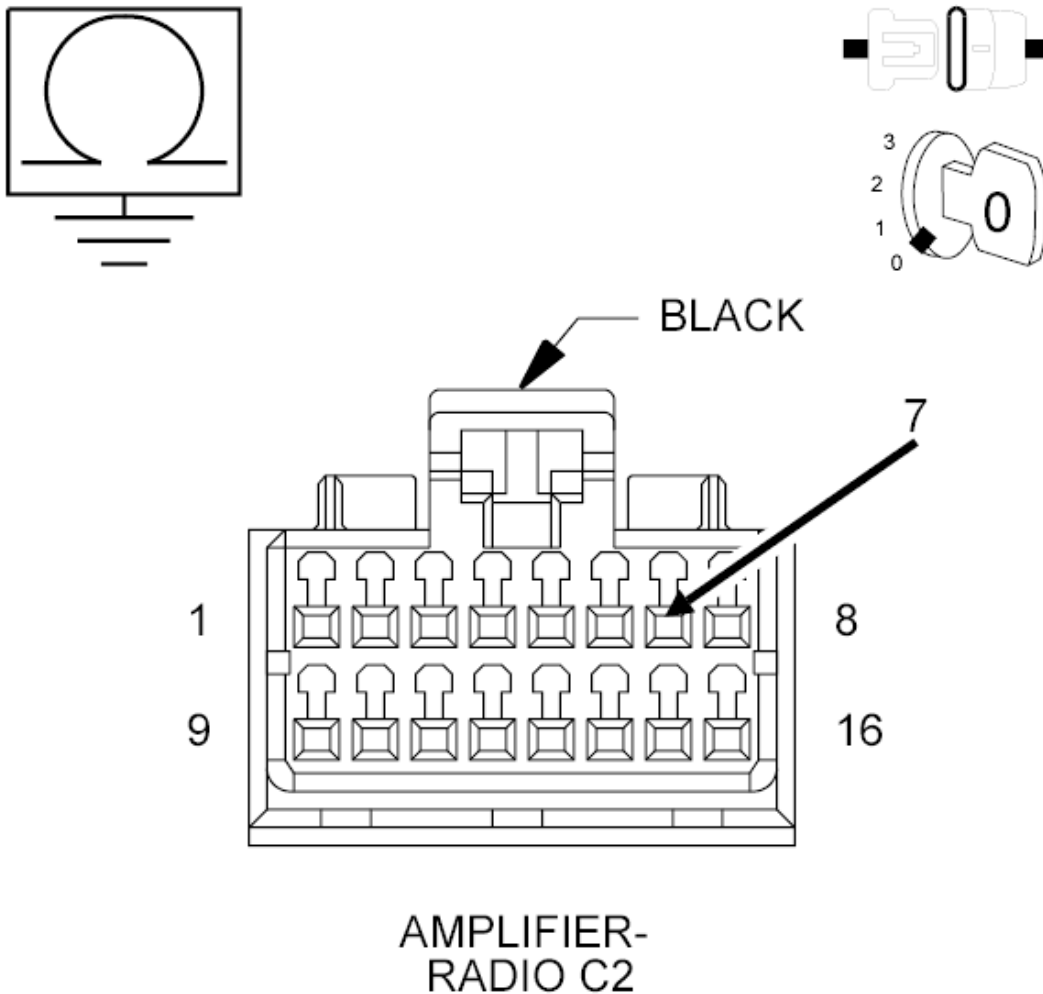
Yes

- Go to step 3

No

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

3. CHECK THE (X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND



2513263

Fig. 41: Checking Right Front Door Speaker (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between ground and the (X202) Right Front Door Speaker (+) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X202) Right Front Door Speaker (+) circuit for a short to ground.
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 4

4. **CHECK THE (X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND**

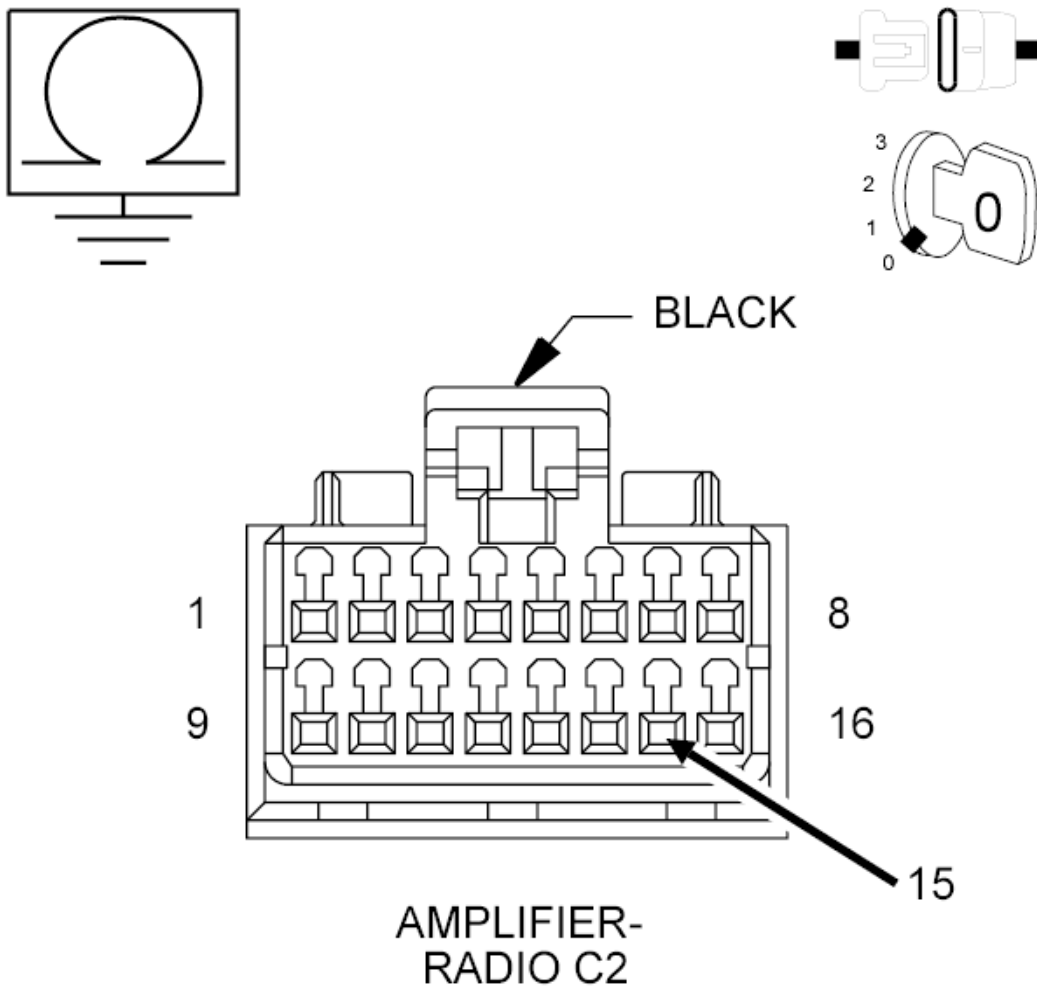


Fig. 42: Checking Right Front Door Speaker (-) Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X292) Right Front Door Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X292) Right Front Door Speaker (-) for a short to ground.

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

No

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

B1471-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

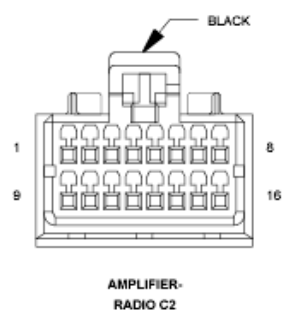
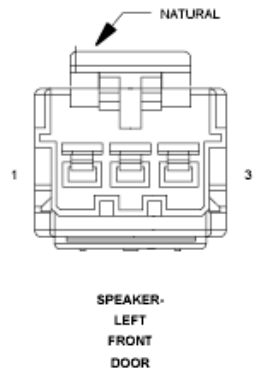
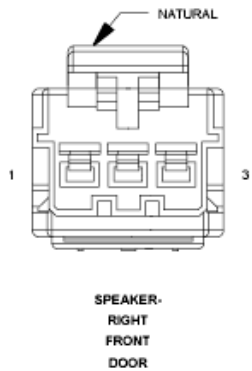
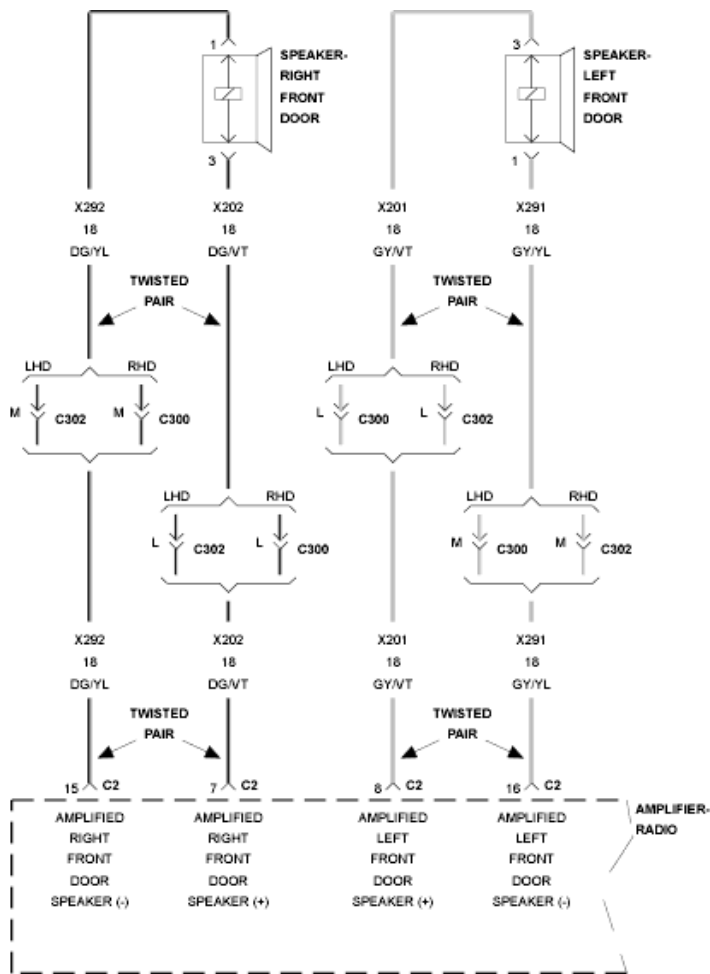


Fig. 43: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE
(X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1471-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK FOR VOLTAGE ON THE (X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT

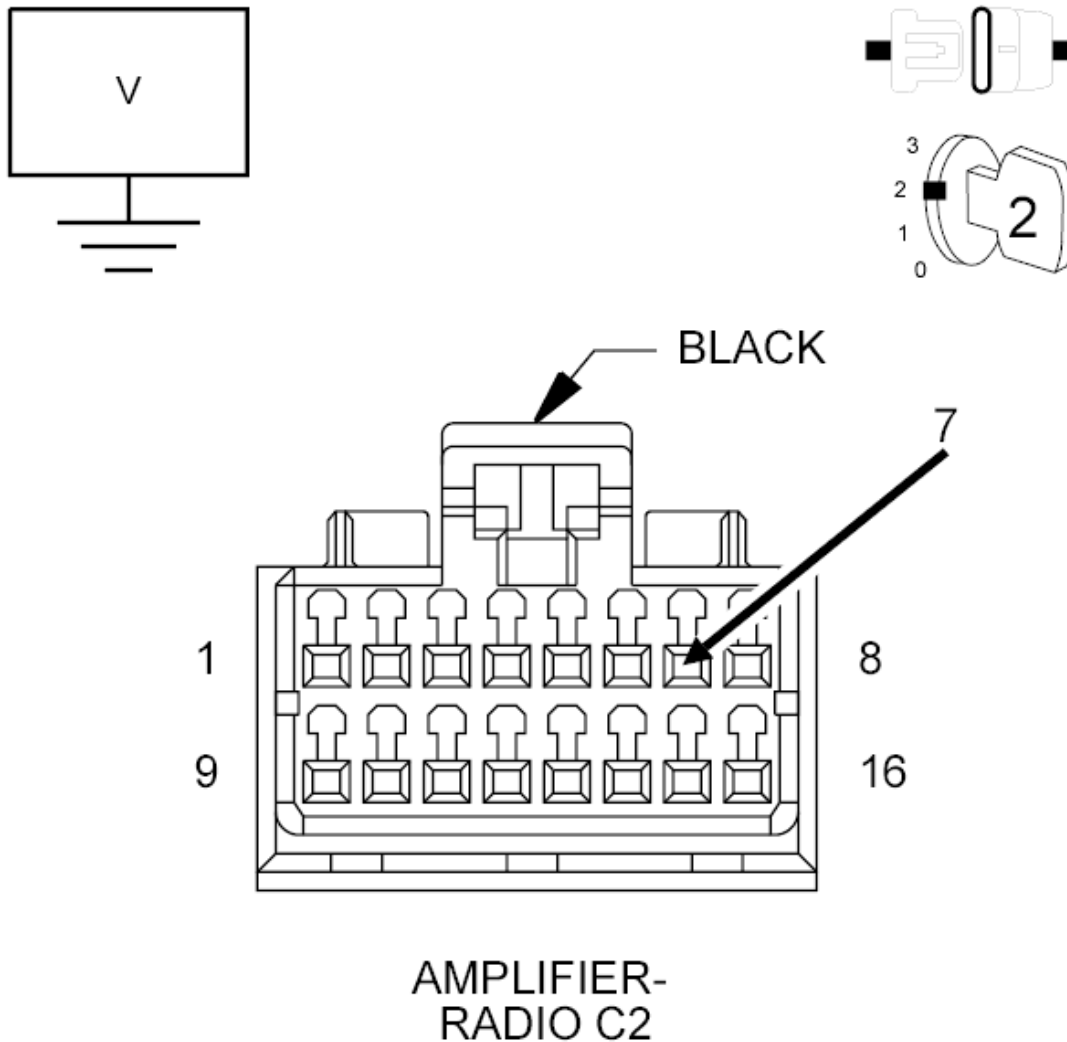


Fig. 44: Checking Voltage Between Right Front Door Speaker (+) Circuit & Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Right Front Door Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X202) Right Front Door Speaker (+) circuit and ground.

Is there any voltage present?

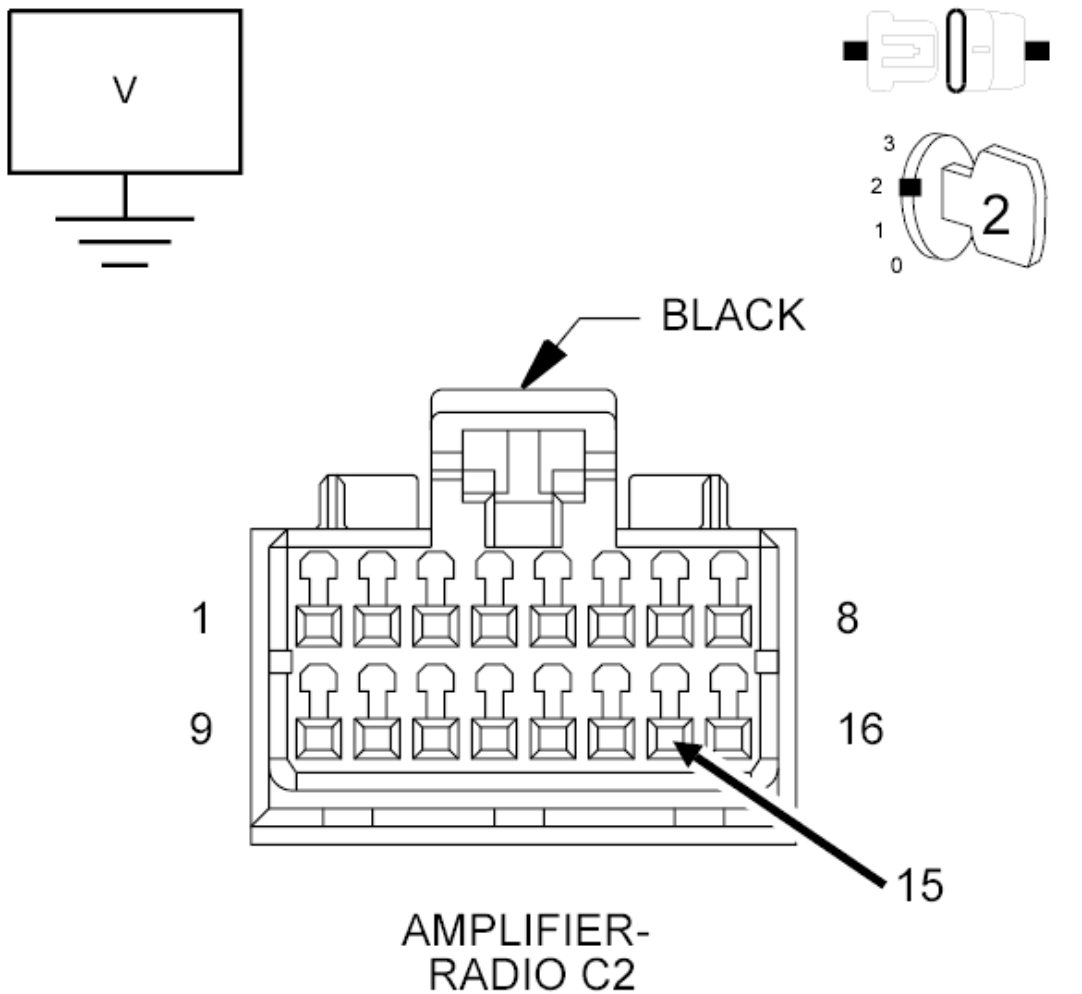
Yes

- Repair the (X202) Right Front Door Speaker (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT



2507865

Fig. 45: Checking Voltage On Right Front Door Speaker (-) Circuit
Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X292) Right Front Door Speaker (-) circuit and ground.

Is there any voltage present?

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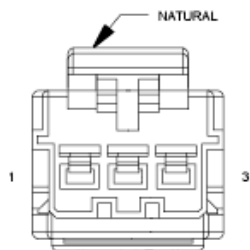
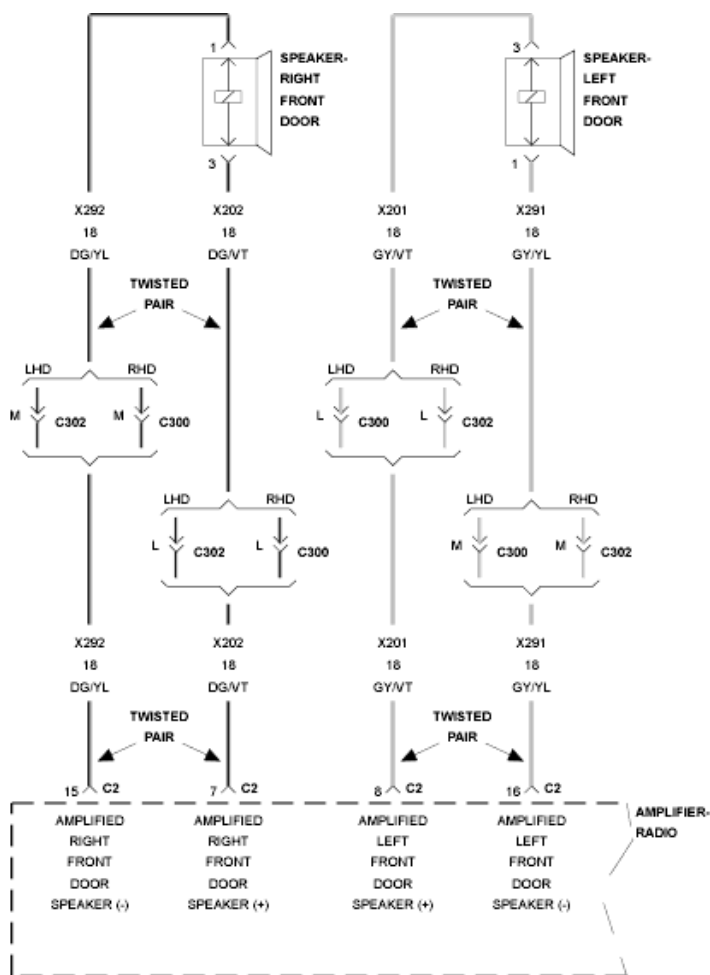
Yes

- Repair the (X292) Right Front Door Speaker (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

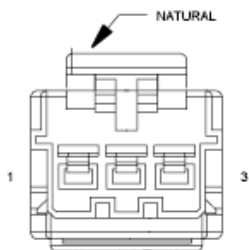
No

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

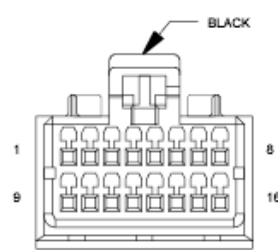
B1472-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT OPEN



SPEAKER-
RIGHT
FRONT
DOOR



SPEAKER-
LEFT
FRONT
DOOR



AMPLIFIER-
RADIO C2

Fig. 46: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

- **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT OPEN
(X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT OPEN
RIGHT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

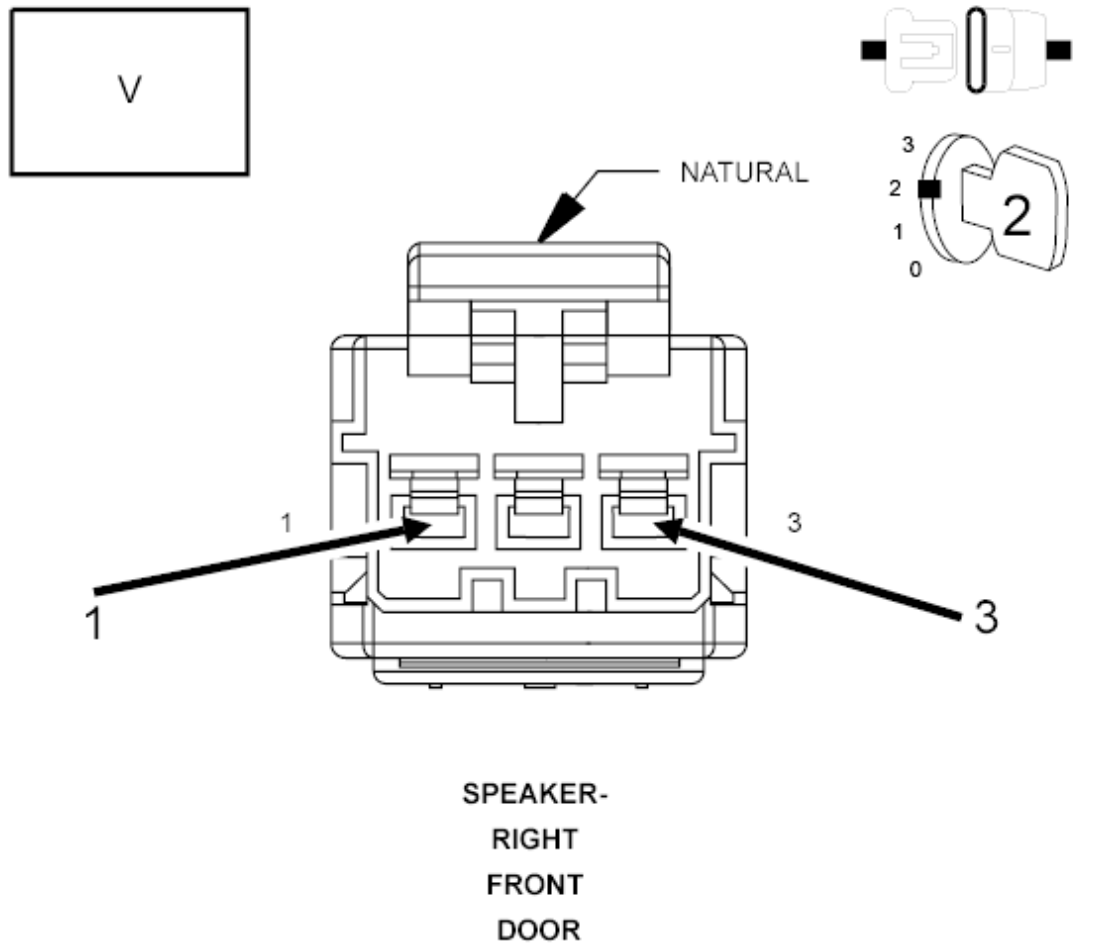
Does the scan tool display active: B1472-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

No

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

Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE OPERATION OF THE RIGHT FRONT DOOR SPEAKER**

2535350

Fig. 47: Checking Operation Of Right Front Door Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Front Door Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the front and center.
6. With a voltmeter set to read in A/C voltage, measure the voltage of the Right Front Door Speaker circuits in the Right Front Door Speaker harness connector.

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Is the voltage present greater than 1 volt?

Yes

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

No

- Go to step 3

3. CHECK THE (X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT FOR AN OPEN

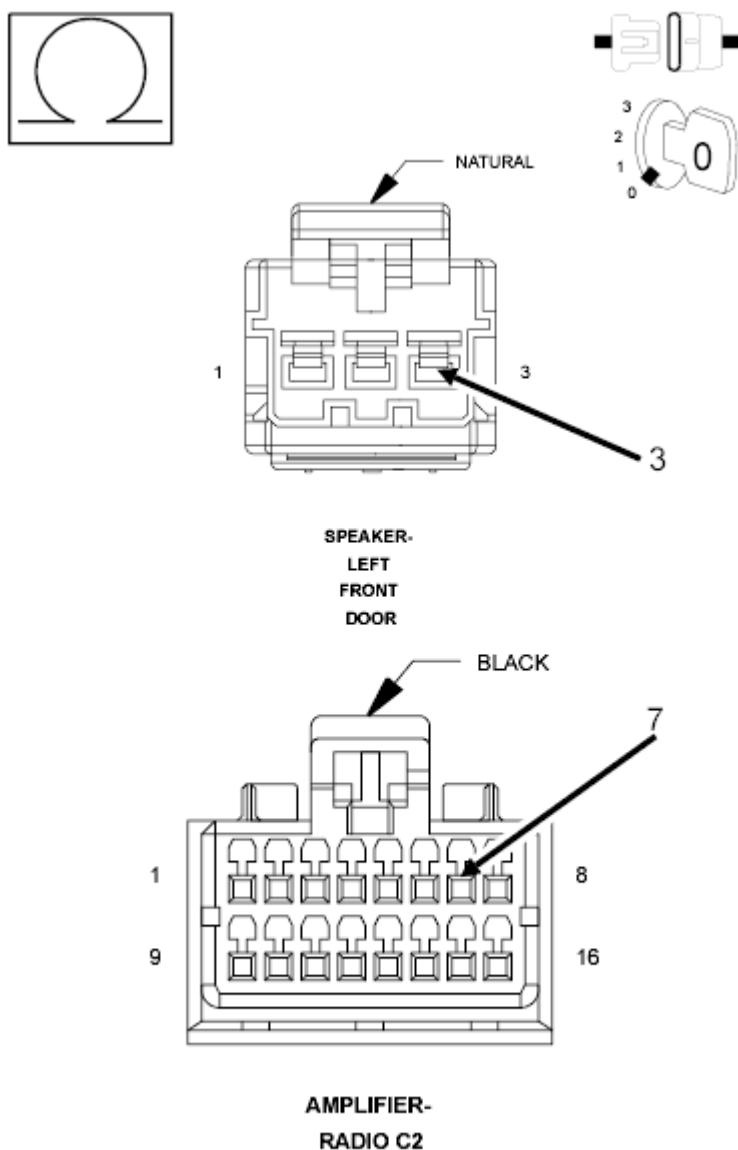


Fig. 48: Checking Right Front Door Speaker (+) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance of the (X202) Right Front Door Speaker (+) circuit between the Amplifier C2 harness connector and the Right Front Door Speaker harness connector.

Is the resistance below 2.0 Ohms?

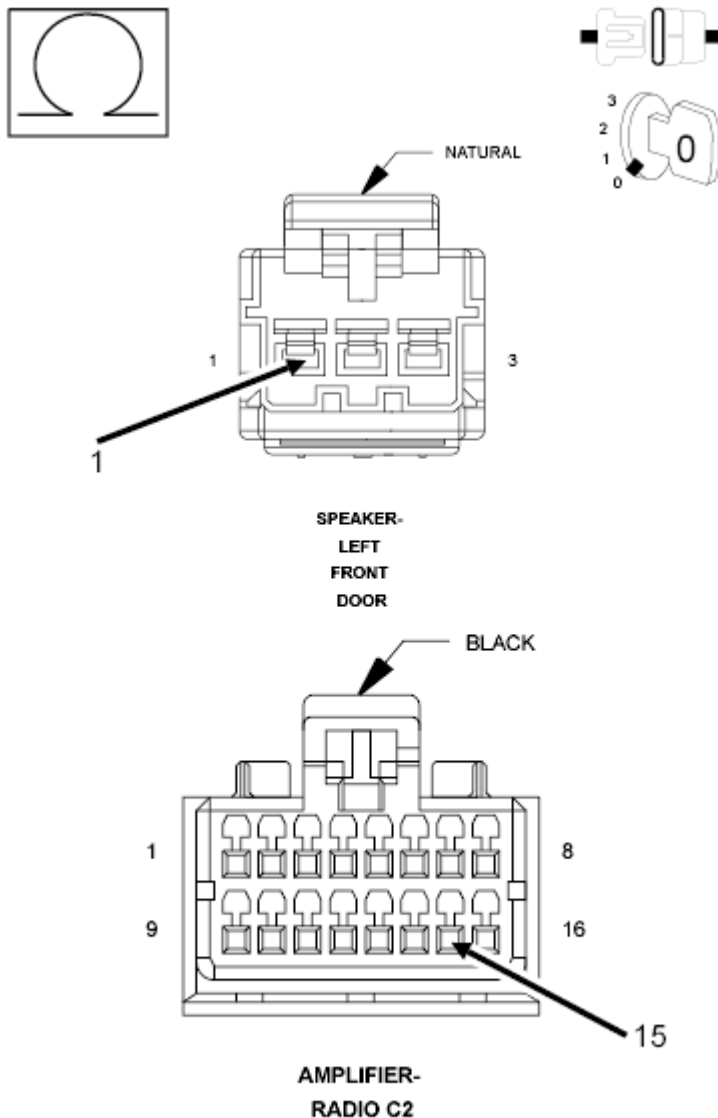
Yes

- Go to step 4

No

- Repair the (X202) Right Front Door Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK THE (X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT FOR AN OPEN



2535824

Fig. 49: Checking Right Front Door Speaker (-) Circuit For An Open
Courtesy of CHRYSLER LLC

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1. Measure the resistance of the (X292) Right Front Door Speaker (-) circuit between the Amplifier C2 harness connector and the Right Front Door Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

No

- Repair the (X292) Right Front Door Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1473-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

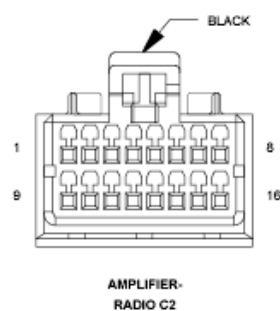
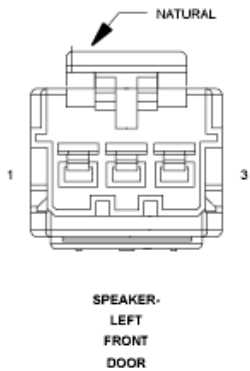
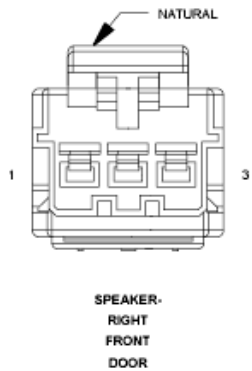
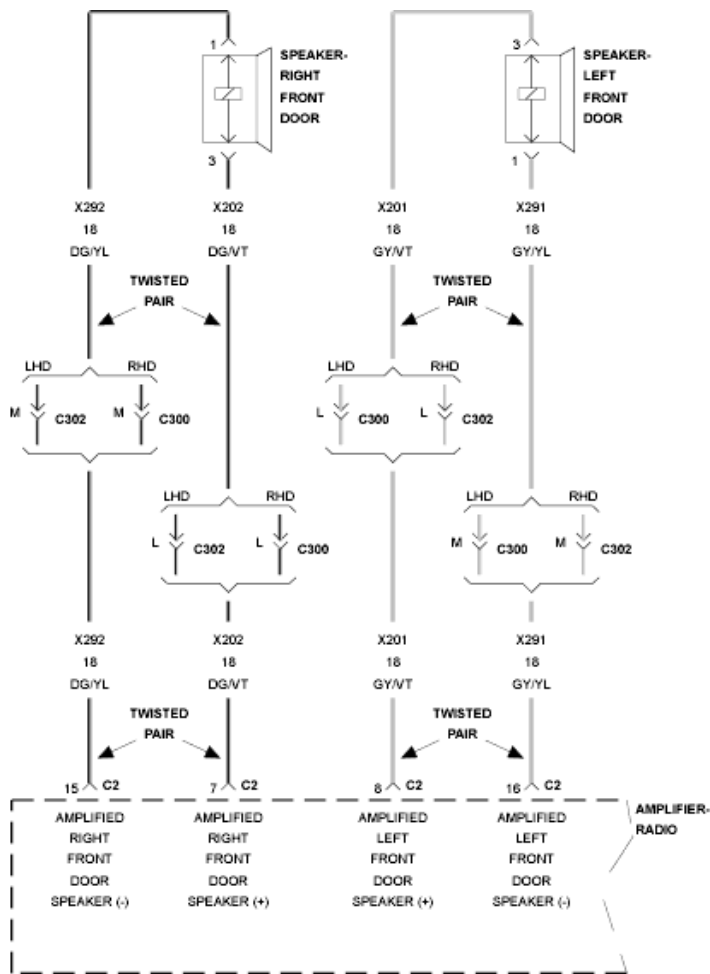


Fig. 50: Left Front Door Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

- **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes
(X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT SHORTED TO THE (X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUIT
RIGHT FRONT DOOR SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the front and center.
6. With the scan tool, read the active Amplifier DTCs.

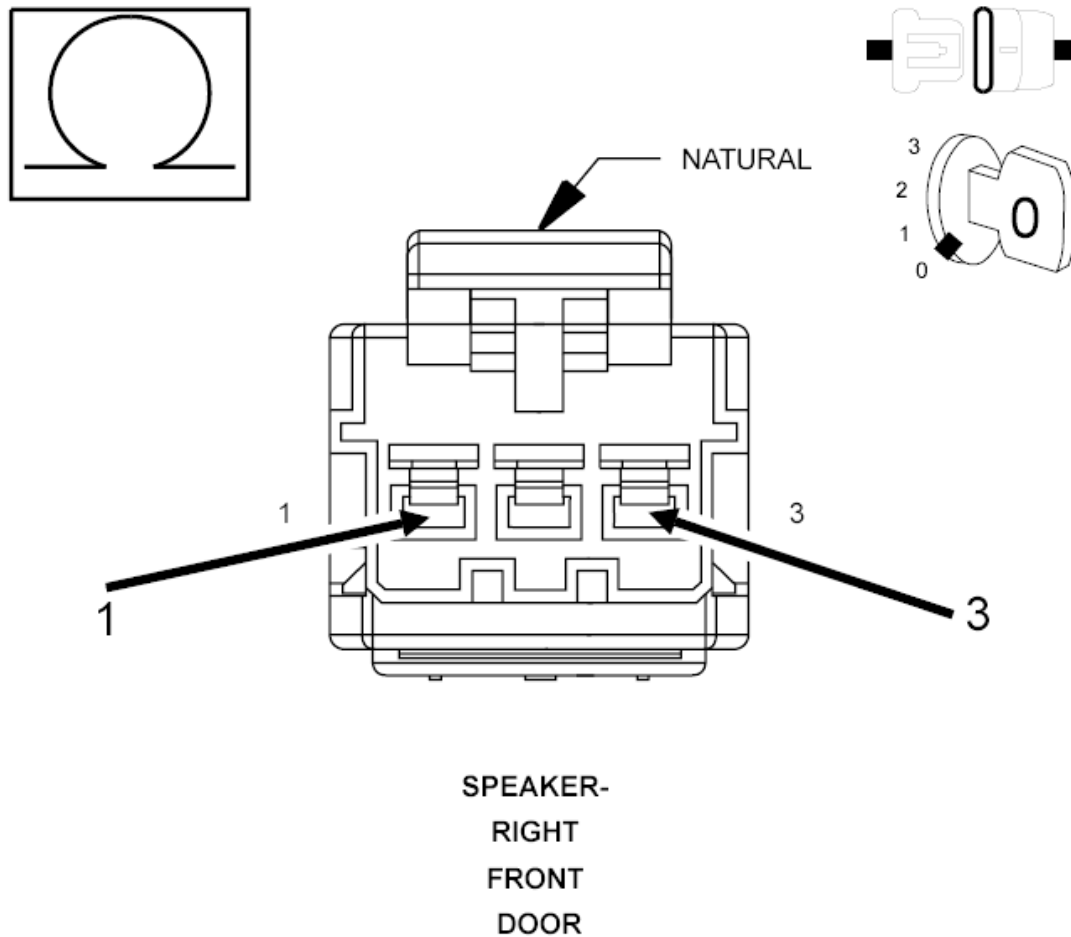
Does the scan tool display active: B1473-CHANNEL 4 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

Yes

- Go to step 2

No

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

Totally Integrated Power (TIPM) - Standard Procedure .**2. CHECK THE OPERATION OF THE RIGHT FRONT DOOR SPEAKER**

2535850

Fig. 51: Checking Operation Of Right Front Door Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Front Door Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure at the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

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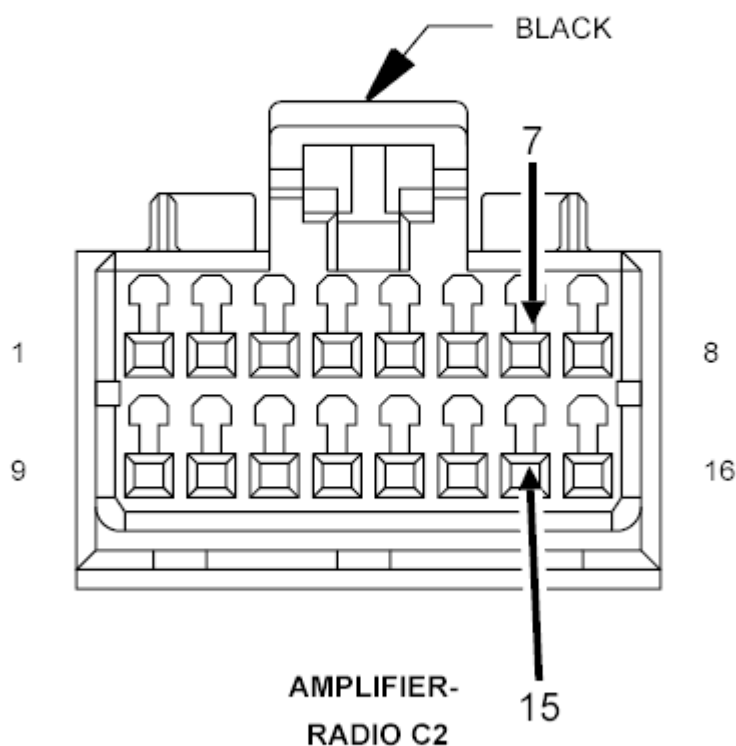
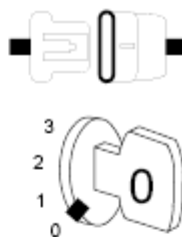
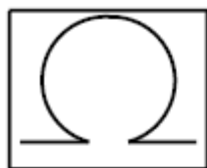
Yes

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

No

- Go to step 3

3. **CHECK THE (X202) RIGHT FRONT DOOR SPEAKER (+) CIRCUIT, AND THE (X292) RIGHT FRONT DOOR SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**



1437272

Fig. 52: Measuring Resistance Between Right Front Door Speaker (+) & (-) Circuits
 Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.
2. Measure the resistance between the (X202) Right Front Door Speaker (+) circuit, and the (X292) Right Front Door Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X202) Right Front Door Speaker (+) circuit, and the (X292) Right Front Door Speaker (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1474-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1474-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT

PERFORMANCE?**Yes**

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1475-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT LOW

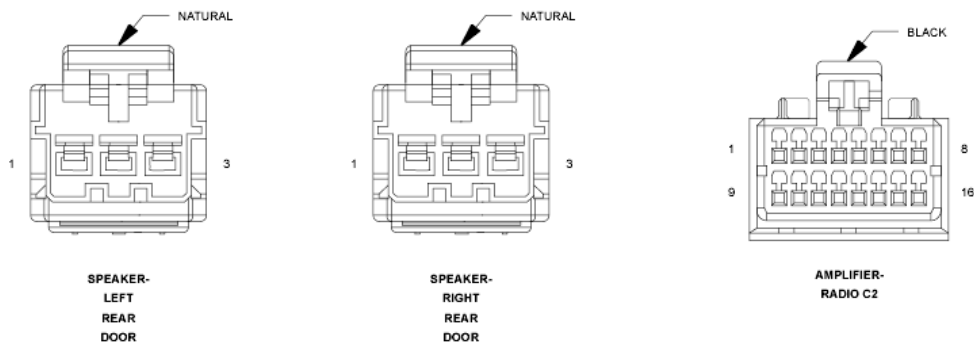
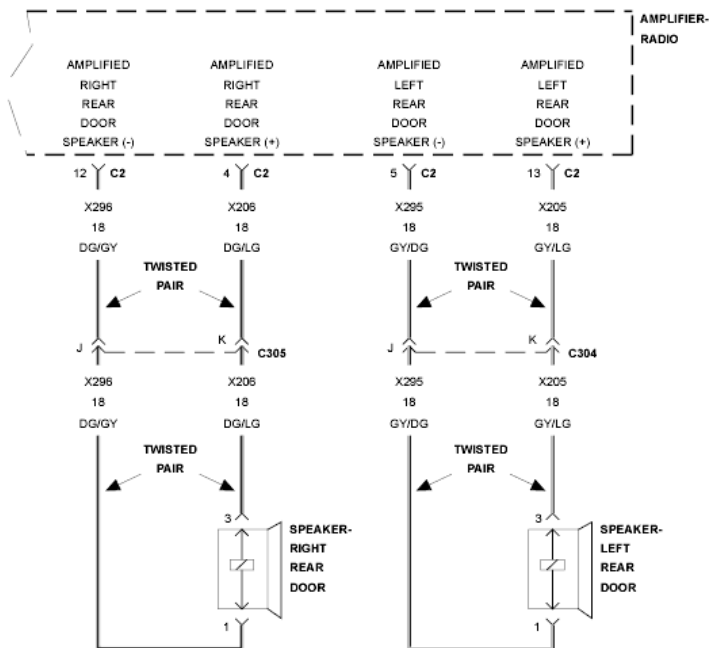


Fig. 53: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X205) LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO GROUND (X295) LEFT REAR SPEAKER (-) CIRCUIT SHORTED TO GROUND LEFT REAR SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1475-CHANNEL 5 OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE LEFT REAR SPEAKER

1. Make sure one of the front doors is still open.
2. Using the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Left Rear Speaker harness connector.
5. Turn the ignition on.

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6. Turn the radio on and set the volume to 25.
7. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1475-CHANNEL 5 OUTPUT CIRCUIT LOW?

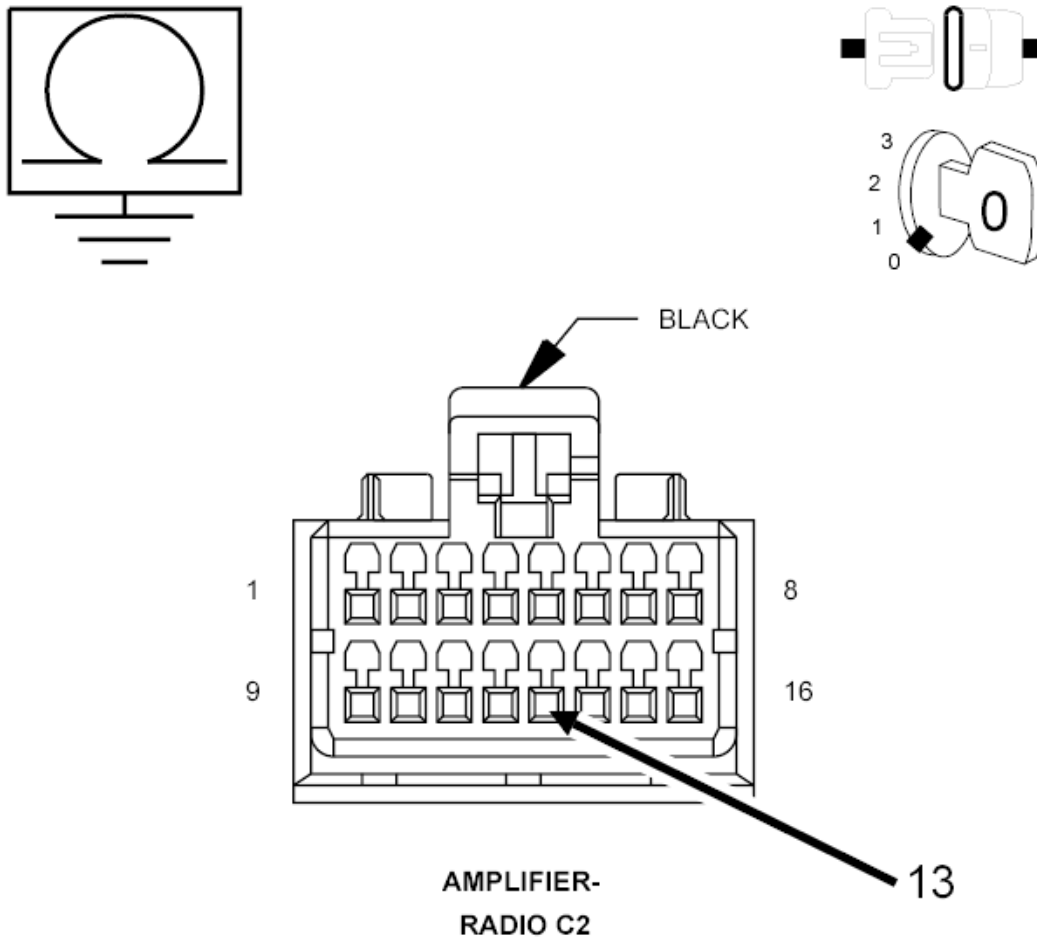
Yes

- Go to step 3

No

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

3. CHECK THE (X205) LEFT REAR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND



2535902

Fig. 54: Checking Left Rear Speaker (+) Circuit For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between ground and the (X205) Left Rear Speaker (+) circuit.

Is the resistance below 10K Ohms?

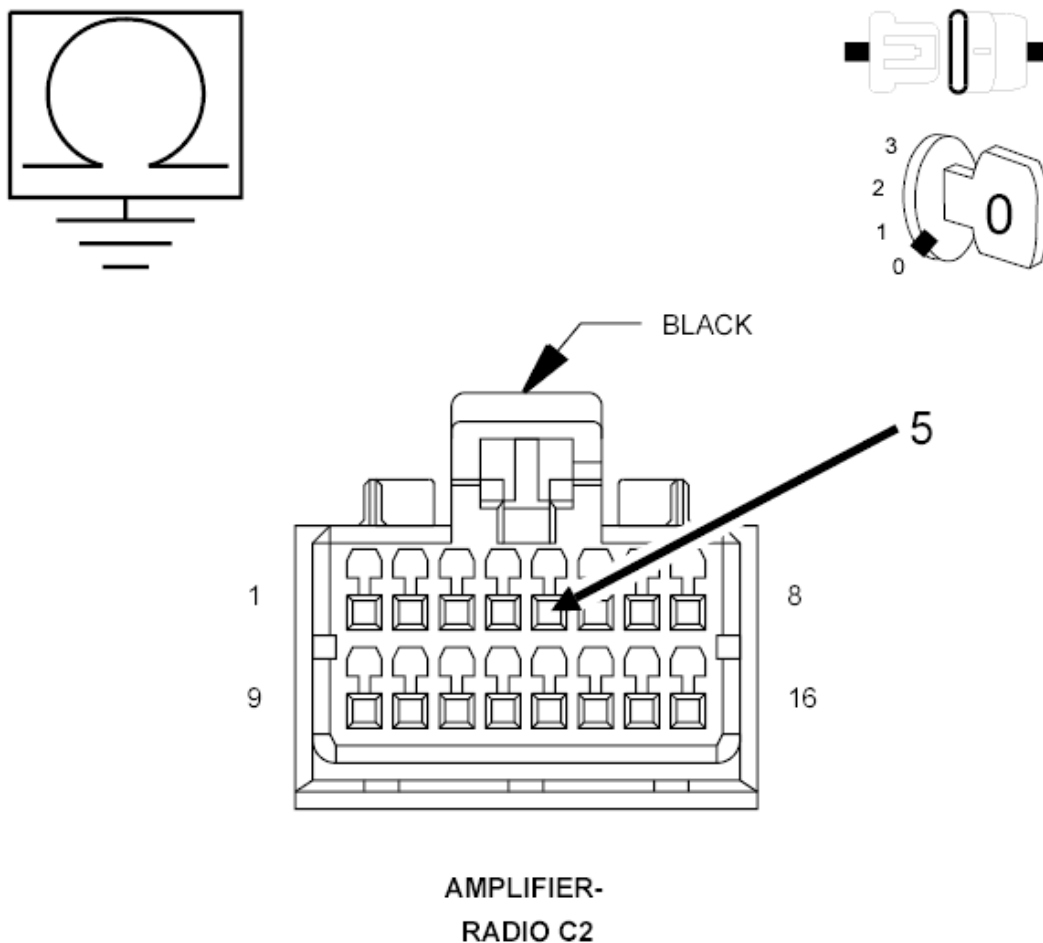
Yes

- Repair the (X205) Left Rear Speaker (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. CHECK THE (X295) LEFT REAR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



2535923

Fig. 55: Checking Left Rear Speaker (-) Circuit For A Short To Ground

Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X295) Left Rear Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

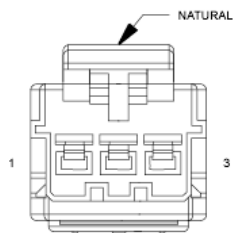
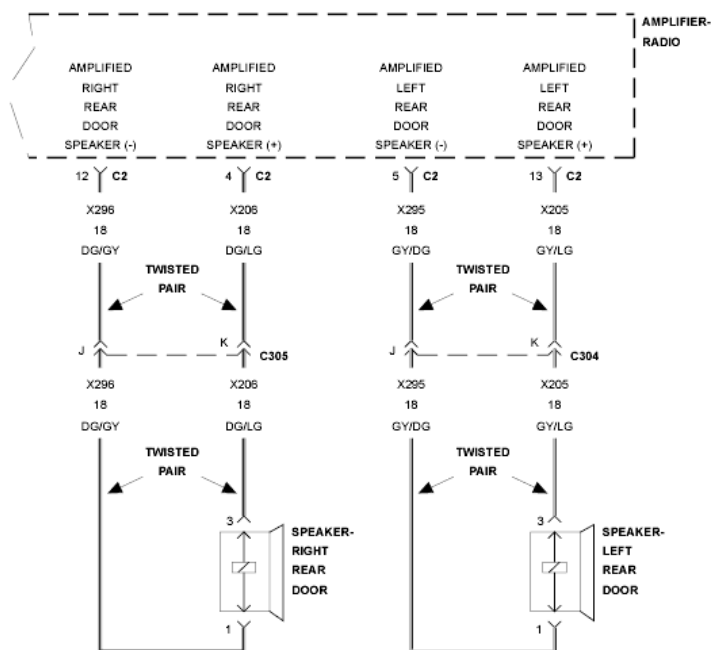
- Repair the (X295) Left Rear Speaker (-) for a short to ground.

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

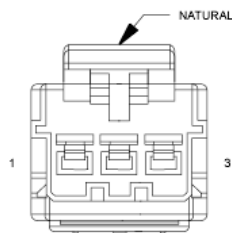
No

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

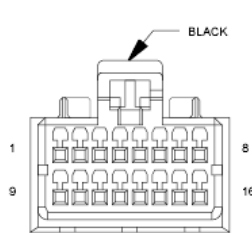
B1476-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT HIGH



SPEAKER-
LEFT
REAR
DOOR



SPEAKER-
RIGHT
REAR
DOOR



AMPLIFIER-
RADIO C2

Fig. 56: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X205) LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE (X295) LEFT REAR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1476-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

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

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

2. CHECK FOR VOLTAGE ON THE (X205) LEFT REAR SPEAKER (+) CIRCUIT

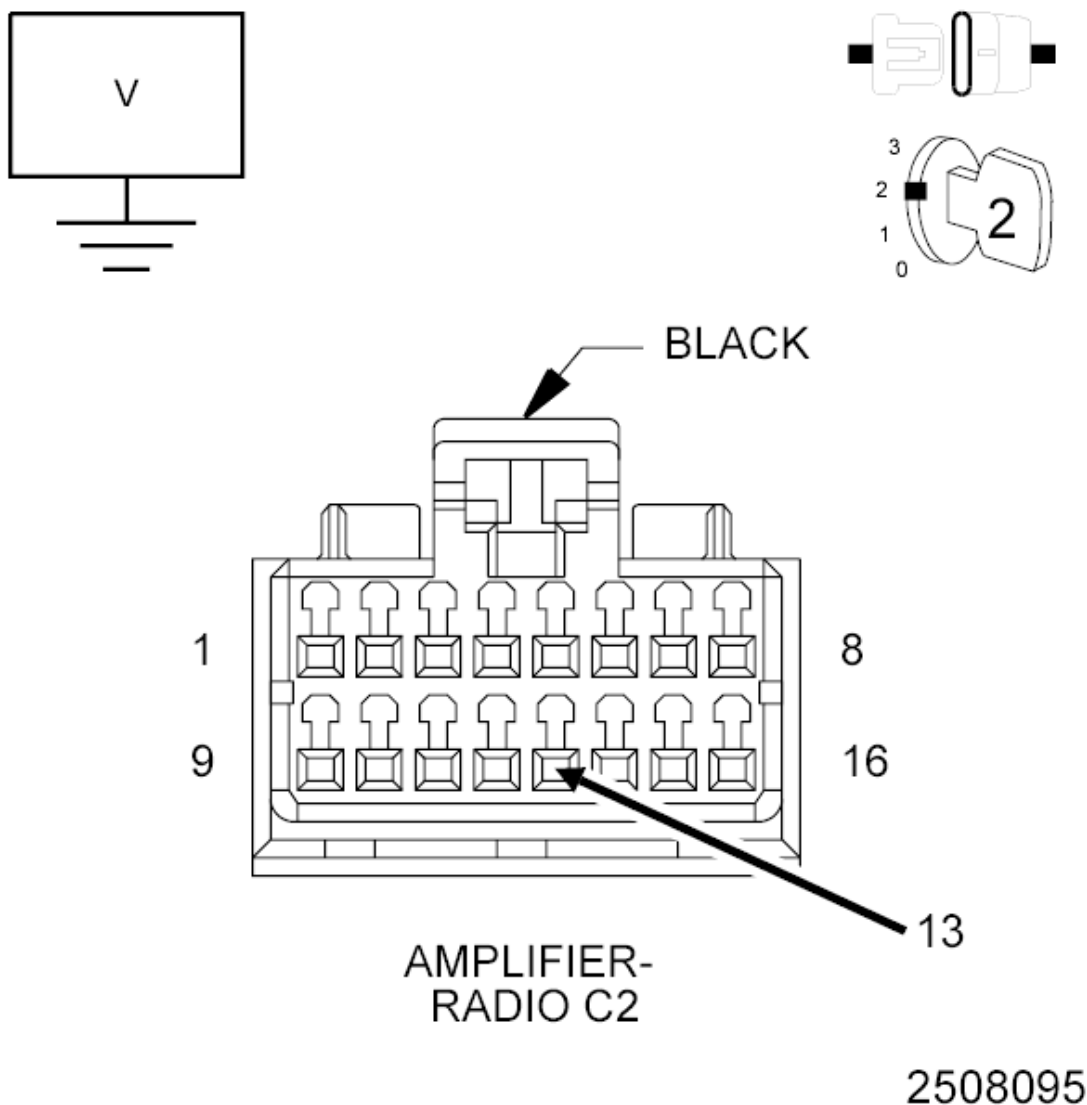


Fig. 57: Checking For Voltage On Left Rear Speaker (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Left Rear Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X205) Left Rear Speaker (+) circuit and ground.

Is there any voltage present?

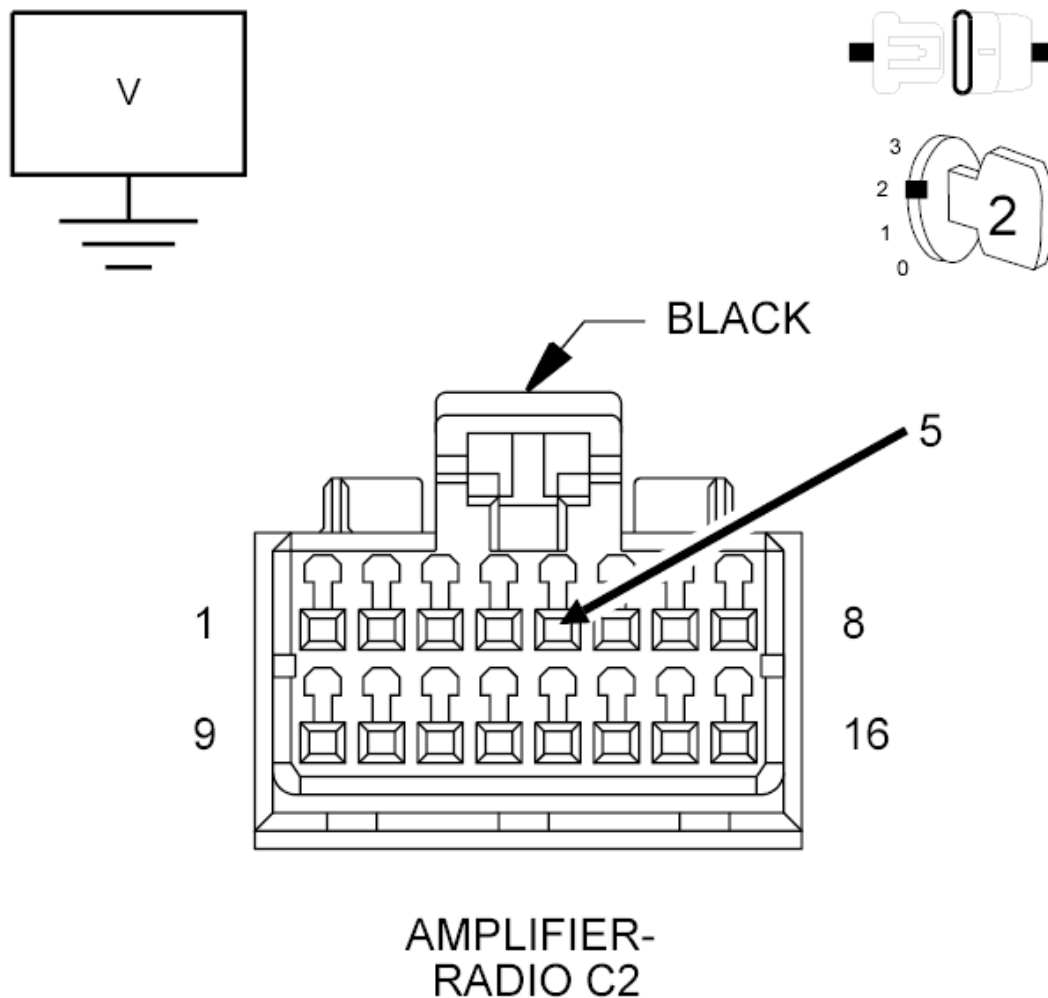
Yes

- Repair the (X205) Left Rear Speaker (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X295) LEFT REAR SPEAKER (-) CIRCUIT



2508122

Fig. 58: Checking For Voltage On Left Rear Speaker (-) Circuit
Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X295) Left Rear Speaker (-) circuit and ground.

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Is there any voltage present?

Yes

- Repair the (X295) Left Rear Speaker (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1477-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

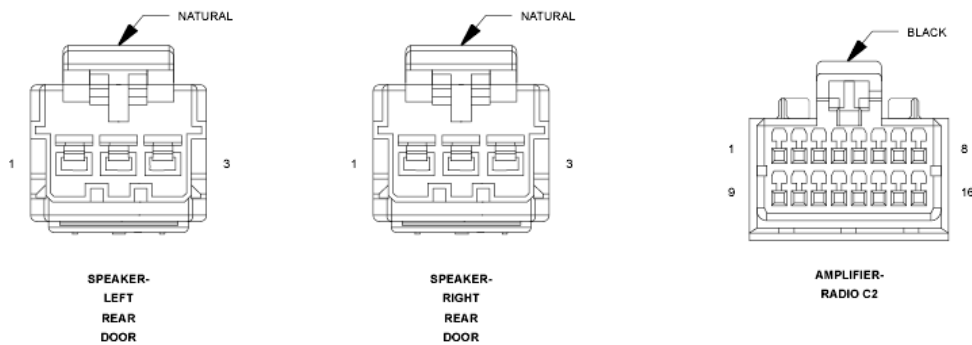
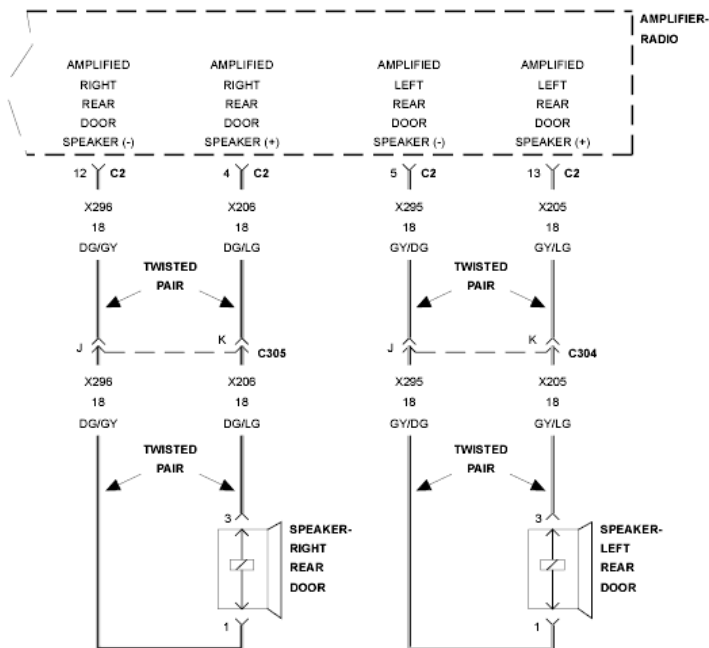


Fig. 59: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

• **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X205) LEFT REAR SPEAKER (+) CIRCUIT OPEN (X295) LEFT REAR SPEAKER (-) CIRCUIT OPEN LEFT REAR SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1477-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE LEFT REAR SPEAKER

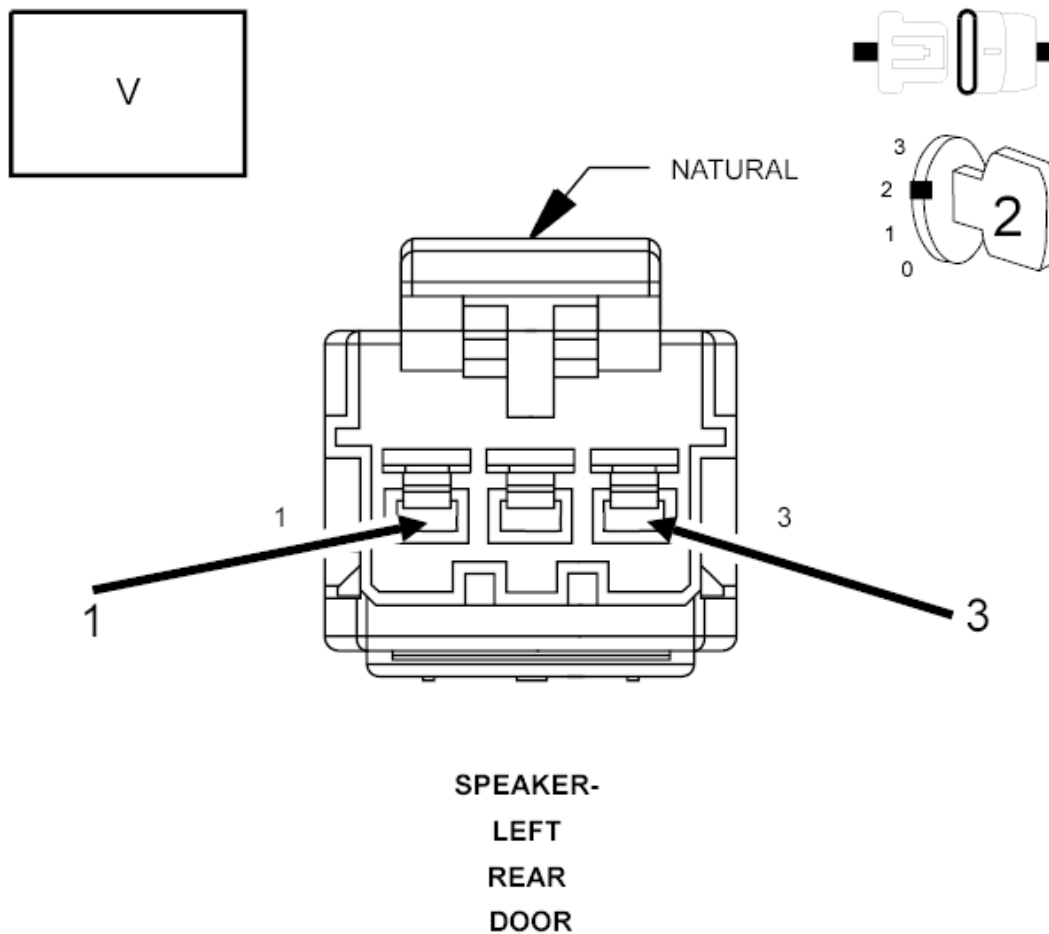


Fig. 60: Checking Operation Of Left Rear Speaker
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Rear Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the rear and center.
6. With a Voltmeter set to read in A/C voltage, measure the voltage of the Left Rear Speaker circuits in the Left Rear Speaker harness connector.

Is the voltage present greater than 1 Volt?

Yes

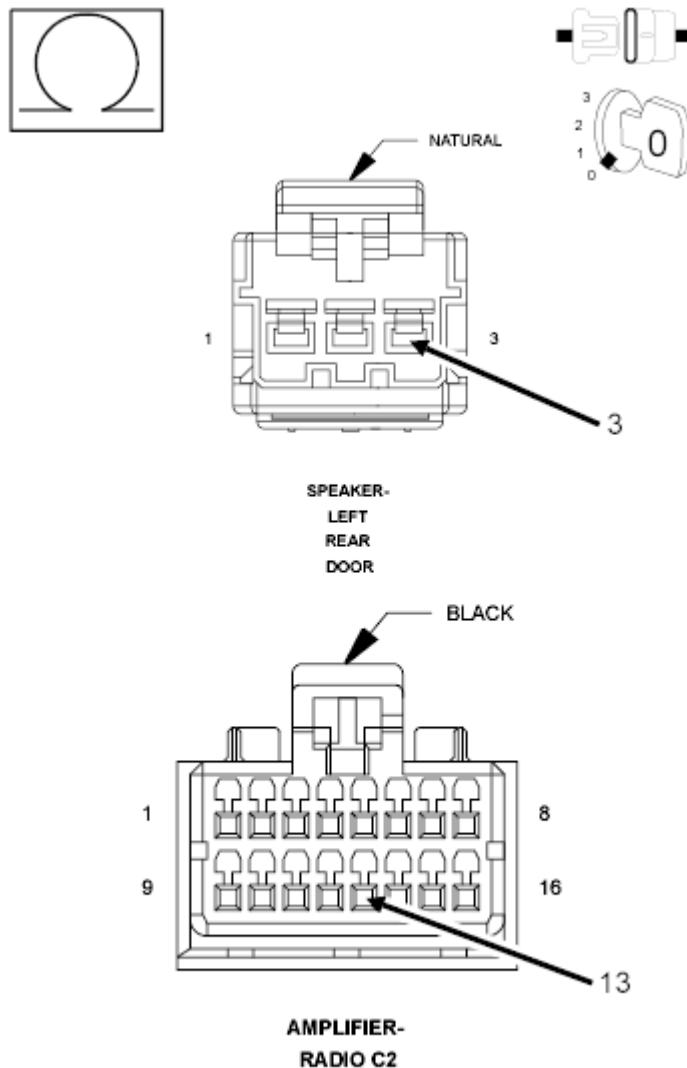
- Replace the Left Rear Speaker in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**.

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to step 3

3. CHECK THE (X205) LEFT REAR SPEAKER (+) CIRCUIT FOR AN OPEN



2536754

Fig. 61: Checking Left Rear Speaker (+) Circuit For An Open
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance of the (X205) Left Rear Speaker (+) circuit between the Amplifier C2

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harness connector and the Left Rear Speaker harness connector.

Is the resistance below 2.0 Ohms?

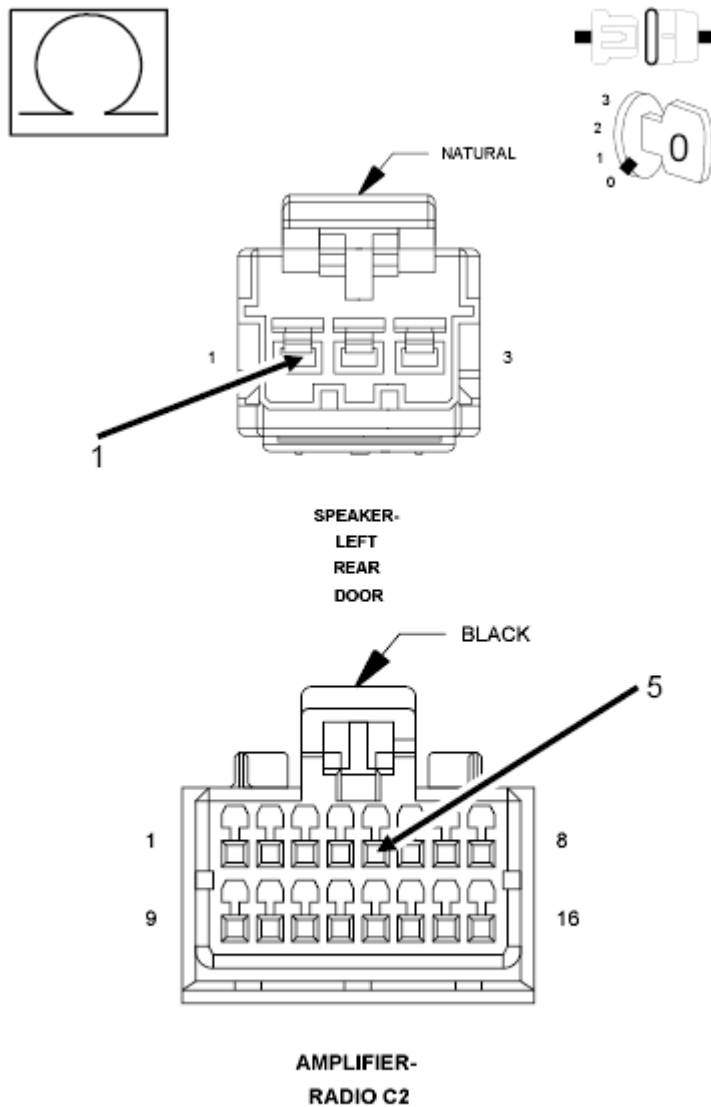
Yes

- Go to step 4

No

- Repair the (X205) Left Rear Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK THE (X295) LEFT REAR SPEAKER (-) CIRCUIT FOR AN OPEN



2536916

Fig. 62: Checking Left Rear Speaker (-) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X295) Left Rear Speaker (-) circuit between the Amplifier C2 harness connector and the Left Rear Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Repair the (X295) Left Rear Shelf Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

B1478-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

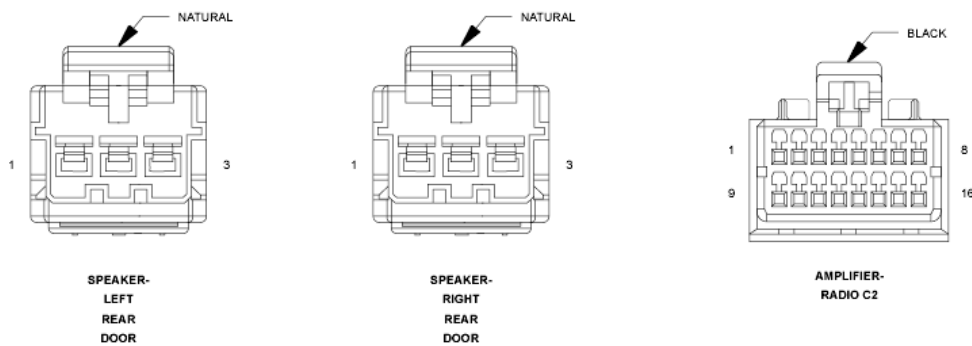
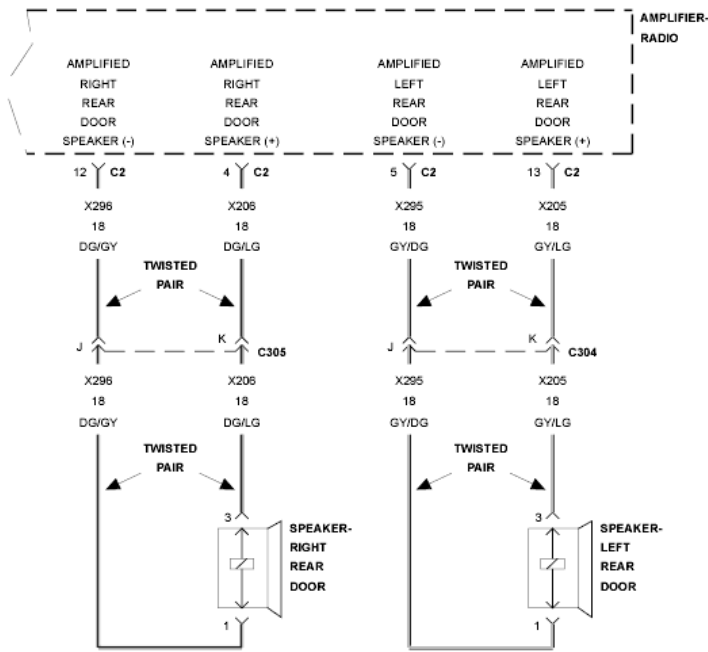


Fig. 63: Left Rear Speaker Circuit Schematic

Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

- **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes
(X205) LEFT REAR SPEAKER (+) CIRCUIT SHORTED TO THE (X295) LEFT REAR SPEAKER (-) CIRCUIT
LEFT REAR SPEAKER
AMPLIFIER

Diagnostic Test**1. CHECK FOR AN INTERMITTENT CONDITION**

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1478-CHANNEL 5 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

Yes

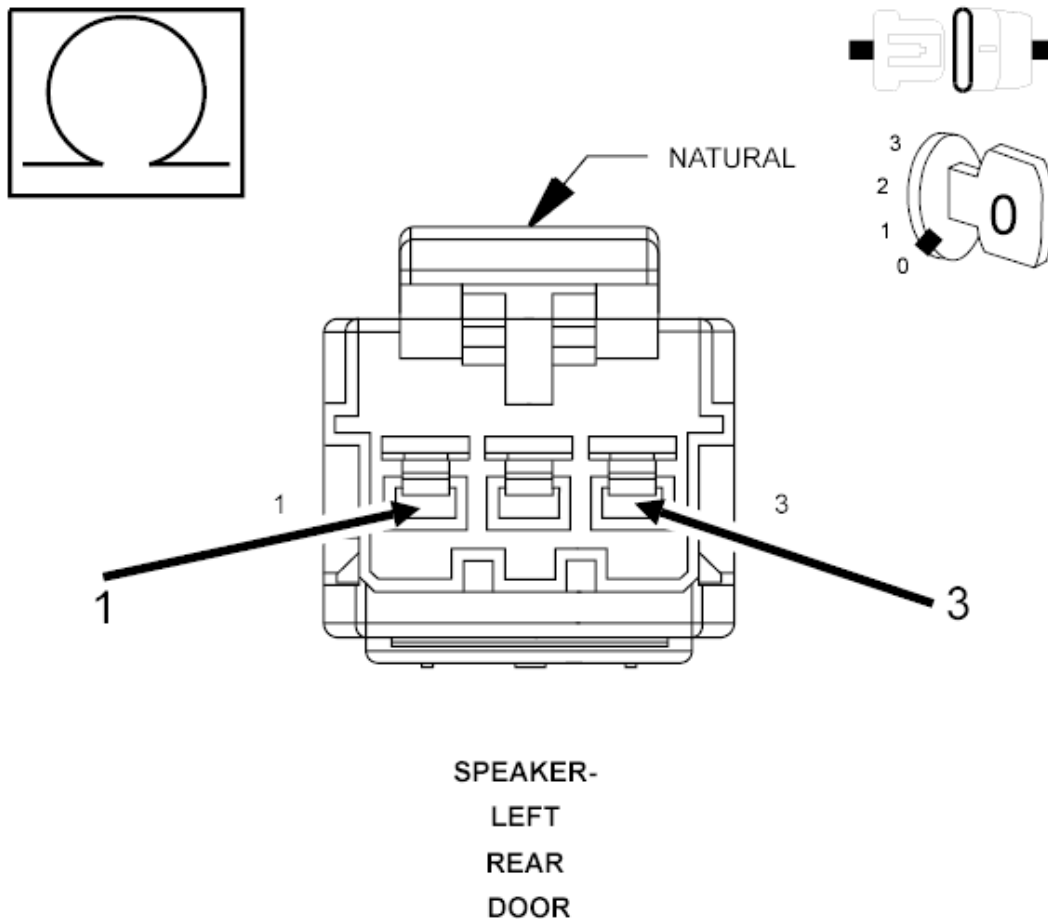
- Go to step 2

No

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

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

2. CHECK THE OPERATION OF THE LEFT REAR SPEAKER



2537035

Fig. 64: Checking Operation Of Left Rear Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Left Rear Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure between the speaker terminals.

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Is the resistance of the speaker less than 1 Ohm?

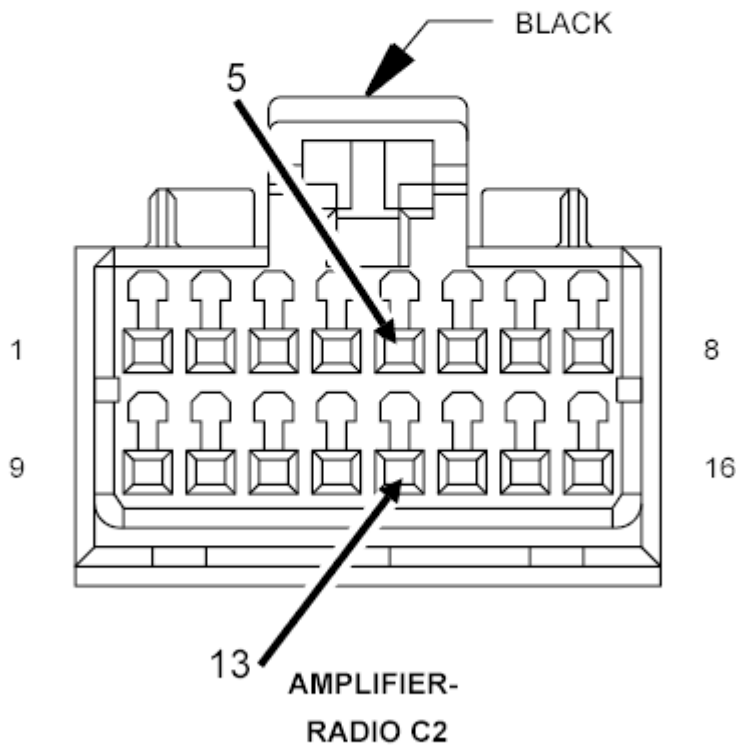
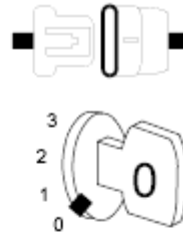
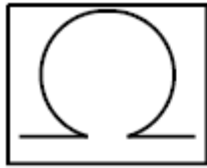
Yes

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

No

- Go to step 3

3. **CHECK THE (X205) LEFT REAR SPEAKER (+) CIRCUIT, AND THE (X295) LEFT REAR SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**



01432652

Fig. 65: Checking Left Rear Speaker (+) & (-) Circuits
 Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.
2. Measure the resistance between the (X205) Left Rear Speaker (+) circuit, and the (X295) Left Rear Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X205) Left Rear Speaker (+) circuit, and the (X295) Left Rear Speaker (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1479-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1479-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT

PERFORMANCE?**Yes**

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B147A-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT LOW

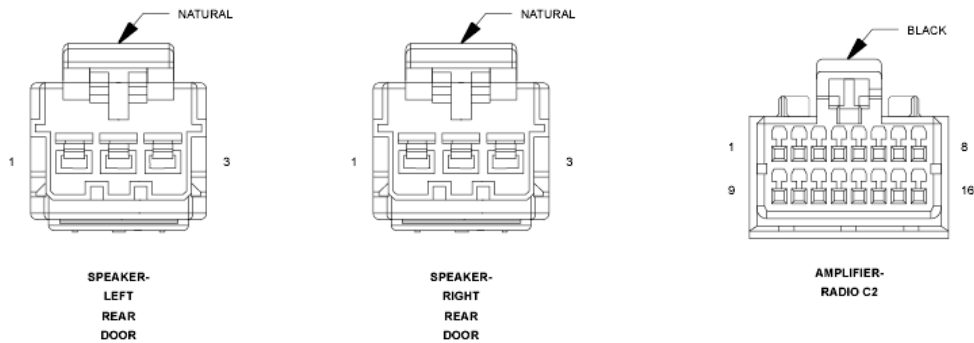
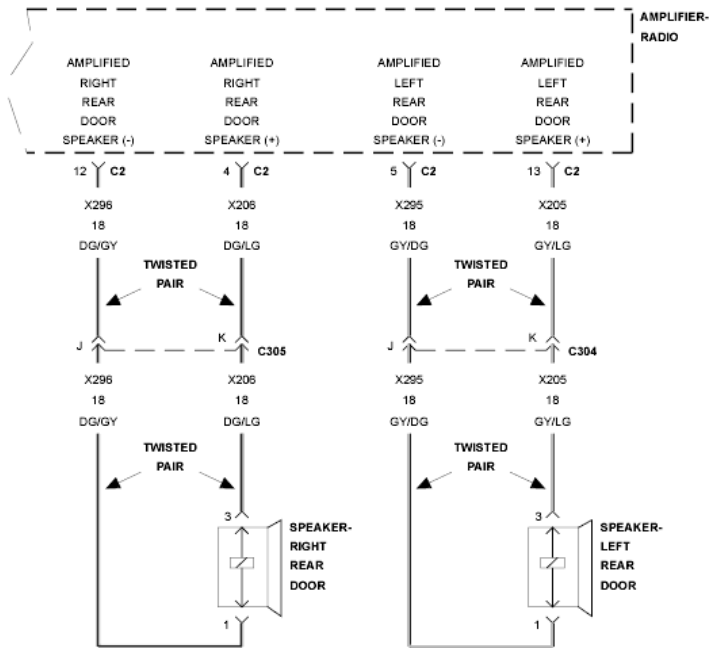


Fig. 66: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the ignition on.

• **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X206) RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO GROUND (X296) RIGHT REAR SPEAKER (-) CIRCUIT SHORTED TO GROUND RIGHT REAR SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147A-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE RIGHT REAR SPEAKER

1. Make sure one of the front doors is still open.
2. Using the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Right Rear Speaker harness connector.
5. Turn the ignition on.

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6. Turn the radio on and set the volume to 25.
7. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147A-CHANNEL 6 OUTPUT CIRCUIT LOW?

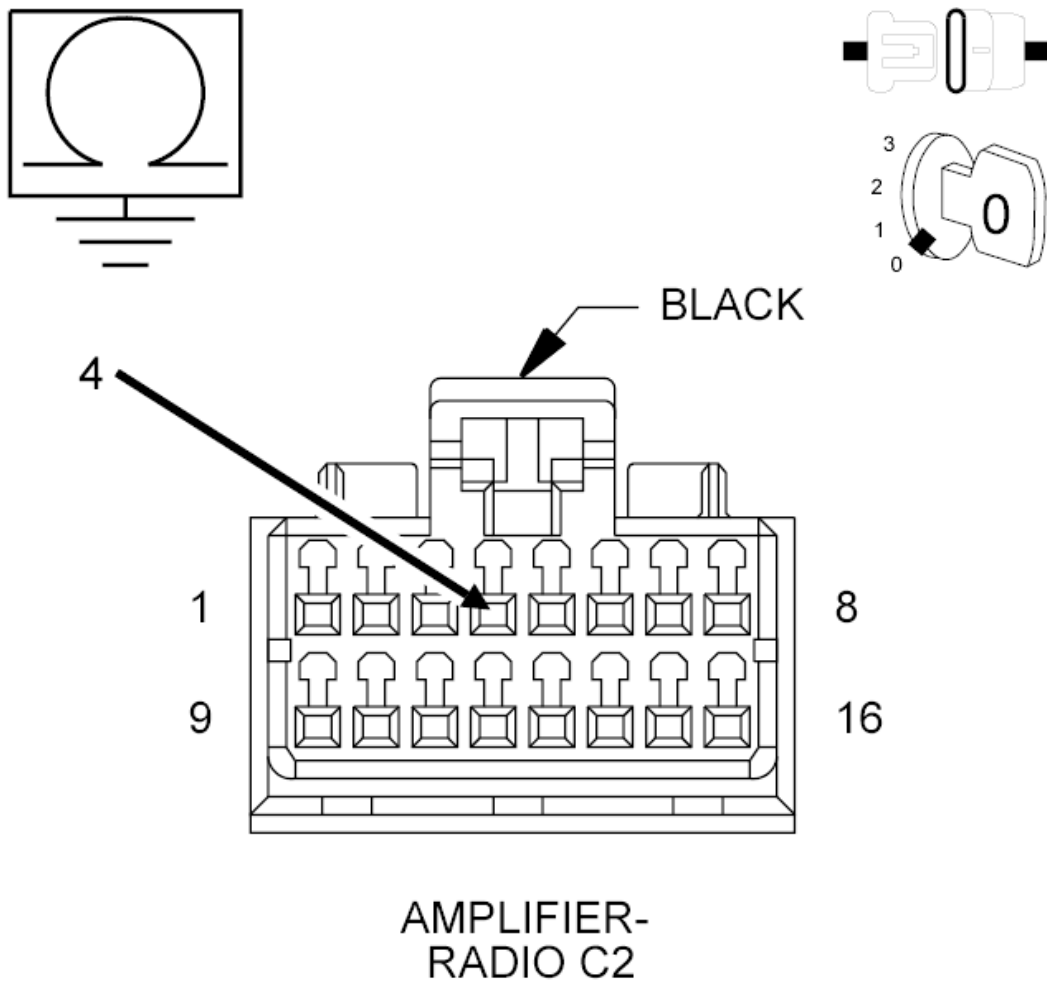
Yes

- Go to step 3

No

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

3. CHECK THE (X206) RIGHT REAR SPEAKER (+) CIRCUIT FOR A SHORT TO GROUND



2508722

Fig. 67: Checking Right Rear Speaker (+) Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between ground and the (X206) Right Rear Speaker (+) circuit.

Is the resistance below 10K Ohms?

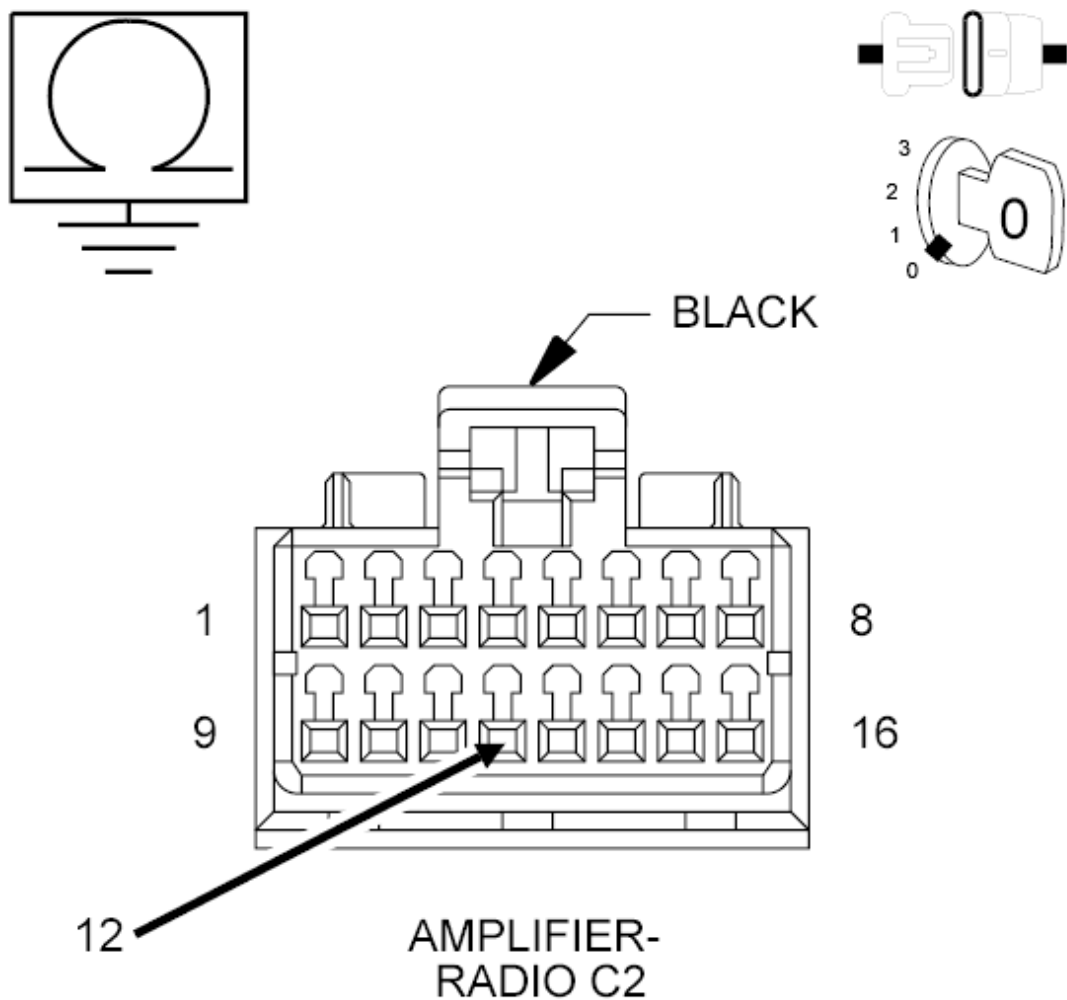
Yes

- Repair the (X206) Right Rear Speaker (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 4

4. CHECK THE (X296) RIGHT REAR SPEAKER (-) CIRCUIT FOR A SHORT TO GROUND



2508740

Fig. 68: Checking Right Rear Speaker (-) Circuit

Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X296) Right Rear Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

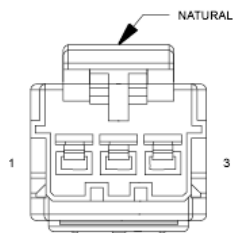
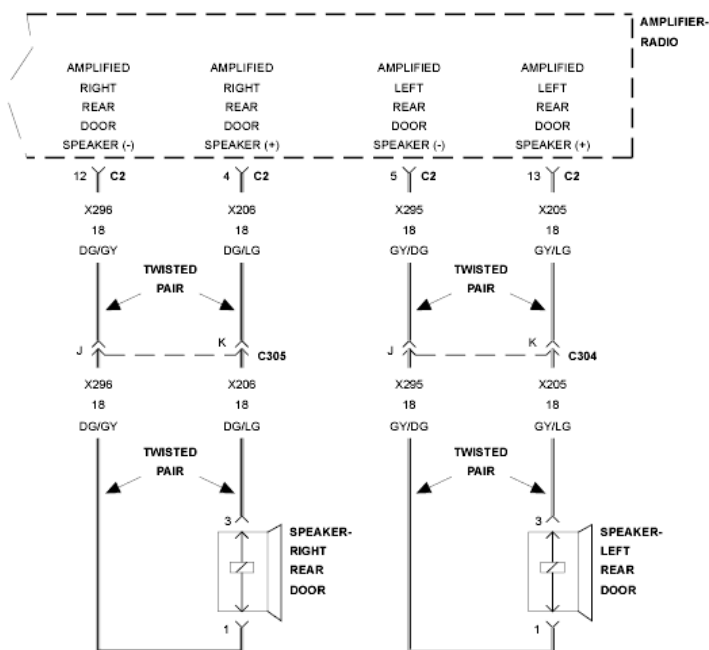
- Repair the (X296) Right Rear Speaker (-) for a short to ground.

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

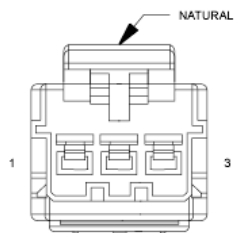
No

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

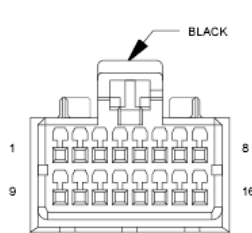
B147B-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT HIGH



SPEAKER-
LEFT
REAR
DOOR



SPEAKER-
RIGHT
REAR
DOOR



AMPLIFIER-
RADIO C2

Fig. 69: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X206) RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO VOLTAGE (X296) RIGHT REAR SPEAKER (-) CIRCUIT SHORTED TO VOLTAGE AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147B-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

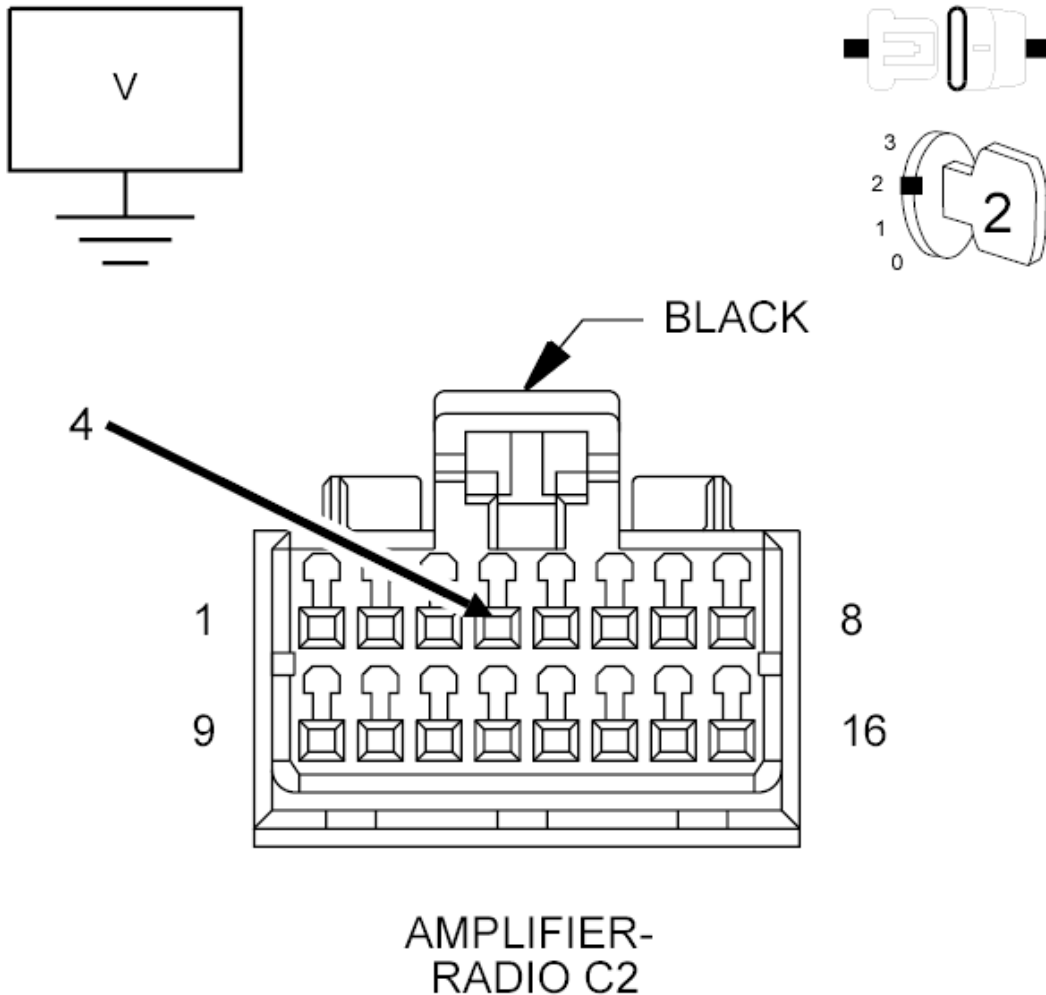
- Go to step 2

No

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

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

2. CHECK FOR VOLTAGE ON THE (X206) RIGHT REAR SPEAKER (+) CIRCUIT



2509532

Fig. 70: Checking Voltage On Right Rear Speaker (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Right Rear Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X206) Right Rear Speaker (+) circuit and ground.

Is there any voltage present?

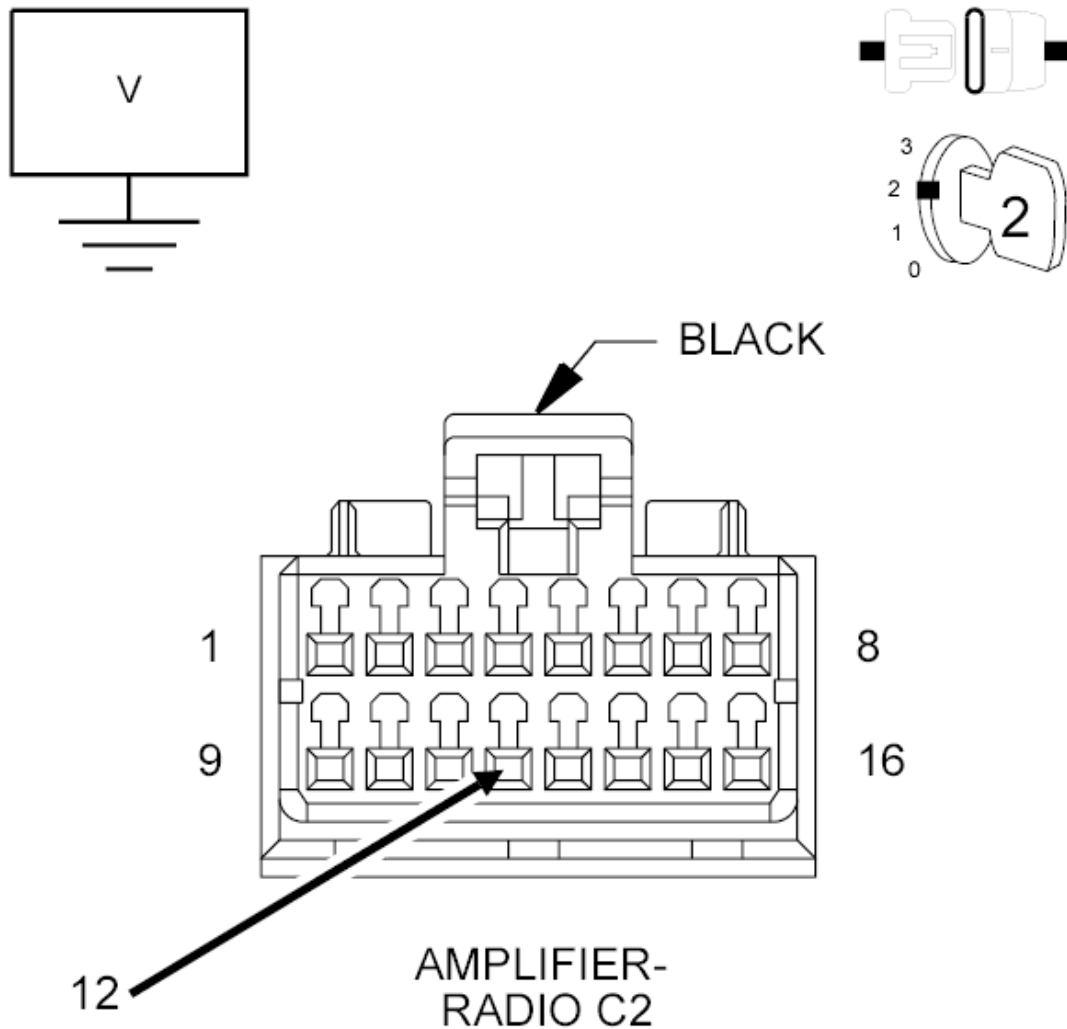
Yes

- Repair the (X206) Right Rear Speaker (+) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X296) RIGHT REAR SPEAKER (-) CIRCUIT



2509561

Fig. 71: Checking Voltage On Right Rear Speaker (-) Circuit
 Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X296) Right Rear Speaker (-) circuit and ground.

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Is there any voltage present?

Yes

- Repair the (X296) Right Rear Speaker (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B147C-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

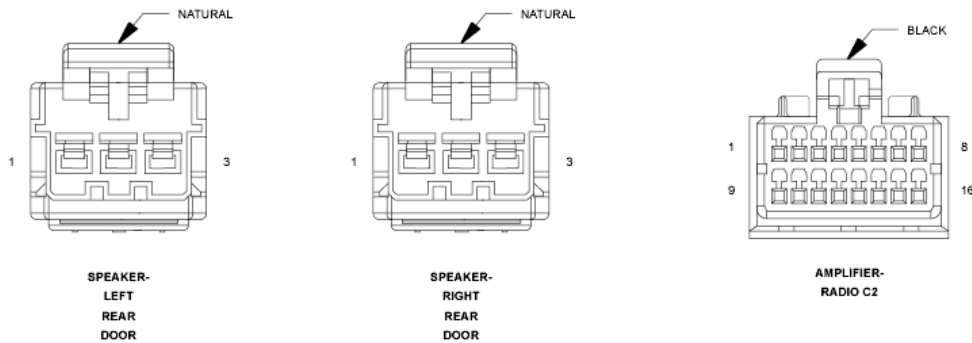
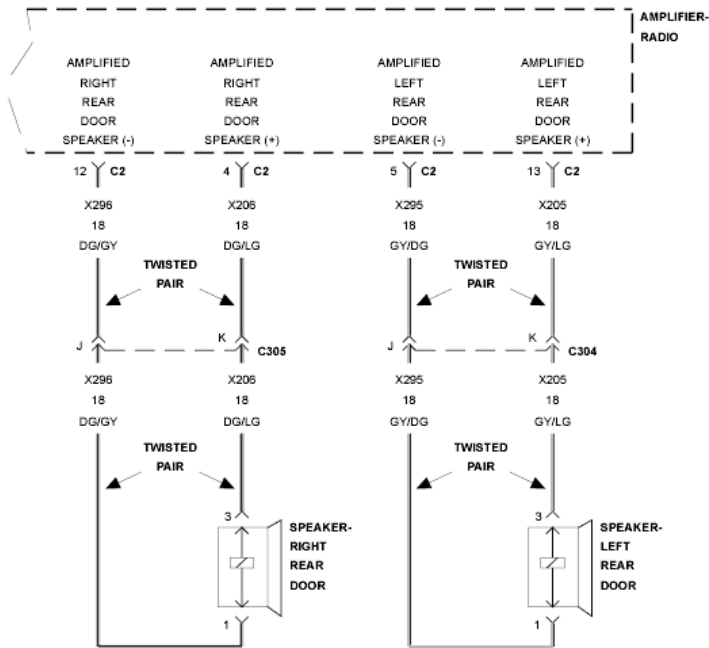


Fig. 72: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

• **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X206) RIGHT REAR SPEAKER (+) CIRCUIT OPEN (X296) RIGHT REAR SPEAKER (-) CIRCUIT OPEN RIGHT REAR SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147C-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

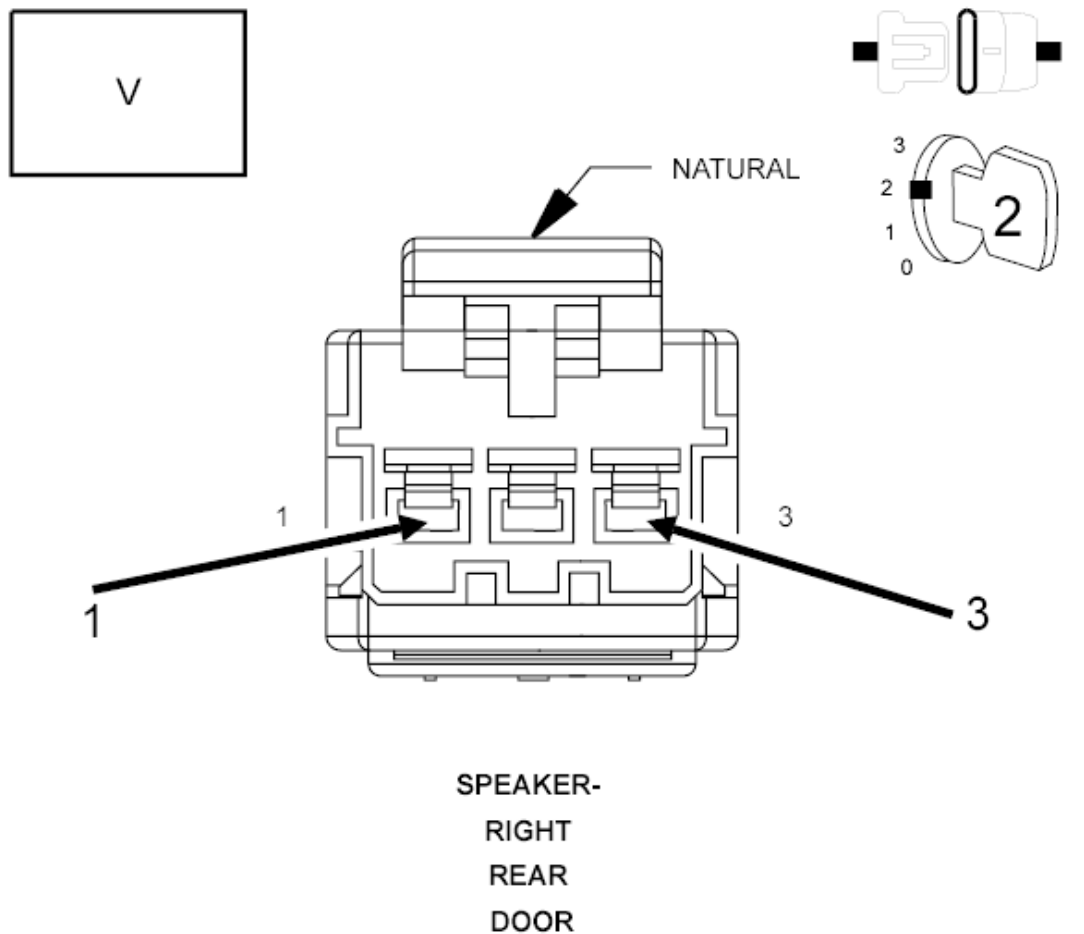
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE RIGHT REAR SPEAKER



2537334

Fig. 73: Checking Operation Of Right Rear Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Rear Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the rear and center.
6. With a voltmeter set to read in A/C voltage, measure the voltage of the Right Rear Speaker circuits in the Right Rear Speaker harness connector.

Is the voltage present greater than 1 volt?

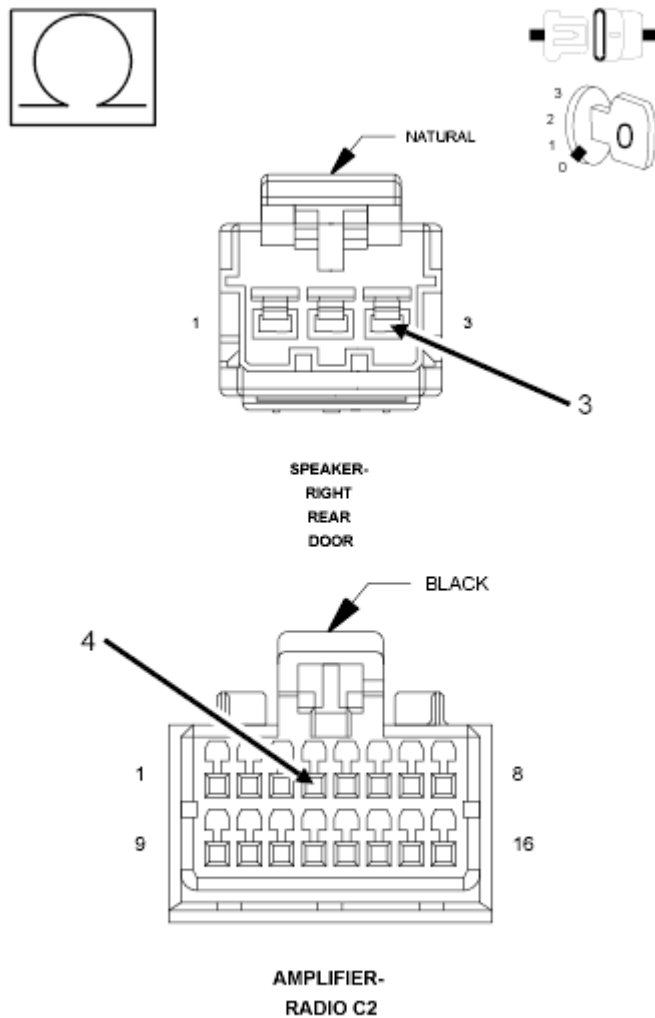
Yes

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

No

- Go to step 3

3. **CHECK THE (X206) RIGHT REAR SPEAKER (+) CIRCUIT FOR AN OPEN**



2537496

Fig. 74: Checking Right Rear Speaker (+) Circuit For An Open
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.

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3. Measure the resistance of the (X206) Right Rear Speaker (+) circuit between the Amplifier C2 harness connector and the Right Rear Speaker harness connector.

Is the resistance below 2.0 Ohms?

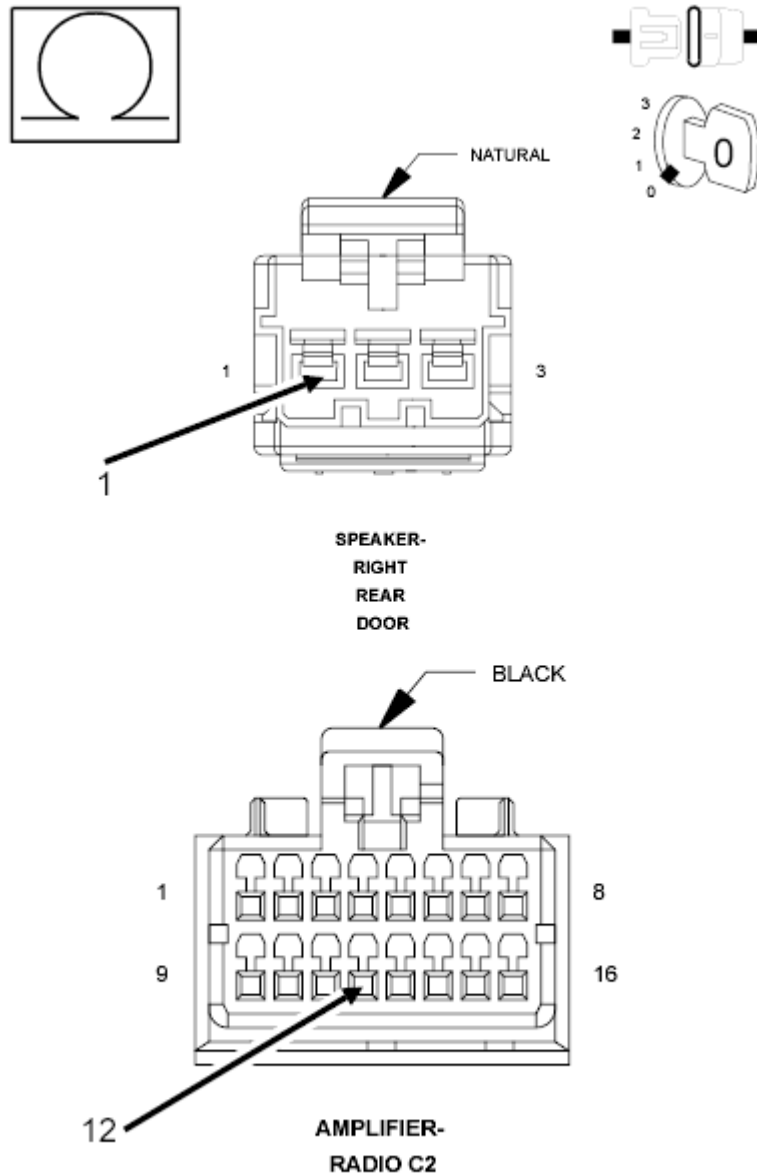
Yes

- Go to step 4

No

- Repair the (X206) Right Rear Speaker (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. **CHECK THE (X296) RIGHT REAR SPEAKER (-) CIRCUIT FOR AN OPEN**



2538231

Fig. 75: Checking Right Rear Speaker (-) Circuit For An Open
 Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X296) Right Rear Speaker (-) circuit between the Amplifier C2 harness connector and the Right Rear Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

No

- Repair the (X296) Right Rear Speaker (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B147D-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

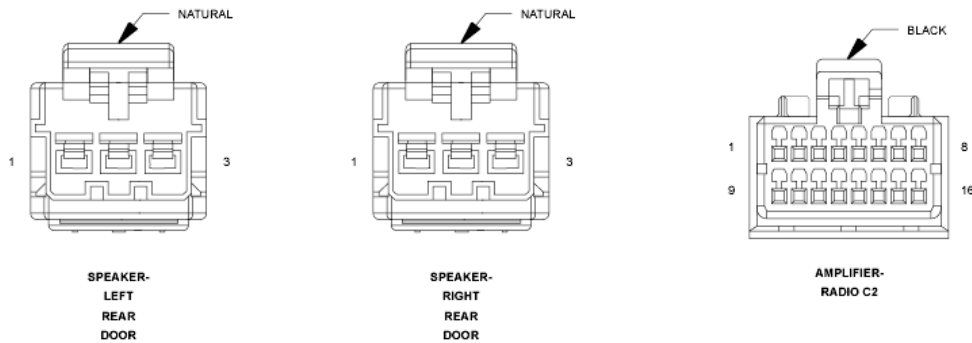
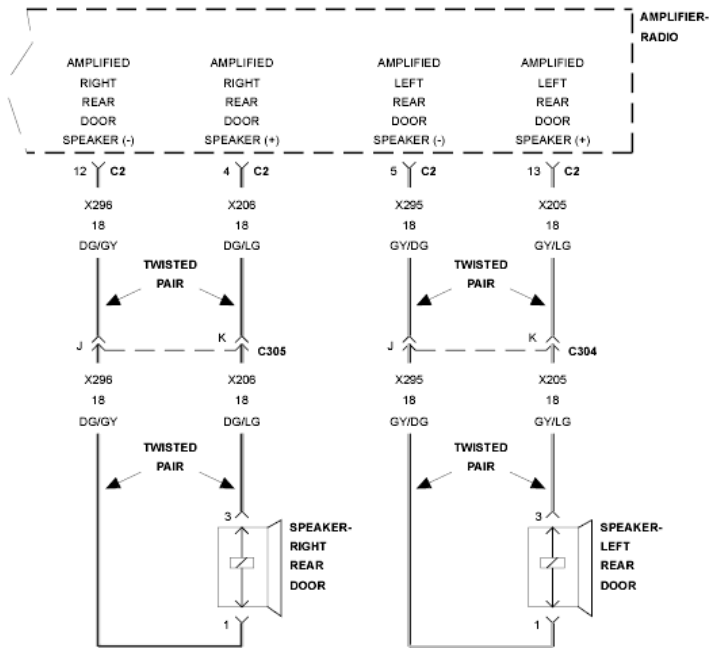


Fig. 76: Left Rear Speaker Circuit Schematic
Courtesy of CHRYSLER LLC

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

• **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

• **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes
(X206) RIGHT REAR SPEAKER (+) CIRCUIT SHORTED TO THE (X296) RIGHT REAR SPEAKER (-) CIRCUIT RIGHT REAR SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147D-CHANNEL 6 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

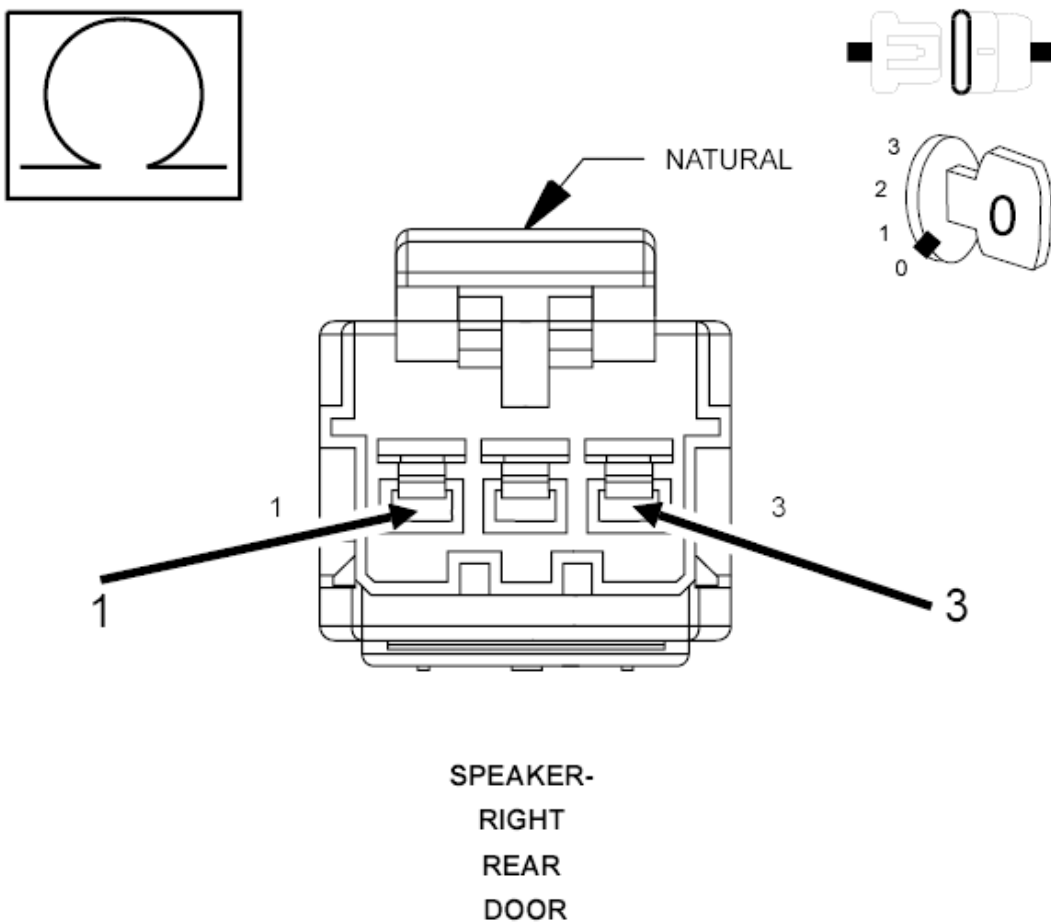
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE RIGHT REAR SPEAKER



2538504

Fig. 77: Checking Operation Of Right Rear Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Right Rear Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure between the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

Yes

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

No

- Go to step 3

3. **CHECK THE (X206) RIGHT REAR SPEAKER (+) CIRCUIT, AND THE (X296) RIGHT REAR SPEAKER (-) CIRCUITS FOR A SHORT TOGETHER**

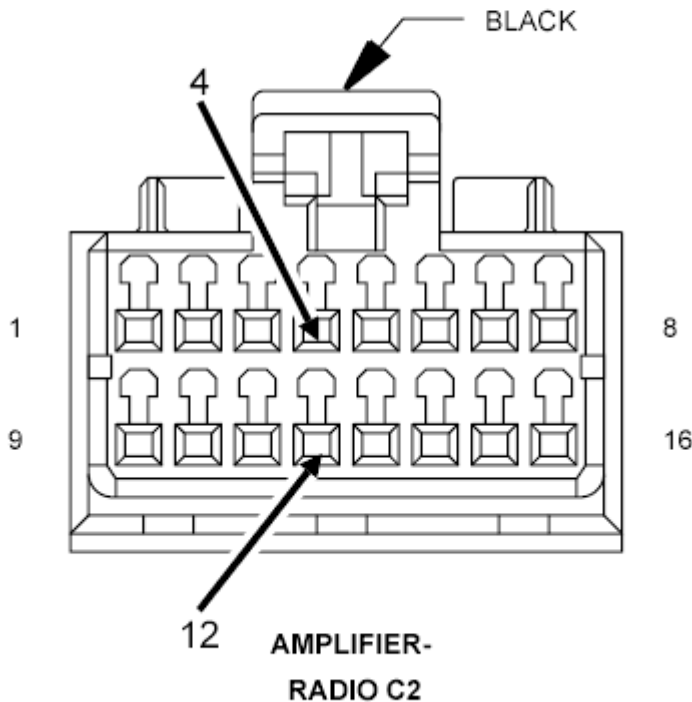
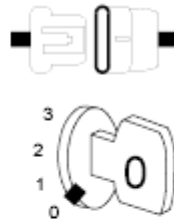


Fig. 78: Checking Right Rear Speaker (+) & (-) Circuits
Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.

2. Measure the resistance between the (X206) Right Rear Speaker (+) circuit, and the (X296) Right Rear Speaker (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X206) Right Rear Speaker (+) circuit, and the (X296) Right Rear Speaker (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B147E-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.

4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147E-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE?

Yes

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B147F-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT LOW

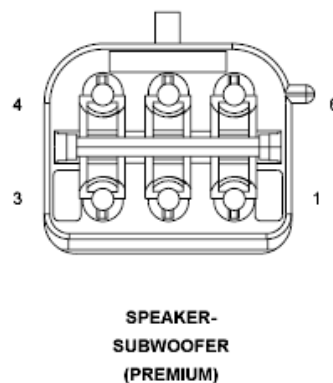
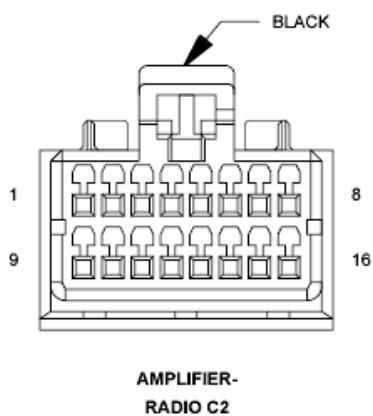
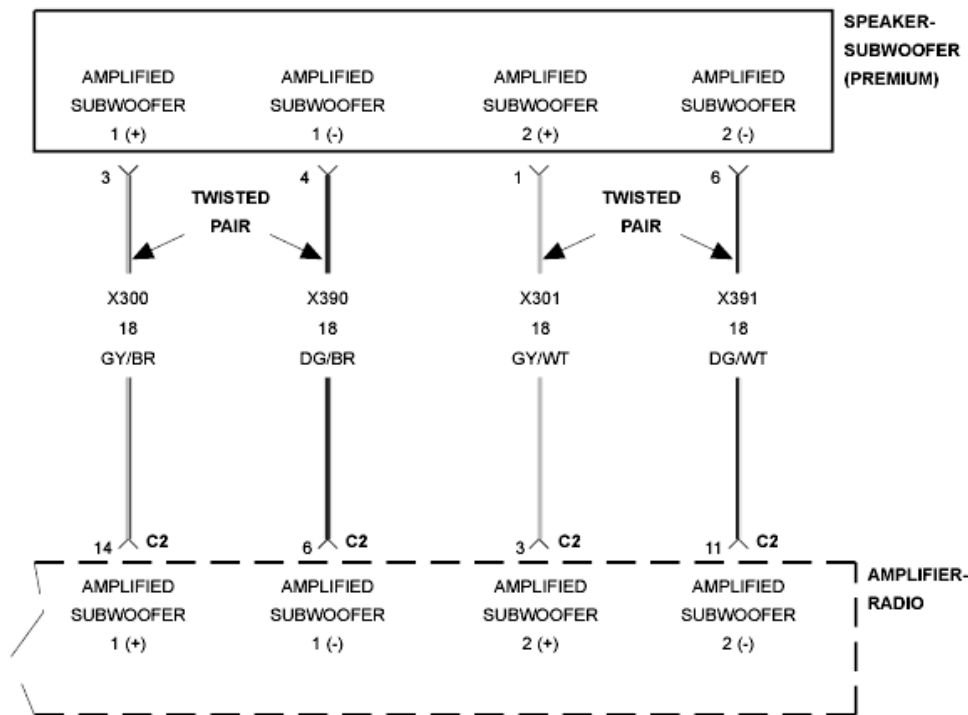


Fig. 79: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT SHORTED TO GROUND
(X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT SHORTED TO GROUND
AMPLIFIED SUBWOOFER SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. Using the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147F-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE SUBWOOFER SPEAKER

1. Make sure one of the front doors is still open.

2. Using the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Subwoofer Speaker harness connector.
5. Turn the ignition on.
6. Turn the radio on and set the volume to 25.
7. Using the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B147F-CHANNEL 7 OUTPUT CIRCUIT LOW?

Yes

- Go to step 3

No

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

3. CHECK THE (X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT FOR A SHORT TO GROUND

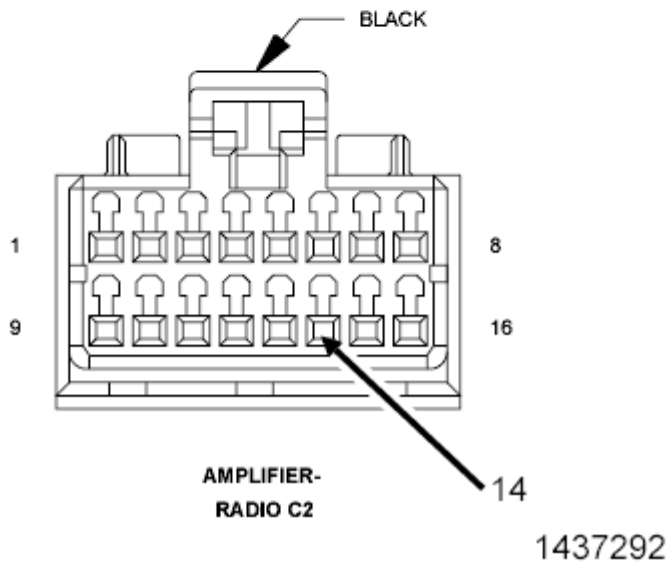
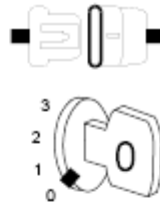


Fig. 80: Checking Amplified Subwoofer 1 (+) Circuit

Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.
2. Disconnect the Subwoofer Speaker harness connector.
3. Measure the resistance between ground and the (X300) Amplified Subwoofer 1 (+) circuit.

Is the resistance below 10K Ohms?

Yes

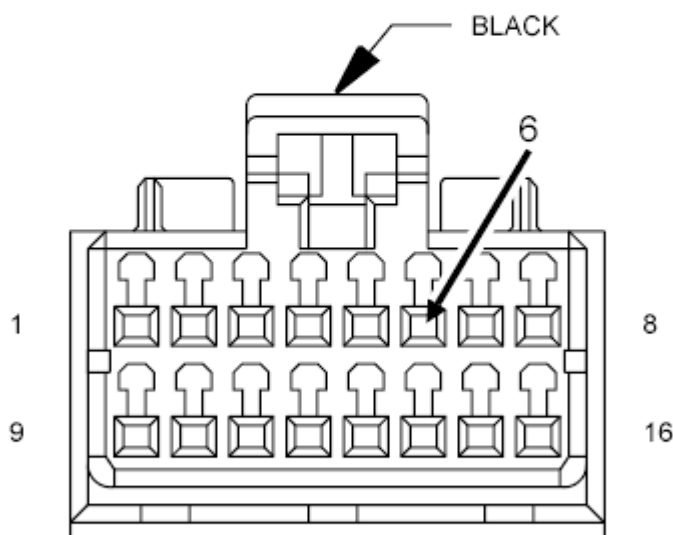
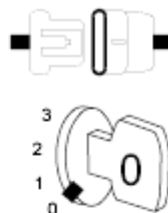
- Repair the (X300) Amplified Subwoofer 1 (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE**,

Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to step 4

4. CHECK THE (X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT FOR A SHORT TO GROUND



**AMPLIFIER-
RADIO C2**

Fig. 81: Checking Amplified Subwoofer 1 (-) Circuit
Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X390) Amplified Subwoofer 1 (-) circuit.

Is the resistance below 10K Ohms?

Yes

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- Repair the (X390) Amplified Subwoofer 1 (-) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1480-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

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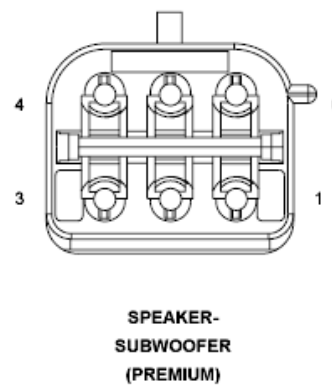
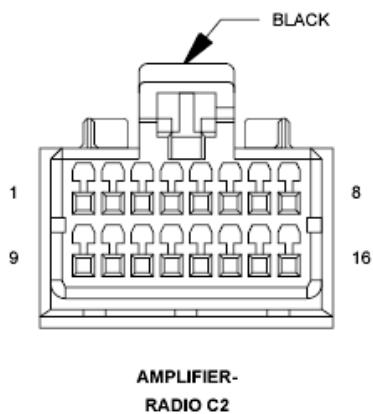
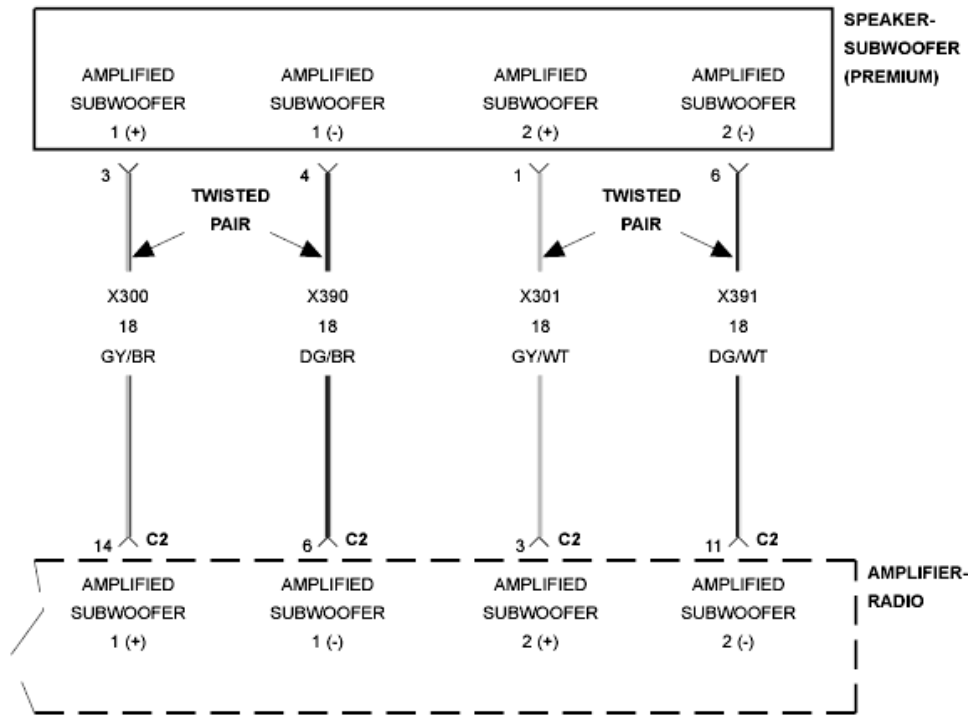


Fig. 82: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

• **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes

(X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT SHORTED TO VOLTAGE
(X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT SHORTED TO VOLTAGE
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1480-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR VOLTAGE ON THE (X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT

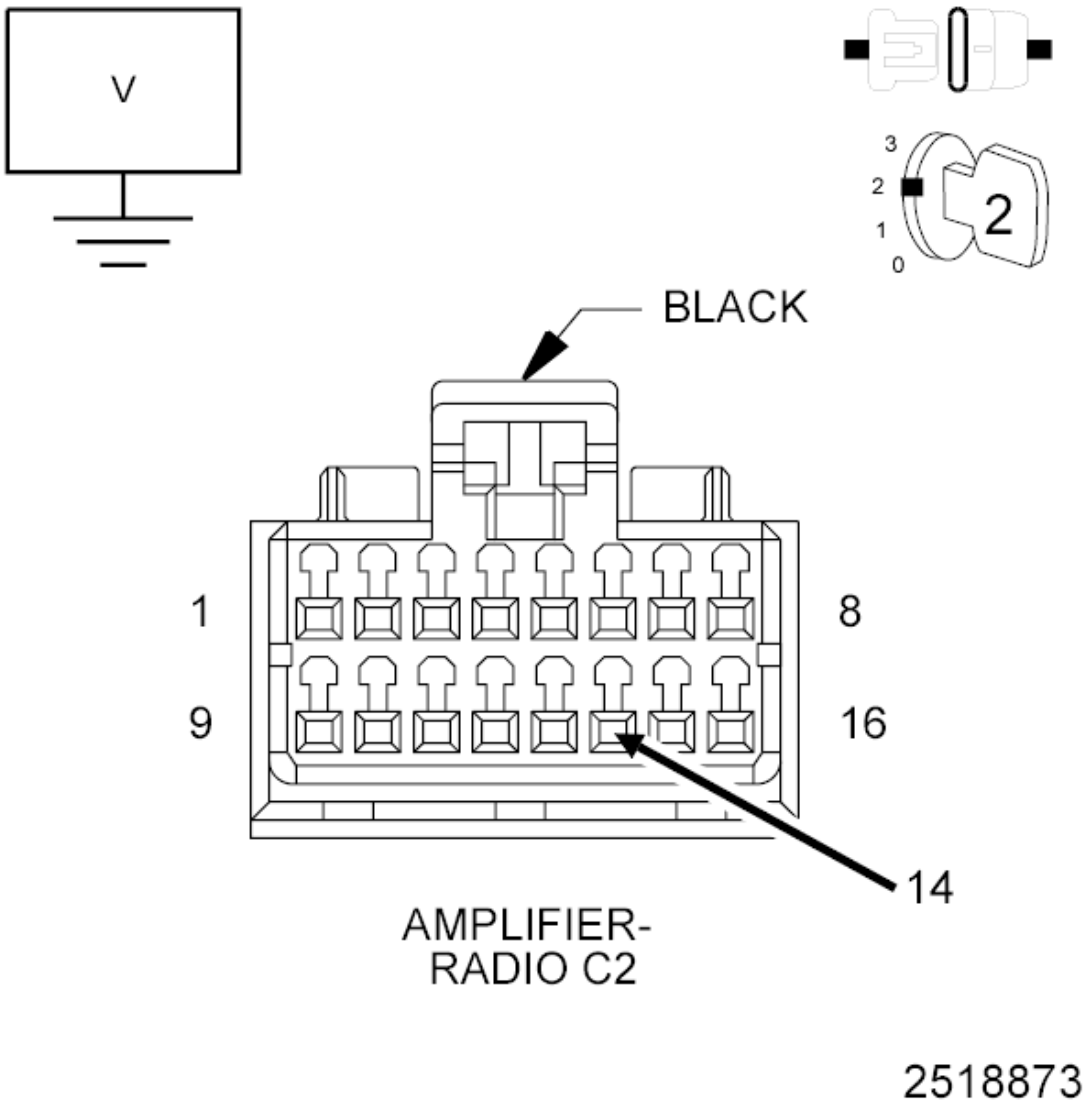


Fig. 83: Checking For Voltage On Amplified Subwoofer 1 (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Subwoofer Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X300) Amplified Subwoofer 1 (+) circuit and ground.

Is there any voltage present?

Yes

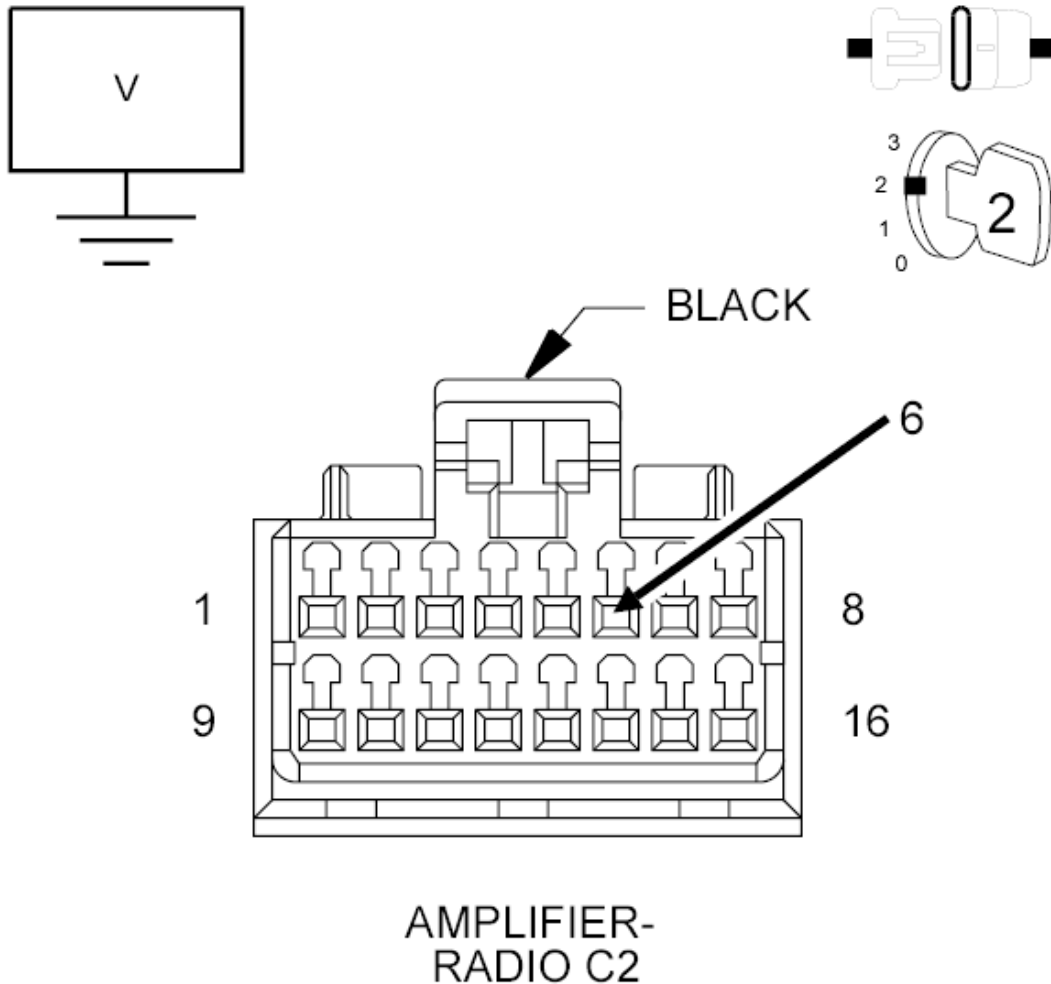
- Repair the (X300) Amplified Subwoofer 1 (+) circuit for a short to voltage.

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

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT



2519293

Fig. 84: Checking For Voltage On Amplified Subwoofer 1 (-) Circuit
 Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X390) Amplified Subwoofer 1 (-) circuit and ground.

Is there any voltage present?

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Yes

- Repair the (X390) Amplified Subwoofer 1 (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1481-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

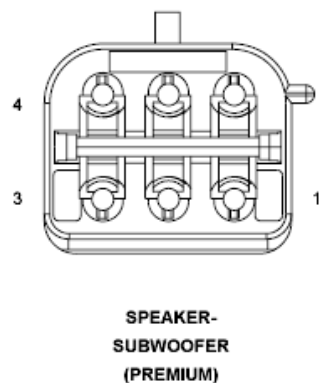
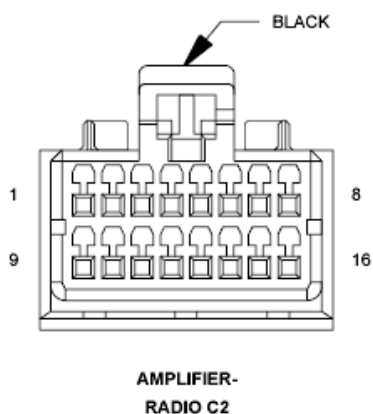
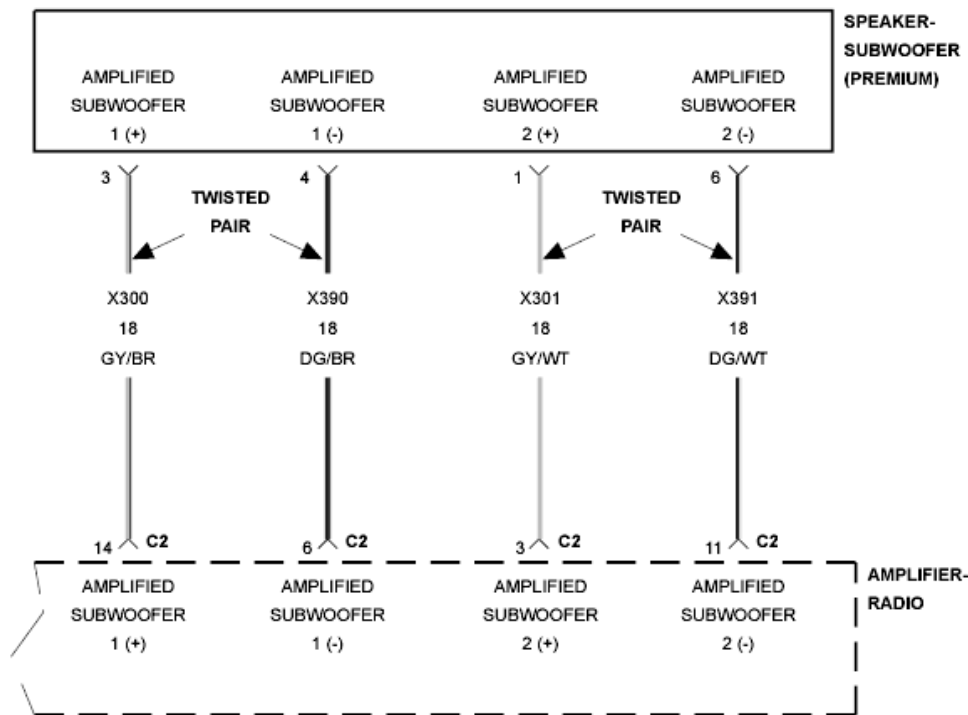


Fig. 85: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

• **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT OPEN
(X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT OPEN
AMPLIFIED SUBWOOFER SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: **A front door must remain open whenever checking or erasing Amplifier DTCs.**

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1481-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK THE OPERATION OF THE SUBWOOFER SPEAKER



Courtesy of CHRYSLER LLC

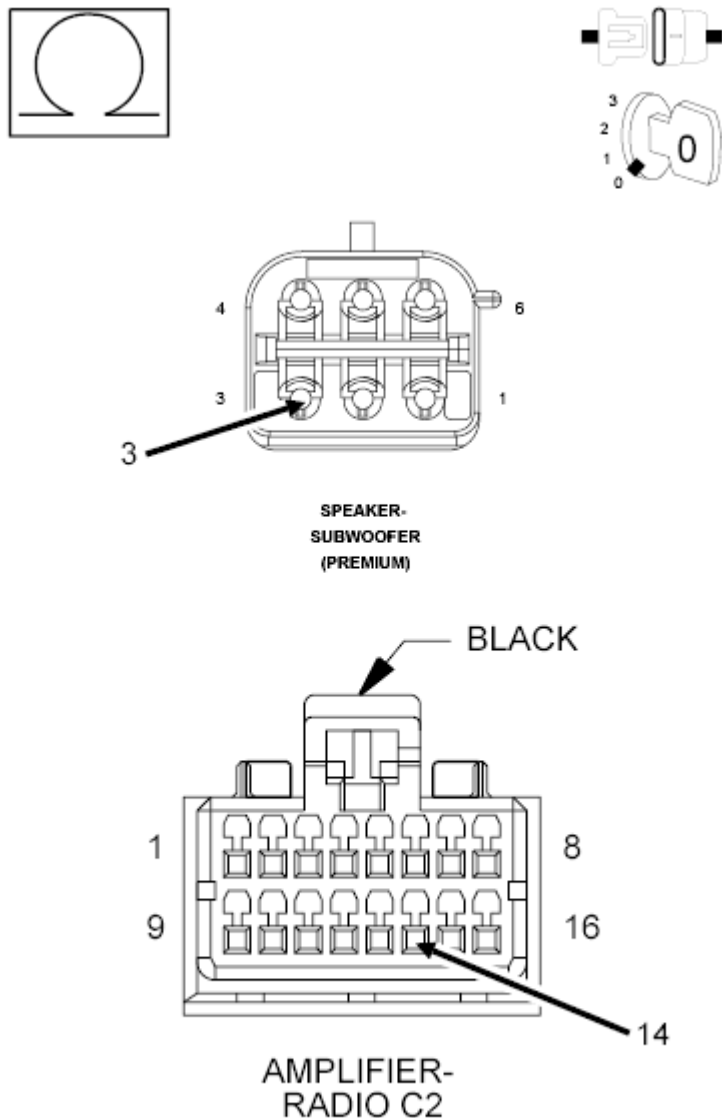
- Is the voltage present greater than 1 volt?

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

No

- Go to step 3

3. CHECK THE (X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT FOR AN OPEN



2539843

Fig. 87: Checking Amplified Subwoofer 1 (+) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance of the (X300) Amplified Subwoofer 1 (+) circuit between the Amplifier C2

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harness connector and the Subwoofer Speaker harness connector.

Is the resistance below 2.0 Ohms?

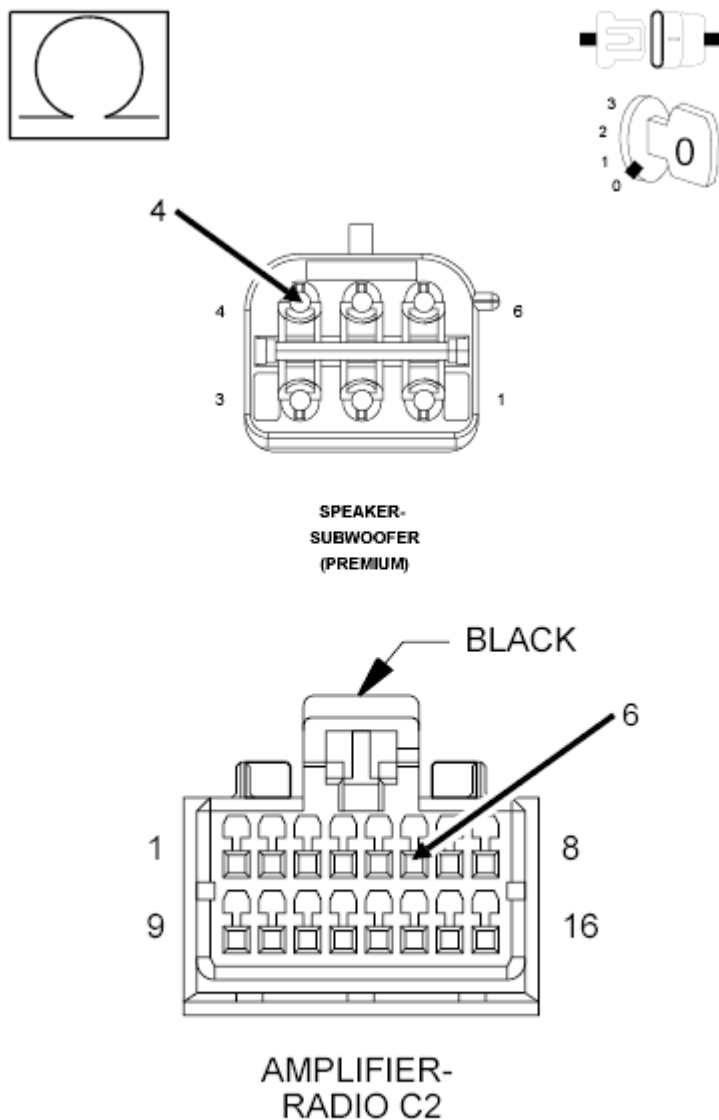
Yes

- Go to step 4

No

- Repair the (X300) Amplified Subwoofer 1 (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

4. CHECK THE (X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT FOR AN OPEN



2539883

Fig. 88: Checking Amplified Subwoofer 1 (-) Circuit For An Open
 Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X390) Amplified Subwoofer 1 (-) circuit between the Amplifier C2 harness connector and the Subwoofer Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

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Totally Integrated Power (TIPM) - Standard Procedure .

No

- Repair the (X390) Amplified Subwoofer 1 (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

B1482-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

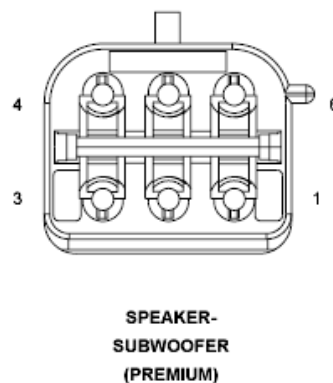
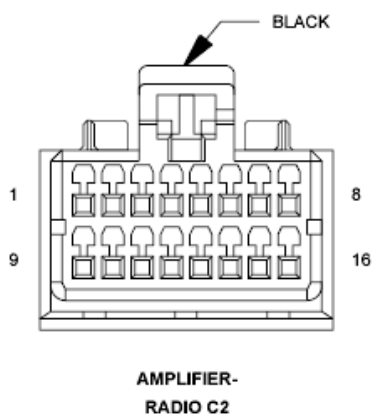
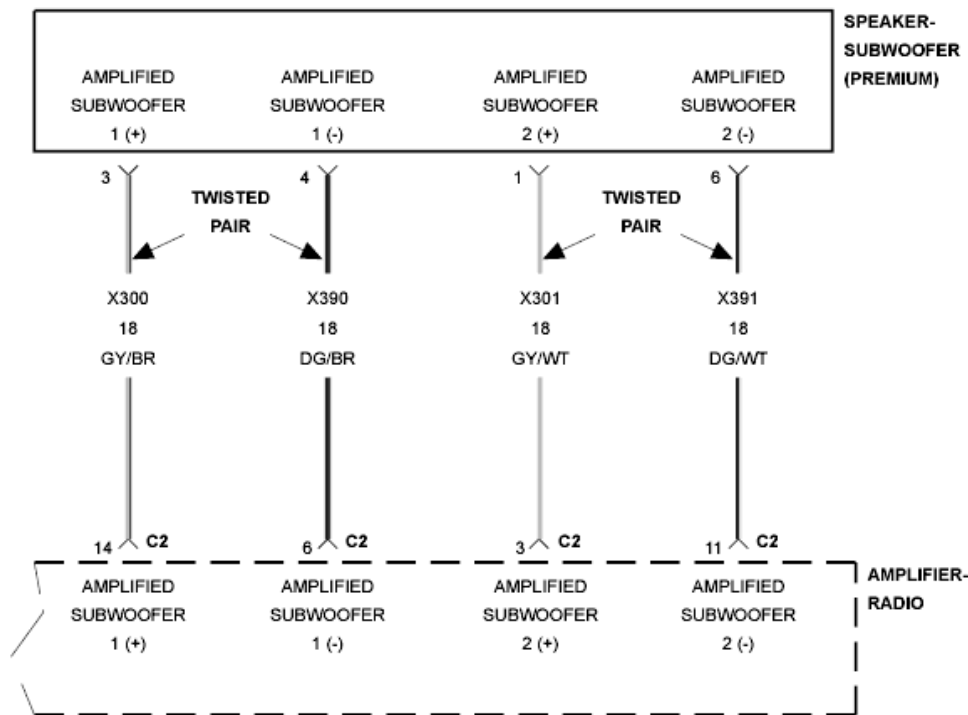


Fig. 89: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

• **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes

(X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT SHORTED TO THE (X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUIT
AMPLIFIED SUBWOOFER SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1482-CHANNEL 7 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

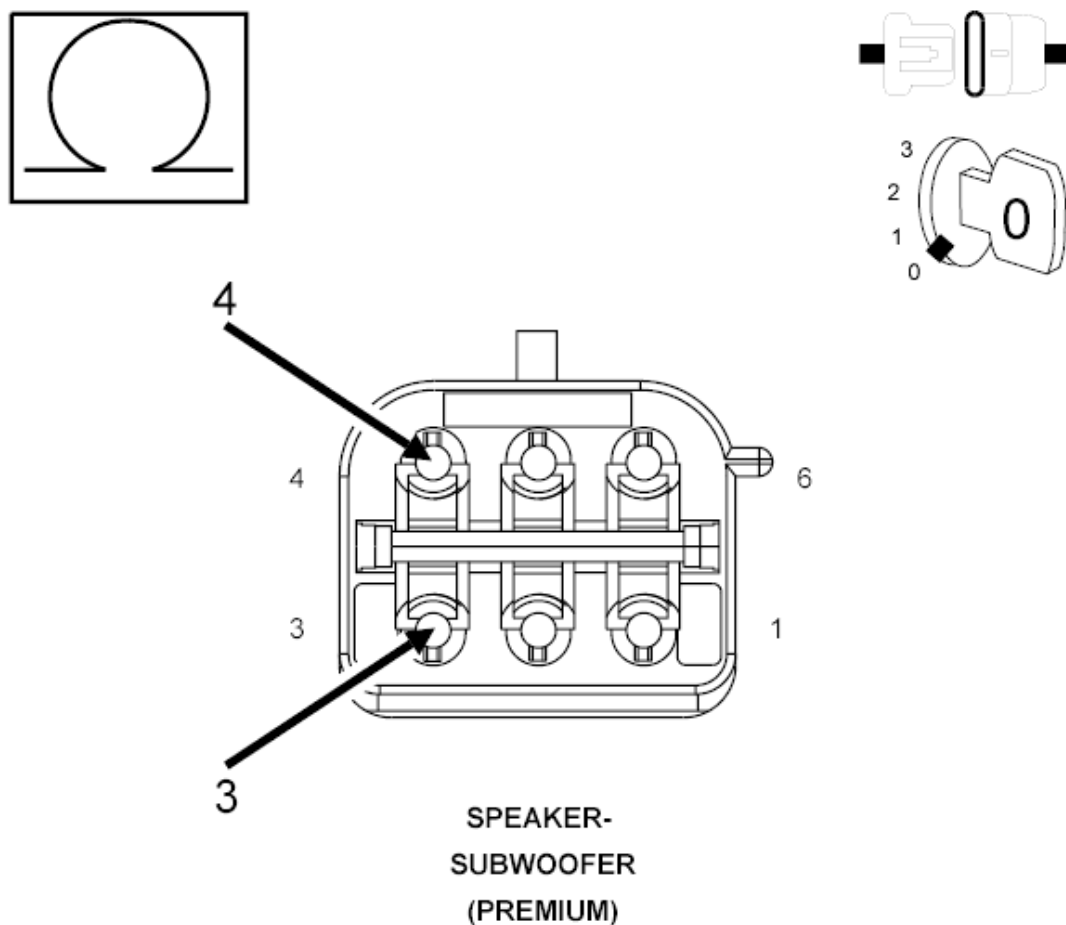
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE SUBWOOFER SPEAKER



2539919

Fig. 90: Checking Operation Of Subwoofer Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Subwoofer Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure between the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

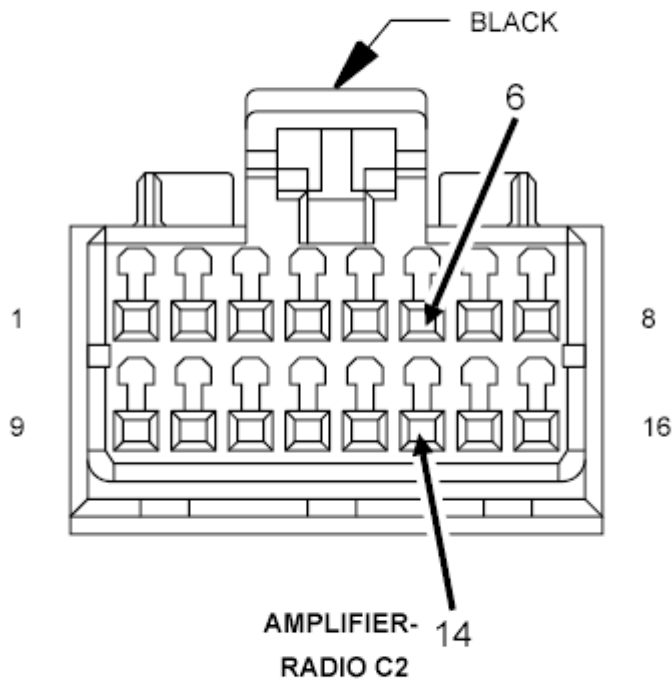
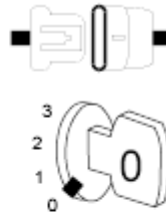
Yes

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

No

- Go to step 3

3. **CHECK THE (X300) AMPLIFIED SUBWOOFER 1 (+) CIRCUIT, AND THE (X390) AMPLIFIED SUBWOOFER 1 (-) CIRCUITS FOR A SHORT TOGETHER**



1437383

Fig. 91: Checking Amplified Subwoofer 1 (+) & (-) Circuits

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between the (X300) Amplified Subwoofer 1 (+) circuit, and the (X390) Amplified Subwoofer 1 (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X300) Amplified Subwoofer 1 (+) circuit, and the (X390) Amplified Subwoofer 1 (-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1483-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

This Diagnostic Trouble Code (DTC) sets if a Direct Current (DC) offset occurs on the output channel, the amplifier shall set a DTC after a maturity rate of four to six seconds.

Possible Causes
AMPLIFIER

Diagnostic Test**1. CHECK FOR AN INTERMITTENT CONDITION**

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1483-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT PERFORMANCE?

Yes

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

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1484-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT LOW

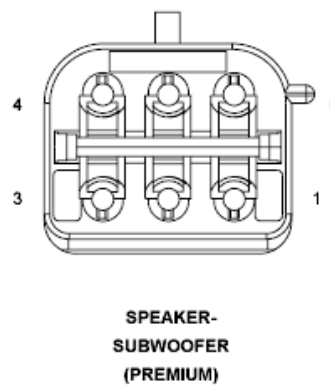
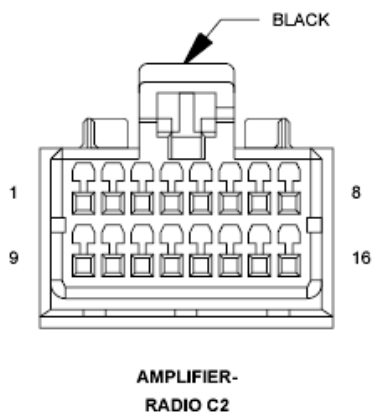
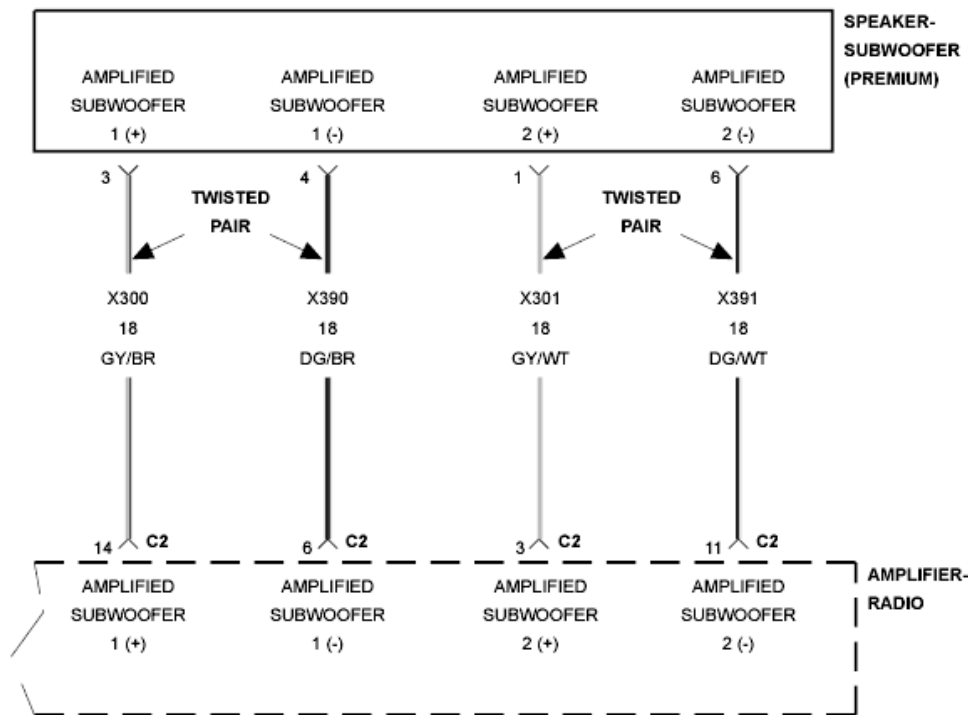


Fig. 92: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a shorted to ground condition on the speaker output circuit.

Possible Causes
(X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT SHORTED TO GROUND
(X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT SHORTED TO GROUND
AMPLIFIED SUBWOOFER SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1484-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT LOW?

Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE SUBWOOFER SPEAKER

1. Make sure one of the front doors is still open.

2. With the scan tool, erase the DTCs.
3. Turn the ignition off.
4. Disconnect the Subwoofer Speaker harness connector.
5. Turn the ignition on.
6. Turn the radio on and set the volume to 25.
7. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1484-CHANNEL 8 OUTPUT CIRCUIT LOW?

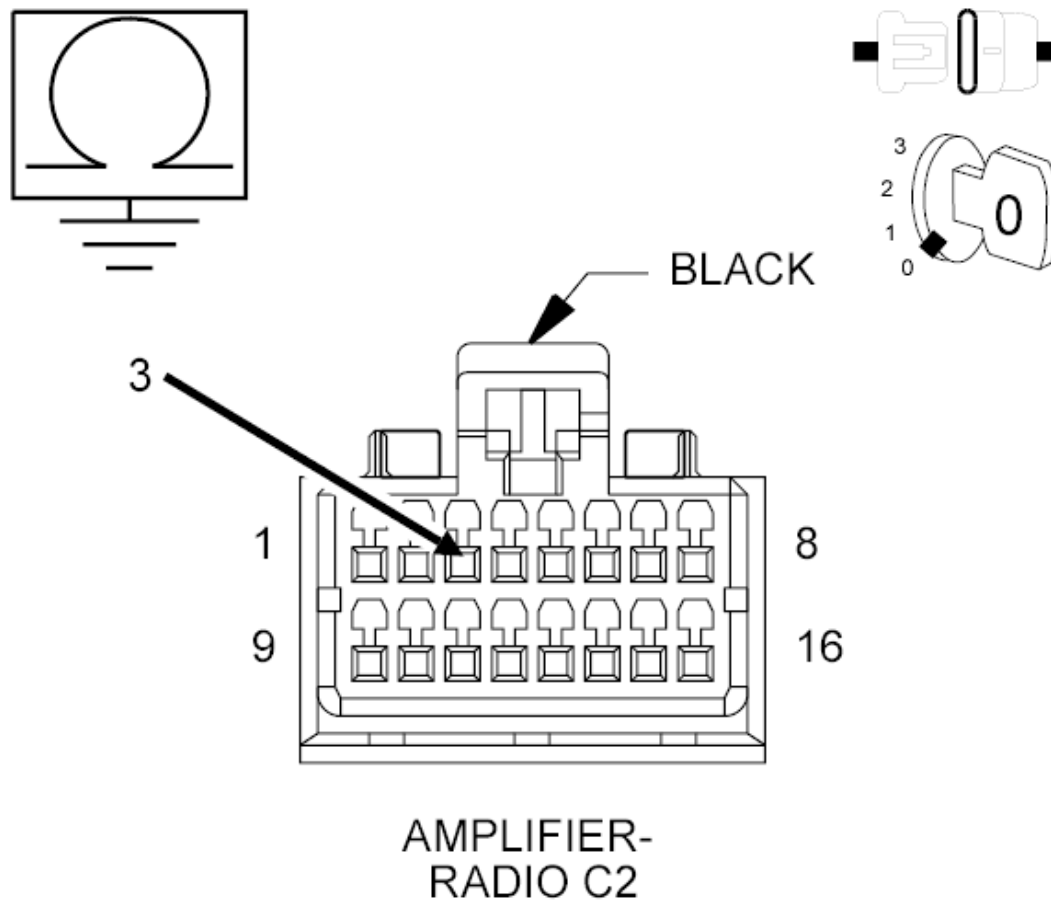
Yes

- Go to step 3

No

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

3. CHECK THE (X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT FOR A SHORT TO GROUND



2540034

Fig. 93: Checking Amplified Subwoofer 2 (+) Circuit For A Short To Ground
 Courtesy of CHRYSLER LLC

1. Disconnect the Amplifier C2 harness connector.
2. Disconnect the Subwoofer Speaker harness connector.
3. Measure the resistance between ground and the (X301) Amplified Subwoofer 2 (+) circuit.

Is the resistance below 10K Ohms?

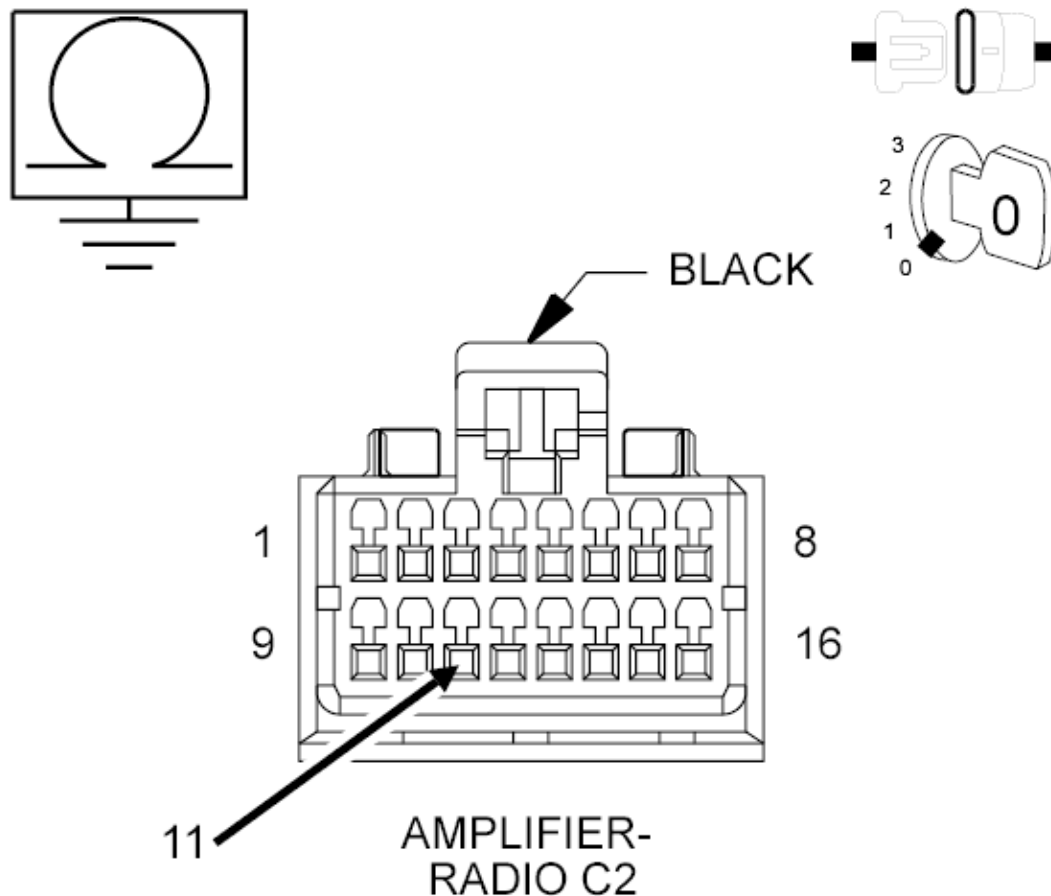
Yes

- Repair the (X301) Amplified Subwoofer 2 (+) circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to step 4

4. CHECK THE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT FOR A SHORT TO GROUND



2540074

Fig. 94: Checking Amplified Subwoofer 2 (-) Circuit For A Short To Ground

Courtesy of CHRYSLER LLC

1. Measure the resistance between ground and the (X391) Amplified Subwoofer 2 (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X391) Amplified Subwoofer 2 (-) circuit for a short to ground.

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2009 ACCESSORIES AND EQUIPMENT Audio (Amplifier) - Electrical Diagnostics - Journey

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

No

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

B1485-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT HIGH

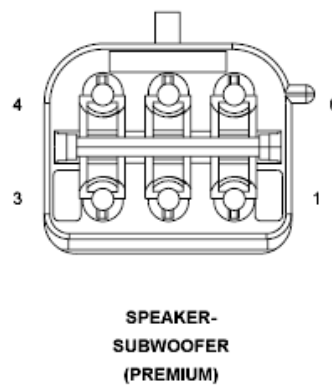
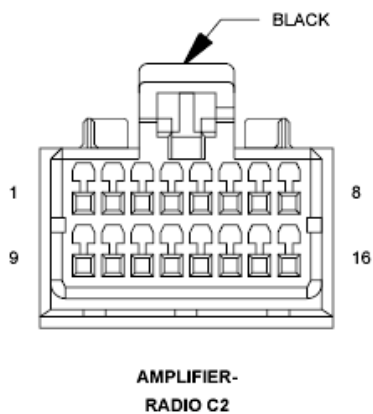
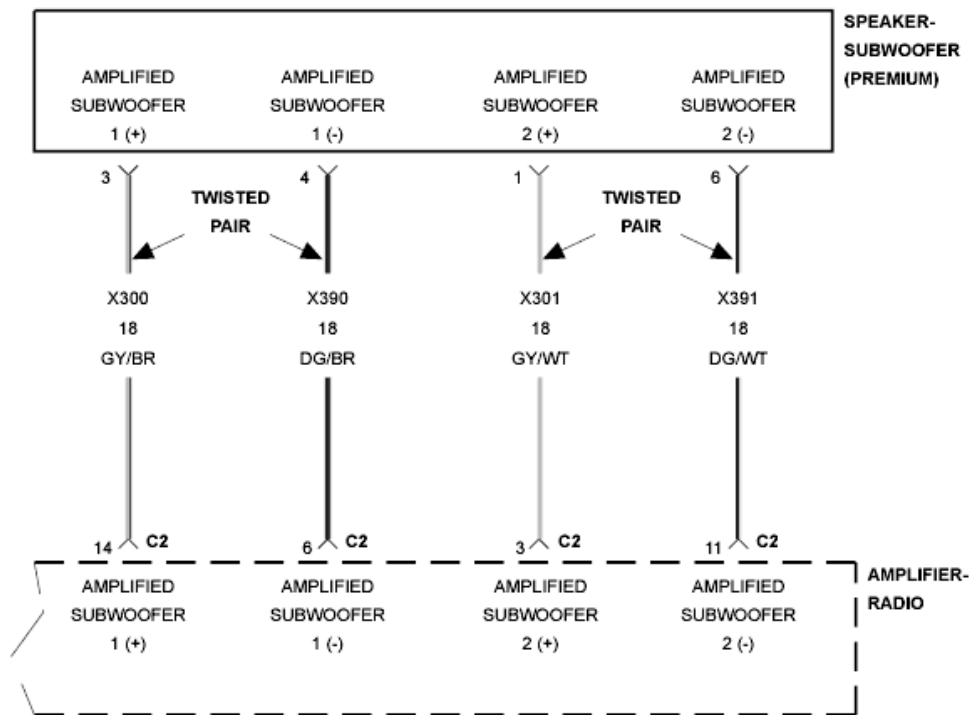


Fig. 95: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Amplifier detects a short to battery condition on the output circuit.

Possible Causes
(X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT SHORTED TO VOLTAGE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT SHORTED TO VOLTAGE AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1485-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT HIGH?

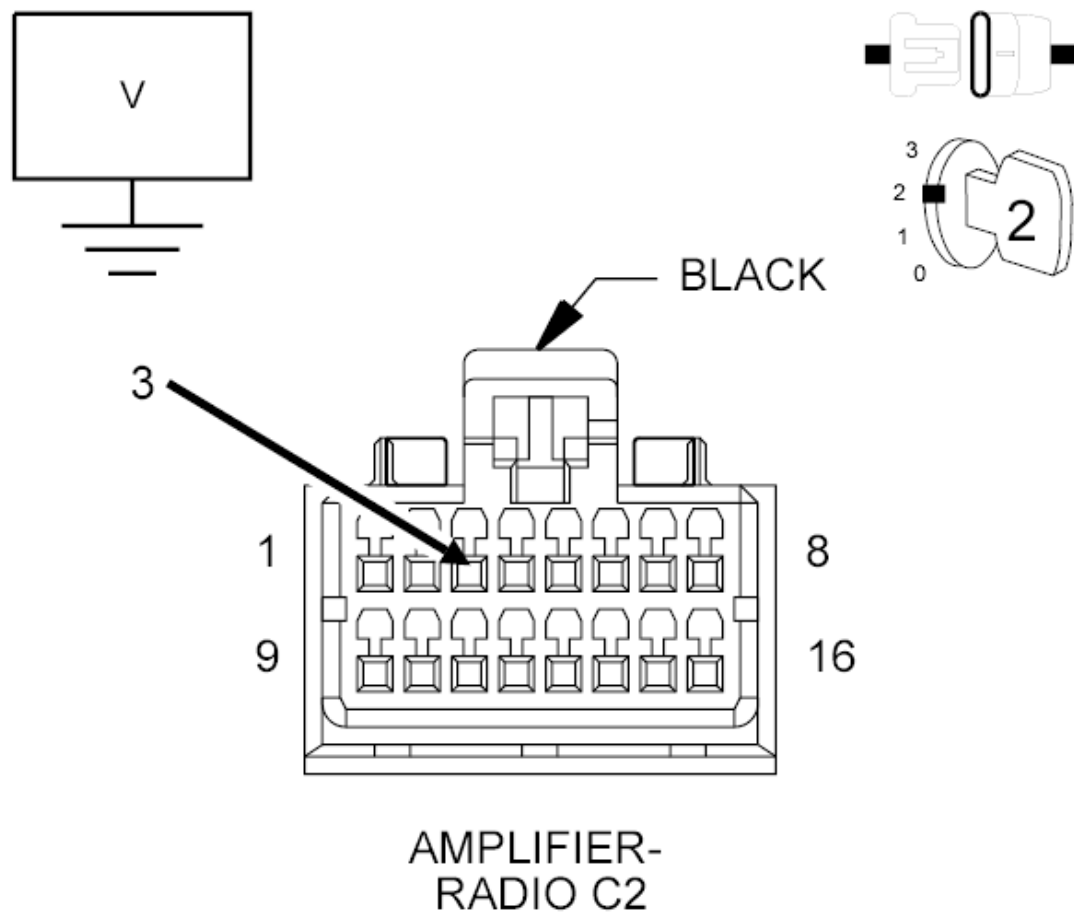
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR VOLTAGE ON THE (X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT



2540120

Fig. 96: Checking For Voltage On Amplified Subwoofer 2 (+) Circuit
 Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Disconnect the Subwoofer Speaker harness connector.
4. Turn the ignition on.
5. Measure the voltage between the (X301) Subwoofer Speaker 2 (+) circuit and ground.

Is there any voltage present?

Yes

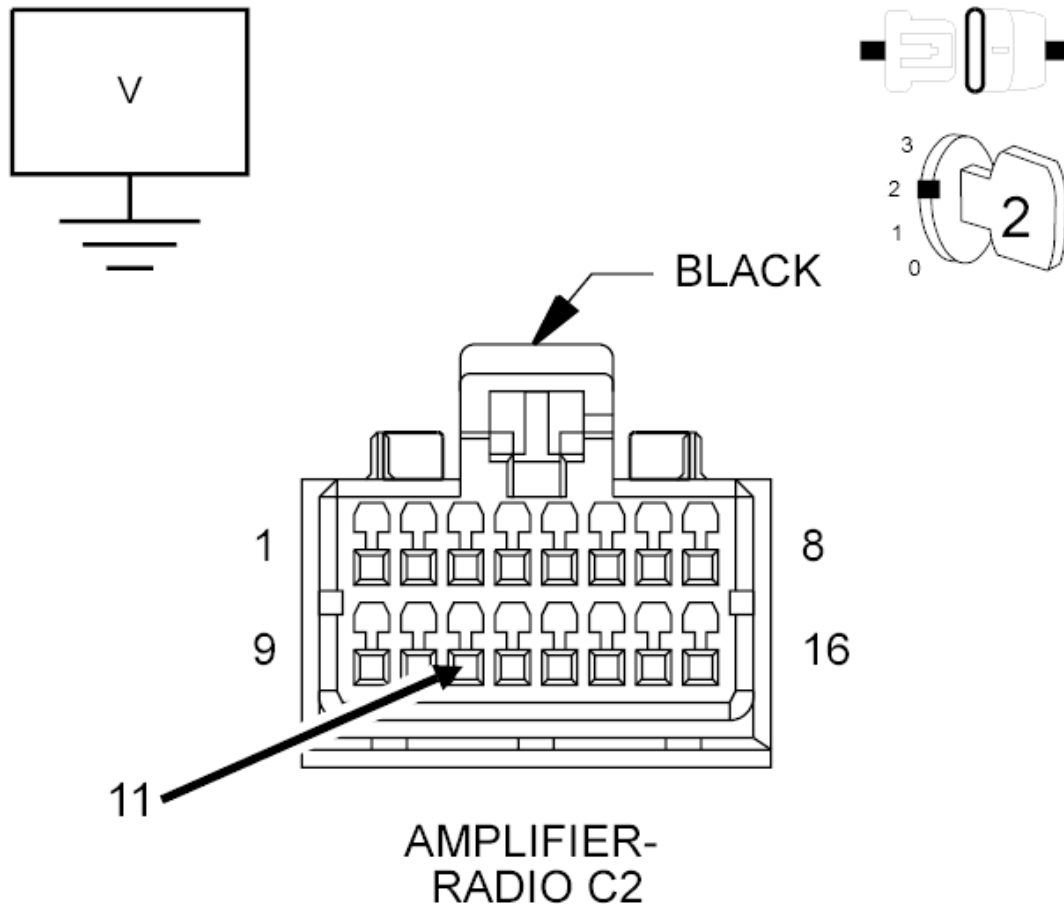
- Repair the (X301) Subwoofer Speaker 2 (+) circuit for a short to voltage.

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

No

- Go to step 3

3. CHECK FOR VOLTAGE ON THE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT



2540141

Fig. 97: Checking For Voltage On Amplified Subwoofer 2 (-) Circuit
 Courtesy of CHRYSLER LLC

1. Measure the voltage between the (X391) Subwoofer Speaker 2 (-) circuit and ground.

Is there any voltage present?

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Yes

- Repair the (X391) Subwoofer Speaker 2 (-) circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

B1486-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT OPEN

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Audio (Amplifier) - Electrical Diagnostics - Journey

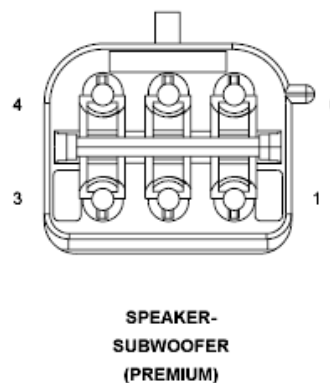
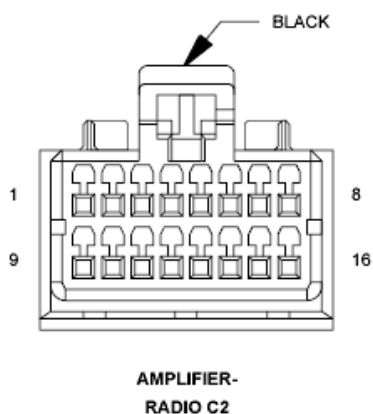
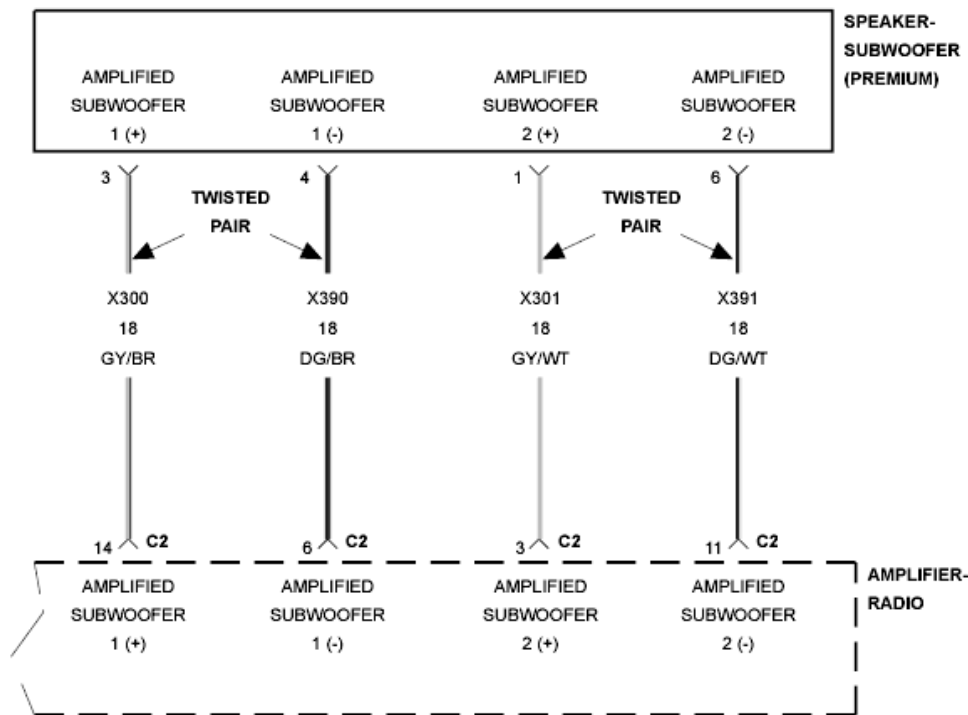


Fig. 98: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

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

- **When Monitored:**

Amplifier Bus wake-up. Amplifier reset with scan tool.

- **Set Condition:**

The Amplifier detects an open condition on the speaker output circuit.

Possible Causes
(X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT OPEN (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT OPEN AMPLIFIED SUBWOOFER SPEAKER AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1486-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT OPEN?

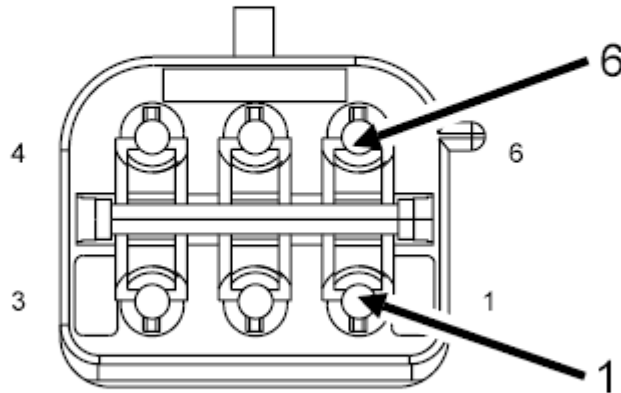
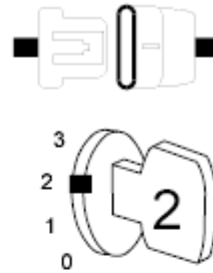
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE SUBWOOFER SPEAKER



**SPEAKER-
SUBWOOFER
(PREMIUM)**

Fig. 99: Checking Operation Of Subwoofer Speaker

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Subwoofer Speaker harness connector.
3. Turn the ignition on.
4. Turn the radio on and turn the volume to 25.
5. Adjust the speakers to the rear and center.
6. With a voltmeter set to read in A/C voltage, measure the voltage of the Subwoofer Speaker circuits in the Subwoofer Speaker harness connector.

Is the voltage present greater than 1 volt?

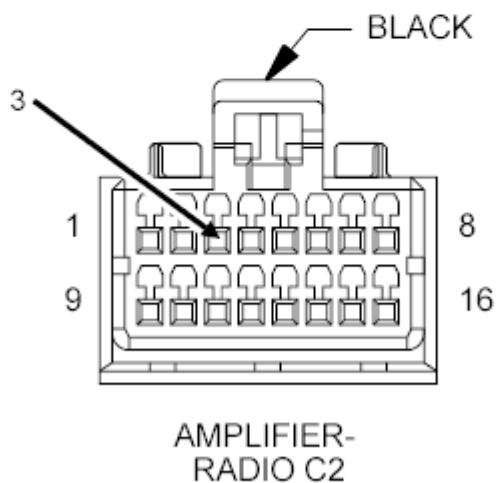
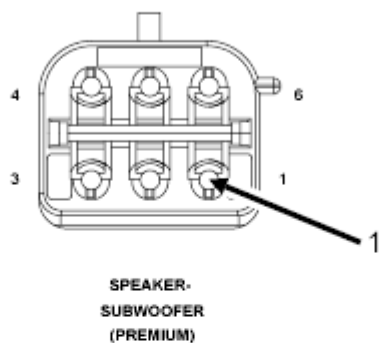
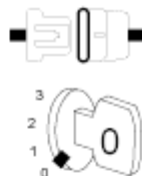
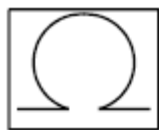
Yes

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

No

- Go to step 3

3. CHECK THE (X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT FOR AN OPEN



2540213

Fig. 100: Checking Amplified Subwoofer 2 (+) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance of the (X301) Amplified Subwoofer 2 (+) circuit between the Amplifier C1 harness connector and the Subwoofer Speaker harness connector.

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Is the resistance below 2.0 Ohms?

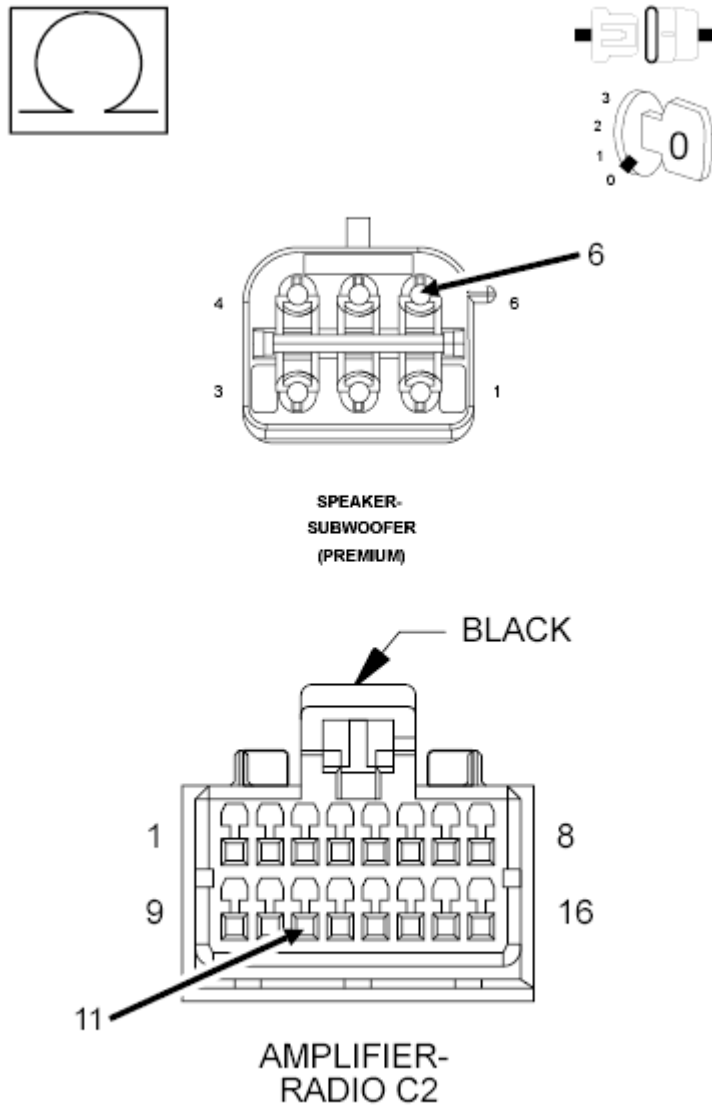
Yes

- Go to step 4

No

- Repair the (X301) Amplified Subwoofer 2 (+) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. CHECK THE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT FOR AN OPEN



2540226

Fig. 101: Checking Amplified Subwoofer 2 (-) Circuit For An Open
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (X391) Amplified Subwoofer 2 (-) circuit between the Amplifier C1 harness connector and the Subwoofer Speaker harness connector.

Is the resistance below 2.0 Ohms?

Yes

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

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Totally Integrated Power (TIPM) - Standard Procedure .

No

- Repair the (X391) Amplified Subwoofer 2 (-) circuit for an open.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .**

B1487-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER

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2009 ACCESSORIES AND EQUIPMENT Audio (Amplifier) - Electrical Diagnostics - Journey

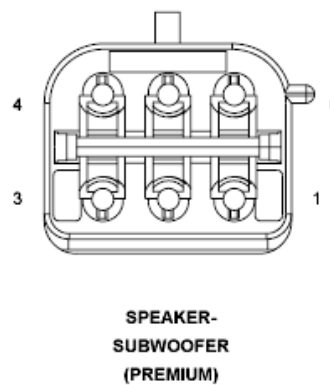
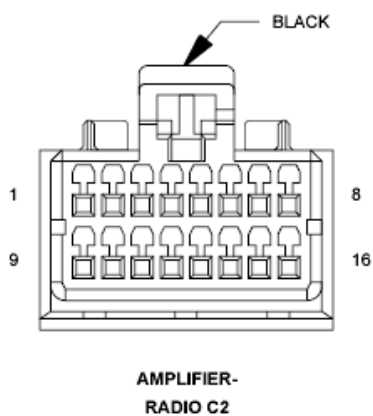
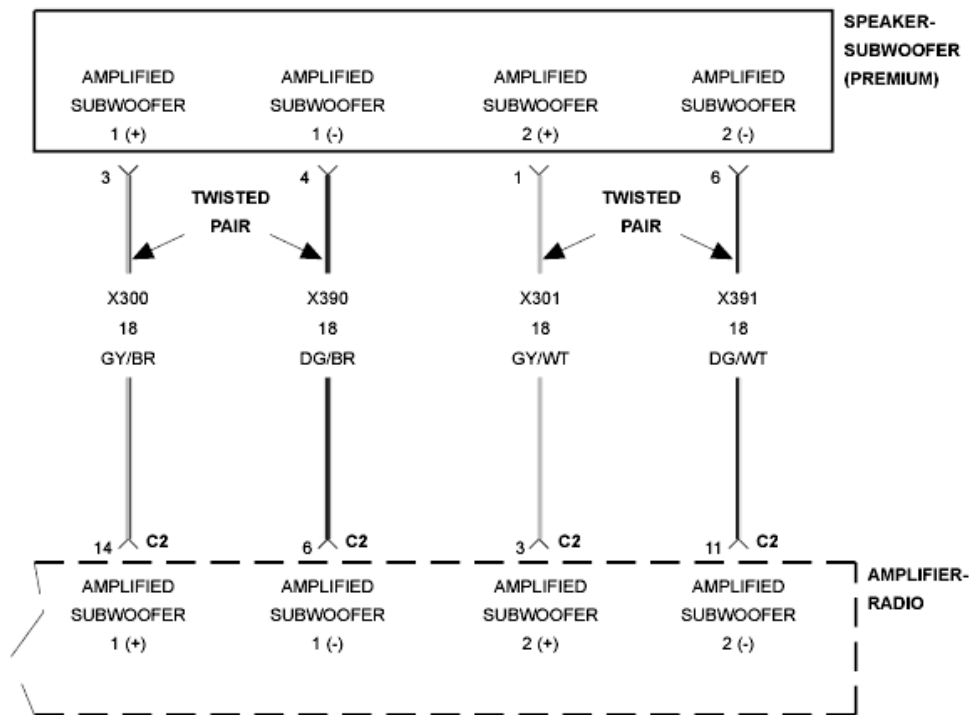


Fig. 102: Amplified Subwoofer 1 Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams, refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

With the ignition on. Radio volume at 25 or higher.

• **Set Condition:**

The Amplifier detects that the output circuits are shorted together.

Possible Causes

(X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT SHORTED TO THE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUIT
AMPLIFIED SUBWOOFER SPEAKER
AMPLIFIER

Diagnostic Test

1. CHECK FOR AN INTERMITTENT CONDITION

1. Turn the ignition on and open one of the front doors.

NOTE: A front door must remain open whenever checking or erasing Amplifier DTCs.

2. With the scan tool, record and erase the Amplifier DTCs.
3. Cycle the ignition switch from on to off, wait five seconds and then back to on.
4. Turn the Radio on and set the volume to 25.
5. Adjust the speakers to the rear and center.
6. With the scan tool, read the active Amplifier DTCs.

Does the scan tool display active: B1487-CHANNEL 8 AUDIO SPEAKER OUTPUT CIRCUIT SHORTED TOGETHER?

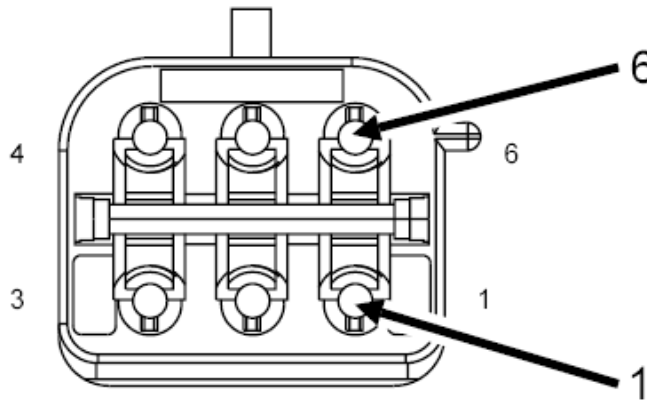
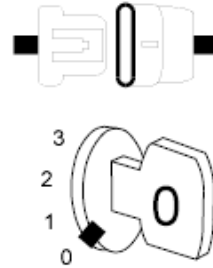
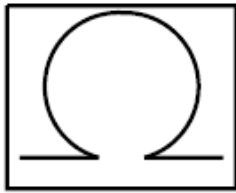
Yes

- Go to step 2

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the **SYSTEM WIRING DIAGRAMS** as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK THE OPERATION OF THE AMPLIFIED SUBWOOFER SPEAKER



**SPEAKER-
SUBWOOFER
(PREMIUM)**

Fig. 103: Checking Operation Of Amplified Subwoofer Speaker
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Subwoofer Speaker.
3. Measure the resistance of the speaker between the two terminals.

NOTE: The graphic shows the connector for reference only. Measure between the speaker terminals.

Is the resistance of the speaker less than 1 Ohm?

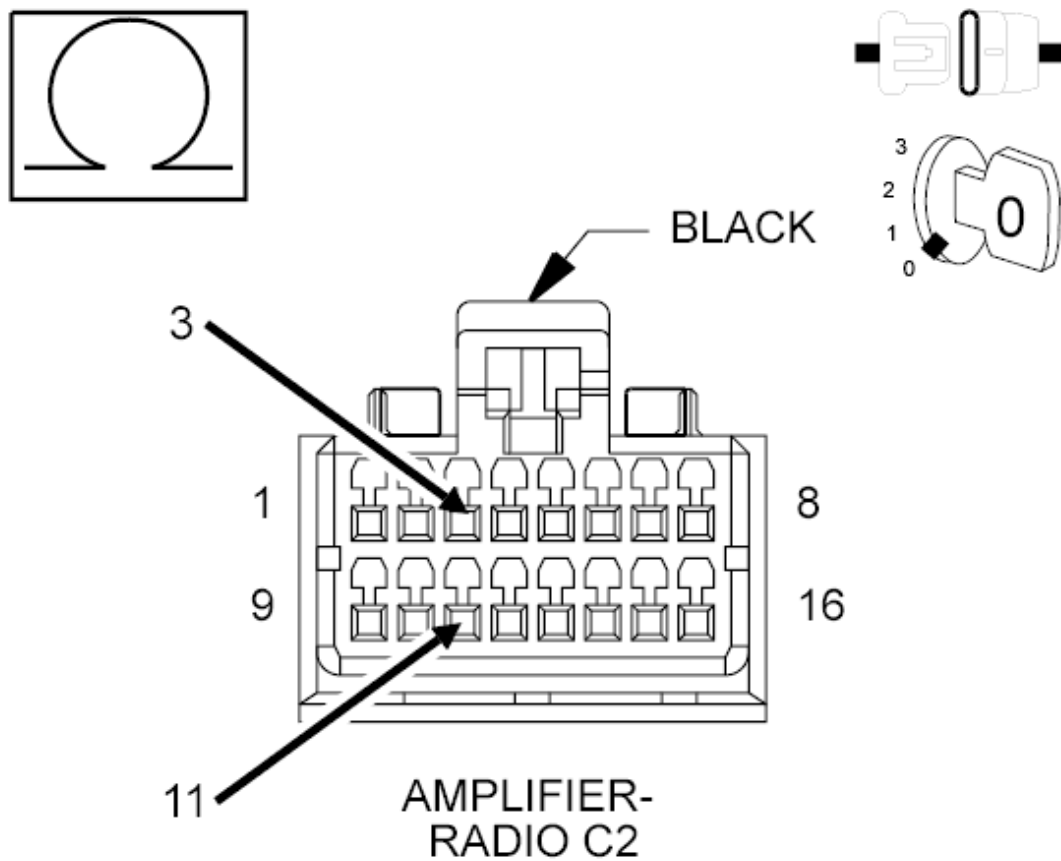
Yes

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

No

- Go to step 3

3. **CHECK THE (X301) AMPLIFIED SUBWOOFER 2 (+) CIRCUIT, AND THE (X391) AMPLIFIED SUBWOOFER 2 (-) CIRCUITS FOR A SHORT TOGETHER**



2540250

Fig. 104: Checking Amplified Subwoofer 2 (+) Circuit & Amplified Subwoofer 2 (-) Circuits For A Short Together

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the Amplifier C2 harness connector.
3. Measure the resistance between the (X301) Amplified Subwoofer 2 (+) circuit, and the (X391) Amplified Subwoofer 2 (-) circuit.

Is the resistance below 10K Ohms?

Yes

- Repair the (X301) Amplified Subwoofer 2 (+) circuit, and the (X391) Amplified Subwoofer 2(-) circuit for a short together.
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

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

U0019-CAN INTERIOR BUS

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

- **When Monitored:**
- Continuously.
- **Set Condition:**
- Whenever the CAN INTERIOR BUS (+) or INTERIOR BUS (-) circuit is open, shorted to voltage or shorted to ground, this code will set.

Possible Causes

CAN INTERIOR BUS DTCs IN THE TOTALLY INTEGRATED POWER MODULE
(D264) CAN INTERIOR BUS (-) CIRCUIT OPEN
(D265) CAN INTERIOR BUS (+) CIRCUIT OPEN
AMPLIFIER

Diagnostic Test**1. TEST FOR INTERMITTENT CONDITION**

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Cycle the ignition from on to off 3 times.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display: U0019-CAN INTERIOR BUS CIRCUIT?

Yes

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

2. CHECK TOTALLY INTEGRATED POWER MODULE DTCs

1. With the scan tool, read Totally Integrated Power Module DTCs

Does the scan tool display any CAN INTERIOR BUS DTCs - ACTIVE?

Yes

- Refer to the symptom list for problems related to Communication. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

- Go to step 3

3. CAN INTERIOR BUS (+) CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Disconnect the Totally Integrated Power Module C7 harness connector.
4. Measure the resistance of the (D265) CAN INTERIOR BUS (+) circuit between the Totally Integrated Power Module C7 harness connector and the Amplifier C1 harness connector.

Is the resistance below 2.0 ohms?

Yes

- Go to step 4
- Perform BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

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

4. CAN INTERIOR BUS (-) CIRCUIT OPEN

1. Measure the resistance of the (D264) CAN INTERIOR BUS (-) circuit between the Totally

Integrated Power Module C7 harness connector and the Amplifier C1 harness connector.

Is the resistance below 2.0 ohms?

Yes

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

No

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

U0020-CAN INTERIOR BUS OFF PERFORMANCE

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

- **When Monitored:**

- Continuously.

- **Set Condition:**

- Whenever the CAN INTERIOR BUS (+) or INTERIOR BUS (-) circuit is open, shorted to voltage or shorted to ground, this code will set.

Possible Causes
CAN INTERIOR BUS DTCs IN THE TOTALLY INTEGRATED POWER MODULE (D264) CAN INTERIOR BUS (-) CIRCUIT OPEN (D265) CAN INTERIOR BUS (+) CIRCUIT OPEN AMPLIFIER

Diagnostic Test

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, record and erase DTCs.
3. Cycle the ignition from on to off 3 times.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display: U0020-CAN INTERIOR BUS OFF PERFORMANCE?

Yes

- Go to step 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 **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

2. CHECK FRONT CONTROL MODULE DTCs

1. With the scan tool, read Totally Integrated Power Module DTCs.

Does the scan tool display any CAN INTERIOR BUS DTCs - ACTIVE?

Yes

- Go to and perform the appropriate diagnostic procedure.

No

- Go to step 3

3. CAN INTERIOR BUS (+) CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the Amplifier C1 harness connector.
3. Disconnect the Totally Integrated Power Module C7 harness connector.
4. Measure the resistance of the (D265) CAN INTERIOR BUS (+) circuit between the Totally Integrated Power module C7 harness connector and the Amplifier C1 harness connector.

Is the resistance below 2.0 ohms?

Yes

- Go to step 4
- Perform the BODY VERIFICATION TEST. Refer to **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**

No

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

4. CAN INTERIOR BUS (-) CIRCUIT OPEN

1. Measure the resistance of the (D264) CAN INTERIOR BUS (-) circuit between the Totally

Integrated Power Module C7 harness connector and the Amplifier C1 harness connector.

Is the resistance below 2.0 ohms?

Yes

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

No

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

U0141-LOST COMMUNICATION WITH FRONT CONTROL MODULE

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0151-LOST COMMUNICATION WITH OCCUPANT RESTRAINT CONTROLLER

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0154-LOST COMMUNICATION WITH OCCUPANT CLASSIFICATION MODULE

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0184-LOST COMMUNICATION WITH RADIO

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0197-LOST COMMUNICATION WITH HANDS FREE MODULE

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0199-LOST COMMUNICATION WITH DRIVERS DOOR MODULE

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.

U0200-LOST COMMUNICATION WITH PASSENGER DOOR MODULE

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

Refer to DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Diagnosis and Testing for the diagnostic test procedure.